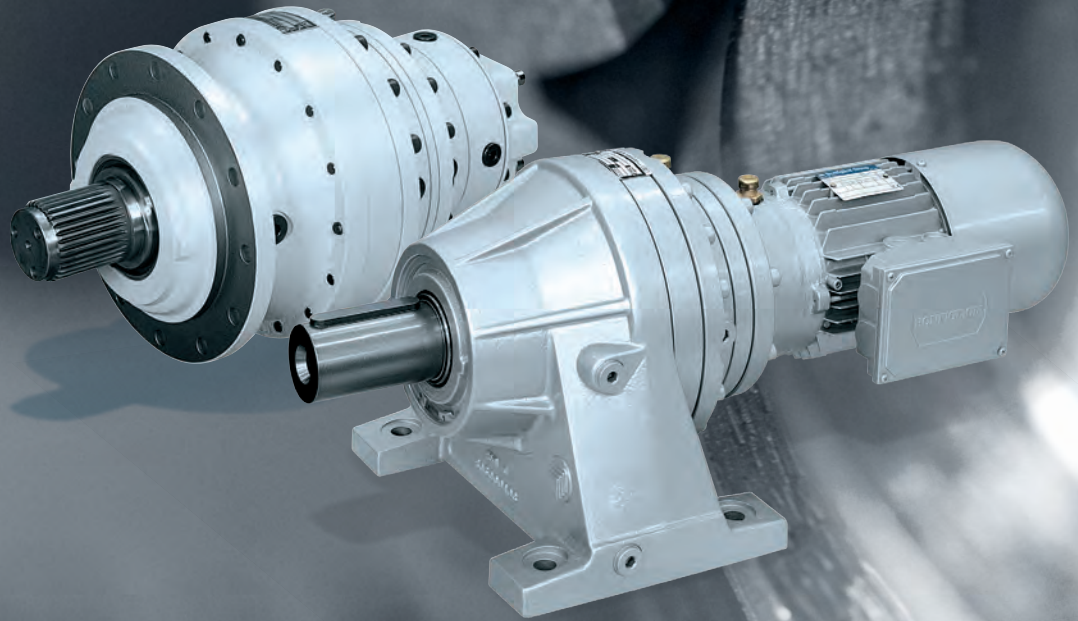


Bonfiglioli **Riduttori**

300 Industrial series

Modular planetary gearboxes

Power Series



PRODUCT

Bonfiglioli

Forever Forward

NORTH AMERICA EDITION



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Revisions

Refer to page 602 for the catalogue revision index. Visit www.bonfiglioli.com to search for catalogues with up-to-date revisions.



1 SYMBOLS AND UNITS OF MEASURE

Symbols	Units of Measure	Description	Symbols	Units of Measure	Description
$A_{c1,2}$	[lbs]	Calculated thrust load	$T_{r1,2}$	[lb·in]	Required torque at gearbox
$A_{n1,2}$	[lbs]	Rated thrust load	$n_{1,2}$	[rpm]	Angular speed
A_{r2}	[lbs]	Thrust load at gearbox output shaft	P_1	[hp]	Max transmissible power at gearbox input
F_h	–	Lifetime factor for gearbox calculation	P_1'	[hp]	Transmitted power at gearbox input
$F_{h1,2}$	–	Lifetime factor for bearing calculation	P_2	[hp]	Transmitted power at gearbox output
$f_{n1,2}$	–	Speed factor referred to input and output shaft loading	P_n	[hp]	Motor rated power
f_L	–	Lifetime factor	P_{r1}	[hp]	Required input power
f_m	–	Increase factor	P_{r2}	[hp]	Output power at n_2 max
$f_{h1,2}$	–	Load corrective factor on shafts	$P_{r2'}$	[hp]	Output power at n_2 min
f_s	–	Service factor	P_s	[hp]	Excess power
f_s'	–	Service factor required by the application	P_t	[hp]	Gearbox thermal capacity
f_t	–	Thermal factor	$R_{c1,2}$	[lbs]	Calculated radial load
f_v	–	Speed factor	$R_{n11,2}$	[lbs]	Rated radial load at shaft mid-point
h	[h]	Lifetime in hours	$R_{x1,2}$	[lbs]	Rated radial load at gearbox re-calculated with respect to different load application points
i	–	Reduction ratio	t_a	[°C/°F]	Ambient temperature
K_a	–	Axial load duty factor	t_s	[°C/°F]	Surface temperature
K_r	–	Radial load factor	t_o	[°C/°F]	Oil temperature
l	–	Intermittence factor	X	[mm/in]	Load application distance from shaft shoulder
T_2	[lb·in]	Torque delivered to output shaft	η_d	–	Dynamic efficiency
T_{c2}	[lb·in]	Calculated torque at gearbox output	Z	–	Frequency of starts
T_{2REF}	[lb·in]	Reference torque			
T_{n2}	[lb·in]	Gearbox rated output torque			
T_{2max}	[lb·in]	Gearbox max. output torque			
T_b	[lb·in]	Rated brake torque			

$_1$ value applies to input shaft

$_2$ value applies to output shaft



Symbol referring to weight of gearboxes.



The number associated with the wrench symbol indicates the tightening torque for friction coupling screws.



Columns marked with this symbol indicate the reference page showing dimensions.



Cover for standard input flanging.



This symbol identifies reference page number.



Inline units.



DANGER - WARNING
This symbol indicates situations of danger, which if ignored, may result in serious injury to the operator.



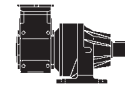
Right angle units.



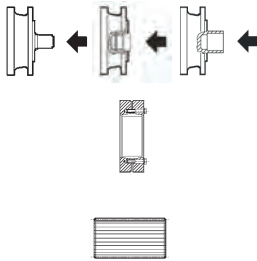
IMPORTANT
This symbol indicates important technical information.



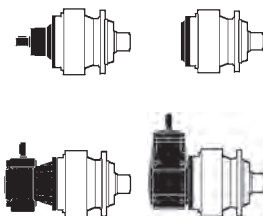
Worm-planetary combined design.



Bevel helical-planetary combined design.



These symbols identify the mounting positions of accessories.



These symbols identify the position of gearbox input (black-filled areas).



2 INTRODUCTION

This catalogue presents BONFIGLIOLI RIDUTTORI's range of Series 300 modular planetary gearboxes. The range has been expanded and integrated with new sizes, technical improvements and enhanced modularity right through to the larger sizes. This feature signifies greater flexibility in internal production to ensure quick availability of products in the sizes and types requested either directly from the company or from the many affiliates belonging to the BONFIGLIOLI sales network in various countries around the world.

The gearboxes are tested in conformity with the following standards:


ISO 6336 : 2006 - method B for gears

ISO 281 for bearings


DIN 743 : 2012 for shafts

3 ALLOWED TEMPERATURE LIMITS

Symbols	Description / Condition	Value (*)	
		Synthetic Oil	Mineral Oil
t_a	Ambient temperature		
$t_{au \text{ min}}$	Minimum operating ambient temperature	- 30°C [-22°F]	-10°C [+14°F]
$t_{au \text{ Max}}$	Maximum operating ambient temperature	+50°C [+122°F]	+40°C [+104°F]
$t_{as \text{ min}}$	Minimum storage ambient temperature	-40°C [-40°F]	-10°C [+14°F]
$t_{as \text{ Max}}$	Maximum storage ambient temperature	+50°C [+122°F]	+50°C [+122°F]
t_s	Surface temperature		
$t_{s \text{ min}}$	Minimum gearbox surface temperature starting with partial load (#)	-25°C [-13°F]	-10°C [+14°F]
$t_{sc \text{ min}}$	Minimum gearbox surface temperature starting with full load	-10°C [+14°F]	-5°C [+23°F]
$t_{s \text{ Max}}$	Maximum casing surface temperature during continuous operation (measured next to the gearbox input)	+100°C [+212°F]	+100°C (@) [+212°F]
t_o	Oil temperature		
$t_{o \text{ Max}}$	Maximum oil temperature during continuous operation	+95°C [+203°F]	+95°C (@) [+203°F]

(*) = Refer to the table "Selection of the optimal oil viscosity" for further information about minimum and maximum values of different oil viscosity. For values of $t_a < -20^\circ\text{C}$ [+70°F] and $t_s, t_o > 80^\circ\text{C}$ [+176°F], choose (as permitted in the product configuration stage) the sealing type of the most suitable material to the type of application. If needed contact Bonfiglioli Technical Service. 

(@) = Continuous operation it is not advised if t_s and t_o range is 80°C [+176°F] to 95°C [+203°F].

(#) = For full load start-up it is recommended to ramp-up and provide for greater absorption of the motor. If needed, contact Bonfiglioli Technical Service. 



The 300 series consist of a range of multi-purpose planetary gearboxes that can be operated by electric motors. Basic features are:



- 20 frame sizes of modular design
- output torque up to 11,388,260 lb•in
- transmissible power up to 14000 hp
- ratios from 3.4:1 to 5234:1
- versions:
 - in-line with 1 to 4 reductions
 - right angle (spiral bevel gear set into first stage) with 2 to 4 reductions
- combinations with:
 - worm gear units
 - bevel-helical gear units
- flange, foot and shaft mounting arrangements
- slow output shafts: keyed, splined male, splined hollow, shrink disk mounted
- input adaptors for:
 - IEC and NEMA normalised electric motors
 - IEC integral motor for in-line units up to size 307 and for units combined with bevel helical and worm gears
- parallel input shafts
- gearmotors with electric motors IEC
- output shaft accessories:
 - flanges
 - pinions
 - splined bars
 - shrink discs

More design features:

- high ratio of transmissible torque to overall dimensions
- high overhung and axial load capacity due to heavy duty tapered roller bearings featured on H and P versions
- high efficiency
- inner parts are coupled through splined connections rather than keys
- planetary gears mounted onto self-centering carriers to ensure the most even load distribution among planetary gears
- housing made of spheroidal cast iron.

Configurations

(A 1)

Configuration	Power	Torque	Ratios	Efficiency	Noise level
	$0.33 \leq P_n \text{ [hp]} \leq 100$	$T_{2REF} \leq 11,388,250 \text{ lb}\cdot\text{in}$	$3.4 \leq i \leq 2916$	High	Medium
	$0.33 \leq P_n \text{ [hp]} \leq 75$	$T_{2REF} \leq 5,806,090 \text{ lb}\cdot\text{in}$	$7 \leq i \leq 953$	High	Medium
	$0.33 \leq P_n \text{ [hp]} \leq 60$	$T_{2REF} \leq 5,806,090 \text{ lb}\cdot\text{in}$	$370 \leq i \leq 5234$	Medium	Low
	$0.33 \leq P_n \text{ [hp]} \leq 30$	$T_{2REF} \leq 138,780 \text{ lb}\cdot\text{in}$	$18.7 \leq i \leq 731$	High	Low



A INPUT

B REDUCTIONS

A

- 1 Cover
- 2 Compact electric motor
- 3 IEC or NEMA electric motor
- 4 Electric motor setting
- 5 Solid input shaft
- 6 Solid input shaft with fan

B

- 7 Right-angle reduction stage
- 8 Single planetary reduction stage
- 9 Two or more planetary reduction stages
- 10 Planetary reduction combined with wormgear unit
- 11 Planetary reduction stage combined with helical bevel gear unit

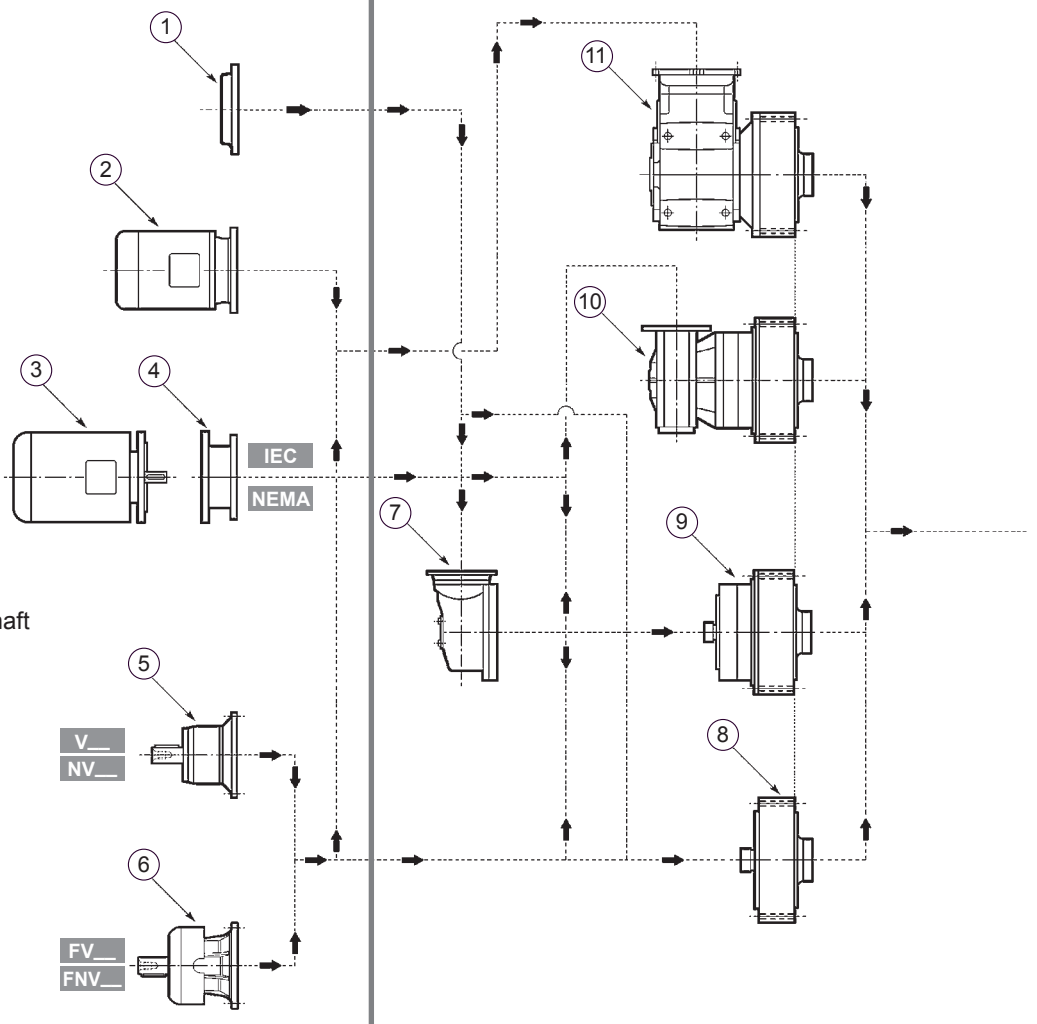
C

- 12 **MC/MZ** - Keyed or splined solid shaft output
- 13 **HC-NHC/HZ** - Keyed or splined heavy duty solid output shaft
- 14 **PC-NPC/PZ** - Output with support bracket and keyed or splined solid shaft
- 15 **FZ** - Splined hollow output shaft
- 16 **FP** - Hollow output shaft for shrink disc
- 17 **HC** - Parallel solid output shaft
- 18 **HZ** - Splined solid output shaft
- 19 **FZ** - Splined hollow output shaft
- 20 **FP** - Hollow output shaft for shrink disc
- 21 **PC** - Foot mount
- 22 **VK** - Reinforced output with parallel shaft for stirrers and mixers
- 23 **FDK** - Hollow shaft with double keyway
- 24 **FZP** - Hollow splined shaft with axial blockage device

D

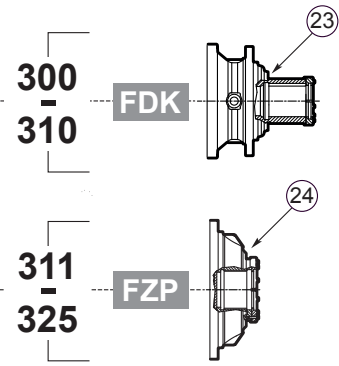
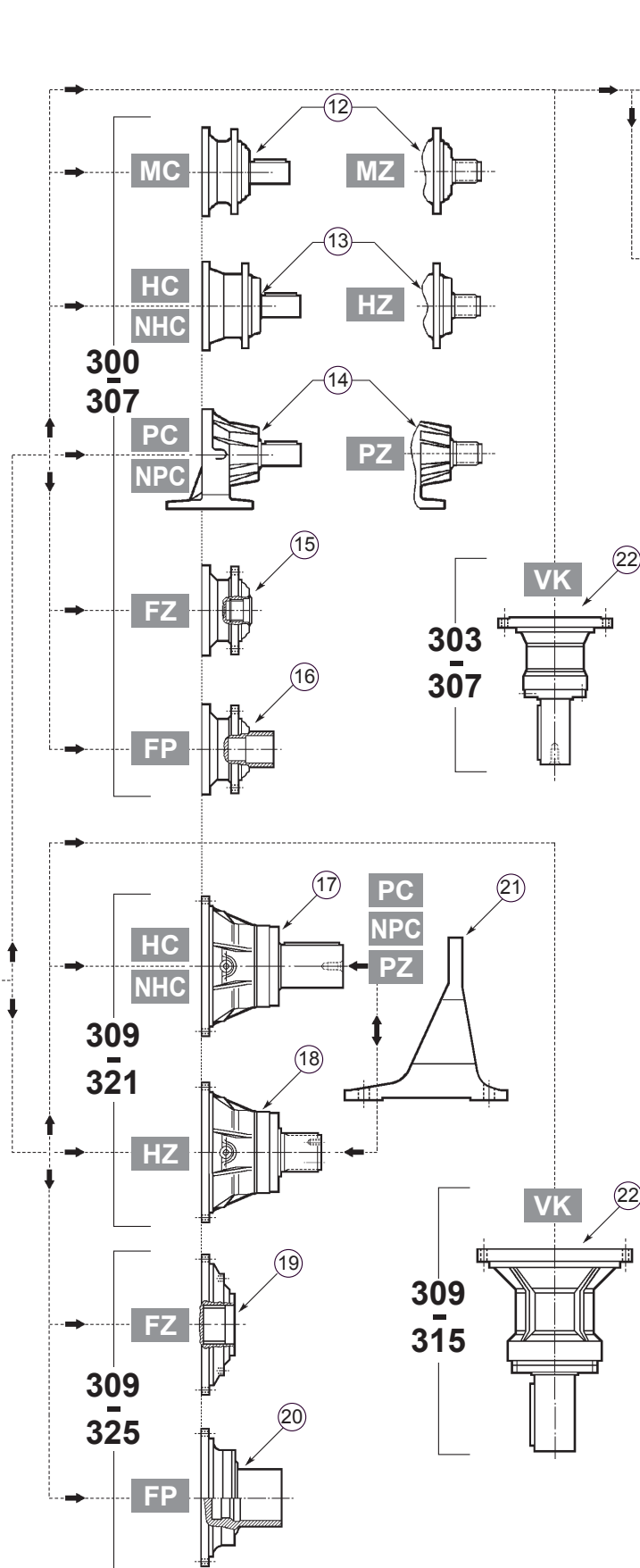
- 25 **WOA** - Flange
- 26 **P_** - Pinion
- 27 **MOA** - Sleeve coupling

- 28 End plate
- 29 **B0A** - Splined bar
- 30 **G0A** - Shrink disc

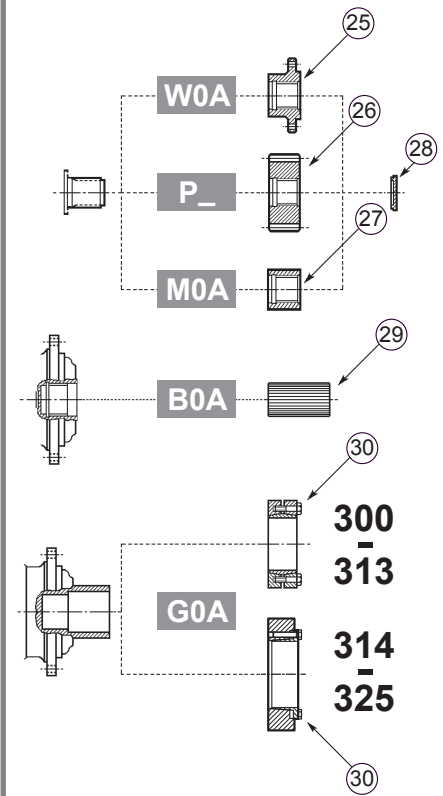




C OUTPUT



D FITTINGS



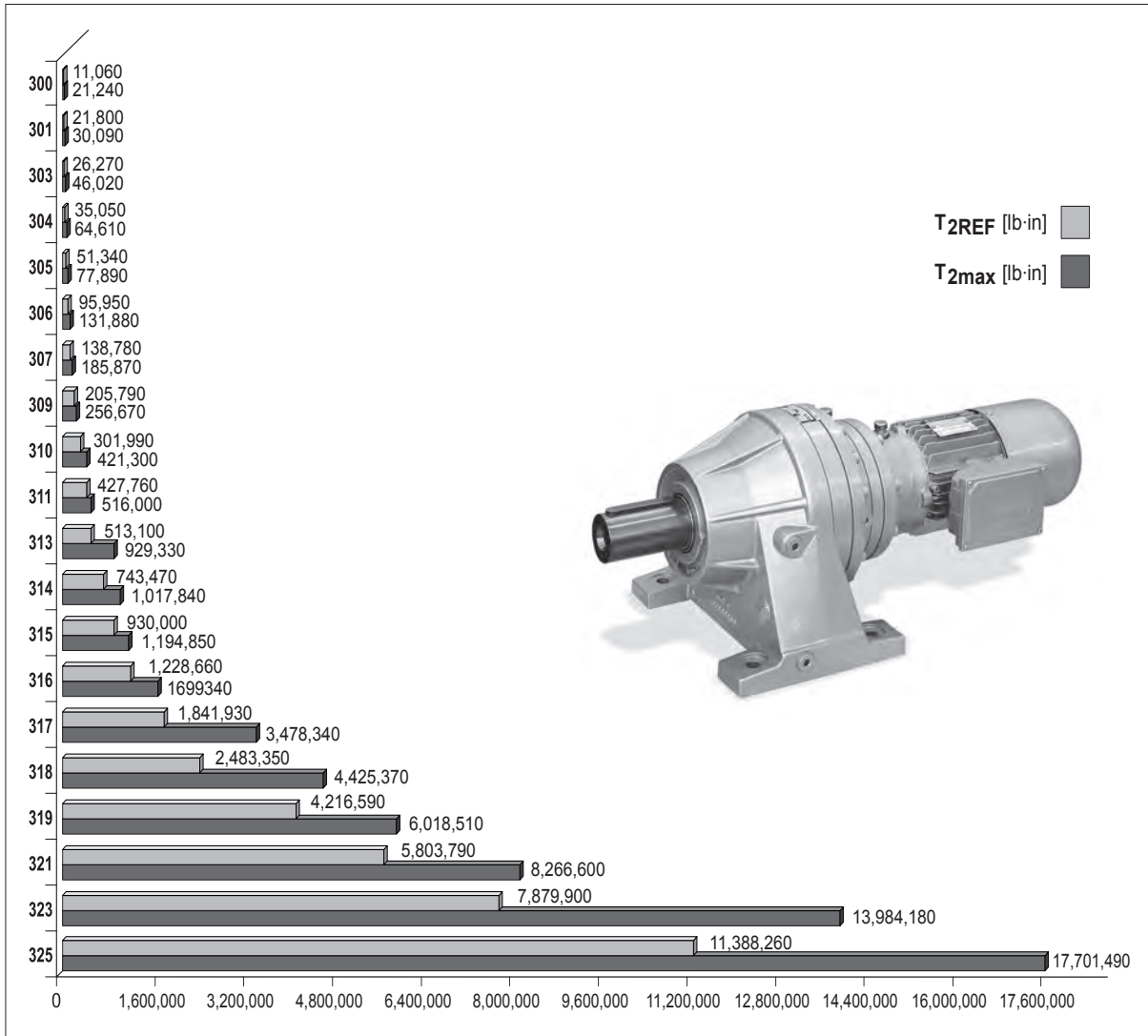


GENERAL INFORMATION

The following paragraphs contain information on essential elements for selection and correct use of gearmotors.

6 OUTPUT TORQUE

(A2)



6.1 Reference torque T_{2REF} [lb·in]

It is the significant value for the size. It is equivalent to the maximum value of nominal torque T_{n2} for a life factor n₂ x h = 10000 (referred to single stage configuration L1).

6.2 Rated output torque T_{n2} [lb·in]

It is the output torque which the gearbox can transmit with steady load under working condition specified in the calculation method.



6.3 Maximum torque T_{2max} [lb·in]

It is the output torque that the gearbox can withstand under static or almost static conditions. It is generally meant as a momentary peak load or starting-up torque under load.
The values in the tables are valid only in versions with output splined shaft (accessories excluded).

6.4 Required torque T_{r2} [lb·in]

The torque drawn by the application. It must always be equal to or less than rated output torque T_{n2} for the gearbox under study.

7 POWER

7.1 Input rated power P_{n1} [hp]

P_{n1} is the maximum power that can be safely applied to the gearbox when the same is operated:

- at a n_1 drive speed
- yielding a theoretical lifetime of 10000 hours
- service factor $f_s=1$

Check that the formula here below is always satisfied:

$$P_1' \times f_s \leq P_1 \quad (1)$$

7.2 Output power P_2 [hp]

This value is the net power delivered to the output shaft.
It can be calculated through the following formulas:

Efficiency values are listed in table (A3).

$$P_2 = P_1 \times \eta_d \quad (2)$$

$$P_2 = \frac{T_{r2} \times n_2}{63025} \quad (3)$$

7.3 Thermal power P_t [hp]

This parameter is linked to the gearbox thermal limit. Values for the thermal capacity are listed within the rating charts of gearboxes and gearmotors and represent the mechanical power that can be transmitted continuously at an input speed n_1 and at an ambient temperature of 20°C [70°F], without the lubricant exceeding the temperature of 85-90°C [185-194°F] and the gear case the temperature of 75-80°C [167-175°F], without the use a supplementary cooling system.



8 EFFICIENCY

8.1 Dynamic efficiency η_d

The parameter is defined as the relationship of the net power delivered to the output shaft P_2 to the power applied to the input shaft P_1 :

$$\eta_d = \frac{P_2}{P_1} \quad (4)$$

Indicative values for the efficiency are listed in the chart here after.

(A 3)

No. of reductions	Configuration		
	Planetary	Combined with worm gear unit	Combined with right-angle unit
1	0.97	—	—
2	0.94	0.73	—
3	0.91	0.70	0.91
4	0.88	—	—

9 REDUCTION RATIO i

It is defined as the relationship of the speed the input shaft is driven at and the speed delivered at the output shaft of a gearbox.

$$i = \frac{n_1}{n_2} \quad (5)$$

10 ANGULAR SPEED

10.1 Input speed n_1 [rpm]

The speed the gearbox is driven at.

The value is coincident with the motor speed if this is directly connected to the gearbox.

Input speed should never exceed the n_{1max} value listed in the gearbox rating chart.

10.2 Output speed n_2 [rpm]

It is calculated from drive speed n_1 and gear ratio i , as per the following equation:

$$n_2 = \frac{n_1}{i} \quad (6)$$

11 SERVICE FACTOR f_S

This is the relationship of the gear unit rated power to the power of the electric motor actually driving the unit.

$$f_S = \frac{P_{n1}}{P_1} \quad (7)$$

12 SERVICE FACTOR REQUESTED BY APPLICATION f_s'



It's a coefficient that represents the severity of the application. This factor takes into account, although approximately, the type of load the gearbox operates with, the specific duty cycle as well as the operating daily hours.

The table (A4) is of reference when determining the appropriate service factor for the application.

(A 4)

Service factor f_s' required depending on the application						
Type of load	Number of starts/hour z	Total operating hours (h)				
		≤ 5000	10000	15000	25000	50000
		Daily operating hours (h)				
		$h < 4$	$4 < h < 8$	$8 < h < 12$	$12 < h < 16$	$16 < h < 24$
Uniform load	$Z < 10$	0.90	1.00	1.15	1.30	1.60
	$10 < Z < 30$	0.95	1.15	1.30	1.50	1.80
	$30 < Z < 100$	1.00	1.25	1.45	1.60	2.00
Moderate shock load	$Z < 10$	1.00	1.25	1.45	1.60	2.00
	$10 < Z < 30$	1.10	1.40	1.60	1.80	2.20
	$30 < Z < 100$	1.20	1.50	1.70	2.00	2.40
Heavy shock load	$Z < 10$	1.20	1.50	1.70	2.00	2.40
	$10 < Z < 30$	1.30	1.60	1.80	2.10	2.60
	$30 < Z < 100$	1.40	1.75	2.00	2.30	2.80

13 LIFE FACTOR F_{h1} , F_{h2}

Factor resulting by multiplying angular speed at input (n_1) or output (n_2) by actual operating working hours h , break times excluded.

$$F_{h1} = (n_1 \times h) \quad (8)$$

$$F_{h2} = (n_2 \times h) \quad (9)$$

Life factor is directly proportional to gearbox rpms during the whole duty time

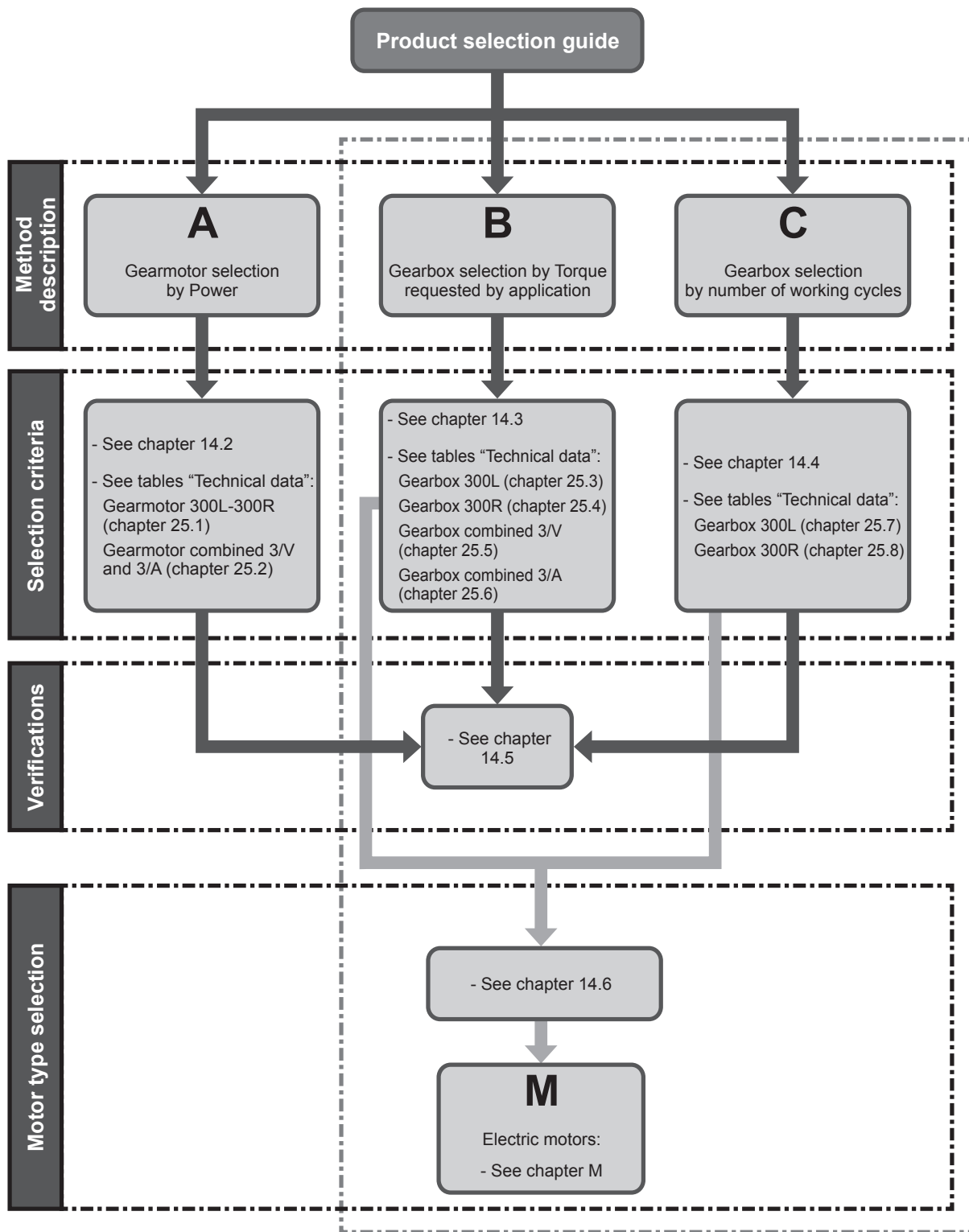


14 PRODUCT SELECTION

		TECHNICAL DATA REQUIRED FOR THE SELECTION OF 300			Nr: _____ Date: _____ Rev_ _____ Date: _____	
A) GENERAL DATA						
#	1	Company / Customer				
#	2	Contact				
#	3	Branch / Distributor				
#	4	Order quantity				
	5	Delivery time				
B₁) ELECTRIC MOTOR						
	6	Motor Type				
#	7	P_{n1}	Rated motor Power		[hp]	
#	8	P_{r1}	Motor power demand		[hp]	
	9	n_1	Input speed		[rpm]	
	10	Pole number				
	11	Motor mounting: B3 - B5 - B14				
C₁) PLANETARY GEARBOX						
#	12	Gearbox configuration				
#	13	i	Gear ratio			
#	14	n_2	Output speed		[rpm]	
#	15	T_{r2}	Output torque demand		[lb·in]	
#	16	T_{p2}	Peak torque demand		[lb·in]	
#	17	f_S	Service factor demand			
	18	Rotation of the output shaft [frontal view]:		CW		CCW
#	19	L_{10H}	Bearings lifetime		[h]	
#	20	Gears lifetime			[h]	
	21	SF_{min}	Safety for tooth root stress	standard reference (ISO preferred)		
	22	SH_{min}	Safety for flank pressure	standard reference (ISO preferred)		
D) ADDITIONAL LOADS						
	23	R_{c2}	Radial load on output shaft		[lbs]	
	24	x_2	Load application distance from shaft shoulder		[ins]	
	26	R_{c1}	Radial load on input shaft		[lbs]	
	27	x_1	Load application distance from shaft shoulder		[ins]	
	29	A_{n2}	Thrust load on output shaft (+ / -)		[lbs]	
	30	A_{n1}	Thrust load on input shaft (+ / -)		[lbs]	
E) APPLICATION						
#	31	Type of application				
	32	Duty cycle		Time phase	Time phase	Gearbox output torque
				%	hours	[lb·in]
						[rpm]
				****	****	
				****	****	
				****	****	
				****	****	
				****	****	
	33	Notes about Duty Cycle:				
		Duty type		S1	S2	S3
						S4-S8
	34	v_A	Ambient air velocity	[m/s]	≤ 0.5	> 0.5 ≤ 1.4
#	35	t_a	Ambient temperature range	[°F]		> 1.4
	36	Altitude a.s.l.		[ft]		
	37	Rating according FEM class		T-	L-	M-
F) OPTIONS OR ADDITIONAL REQUESTS						
	38	Lubrication				
	39	Supplementary cooling systems				
	40	Paint coating				
	41	To specific requests for testing				
G) NOTES						
	42	Notes and additional Customer requirements:				
#	43	PLP number if present for Special Gearbox				

Mandatory for the selection

The form, duly filled in, can be forwarded to our Technical Service which will assist the Customer in selecting the most suitable drive for the specific application.



NOTE:

The selection criteria and specifications reported in this catalogue are not valid for every and each application, including those where the gearbox operates as a safety device preventing injury to persons or damage to objects, as is the case with hoisting equipment. For these applications, the gearbox should be selected according to specific criteria and in compliance with the applicable safety regulations. Should this be the case we recommend that you seek advice from BONFIGLIOLI Technical Service.



14.2 METHOD A (Gearbox selection by power)

Based on application type, it should be defined :

a) Required service factor f_s' (see tab A4);

b) Required drive power:

$$P_{r1} = \frac{T_{r2} \times n_2}{63025 \times \eta_d} \quad (10)$$

Table (A3) lists the indicative values of efficiency η_d for the different types of gearboxes.

c) After required power P_{r1} and output speed n_2 are known, locate the gearmotor rating charts and select the one relevant to normalized power P_n equal to or greater than P_{r1} :

$$P_n \geq P_{r1} \quad (11)$$

Unless otherwise specified, power P_n listed in the motor rating chart refers to continuous duty S1. For motors operating in conditions other than S1, determine type of duty according to CEI 2-3/IEC 60034-1 standards.

Note that for duty cycles from S2 to S8 and motor frame sizes up to 132 included, power may be upgraded over that specified for continuous duty. In this event, the condition to be verified is the following:

$$P_n = \frac{P_{r1}}{f_m} \quad (12)$$

The adjusting factor f_m can be obtained from table (A5).

(A 5)

	DUTY						Please contact us
	S2			S3*			
	Cycle duration			Cyclic duration factor			
	10	30	60	25%	40%	60%	
f_m	1.35	1.15	1.05	1.25	1.15	1.1	

* Cycle time must be equal to or less than 10 minutes. Should this not be the case contact our Technical Service for assistance.

Cyclic duration rate: see formula (25).

For the output speed n_2 , or closest to, select the gearmotor that yields a service factor f_s meeting the following condition:

$$f_s \geq f_s' \quad (13)$$



In case of **FP** configuration, please see Verification paragraph (chapter 14.5 - item g) .



14.3 METHOD B (Gearbox selection by Torque requested by application)

Based on application type, it should be defined :

a) Required service factor f_S' (see tab A4);

b) Determine calculated torque according to required output torque T_{r2} as follows:

$$T_{c2} = T_{r2} \times f_S' \quad (14)$$

c) Determine gear ratio from required output speed n_2 and drive speed n_1 :

$$i = \frac{n_1}{n_2} \quad (15)$$

d) Once T_{c2} and i are determined, locate the gearbox rating chart for the drive speed n_1 and select a gearbox featuring the ratio i nearest to calculated ratio that also satisfies the condition:

$$T_{n2} \geq T_{c2} \quad (16)$$

If a IEC-normalised motor is to be fitted onto the gearbox, check availability of the applicable adapter.



In case of **FP** configuration, please see Verification paragraph (chapter 14.5 - item g) .

14.4 METHOD C (Gearbox selection by number of working cycles)

a) Determine the following according to the required application:

- Required service factor f_S' (see tab. A4)
- required gearbox working life h
- required drive unit

b) Define the calculated torque with the required output torque T_{r2} :

$$T_{c2} = T_{r2} \times f_S' \quad (17)$$

c) Calculate the life factor with required working life h and output speed n_2 :

$$Fh_2 = (n_2 \times h) \quad (18)$$

d) Calculate the required reduction ratio:

$$i = \frac{n_1}{n_2} \quad (19)$$



e) Select gearbox size which, having a reduction ratio close to the calculated value, which satisfies the following

$$T_{c2} \leq T_{n2} \quad (20)$$

$$Fh_2 \leq (n_2 \times h) \quad (21)$$

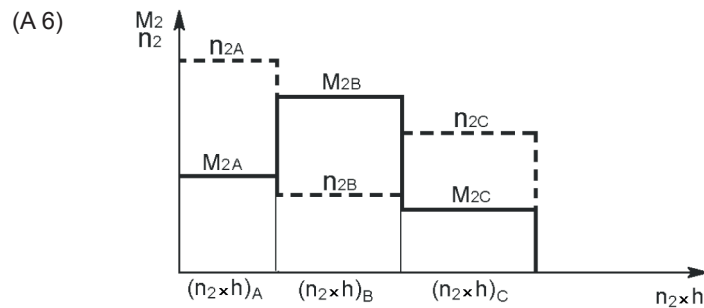
where T_{n2} and Fh_2 are indicated in the tables on technical features for each gearbox size.

In case of applications in which the required torque T_{r2} and speed n_2 vary within a wide range, best selection could be an equivalent required torque given by:

referred to:

$$T_{r2} = \sqrt[4]{\frac{(n_2 \times h)_A \times T_A^4 + (n_2 \times h)_B \times T_B^4 + (n_2 \times h)_C \times T_C^4 + \dots}{(n_2 \times h)_A + (n_2 \times h)_B + (n_2 \times h)_C + \dots}} \quad (22)$$

and calculating the life factor Fh with:



Then follow the same procedure as specified in d) and e).

$$Fh_{calc} = (n_2 \times h)_A + (n_2 \times h)_B + (n_2 \times h)_C + \dots \quad (23)$$



In case of **FP** configuration, please see Verification paragraph (chapter 14.5 - item g) .



After selecting the drive units, please check the following:

a) Thermal power

Make sure that the thermal capacity of the gearbox is equal to or greater than the the mechanical power required by the application, as per equation (24).

If this is not the case provide a supplementary cooling system or select a larger gearbox.

When the duty cycle is formed by short operating periods and rest time is long enough for the unit to cool down, the thermal capacity is hardly significant and it may be omitted from calculation.

For ambient temperatures other than 20°C [70°F], intermittent duty and drive speed n_1 other than the reference speed listed in the rating charts, P_{r1} is to be adjusted through thermal factor f_t and/or speed factor f_v as listed in table (A7).

Finally, make sure that the following condition is always satisfied:

$$P_{r1} \leq P_t \times f_t \times f_v \tag{24}$$

(A 7)

$t_a \text{ max. } ^\circ\text{C } [^\circ\text{F}]$	Continuous duty	f_t			
		Intermittent duty			
		Cyclic duration factor % (I)			
		80	60	40	20
10 [50]	1.2	1.3	1.6	1.8	2.0
20 [70]	1.0	1.1	1.3	1.5	1.7
30 [85]	0.9	1.0	1.2	1.3	1.5
40 [105]	0.7	0.8	0.9	1.0	1.2
50 [120]	0.5	0.6	0.7	0.8	0.9

n_1	f_v
500	1.35
900	1.2
1500	1.0
1800	0.85


Cyclic duration factor is the relationship of operating time under load t_f to total cycle time ($t_f + t_r$, where t_r stands for time at rest), expressed as a percentage.


$$I = \frac{t_f}{t_f + t_r} \times 100 \tag{25}$$

Should the gear unit in the conventional configuration fall short of thermal capacity and not verify the condition (24) above, it is recommended that the fan cooled input shaft - ordering code FV__ or NFV__ is specified instead. The relevant thermal capacity is listed in the charts here after.



(A 8)

		Thermal capacity P_t [hp] @ $n_1=1450$ rpm					
							
		FV05B FNV05B	FV06B FNV06B	FV07A FNV07A	FV07B FNV07B	FV010B FNV010B	FV011B FNV011B
303	L1	41	–	–	–	–	–
304	L1	42	–	–	–	–	–
305	L1	44	–	–	–	–	–
306	L1	–	63	–	–	–	–
	L2	44	–	–	–	–	–
307	L1	–	–	69	69	–	–
	L2	51	–	–	–	–	–
309	L1	–	–	73	73	–	–
	L2	51	–	–	–	–	–
310	L1	–	–	–	–	87	–
	L2	–	69	–	–	–	–
	L3	51	–	–	–	–	87
311	L1	–	–	–	–	–	–
	L2	–	–	75	73	–	–
	L3	51	–	–	–	–	–
313	L1	–	–	–	–	–	–
	L2	–	–	80	80	–	–
	L3	51	–	–	–	–	–
314	L2	–	–	–	–	94	–
	L3	–	73	–	–	–	–
	L4	47	–	–	–	–	–
315	L2	–	–	–	–	–	101
	L3	–	–	80	80	–	–
316	L4	51	–	–	–	–	–
	L2	–	–	–	–	–	101
	L3	–	–	80	80	–	–
317	L4	51	–	–	–	–	–
	L2	–	–	–	–	–	109
	L3	–	–	87	87	–	–
318	L4	–	–	–	–	–	87
	L3	–	–	–	–	–	109
319	L4	–	–	80	80	–	–
	L3	–	–	–	–	–	122
321	L4	–	–	87	87	–	–
	L3	–	–	–	–	–	122
323	L4	–	–	–	–	–	122
325	L4	–	–	–	–	–	122

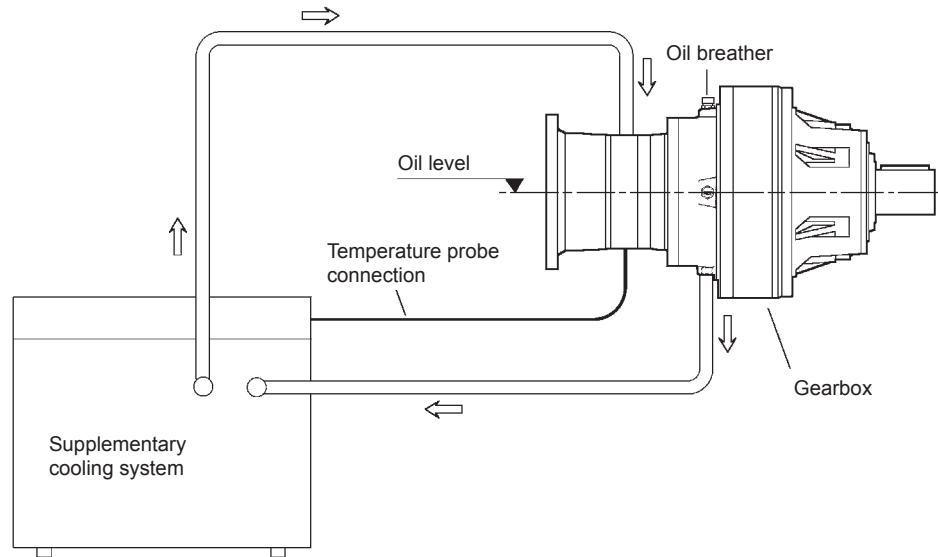
		Thermal capacity P_t [hp] @ $n_1=1450$ rpm	
			
		FV05B FNV05B	FV06B FNV06B
307	R2	73	–
309	R2	73	–
310	R2 (B)	–	116
	R2 (C)	–	116
311	R2 (B)	–	144
	R2 (C)	–	–
	R3	82	–
313	R2 (B)	–	144
	R2 (C)	–	149
	R3	82	–
314	R3 (B)	–	116
	R3 (C)	–	116
	R4	–	–
315	R3 (B)	–	144
	R3 (C)	–	149
	R4	82	–
316	R3 (B)	–	144
	R3 (C)	–	149
	R4	88	–
317	R3 (B)	–	149
	R3 (C)	–	179
	R4	96	–
318	R4 (B)	–	152
	R4 (C)	–	193
319	R4 (B)	–	172
	R4 (C)	–	200
321	R4 (B)	–	186
	R4 (C)	–	214

b) Supplementary cooling systems

In the event transmitted mechanical power is higher than transmissible thermal power (see tables of gearbox specifications), gearboxes are available complete with a cooling system.

These separate cooling systems are made up of an air-oil heat exchanger, a motor pump, a filter for warm oil and an electric system that incorporates an overload cutout for electric motors. A special feature of these cooling systems is their low noise.

NOTE: If a supplementary cooling system is required with CSA/UL certified motors please contact our Technical Service



Technical data

(A 9)

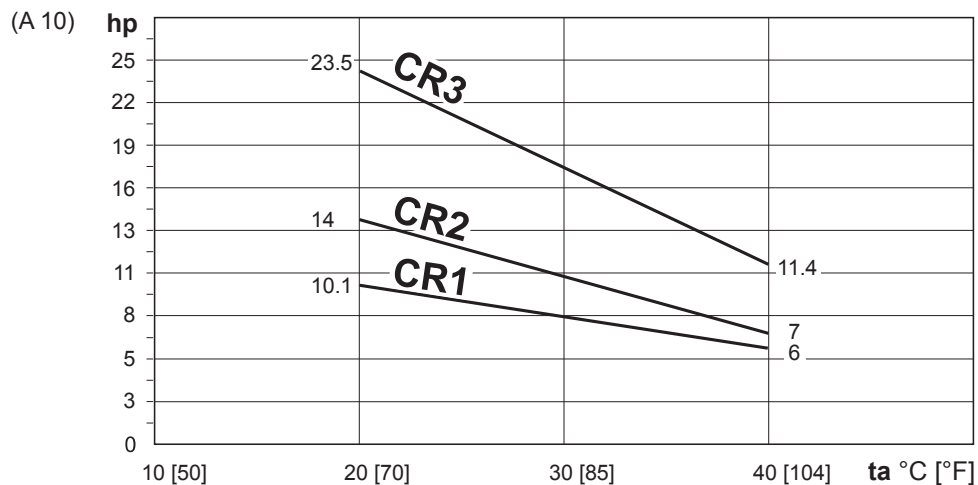
		CR1	CR2	CR3
Power absorption	[hp]	0.75	1	1.5
Pumpflow	[l/min]	13	22	34
Air flow	[m ³ /h]	850	1500	2000
Noise level at 1 mt.	[dB(A)]	68	70	75
Weight	[kg / lbs]	24 / 53	36 / 80	58 / 128

Selection criteria

Power P to be transmitted is known. Once you have determined that it is higher than thermal power P_t , calculate excess power P_s using this formula:

$$P_s = 0.1 \times (P - P_t) \quad (26)$$

Select cooling system size in chart (A10) according to ambient temperature t_a (20° - 40°C [70° - 104°F]). Check that the cooling system you have selected will fit the gearbox (see table A11). If this is not the case, contact our sales organization.



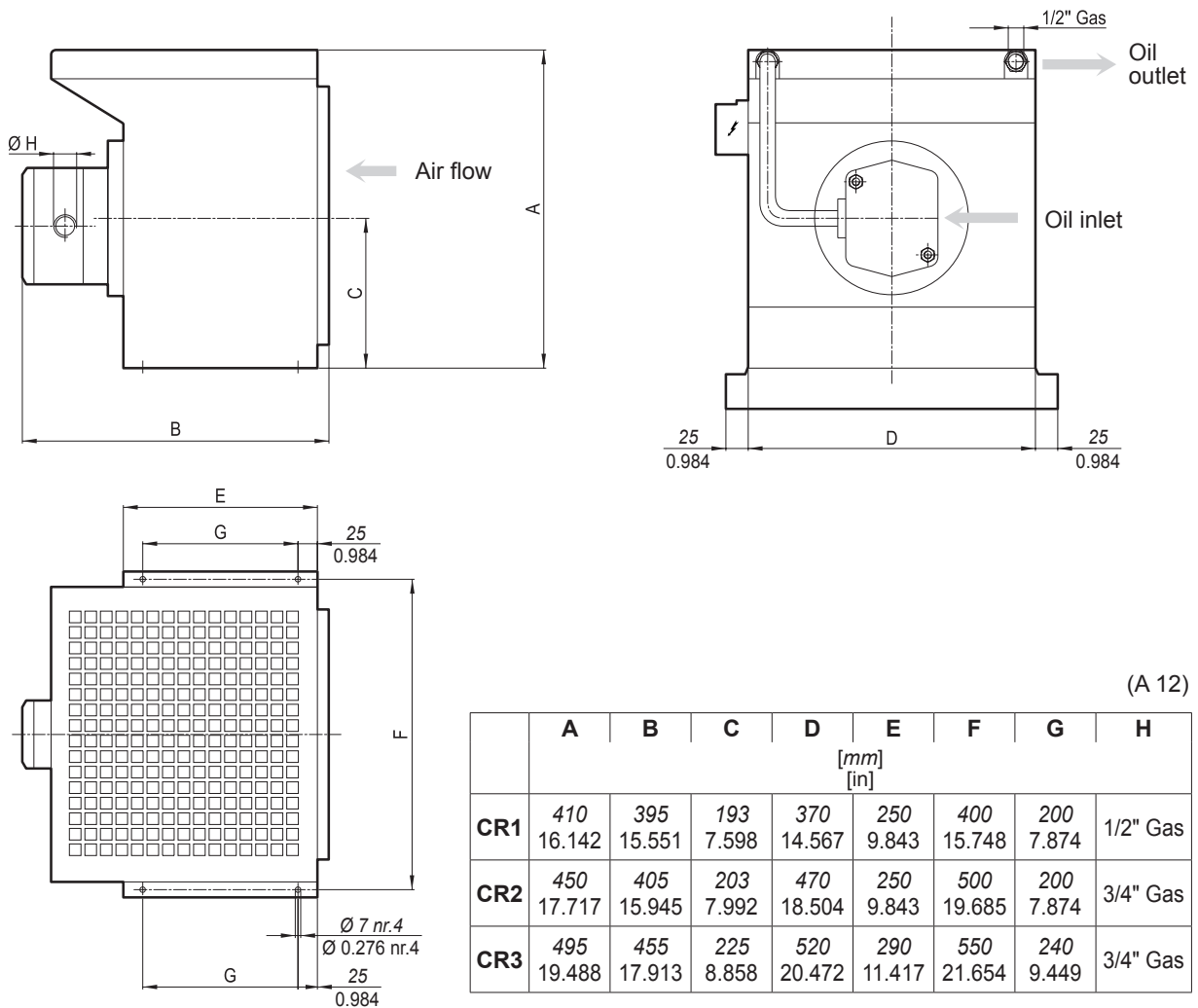


(A 11)

Gearbox	L1	L2	L3	L4	R2	R3	R4
306	CR1	CR1	—	—	—	—	—
307	CR1	CR1	—	—	CR1	—	—
309	CR1	CR1	CR1	—	CR1	—	—
310	CR2	CR1	CR1	—	—	CR1	—
311	CR2	CR1	CR1	—	CR1	CR1	—
313	CR2	CR1	CR1	—	CR1	CR1	—
314	CR3	CR2	CR1	—	—	CR1	—
315	CR3	CR2	CR1	—	—	CR1	—
316	CR3	CR2	CR1	—	—	CR1	—
317	CR3	CR2	CR2	CR1	—	—	—
318	CR3	CR2	CR2	CR1	—	—	—
319	CR3	CR2	CR2	CR1	—	—	—
321	CR3	CR2	CR2	CR2	—	—	—

Dimensions

Dimensions are in *mm* (*italic*) and inches.





c) Maximum torque

Make sure that neither the momentary peak torque nor the starting torque under load ever exceed the T_{2max} value that the gearbox is rated for (see figure A2).

d) Radial loads

Examine the application and establish:

- overhung load applying to input and/or output shaft through the following formula:

$$R_{c1-2} = \frac{2 \times T_{r1-2} \times K_r}{d} \quad (27)$$

R_{c1-2} = overhung load [lbs]

1 = for input shaft

2 = for output shaft

T_{r1-2} = Torque at the shaft [lb•in]

d = P.C.D [ins] of transmission element (sprocket, gear, pulley, etc.)

$K_r = 1$ chain transmission

$K_r = 1.25$ gear transmission

$K_r = 1.5-2.5$ V-belt transmission

- Define the thrust load position X onto shaft. Check this value with the chart indicating the load R_{x1-2} bearable by the gearbox. Check that the following is satisfied:

$$R_{c1-2} \leq R_{x1-2} \times fh_{1-2} \quad (28)$$

where fh_{1-2} are the radial and thrust load corrective factor depending on the required life factor Fh_1 and Fh_2 (refers to radial and thrust loads in the "Dimensions" chapter).

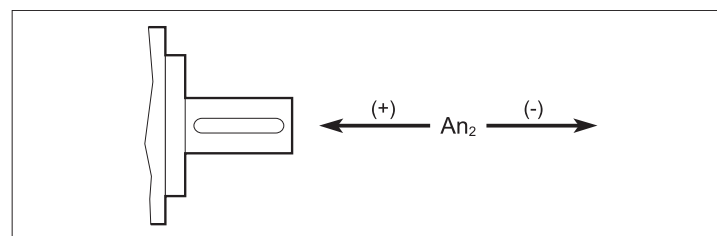
e) Thrust loads

Check the thrust load, when exerted onto the output shaft, as specified for the radial load.

The following should be satisfied:

$$\pm A_{c2} \leq \pm A_{n2} \times fh_2 \quad (29)$$

(A 13)



where fh_2 are the radial and thrust load corrective factor depending on the required life factor Fh_2 (refers to radial and thrust loads in the "Dimensions" chapter).

When a thrust load is combined with an axial load contact our Sales Dept. for a proper checking procedure.



f) VK output

Determine:

- Radial load R_{c2}
- Thrust load A_{c2}
- Offset x of load R_{c2}

Look up the diagram relevant to the gearbox under study and identify permitted radial load R_{x2} corresponding to distance X and the ratio A_{n2}/R_{n2} nearest to value A_{c2}/R_{c2} .

Make sure the following equation is verified:

$$R_{x2} \geq R_{c2} \quad (30)$$

Values in the diagram refer to:

- $n_2 = 10$ rpm
- 10000 hrs theoretical lifetime

For different output speed n_2 , or lifetime expectancy, consider:

- a speed factor f_{n2} as per table (A14):

(A 14)

n_2	1	2.5	5	10	15	25	50	100
f_{n2}	2.0	1.51	1.23	1.00	0.88	0.76	0.62	0.50

- a lifetime factor f_L according to table (A15).

(A 15)

Lifetime	2500 h	5000 h	10000 h	15000 h	25000 h	50000 h	100000 h	100
f_L	0.66	0.81	1.00	1.13	1.32	1.62	2.00	0.50

This condition must be verified:

$$R_{x2} \times f_{n2} \geq R_{c2} \times f_L \quad (31)$$

g) FP output (FDK and FZP when and if available)

On shaft-mounted installations, gearmotors produce a reaction force due to fixing position and motor weight and/or external loads from other connection elements.

These forces combination is added to normal load condition and will influence :

- bearings life
- output shaft resistance
- flange tightening condition

In the event that there is an additional load (like a large size electric motor) and /or a single stage gearbox (with particular attention to sizes from 300 to 307), it's recommended to contact our Technical Service.

For the specific reaction loads due to fixing position, in the dimensional section for each size are reported the minimum length for torque reaction arms (single or double) that can reach the rated performances.



Electric motor (see section M in this catalogue)

a) n_2 and dynamic efficiency η_d are known, calculate input power based on torque T_{r2} as follows

$$P_{r1} = \frac{T_{r2} \times n_2}{63025 \times \eta_d} [\text{hp}] \quad (32)$$

Table (A3) reports the values of efficiency η_d related to the different reduction stages of the gearboxes of series 300.

b) Look up the motor selection charts and select a size with such rated power to satisfy this condition:

$$P_{r1} \leq P_n \quad (33)$$

4-pole motors and over should be preferred.

Unless otherwise specified, power P_n of motors indicated in the catalogue refers to continuous duty S1. For motors used in conditions other than S1, the type of duty required by reference to CEI 2-3/IEC 34-1 Standards must be mentioned.

For duties from S2 to S8 in particular and for IEC motor frame 132 or smaller, extra power can be obtained with respect to continuous duty power, consequently the following condition must be satisfied:

$$\frac{P_{r1}}{f_m} \leq P_n \quad (34)$$

The increased power factor f_m can be obtained from table (A5).

For duties other than S1 with considerable number of starts per hour, factor Z must be considered (it is ascertained by using the information in the motors chapter). Factor Z defines the maximum number of starts for the application under consideration.

15 INSTALLATION

Observing a few rules for correct installation is essential to the reliable and proper operation of the gearbox.

The rules set out here are intended as a preliminary guide to selecting gearbox.

For effective and proper installation, follow the instructions given in the Installation, use and maintenance manual available from our Sales network.

Following is a brief outline of installation rules:

a) Fastening:

– Place the gearbox on a surface providing adequate rigidity. Mating surfaces should be machined and flat.

– This applies especially to flange-mounted gearboxes with splined hollow output shafts (refer to the Installation, Operation and Maintenance Manual available on www.bonfiglioli.com).

– In applications that involve high radial loads at the output end, flange mounting is recommended for some gearboxes as this mounting pattern benefits from the double pilot diameters provided on these gearboxes (refer to the Installation, Operation and Maintenance Manual available on www.bonfiglioli.com).



– Make sure the gearbox is suitable for the required mounting position.

– Use bolts specified in Use and Maintenance Manual (available on www.bonfiglioli.com) and tighten the bolts to the rated values specified in the relevant charts.

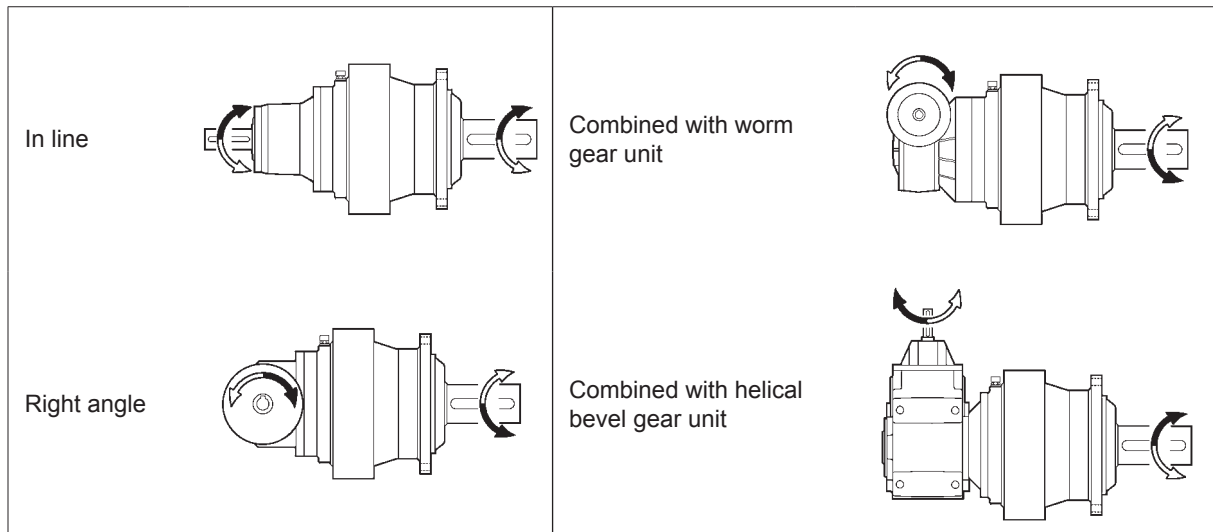
b) Connections

– When fitting transmission elements onto the gearbox do not tap them with hammers or similar tools. To slide these parts in, use the service screws and tappings provided at the shaft ends. Be sure to clean off any grease or rust preventative from the shafts before fitting any parts.

– Direction of rotation

Before wiring the motor please note the input/output shaft arrangement, as described in the diagram here after:

(A 16)



RA/RO: For the monodirectional applications or for the applications requiring a sense of rotation prevailing on that opposite to it, the selection of "**RA/RO**" option ensures the declared performance. For applications not requiring a prevailing sense of rotation with respect to each other, the performances are guaranteed regardless of the selected "**RA/RO**" option.

c) Paint coating

– Use paint compatible with the primer applied to the gearbox, see "Supply conditions".

Prior to painting, tape the seal rings installed on the shafts. Contact with the solvent may damage the seals with subsequent oil leakage.

d) Lubrication

– Prior to commissioning, fill the gearbox with the recommended type and quantity of oil (refer to the Installation, Operation and Maintenance Manual available on www.bonfiglioli.com).

The level is to be checked through the appropriate plug, or sight glass, each gearbox is provided with, and located according to the mounting position originally specified.

NOTE: Combined gearboxes feature separate lubrication for planetary stages and for worm gears (series 3/V) or bevel helical units (series 3/A).

The operations described above are not to be performed with life-lubed gearboxes, that are factory filled with synthetic oil.



Refer to the User's Manual available at www.bonfiglioli.com for indications about checking the oil level and its replacement for other types of gearboxes.

Do not mix mineral oils with synthetic oils and/or different brands.

However, oil level should be checked at regular intervals and topped up as required.

Check monthly if unit operates under intermittent duty, more frequently if duty is continuous.

16.1 Selection of the optimal oil viscosity (data relating to Shell Oils)

		Operating ambient temperature																			
		C°	-40	-35	-30	-25	-20	-15	-10	-5	0	+5	+10	+15	+20	+25	+30	+35	+40	+45	+50
		F°	-40	-31	-22	-13	-4	+5	+14	+23	+32	+41	+50	+59	+70	+77	+86	+95	+104	+113	+122
		suitability seals check					standard seals provided in the catalog														
Splash lubrication	Mineral oil	150 VG								*											
		220 VG	⊘	☎						*											☎
		320 VG								*											
		460 VG									*										
	Synthetic oil (PAG)	150 VG				*															☎
		220 VG	⊘	☎		*															
		320 VG				*															
	Synthetic oil (PAO)	150 VG				*															☎
		220 VG	⊘	☎		*															
		320 VG					*														
	Forced lubrication	Mineral oil	150 VG												*						
			220 VG	⊘	☎										*						☎
320 VG														*							
460 VG															*						
Synthetic oil (PAG)		150 VG							*	*											☎
		220 VG	⊘	☎					*	*											
		320 VG								*	*										
Synthetic oil (PAO)		150 VG							*	*											☎
		220 VG	⊘	☎					*	*											
		320 VG								*	*										

Recommended operating limits

Allowed operating limits. ☎

Forbidden operating limits.

* = It is recommended to ramp-up and to provide for greater absorption of the motor.

If needed and in the event of impulse loads, contact Bonfiglioli Technical Service. ☎



16.2 Lubrication for 300 series gearboxes

All gearboxes are oil-bath lubricated. For applications calling for gearboxes with a vertically positioned axis, in which oil coverage during operation would not be sufficient to ensure correct lubrication of upper bearings, suitable life lubrication systems are used.

Before start-up, fill the gearbox with the correct quantity of oil, selecting the viscosity level as per table (A10). These gearboxes are provided with oil filling, level and drain plugs.

Prior to starting-up, fill the gearbox with the appropriate quantity of oil.

Gearboxes are generally provided with oil fill, level and drain plugs. As such, the mounting position needs always to be specified when ordering the gearbox.

For the reference charts of oil plugs placement and quantity of lubricant, refer to the Installation, Operation and Maintenance Manual (available on www.bonfiglioli.com).

– Note: For applications with non-routine operating conditions, consult factory with complete information.

– Unless otherwise specified, gear units are supplied unlubricated. Primary gear units belonging to 3/V and 3/A combinations instead may be supplied factory filled with long-life synthetic lubricant, depending on their frame size, as indicated in the Use and Maintenance Manual (available at www.bonfiglioli.com).

– The oil capacities listed for the various types of unit are indicative only. Fill the gearbox up to the level plug, located as per the mounting position specified when ordering to ensure the gearbox is properly filled.

– Should transmitted power exceed the thermal capacity of the unit a supplementary cooling unit must be provided (see: Supplementary cooling systems).

NOTE: Combined gearboxes and gearmotors feature separate lubrication for planetary stages and for worm gearboxes (3/V) or helical bevel units (3/A).

16.3 Brakes lubrication

The hydraulically operated multidisc brakes are lubricated by the same oil as the gearbox.



Observe the following instructions to ensure correct storage of delivered products:

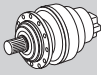
- a) Do not store outdoors, in areas exposed to weather or with excessive humidity.
- b) Always place boards, wood, or other material between the products and the floor. The gearbox should not have direct contact with the floor.
- c) For storage periods of over 60 days, all machined surfaces such as flanges, shafts and couplings must be protected with a suitable anti-oxidation product.
- d) When units are expected to be in storage for more than 6 months, the following extra measures are required:
 - Smear all machined parts with grease to prevent oxidation.
 - Place the gearbox so that the breather plug is uppermost and fill it with oil (this does not apply to life-lubricated gearboxes). Before the gearbox is put into operation, the appropriate type and quantity of oil should be restored.

18 SUPPLY CONDITIONS

Gearboxes are supplied as follows:

- a) arranged for installation in the mounting position specified in the purchase order;
- b) Unlubricated. Inner parts are protected by a film of the oil used for testing purpose;
- c) when no specific protection class is requested, the surfaces of gearboxes are protected to at least corrosivity class C2 (UNI EN ISO 12944-2), realized with a grey antioxidant water-based primer Ral 7042. Mating surface are not coated.
- d) tested to factory specifications;
- e) suitably packed;
- f) complete with mounting hardware for IEC electric or hydraulic motors;
- g) gearboxes lubricated “for life” are factory filled with oil.

3 11 L 2 16.7 NHC



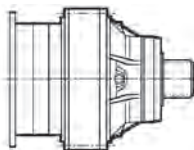
OUTPUT VERSION

	MZ: Splined male shaft		MC: Solid keyed shaft
	HZ: Heavy duty splined male shaft		HC / NHC: Heavy duty solid keyed shaft
	PZ: Foot base with splined shaft		PC / NPC: Foot base with solid keyed shaft
	FZ / FZB: Hollow splined shaft		VK: Reinforced output with heavy duty keyed shaft for stirrers and mixer
	FP: Hollow shaft for shrink disc		
	FDK: Hollow shaft with double keyway		FZP: Hollow splined shaft with axial blockage device (recommended for shaft mounted installation)

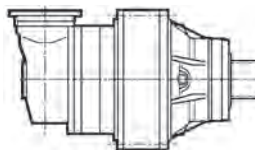
Reduction ratio
 Fill in the value of the transm. ratio (including point and decimals) reported in the selection charts
 Es. : 1/5.33 = 5.33 1/44.6 = 44.6 1/131 = 131

No. OF REDUCTIONS
1, 2, 3, 4

DESIGN
L = Linear



R = Right angle



GEARBOX SIZE

00 = 300	226	05 = 305	294	10 = 310	364	15 = 315	434	19 = 319	486
01 = 301	242	06 = 306	312	11 = 311	382	16 = 316	450	21 = 321	498
03 = 303	258	07 = 307	330	13 = 313	400	17 = 317	462	23 = 323	510
04 = 304	276	09 = 309	348	14 = 314	418	18 = 318	474	25 = 325	514

SERIES

N320TC A W0A



OPTIONS

GASKET
STANDARD = NBR
PV = Fluoro elastomer

SURFACE PROTECTION
C2 (default), C3, C4

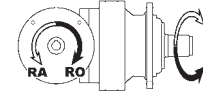
CERTIFICATES
AC, CC

35

36

ONLY FOR RIGHT ANGLE DESIGN
preferential input direction of rotation

RA = left
RO = right



PAINTING
RAL7042 (default), RAL5010,
RAL9005, RAL9006, RAL9010

35

SUPPLEMENTARY COOLING SYSTEM
CR1, CR2, CR3

18

OUTPUT FITTINGS



P... = Pinions



B0A = Splined bar



M0A = Sleeve coupling



G0A = Shrink disc



W0A = Flange disc

MOUNTING POSITION

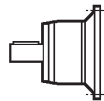
36

INPUT



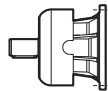
Without motor adaptor

V9AA	V9AC	V9AE	V9AG	V9AL
V9AB	V9AD	V9AF	V9AH	



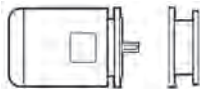
Input keyed shaft

	V01A	V01B	V05B	V06B	V07A	V07B	V10B	V11B	V15B
diam. [mm]	Ø24	Ø38	Ø48	Ø60	Ø60	Ø80	Ø80	Ø80	Ø120
	NV01A	NV01B	NV05B	NV06B	NV07A	NV07B	NV10B	NV11B	
diam. [ins]	Ø1.125	Ø1.165	Ø1.875	Ø2.375	Ø2.375	Ø3.000	Ø3.000	Ø3.000	



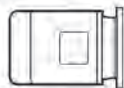
Solid input shaft with fan

	FV05B	FV06B	FV07A	FV07B	FV10B	FV11B
diam. [mm]	Ø48	Ø60	Ø60	Ø80	Ø80	Ø80
	NFV05B	NFV06B	NFV07A	NFV07B	NFV10B	NFV11B
diam. [ins]	Ø1.875	Ø2.375	Ø3.000	Ø3.000	Ø3.000	Ø3.000



Electric motor connection

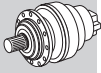
P+IEC (P71...P250), NEMA (N56TC...N400TC)



Integrated gearmotor with in-built compact electric motor
(available up to size 307)

S2, S3, S4

3/V 05 L 3 623 NPC



OUTPUT VERSION

	MZ: Splined male shaft		MC: Solid keyed shaft
	HZ: Heavy duty splined male shaft		HC / NHC: Heavy duty solid keyed shaft
	PZ: Foot base with splined shaft		PC / NPC: Foot base with solid keyed shaft
	FZ / FZB: Hollow splined shaft		VK: Reinforced output with heavy duty keyed shaft for stirrers and mixer
	FP: Hollow shaft for shrink disc		
	FDK: Hollow shaft with double keyway		

REDUCTION RATIO

Fill in the value of the transm. ratio reported in the selection charts
Es. : 1/773 = 773

No. OF REDUCTIONS

3, 4

DESIGN

L = Combined 300 unit,
2 or 3 planetary stages + worm gear units



GEARBOX SIZE

00 = 3/V 00	226	05 = 3/V 05	294	10 = 3/V 10	364	15 = 3/V 15	434	19 = 3/V 19	486
01 = 3/V 01	242	06 = 3/V 06	312	11 = 3/V 11	382	16 = 3/V 16	450	21 = 3/V 21	498
03 = 3/V 03	258	07 = 3/V 07	330	13 = 3/V 13	400	17 = 3/V 17	462		
04 = 3/V 04	276	09 = 3/V 09	348	14 = 3/V 14	418	18 = 3/V 18	474		

SERIES

Combined 300 gearboxes / Worm gear units

N140TC B5 AF W0A ...



OPTIONS

GASKET
STANDARD = NBR
PV = Fluoro elastomer

SURFACE PROTECTION
C2 (default), **C3**, **C4**



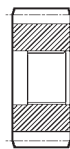
PAINTING
RAL7042 (default), **RAL5010**,
RAL9005, **RAL9006**, **RAL9010**



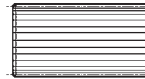
CERTIFICATES
AC, **CC**



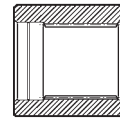
OUTPUT FITTINGS



P... = Pinions



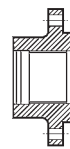
B0A = Splined bar



M0A = Sleeve coupling



G0A = Shrink disc



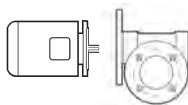
W0A = Flange

MOUNTING POSITION



DESIGN
B5, **B14**

INPUT

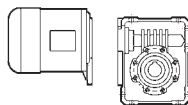


Electric motor connection

P+IEC (P63...P180), **NEMA** (N56TC...N210TC)



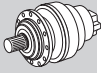
Input keyed shaft **HS**, **NHS**



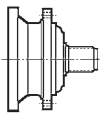
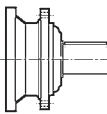
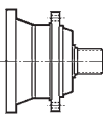
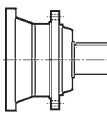
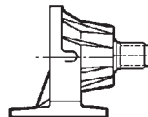
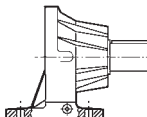
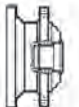
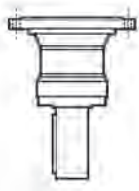
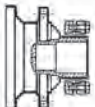
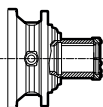
Integrated gearmotor with in-built compact electric motor

S1, **S2**, **S3**

3/A 06 L 2 69.9 NPC



OUTPUT VERSION

	MZ: Splined male shaft		MC: Solid keyed shaft
	HZ: Heavy duty splined male shaft		HC / NHC: Heavy duty solid keyed shaft
	PZ: Foot base with splined shaft		PC / NPC: Foot base with solid keyed shaft
	FZ / FZB: Hollow splined shaft		VK: Reinforced output with heavy duty keyed shaft for stirrers and mixer
	FP: Hollow shaft for shrink disc		
	FDK: Hollow shaft with double keyway		

REDUCTION RATIO

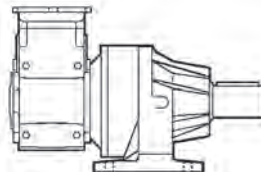
Fill in the value of the transm. ratio reported in the selection charts
 Es. : 1/19.4 = 19.4 1/175 = 175

No. OF REDUCTIONS

2

DESIGN

L = Combined 300 unit,
 1 planetary stages + A helical bevel units



GEARBOX SIZE

- 00** = 3/A 00 (300+A10)
- 01** = 3/A 01 (301+A20)
- 03** = 3/A 03 (303+A30)
- 04** = 3/A 04 (304+A41)

226
242
258
276

- 05** = 3/A 05 (305+A41)
- 06** = 3/A 06 (306+A50)
- 07** = 3/A 07 (307+A60)

294
312
330

SERIES

Combined 300 gearboxes / A series helical bevel gear units

N180TC EF W0A ...



OPTIONS

GASKET
STANDARD = NBR
PV = Fluoro elastomer

SURFACE
PROTECTION
C2 (default), **C3**, **C4**



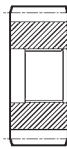
PAINTING
RAL7042 (default), **RAL5010**,
RAL9005, **RAL9006**, **RAL9010**



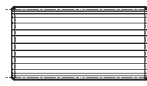
CERTIFICATES
AC, **CC**



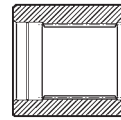
OUTPUT FITTINGS



P... = Pinions



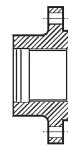
B0A = Splined
bar



M0A = Sleeve
coupling



G0A = Shrink
disc



W0A = Flange

MOUNTING POSITION

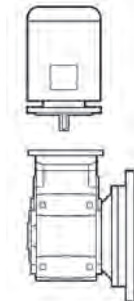


INPUT



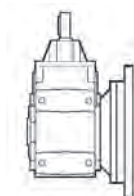
Integrated gearmotor with in-built
compact electric motor

S2, **S3**, **S4**



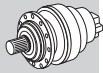
Electric motor connection

P+IEC (P63...P180), **NEMA** (N56C...N280TC)



Input keyed shaft

HS, **NHS**



MOTOR

BRAKE

M 1LA 4 230/400-50 IP54 CLF ... W FD 7.5 R SB 220 SA ...

OPTIONS

BRAKE
SUPPLY

RECTIFIER TYPE
NB, SB, NBR, SBR

BRAKE HAND RELEASE
R, RM

BRAKE TORQUE (specify Nm!)
[1 ft·lb = 1.356 Nm]

BRAKE TYPE
FD (d.c. brake)
FA (a.c. brake)

TERMINAL BOX POSITION
W (default), **N, E, S**

MOTOR MOUNTING
— (compact motor)
B5 (IEC - motor)

INSULATION CLASS
CL F standard
CL H option

DEGREE OF PROTECTION
IP55 standard (IP54 - brake motor)

VOLTAGE - FREQUENCY

POLE NUMBER
4, 6, 2/4, 2/6, 2/8, 2/12

MOTOR SIZE
1SD - 5LA (compact motor)
63A - 250M (IEC motor)

MOTOR TYPE

M = compact 3-phase **ME** = compact 3-phase, class IE2 **MX** = compact 3-phase, class IE3
BN = IEC 3-phase **BE** = IEC 3-phase, class IE2 **BX** = IEC 3-phase, class IE3

NEMA motors to be specified thru their ordering numbers

23.1 SURFACE PROTECTION

When no specific protection class is requested, the surfaces of gearboxes are protected to at least corrosivity class C2 (UNI EN ISO 12944-2). For improved resistance to atmospheric corrosion, gearboxes can be delivered with C3 and C4 surface protection, obtained by painting the complete gearbox.



SURFACE PROTECTION	Typical environments	Maximum surface temperature	Corrosivity class according to UNI EN ISO 12944-2
C3	Urban and industrial environments with up to 100% relative humidity (medium air pollution)	120°C [248 F°]	C3
C4	Industrial areas, coastal areas, chemical plant, with up to 100% relative humidity (high air pollution)	120°C [248 F°]	C4

Gearboxes with optional protection to class C3 or C4 are available in a choice of colours. If no specific colour is requested (see the "PAINTING" option) gearboxes are finished in RAL 7042. Gearboxes can also be supplied with surface protection for corrosivity class C5 according to UNI EN ISO 12944-2. Contact our Technical Service for further details.

23.2 PAINTING

Gearboxes with optional protection to class C3 or C4 are available in the colours listed in the following table.

PAINTING	Colour	RAL number
RAL7042*	Traffic Grey A	7042
RAL5010	Gentian Blue	5010
RAL9005	Jet Black	9005
RAL9006	White Aluminium	9006
RAL9010	Pure White	9010

* Gearboxes are supplied in this standard colour if no other colour is specified.

NOTE – "PAINTING" options can only be specified in conjunction with "SURFACE PROTECTION" options.

23.3 CERTIFICATES

AC - Certificate of compliance

The document certifies the compliance of the product with the purchase order and the construction in conformity with the applicable procedures of the Bonfiglioli Quality System.

CC - Inspection certificate

The document entails checking on order compliance, the visual inspection of external conditions and of mating dimensions. Checking on main functional parameters in unloaded conditions is also performed along with oil seal proofing, both in static and in running conditions. Units inspected are sampled within the shipping batch and marked individually.

23.4 TACONITE SEALS

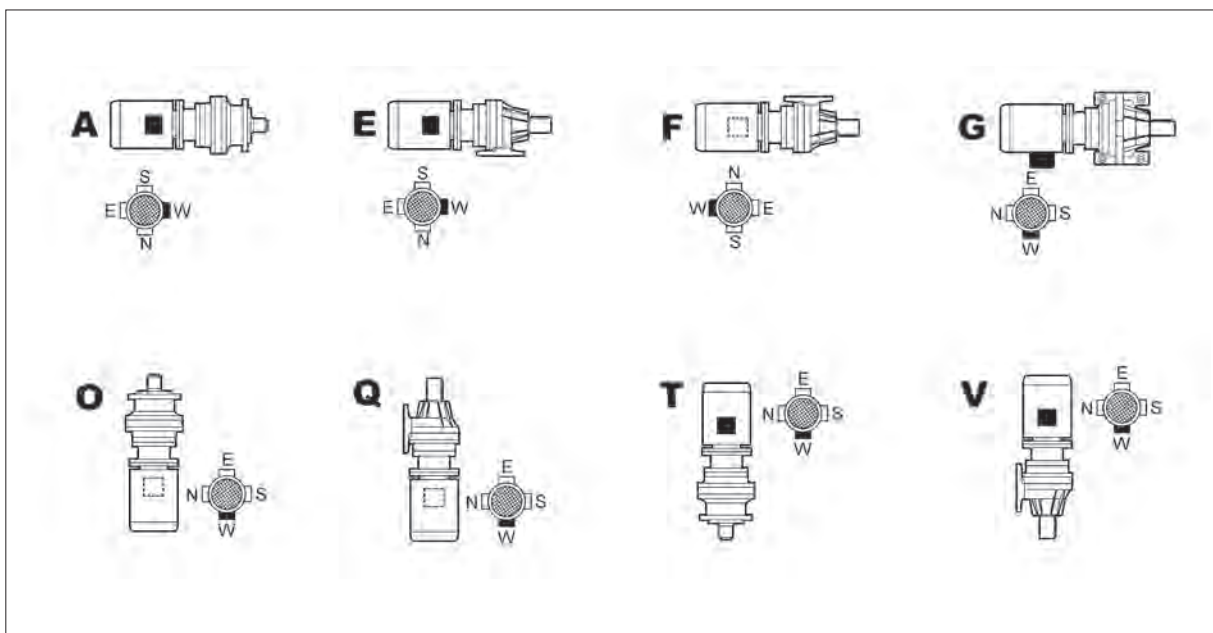
Taconite seals are recommended for environments characterised by the presence of abrasive dust or powders. Taconite seals incorporate a combination of sealing rings, labyrinths and a grease chamber. This option is available for **FP** and **FZ** version from size 314 to 325. For detailed information please contact our Technical Service.

24 MOUNTING POSITION

The product designation is only complete when the mounting position is also specified. Please refer to table (A18) for in-line gear units and to (A19) for right angle drives.

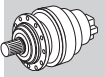
24.1 In-line units

(A 17)

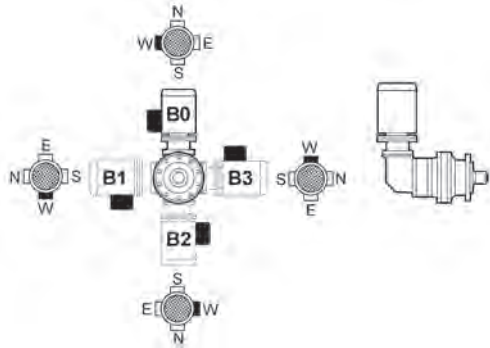


24.2 Right angle units

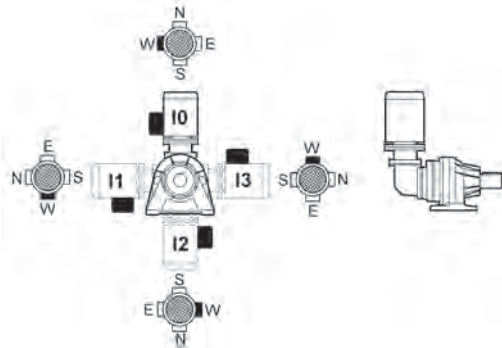
(A 18)



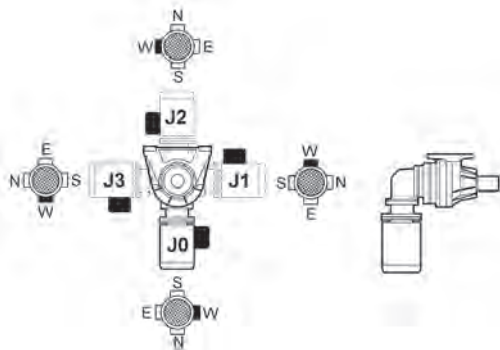
B0 - B1 - B2 - B3



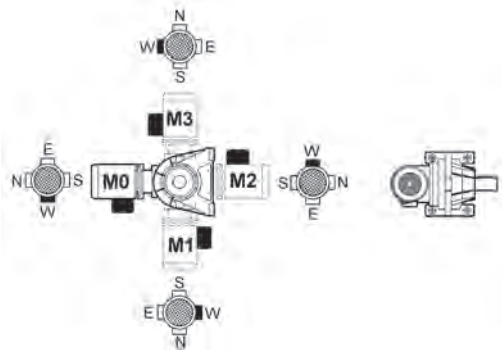
I0 - I1 - I2 - I3



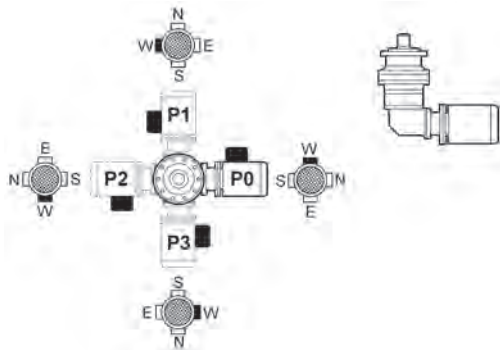
J0 - J1 - J2 - J3



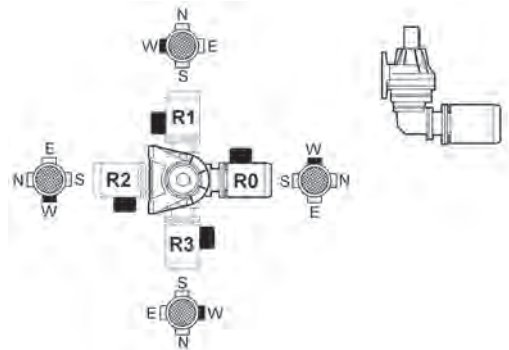
M0 - M1 - M2 - M3



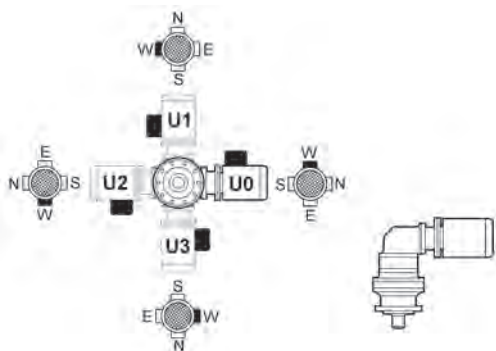
P0 - P1 - P2 - P3



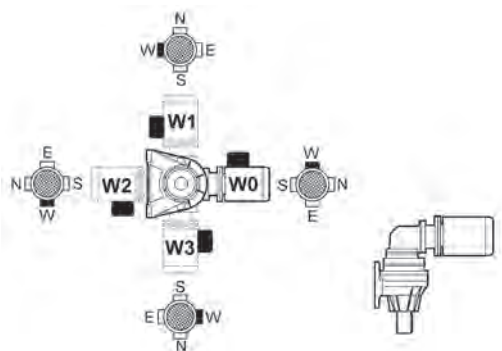
R0 - R1 - R2 - R3



U0 - U1 - U2 - U3

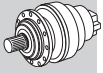


W0 - W1 - W2 - W3

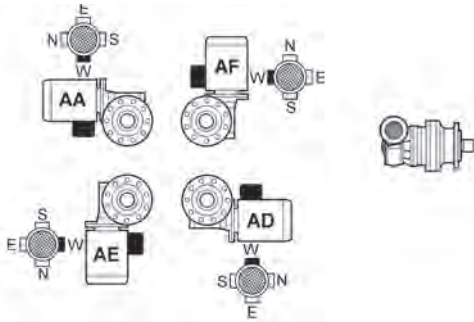


24.3 3/V Series

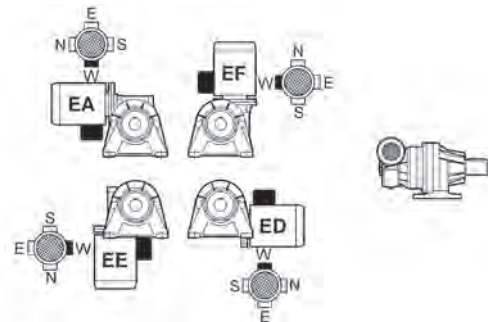
(A 19)



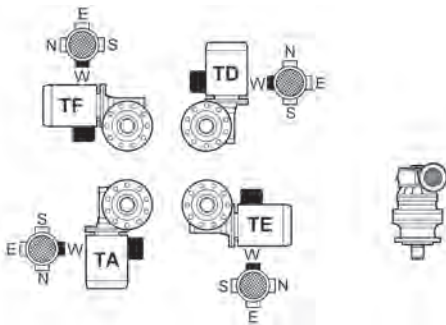
AA - AE - AF - AD



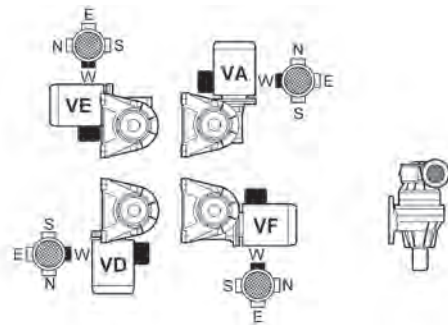
EA - EE - EF - ED



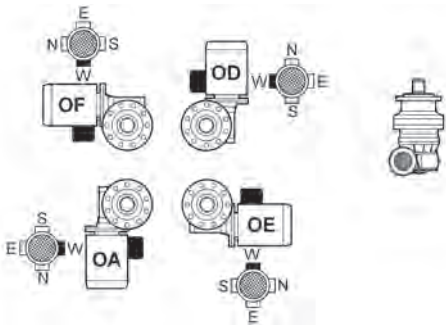
TA - TE - TF - TD



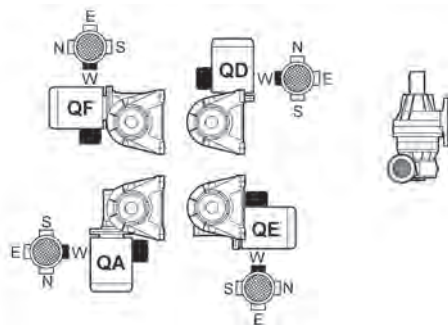
VA - VE - VF - VD



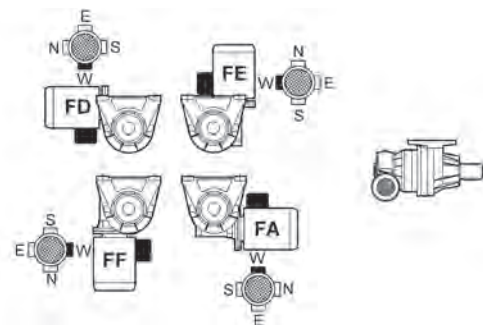
OA - OE - OF - OD



QA - QE - QF - QD

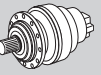


FA - FE - FF - FD

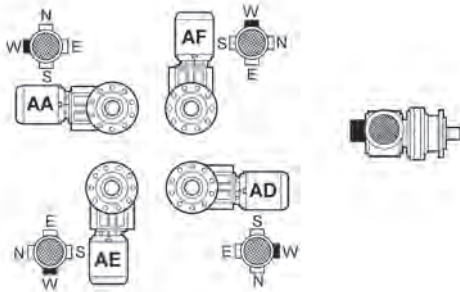


24.4 3/A Series

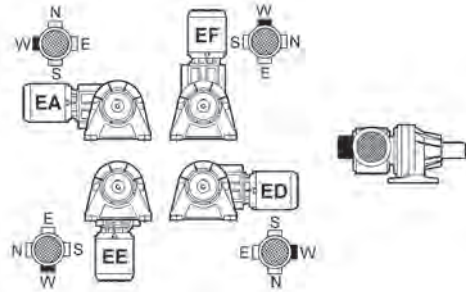
(A 20)



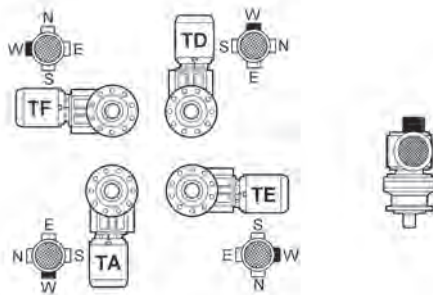
AA - AE - AF - AD



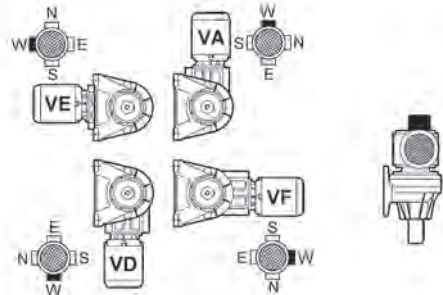
EA - EE - EF - ED



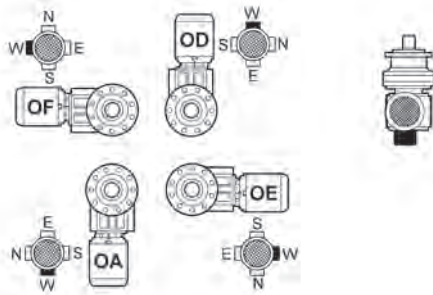
TA - TE - TF - TD



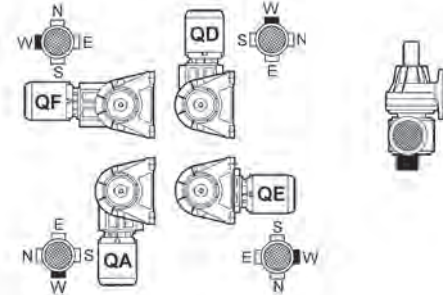
VA - VE - VF - VD



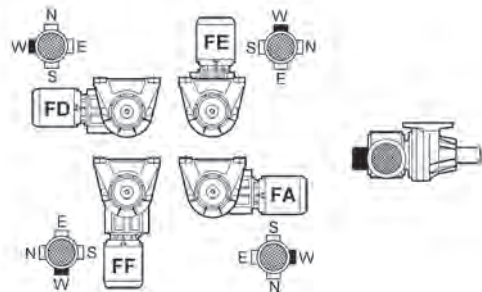
OA - OE - OF - OD

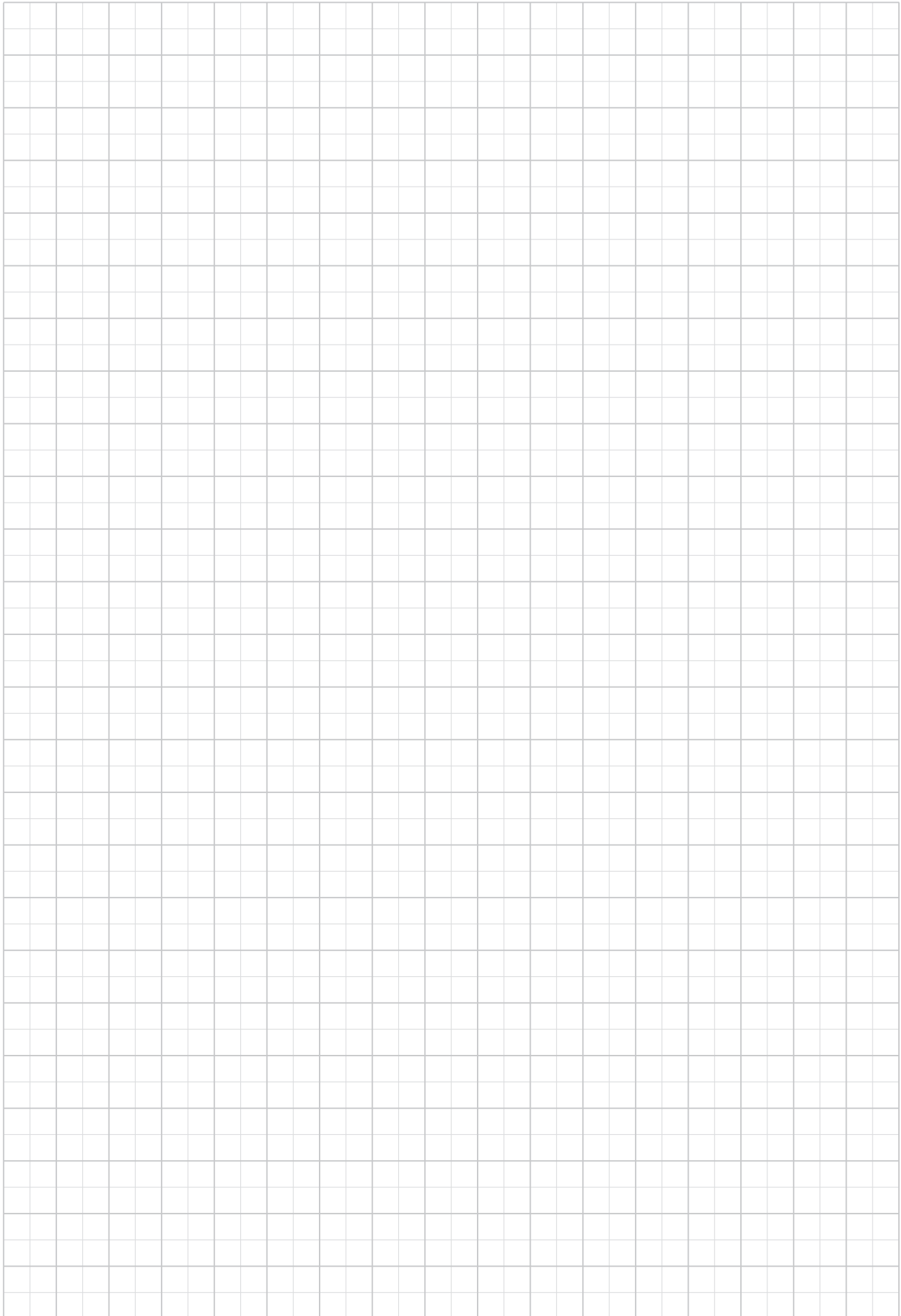
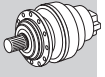


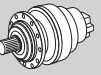
QA - QE - QF - QD



FA - FE - FF - FD







A GEARMOTOR SELECTION BY POWER

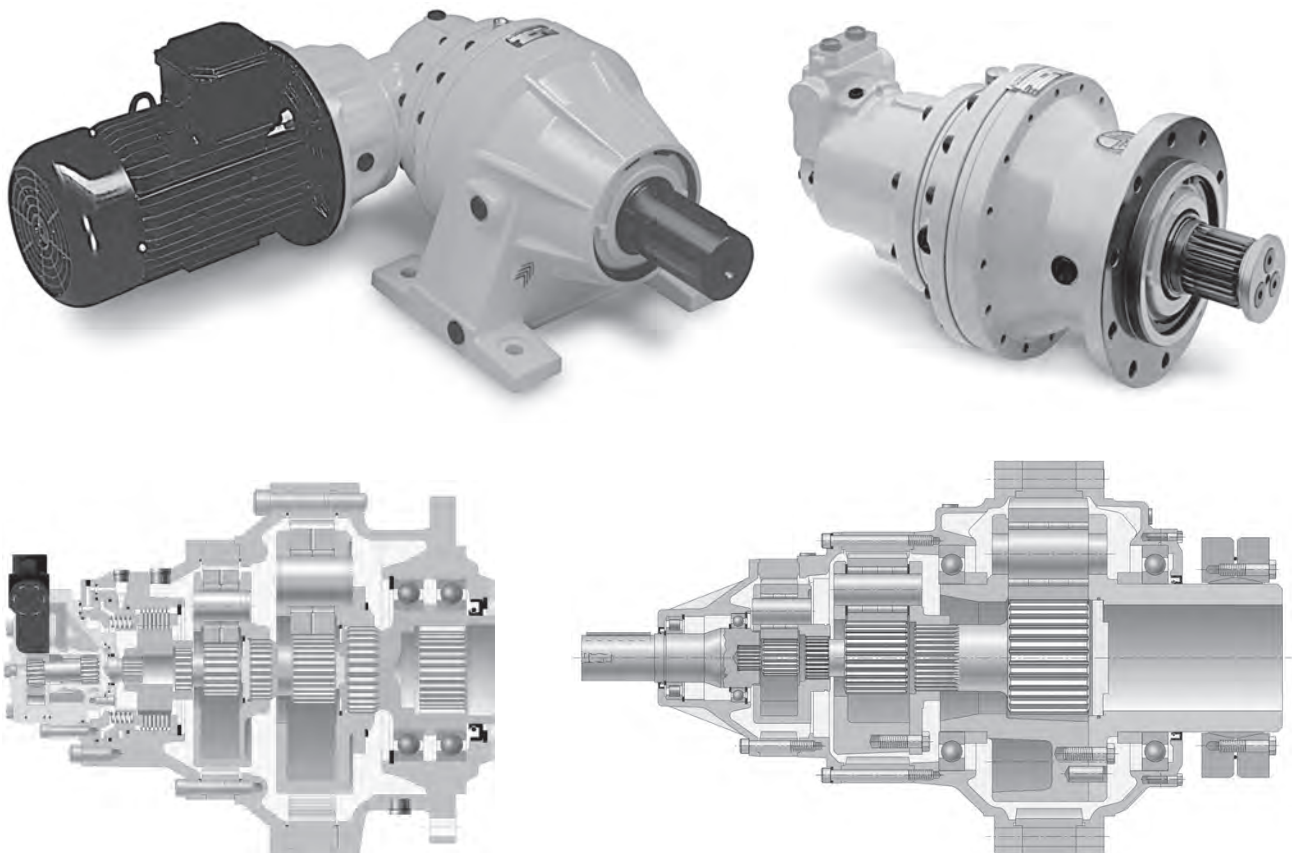
A

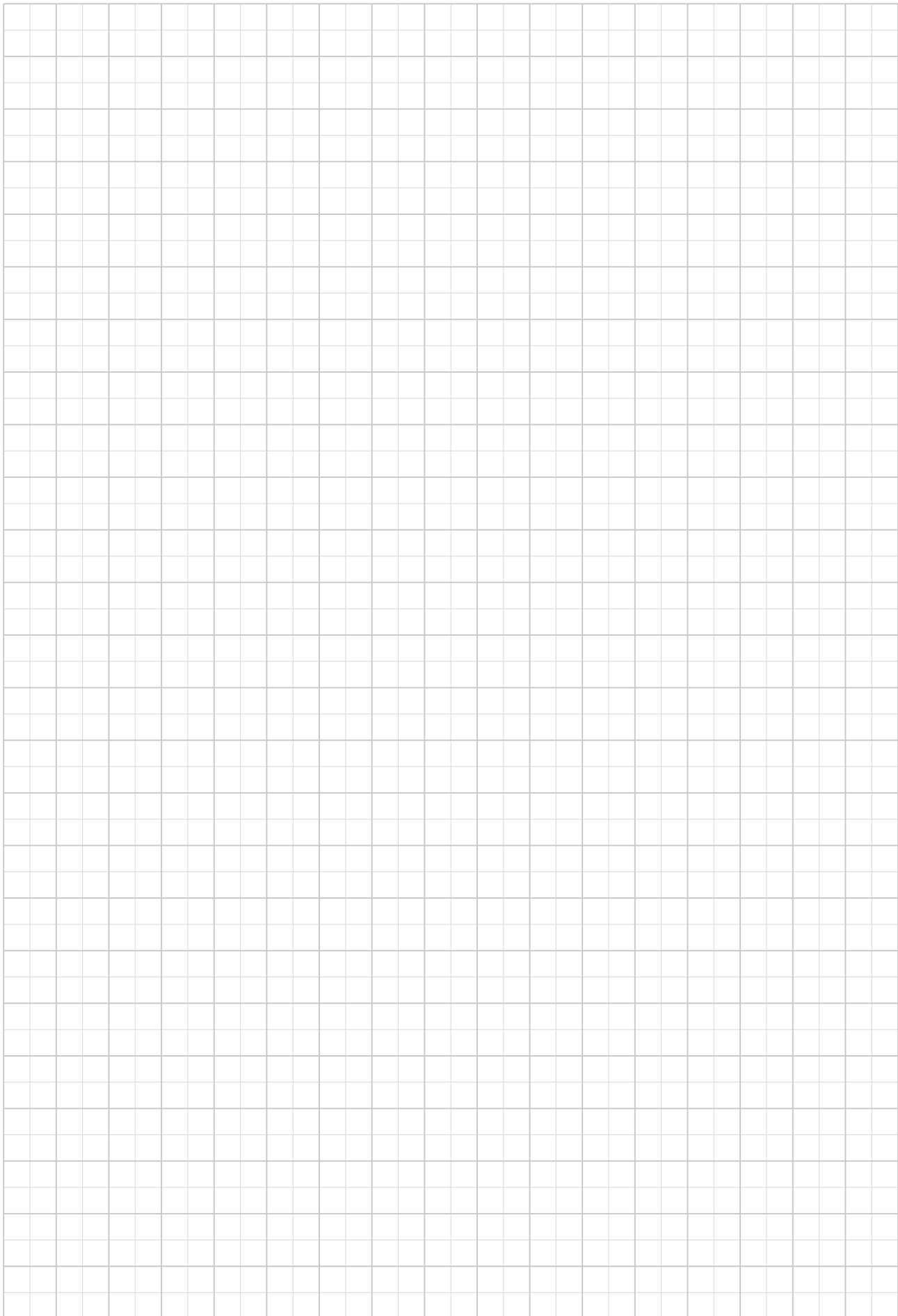
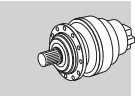
B GEARBOX SELECTION BY APPLICATION TORQUE

B

C GEARBOX SELECTION BY NUMBER OF WORKING CYCLES


C














25.1 300 L - 300 R GEARMOTOR RATING CHARTS

Reading the rating chart.




1


$P_1 = 20 \text{ hp}$															
n_2 rpm	T_2 lb-in	S	i	Pt hp								R n_2 [lbs]			
							IE2	IE3	IE2	IE3	NEMA	NHC/HC NPC/PC	HZ/PZ	FZ	
2.1	547,100	2.0	862	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	51,400	57,000	26,400	450
2.2	515,700	2.2	813	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	51,000	56,500	25,900	450
2.2	509,800	2.9	803	67.0		317R4	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	79,200	84,200	25,800	462
2.3	501,300	0.9	790	15.0	313L4		BE160L4	BX160LA4			N250TC	33,400	41,900	13,700	400
2.3	496,400	1.6	782	54.0		315R4	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	32,600	39,800	15,300	434




2




3




4




5




6




7




8




9




10



11



12



13

Thermal capacity lower than power applied

<p>1 Rating of electric motor connected to the gearbox</p>	<p>9 IEC motor size and pole number</p>
<p>2 Gearbox output speed</p>	<p>10 Integral motor frame size and pole number</p>
<p>Rated torque to the output shaft based on:</p> <p>3 - specified service factor - 10000 h theoretical lifetime</p>	<p>11 Size of the NEMA motor adaptor</p>
<p>4 Service factor</p>	<p>Permitted overhung loading on output shaft, based on:</p> <p>- service factor $f_s=1$ - 10000 h theoretical lifetime 12 - speed of output n_2</p>
<p>5 Gear ratio</p>	<p>For forces not applied at shaft midpoint, see diagrams provided in the specific gearbox overall dimensioning pages</p>
<p>6 Gearbox thermal capacity</p>	<p>13 Dimensions page. Gearmotor overall dimensions refer to matches with BONFIGLIOLI motors only</p>
<p>7 Frame size of the in-line gear unit</p>	
<p>Frame size of the right-angle gear unit. 8 NOTE: letters (B) (C) near size indication identify different angle reduction dimensions. See dimensions pages.</p>	









The selection of motors without brake takes into account the requirements of Regulation EC 640/2009 (see section **M** of this catalogue). When the motor rated power is above 0.75k (1HP)W, BN/M motors can be provided.






Considering that the Regulation EC 640/2009 shall not apply to the motors equipped with brake, the brakemotor selection takes into account BN/M motors only, without taking into account the rated power. BX, BE, MX and ME brakemotors are available on request.

A






P₁ = 0.33 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NHC/HC NPC/PC	Rn ₂ [lbs]			
							IE1	IE1	NEMA		HZ/PZ	FZ		
0.60	30,700	1.1	2799	8.0	305L4					N56C	11,500	14,500	5,400	294
0.60	32,000	1.9	2916	8.0	306L4					N56C	15,800	19,900	7,870	312
0.70	26,900	1.0	2453	8.0	304L4					N56C	11,200	14,200	5,400	276
0.80	24,900	1.1	2269	8.0	304L4					N56C	11,100	14,000	5,400	276
0.80	24,600	1.4	2243	8.0	305L4					N56C	11,100	14,000	5,400	294
0.80	25,600	2.4	2337	8.0	306L4					N56C	15,300	19,300	7,870	312
0.90	21,800	1.2	1991	8.0	303L4					N56C	10,900	13,800	5,400	258
0.90	21,800	1.5	1991	8.0	304L4					N56C	10,900	13,800	5,400	276
0.90	21,800	2.3	1991	8.0	305L4					N56C	10,900	13,800	5,400	294
0.90	22,700	2.7	2074	8.0	306L4					N56C	15,100	19,000	7,870	312
1.0	20,300	1.1	1854	8.0	303L4					N56C	10,800	13,600	5,400	258
1.0	19,900	1.3	1815	8.0	304L4					N56C	10,800	13,600	5,400	276
1.0	20,300	2.0	1854	8.0	305L4					N56C	10,800	13,600	5,400	294
1.1	17,500	1.0	1591	8.0	301L4					N56C	5,500	6,530	1,730	242
1.1	17,400	1.1	1586	8.0	303L4					N56C	10,600	13,300	5,170	258
1.1	17,400	2.0	1586	8.0	304L4					N56C	10,600	13,300	5,170	276
1.1	17,400	2.4	1586	8.0	305L4					N56C	10,600	13,300	5,170	294
1.3	15,200	1.0	1383	8.0	301L4					N56C	5,390	6,400	1,650	242
1.3	15,000	1.4	1370	8.0	303L4					N56C	10,300	13,100	4,930	258
1.3	14,700	2.2	1344	8.0	304L4					N56C	10,300	13,000	4,890	276
1.3	15,000	2.6	1370	8.0	305L4					N56C	10,300	13,100	4,930	294
1.4	14,000	1.5	1275	8.0	301L4					N56C	5,330	6,330	1,600	242
1.4	14,000	1.7	1278	8.0	303L4					N56C	10,200	12,900	4,810	258
1.4	13,900	2.5	1271	8.0	304L4					N56C	10,200	12,900	4,800	276
1.5	12,800	1.9	1164	8.0	304L4					N56C	10,100	12,800	4,670	276
1.6	12,200	1.1	1108	8.0	301L4					N56C	5,230	6,200	1,530	242
1.6	12,000	1.6	1098	8.0	303L4					N56C	10,000	12,700	4,580	258
1.8	11,200	1.8	1022	8.0	301L4					N56C	5,170	6,130	1,490	242
1.8	11,200	2.2	1019	8.0	303L4					N56C	9,910	12,500	4,460	258
1.8	11,400	3.0	1019	8.0	304L4					N56C	9,910	12,500	4,460	276
1.9	10,300	1.0	942	8.0	300L4					N56C	5,110	6,450	1,450	226
1.9	10,300	1.9	942	8.0	301L4					N56C	5,110	6,060	1,450	242
2.0	9,830	1.9	896	8.0	303L4					N56C	9,730	12,300	4,280	258
2.2	8,980	1.1	819	8.0	300L4					N56C	5,010	6,320	1,380	226
2.2	8,980	2.2	819	8.0	301L4					N56C	5,010	5,940	1,380	242
2.2	8,950	2.7	816	8.0	303L4					N56C	9,600	12,100	4,140	258
2.2	9,030	2.1	824	16.0		303R4				N56C	9,610	12,100	4,160	258
2.3	8,410	1.6	766	13.0		301R4				N56C	4,960	5,890	1,350	242
2.3	8,740	1.8	797	16.0		303R4				N56C	9,570	12,100	4,110	258
2.4	8,280	1.2	755	8.0	300L4					N56C	4,950	6,250	1,350	226
2.4	8,280	2.3	755	8.0	301L4					N56C	4,950	5,870	1,350	242
2.5	7,880	2.3	718	8.0	303L4					N56C	9,430	11,900	3,970	258

P₁ = 0.33 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
2.6	7,700	2.9	702	8.0	304L4		BN71A4		N56C	9,400	11,900	3,940	276
2.6	7,670	2.9	700	16.0		304R4	BN71A4		N56C	9,390	11,900	3,940	276
2.7	7,230	2.5	659	16.0		303R4	BN71A4		N56C	9,310	11,800	3,860	258
2.8	7,120	2.9	650	8.0	303L4		BN71A4		N56C	9,290	11,700	3,840	258
2.9	6,760	1.4	616	8.0	300L4		BN71A4		N56C	4,810	6,070	1,260	226
2.9	6,730	0.9	613	13.0		300R4	BN71A4		N56C	4,800	6,060	1,260	226
2.9	6,760	2.7	616	8.0	301L4		BN71A4		N56C	4,810	5,700	1,260	242
2.9	6,730	1.9	613	13.0		301R4	BN71A4		N56C	4,800	5,700	1,260	242
3.2	6,120	1.5	558	8.0	300L4		BN71A4		N56C	4,740	5,980	1,220	226
3.2	6,120	3.0	558	8.0	301L4		BN71A4		N56C	4,740	5,620	1,220	242
3.4	5,910	2.9	528	16.0		303R4			N56C	9,020	11,400	3,580	258
3.6	5,420	1.6	494	8.0	300L4		BN71A4		N56C	4,660	5,880	1,170	226
3.7	5,390	1.1	491	13.0		300R4	BN71A4		N56C	4,650	5,880	1,170	226
3.7	5,390	2.2	491	13.0		301R4	BN71A4		N56C	4,650	5,520	1,170	242
4.0	4,900	1.8	447	8.0	300L4		BN71A4		N56C	4,590	5,800	1,130	226
4.0	4,970	1.8	453	13.0		300R4	BN71A4		N56C	4,600	5,810	1,140	226
4.5	4,420	1.3	403	8.0	300L4		BN71A4		N56C	4,520	5,710	1,090	226
4.5	4,420	2.7	403	8.0	301L4		BN71A4		N56C	4,520	5,370	1,090	242
4.6	4,320	1.4	394	13.0		300R4	BN71A4		N56C	4,510	5,690	1,080	226
4.6	4,320	2.7	394	13.0		301R4	BN71A4		N56C	4,510	5,350	1,080	242
4.8	4,230	1.4	374	10.0	300L3		BN71A4		N56C	4,480	5,650	1,070	226
4.8	4,230	2.7	374	10.0	301L3		BN71A4		N56C	4,480	5,310	1,070	242
5.0	3,980	2.1	363	13.0		300R4	BN71A4		N56C	4,460	5,630	1,050	226
5.4	3,620	2.3	330	8.0	300L4		BN71A4		N56C	4,450	5,620	1,020	226
6.0	3,380	1.7	299	10.0	300L3		BN71A4		N56C	4,450	5,620	990	226
6.2	3,190	2.6	291	13.0		300R4	BN71A4		N56C	4,450	5,620	980	226
6.7	2,940	2.7	268	13.0		300R4	BN71A4		N56C	4,450	5,620	950	226
7.5	2,710	2.1	240	10.0	300L3		BN71A4		N56C	4,450	5,620	920	226
7.6	2,600	2.2	237	13.0		300R4	BN71A4		N56C	4,450	5,620	920	226
9.4	2,170	2.6	192	10.0	300L3		BN71A4		N56C	4,450	5,620	850	226

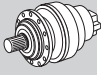
P₁ = 0.5 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
0.60	47,800	1.3	2916	8.0	306L4		BN71B4	M1SD4	N56C	15,800	19,900	7,870	312
0.70	39,700	2.5	2423	10.0	307L4		BN71B4	M1SD4	N56C	19,300	26,200	10,100	330
0.80	36,700	0.9	2243	8.0	305L4		BN71B4	M1SD4	N56C	11,100	14,000	5,400	294
0.80	38,300	1.6	2337	8.0	306L4		BN71B4	M1SD4	N56C	15,300	19,300	7,870	312
0.90	32,600	1.0	1991	8.0	304L4		BN71B4	M1SD4	N56C	10,900	13,800	5,400	276
0.90	32,600	1.5	1991	8.0	305L4		BN71B4	M1SD4	N56C	10,900	13,800	5,400	294
0.90	34,000	1.8	2074	8.0	306L4		BN71B4	M1SD4	N56C	15,100	19,000	7,870	312
1.0	30,400	1.4	1854	8.0	305L4		BN71B4	M1SD4	N56C	10,800	13,600	5,400	294
1.0	30,200	3.0	1843	8.0	306L4		BN71B4	M1SD4	N56C	14,800	18,700	7,870	312
1.1	26,000	1.3	1586	8.0	304L4		BN71B4	M1SD4	N56C	10,600	13,300	5,170	276
1.1	26,000	1.6	1586	8.0	305L4		BN71B4	M1SD4	N56C	10,600	13,300	5,170	294
1.1	26,100	2.9	1597	8.0	306L4		BN71B4	M1SD4	N56C	14,500	18,300	7,560	312
1.3	22,400	0.9	1370	8.0	303L4		BN71B4	M1SD4	N56C	10,300	13,100	4,930	258
1.3	22,000	1.5	1344	8.0	304L4		BN71B4	M1SD4	N56C	10,300	13,000	4,890	276
1.3	22,400	1.8	1370	8.0	305L4		BN71B4	M1SD4	N56C	10,300	13,100	4,930	294
1.4	20,900	1.0	1275	8.0	301L4		BN71B4	M1SD4	N56C	5,330	6,330	1,600	242
1.4	20,900	1.2	1278	8.0	303L4		BN71B4	M1SD4	N56C	10,200	12,900	4,810	258
1.4	20,800	1.6	1271	8.0	304L4		BN71B4	M1SD4	N56C	10,200	12,900	4,800	276
1.4	20,900	2.3	1278	8.0	305L4		BN71B4	M1SD4	N56C	10,200	12,900	4,810	294
1.5	19,100	1.3	1164	8.0	304L4		BN71B4	M1SD4	N56C	10,100	12,800	4,670	276



A







P₁ = 0.5 hp

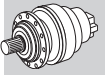


A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
					NHC/HC NPC/PC	HZ/PZ	FZ						
1.6	18,000	1.1	1098	8.0	303L4		BN71B4	M1SD4	N56C	10,000	12,700	4,580	258
1.6	18,000	2.1	1098	8.0	305L4		BN71B4	M1SD4	N56C	10,000	12,700	4,580	294
1.8	16,700	1.2	1022	8.0	301L4		BN71B4	M1SD4	N56C	5,170	6,130	1,490	242
1.8	16,700	1.4	1019	8.0	303L4		BN71B4	M1SD4	N56C	9,910	12,500	4,460	258
1.8	16,700	2.0	1019	8.0	304L4		BN71B4	M1SD4	N56C	9,910	12,500	4,460	276
1.8	16,700	2.9	1019	8.0	305L4		BN71B4	M1SD4	N56C	9,910	12,500	4,460	294
1.9	15,400	1.3	942	8.0	301L4		BN71B4	M1SD4	N56C	5,110	6,060	1,450	242
2.0	14,700	1.3	896	8.0	303L4		BN71B4	M1SD4	N56C	9,730	12,300	4,280	258
2.0	14,700	2.5	896	8.0	305L4		BN71B4	M1SD4	N56C	9,730	12,300	4,280	294
2.2	13,400	1.4	819	8.0	301L4		BN71B4	M1SD4	N56C	5,010	5,940	1,380	242
2.2	13,400	1.8	816	8.0	303L4		BN71B4	M1SD4	N56C	9,600	12,100	4,140	258
2.2	13,500	1.4	824	16.0		303R4	BN71B4	M1SD4	N56C	9,610	12,100	4,160	258
2.2	13,400	2.5	816	8.0	304L4		BN71B4	M1SD4	N56C	9,600	12,100	4,140	276
2.2	13,500	2.7	824	16.0		305R4	BN71B4	M1SD4	N56C	9,610	12,100	4,160	294
2.3	12,600	1.0	766	13.0		301R4	BN71B4	M1SD4	N56C	4,960	5,890	1,350	242
2.3	13,100	1.2	797	16.0		303R4	BN71B4	M1SD4	N56C	9,570	12,100	4,110	258
2.3	13,100	2.3	797	16.0		305R4	BN71B4	M1SD4	N56C	9,570	12,100	4,110	294
2.4	12,400	1.5	755	8.0	301L4		BN71B4	M1SD4	N56C	4,950	5,870	1,350	242
2.5	11,800	1.6	718	8.0	303L4		BN71B4	M1SD4	N56C	9,430	11,900	3,970	258
2.6	11,500	2.0	702	8.0	304L4		BN71B4	M1SD4	N56C	9,400	11,900	3,940	276
2.6	11,500	2.0	700	16.0		304R4	BN71B4	M1SD4	N56C	9,390	11,900	3,940	276
2.7	10,800	1.7	659	16.0		303R4	BN71B4	M1SD4	N56C	9,310	11,800	3,860	258
2.8	10,600	1.9	650	8.0	303L4		BN71B4	M1SD4	N56C	9,290	11,700	3,840	258
2.8	10,600	2.9	650	8.0	304L4		BN71B4	M1SD4	N56C	9,290	11,700	3,840	276
2.9	10,100	0.9	616	8.0	300L4		BN71B4	M1SD4	N56C	4,810	6,070	1,260	226
2.9	10,100	1.8	616	8.0	301L4		BN71B4	M1SD4	N56C	4,810	5,700	1,260	242
2.9	10,000	1.3	613	13.0		301R4	BN71B4	M1SD4	N56C	4,800	5,700	1,260	242
3.2	9,140	1.0	558	8.0	300L4		BN71B4	M1SD4	N56C	4,740	5,980	1,220	226
3.2	9,140	2.0	558	8.0	301L4		BN71B4	M1SD4	N56C	4,740	5,620	1,220	242
3.2	9,110	2.7	556	8.0	303L4		BN71B4	M1SD4	N56C	9,090	11,500	3,650	258
3.2	9,280	2.3	567	16.0		303R4	BN71B4	M1SD4	N56C	9,110	11,500	3,670	258
3.2	9,160	2.4	560	16.0		304R4	BN71B4	M1SD4	N56C	9,100	11,500	3,660	276
3.4	8,650	2.0	528	16.0		303R4	BN71B4	M1SD4	N56C	9,020	11,400	3,580	258
3.6	8,090	1.1	494	8.0	300L4		BN71B4	M1SD4	N56C	4,660	5,880	1,170	226
3.6	8,090	2.2	494	8.0	301L4		BN71B4	M1SD4	N56C	4,660	5,530	1,170	242
3.7	8,050	1.5	491	13.0		301R4	BN71B4	M1SD4	N56C	4,650	5,520	1,170	242
3.7	8,060	2.9	492	8.0	303L4		BN71B4	M1SD4	N56C	8,930	11,300	3,500	258
4.0	7,320	1.2	447	8.0	300L4		BN71B4	M1SD4	N56C	4,590	5,800	1,130	226
4.0	7,420	1.2	453	13.0		300R4	BN71B4	M1SD4	N56C	4,600	5,810	1,140	226
4.0	7,320	2.4	447	8.0	301L4		BN71B4	M1SD4	N56C	4,590	5,450	1,130	242
4.0	7,420	2.2	453	13.0		301R4	BN71B4	M1SD4	N56C	4,600	5,460	1,140	242
4.0	7,400	2.7	452	16.0		303R4	BN71B4	M1SD4	N56C	8,820	11,100	3,400	258
4.2	7,190	3.0	426	10.0	304L3		BN71B4	M1SD4	N56C	8,750	11,100	3,340	276
4.4	6,770	3.0	413	8.0	303L4		BN71B4	M1SD4	N56C	8,710	11,000	3,300	258
4.5	6,600	1.8	403	8.0	301L4		BN71B4	M1SD4	N56C	4,520	5,370	1,090	242
4.5	6,780	2.4	402	10.0	303L3		BN71B4	M1SD4	N56C	8,680	11,000	3,270	258
4.6	6,450	0.9	394	13.0		300R4	BN71B4	M1SD4	N56C	4,510	5,690	1,080	226
4.6	6,450	1.8	394	13.0		301R4	BN71B4	M1SD4	N56C	4,510	5,350	1,080	242
4.6	6,560	2.2	389	10.0	303L3		BN71B4	M1SD4	N56C	8,640	10,900	3,240	258
4.6	6,390	2.6	390	16.0		303R4	BN71B4	M1SD4	N56C	8,640	10,900	3,240	258
4.8	6,310	0.9	374	10.0	300L3		BN71B4	M1SD4	N56C	4,480	5,650	1,070	226
4.8	6,310	1.8	374	10.0	301L3		BN71B4	M1SD4	N56C	4,480	5,310	1,070	242
5.0	5,940	1.4	363	13.0		300R4	BN71B4	M1SD4	N56C	4,460	5,630	1,050	226
5.0	5,940	2.8	363	13.0		301R4	BN71B4	M1SD4	N56C	4,460	5,290	1,050	242
5.4	5,410	1.5	330	8.0	300L4		BN71B4	M1SD4	N56C	4,450	5,620	1,020	226
5.6	5,430	3.0	321	10.0	303L3		BN71B4	M1SD4	N56C	8,540	10,800	3,040	258
6.0	5,050	1.1	299	10.0	300L3		BN71B4	M1SD4	N56C	4,450	5,620	990	226







P₁ = 0.5 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NEMA	Rn ₂ [lbs]				
											NHC/HC NPC/PC	HZ/PZ	FZ		
6.0	5,050	2.3	299	10.0	301L3		BN71B4	M1SD4	N56C		4,450	5,280	990	242	
6.2	4,760	1.7	291	13.0			300R4	BN71B4	M1SD4	N56C		4,450	5,620	980	226
6.7	4,390	1.8	268	13.0			300R4	BN71B4	M1SD4	N56C		4,450	5,620	950	226
7.5	4,050	1.4	240	10.0	300L3		BN71B4	M1SD4	N56C		4,450	5,620	920	226	
7.5	4,050	2.8	240	10.0	301L3		BN71B4	M1SD4	N56C		4,450	5,280	920	242	
7.6	3,890	1.5	237	13.0		300R4	BN71B4	M1SD4	N56C		4,450	5,620	920	226	
7.6	3,890	3.0	237	13.0		301R4	BN71B4	M1SD4	N56C		4,450	5,280	920	242	
8.1	3,730	2.1	221	10.0	300L3		BN71B4	M1SD4	N56C		4,450	5,620	890	226	
8.4	3,520	2.2	215	13.0		300R4	BN71B4	M1SD4	N56C		4,450	5,620	890	226	
9.4	3,240	1.8	192	10.0	300L3		BN71B4	M1SD4	N56C		4,450	5,620	850	226	
10.2	2,990	2.5	177	10.0	300L3		BN71B4	M1SD4	N56C		4,430	5,590	830	226	
10.3	2,870	2.6	176	13.0		300R4	BN71B4	M1SD4	N56C		4,420	5,580	830	226	
11.3	2,600	2.9	159	13.0		300R4	BN71B4	M1SD4	N56C		4,290	5,410	800	226	
12.6	2,350	2.5	143	13.0		300R4	BN71B4	M1SD4	N56C		4,160	5,250	770	226	
13.6	2,240	2.2	133	16.0		300R3	BN71B4	M1SD4	N56C		4,060	5,130	750	226	
15.5	1,960	2.9	116	10.0	300L3		BN71B4	M1SD4	N56C		3,900	4,920	720	226	

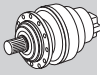


A

P₁ = 0.75 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NEMA	Rn ₂ [lbs]			
											NHC/HC NPC/PC	HZ/PZ	FZ	
0.70	59,200	1.6	2423	10.0	307L4		BN80A4	M1LA4	N56C		19,300	26,200	10,100	330
0.70	59,200	2.5	2423	10.0	309L4		BN80A4	M1LA4	N56C		19,300	26,200	8,090	348
0.80	57,100	1.1	2337	8.0	306L4		BN80A4	M1LA4	N56C		15,300	19,300	7,870	312
0.90	48,700	1.0	1991	8.0	305L4		BN80A4	M1LA4	N56C		10,900	13,800	5,400	294
0.90	50,700	1.2	2074	8.0	306L4		BN80A4	M1LA4	N56C		15,100	19,000	7,870	312
0.90	49,900	2.5	2041	10.0	307L4		BN80A4	M1LA4	N56C		18,800	25,600	10,100	330
1.0	45,300	0.9	1854	8.0	305L4		BN80A4	M1LA4	N56C		10,800	13,600	5,400	294
1.0	45,100	2.0	1843	8.0	306L4		BN80A4	M1LA4	N56C		14,800	18,700	7,870	312
1.1	38,200	0.9	1586	8.0	304L4				N56C		10,600	13,300	5,170	276
1.1	38,800	1.1	1586	8.0	305L4		BN80A4	M1LA4	N56C		10,600	13,300	5,170	294
1.1	39,000	1.9	1597	8.0	306L4		BN80A4	M1LA4	N56C		14,500	18,300	7,560	312
1.2	36,000	2.4	1475	8.0	306L4		BN80A4	M1LA4	N56C		14,400	18,100	7,360	312
1.3	32,800	1.0	1344	8.0	304L4		BN80A4	M1LA4	N56C		10,300	13,000	4,890	276
1.3	33,500	1.2	1370	8.0	305L4		BN80A4	M1LA4	N56C		10,300	13,100	4,930	294
1.4	31,100	1.1	1271	8.0	304L4		BN80A4	M1LA4	N56C		10,200	12,900	4,800	276
1.4	31,200	1.5	1278	8.0	305L4		BN80A4	M1LA4	N56C		10,200	12,900	4,810	294
1.4	31,300	2.3	1279	8.0	306L4		BN80A4	M1LA4	N56C		14,100	17,700	7,020	312
1.6	26,800	1.4	1098	8.0	305L4		BN80A4	M1LA4	N56C		10,000	12,700	4,580	294
1.6	26,800	2.6	1095	8.0	306L4		BN80A4	M1LA4	N56C		13,800	17,300	6,670	312
1.8	24,900	1.0	1019	8.0	303L4		BN80A4	M1LA4	N56C		9,910	12,500	4,460	258
1.8	24,900	1.4	1019	8.0	304L4		BN80A4	M1LA4	N56C		9,910	12,500	4,460	276
1.8	24,900	1.9	1019	8.0	305L4		BN80A4	M1LA4	N56C		9,910	12,500	4,460	294
2.0	21,900	1.7	896	8.0	305L4		BN80A4	M1LA4	N56C		9,730	12,300	4,280	294
2.2	20,000	1.0	819	8.0	301L4		BN80A4	M1LA4	N56C		5,010	5,940	1,380	242
2.2	20,000	1.2	816	8.0	303L4		BN80A4	M1LA4	N56C		9,600	12,100	4,140	258
2.2	20,100	0.9	824	16.0		303R4	BN80A4	M1LA4	N56C		9,610	12,100	4,160	258
2.2	20,000	1.7	816	8.0	304L4		BN80A4	M1LA4	N56C		9,600	12,100	4,140	276
2.2	20,000	2.4	816	8.0	305L4		BN80A4	M1LA4	N56C		9,600	12,100	4,140	294
2.2	20,100	1.8	824	16.0		305R4	BN80A4	M1LA4	N56C		9,610	12,100	4,160	294
2.2	20,300	2.6	830	16.0		306R4	BN80A4	M1LA4	N56C		13,200	16,700	6,080	312
2.3	19,500	1.5	797	16.0		305R4	BN80A4	M1LA4	N56C		9,570	12,100	4,110	294
2.4	18,500	1.0	755	8.0	301L4		BN80A4	M1LA4	N56C		4,950	5,870	1,350	242
2.5	17,600	1.0	718	8.0	303L4		BN80A4	M1LA4	N56C		9,430	11,900	3,970	258
2.5	17,600	2.0	718	8.0	305L4		BN80A4	M1LA4	N56C		9,430	11,900	3,970	294






P₁ = 0.75 hp



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n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]				
					NHC/HC NPC/PC	HZ/PZ	FZ	9,400	11,900	3,940	276			
2.6	17,200	1.3	702	8.0	304L4		BN80A4	M1LA4	N56C		9,400	11,900	3,940	276
2.6	17,100	1.3	700	16.0		304R4	BN80A4	M1LA4	N56C		9,390	11,900	3,940	276
2.7	16,100	1.1	659	16.0		303R4	BN80A4	M1LA4	N56C		9,310	11,800	3,860	258
2.7	16,100	2.2	659	16.0		305R4	BN80A4	M1LA4	N56C		9,310	11,800	3,860	294
2.8	15,900	1.3	650	8.0	303L4		BN80A4	M1LA4	N56C		9,290	11,700	3,840	258
2.8	15,900	2.0	650	8.0	304L4		BN80A4	M1LA4	N56C		9,290	11,700	3,840	276
2.8	15,900	2.5	650	8.0	305L4		BN80A4	M1LA4	N56C		9,290	11,700	3,840	294
2.9	15,100	1.2	616	8.0	301L4		BN80A4	M1LA4	N56C		4,810	5,700	1,260	242
3.2	13,600	1.3	558	8.0	301L4		BN80A4	M1LA4	N56C		4,740	5,620	1,220	242
3.2	13,600	1.8	556	8.0	303L4		BN80A4	M1LA4	N56C		9,090	11,500	3,650	258
3.2	13,900	1.5	567	16.0		303R4	BN80A4	M1LA4	N56C		9,110	11,500	3,670	258
3.2	13,600	2.4	556	8.0	304L4		BN80A4	M1LA4	N56C		9,090	11,500	3,650	276
3.2	13,700	1.6	560	16.0		304R4	BN80A4	M1LA4	N56C		9,100	11,500	3,660	276
3.4	12,900	1.4	528	16.0		303R4	BN80A4	M1LA4	N56C		9,020	11,400	3,580	258
3.4	12,900	2.6	528	16.0		305R4	BN80A4	M1LA4	N56C		9,020	11,400	3,580	294
3.6	12,100	1.5	494	8.0	301L4		BN80A4	M1LA4	N56C		4,660	5,530	1,170	242
3.7	12,000	1.0	491	13.0		301R4	BN80A4	M1LA4	N56C		4,650	5,520	1,170	242
3.7	12,000	2.0	492	8.0	303L4		BN80A4	M1LA4	N56C		8,930	11,300	3,500	258
3.7	12,000	2.7	492	8.0	304L4		BN80A4	M1LA4	N56C		8,930	11,300	3,500	276
4.0	10,900	1.6	447	8.0	301L4		BN80A4	M1LA4	N56C		4,590	5,450	1,130	242
4.0	11,100	1.5	453	13.0		301R4	BN80A4	M1LA4	N56C		4,600	5,460	1,140	242
4.0	10,900	2.3	446	8.0	303L4		BN80A4	M1LA4	N56C		8,810	11,100	3,390	258
4.0	11,000	1.8	452	16.0		303R4	BN80A4	M1LA4	N56C		8,820	11,100	3,400	258
4.0	11,000	2.9	452	16.0		304R4	BN80A4	M1LA4	N56C		8,820	11,100	3,400	276
4.2	10,700	2.0	426	10.0	304L3		BN80A4	M1LA4	N56C		8,750	11,100	3,340	276
4.4	10,100	2.0	413	8.0	303L4		BN80A4	M1LA4	N56C		8,710	11,000	3,300	258
4.4	10,100	2.6	413	8.0	304L4		BN80A4	M1LA4	N56C		8,710	11,000	3,300	276
4.4	10,100	2.1	414	16.0		304R4	BN80A4	M1LA4	N56C		8,710	11,000	3,300	276
4.5	9,850	1.2	403	8.0	301L4		BN80A4	M1LA4	N56C		4,520	5,370	1,090	242
4.5	10,100	1.6	402	10.0	303L3		BN80A4	M1LA4	N56C		8,680	11,000	3,270	258
4.6	9,620	1.2	394	13.0		301R4	BN80A4	M1LA4	N56C		4,510	5,350	1,080	242
4.6	9,800	1.5	389	10.0	303L3		BN80A4	M1LA4	N56C		8,640	10,900	3,240	258
4.6	9,540	1.7	390	16.0		303R4	BN80A4	M1LA4	N56C		8,640	10,900	3,240	258
4.6	9,800	2.8	389	10.0	305L3		BN80A4	M1LA4	N56C		8,640	10,900	3,240	294
4.8	9,420	1.2	374	10.0	301L3		BN80A4	M1LA4	N56C		4,480	5,310	1,070	242
4.9	8,900	2.2	364	16.0		303R4	BN80A4	M1LA4	N56C		8,560	10,800	3,170	258
4.9	8,900	2.8	364	16.0		304R4	BN80A4	M1LA4	N56C		8,560	10,800	3,170	276
5.0	8,870	0.9	363	13.0		300R4	BN80A4	M1LA4	N56C		4,460	5,630	1,050	226
5.0	8,870	1.9	363	13.0		301R4	BN80A4	M1LA4	N56C		4,460	5,290	1,050	242
5.3	8,600	2.5	341	10.0	304L3		BN80A4	M1LA4	N56C		8,540	10,800	3,100	276
5.3	8,250	2.6	338	16.0		304R4	BN80A4	M1LA4	N56C		8,540	10,800	3,090	276
5.4	8,080	1.0	330	8.0	300L4		BN80A4	M1LA4	N56C		4,450	5,620	1,020	226
5.4	8,080	2.0	330	8.0	301L4		BN80A4	M1LA4	N56C		4,450	5,280	1,020	242
5.4	8,200	2.4	336	16.0		303R4	BN80A4	M1LA4	N56C		8,540	10,800	3,080	258
5.6	8,100	2.0	321	10.0	303L3		BN80A4	M1LA4	N56C		8,540	10,800	3,040	258
5.8	7,640	2.1	313	16.0		303R4	BN80A4	M1LA4	N56C		8,540	10,800	3,010	258
6.0	7,540	1.5	299	10.0	301L3		BN80A4	M1LA4	N56C		4,450	5,280	990	242
6.2	7,110	1.1	291	13.0		300R4	BN80A4	M1LA4	N56C		4,450	5,620	980	226
6.2	7,110	2.3	291	13.0		301R4	BN80A4	M1LA4	N56C		4,450	5,280	980	242
6.5	6,970	2.8	277	10.0	303L3		BN80A4	M1LA4	N56C		8,540	10,800	2,890	258
6.7	6,560	1.2	268	13.0		300R4	BN80A4	M1LA4	N56C		4,450	5,620	950	226
6.7	6,560	2.5	268	13.0		301R4	BN80A4	M1LA4	N56C		4,450	5,280	950	242
7.0	6,490	2.5	258	10.0	303L3		BN80A4	M1LA4	N56C		8,540	10,800	2,820	258
7.1	6,240	2.6	255	16.0		303R4	BN80A4	M1LA4	N56C		8,540	10,800	2,810	258
7.5	6,040	1.0	240	10.0	300L3		BN80A4	M1LA4	N56C		4,450	5,620	920	226
7.5	6,040	1.9	240	10.0	301L3		BN80A4	M1LA4	N56C		4,450	5,280	920	242
7.6	5,800	1.0	237	13.0		300R4	BN80A4	M1LA4	N56C		4,450	5,620	920	226

P₁ = 0.75 hp

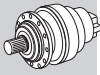
n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]				
										NHC/HC NPC/PC	HZ/PZ	FZ		
7.6	5,800	2.0	237	13.0			301R4	BN80A4	M1LA4	N56C	4,450	5,280	920	242
7.8	5,650	2.9	231	16.0			303R4	BN80A4	M1LA4	N56C	8,540	10,800	2,720	258
8.1	5,570	1.4	221	10.0			300L3	BN80A4	M1LA4	N56C	4,450	5,620	890	226
8.1	5,570	2.8	221	10.0			301L3	BN80A4	M1LA4	N56C	4,450	5,280	890	242
8.4	5,250	1.5	215	13.0			300R4	BN80A4	M1LA4	N56C	4,450	5,620	890	226
8.4	5,250	3.0	215	13.0			301R4	BN80A4	M1LA4	N56C	4,450	5,280	890	242
9.4	4,840	1.2	192	10.0			300L3	BN80A4	M1LA4	N56C	4,450	5,620	850	226
9.4	4,840	2.4	192	10.0			301L3	BN80A4	M1LA4	N56C	4,450	5,280	850	242
10.2	4,460	1.7	177	10.0			300L3	BN80A4	M1LA4	N56C	4,430	5,590	830	226
10.3	4,290	1.8	176	13.0			300R4	BN80A4	M1LA4	N56C	4,420	5,580	830	226
11.3	3,880	2.0	159	13.0			300R4	BN80A4	M1LA4	N56C	4,290	5,410	800	226
12.6	3,500	1.6	143	13.0			300R4	BN80A4	M1LA4	N56C	4,160	5,250	770	226
12.7	3,580	2.1	142	10.0			300L3	BN80A4	M1LA4	N56C	4,140	5,230	770	226
13.6	3,350	1.5	133	16.0			300R3	BN80A4	M1LA4	N56C	4,060	5,130	750	226
13.8	3,300	2.3	131	10.0			300L3	BN80A4	M1LA4	N56C	4,050	5,110	750	226
13.9	3,170	2.4	130	13.0			300R4	BN80A4	M1LA4	N56C	4,030	5,090	750	226
15.5	2,920	2.0	116	10.0			300L3	BN80A4	M1LA4	N56C	3,900	4,920	720	226
16.9	2,680	2.1	106	16.0			300R3	BN80A4	M1LA4	N56C	3,800	4,800	700	226
17.0	2,590	2.9	106	13.0			300R4	BN80A4	M1LA4	N56C	3,800	4,790	700	226
17.2	2,640	2.9	105	10.0			300L3	BN80A4	M1LA4	N56C	3,790	4,780	700	226
21.1	2,150	2.7	85.2	16.0			300R3	BN80A4	M1LA4	N56C	3,560	4,490	650	226
27.8	1,680	2.9	64.8	10.0			300L2	BN80A4	M1LA4	N56C	3,280	4,140	590	226









P₁ = 1 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]					
										NHC/HC NPC/PC	HZ/PZ	FZ			
0.70	77,800	1.3	2423	10.0			307L4	BE80B4	ME2SB4	N56C	19,300	26,200	10,100	330	
0.70	77,800	1.9	2423	10.0			309L4	BE80B4	ME2SB4	N56C	19,300	26,200	8,090	348	
0.70	81,100	2.8	2524	15.0			310L4	BE80B4	ME2SB4	N56C	22,700	29,400	14,600	364	
0.90	66,600	0.9	2074	8.0			306L4	BE80B4	ME2SB4	N56C	15,100	19,000	7,870	312	
0.90	65,600	1.9	2041	10.0			307L4	BE80B4	ME2SB4	N56C	18,800	25,600	10,100	330	
0.90	64,300	2.3	2003	10.0			309L4	BE80B4	ME2SB4	N56C	18,800	25,500	8,090	348	
1.0	59,200	1.5	1843	8.0			306L4	BE80B4	ME2SB4	N56C	14,800	18,700	7,870	312	
1.0	56,800	2.4	1767	10.0			307L4	BE80B4	ME2SB4	N56C	18,400	25,100	10,100	330	
1.0	55,300	2.7	1723	10.0			309L4	BE80B4	ME2SB4	N56C	18,400	25,000	7,980	348	
1.1	51,300	1.5	1597	8.0			306L4	BE80B4	ME2SB4	N56C	14,500	18,300	7,560	312	
1.1	51,100	2.6	1591	10.0			307L4	BE80B4	ME2SB4	N56C	18,200	24,700	9,710	330	
1.1	51,600	2.9	1605	10.0			309L4	BE80B4	ME2SB4	N56C	18,200	24,700	7,790	348	
1.2	47,400	1.9	1475	8.0			306L4	BE80B4	ME2SB4	N56C	14,400	18,100	7,360	312	
1.4	41,100	1.2	1278	8.0			305L4	BE80B4	ME2SB4	N56C	10,200	12,900	4,810	294	
1.4	41,100	1.8	1279	8.0			306L4	BE80B4	ME2SB4	N56C	14,100	17,700	7,020	312	
1.4	40,900	2.7	1275	10.0			307L4	BE80B4	ME2SB4	N56C	17,600	23,900	9,020	330	
1.6	35,300	1.1	1098	8.0			305L4	BE80B4	ME2SB4	N56C	10,000	12,700	4,580	294	
1.6	35,200	1.9	1095	8.0			306L4	BE80B4	ME2SB4	N56C	13,800	17,300	6,670	312	
1.8	32,700	1.0	1019	8.0			304L4	BE80B4	ME2SB4	N56C	9,910	12,500	4,460	276	
1.8	32,700	1.5	1019	8.0			305L4	BE80B4	ME2SB4	N56C	9,910	12,500	4,460	294	
1.8	32,600	2.6	1015	8.0			306L4	BE80B4	ME2SB4	N56C	13,600	17,200	6,500	312	
2.0	28,800	1.3	896	8.0			305L4	BE80B4	ME2SB4	N56C	9,730	12,300	4,280	294	
2.1	28,200	2.4	877	8.0			306L4	BE80B4	ME2SB4	N56C	13,300	16,800	6,190	312	
2.2	26,200	0.9	816	8.0			303L4	BE80B4	ME2SB4	N56C	9,600	12,100	4,140	258	
2.2	26,200	1.3	816	8.0			304L4	BE80B4	ME2SB4	N56C	9,600	12,100	4,140	276	
2.2	26,200	1.8	816	8.0			305L4	BE80B4	ME2SB4	N56C	9,600	12,100	4,140	294	
2.2	26,500	1.4	824	16.0				305R4	BE80B4	ME2SB4	N56C	9,610	12,100	4,160	294







P₁ = 1 hp









A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NHC/HC NPC/PC	Rn ₂ [lbs]			
											HZ/PZ	FZ		
2.2	26,000	2.6	809	8.0	306L4		BE80B4	ME2SB4	N56C		13,200	16,600	6,030	312
2.2	26,700	2.0	830	16.0		306R4	BE80B4	ME2SB4	N56C		13,200	16,700	6,080	312
2.3	25,600	1.2	797	16.0		305R4	BE80B4	ME2SB4	N56C		9,570	12,100	4,110	294
2.5	23,100	1.5	718	8.0	305L4		BE80B4	ME2SB4	N56C		9,430	11,900	3,970	294
2.6	22,600	1.0	702	8.0	304L4		BE80B4	ME2SB4	N56C		9,400	11,900	3,940	276
2.6	22,500	1.0	700	16.0		304R4	BE80B4	ME2SB4	N56C		9,390	11,900	3,940	276
2.7	21,200	1.7	659	16.0		305R4	BE80B4	ME2SB4	N56C		9,310	11,800	3,860	294
2.7	21,400	2.4	665	16.0		306R4	BE80B4	ME2SB4	N56C		12,800	16,100	5,650	312
2.8	20,900	1.0	650	8.0	303L4		BE80B4	ME2SB4	N56C		9,290	11,700	3,840	258
2.8	20,900	1.5	650	8.0	304L4		BE80B4	ME2SB4	N56C		9,290	11,700	3,840	276
2.8	20,900	1.9	650	8.0	305L4		BE80B4	ME2SB4	N56C		9,290	11,700	3,840	294
2.9	19,800	0.9	616	8.0	301L4		BE80B4	ME2SB4	N56C		4,810	5,700	1,260	242
3.2	17,900	1.0	558	8.0	301L4		BE80B4	ME2SB4	N56C		4,740	5,620	1,220	242
3.2	17,900	1.4	556	8.0	303L4		BE80B4	ME2SB4	N56C		9,090	11,500	3,650	258
3.2	18,200	1.2	567	16.0		303R4	BE80B4	ME2SB4	N56C		9,110	11,500	3,670	258
3.2	17,900	1.8	556	8.0	304L4		BE80B4	ME2SB4	N56C		9,090	11,500	3,650	276
3.2	18,000	1.2	560	16.0		304R4	BE80B4	ME2SB4	N56C		9,100	11,500	3,660	276
3.2	17,900	2.7	556	8.0	305L4		BE80B4	ME2SB4	N56C		9,090	11,500	3,650	294
3.2	18,200	2.3	567	16.0		305R4	BE80B4	ME2SB4	N56C		9,110	11,500	3,670	294
3.4	17,000	1.0	528	16.0		303R4	BE80B4	ME2SB4	N56C		9,020	11,400	3,580	258
3.4	17,000	2.0	528	16.0		305R4	BE80B4	ME2SB4	N56C		9,020	11,400	3,580	294
3.6	15,900	1.1	494	8.0	301L4		BE80B4	ME2SB4	N56C		4,660	5,530	1,170	242
3.7	15,800	1.5	492	8.0	303L4		BE80B4	ME2SB4	N56C		8,930	11,300	3,500	258
3.7	15,800	2.1	492	8.0	304L4		BE80B4	ME2SB4	N56C		8,930	11,300	3,500	276
3.7	15,800	3.0	492	8.0	305L4		BE80B4	ME2SB4	N56C		8,930	11,300	3,500	294
4.0	14,400	1.2	447	8.0	301L4		BE80B4	ME2SB4	N56C		4,590	5,450	1,130	242
4.0	14,600	1.1	453	13.0		301R4	BE80B4	ME2SB4	N56C		4,600	5,460	1,140	242
4.0	14,300	1.7	446	8.0	303L4		BE80B4	ME2SB4	N56C		8,810	11,100	3,390	258
4.0	14,500	1.4	452	16.0		303R4	BE80B4	ME2SB4	N56C		8,820	11,100	3,400	258
4.0	14,300	2.3	446	8.0	304L4		BE80B4	ME2SB4	N56C		8,810	11,100	3,390	276
4.0	14,500	2.2	452	16.0		304R4	BE80B4	ME2SB4	N56C		8,820	11,100	3,400	276
4.0	14,500	2.9	452	16.0		305R4	BE80B4	ME2SB4	N56C		8,820	11,100	3,400	294
4.2	14,100	1.5	426	10.0	304L3		BE80B4	ME2SB4	N56C		8,750	11,100	3,340	276
4.4	13,300	1.5	413	8.0	303L4		BE80B4	ME2SB4	N56C		8,710	11,000	3,300	258
4.4	13,300	1.9	413	8.0	304L4		BE80B4	ME2SB4	N56C		8,710	11,000	3,300	276
4.4	13,300	1.6	414	16.0		304R4	BE80B4	ME2SB4	N56C		8,710	11,000	3,300	276
4.5	12,900	0.9	403	8.0	301L4		BE80B4	ME2SB4	N56C		4,520	5,370	1,090	242
4.5	13,300	1.2	402	10.0	303L3		BE80B4	ME2SB4	N56C		8,680	11,000	3,270	258
4.5	13,300	2.4	402	8.0	305L3		BE80B4	ME2SB4	N56C		8,680	11,000	3,270	294
4.6	12,600	0.9	394	13.0		301R4	BE80B4	ME2SB4	N56C		4,510	5,350	1,080	242
4.6	12,900	1.1	389	10.0	303L3		BE80B4	ME2SB4	N56C		8,640	10,900	3,240	258
4.6	12,500	1.3	390	16.0		303R4	BE80B4	ME2SB4	N56C		8,640	10,900	3,240	258
4.6	12,900	2.1	389	10.0	305L3		BE80B4	ME2SB4	N56C		8,640	10,900	3,240	294
4.6	12,500	2.6	390	16.0		305R4	BE80B4	ME2SB4	N56C		8,640	10,900	3,240	294
4.8	12,400	0.9	374	10.0	301L3		BE80B4	ME2SB4	N56C		4,480	5,310	1,070	242
4.9	11,700	1.7	364	16.0		303R4	BE80B4	ME2SB4	N56C		8,560	10,800	3,170	258
4.9	11,700	2.2	364	16.0		304R4	BE80B4	ME2SB4	N56C		8,560	10,800	3,170	276
5.0	11,700	1.4	363	13.0		301R4	BE80B4	ME2SB4	N56C		4,460	5,290	1,050	242
5.3	11,300	1.9	341	10.0	304L3		BE80B4	ME2SB4	N56C		8,540	10,800	3,100	276
5.3	10,800	2.0	338	16.0		304R4	BE80B4	ME2SB4	N56C		8,540	10,800	3,090	276
5.4	10,600	1.6	330	8.0	301L4		BE80B4	ME2SB4	N56C		4,450	5,280	1,020	242
5.4	10,800	1.8	336	16.0		303R4	BE80B4	ME2SB4	N56C		8,540	10,800	3,080	258
5.6	10,600	1.5	321	10.0	303L3		BE80B4	ME2SB4	N56C		8,540	10,800	3,040	258
5.6	10,600	3.0	321	10.0	305L3		BE80B4	ME2SB4	N56C		8,540	10,800	3,040	294
5.8	10,000	1.6	313	16.0		303R4	BE80B4	ME2SB4	N56C		8,540	10,800	3,010	258
6.0	9,910	1.2	299	10.0	301L3		BE80B4	ME2SB4	N56C		4,450	5,280	990	242
6.2	9,340	1.7	291	13.0		301R4	BE80B4	ME2SB4	N56C		4,450	5,280	980	242

P₁ = 1 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
6.2	9,320	2.5	290	16.0		303R4	BE80B4	ME2SB4	N56C	8,540	10,800	2,940	258
6.5	9,160	2.1	277	10.0	303L3		BE80B4	ME2SB4	N56C	8,540	10,800	2,890	258
6.6	9,040	2.3	273	10.0	304L3		BE80B4	ME2SB4	N56C	8,540	10,800	2,880	276
6.7	8,620	0.9	268	13.0		300R4	BE80B4	ME2SB4	N56C	4,450	5,620	950	226
6.7	8,620	1.9	268	13.0		301R4	BE80B4	ME2SB4	N56C	4,450	5,280	950	242
7.0	8,530	1.9	258	10.0	303L3		BE80B4	ME2SB4	N56C	8,540	10,800	2,820	258
7.1	8,200	2.0	255	16.0		303R4	BE80B4	ME2SB4	N56C	8,540	10,800	2,810	258
7.5	7,940	1.4	240	10.0	301L3		BE80B4	ME2SB4	N56C	4,450	5,280	920	242
7.6	7,630	1.5	237	13.0		301R4	BE80B4	ME2SB4	N56C	4,450	5,280	920	242
7.8	7,420	2.2	231	16.0		303R4	BE80B4	ME2SB4	N56C	8,540	10,800	2,720	258
8.1	7,320	1.1	221	10.0	300L3		BE80B4	ME2SB4	N56C	4,450	5,620	890	226
8.1	7,320	2.1	221	10.0	301L3		BE80B4	ME2SB4	N56C	4,450	5,280	890	242
8.2	7,300	2.7	220	10.0	303L3		BE80B4	ME2SB4	N56C	8,540	10,800	2,680	258
8.4	6,910	1.1	215	13.0		300R4	BE80B4	ME2SB4	N56C	4,450	5,620	890	226
8.4	6,910	2.3	215	13.0		301R4	BE80B4	ME2SB4	N56C	4,450	5,280	890	242
9.4	6,360	0.9	192	10.0	300L3		BE80B4	ME2SB4	N56C	4,450	5,620	850	226
9.4	6,360	1.8	192	10.0	301L3		BE80B4	ME2SB4	N56C	4,450	5,280	850	242
9.5	6,300	2.6	190	10.0	303L3		BE80B4	ME2SB4	N56C	8,540	10,800	2,550	258
10.2	5,860	1.3	177	10.0	300L3		BE80B4	ME2SB4	N56C	4,430	5,590	830	226
10.2	5,860	2.6	177	10.0	301L3		BE80B4	ME2SB4	N56C	4,430	5,260	830	242
10.3	5,640	1.3	176	13.0		300R4	BE80B4	ME2SB4	N56C	4,420	5,580	830	226
10.3	5,640	2.7	176	13.0		301R4	BE80B4	ME2SB4	N56C	4,420	5,240	830	242
11.3	5,100	1.5	159	13.0		300R4	BE80B4	ME2SB4	N56C	4,290	5,410	800	226
11.3	5,100	3.0	159	13.0		301R4	BE80B4	ME2SB4	N56C	4,290	5,090	800	242
12.6	4,600	1.3	143	13.0		300R4	BE80B4	ME2SB4	N56C	4,160	5,250	770	226
12.6	4,600	2.5	143	13.0		301R4	BE80B4	ME2SB4	N56C	4,160	4,930	770	242
12.7	4,700	1.6	142	10.0	300L3		BE80B4	ME2SB4	N56C	4,140	5,230	770	226
13.6	4,400	1.1	133	16.0		300R3	BE80B4	ME2SB4	N56C	4,060	5,130	750	226
13.6	4,400	2.3	133	16.0		301R3	BE80B4	ME2SB4	N56C	4,060	4,820	750	242
13.8	4,330	1.7	131	10.0	300L3		BE80B4	ME2SB4	N56C	4,050	5,110	750	226
13.9	4,170	1.8	130	13.0		300R4	BE80B4	ME2SB4	N56C	4,030	5,090	750	226
15.5	3,840	1.5	116	10.0	300L3		BE80B4	ME2SB4	N56C	3,900	4,920	720	226
15.5	3,840	3.0	116	10.0	301L3		BE80B4	ME2SB4	N56C	3,900	4,630	720	242
16.9	3,530	1.6	106	16.0		300R3	BE80B4	ME2SB4	N56C	3,800	4,800	700	226
17.0	3,400	2.2	106	13.0		300R4	BE80B4	ME2SB4	N56C	3,800	4,790	700	226
17.2	3,470	2.2	105	10.0	300L3		BE80B4	ME2SB4	N56C	3,790	4,780	700	226
21.0	2,830	2.7	85.6	10.0	300L3		BE80B4	ME2SB4	N56C	3,560	4,500	650	226
21.1	2,820	2.0	85.2	16.0		300R3	BE80B4	ME2SB4	N56C	3,560	4,490	650	226
22.9	2,600	2.9	78.7	16.0		300R3	BE80B4	ME2SB4	N56C	3,470	4,380	630	226
23.2	2,570	2.9	77.5	10.0	300L3		BE80B4	ME2SB4	N56C	3,460	4,360	630	226
25.8	2,310	2.5	69.9	10.0	300L3		BE80B4	ME2SB4	N56C	3,350	4,230	610	226
26.4	2,260	2.5	68.2	16.0		300R3	BE80B4	ME2SB4	N56C	3,330	4,200	600	226
27.8	2,210	2.2	64.8	10.0	300L2		BE80B4	ME2SB4	N56C	3,280	4,140	590	226

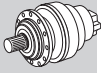
P₁ = 1.5 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
0.70	113,900	1.3	2423	10.0	309L4		BE90S4	ME3SA4	N140TC	19,300	26,200	8,090	348
0.70	118,600	1.9	2524	15.0	310L4		BE90S4	ME3SA4	N140TC	22,700	29,400	14,600	364
0.90	96,000	1.3	2041	10.0	307L4		BE90S4	ME3SA4	N140TC	18,800	25,600	10,100	330
0.90	94,100	1.6	2003	10.0	309L4		BE90S4	ME3SA4	N140TC	18,800	25,500	8,090	348
0.90	95,100	2.4	2022	15.0	310L4		BE90S4	ME3SA4	N140TC	22,000	28,400	14,600	364
1.0	86,700	1.0	1843	8.0	306L4		BE90S4	ME3SA4	N140TC	14,800	18,700	7,870	312
1.0	83,100	1.7	1767	10.0	307L4		BE90S4	ME3SA4	N140TC	18,400	25,100	10,100	330



A







P₁ = 1.5 hp



A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]			
					NHC/HC NPC/PC	HZ/PZ	FZ						
1.0	81,000	1.8	1723	10.0	309L4		BE90S4	ME3SA4	N140TC	18,400	25,000	7,980	348
1.0	84,400	2.7	1795	15.0	310L4		BE90S4	ME3SA4	N140TC	21,700	28,000	14,600	364
1.1	75,100	1.0	1597	8.0	306L4		BE90S4	ME3SA4	N140TC	14,500	18,300	7,560	312
1.1	74,800	1.8	1591	10.0	307L4		BE90S4	ME3SA4	N140TC	18,200	24,700	9,710	330
1.1	75,400	2.0	1605	10.0	309L4		BE90S4	ME3SA4	N140TC	18,200	24,700	7,790	348
1.1	78,600	2.9	1672	15.0	310L4		BE90S4	ME3SA4	N140TC	21,400	27,700	14,300	364
1.2	69,300	1.3	1475	8.0	306L4		BE90S4	ME3SA4	N140TC	14,400	18,100	7,360	312
1.3	66,200	2.1	1408	10.0	307L4		BE90S4	ME3SA4	N140TC	17,800	24,300	9,320	330
1.3	64,900	2.2	1380	10.0	309L4		BE90S4	ME3SA4	N140TC	17,800	24,200	7,410	348
1.4	60,200	1.2	1279	8.0	306L4		BE90S4	ME3SA4	N140TC	14,100	17,700	7,020	312
1.4	59,900	1.8	1275	10.0	307L4		BE90S4	ME3SA4	N140TC	17,600	23,900	9,020	330
1.4	60,400	2.3	1286	10.0	309L4		BE90S4	ME3SA4	N140TC	17,600	23,900	7,230	348
1.6	51,500	1.3	1095	8.0	306L4		BE90S4	ME3SA4	N140TC	13,800	17,300	6,670	312
1.6	54,400	2.2	1157	10.0	307L4		BE90S4	ME3SA4	N140TC	17,300	23,600	8,730	330
1.6	54,000	2.6	1149	10.0	309L4		BE90S4	ME3SA4	N140TC	17,300	23,600	6,970	348
1.8	47,900	1.0	1019	8.0	305L4		BE90S4	ME3SA4	N140TC	9,910	12,500	4,460	294
1.8	47,700	1.7	1015	8.0	306L4		BE90S4	ME3SA4	N140TC	13,600	17,200	6,500	312
1.8	47,000	2.5	999	10.0	307L4		BE90S4	ME3SA4	N140TC	17,000	23,100	8,310	330
2.1	41,200	1.6	877	8.0	306L4		BE90S4	ME3SA4	N140TC	13,300	16,800	6,190	312
2.2	38,400	1.2	816	8.0	305L4		BE90S4	ME3SA4	N140TC	9,600	12,100	4,140	294
2.2	38,700	0.9	824	16.0		305R4	BE90S4	ME3SA4	N140TC	9,610	12,100	4,160	294
2.2	38,000	1.8	809	8.0	306L4		BE90S4	ME3SA4	N140TC	13,200	16,600	6,030	312
2.2	39,000	1.4	830	16.0		306R4	BE90S4	ME3SA4	N140TC	13,200	16,700	6,080	312
2.5	33,800	1.0	718	8.0	305L4		BE90S4	ME3SA4	N140TC	9,430	11,900	3,970	294
2.6	32,900	2.5	700	8.0	306L4		BE90S4	ME3SA4	N140TC	12,900	16,300	5,740	312
2.6	32,400	2.6	690	20.0		307R4	BE90S4	ME3SA4	N140TC	16,100	21,900	7,350	330
2.7	31,000	1.1	659	16.0		305R4	BE90S4	ME3SA4	N140TC	9,310	11,800	3,860	294
2.7	31,300	1.7	665	16.0		306R4	BE90S4	ME3SA4	N140TC	12,800	16,100	5,650	312
2.8	30,500	1.0	650	8.0	304L4		BE90S4	ME3SA4	N140TC	9,290	11,700	3,840	276
2.8	30,500	1.3	650	8.0	305L4		BE90S4	ME3SA4	N140TC	9,290	11,700	3,840	294
2.8	29,900	2.8	636	8.0	306L4		BE90S4	ME3SA4	N140TC	12,700	16,000	5,560	312
3.0	27,800	2.6	590	16.0		306R4	BE90S4	ME3SA4	N140TC	12,600	15,900	5,430	312
3.1	27,700	2.9	589	8.0	306L4		BE90S4	ME3SA4	N140TC	12,600	15,900	5,420	312
3.2	26,100	1.0	556	8.0	303L4		BE90S4	ME3SA4	N140TC	9,090	11,500	3,650	258
3.2	26,100	1.3	556	8.0	304L4		BE90S4	ME3SA4	N140TC	9,090	11,500	3,650	276
3.2	26,100	1.9	556	8.0	305L4		BE90S4	ME3SA4	N140TC	9,090	11,500	3,650	294
3.2	26,600	1.6	567	16.0		305R4	BE90S4	ME3SA4	N140TC	9,110	11,500	3,670	294
3.3	25,900	2.4	550	16.0		306R4	BE90S4	ME3SA4	N140TC	12,500	15,700	5,300	312
3.4	24,800	1.4	528	16.0		305R4	BE90S4	ME3SA4	N140TC	9,020	11,400	3,580	294
3.7	23,100	1.0	492	8.0	303L4		BE90S4	ME3SA4	N140TC	8,930	11,300	3,500	258
3.7	23,100	1.4	492	8.0	304L4		BE90S4	ME3SA4	N140TC	8,930	11,300	3,500	276
3.7	23,100	2.0	492	8.0	305L4		BE90S4	ME3SA4	N140TC	8,930	11,300	3,500	294
4.0	21,000	1.2	446	8.0	303L4		BE90S4	ME3SA4	N140TC	8,810	11,100	3,390	258
4.0	21,200	0.9	452	16.0		303R4	BE90S4	ME3SA4	N140TC	8,820	11,100	3,400	258
4.0	21,000	1.6	446	8.0	304L4		BE90S4	ME3SA4	N140TC	8,810	11,100	3,390	276
4.0	21,200	1.5	452	16.0		304R4	BE90S4	ME3SA4	N140TC	8,820	11,100	3,400	276
4.0	21,000	2.3	446	8.0	305L4		BE90S4	ME3SA4	N140TC	8,810	11,100	3,390	294
4.0	21,200	2.0	452	16.0		305R4	BE90S4	ME3SA4	N140TC	8,820	11,100	3,400	294
4.0	21,400	2.8	455	16.0		306R4	BE90S4	ME3SA4	N140TC	12,100	15,300	4,970	312
4.2	20,600	1.0	426	10.0	304L3		BE90S4	ME3SA4	N140TC	8,750	11,100	3,340	276
4.4	19,400	1.0	413	8.0	303L4		BE90S4	ME3SA4	N140TC	8,710	11,000	3,300	258
4.4	19,400	1.3	413	8.0	304L4		BE90S4	ME3SA4	N140TC	8,710	11,000	3,300	276
4.4	19,400	1.1	414	16.0		304R4	BE90S4	ME3SA4	N140TC	8,710	11,000	3,300	276
4.4	19,400	2.1	413	8.0	305L4		BE90S4	ME3SA4	N140TC	8,710	11,000	3,300	294
4.4	19,600	2.5	405	10.0	306L3		BE90S4	ME3SA4	N140TC	11,900	15,000	4,790	312
4.5	19,500	1.7	402	8.0	305L3		BE90S4	ME3SA4	N140TC	8,680	11,000	3,270	294
4.6	18,300	0.9	390	16.0		303R4	BE90S4	ME3SA4	N140TC	8,640	10,900	3,240	258

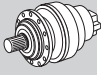
P₁ = 1.5 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NEMA	NHC/HC NPC/PC	Rn ₂ [lbs] HZ/PZ	FZ	
4.6	18,800	1.5	389	10.0	305L3		BE90S4	ME3SA4	N140TC		8,640	10,900	3,240	294
4.6	18,300	1.8	390	16.0		305R4	BE90S4	ME3SA4	N140TC		8,640	10,900	3,240	294
4.9	17,100	1.2	364	16.0		303R4	BE90S4	ME3SA4	N140TC		8,560	10,800	3,170	258
4.9	17,100	1.5	364	16.0		304R4	BE90S4	ME3SA4	N140TC		8,560	10,800	3,170	276
4.9	17,100	2.3	364	16.0		305R4	BE90S4	ME3SA4	N140TC		8,560	10,800	3,170	294
5.0	17,100	1.0	363	13.0		301R4	BE90S4	ME3SA4	N140TC		4,460	5,290	1,050	242
5.3	16,500	1.3	341	10.0	304L3		BE90S4	ME3SA4	N140TC		8,540	10,800	3,100	276
5.3	15,900	1.3	338	16.0		304R4	BE90S4	ME3SA4	N140TC		8,540	10,800	3,090	276
5.4	15,500	1.1	330	8.0	301L4		BE90S4	ME3SA4	N140TC		4,450	5,280	1,020	242
5.4	15,800	1.2	336	16.0		303R4	BE90S4	ME3SA4	N140TC		8,540	10,800	3,080	258
5.4	15,800	2.5	336	16.0		305R4	BE90S4	ME3SA4	N140TC		8,540	10,800	3,080	294
5.6	15,600	1.0	321	10.0	303L3		BE90S4	ME3SA4	N140TC		8,540	10,800	3,040	258
5.6	15,600	2.0	321	10.0	305L3		BE90S4	ME3SA4	N140TC		8,540	10,800	3,040	294
5.8	14,700	1.1	313	16.0		303R4	BE90S4	ME3SA4	N140TC		8,540	10,800	3,010	258
5.8	14,700	2.2	313	16.0		305R4	BE90S4	ME3SA4	N140TC		8,540	10,800	3,010	294
5.9	14,400	2.1	307	16.0		304R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,990	276
6.2	13,700	1.2	291	13.0		301R4	BE90S4	ME3SA4	N140TC		4,450	5,280	980	242
6.2	13,600	1.7	290	16.0		303R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,940	258
6.2	13,600	2.4	290	16.0		304R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,940	276
6.5	13,400	1.5	277	10.0	303L3		BE90S4	ME3SA4	N140TC		8,540	10,800	2,890	258
6.5	13,400	2.9	277	10.0	305L3		BE90S4	ME3SA4	N140TC		8,540	10,800	2,890	294
6.6	13,200	1.6	273	10.0	304L3		BE90S4	ME3SA4	N140TC		8,540	10,800	2,880	276
6.7	12,600	1.3	268	13.0		301R4	BE90S4	ME3SA4	N140TC		4,450	5,280	950	242
6.7	12,600	2.6	267	16.0		304R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,860	276
7.0	12,500	1.3	258	10.0	303L3		BE90S4	ME3SA4	N140TC		8,540	10,800	2,820	258
7.0	12,500	2.6	258	10.0	305L3		BE90S4	ME3SA4	N140TC		8,540	10,800	2,820	294
7.1	12,000	1.4	255	16.0		303R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,810	258
7.1	12,000	2.7	255	16.0		305R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,810	294
7.5	11,600	1.0	240	10.0	301L3		BE90S4	ME3SA4	N140TC		4,450	5,280	920	242
7.6	11,200	1.0	237	13.0		301R4	BE90S4	ME3SA4	N140TC		4,450	5,280	920	242
7.8	10,900	1.5	231	16.0		303R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,720	258
7.8	10,900	2.9	231	16.0		305R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,720	294
7.9	10,600	2.9	227	16.0		304R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,700	276
8.1	10,700	1.5	221	10.0	301L3		BE90S4	ME3SA4	N140TC		4,450	5,280	890	242
8.2	10,700	1.9	220	10.0	303L3		BE90S4	ME3SA4	N140TC		8,540	10,800	2,680	258
8.2	10,700	3.0	220	10.0	304L3		BE90S4	ME3SA4	N140TC		8,540	10,800	2,680	276
8.4	10,100	1.6	215	13.0		301R4	BE90S4	ME3SA4	N140TC		4,450	5,280	890	242
8.4	10,100	2.4	214	16.0		303R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,650	258
8.9	9,780	2.2	202	10.0	304L3		BE90S4	ME3SA4	N140TC		8,540	10,800	2,600	276
9.4	9,310	1.2	192	10.0	301L3		BE90S4	ME3SA4	N140TC		4,450	5,280	850	242
9.5	9,220	1.7	190	10.0	303L3		BE90S4	ME3SA4	N140TC		8,540	10,800	2,550	258
9.7	8,690	2.4	185	16.0		303R4	BE90S4	ME3SA4	N140TC		8,540	10,800	2,530	258
10.1	8,600	2.3	178	10.0	303L3		BE90S4	ME3SA4	N140TC		8,510	10,700	2,490	258
10.1	8,600	2.9	178	10.0	304L3		BE90S4	ME3SA4	N140TC		8,510	10,700	2,490	276
10.2	8,580	1.8	177	10.0	301L3		BE90S4	ME3SA4	N140TC		4,430	5,260	830	242
10.3	8,250	0.9	176	13.0		300R4	BE90S4	ME3SA4	N140TC		4,420	5,580	830	226
10.3	8,250	1.9	176	13.0		301R4	BE90S4	ME3SA4	N140TC		4,420	5,240	830	242
10.9	7,980	2.7	165	10.0	304L3		BE90S4	ME3SA4	N140TC		8,320	10,500	2,430	276
11.0	7,930	2.5	164	10.0	303L3		BE90S4	ME3SA4	N140TC		8,300	10,500	2,430	258
11.3	7,470	1.0	159	13.0		300R4	BE90S4	ME3SA4	N140TC		4,290	5,410	800	226
11.3	7,470	2.0	159	13.0		301R4	BE90S4	ME3SA4	N140TC		4,290	5,090	800	242
11.8	7,390	2.2	153	10.0	303L3		BE90S4	ME3SA4	N140TC		8,130	10,300	2,370	258
12.1	6,970	2.9	148	16.0		303R4	BE90S4	ME3SA4	N140TC		8,060	10,200	2,350	258
12.6	6,730	1.7	143	13.0		301R4	BE90S4	ME3SA4	N140TC		4,160	4,930	770	242
12.7	6,880	1.1	142	10.0	300L3		BE90S4	ME3SA4	N140TC		4,140	5,230	770	226
12.7	6,880	2.2	142	10.0	301L3		BE90S4	ME3SA4	N140TC		4,140	4,920	770	242
13.6	6,440	1.6	133	16.0		301R3	BE90S4	ME3SA4	N140TC		4,060	4,820	750	242









A







P₁ = 1.5 hp









A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
13.8	6,340	1.2	131	10.0	300L3		BE90S4	ME3SA4	N140TC	4,050	5,110	750	226
13.8	6,340	2.4	131	10.0	301L3		BE90S4	ME3SA4	N140TC	4,050	4,800	750	242
13.9	6,100	1.2	130	13.0		300R4	BE90S4	ME3SA4	N140TC	4,030	5,090	750	226
13.9	6,100	2.5	130	13.0		301R4	BE90S4	ME3SA4	N140TC	4,030	4,790	750	242
14.5	6,030	2.7	125	10.0	303L3		BE90S4	ME3SA4	N140TC	7,650	9,660	2,210	258
15.5	5,610	1.0	116	10.0	300L3		BE90S4	ME3SA4	N140TC	3,900	4,920	720	226
15.5	5,610	2.0	116	10.0	301L3		BE90S4	ME3SA4	N140TC	3,900	4,630	720	242
15.7	5,540	2.9	114	19.0		303R3	BE90S4	ME3SA4	N140TC	7,460	9,420	2,150	258
16.0	5,460	2.9	113	10.0	303L3		BE90S4	ME3SA4	N140TC	7,420	9,380	2,140	258
16.9	5,160	1.1	106	16.0		300R3	BE90S4	ME3SA4	N140TC	3,800	4,800	700	226
16.9	5,160	2.2	106	16.0		301R3	BE90S4	ME3SA4	N140TC	3,800	4,510	700	242
17.0	4,980	1.5	106	13.0		300R4	BE90S4	ME3SA4	N140TC	3,800	4,790	700	226
17.0	4,980	3.0	106	13.0		301R4	BE90S4	ME3SA4	N140TC	3,800	4,500	700	242
17.2	5,080	1.5	105	10.0	300L3		BE90S4	ME3SA4	N140TC	3,790	4,780	700	226
17.2	5,080	2.9	105	10.0	301L3		BE90S4	ME3SA4	N140TC	3,790	4,490	700	242
21.0	4,150	1.8	85.6	10.0	300L3		BE90S4	ME3SA4	N140TC	3,560	4,500	650	226
21.1	4,130	1.4	85.2	16.0		300R3	BE90S4	ME3SA4	N140TC	3,560	4,490	650	226
21.1	4,130	2.8	85.2	16.0		301R3	BE90S4	ME3SA4	N140TC	3,560	4,220	650	242
22.9	3,810	2.0	78.7	16.0		300R3	BE90S4	ME3SA4	N140TC	3,470	4,380	630	226
23.2	3,760	2.0	77.5	10.0	300L3		BE90S4	ME3SA4	N140TC	3,460	4,360	630	226
25.8	3,390	1.7	69.9	10.0	300L3		BE90S4	ME3SA4	N140TC	3,350	4,230	610	226
26.4	3,310	1.7	68.2	16.0		300R3	BE90S4	ME3SA4	N140TC	3,330	4,200	600	226
27.8	3,240	1.5	64.8	10.0	300L2		BE90S4	ME3SA4	N140TC	3,280	4,140	590	226
28.5	3,070	2.4	63.2	10.0	300L3		BE90S4	ME3SA4	N140TC	3,250	4,110	590	226
28.6	3,050	2.5	62.9	16.0		300R3	BE90S4	ME3SA4	N140TC	3,250	4,100	590	226
35	2,590	2.2	51.9	10.0	300L2		BE90S4	ME3SA4	N140TC	3,070	3,870	550	226
35	2,500	3.0	51.6	10.0	300L3		BE90S4	ME3SA4	N140TC	3,060	3,860	550	226
43	2,080	2.8	41.5	10.0	300L2		BE90S4	ME3SA4	N140TC	2,870	3,620	510	226
44	1,990	2.9	41.2	16.0		300R3	BE90S4	ME3SA4	N140TC	2,860	3,610	510	226

P₁ = 2 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
0.70	155,600	1.0	2423	10.0	309L4		BE90LA4	ME3SB4	N140TC	19,300	26,200	8,090	348
0.70	162,100	1.4	2524	15.0	310L4		BE90LA4	ME3SB4	N140TC	22,700	29,400	14,600	364
0.90	131,100	1.0	2041	10.0	307L4		BE90LA4	ME3SB4	N140TC	18,800	25,600	10,100	330
0.90	128,700	1.2	2003	10.0	309L4		BE90LA4	ME3SB4	N140TC	18,800	25,500	8,090	348
0.90	129,900	1.8	2022	15.0	310L4		BE90LA4	ME3SB4	N140TC	22,000	28,400	14,600	364
0.90	134,700	2.2	2096	15.0	311L4		BE90LA4	ME3SB4	N140TC	27,700	31,800	14,600	382
1.0	113,500	1.2	1767	10.0	307L4		BE90LA4	ME3SB4	N140TC	18,400	25,100	10,100	330
1.0	110,700	1.3	1723	10.0	309L4		BE90LA4	ME3SB4	N140TC	18,400	25,000	7,980	348
1.0	115,300	2.0	1795	15.0	310L4		BE90LA4	ME3SB4	N140TC	21,700	28,000	14,600	364
1.1	102,200	1.3	1591	10.0	307L4		BE90LA4	ME3SB4	N140TC	18,200	24,700	9,710	330
1.1	103,100	1.4	1605	10.0	309L4		BE90LA4	ME3SB4	N140TC	18,200	24,700	7,790	348
1.1	107,400	2.1	1672	15.0	310L4		BE90LA4	ME3SB4	N140TC	21,400	27,700	14,300	364
1.1	107,900	2.8	1680	15.0	311L4		BE90LA4	ME3SB4	N140TC	26,800	30,800	14,300	382
1.2	94,700	0.9	1475	8.0	306L4		BE90LA4	ME3SB4	N140TC	14,400	18,100	7,360	312
1.3	90,500	1.5	1408	10.0	307L4		BE90LA4	ME3SB4	N140TC	17,800	24,300	9,320	330
1.3	88,700	1.6	1380	10.0	309L4		BE90LA4	ME3SB4	N140TC	17,800	24,200	7,410	348
1.3	92,400	2.4	1438	15.0	310L4		BE90LA4	ME3SB4	N140TC	21,000	27,100	13,600	364
1.4	81,900	1.3	1275	10.0	307L4		BE90LA4	ME3SB4	N140TC	17,600	23,900	9,020	330
1.4	82,600	1.7	1286	10.0	309L4		BE90LA4	ME3SB4	N140TC	17,600	23,900	7,230	348
1.4	80,900	3.0	1259	15.0	310L4		BE90LA4	ME3SB4	N140TC	20,600	26,600	13,000	364
1.6	70,300	1.0	1095	8.0	306L4		BE90LA4	ME3SB4	N140TC	13,800	17,300	6,670	312

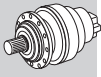
P₁ = 2 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NEMA	NHC/HC NPC/PC	Rn ₂ [lbs] HZ/PZ	FZ	
1.6	74,300	1.6	1157	10.0	307L4		BE90LA4	ME3SB4	N140TC		17,300	23,600	8,730	330
1.6	73,800	1.9	1149	10.0	309L4		BE90LA4	ME3SB4	N140TC		17,300	23,600	6,970	348
1.8	65,200	1.3	1015	8.0	306L4		BE90LA4	ME3SB4	N140TC		13,600	17,200	6,500	312
1.8	64,200	1.9	999	10.0	307L4		BE90LA4	ME3SB4	N140TC		17,000	23,100	8,310	330
1.8	64,200	2.5	999	10.0	309L4		BE90LA4	ME3SB4	N140TC		17,000	23,100	6,650	348
2.0	58,200	2.3	906	10.0	307L4		BE90LA4	ME3SB4	N140TC		16,700	22,800	8,050	330
2.0	58,200	2.7	906	10.0	309L4		BE90LA4	ME3SB4	N140TC		16,700	22,800	6,440	348
2.1	56,400	1.2	877	8.0	306L4		BE90LA4	ME3SB4	N140TC		13,300	16,800	6,190	312
2.2	52,400	0.9	816	8.0	305L4		BE90LA4	ME3SB4	N140TC		9,600	12,100	4,140	294
2.2	52,000	1.3	809	8.0	306L4		BE90LA4	ME3SB4	N140TC		13,200	16,600	6,030	312
2.2	53,300	1.0	830	16.0		306R4	BE90LA4	ME3SB4	N140TC		13,200	16,700	6,080	312
2.2	51,400	2.2	801	10.0	307L4		BE90LA4	ME3SB4	N140TC		16,500	22,400	7,720	330
2.5	46,400	2.8	722	10.0	307L4		BE90LA4	ME3SB4	N140TC		16,200	22,100	7,460	330
2.6	44,900	1.8	700	8.0	306L4		BE90LA4	ME3SB4	N140TC		12,900	16,300	5,740	312
2.6	44,300	1.9	690	20.0		307R4	BE90LA4	ME3SB4	N140TC		16,100	21,900	7,350	330
2.6	44,300	2.9	690	20.0		309R4	BE90LA4	ME3SB4	N140TC		16,100	21,900	5,880	348
2.7	42,700	1.2	665	16.0		306R4	BE90LA4	ME3SB4	N140TC		12,800	16,100	5,650	312
2.8	41,700	1.0	650	8.0	305L4		BE90LA4	ME3SB4	N140TC		9,290	11,700	3,840	294
2.8	40,800	2.0	636	8.0	306L4		BE90LA4	ME3SB4	N140TC		12,700	16,000	5,560	312
2.8	42,000	2.6	654	10.0	307L4		BE90LA4	ME3SB4	N140TC		16,000	21,700	7,220	330
3.0	37,900	1.9	590	16.0		306R4	BE90LA4	ME3SB4	N140TC		12,600	15,900	5,430	312
3.1	37,900	2.1	589	8.0	306L4		BE90LA4	ME3SB4	N140TC		12,600	15,900	5,420	312
3.1	37,300	2.9	581	20.0		307R4	BE90LA4	ME3SB4	N140TC		15,700	21,400	6,940	330
3.2	35,700	0.9	556	8.0	304L4		BE90LA4	ME3SB4	N140TC		9,090	11,500	3,650	276
3.2	35,700	1.4	556	8.0	305L4		BE90LA4	ME3SB4	N140TC		9,090	11,500	3,650	294
3.2	36,400	1.2	567	16.0		305R4	BE90LA4	ME3SB4	N140TC		9,110	11,500	3,670	294
3.3	35,300	1.8	550	16.0		306R4	BE90LA4	ME3SB4	N140TC		12,500	15,700	5,300	312
3.4	33,900	1.0	528	16.0		305R4	BE90LA4	ME3SB4	N140TC		9,020	11,400	3,580	294
3.5	32,700	2.6	509	8.0	306L4		BE90LA4	ME3SB4	N140TC		12,300	15,500	5,170	312
3.7	31,600	1.0	492	8.0	304L4		BE90LA4	ME3SB4	N140TC		8,930	11,300	3,500	276
3.7	31,600	1.5	492	8.0	305L4		BE90LA4	ME3SB4	N140TC		8,930	11,300	3,500	294
3.7	31,400	2.5	488	16.0		306R4	BE90LA4	ME3SB4	N140TC		12,300	15,400	5,090	312
3.7	31,500	2.6	491	20.0		307R4	BE90LA4	ME3SB4	N140TC		15,300	20,900	6,560	330
4.0	28,600	1.1	446	8.0	304L4		BE90LA4	ME3SB4	N140TC		8,810	11,100	3,390	276
4.0	29,000	1.1	452	16.0		304R4	BE90LA4	ME3SB4	N140TC		8,820	11,100	3,400	276
4.0	28,600	1.7	446	8.0	305L4		BE90LA4	ME3SB4	N140TC		8,810	11,100	3,390	294
4.0	29,000	1.4	452	16.0		305R4	BE90LA4	ME3SB4	N140TC		8,820	11,100	3,400	294
4.0	29,200	2.1	455	16.0		306R4	BE90LA4	ME3SB4	N140TC		12,100	15,300	4,970	312
4.3	27,000	2.8	420	16.0		306R4	BE90LA4	ME3SB4	N140TC		12,000	15,100	4,840	312
4.4	26,600	1.0	413	8.0	304L4		BE90LA4	ME3SB4	N140TC		8,710	11,000	3,300	276
4.4	26,600	1.5	413	8.0	305L4		BE90LA4	ME3SB4	N140TC		8,710	11,000	3,300	294
4.4	26,800	1.8	405	10.0	306L3		BE90LA4	ME3SB4	N140TC		11,900	15,000	4,790	312
4.5	26,600	1.2	402	8.0	305L3		BE90LA4	ME3SB4	N140TC		8,680	11,000	3,270	294
4.6	25,800	1.1	389	10.0	305L3		BE90LA4	ME3SB4	N140TC		8,640	10,900	3,240	294
4.6	25,100	1.3	390	16.0		305R4	BE90LA4	ME3SB4	N140TC		8,640	10,900	3,240	294
4.6	25,100	2.3	391	8.0	306L4		BE90LA4	ME3SB4	N140TC		11,900	15,000	4,730	312
4.6	25,000	2.7	389	16.0		306R4	BE90LA4	ME3SB4	N140TC		11,900	15,000	4,720	312
4.9	23,400	1.1	364	16.0		304R4	BE90LA4	ME3SB4	N140TC		8,560	10,800	3,170	276
4.9	23,400	1.7	364	16.0		305R4	BE90LA4	ME3SB4	N140TC		8,560	10,800	3,170	294
5.3	22,600	0.9	341	10.0	304L3		BE90LA4	ME3SB4	N140TC		8,540	10,800	3,100	276
5.3	21,700	1.0	338	16.0		304R4	BE90LA4	ME3SB4	N140TC		8,540	10,800	3,090	276
5.4	21,600	0.9	336	16.0		303R4	BE90LA4	ME3SB4	N140TC		8,540	10,800	3,080	258
5.4	21,600	1.8	336	16.0		305R4	BE90LA4	ME3SB4	N140TC		8,540	10,800	3,080	294
5.5	21,500	2.3	325	10.0	306L3		BE90LA4	ME3SB4	N140TC		11,700	14,800	4,440	312
5.6	21,300	1.5	321	10.0	305L3		BE90LA4	ME3SB4	N140TC		8,540	10,800	3,040	294
5.8	20,100	1.6	313	16.0		305R4	BE90LA4	ME3SB4	N140TC		8,540	10,800	3,010	294
5.9	19,700	1.6	307	16.0		304R4	BE90LA4	ME3SB4	N140TC		8,540	10,800	2,990	276



A







P₁ = 2 hp

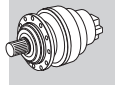


A







n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
					NHC/HC NPC/PC	HZ/PZ	FZ	FZ					
6.2	18,600	1.3	290	16.0		303R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,940	258
6.2	18,600	1.7	290	16.0		304R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,940	276
6.2	18,600	2.5	290	16.0		305R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,940	294
6.3	19,100	2.6	288	10.0	306L3		BE90LA4	ME3SB4	N140TC	11,700	14,800	4,270	312
6.5	18,300	1.1	277	10.0	303L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,890	258
6.5	18,300	2.1	277	10.0	305L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,890	294
6.6	18,100	1.2	273	10.0	304L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,880	276
6.7	17,200	0.9	268	13.0		301R4	BE90LA4	ME3SB4	N140TC	4,450	5,280	950	242
6.7	17,200	1.9	267	16.0		304R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,860	276
6.7	17,800	2.7	268	10.0	306L3		BE90LA4	ME3SB4	N140TC	11,700	14,800	4,170	312
7.0	17,100	0.9	258	10.0	303L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,820	258
7.0	17,100	1.9	258	10.0	305L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,820	294
7.1	16,400	1.0	255	16.0		303R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,810	258
7.1	16,400	1.9	255	16.0		305R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,810	294
7.8	14,800	1.1	231	16.0		303R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,720	258
7.8	14,800	2.1	231	16.0		305R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,720	294
7.9	14,600	2.1	227	16.0		304R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,700	276
8.1	14,600	1.1	221	10.0	301L3		BE90LA4	ME3SB4	N140TC	4,450	5,280	890	242
8.2	14,600	1.4	220	10.0	303L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,680	258
8.2	14,600	2.2	220	10.0	304L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,680	276
8.2	14,600	2.9	220	10.0	305L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,680	294
8.4	13,800	1.1	215	13.0		301R4	BE90LA4	ME3SB4	N140TC	4,450	5,280	890	242
8.4	13,800	1.7	214	16.0		303R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,650	258
8.4	13,800	2.3	214	16.0		304R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,650	276
8.9	13,400	1.6	202	10.0	304L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,600	276
9.4	12,700	0.9	192	10.0	301L3		BE90LA4	ME3SB4	N140TC	4,450	5,280	850	242
9.5	12,600	1.3	190	10.0	303L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,550	258
9.5	12,600	2.5	190	10.0	305L3		BE90LA4	ME3SB4	N140TC	8,540	10,800	2,550	294
9.7	11,900	1.7	185	16.0		303R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,530	258
9.7	11,900	2.6	185	16.0		304R4	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,530	276
10.1	11,800	1.7	178	10.0	303L3		BE90LA4	ME3SB4	N140TC	8,510	10,700	2,490	258
10.1	11,800	2.1	178	10.0	304L3		BE90LA4	ME3SB4	N140TC	8,510	10,700	2,490	276
10.2	11,700	1.3	177	10.0	301L3		BE90LA4	ME3SB4	N140TC	4,430	5,260	830	242
10.3	11,300	1.4	176	13.0		301R4	BE90LA4	ME3SB4	N140TC	4,420	5,240	830	242
10.9	10,900	1.9	165	10.0	304L3		BE90LA4	ME3SB4	N140TC	8,320	10,500	2,430	276
11.0	10,800	1.8	164	10.0	303L3		BE90LA4	ME3SB4	N140TC	8,300	10,500	2,430	258
11.3	10,200	1.5	159	13.0		301R4	BE90LA4	ME3SB4	N140TC	4,290	5,090	800	242
11.4	10,200	2.3	158	16.0		303R4	BE90LA4	ME3SB4	N140TC	8,220	10,400	2,400	258
11.8	10,100	1.6	153	10.0	303L3		BE90LA4	ME3SB4	N140TC	8,130	10,300	2,370	258
12.1	9,520	2.1	148	16.0		303R4	BE90LA4	ME3SB4	N140TC	8,060	10,200	2,350	258
12.6	9,200	1.3	143	13.0		301R4	BE90LA4	ME3SB4	N140TC	4,160	4,930	770	242
12.7	9,400	1.6	142	10.0	301L3		BE90LA4	ME3SB4	N140TC	4,140	4,920	770	242
12.7	9,370	2.4	142	10.0	303L3		BE90LA4	ME3SB4	N140TC	7,950	10,000	2,310	258
13.6	8,800	1.2	133	16.0		301R3	BE90LA4	ME3SB4	N140TC	4,060	4,820	750	242
13.8	8,670	1.7	131	10.0	301L3		BE90LA4	ME3SB4	N140TC	4,050	4,800	750	242
13.9	8,330	0.9	130	13.0		300R4	BE90LA4	ME3SB4	N140TC	4,030	5,090	750	226
13.9	8,330	1.8	130	13.0		301R4	BE90LA4	ME3SB4	N140TC	4,030	4,790	750	242
13.9	8,300	2.8	129	16.0		303R4	BE90LA4	ME3SB4	N140TC	7,730	9,770	2,240	258
14.5	8,250	2.0	125	10.0	303L3		BE90LA4	ME3SB4	N140TC	7,650	9,660	2,210	258
14.8	8,030	2.6	121	19.0		304R3	BE90LA4	ME3SB4	N140TC	7,590	9,580	2,200	276
15.5	7,670	1.5	116	10.0	301L3		BE90LA4	ME3SB4	N140TC	3,900	4,630	720	242
15.7	7,580	2.1	114	19.0		303R3	BE90LA4	ME3SB4	N140TC	7,460	9,420	2,150	258
16.0	7,460	2.2	113	10.0	303L3		BE90LA4	ME3SB4	N140TC	7,420	9,380	2,140	258
16.9	7,050	1.6	106	16.0		301R3	BE90LA4	ME3SB4	N140TC	3,800	4,510	700	242
17.0	6,800	1.1	106	13.0		300R4	BE90LA4	ME3SB4	N140TC	3,800	4,790	700	226
17.0	6,800	2.2	106	13.0		301R4	BE90LA4	ME3SB4	N140TC	3,800	4,500	700	242
17.2	6,950	1.1	105	10.0	300L3		BE90LA4	ME3SB4	N140TC	3,790	4,780	700	226

P₁ = 2 hp

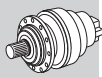
n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
17.2	6,950	2.1	105	10.0	301L3		BE90LA4	ME3SB4	N140TC	3,790	4,490	700	242
19.7	6,060	2.7	91.5	19.0		303R3	BE90LA4	ME3SB4	N140TC	6,970	8,810	2,000	258
21.0	5,670	1.3	85.6	10.0	300L3		BE90LA4	ME3SB4	N140TC	3,560	4,500	650	226
21.0	5,670	2.6	85.6	10.0	301L3		BE90LA4	ME3SB4	N140TC	3,560	4,230	650	242
21.1	5,640	1.0	85.2	16.0		300R3	BE90LA4	ME3SB4	N140TC	3,560	4,490	650	226
21.1	5,640	2.0	85.2	16.0		301R3	BE90LA4	ME3SB4	N140TC	3,560	4,220	650	242
22.9	5,210	1.4	78.7	16.0		300R3	BE90LA4	ME3SB4	N140TC	3,470	4,380	630	226
22.9	5,210	2.7	78.7	16.0		301R3	BE90LA4	ME3SB4	N140TC	3,470	4,120	630	242
23.2	5,130	1.5	77.5	10.0	300L3		BE90LA4	ME3SB4	N140TC	3,460	4,360	630	226
23.2	5,130	2.8	77.5	10.0	301L3		BE90LA4	ME3SB4	N140TC	3,460	4,100	630	242
25.8	4,630	1.2	69.9	10.0	300L3		BE90LA4	ME3SB4	N140TC	3,350	4,230	610	226
25.8	4,630	2.5	69.9	10.0	301L3		BE90LA4	ME3SB4	N140TC	3,350	3,980	610	242
26.4	4,520	1.3	68.2	16.0		300R3	BE90LA4	ME3SB4	N140TC	3,330	4,200	600	226
26.4	4,520	2.5	68.2	16.0		301R3	BE90LA4	ME3SB4	N140TC	3,330	3,950	600	242
27.8	4,420	1.1	64.8	10.0	300L2		BE90LA4	ME3SB4	N140TC	3,280	4,140	590	226
27.8	4,420	2.3	64.8	10.0	301L2		BE90LA4	ME3SB4	N140TC	3,280	3,890	590	242
28.5	4,190	1.8	63.2	10.0	300L3		BE90LA4	ME3SB4	N140TC	3,250	4,110	590	226
28.6	4,170	1.8	62.9	16.0		300R3	BE90LA4	ME3SB4	N140TC	3,250	4,100	590	226
35	3,550	1.6	51.9	10.0	300L2		BE90LA4	ME3SB4	N140TC	3,070	3,870	550	226
35	3,420	2.2	51.6	10.0	300L3		BE90LA4	ME3SB4	N140TC	3,060	3,860	550	226
36	3,340	2.2	50.4	16.0		300R3	BE90LA4	ME3SB4	N140TC	3,040	3,840	550	226
43	2,840	2.0	41.5	10.0	300L2		BE90LA4	ME3SB4	N140TC	2,870	3,620	510	226
44	2,730	2.1	41.2	16.0		300R3	BE90LA4	ME3SB4	N140TC	2,860	3,610	510	226
47	2,620	2.8	38.4	10.0	300L2		BE90LA4	ME3SB4	N140TC	2,800	3,530	500	226
54	2,270	2.5	33.3	10.0	300L2		BE90LA4	ME3SB4	N140TC	2,680	3,390	480	226
98	1,260	2.6	18.5	16.0		300R2	BE90LA4	ME3SB4	N140TC	2,250	2,840	390	226








P₁ = 3 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
0.70	237,300	1.0	2524	15.0	310L4		BE100LA4	ME3LA4		22,700	29,400	14,600	364
0.80	205,600	2.1	2187	15.0	313L4		BE100LA4	ME3LA4		38,700	48,400	18,000	400
0.90	190,100	1.2	2022	15.0	310L4		BE100LA4	ME3LA4		22,000	28,400	14,600	364
0.90	197,100	1.5	2096	15.0	311L4		BE100LA4	ME3LA4		27,700	31,800	14,600	382
1.0	162,000	0.9	1723	10.0	309L4		BE100LA4	ME3LA4		18,400	25,000	7,980	348
1.0	168,700	1.4	1795	15.0	310L4		BE100LA4	ME3LA4		21,700	28,000	14,600	364
1.0	166,100	2.3	1766	15.0	311L4		BE100LA4	ME3LA4		27,000	31,000	14,500	382
1.1	150,900	1.0	1605	10.0	309L4		BE100LA4	ME3LA4		18,200	24,700	7,790	348
1.1	157,200	1.4	1672	15.0	310L4		BE100LA4	ME3LA4		21,400	27,700	14,300	364
1.1	157,900	1.9	1680	15.0	311L4		BE100LA4	ME3LA4		26,800	30,800	14,300	382
1.3	132,400	1.0	1408	10.0	307L4		BE100LA4	ME3LA4		17,800	24,300	9,320	330
1.3	129,800	1.1	1380	10.0	309L4		BE100LA4	ME3LA4		17,800	24,200	7,410	348
1.3	135,200	1.6	1438	15.0	310L4		BE100LA4	ME3LA4		21,000	27,100	13,600	364
1.3	133,100	2.8	1415	15.0	311L4		BE100LA4	ME3LA4		26,200	30,100	13,500	382
1.4	119,800	0.9	1275	10.0	307L4		BE100LA4	ME3LA4		17,600	23,900	9,020	330
1.4	120,900	1.2	1286	10.0	309L4		BE100LA4	ME3LA4		17,600	23,900	7,230	348
1.4	118,400	2.0	1259	15.0	310L4		BE100LA4	ME3LA4		20,600	26,600	13,000	364
1.5	109,500	2.3	1164	15.0	310L4		BE100LA4	ME3LA4		20,400	26,300	12,600	364
1.6	108,800	1.1	1157	10.0	307L4		BE100LA4	ME3LA4		17,300	23,600	8,730	330
1.6	108,100	1.3	1149	10.0	309L4		BE100LA4	ME3LA4		17,300	23,600	6,970	348
1.8	93,900	1.3	999	10.0	307L4		BE100LA4	ME3LA4		17,000	23,100	8,310	330
1.8	93,900	1.7	999	10.0	309L4		BE100LA4	ME3LA4		17,000	23,100	6,650	348
1.8	96,000	2.6	1021	15.0	310L4		BE100LA4	ME3LA4		20,000	25,800	12,100	364
2.0	85,200	1.6	906	10.0	307L4		BE100LA4	ME3LA4		16,700	22,800	8,050	330







P₁ = 3 hp

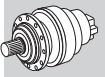


A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	   			NEMA	Rn ₂ [lbs]				
					IE2	IE2	IE2		NHC/HC NPC/PC	HZ/PZ	FZ		
2.0	85,200	1.8	906	10.0	309L4		BE100LA4	ME3LA4		16,700	22,800	6,440	348
2.0	84,400	2.3	898	20.0		310R4	BE100LA4	ME3LA4		19,600	25,300	11,600	364
2.2	75,300	1.5	801	10.0	307L4		BE100LA4	ME3LA4		16,500	22,400	7,720	330
2.2	75,300	2.1	801	10.0	309L4		BE100LA4	ME3LA4		16,500	22,400	6,180	348
2.5	67,900	1.9	722	10.0	307L4		BE100LA4	ME3LA4		16,200	22,100	7,460	330
2.5	67,900	2.8	722	10.0	309L4		BE100LA4	ME3LA4		16,200	22,100	5,970	348
2.6	65,800	1.3	700	8.0	306L4		BE100LA4	ME3LA4		12,900	16,300	5,740	312
2.6	64,900	1.3	690	20.0		307R4	BE100LA4	ME3LA4		16,100	21,900	7,350	330
2.6	64,900	2.0	690	20.0		309R4	BE100LA4	ME3LA4		16,100	21,900	5,880	348
2.8	59,800	1.4	636	8.0	306L4		BE100LA4	ME3LA4		12,700	16,000	5,560	312
2.8	61,400	1.8	654	10.0	307L4		BE100LA4	ME3LA4		16,000	21,700	7,220	330
2.8	61,400	2.6	654	10.0	309L4		BE100LA4	ME3LA4		16,000	21,700	5,770	348
3.0	55,500	1.3	590	16.0		306R4	BE100LA4	ME3LA4		12,600	15,900	5,430	312
3.1	55,400	1.4	589	8.0	306L4		BE100LA4	ME3LA4		12,600	15,900	5,420	312
3.1	54,400	2.4	579	10.0	307L4		BE100LA4	ME3LA4		15,700	21,400	6,930	330
3.1	54,600	2.0	581	20.0		307R4	BE100LA4	ME3LA4		15,700	21,400	6,940	330
3.1	54,600	2.6	581	20.0		309R4	BE100LA4	ME3LA4		15,700	21,400	5,550	348
3.2	52,300	0.9	556	8.0	305L4		BE100LA4	ME3LA4		9,090	11,500	3,650	294
3.3	51,700	1.2	550	16.0		306R4	BE100LA4	ME3LA4		12,500	15,700	5,300	312
3.5	47,900	1.7	509	8.0	306L4		BE100LA4	ME3LA4		12,300	15,500	5,170	312
3.5	47,900	2.6	509	10.0	307L4		BE100LA4	ME3LA4		15,400	21,000	6,640	330
3.5	47,900	2.6	509	10.0	309L4		BE100LA4	ME3LA4		15,400	21,000	5,310	348
3.7	46,300	1.0	492	8.0	305L4		BE100LA4	ME3LA4		8,930	11,300	3,500	294
3.7	45,900	1.7	488	16.0		306R4	BE100LA4	ME3LA4		12,300	15,400	5,090	312
3.7	46,100	1.7	491	20.0		307R4	BE100LA4	ME3LA4		15,300	20,900	6,560	330
3.7	46,100	2.6	491	20.0		309R4	BE100LA4	ME3LA4		15,300	20,900	5,250	348
3.9	43,700	2.4	465	10.0	307L4		BE100LA4	ME3LA4		15,200	20,700	6,440	330
3.9	43,000	2.8	457	20.0		309R4	BE100LA4	ME3LA4		15,200	20,700	5,120	348
4.0	41,900	1.2	446	8.0	305L4		BE100LA4	ME3LA4		8,810	11,100	3,390	294
4.0	42,500	1.0	452	16.0		305R4	BE100LA4	ME3LA4		8,820	11,100	3,400	294
4.0	42,700	1.4	455	16.0		306R4	BE100LA4	ME3LA4		12,100	15,300	4,970	312
4.0	42,600	2.7	453	20.0		307R4	BE100LA4	ME3LA4		15,200	20,600	6,390	330
4.1	41,800	2.1	444	8.0	306L4		BE100LA4	ME3LA4		12,100	15,200	4,940	312
4.3	39,500	1.9	420	16.0		306R4	BE100LA4	ME3LA4		12,000	15,100	4,840	312
4.4	38,900	1.0	413	8.0	305L4		BE100LA4	ME3LA4		8,710	11,000	3,300	294
4.4	39,300	1.3	405	10.0	306L3		BE100LA4	ME3LA4		11,900	15,000	4,790	312
4.4	38,100	2.7	406	10.0	307L4		BE100LA4	ME3LA4		14,900	20,300	6,160	330
4.4	38,900	2.6	413	20.0		307R4	BE100LA4	ME3LA4		15,000	20,400	6,190	330
4.6	36,800	1.6	391	8.0	306L4		BE100LA4	ME3LA4		11,900	15,000	4,730	312
4.6	36,600	1.8	389	16.0		306R4	BE100LA4	ME3LA4		11,900	15,000	4,720	312
4.9	34,200	1.2	364	16.0		305R4	BE100LA4	ME3LA4		8,560	10,800	3,170	294
5.3	32,600	2.4	337	15.0	307L3		BE100LA4	ME3LA4		14,700	20,000	5,780	330
5.4	31,600	1.3	336	16.0		305R4	BE100LA4	ME3LA4		8,540	10,800	3,080	294
5.5	31,500	1.5	325	10.0	306L3		BE100LA4	ME3LA4		11,700	14,800	4,440	312
5.6	31,200	1.0	321	10.0	305L3		BE100LA4	ME3LA4		8,540	10,800	3,040	294
5.8	29,400	1.1	313	16.0		305R4	BE100LA4	ME3LA4		8,540	10,800	3,010	294
5.8	29,300	2.3	312	16.0		306R4	BE100LA4	ME3LA4		11,700	14,800	4,390	312
5.9	28,800	1.1	307	16.0		304R4	BE100LA4	ME3LA4		8,540	10,800	2,990	276
6.2	27,300	1.2	290	16.0		304R4	BE100LA4	ME3LA4		8,540	10,800	2,940	276
6.2	27,300	1.7	290	16.0		305R4	BE100LA4	ME3LA4		8,540	10,800	2,940	294
6.2	27,200	2.7	289	16.0		306R4	BE100LA4	ME3LA4		11,700	14,800	4,280	312
6.3	27,900	1.7	288	10.0	306L3		BE100LA4	ME3LA4		11,700	14,800	4,270	312
6.5	26,800	1.5	277	10.0	305L3		BE100LA4	ME3LA4		8,540	10,800	2,890	294
6.7	25,100	1.3	267	16.0		304R4	BE100LA4	ME3LA4		8,540	10,800	2,860	276
6.7	26,000	1.9	268	10.0	306L3		BE100LA4	ME3LA4		11,700	14,800	4,170	312
7.0	25,000	1.3	258	10.0	305L3		BE100LA4	ME3LA4		8,540	10,800	2,820	294
7.1	24,000	1.3	255	16.0		305R4	BE100LA4	ME3LA4		8,540	10,800	2,810	294

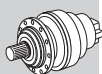
P₁ = 3 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
7.8	21,700	1.5	231	16.0			305R4	BE100LA4	ME3LA4	8,540	10,800	2,720	294
7.9	21,300	1.4	227	16.0			304R4	BE100LA4	ME3LA4	8,540	10,800	2,700	276
8.1	21,500	2.7	222	10.0	306L3			BE100LA4	ME3LA4	11,700	14,800	3,920	312
8.2	21,400	0.9	220	10.0	303L3			BE100LA4	ME3LA4	8,540	10,800	2,680	258
8.2	21,400	1.5	220	10.0	304L3			BE100LA4	ME3LA4	8,540	10,800	2,680	276
8.2	21,400	2.0	220	10.0	305L3			BE100LA4	ME3LA4	8,540	10,800	2,680	294
8.4	20,100	1.2	214	16.0			303R4	BE100LA4	ME3LA4	8,540	10,800	2,650	258
8.4	20,100	1.6	214	16.0			304R4	BE100LA4	ME3LA4	8,540	10,800	2,650	276
8.4	20,100	2.3	214	16.0			305R4	BE100LA4	ME3LA4	8,540	10,800	2,650	294
8.9	19,600	1.1	202	10.0	304L3			BE100LA4	ME3LA4	8,540	10,800	2,600	276
9.5	18,400	1.7	190	10.0	305L3			BE100LA4	ME3LA4	8,540	10,800	2,550	294
9.7	17,400	1.2	185	16.0			303R4	BE100LA4	ME3LA4	8,540	10,800	2,530	258
9.7	17,400	1.8	185	16.0			304R4	BE100LA4	ME3LA4	8,540	10,800	2,530	276
9.7	17,400	2.3	185	16.0			305R4	BE100LA4	ME3LA4	8,540	10,800	2,530	294
10.1	17,200	1.1	178	10.0	303L3			BE100LA4	ME3LA4	8,510	10,700	2,490	258
10.1	17,200	1.5	178	10.0	304L3			BE100LA4	ME3LA4	8,510	10,700	2,490	276
10.1	17,200	2.3	178	10.0	305L3			BE100LA4	ME3LA4	8,510	10,700	2,490	294
10.3	16,500	0.9	176	13.0			301R4	BE100LA4	ME3LA4	4,420	5,240	830	242
10.9	16,000	1.3	165	10.0	304L3			BE100LA4	ME3LA4	8,320	10,500	2,430	276
11.0	15,900	1.2	164	10.0	303L3			BE100LA4	ME3LA4	8,300	10,500	2,430	258
11.0	15,900	2.5	164	10.0	305L3			BE100LA4	ME3LA4	8,300	10,500	2,430	294
11.3	14,900	1.0	159	13.0			301R4	BE100LA4	ME3LA4	4,290	5,090	800	242
11.4	14,900	1.6	158	16.0			303R4	BE100LA4	ME3LA4	8,220	10,400	2,400	258
11.4	14,900	2.1	158	16.0			304R4	BE100LA4	ME3LA4	8,220	10,400	2,400	276
11.8	14,800	1.1	153	10.0	303L3			BE100LA4	ME3LA4	8,130	10,300	2,370	258
11.8	14,800	2.2	153	10.0	305L3			BE100LA4	ME3LA4	8,130	10,300	2,370	294
12.0	14,500	2.1	150	10.0	304L3			BE100LA4	ME3LA4	8,080	10,200	2,350	276
12.1	13,900	1.5	148	16.0			303R4	BE100LA4	ME3LA4	8,060	10,200	2,350	258
12.1	13,900	2.2	148	16.0			304R4	BE100LA4	ME3LA4	8,060	10,200	2,350	276
12.1	13,900	2.8	148	16.0			305R4	BE100LA4	ME3LA4	8,060	10,200	2,350	294
12.7	13,800	1.1	142	10.0	301L3			BE100LA4	ME3LA4	4,140	4,920	770	242
12.7	13,700	1.7	142	10.0	303L3			BE100LA4	ME3LA4	7,950	10,000	2,310	258
12.7	13,700	2.3	142	10.0	304L3			BE100LA4	ME3LA4	7,950	10,000	2,310	276
13.8	12,700	1.2	131	10.0	301L3			BE100LA4	ME3LA4	4,050	4,800	750	242
13.8	12,600	2.5	131	10.0	304L3			BE100LA4	ME3LA4	7,760	9,800	2,250	276
13.9	12,200	1.2	130	13.0			301R4	BE100LA4	ME3LA4	4,030	4,790	750	242
13.9	12,200	1.9	129	16.0			303R4	BE100LA4	ME3LA4	7,730	9,770	2,240	258
13.9	12,200	2.6	129	16.0			304R4	BE100LA4	ME3LA4	7,730	9,770	2,240	276
14.5	12,100	1.3	125	10.0	303L3			BE100LA4	ME3LA4	7,650	9,660	2,210	258
14.5	12,100	2.6	125	10.0	305L3			BE100LA4	ME3LA4	7,650	9,660	2,210	294
14.8	11,800	1.8	121	19.0			304R3	BE100LA4	ME3LA4	7,590	9,580	2,200	276
15.5	11,200	1.0	116	10.0	301L3			BE100LA4	ME3LA4	3,900	4,630	720	242
15.7	11,100	1.5	114	19.0			303R3	BE100LA4	ME3LA4	7,460	9,420	2,150	258
15.7	11,100	2.9	114	19.0			305R3	BE100LA4	ME3LA4	7,460	9,420	2,150	294
16.0	10,900	1.5	113	10.0	303L3			BE100LA4	ME3LA4	7,420	9,380	2,140	258
16.0	10,900	2.9	113	10.0	305L3			BE100LA4	ME3LA4	7,420	9,380	2,140	294
16.3	10,700	2.8	111	10.0	304L3			BE100LA4	ME3LA4	7,380	9,320	2,130	276
16.4	10,300	2.9	110	16.0			304R4	BE100LA4	ME3LA4	7,360	9,300	2,120	276
16.9	10,300	1.1	106	16.0			301R3	BE100LA4	ME3LA4	3,800	4,510	700	242
17.0	9,950	1.5	106	13.0			301R4	BE100LA4	ME3LA4	3,800	4,500	700	242
17.2	10,200	1.5	105	10.0	301L3			BE100LA4	ME3LA4	3,790	4,490	700	242
17.2	10,100	2.2	105	10.0	303L3			BE100LA4	ME3LA4	7,260	9,170	2,090	258
18.6	9,400	2.2	97.0	19.0			304R3	BE100LA4	ME3LA4	7,100	8,960	2,040	276
19.7	8,870	1.8	91.5	19.0			303R3	BE100LA4	ME3LA4	6,970	8,810	2,000	258
20.0	8,740	2.3	90.2	10.0	303L3			BE100LA4	ME3LA4	6,940	8,770	1,990	258
21.0	8,300	0.9	85.6	10.0	300L3			BE100LA4	ME3LA4	3,560	4,500	650	226
21.0	8,300	1.8	85.6	10.0	301L3			BE100LA4	ME3LA4	3,560	4,230	650	242



A

P₁ = 3 hp





A

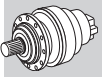
n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]				
										NHC/HC NPC/PC	HZ/PZ	FZ		
21.1	8,250	1.4	85.2	16.0			301R3	BE100LA4	ME3LA4		3,560	4,220	650	242
22.9	7,620	1.0	78.7	16.0			300R3	BE100LA4	ME3LA4		3,470	4,380	630	226
22.9	7,620	1.8	78.7	16.0			301R3	BE100LA4	ME3LA4		3,470	4,120	630	242
22.9	7,630	2.5	78.7	19.0			303R3	BE100LA4	ME3LA4		6,670	8,420	1,900	258
23.2	7,510	1.0	77.5	10.0	300L3			BE100LA4	ME3LA4		3,460	4,360	630	226
23.2	7,510	1.9	77.5	10.0	301L3			BE100LA4	ME3LA4		3,460	4,100	630	242
23.3	7,490	2.9	77.2	10.0	303L3			BE100LA4	ME3LA4		6,630	8,370	1,890	258
24.5	7,110	2.3	73.3	19.0		303R3		BE100LA4	ME3LA4		6,530	8,240	1,860	258
24.9	7,010	2.8	72.3	10.0	303L3			BE100LA4	ME3LA4		6,500	8,210	1,850	258
25.8	6,770	1.7	69.9	10.0	301L3			BE100LA4	ME3LA4		3,350	3,980	610	242
26.4	6,610	1.7	68.2	16.0		301R3		BE100LA4	ME3LA4		3,330	3,950	600	242
27.8	6,480	1.6	64.8	10.0	301L2			BE100LA4	ME3LA4		3,280	3,890	590	242
28.5	6,130	1.2	63.2	10.0	300L3			BE100LA4	ME3LA4		3,250	4,110	590	226
28.5	6,130	2.4	63.2	10.0	301L3			BE100LA4	ME3LA4		3,250	3,860	590	242
28.6	6,100	1.2	62.9	16.0		300R3		BE100LA4	ME3LA4		3,250	4,100	590	226
28.6	6,100	2.4	62.9	16.0		301R3		BE100LA4	ME3LA4		3,250	3,850	590	242
32	5,580	2.9	55.8	12.0	303L2			BE100LA4	ME3LA4		6,010	7,590	1,690	258
35	5,190	1.1	51.9	10.0	300L2			BE100LA4	ME3LA4		3,070	3,870	550	226
35	5,190	2.2	51.9	10.0	301L2			BE100LA4	ME3LA4		3,070	3,640	550	242
35	5,000	1.5	51.6	10.0	300L3			BE100LA4	ME3LA4		3,060	3,860	550	226
35	5,000	2.9	51.6	10.0	301L3			BE100LA4	ME3LA4		3,060	3,630	550	242
36	4,890	1.5	50.4	16.0		300R3		BE100LA4	ME3LA4		3,040	3,840	550	226
36	4,890	2.9	50.4	16.0		301R3		BE100LA4	ME3LA4		3,040	3,610	550	242
43	4,150	1.4	41.5	10.0	300L2			BE100LA4	ME3LA4		2,870	3,620	510	226
43	4,150	2.8	41.5	10.0	301L2			BE100LA4	ME3LA4		2,870	3,400	510	242
44	3,990	1.4	41.2	16.0		300R3		BE100LA4	ME3LA4		2,860	3,610	510	226
44	3,990	2.9	41.2	16.0		301R3		BE100LA4	ME3LA4		2,860	3,390	510	242
47	3,830	1.9	38.4	10.0	300L2			BE100LA4	ME3LA4		2,800	3,530	500	226
48	3,610	2.1	37.3	16.0		300R3		BE100LA4	ME3LA4		2,770	3,500	490	226
54	3,330	1.7	33.3	10.0	300L2			BE100LA4	ME3LA4		2,680	3,390	480	226
59	3,070	2.3	30.7	10.0	300L2			BE100LA4	ME3LA4		2,620	3,310	460	226
59	2,950	2.4	30.4	16.0		300R3		BE100LA4	ME3LA4		2,610	3,300	460	226
73	2,410	2.7	24.8	16.0		300R3		BE100LA4	ME3LA4		2,460	3,100	430	226
73	2,460	2.8	24.6	10.0	300L2			BE100LA4	ME3LA4		2,450	3,090	430	226
90	2,010	2.8	20.1	10.0	300L2			BE100LA4	ME3LA4		2,310	2,910	400	226
98	1,840	1.8	18.5	16.0		300R2		BE100LA4	ME3LA4		2,250	2,840	390	226
122	1,470	2.9	14.8	16.0		300R2		BE100LA4	ME3LA4		2,100	2,650	360	226
200	930	2.9	9.00	10.0	300L1			BE100LA4	ME3LA4		1,810	2,290	310	226

P₁ = 4 hp

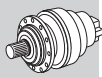
n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]				
										NHC/HC NPC/PC	HZ/PZ	FZ		
0.80	282,700	1.5	2187	15.0	313L4			BE100LB4	ME3LB4	N180TC	38,700	48,400	18,000	400
0.90	271,000	1.1	2096	15.0	311L4			BE100LB4	ME3LB4	N180TC	27,700	31,800	14,600	382
1.0	232,000	1.0	1795	15.0	310L4			BE100LB4	ME3LB4	N180TC	21,700	28,000	14,600	364
1.0	228,400	1.7	1766	15.0	311L4			BE100LB4	ME3LB4	N180TC	27,000	31,000	14,500	382
1.0	234,900	2.2	1817	15.0	313L4			BE100LB4	ME3LB4	N180TC	37,700	47,100	18,000	400
1.1	216,100	1.0	1672	15.0	310L4			BE100LB4	ME3LB4	N180TC	21,400	27,700	14,300	364
1.1	217,200	1.4	1680	15.0	311L4			BE100LB4	ME3LB4	N180TC	26,800	30,800	14,300	382
1.2	194,200	2.6	1502	15.0	313L4			BE100LB4	ME3LB4	N180TC	36,600	45,900	16,900	400
1.3	185,900	1.2	1438	15.0	310L4			BE100LB4	ME3LB4	N180TC	21,000	27,100	13,600	364
1.3	183,000	2.0	1415	15.0	311L4			BE100LB4	ME3LB4	N180TC	26,200	30,100	13,500	382
1.3	180,200	2.6	1394	15.0	313L4			BE100LB4	ME3LB4	N180TC	36,300	45,400	16,500	400
1.4	162,800	1.5	1259	15.0	310L4			BE100LB4	ME3LB4	N180TC	20,600	26,600	13,000	364

P₁ = 4 hp







n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
					IE2	IE2	NEMA	NHC/HC NPC/PC	HZ/PZ	FZ			
1.4	163,600	3.0	1266	15.0	313L4		BE100LB4	ME3LB4	N180TC	35,800	44,800	16,000	400
1.5	150,500	1.7	1164	15.0	310L4		BE100LB4	ME3LB4	N180TC	20,400	26,300	12,600	364
1.5	159,100	2.4	1230	15.0	311L4		BE100LB4	ME3LB4	N180TC	25,700	29,500	12,900	382
1.6	148,600	0.9	1149	10.0	309L4		BE100LB4	ME3LB4	N180TC	17,300	23,600	6,970	348
1.7	136,800	2.7	1058	15.0	311L4		BE100LB4	ME3LB4	N180TC	25,100	28,800	12,200	382
1.8	129,200	0.9	999	10.0	307L4		BE100LB4	ME3LB4	N180TC	17,000	23,100	8,310	330
1.8	129,200	1.2	999	10.0	309L4		BE100LB4	ME3LB4	N180TC	17,000	23,100	6,650	348
1.8	131,900	1.9	1021	15.0	310L4		BE100LB4	ME3LB4	N180TC	20,000	25,800	12,100	364
1.8	127,500	2.9	986	15.0	311L4		BE100LB4	ME3LB4	N180TC	24,900	28,600	12,000	382
1.9	121,400	2.4	939	15.0	310L4		BE100LB4	ME3LB4	N180TC	19,700	25,500	11,800	364
2.0	117,200	1.1	906	10.0	307L4		BE100LB4	ME3LB4	N180TC	16,700	22,800	8,050	330
2.0	117,200	1.3	906	10.0	309L4		BE100LB4	ME3LB4	N180TC	16,700	22,800	6,440	348
2.0	116,100	1.7	898	20.0		310R4	BE100LB4	ME3LB4	N180TC	19,600	25,300	11,600	364
2.2	103,500	1.1	801	10.0	307L4		BE100LB4	ME3LB4	N180TC	16,500	22,400	7,720	330
2.2	103,500	1.5	801	10.0	309L4		BE100LB4	ME3LB4	N180TC	16,500	22,400	6,180	348
2.2	105,700	2.2	818	15.0	310L4		BE100LB4	ME3LB4	N180TC	19,400	25,000	11,200	364
2.4	97,800	2.4	757	20.0		310R4	BE100LB4	ME3LB4	N180TC	19,100	24,700	10,900	364
2.4	96,500	2.7	746	30.0		311R4	BE100LB4	ME3LB4	N180TC	23,900	27,400	10,900	382
2.5	93,400	1.4	722	10.0	307L4		BE100LB4	ME3LB4	N180TC	16,200	22,100	7,460	330
2.5	93,400	2.0	722	10.0	309L4		BE100LB4	ME3LB4	N180TC	16,200	22,100	5,970	348
2.5	93,800	2.5	726	15.0	310L4		BE100LB4	ME3LB4	N180TC	19,000	24,600	10,800	364
2.6	90,400	0.9	700	8.0	306L4		BE100LB4	ME3LB4	N180TC	12,900	16,300	5,740	312
2.6	89,200	0.9	690	20.0		307R4	BE100LB4	ME3LB4	N180TC	16,100	21,900	7,350	330
2.6	89,200	1.4	690	20.0		309R4	BE100LB4	ME3LB4	N180TC	16,100	21,900	5,880	348
2.8	82,200	1.0	636	8.0	306L4		BE100LB4	ME3LB4	N180TC	12,700	16,000	5,560	312
2.8	84,500	1.3	654	10.0	307L4		BE100LB4	ME3LB4	N180TC	16,000	21,700	7,220	330
2.8	84,500	1.9	654	10.0	309L4		BE100LB4	ME3LB4	N180TC	16,000	21,700	5,770	348
2.8	82,300	2.8	637	15.0	310L4		BE100LB4	ME3LB4	N180TC	18,700	24,100	10,300	364
2.8	82,600	2.2	639	20.0		310R4	BE100LB4	ME3LB4	N180TC	18,700	24,100	10,300	364
3.0	76,300	1.0	590	16.0		306R4	BE100LB4	ME3LB4	N180TC	12,600	15,900	5,430	312
3.1	76,200	1.0	589	8.0	306L4		BE100LB4	ME3LB4	N180TC	12,600	15,900	5,420	312
3.1	74,800	1.8	579	10.0	307L4		BE100LB4	ME3LB4	N180TC	15,700	21,400	6,930	330
3.1	75,100	1.4	581	20.0		307R4	BE100LB4	ME3LB4	N180TC	15,700	21,400	6,940	330
3.1	74,800	2.5	579	10.0	309L4		BE100LB4	ME3LB4	N180TC	15,700	21,400	5,540	348
3.1	75,100	1.9	581	20.0		309R4	BE100LB4	ME3LB4	N180TC	15,700	21,400	5,550	348
3.1	76,200	2.5	590	20.0		310R4	BE100LB4	ME3LB4	N180TC	18,500	23,900	10,100	364
3.5	65,800	1.3	509	8.0	306L4		BE100LB4	ME3LB4	N180TC	12,300	15,500	5,170	312
3.5	65,800	1.9	509	10.0	307L4		BE100LB4	ME3LB4	N180TC	15,400	21,000	6,640	330
3.5	65,800	1.9	509	10.0	309L4		BE100LB4	ME3LB4	N180TC	15,400	21,000	5,310	348
3.7	63,100	1.2	488	16.0		306R4	BE100LB4	ME3LB4	N180TC	12,300	15,400	5,090	312
3.7	63,400	1.3	491	20.0		307R4	BE100LB4	ME3LB4	N180TC	15,300	20,900	6,560	330
3.7	63,400	1.9	491	20.0		309R4	BE100LB4	ME3LB4	N180TC	15,300	20,900	5,250	348
3.9	60,100	1.7	465	10.0	307L4		BE100LB4	ME3LB4	N180TC	15,200	20,700	6,440	330
3.9	60,100	2.6	465	10.0	309L4		BE100LB4	ME3LB4	N180TC	15,200	20,700	5,150	348
3.9	59,100	2.0	457	20.0		309R4	BE100LB4	ME3LB4	N180TC	15,200	20,700	5,120	348
4.0	58,800	1.0	455	16.0		306R4	BE100LB4	ME3LB4	N180TC	12,100	15,300	4,970	312
4.0	58,500	2.0	453	20.0		307R4	BE100LB4	ME3LB4	N180TC	15,200	20,600	6,390	330
4.0	58,700	2.9	454	20.0		310R4	BE100LB4	ME3LB4	N180TC	17,800	23,000	9,230	364
4.1	57,400	1.5	444	8.0	306L4		BE100LB4	ME3LB4	N180TC	12,100	15,200	4,940	312
4.3	54,300	1.4	420	16.0		306R4	BE100LB4	ME3LB4	N180TC	12,000	15,100	4,840	312
4.4	54,000	0.9	405	10.0	306L3		BE100LB4	ME3LB4	N180TC	11,900	15,000	4,790	312
4.4	52,400	1.9	406	10.0	307L4		BE100LB4	ME3LB4	N180TC	14,900	20,300	6,160	330
4.4	53,400	1.9	413	20.0		307R4	BE100LB4	ME3LB4	N180TC	15,000	20,400	6,190	330
4.4	52,400	2.9	406	10.0	309L4		BE100LB4	ME3LB4	N180TC	14,900	20,300	4,920	348
4.4	53,400	2.9	413	20.0		309R4	BE100LB4	ME3LB4	N180TC	15,000	20,400	4,960	348
4.6	50,500	1.2	391	8.0	306L4		BE100LB4	ME3LB4	N180TC	11,900	15,000	4,730	312
4.6	50,300	1.3	389	16.0		306R4	BE100LB4	ME3LB4	N180TC	11,900	15,000	4,720	312









P₁ = 4 hp

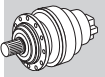


A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
4.8	48,400	2.6	374	20.0		309R4	BE100LB4	ME3LB4	N180TC	14,800	20,100	4,800	348
5.0	46,900	2.3	363	20.0		307R4	BE100LB4	ME3LB4	N180TC	14,700	20,000	5,930	330
5.2	45,100	2.9	349	10.0	307L4		BE100LB4	ME3LB4	N180TC	14,700	20,000	5,860	330
5.3	44,800	1.7	337	15.0	307L3		BE100LB4	ME3LB4	N180TC	14,700	20,000	5,780	330
5.3	44,800	2.6	337	15.0	309L3		BE100LB4	ME3LB4	N180TC	14,700	20,000	4,630	348
5.4	43,400	0.9	336	16.0		305R4	BE100LB4	ME3LB4	N180TC	8,540	10,800	3,080	294
5.4	42,800	2.3	331	20.0		307R4	BE100LB4	ME3LB4	N180TC	14,700	20,000	5,750	330
5.5	43,300	1.1	325	10.0	306L3		BE100LB4	ME3LB4	N180TC	11,700	14,800	4,440	312
5.8	40,300	1.7	312	16.0		306R4	BE100LB4	ME3LB4	N180TC	11,700	14,800	4,390	312
6.2	37,500	1.2	290	16.0		305R4	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,940	294
6.2	37,400	1.9	289	16.0		306R4	BE100LB4	ME3LB4	N180TC	11,700	14,800	4,280	312
6.3	38,400	1.3	288	10.0	306L3		BE100LB4	ME3LB4	N180TC	11,700	14,800	4,270	312
6.3	37,800	2.6	284	15.0	307L3		BE100LB4	ME3LB4	N180TC	14,700	20,000	5,460	330
6.3	36,800	2.7	285	20.0		307R4	BE100LB4	ME3LB4	N180TC	14,700	20,000	5,470	330
6.5	36,900	1.1	277	10.0	305L3		BE100LB4	ME3LB4	N180TC	8,540	10,800	2,890	294
6.7	34,600	0.9	267	16.0		304R4	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,860	276
6.7	35,800	1.4	268	10.0	306L3		BE100LB4	ME3LB4	N180TC	11,700	14,800	4,170	312
7.0	34,300	0.9	258	10.0	305L3		BE100LB4	ME3LB4	N180TC	8,540	10,800	2,820	294
7.1	33,000	1.0	255	16.0		305R4	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,810	294
7.2	32,100	2.2	249	16.0		306R4	BE100LB4	ME3LB4	N180TC	11,700	14,800	4,070	312
7.5	31,900	2.4	239	15.0	307L3		BE100LB4	ME3LB4	N180TC	14,700	20,000	5,160	330
7.6	31,700	2.3	238	10.0	306L3		BE100LB4	ME3LB4	N180TC	11,700	14,800	4,010	312
7.8	29,900	1.1	231	16.0		305R4	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,720	294
7.8	29,800	2.3	230	16.0		306R4	BE100LB4	ME3LB4	N180TC	11,700	14,800	3,960	312
7.9	29,300	1.0	227	16.0		304R4	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,700	276
8.1	29,600	1.9	222	10.0	306L3		BE100LB4	ME3LB4	N180TC	11,700	14,800	3,920	312
8.2	29,400	1.1	220	10.0	304L3		BE100LB4	ME3LB4	N180TC	8,540	10,800	2,680	276
8.2	29,400	1.4	220	10.0	305L3		BE100LB4	ME3LB4	N180TC	8,540	10,800	2,680	294
8.4	27,700	1.1	214	16.0		304R4	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,650	276
8.4	27,700	1.7	214	16.0		305R4	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,650	294
8.8	27,300	2.6	205	10.0	306L3		BE100LB4	ME3LB4	N180TC	11,700	14,800	3,810	312
9.5	25,400	1.3	190	10.0	305L3		BE100LB4	ME3LB4	N180TC	8,540	10,800	2,550	294
9.5	25,300	2.3	190	10.0	306L3		BE100LB4	ME3LB4	N180TC	11,700	14,800	3,720	312
9.7	23,900	1.3	185	16.0		304R4	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,530	276
9.7	23,900	1.7	185	16.0		305R4	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,530	294
10.1	23,700	1.1	178	10.0	304L3		BE100LB4	ME3LB4	N180TC	8,510	10,700	2,490	276
10.1	23,700	1.6	178	10.0	305L3		BE100LB4	ME3LB4	N180TC	8,510	10,700	2,490	294
10.9	21,900	1.0	165	10.0	304L3		BE100LB4	ME3LB4	N180TC	8,320	10,500	2,430	276
11.0	21,800	1.8	164	10.0	305L3		BE100LB4	ME3LB4	N180TC	8,300	10,500	2,430	294
11.4	20,500	1.1	158	16.0		303R4	BE100LB4	ME3LB4	N180TC	8,220	10,400	2,400	258
11.4	20,500	1.5	158	16.0		304R4	BE100LB4	ME3LB4	N180TC	8,220	10,400	2,400	276
11.4	20,500	2.2	158	16.0		305R4	BE100LB4	ME3LB4	N180TC	8,220	10,400	2,400	294
11.8	20,300	1.6	153	10.0	305L3		BE100LB4	ME3LB4	N180TC	8,130	10,300	2,370	294
12.0	19,900	1.5	150	10.0	304L3		BE100LB4	ME3LB4	N180TC	8,080	10,200	2,350	276
12.1	19,200	1.1	148	16.0		303R4	BE100LB4	ME3LB4	N180TC	8,060	10,200	2,350	258
12.1	19,200	1.6	148	16.0		304R4	BE100LB4	ME3LB4	N180TC	8,060	10,200	2,350	276
12.1	19,200	2.0	148	16.0		305R4	BE100LB4	ME3LB4	N180TC	8,060	10,200	2,350	294
12.5	19,200	2.5	144	19.0		306R3	BE100LB4	ME3LB4	N180TC	11,000	13,800	3,390	312
12.7	18,900	1.2	142	10.0	303L3		BE100LB4	ME3LB4	N180TC	7,950	10,000	2,310	258
12.7	18,900	1.7	142	10.0	304L3		BE100LB4	ME3LB4	N180TC	7,950	10,000	2,310	276
12.7	18,900	2.4	142	10.0	305L3		BE100LB4	ME3LB4	N180TC	7,950	10,000	2,310	294
13.8	17,400	1.8	131	10.0	304L3		BE100LB4	ME3LB4	N180TC	7,760	9,800	2,250	276
13.9	16,700	1.4	129	16.0		303R4	BE100LB4	ME3LB4	N180TC	7,730	9,770	2,240	258
13.9	16,700	1.9	129	16.0		304R4	BE100LB4	ME3LB4	N180TC	7,730	9,770	2,240	276
13.9	16,700	2.7	129	16.0		305R4	BE100LB4	ME3LB4	N180TC	7,730	9,770	2,240	294
14.5	16,600	1.0	125	10.0	303L3		BE100LB4	ME3LB4	N180TC	7,650	9,660	2,210	258
14.5	16,600	1.9	125	10.0	305L3		BE100LB4	ME3LB4	N180TC	7,650	9,660	2,210	294

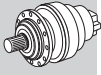
P₁ = 4 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NEMA	Rn ₂ [lbs]			
											NHC/HC NPC/PC	HZ/PZ	FZ	
14.8	16,200	1.3	121	19.0			304R3	BE100LB4	ME3LB4	N180TC	7,590	9,580	2,200	276
15.7	15,200	1.1	114	19.0			303R3	BE100LB4	ME3LB4	N180TC	7,460	9,420	2,150	258
15.7	15,200	2.1	114	19.0			305R3	BE100LB4	ME3LB4	N180TC	7,460	9,420	2,150	294
16.0	15,000	1.1	113	10.0		303L3		BE100LB4	ME3LB4	N180TC	7,420	9,380	2,140	258
16.0	15,000	2.1	113	10.0		305L3		BE100LB4	ME3LB4	N180TC	7,420	9,380	2,140	294
16.3	14,700	2.0	111	10.0		304L3		BE100LB4	ME3LB4	N180TC	7,380	9,320	2,130	276
16.4	14,200	2.1	110	16.0			304R4	BE100LB4	ME3LB4	N180TC	7,360	9,300	2,120	276
17.0	13,700	1.1	106	13.0			301R4	BE100LB4	ME3LB4	N180TC	3,800	4,500	700	242
17.2	14,000	1.1	105	10.0		301L3		BE100LB4	ME3LB4	N180TC	3,790	4,490	700	242
17.2	13,900	1.6	105	10.0		303L3		BE100LB4	ME3LB4	N180TC	7,260	9,170	2,090	258
17.2	13,900	2.2	105	10.0		304L3		BE100LB4	ME3LB4	N180TC	7,260	9,170	2,090	276
18.6	12,900	1.6	97.0	19.0			304R3	BE100LB4	ME3LB4	N180TC	7,100	8,960	2,040	276
19.7	12,200	1.3	91.5	19.0			303R3	BE100LB4	ME3LB4	N180TC	6,970	8,810	2,000	258
19.7	12,200	2.6	91.5	19.0			305R3	BE100LB4	ME3LB4	N180TC	6,970	8,810	2,000	294
20.0	12,000	1.6	90.2	10.0		303L3		BE100LB4	ME3LB4	N180TC	6,940	8,770	1,990	258
20.0	12,000	2.4	90.2	10.0		304L3		BE100LB4	ME3LB4	N180TC	6,940	8,770	1,990	276
20.1	11,600	2.5	89.4	16.0			304R4	BE100LB4	ME3LB4	N180TC	6,920	8,750	1,980	276
21.0	11,400	1.3	85.6	10.0		301L3		BE100LB4	ME3LB4	N180TC	3,560	4,230	650	242
21.1	11,300	1.0	85.2	16.0			301R3	BE100LB4	ME3LB4	N180TC	3,560	4,220	650	242
22.9	10,500	1.3	78.7	16.0			301R3	BE100LB4	ME3LB4	N180TC	3,470	4,120	630	242
22.9	10,500	1.8	78.7	19.0			303R3	BE100LB4	ME3LB4	N180TC	6,670	8,420	1,900	258
22.9	10,500	2.4	78.7	19.0			304R3	BE100LB4	ME3LB4	N180TC	6,670	8,420	1,900	276
23.2	10,300	1.4	77.5	10.0		301L3		BE100LB4	ME3LB4	N180TC	3,460	4,100	630	242
23.3	10,300	2.1	77.2	10.0		303L3		BE100LB4	ME3LB4	N180TC	6,630	8,370	1,890	258
23.3	10,300	3.0	77.2	10.0		304L3		BE100LB4	ME3LB4	N180TC	6,630	8,370	1,890	276
24.5	9,770	1.6	73.3	19.0			303R3	BE100LB4	ME3LB4	N180TC	6,530	8,240	1,860	258
24.9	9,630	2.0	72.3	10.0		303L3		BE100LB4	ME3LB4	N180TC	6,500	8,210	1,850	258
24.9	9,630	3.0	72.3	10.0		304L3		BE100LB4	ME3LB4	N180TC	6,500	8,210	1,850	276
25.8	9,310	1.2	69.9	10.0		301L3		BE100LB4	ME3LB4	N180TC	3,350	3,980	610	242
26.4	9,090	1.3	68.2	16.0			301R3	BE100LB4	ME3LB4	N180TC	3,330	3,950	600	242
27.8	8,900	1.1	64.8	10.0		301L2		BE100LB4	ME3LB4	N180TC	3,280	3,890	590	242
28.5	8,430	1.7	63.2	10.0		301L3		BE100LB4	ME3LB4	N180TC	3,250	3,860	590	242
28.5	8,400	2.6	63.1	10.0		303L3		BE100LB4	ME3LB4	N180TC	6,240	7,880	1,770	258
28.5	8,410	2.3	63.1	19.0			303R3	BE100LB4	ME3LB4	N180TC	6,240	7,880	1,770	258
28.5	8,410	3.0	63.1	19.0			304R3			N180TC	6,240	7,880	1,770	276
28.6	8,390	1.7	62.9	16.0			301R3	BE100LB4	ME3LB4	N180TC	3,250	3,850	590	242
30	8,130	2.6	59.1	12.0		304L2		BE100LB4	ME3LB4	N180TC	6,120	7,730	1,730	276
32	7,670	2.1	55.8	12.0		303L2		BE100LB4	ME3LB4	N180TC	6,010	7,590	1,690	258
33	7,220	2.2	54.2	19.0			303R3	BE100LB4	ME3LB4	N180TC	5,960	7,530	1,680	258
34	7,120	2.7	53.4	10.0		303L3		BE100LB4	ME3LB4	N180TC	5,930	7,490	1,670	258
35	7,130	1.6	51.9	10.0		301L2		BE100LB4	ME3LB4	N180TC	3,070	3,640	550	242
35	6,880	1.1	51.6	10.0		300L3		BE100LB4	ME3LB4	N180TC	3,060	3,860	550	226
35	6,880	2.1	51.6	10.0		301L3		BE100LB4	ME3LB4	N180TC	3,060	3,630	550	242
36	6,720	1.1	50.4	16.0			300R3	BE100LB4	ME3LB4	N180TC	3,040	3,840	550	226
36	6,720	2.1	50.4	16.0			301R3	BE100LB4	ME3LB4	N180TC	3,040	3,610	550	242
40	6,130	2.6	44.6	12.0		303L2		BE100LB4	ME3LB4	N180TC	5,620	7,100	1,570	258
43	5,710	1.0	41.5	10.0		300L2		BE100LB4	ME3LB4	N180TC	2,870	3,620	510	226
43	5,710	2.0	41.5	10.0		301L2		BE100LB4	ME3LB4	N180TC	2,870	3,400	510	242
44	5,490	1.0	41.2	16.0			300R3	BE100LB4	ME3LB4	N180TC	2,860	3,610	510	226
44	5,490	2.1	41.2	16.0			301R3	BE100LB4	ME3LB4	N180TC	2,860	3,390	510	242
47	5,270	1.4	38.4	10.0		300L2		BE100LB4	ME3LB4	N180TC	2,800	3,530	500	226
47	5,270	2.6	38.4	10.0		301L2		BE100LB4	ME3LB4	N180TC	2,800	3,320	500	242
48	4,970	1.5	37.3	16.0			300R3	BE100LB4	ME3LB4	N180TC	2,770	3,500	490	226
48	4,970	2.8	37.3	16.0			301R3	BE100LB4	ME3LB4	N180TC	2,770	3,290	490	242
54	4,570	1.3	33.3	10.0		300L2		BE100LB4	ME3LB4	N180TC	2,680	3,390	480	226
54	4,570	2.5	33.3	10.0		301L2		BE100LB4	ME3LB4	N180TC	2,680	3,180	480	242
59	4,220	1.7	30.7	10.0		300L2		BE100LB4	ME3LB4	N180TC	2,620	3,310	460	226



A

P₁ = 4 hp









A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]				
										NHC/HC NPC/PC	HZ/PZ	FZ		
59	4,050	1.8	30.4	16.0			300R3	BE100LB4	ME3LB4	N180TC	2,610	3,300	460	226
73	3,310	2.0	24.8	16.0			300R3	BE100LB4	ME3LB4	N180TC	2,460	3,100	430	226
73	3,400	2.2	24.8	24.0			303R2	BE100LB4	ME3LB4	N180TC	4,710	5,950	1,290	258
73	3,380	2.0	24.6	10.0	300L2			BE100LB4	ME3LB4	N180TC	2,450	3,090	430	226
90	2,760	2.0	20.1	10.0	300L2			BE100LB4	ME3LB4	N180TC	2,310	2,910	400	226
98	2,540	1.3	18.5	16.0			300R2	BE100LB4	ME3LB4	N180TC	2,250	2,840	390	226
98	2,540	2.6	18.5	16.0			301R2	BE100LB4	ME3LB4	N180TC	2,250	2,670	390	242
99	2,500	2.6	18.2	10.0	300L2			BE100LB4	ME3LB4	N180TC	2,240	2,820	390	226
121	2,040	2.9	14.8	10.0	300L2			BE100LB4	ME3LB4	N180TC	2,110	2,660	360	226
122	2,030	2.1	14.8	16.0			300R2	BE100LB4	ME3LB4	N180TC	2,100	2,650	360	226
200	1,270	2.1	9.00	10.0	300L1			BE100LB4	ME3LB4	N180TC	1,810	2,290	310	226

P₁ = 5 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
0.80	342,700	1.3	2187	15.0	313L4		BE112M4	ME4SA4	N180TC	38,700	48,400	18,000	400
0.90	328,500	0.9	2096	15.0	311L4		BE112M4	ME4SA4	N180TC	27,700	31,800	14,600	382
1.0	276,800	1.4	1766	15.0	311L4		BE112M4	ME4SA4	N180TC	27,000	31,000	14,500	382
1.0	284,700	1.8	1817	15.0	313L4		BE112M4	ME4SA4	N180TC	37,700	47,100	18,000	400
1.1	263,200	1.1	1680	15.0	311L4		BE112M4	ME4SA4	N180TC	26,800	30,800	14,300	382
1.2	235,400	2.1	1502	15.0	313L4		BE112M4	ME4SA4	N180TC	36,600	45,900	16,900	400
1.3	225,300	1.0	1438	15.0	310L4		BE112M4	ME4SA4	N180TC	21,000	27,100	13,600	364
1.3	221,800	1.7	1415	15.0	311L4		BE112M4	ME4SA4	N180TC	26,200	30,100	13,500	382
1.3	218,400	2.1	1394	15.0	313L4		BE112M4	ME4SA4	N180TC	36,300	45,400	16,500	400
1.4	197,300	1.2	1259	15.0	310L4		BE112M4	ME4SA4	N180TC	20,600	26,600	13,000	364
1.4	198,300	2.4	1266	15.0	313L4		BE112M4	ME4SA4	N180TC	35,800	44,800	16,000	400
1.5	182,500	1.4	1164	15.0	310L4		BE112M4	ME4SA4	N180TC	20,400	26,300	12,600	364
1.5	192,800	2.0	1230	15.0	311L4		BE112M4	ME4SA4	N180TC	25,700	29,500	12,900	382
1.6	175,000	2.6	1117	15.0	313L4		BE112M4	ME4SA4	N180TC	35,100	44,000	15,300	400
1.7	165,900	2.2	1058	15.0	311L4		BE112M4	ME4SA4	N180TC	25,100	28,800	12,200	382
1.8	156,600	1.0	999	10.0	309L4		BE112M4	ME4SA4	N180TC	17,000	23,100	6,650	348
1.8	159,900	1.5	1021	15.0	310L4		BE112M4	ME4SA4	N180TC	20,000	25,800	12,100	364
1.8	154,500	2.4	986	15.0	311L4		BE112M4	ME4SA4	N180TC	24,900	28,600	12,000	382
1.8	158,900	2.9	1014	15.0	313L4		BE112M4	ME4SA4	N180TC	34,600	43,400	14,900	400
1.9	147,100	2.0	939	15.0	310L4		BE112M4	ME4SA4	N180TC	19,700	25,500	11,800	364
2.0	142,000	0.9	906	10.0	307L4		BE112M4	ME4SA4	N180TC	16,700	22,800	8,050	330
2.0	142,000	1.1	906	10.0	309L4		BE112M4	ME4SA4	N180TC	16,700	22,800	6,440	348
2.0	140,700	1.4	898	20.0		310R4	BE112M4	ME4SA4	N180TC	19,600	25,300	11,600	364
2.0	141,600	2.9	904	15.0	311L4		BE112M4	ME4SA4	N180TC	24,600	28,200	11,600	382
2.0	153,000	3.0	889	15.0	313L4			ME4SA4	N180TC	34,000	42,600	14,200	400
2.2	125,500	0.9	801	10.0	307L4		BE112M4	ME4SA4	N180TC	16,500	22,400	7,720	330
2.2	125,500	1.3	801	10.0	309L4		BE112M4	ME4SA4	N180TC	16,500	22,400	6,180	348
2.2	128,200	1.9	818	15.0	310L4		BE112M4	ME4SA4	N180TC	19,400	25,000	11,200	364
2.2	141,900	2.7	825	15.0	311L4			ME4SA4	N180TC	24,200	27,800	11,300	382
2.3	133,900	2.8	778	30.0		313R4		ME4SA4	N180TC	33,400	41,800	13,600	400
2.4	118,600	1.9	757	20.0		310R4	BE112M4	ME4SA4	N180TC	19,100	24,700	10,900	364
2.4	116,900	2.2	746	30.0		311R4	BE112M4	ME4SA4	N180TC	23,900	27,400	10,900	382
2.5	113,200	1.2	722	10.0	307L4		BE112M4	ME4SA4	N180TC	16,200	22,100	7,460	330
2.5	113,200	1.7	722	10.0	309L4		BE112M4	ME4SA4	N180TC	16,200	22,100	5,970	348
2.5	113,700	2.0	726	15.0	310L4		BE112M4	ME4SA4	N180TC	19,000	24,600	10,800	364
2.6	108,100	1.2	690	20.0		309R4	BE112M4	ME4SA4	N180TC	16,100	21,900	5,880	348
2.8	102,400	1.1	654	10.0	307L4		BE112M4	ME4SA4	N180TC	16,000	21,700	7,220	330
2.8	102,400	1.5	654	10.0	309L4		BE112M4	ME4SA4	N180TC	16,000	21,700	5,770	348
2.8	99,800	2.3	637	15.0	310L4		BE112M4	ME4SA4	N180TC	18,700	24,100	10,300	364

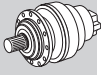
P₁ = 5 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
2.8	100,100	1.8	639	20.0		310R4	BE112M4	ME4SA4	N180TC	18,700	24,100	10,300	364
3.1	90,700	1.5	579	10.0	307L4		BE112M4	ME4SA4	N180TC	15,700	21,400	6,930	330
3.1	91,100	1.2	581	20.0		307R4	BE112M4	ME4SA4	N180TC	15,700	21,400	6,940	330
3.1	90,700	2.1	579	10.0	309L4		BE112M4	ME4SA4	N180TC	15,700	21,400	5,540	348
3.1	91,100	1.5	581	20.0		309R4	BE112M4		N180TC	15,700	21,400	5,550	348
3.1	92,400	2.1	590	20.0		310R4	BE112M4	ME4SA4	N180TC	18,500	23,900	10,100	364
3.2	95,600	2.8	556	15.0	310L4				N180TC	18,300	23,700	9,880	364
3.5	79,800	1.0	509	8.0	306L4		BE112M4	ME4SA4	N180TC	12,300	15,500	5,170	312
3.5	79,800	1.6	509	10.0	307L4		BE112M4	ME4SA4	N180TC	15,400	21,000	6,640	330
3.5	79,800	1.6	509	10.0	309L4		BE112M4	ME4SA4	N180TC	15,400	21,000	5,310	348
3.5	79,500	2.8	507	15.0	310L4		BE112M4	ME4SA4	N180TC	18,100	23,400	9,580	364
3.5	81,000	2.7	517	20.0		310R4	BE112M4	ME4SA4	N180TC	18,100	23,400	9,640	364
3.7	76,500	1.0	488	16.0		306R4	BE112M4	ME4SA4	N180TC	12,300	15,400	5,090	312
3.7	76,900	1.0	491	20.0		307R4	BE112M4	ME4SA4	N180TC	15,300	20,900	6,560	330
3.7	76,900	1.6	491	20.0		309R4	BE112M4		N180TC	15,300	20,900	5,250	348
3.9	72,800	1.4	465	10.0	307L4		BE112M4	ME4SA4	N180TC	15,200	20,700	6,440	330
3.9	72,800	2.1	465	10.0	309L4		BE112M4	ME4SA4	N180TC	15,200	20,700	5,150	348
3.9	71,600	1.7	457	20.0		309R4	BE112M4		N180TC	15,200	20,700	5,120	348
4.0	71,000	1.6	453	20.0		307R4	BE112M4	ME4SA4	N180TC	15,200	20,600	6,390	330
4.0	71,200	2.4	454	20.0		310R4	BE112M4	ME4SA4	N180TC	17,800	23,000	9,230	364
4.1	69,600	1.3	444	8.0	306L4		BE112M4	ME4SA4	N180TC	12,100	15,200	4,940	312
4.3	65,800	1.1	420	16.0		306R4	BE112M4	ME4SA4	N180TC	12,000	15,100	4,840	312
4.4	63,500	1.6	406	10.0	307L4		BE112M4	ME4SA4	N180TC	14,900	20,300	6,160	330
4.4	64,800	1.6	413	20.0		307R4	BE112M4	ME4SA4	N180TC	15,000	20,400	6,190	330
4.4	63,500	2.4	406	10.0	309L4		BE112M4	ME4SA4	N180TC	14,900	20,300	4,920	348
4.4	64,800	2.4	413	20.0		309R4	BE112M4		N180TC	15,000	20,400	4,960	348
4.6	61,300	1.0	391	8.0	306L4		BE112M4	ME4SA4	N180TC	11,900	15,000	4,730	312
4.6	60,900	1.1	389	16.0		306R4	BE112M4	ME4SA4	N180TC	11,900	15,000	4,720	312
4.6	61,400	2.7	392	15.0	310L4		BE112M4	ME4SA4	N180TC	17,400	22,500	8,790	364
4.8	58,700	2.2	374	20.0		309R4	BE112M4		N180TC	14,800	20,100	4,800	348
5.0	56,900	1.9	363	20.0		307R4	BE112M4	ME4SA4	N180TC	14,700	20,000	5,930	330
5.2	54,700	2.4	349	10.0	307L4		BE112M4	ME4SA4	N180TC	14,700	20,000	5,860	330
5.3	54,400	1.4	337	15.0	307L3		BE112M4	ME4SA4	N180TC	14,700	20,000	5,780	330
5.3	54,400	2.1	337	15.0	309L3		BE112M4	ME4SA4	N180TC	14,700	20,000	4,630	348
5.4	51,900	1.9	331	20.0		307R4	BE112M4	ME4SA4	N180TC	14,700	20,000	5,750	330
5.4	51,900	2.9	331	20.0		309R4	BE112M4		N180TC	14,700	20,000	4,600	348
5.5	52,400	0.9	325	10.0	306L3		BE112M4	ME4SA4	N180TC	11,700	14,800	4,440	312
5.8	48,800	1.4	312	16.0		306R4	BE112M4	ME4SA4	N180TC	11,700	14,800	4,390	312
6.0	47,000	2.6	300	20.0		307R4	BE112M4	ME4SA4	N180TC	14,700	20,000	5,570	330
6.2	45,400	1.0	290	16.0		305R4	BE112M4		N180TC	8,540	10,800	2,940	294
6.2	45,300	1.6	289	16.0		306R4	BE112M4	ME4SA4	N180TC	11,700	14,800	4,280	312
6.3	46,500	1.0	288	10.0	306L3		BE112M4	ME4SA4	N180TC	11,700	14,800	4,270	312
6.3	45,800	2.1	284	15.0	307L3		BE112M4	ME4SA4	N180TC	14,700	20,000	5,460	330
6.3	44,600	2.2	285	20.0		307R4	BE112M4	ME4SA4	N180TC	14,700	20,000	5,470	330
6.3	45,800	3.0	284	15.0	309L3		BE112M4	ME4SA4	N180TC	14,700	20,000	4,370	348
6.7	43,300	1.1	268	10.0	306L3		BE112M4	ME4SA4	N180TC	11,700	14,800	4,170	312
7.0	44,400	2.8	258	20.0		307R4			N180TC	14,700	20,000	5,290	330
7.2	39,000	1.8	249	16.0		306R4	BE112M4	ME4SA4	N180TC	11,700	14,800	4,070	312
7.5	38,700	2.0	239	15.0	307L3		BE112M4	ME4SA4	N180TC	14,700	20,000	5,160	330
7.5	38,700	3.0	239	15.0	309L3		BE112M4	ME4SA4	N180TC	14,700	20,000	4,130	348
7.6	38,500	1.9	238	10.0	306L3		BE112M4	ME4SA4	N180TC	11,700	14,800	4,010	312
7.8	36,100	1.9	230	16.0		306R4	BE112M4	ME4SA4	N180TC	11,700	14,800	3,960	312
7.8	36,400	2.7	232	20.0		307R4	BE112M4	ME4SA4	N180TC	14,700	20,000	5,110	330
8.1	35,800	1.6	222	10.0	306L3		BE112M4	ME4SA4	N180TC	11,700	14,800	3,920	312
8.1	39,200	2.9	221	15.0	307L3				N180TC	14,700	20,000	5,030	330
8.1	39,500	2.9	223	15.0	309L3				N180TC	14,700	20,000	4,030	348
8.2	35,600	1.2	220	10.0	305L3		BE112M4	ME4SA4	N180TC	8,540	10,800	2,680	294



A







P₁ = 5 hp



A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						Rn ₂ [lbs]			
					IE2	IE2	NEMA	NHC/HC NPC/PC	HZ/PZ	FZ			
8.4	33,600	0.9	214	16.0		304R4	BE112M4		N180TC	8,540	10,800	2,650	276
8.4	33,600	1.4	214	16.0		305R4	BE112M4		N180TC	8,540	10,800	2,650	294
8.4	33,500	2.6	214	16.0		306R4	BE112M4	ME4SA4	N180TC	11,700	14,800	3,870	312
8.8	33,100	2.1	205	10.0	306L3		BE112M4	ME4SA4	N180TC	11,700	14,800	3,810	312
8.9	32,600	3.0	202	15.0	307L3		BE112M4	ME4SA4	N180TC	14,700	20,000	4,880	330
9.5	30,700	1.0	190	10.0	305L3		BE112M4	ME4SA4	N180TC	8,540	10,800	2,550	294
9.5	30,700	1.9	190	10.0	306L3		BE112M4	ME4SA4	N180TC	11,700	14,800	3,720	312
9.7	29,000	1.1	185	16.0		304R4	BE112M4		N180TC	8,540	10,800	2,530	276
9.7	29,000	1.4	185	16.0		305R4	BE112M4		N180TC	8,540	10,800	2,530	294
9.9	28,400	2.9	181	16.0		306R4	BE112M4	ME4SA4	N180TC	11,700	14,800	3,660	312
10.1	28,700	1.4	178	10.0	305L3		BE112M4	ME4SA4	N180TC	8,510	10,700	2,490	294
10.7	26,300	2.5	168	16.0		306R4	BE112M4	ME4SA4	N180TC	11,500	14,500	3,570	312
11.0	26,400	1.5	164	10.0	305L3		BE112M4	ME4SA4	N180TC	8,300	10,500	2,430	294
11.4	24,800	0.9	158	16.0		303R4	BE112M4		N180TC	8,220	10,400	2,400	258
11.4	24,800	1.3	158	16.0		304R4	BE112M4		N180TC	8,220	10,400	2,400	276
11.4	24,800	1.9	158	16.0		305R4	BE112M4		N180TC	8,220	10,400	2,400	294
11.8	24,600	1.3	153	10.0	305L3		BE112M4	ME4SA4	N180TC	8,130	10,300	2,370	294
11.8	24,600	2.7	152	10.0	306L3		BE112M4	ME4SA4	N180TC	11,200	14,100	3,450	312
12.0	24,200	1.2	150	10.0	304L3		BE112M4	ME4SA4	N180TC	8,080	10,200	2,350	276
12.1	23,200	1.3	148	16.0		304R4	BE112M4		N180TC	8,060	10,200	2,350	276
12.1	23,200	1.7	148	16.0		305R4	BE112M4		N180TC	8,060	10,200	2,350	294
12.5	23,300	2.1	144	19.0		306R3	BE112M4	ME4SA4	N180TC	11,000	13,800	3,390	312
12.7	22,900	1.0	142	10.0	303L3		BE112M4	ME4SA4	N180TC	7,950	10,000	2,310	258
12.7	22,900	1.4	142	10.0	304L3		BE112M4	ME4SA4	N180TC	7,950	10,000	2,310	276
12.7	22,900	2.0	142	10.0	305L3		BE112M4	ME4SA4	N180TC	7,950	10,000	2,310	294
12.8	25,000	2.7	141	10.0	306L3				N180TC	10,900	13,700	3,370	312
13.8	21,100	1.5	131	10.0	304L3		BE112M4	ME4SA4	N180TC	7,760	9,800	2,250	276
13.9	20,300	1.1	129	16.0		303R4	BE112M4		N180TC	7,730	9,770	2,240	258
13.9	20,300	1.5	129	16.0		304R4	BE112M4		N180TC	7,730	9,770	2,240	276
13.9	20,300	2.2	129	16.0		305R4	BE112M4		N180TC	7,730	9,770	2,240	294
14.5	20,100	1.6	125	10.0	305L3		BE112M4	ME4SA4	N180TC	7,650	9,660	2,210	294
14.8	19,600	1.1	121	19.0		304R3	BE112M4		N180TC	7,590	9,580	2,200	276
15.1	19,300	3.0	119	19.0		306R3	BE112M4	ME4SA4	N180TC	10,400	13,100	3,180	312
15.7	18,500	1.7	114	19.0		305R3	BE112M4		N180TC	7,460	9,420	2,150	294
16.0	18,200	1.7	113	10.0	305L3		BE112M4	ME4SA4	N180TC	7,420	9,380	2,140	294
16.3	17,900	1.7	111	10.0	304L3		BE112M4	ME4SA4	N180TC	7,380	9,320	2,130	276
16.4	17,200	1.7	110	16.0		304R4	BE112M4		N180TC	7,360	9,300	2,120	276
17.2	16,900	1.3	105	10.0	303L3		BE112M4	ME4SA4	N180TC	7,260	9,170	2,090	258
17.2	16,900	1.8	105	10.0	304L3		BE112M4	ME4SA4	N180TC	7,260	9,170	2,090	276
17.2	16,900	2.6	105	10.0	305L3		BE112M4	ME4SA4	N180TC	7,260	9,170	2,090	294
18.6	15,700	1.3	97.0	19.0		304R3	BE112M4		N180TC	7,100	8,960	2,040	276
19.7	14,800	1.1	91.5	19.0		303R3	BE112M4		N180TC	6,970	8,810	2,000	258
19.7	14,800	2.1	91.5	19.0		305R3	BE112M4		N180TC	6,970	8,810	2,000	294
20.0	14,600	1.4	90.2	10.0	303L3		BE112M4	ME4SA4	N180TC	6,940	8,770	1,990	258
20.0	14,600	2.0	90.2	10.0	304L3		BE112M4	ME4SA4	N180TC	6,940	8,770	1,990	276
20.0	14,600	2.5	90.2	10.0	305L3		BE112M4	ME4SA4	N180TC	6,940	8,770	1,990	294
20.1	14,000	2.1	89.4	16.0		304R4	BE112M4		N180TC	6,920	8,750	1,980	276
21.0	13,800	1.1	85.6	10.0	301L3		BE112M4	ME4SA4	N180TC	3,560	4,230	650	242
22.9	12,700	1.1	78.7	16.0		301R3	BE112M4		N180TC	3,470	4,120	630	242
22.9	12,700	1.5	78.7	19.0		303R3	BE112M4		N180TC	6,670	8,420	1,900	258
22.9	12,700	2.0	78.7	19.0		304R3	BE112M4		N180TC	6,670	8,420	1,900	276
22.9	14,000	2.8	78.7	19.0		305R3			N180TC	6,670	8,420	1,900	294
23.2	12,500	1.2	77.5	10.0	301L3		BE112M4	ME4SA4	N180TC	3,460	4,100	630	242
23.3	12,500	1.8	77.2	10.0	303L3		BE112M4	ME4SA4	N180TC	6,630	8,370	1,890	258
23.3	12,500	2.5	77.2	10.0	304L3		BE112M4	ME4SA4	N180TC	6,630	8,370	1,890	276
24.5	11,800	1.4	73.3	19.0		303R3	BE112M4		N180TC	6,530	8,240	1,860	258
24.5	11,800	2.7	73.3	19.0		305R3	BE112M4		N180TC	6,530	8,240	1,860	294

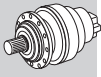
P₁ = 5 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NEMA	NHC/HC NPC/PC	Rn ₂ [lbs] HZ/PZ	FZ	
24.9	11,700	1.7	72.3	10.0	303L3		BE112M4	ME4SA4	N180TC		6,500	8,210	1,850	258
24.9	11,700	2.5	72.3	10.0	304L3		BE112M4	ME4SA4	N180TC		6,500	8,210	1,850	276
24.9	12,800	2.8	72.3	10.0	305L3				N180TC		6,500	8,210	1,850	294
25.8	11,300	1.0	69.9	10.0	301L3		BE112M4	ME4SA4	N180TC		3,350	3,980	610	242
26.4	11,000	1.0	68.2	16.0		301R3	BE112M4		N180TC		3,330	3,950	600	242
27.8	10,800	0.9	64.8	10.0	301L2		BE112M4	ME4SA4	N180TC		3,280	3,890	590	242
28.5	10,200	1.4	63.2	10.0	301L3		BE112M4	ME4SA4	N180TC		3,250	3,860	590	242
28.5	10,200	2.2	63.1	10.0	303L3		BE112M4	ME4SA4	N180TC		6,240	7,880	1,770	258
28.5	10,200	1.9	63.1	19.0		303R3	BE112M4		N180TC		6,240	7,880	1,770	258
28.5	11,200	2.7	63.1	10.0	304L3				N180TC		6,240	7,880	1,770	276
28.5	10,200	2.5	63.1	19.0		304R3	BE112M4		N180TC		6,240	7,880	1,770	276
28.6	10,200	1.4	62.9	16.0		301R3	BE112M4		N180TC		3,250	3,850	590	242
30	9,850	2.1	59.1	12.0	304L2		BE112M4	ME4SA4	N180TC		6,120	7,730	1,730	276
32	9,290	1.7	55.8	12.0	303L2		BE112M4	ME4SA4	N180TC		6,010	7,590	1,690	258
33	8,750	1.8	54.2	19.0		303R3	BE112M4		N180TC		5,960	7,530	1,680	258
34	8,630	2.2	53.4	10.0	303L3		BE112M4	ME4SA4	N180TC		5,930	7,490	1,670	258
34	9,470	3.0	53.4	10.0	304L3				N180TC		5,930	7,490	1,670	276
35	8,650	1.3	51.9	10.0	301L2		BE112M4	ME4SA4	N180TC		3,070	3,640	550	242
35	8,340	1.7	51.6	10.0	301L3		BE112M4	ME4SA4	N180TC		3,060	3,630	550	242
36	8,150	0.9	50.4	16.0		300R3	BE112M4		N180TC		3,040	3,840	550	226
36	8,150	1.7	50.4	16.0		301R3	BE112M4		N180TC		3,040	3,610	550	242
36	8,120	2.6	50.3	19.0		303R3	BE112M4		N180TC		5,830	7,360	1,640	258
38	7,880	2.7	47.3	12.0	304L2		BE112M4	ME4SA4	N180TC		5,720	7,230	1,600	276
39	7,530	2.5	46.6	19.0		303R3	BE112M4		N180TC		5,700	7,190	1,600	258
40	7,430	2.2	44.6	12.0	303L2		BE112M4	ME4SA4	N180TC		5,620	7,100	1,570	258
42	6,880	2.6	42.6	19.0		303R3	BE112M4		N180TC		5,540	7,000	1,550	258
43	6,920	1.7	41.5	10.0	301L2		BE112M4	ME4SA4	N180TC		2,870	3,400	510	242
44	6,650	1.7	41.2	16.0		301R3	BE112M4		N180TC		2,860	3,390	510	242
47	6,390	1.2	38.4	10.0	300L2		BE112M4	ME4SA4	N180TC		2,800	3,530	500	226
47	6,390	2.1	38.4	10.0	301L2		BE112M4	ME4SA4	N180TC		2,800	3,320	500	242
47	6,400	3.0	38.4	12.0	303L2		BE112M4	ME4SA4	N180TC		5,370	6,790	1,500	258
48	6,020	1.2	37.3	16.0		300R3	BE112M4		N180TC		2,770	3,500	490	226
48	6,020	2.3	37.3	16.0		301R3	BE112M4		N180TC		2,770	3,290	490	242
50	5,960	2.7	35.8	12.0	303L2		BE112M4	ME4SA4	N180TC		5,260	6,650	1,460	258
54	5,540	1.0	33.3	10.0	300L2		BE112M4	ME4SA4	N180TC		2,680	3,390	480	226
54	5,540	2.1	33.3	10.0	301L2		BE112M4	ME4SA4	N180TC		2,680	3,180	480	242
59	5,110	1.4	30.7	10.0	300L2		BE112M4	ME4SA4	N180TC		2,620	3,310	460	226
59	5,110	2.6	30.7	10.0	301L2		BE112M4	ME4SA4	N180TC		2,620	3,110	460	242
59	4,910	1.5	30.4	16.0		300R3	BE112M4		N180TC		2,610	3,300	460	226
59	4,910	2.7	30.4	16.0		301R3	BE112M4		N180TC		2,610	3,100	460	242
73	4,010	1.6	24.8	16.0		300R3	BE112M4		N180TC		2,460	3,100	430	226
73	4,010	3.0	24.8	16.0		301R3	BE112M4		N180TC		2,460	2,920	430	242
73	4,130	1.8	24.8	24.0		303R2	BE112M4	ME4SA4	N180TC		4,710	5,950	1,290	258
73	4,100	1.7	24.6	10.0	300L2		BE112M4	ME4SA4	N180TC		2,450	3,090	430	226
73	4,500	2.8	24.6	10.0	301L2				N180TC		2,450	2,910	430	242
90	3,340	1.7	20.1	10.0	300L2		BE112M4	ME4SA4	N180TC		2,310	2,910	400	226
98	3,070	1.1	18.5	16.0		300R2	BE112M4	ME4SA4	N180TC		2,250	2,840	390	226
98	3,070	2.1	18.5	16.0		301R2	BE112M4	ME4SA4	N180TC		2,250	2,670	390	242
99	3,030	2.1	18.2	10.0	300L2		BE112M4	ME4SA4	N180TC		2,240	2,820	390	226
121	2,470	2.4	14.8	10.0	300L2		BE112M4	ME4SA4	N180TC		2,110	2,660	360	226
122	2,460	1.7	14.8	16.0		300R2	BE112M4	ME4SA4	N180TC		2,100	2,650	360	226
122	2,700	2.9	14.8	16.0		301R2	BE112M4	ME4SA4	N180TC		2,100	2,490	360	242
149	2,020	2.8	12.1	10.0	300L2		BE112M4	ME4SA4	N180TC		1,980	2,500	340	226
152	1,970	2.5	11.8	16.0		300R2	BE112M4	ME4SA4	N180TC		1,970	2,480	340	226
200	1,550	1.7	9.00	10.0	300L1		BE112M4	ME4SA4	N180TC		1,810	2,290	310	226
250	1,240	2.8	7.20	10.0	300L1		BE112M4	ME4SA4	N180TC		1,690	2,140	290	226








A






P₁ = 7.5 hp



A

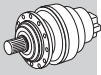
n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
1.0	415,200	0.9	1766	15.0	311L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	27,000	31,000	14,500	382
1.0	427,100	1.2	1817	15.0	313L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	37,700	47,100	18,000	400
1.0	422,300	1.4	1796	20.0	314L4		BE132S4	BX132S4	ME4SB4	MX4SB4		36,700	44,800	20,200	418
1.0	424,400	1.7	1805	24.0	315L4		BE132S4	BX132S4	ME4SB4	MX4SB4		36,700	44,800	20,200	434
1.2	353,100	1.4	1502	15.0	313L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	36,600	45,900	16,900	400
1.2	349,100	1.6	1485	20.0	314L4		BE132S4	BX132S4	ME4SB4	MX4SB4		35,700	43,600	19,000	418
1.2	350,800	2.0	1492	24.0	315L4		BE132S4	BX132S4	ME4SB4	MX4SB4		35,700	43,600	19,000	434
1.3	332,700	1.1	1415	15.0	311L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	26,200	30,100	13,500	382
1.3	327,700	1.4	1394	15.0	313L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	36,300	45,400	16,500	400
1.4	297,500	1.6	1266	15.0	313L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	35,800	44,800	16,000	400
1.4	300,300	2.2	1277	20.0	314L4		BE132S4	BX132S4	ME4SB4	MX4SB4		34,900	42,600	18,000	418
1.4	301,800	2.8	1284	24.0	315L4		BE132S4	BX132S4	ME4SB4	MX4SB4		35,000	42,700	18,100	434
1.5	273,700	0.9	1164	15.0	310L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	20,400	26,300	12,600	364
1.5	289,200	1.3	1230	15.0	311L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	25,700	29,500	12,900	382
1.6	262,500	1.8	1117	15.0	313L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	35,100	44,000	15,300	400
1.6	258,300	2.5	1099	20.0	314L4		BE132S4	BX132S4	ME4SB4	MX4SB4		34,200	41,700	17,200	418
1.7	248,800	1.5	1058	15.0	311L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	25,100	28,800	12,200	382
1.7	243,900	3.0	1038	20.0	314L4		BE132S4	BX132S4	ME4SB4	MX4SB4		33,900	41,400	16,800	418
1.8	239,900	1.0	1021	15.0	310L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	20,000	25,800	12,100	364
1.8	231,700	1.6	986	15.0	311L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	24,900	28,600	12,000	382
1.8	238,400	2.0	1014	15.0	313L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	34,600	43,400	14,900	400
1.9	220,700	1.3	939	15.0	310L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	19,700	25,500	11,800	364
1.9	217,600	2.9	926	20.0	314L4		BE132S4	BX132S4	ME4SB4	MX4SB4		33,400	40,700	16,200	418
2.0	211,100	0.9	898	20.0		310R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	19,600	25,300	11,600	364
2.0	212,400	1.9	904	15.0	311L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	24,600	28,200	11,600	382
2.0	209,000	2.2	889	15.0	313L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	34,000	42,600	14,200	400
2.2	192,200	1.2	818	15.0	310L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	19,400	25,000	11,200	364
2.2	193,900	2.0	825	15.0	311L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	24,200	27,800	11,300	382
2.3	185,700	2.5	790	15.0	313L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	33,400	41,900	13,700	400
2.3	183,000	2.1	778	30.0		313R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	33,400	41,800	13,600	400
2.4	177,900	1.3	757	20.0		310R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	19,100	24,700	10,900	364
2.4	175,400	1.5	746	30.0		311R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	23,900	27,400	10,900	382
2.5	169,800	1.1	722	10.0	309L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	16,200	22,100	5,970	348
2.5	170,600	1.4	726	15.0	310L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	19,000	24,600	10,800	364
2.5	170,200	2.4	724	15.0	311L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	23,800	27,300	10,800	382
2.6	163,400	2.7	695	15.0	313L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	32,800	41,100	13,100	400
2.8	153,600	1.0	654	10.0	309L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	16,000	21,700	5,770	348
2.8	149,600	1.5	637	15.0	310L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	18,700	24,100	10,300	364
2.8	150,100	1.2	639	20.0		310R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	18,700	24,100	10,300	364
2.8	152,000	2.9	647	30.0		313R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	32,500	40,700	12,800	400
2.9	147,300	2.3	627	15.0	311L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	23,300	26,800	10,300	382
2.9	147,800	2.3	629	30.0		311R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	23,300	26,800	10,300	382
3.1	136,000	1.0	579	10.0	307L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	15,700	21,400	6,930	330
3.1	136,000	1.4	579	10.0	309L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	15,700	21,400	5,540	348
3.1	136,600	1.0	581	20.0		309R4	BE132S4	BX132S4			N210TC	15,700	21,400	5,550	348
3.1	138,600	1.4	590	20.0		310R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	18,500	23,900	10,100	364
3.2	130,700	2.0	556	15.0	310L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	18,300	23,700	9,880	364
3.2	133,400	2.8	568	15.0	311L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	23,000	26,400	9,950	382
3.5	119,700	1.0	509	10.0	307L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	15,400	21,000	6,640	330
3.5	119,700	1.1	509	10.0	309L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	15,400	21,000	5,310	348
3.5	119,300	1.8	507	15.0	310L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	18,100	23,400	9,580	364
3.5	121,600	1.8	517	20.0		310R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	18,100	23,400	9,640	364
3.5	122,200	2.7	520	30.0		311R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	22,700	26,100	9,660	382
3.7	115,300	1.0	491	20.0		309R4	BE132S4	BX132S4			N210TC	15,300	20,900	5,250	348
3.7	115,200	2.7	490	30.0		311R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	22,500	25,800	9,470	382
3.9	109,300	1.0	465	10.0	307L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	15,200	20,700	6,440	330
3.9	109,300	1.4	465	10.0	309L4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	15,200	20,700	5,150	348

P₁ = 7.5 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]				
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ		
3.9	107,400	1.1	457	20.0			309R4	BE132S4	BX132S4		N210TC	15,200	20,700	5,120	348	
4.0	106,500	1.1	453	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	15,200	20,600	6,390	330
4.0	105,900	2.4	451	15.0	310L4			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	17,800	23,000	9,210	364
4.0	106,800	1.6	454	20.0			310R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	17,800	23,000	9,230	364
4.3	98,600	2.5	419	20.0			310R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	17,600	22,700	8,990	364
4.4	95,300	1.1	406	10.0	307L4			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,900	20,300	6,160	330
4.4	97,100	1.1	413	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	15,000	20,400	6,190	330
4.4	95,300	1.6	406	10.0	309L4			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,900	20,300	4,920	348
4.4	97,100	1.6	413	20.0			309R4	BE132S4	BX132S4			N210TC	15,000	20,400	4,960	348
4.6	92,100	1.8	392	15.0	310L4			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	17,400	22,500	8,790	364
4.8	88,000	1.4	374	20.0			309R4	BE132S4	BX132S4			N210TC	14,800	20,100	4,800	348
5.0	85,300	1.3	363	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,930	330
5.0	85,400	2.4	363	20.0			310R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	17,200	22,300	8,570	364
5.1	84,900	1.9	351	24.0	310L3			BE132S4	BX132S4	ME4SB4	MX4SB4		17,200	22,200	8,470	364
5.2	82,100	1.6	349	10.0	307L4			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,860	330
5.2	82,100	2.3	349	10.0	309L4			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	4,680	348
5.3	81,500	0.9	337	15.0	307L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,780	330
5.3	81,500	1.4	337	15.0	309L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	4,630	348
5.4	77,800	1.3	331	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,750	330
5.4	77,800	1.9	331	20.0			309R4	BE132S4	BX132S4			N210TC	14,700	20,000	4,600	348
5.4	78,500	2.9	334	20.0			310R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	17,200	22,200	8,340	364
5.8	73,300	0.9	312	16.0			306R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,700	14,800	4,390	312
5.9	71,700	2.8	305	20.0			310R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	17,200	22,200	8,090	364
6.0	70,500	1.7	300	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,570	330
6.1	71,600	2.8	295	24.0	310L3			BE132S4	BX132S4	ME4SB4	MX4SB4		17,200	22,200	8,000	364
6.2	67,900	1.1	289	16.0			306R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,700	14,800	4,280	312
6.3	68,700	1.4	284	15.0	307L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,460	330
6.3	66,900	1.5	285	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,470	330
6.3	68,700	2.0	284	15.0	309L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	4,370	348
6.3	66,900	2.2	285	20.0			309R4	BE132S4	BX132S4			N210TC	14,700	20,000	4,380	348
7.0	60,700	2.1	258	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,290	330
7.0	60,700	2.5	258	20.0			309R4	BE132S4	BX132S4			N210TC	14,700	20,000	4,240	348
7.2	58,400	1.2	249	16.0			306R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,700	14,800	4,070	312
7.2	60,400	2.7	249	24.0	310L3			BE132S4	BX132S4	ME4SB4	MX4SB4		17,200	22,200	7,560	364
7.5	58,000	1.3	239	15.0	307L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,160	330
7.5	58,000	2.0	239	15.0	309L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	4,130	348
7.6	57,700	1.2	238	10.0	306L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,700	14,800	4,010	312
7.8	54,100	1.2	230	16.0			306R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,700	14,800	3,960	312
7.8	54,600	1.8	232	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,110	330
7.8	54,600	2.7	232	20.0			309R4	BE132S4	BX132S4			N210TC	14,700	20,000	4,090	348
8.1	53,700	1.1	222	10.0	306L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,700	14,800	3,920	312
8.1	53,500	2.1	221	15.0	307L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	5,030	330
8.1	54,000	2.1	223	15.0	309L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	4,030	348
8.4	50,400	0.9	214	16.0			305R4	BE132S4	BX132S4			N210TC	8,540	10,800	2,650	294
8.4	50,200	1.7	214	16.0			306R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,700	14,800	3,870	312
8.8	49,600	1.4	205	10.0	306L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,700	14,800	3,810	312
8.8	48,300	2.5	206	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	4,910	330
8.9	48,900	2.0	202	15.0	307L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	4,880	330
8.9	48,900	3.0	202	15.0	309L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	3,900	348
9.4	44,800	2.7	191	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	4,790	330
9.5	46,000	1.3	190	10.0	306L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,700	14,800	3,720	312
9.7	43,500	0.9	185	16.0			305R4	BE132S4	BX132S4			N210TC	8,540	10,800	2,530	294
9.9	42,500	2.0	181	16.0			306R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,700	14,800	3,660	312
9.9	44,300	2.9	183	15.0	309L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,700	20,000	3,770	348
10.1	43,000	0.9	178	10.0	305L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	8,510	10,700	2,490	294
10.2	42,900	2.5	177	15.0	307L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,600	19,900	4,670	330
10.7	39,400	1.7	168	16.0			306R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,500	14,500	3,570	312



P₁ = 7.5 hp

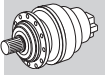


A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							Rn ₂ [lbs]					
											NHC/HC NPC/PC	HZ/PZ	FZ			
10.9	38,800	2.4	165	20.0			307R4	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,300	19,500	4,560	330
11.0	39,700	1.0	164	10.0	305L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	8,300	10,500	2,430	294
11.1	39,100	2.4	162	15.0	307L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	14,200	19,300	4,530	330
11.4	37,200	1.2	158	16.0		305R4		BE132S4	BX132S4			N210TC	8,220	10,400	2,400	294
11.4	37,100	2.2	158	16.0		306R4		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,300	14,200	3,500	312
11.8	36,800	1.8	152	10.0	306L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,200	14,100	3,450	312
12.1	34,800	1.1	148	16.0		305R4		BE132S4	BX132S4			N210TC	8,060	10,200	2,350	294
12.5	34,900	1.4	144	19.0		306R3		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	11,000	13,800	3,390	312
12.7	34,300	0.9	142	10.0	304L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	7,950	10,000	2,310	276
12.7	34,300	1.3	142	10.0	305L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	7,950	10,000	2,310	294
12.8	34,200	2.0	141	10.0	306L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	10,900	13,700	3,370	312
13.0	33,600	2.8	139	15.0	307L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	13,600	18,500	4,310	330
13.8	31,600	1.0	131	10.0	304L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	7,760	9,800	2,250	276
13.9	30,400	1.0	129	16.0		304R4		BE132S4	BX132S4			N210TC	7,730	9,770	2,240	276
13.9	30,400	1.5	129	16.0		305R4		BE132S4	BX132S4			N210TC	7,730	9,770	2,240	294
14.5	30,200	1.1	125	10.0	305L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	7,650	9,660	2,210	294
14.8	29,400	2.3	121	10.0	306L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	10,400	13,100	3,200	312
15.0	29,000	2.6	120	30.0		307R3		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	13,000	17,700	4,100	330
15.1	28,900	2.0	119	19.0		306R3		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	10,400	13,100	3,180	312
15.7	27,700	1.1	114	19.0		305R3		BE132S4	BX132S4			N210TC	7,460	9,420	2,150	294
16.0	27,300	1.2	113	10.0	305L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	7,420	9,380	2,140	294
16.0	27,200	2.4	112	10.0	306L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	10,200	12,800	3,120	312
16.3	26,800	1.1	111	10.0	304L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	7,380	9,320	2,130	276
16.4	25,700	1.1	110	16.0		304R4		BE132S4	BX132S4			N210TC	7,360	9,300	2,120	276
17.2	25,300	1.2	105	10.0	304L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	7,260	9,170	2,090	276
17.2	25,300	1.7	105	10.0	305L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	7,260	9,170	2,090	294
18.3	23,900	2.4	98.5	19.0		306R3		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	9,790	12,300	2,990	312
18.6	23,400	0.9	97.0	19.0		304R3						N210TC	7,100	8,960	2,040	276
19.7	22,200	1.4	91.5	19.0		305R3		BE132S4	BX132S4			N210TC	6,970	8,810	2,000	294
20.0	21,900	0.9	90.2	10.0	303L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,940	8,770	1,990	258
20.0	21,900	1.3	90.2	10.0	304L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,940	8,770	1,990	276
20.0	21,900	1.7	90.2	10.0	305L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,940	8,770	1,990	294
20.1	21,000	1.4	89.4	16.0		304R4		BE132S4	BX132S4			N210TC	6,920	8,750	1,980	276
22.0	19,800	3.0	81.9	10.0	306L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	9,260	11,700	2,810	312
22.9	19,100	1.0	78.7	19.0		303R3		BE132S4	BX132S4			N210TC	6,670	8,420	1,900	258
22.9	19,100	1.3	78.7	19.0		304R3		BE132S4	BX132S4			N210TC	6,670	8,420	1,900	276
22.9	19,100	2.0	78.7	19.0		305R3		BE132S4	BX132S4			N210TC	6,670	8,420	1,900	294
23.3	18,700	1.2	77.2	10.0	303L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,630	8,370	1,890	258
23.3	18,700	1.6	77.2	10.0	304L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,630	8,370	1,890	276
23.3	18,700	2.2	77.2	10.0	305L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,630	8,370	1,890	294
24.5	17,800	0.9	73.3	19.0		303R3		BE132S4	BX132S4			N210TC	6,530	8,240	1,860	258
24.5	17,800	1.8	73.3	19.0		305R3		BE132S4	BX132S4			N210TC	6,530	8,240	1,860	294
24.8	18,100	2.6	72.5	17.0	306L2			BE132S4	BX132S4	ME4SB4	MX4SB4		8,930	11,300	2,700	312
24.9	17,500	1.1	72.3	10.0	303L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,500	8,210	1,850	258
24.9	17,500	1.6	72.3	10.0	304L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,500	8,210	1,850	276
24.9	17,500	2.1	72.3	10.0	305L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,500	8,210	1,850	294
28.5	15,300	0.9	63.2	10.0	301L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	3,250	3,860	590	242
28.5	15,300	1.4	63.1	10.0	303L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,240	7,880	1,770	258
28.5	15,300	1.3	63.1	19.0		303R3		BE132S4	BX132S4			N210TC	6,240	7,880	1,770	258
28.5	15,300	2.0	63.1	10.0	304L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,240	7,880	1,770	276
28.5	15,300	1.7	63.1	19.0		304R3		BE132S4	BX132S4			N210TC	6,240	7,880	1,770	276
28.5	15,300	2.7	63.1	10.0	305L3			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,240	7,880	1,770	294
28.5	15,300	2.5	63.1	19.0		305R3		BE132S4	BX132S4			N210TC	6,240	7,880	1,770	294
28.6	15,200	0.9	62.9	16.0		301R3		BE132S4	BX132S4			N210TC	3,250	3,850	590	242
30	14,800	1.4	59.1	12.0	304L2			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,120	7,730	1,730	276
32	13,900	1.2	55.8	12.0	303L2			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,010	7,590	1,690	258
32	13,900	2.2	55.8	12.0	305L2			BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,010	7,590	1,690	294

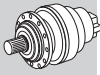
P₁ = 7.5 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ			
					BE132S4	BX132S4	ME4SB4	MX4SB4		NHC/HC NPC/PC	HZ/PZ	FZ				
33	13,100	1.2	54.2	19.0			303R3	BE132S4	BX132S4		N210TC	5,960	7,530	1,680	258	
33	13,100	2.4	54.2	19.0			305R3	BE132S4	BX132S4		N210TC	5,960	7,530	1,680	294	
34	12,900	1.5	53.4	10.0		303L3		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,930	7,490	1,670	258
34	12,900	2.2	53.4	10.0		304L3		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,930	7,490	1,670	276
34	12,900	2.7	53.4	10.0		305L3		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,930	7,490	1,670	294
35	12,500	1.1	51.6	10.0		301L3		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	3,060	3,630	550	242
36	12,200	1.2	50.4	16.0			301R3	BE132S4	BX132S4			N210TC	3,040	3,610	550	242
36	12,200	1.7	50.3	19.0			303R3	BE132S4	BX132S4			N210TC	5,830	7,360	1,640	258
36	12,200	2.5	50.3	19.0			304R3	BE132S4	BX132S4			N210TC	5,830	7,360	1,640	276
38	11,800	1.8	47.3	12.0		304L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,720	7,230	1,600	276
39	11,300	1.7	46.6	19.0			303R3	BE132S4	BX132S4			N210TC	5,700	7,190	1,600	258
39	11,300	2.2	46.6	19.0			304R3	BE132S4	BX132S4			N210TC	5,700	7,190	1,600	276
40	11,200	1.4	44.6	12.0		303L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,620	7,100	1,570	258
40	11,200	2.8	44.6	12.0		305L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,620	7,100	1,570	294
41	10,600	2.6	43.6	10.0		304L3		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,580	7,050	1,560	276
42	10,300	1.8	42.6	19.0			303R3	BE132S4	BX132S4			N210TC	5,540	7,000	1,550	258
42	10,300	2.7	42.6	19.0			304R3	BE132S4	BX132S4			N210TC	5,540	7,000	1,550	276
43	10,400	1.1	41.5	10.0		301L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,870	3,400	510	242
44	9,970	1.2	41.2	16.0			301R3	BE132S4	BX132S4			N210TC	2,860	3,390	510	242
47	9,590	1.4	38.4	10.0		301L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,800	3,320	500	242
47	9,590	2.0	38.4	12.0		303L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,370	6,790	1,500	258
47	9,590	2.6	38.4	12.0		304L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,370	6,790	1,500	276
48	9,030	1.6	37.3	16.0			301R3	BE132S4	BX132S4			N210TC	2,770	3,290	490	242
49	9,000	2.3	37.1	19.0			303R3	BE132S4	BX132S4			N210TC	5,320	6,720	1,480	258
50	8,940	1.8	35.8	12.0		303L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,260	6,650	1,460	258
54	8,320	1.4	33.3	10.0		301L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,680	3,180	480	242
57	7,620	2.3	31.5	19.0			303R3	BE132S4	BX132S4			N210TC	5,060	6,390	1,400	258
59	7,690	2.4	30.8	12.0		303L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,030	6,350	1,390	258
59	7,670	0.9	30.7	10.0		300L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,620	3,310	460	226
59	7,670	1.7	30.7	10.0		301L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,620	3,110	460	242
59	7,370	1.0	30.4	16.0			300R3	BE132S4	BX132S4			N210TC	2,610	3,300	460	226
59	7,370	1.8	30.4	16.0			301R3	BE132S4	BX132S4			N210TC	2,610	3,100	460	242
68	6,600	2.4	26.4	12.0		303L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	4,800	6,070	1,320	258
70	6,220	2.7	25.7	19.0			303R3	BE132S4	BX132S4			N210TC	4,760	6,020	1,310	258
73	6,020	1.1	24.8	16.0			300R3	BE132S4	BX132S4			N210TC	2,460	3,100	430	226
73	6,020	2.0	24.8	16.0			301R3	BE132S4	BX132S4			N210TC	2,460	2,920	430	242
73	6,190	1.2	24.8	24.0			303R2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	4,710	5,950	1,290	258
73	6,140	1.1	24.6	10.0		300L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,450	3,090	430	226
73	6,140	2.0	24.6	10.0		301L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,450	2,910	430	242
73	6,130	2.9	24.5	12.0		303L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	4,700	5,930	1,290	258
87	5,190	2.9	20.8	12.0		303L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	4,470	5,650	1,220	258
90	5,020	1.1	20.1	10.0		300L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,310	2,910	400	226
90	5,020	2.2	20.1	10.0		301L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,310	2,740	400	242
94	4,800	2.8	19.2	24.0			303R2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	4,370	5,520	1,190	258
98	4,610	1.4	18.5	16.0			301R2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,250	2,670	390	242
99	4,540	1.4	18.2	10.0		300L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,240	2,820	390	226
99	4,540	2.5	18.2	10.0		301L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,240	2,660	390	242
121	3,710	1.6	14.8	10.0		300L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,110	2,660	360	226
121	3,710	2.9	14.8	10.0		301L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,110	2,500	360	242
122	3,690	1.2	14.8	16.0			300R2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,100	2,650	360	226
122	3,690	2.1	14.8	16.0			301R2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	2,100	2,490	360	242
149	3,030	1.9	12.1	10.0		300L2		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	1,980	2,500	340	226
152	2,950	1.7	11.8	16.0			300R2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	1,970	2,480	340	226
186	2,490	2.5	9.70	15.0		303L1		BE132S4	BX132S4	ME4SB4	MX4SB4		3,550	4,490	940	258
200	2,320	1.1	9.00	10.0		300L1		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	1,810	2,290	310	226
200	2,320	2.3	9.00	10.0		301L1		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	1,810	2,150	310	242
206	2,180	2.3	8.70	16.0			300R2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	1,800	2,270	300	226



A

P₁ = 7.5 hp



A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
250	1,850	1.8	7.20	10.0	300L1		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	1,690	2,140	290	226
252	1,780	2.7	7.10	16.0		300R2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	1,690	2,130	280	226
312	1,490	2.7	5.80	10.0	300L1		BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	1,590	2,000	270	226

P₁ = 10 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
1.0	577,100	1.0	1796	20.0	314L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		36,700	44,800	20,200	418
1.0	579,900	1.3	1805	24.0	315L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		36,700	44,800	20,200	434
1.0	608,000	2.3	1893	24.0	317L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		89,600	95,100	33,700	462
1.1	512,300	2.9	1595	24.0	317L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		87,400	92,800	32,400	462
1.2	482,500	1.0	1502	15.0	313L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	36,600	45,900	16,900	400
1.2	477,100	1.2	1485	20.0	314L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		35,700	43,600	19,000	418
1.2	479,400	1.5	1492	24.0	315L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		35,700	43,600	19,000	434
1.3	447,800	1.0	1394	15.0	313L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	36,300	45,400	16,500	400
1.4	406,600	1.2	1266	15.0	313L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	35,800	44,800	16,000	400
1.4	410,400	1.6	1277	20.0	314L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		34,900	42,600	18,000	418
1.4	412,400	2.0	1284	24.0	315L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		35,000	42,700	18,100	434
1.5	395,300	1.0	1230	15.0	311L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	25,700	29,500	12,900	382
1.5	397,500	2.7	1238	24.0	316L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		54,200	60,000	29,800	450
1.6	358,800	1.3	1117	15.0	313L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	35,100	44,000	15,300	400
1.6	353,000	1.9	1099	20.0	314L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		34,200	41,700	17,200	418
1.6	354,800	2.3	1104	24.0	315L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		34,200	41,800	17,200	434
1.7	340,000	1.1	1058	15.0	311L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	25,100	28,800	12,200	382
1.7	333,300	2.2	1038	20.0	314L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		33,900	41,400	16,800	418
1.7	335,000	2.7	1043	24.0	315L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		33,900	41,400	16,900	434
1.8	316,700	1.2	986	15.0	311L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	24,900	28,600	12,000	382
1.8	325,800	1.4	1014	15.0	313L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	34,600	43,400	14,900	400
1.9	301,600	1.0	939	15.0	310L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	19,700	25,500	11,800	364
1.9	297,400	2.1	926	20.0	314L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		33,400	40,700	16,200	418
1.9	298,900	2.7	931	24.0	315L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		33,400	40,800	16,200	434
2.0	290,300	1.4	904	15.0	311L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	24,600	28,200	11,600	382
2.0	285,700	1.6	889	15.0	313L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	34,000	42,600	14,200	400
2.0	292,100	2.3	909	54.0		315R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	33,300	40,600	16,100	434
2.1	275,500	2.6	858	20.0	314L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		33,000	40,300	15,800	418
2.2	262,700	0.9	818	15.0	310L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	19,400	25,000	11,200	364
2.2	264,900	1.5	825	15.0	311L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	24,200	27,800	11,300	382
2.3	253,800	1.8	790	15.0	313L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	33,400	41,900	13,700	400
2.3	250,100	1.5	778	30.0		313R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	33,400	41,800	13,600	400
2.4	243,100	0.9	757	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	19,100	24,700	10,900	364
2.4	239,700	1.1	746	30.0		311R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	23,900	27,400	10,900	382
2.4	237,000	3.0	738	20.0	314L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4		32,300	39,400	15,000	418
2.5	233,200	1.0	726	15.0	310L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	19,000	24,600	10,800	364
2.5	232,600	1.7	724	15.0	311L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	23,800	27,300	10,800	382
2.6	223,300	2.0	695	15.0	313L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	32,800	41,100	13,100	400
2.8	204,500	1.1	637	15.0	310L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	18,700	24,100	10,300	364
2.8	203,300	2.3	633	15.0	313L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	32,400	40,500	12,700	400
2.8	207,700	2.1	647	30.0		313R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	32,500	40,700	12,800	400
2.9	201,300	1.7	627	15.0	311L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	23,300	26,800	10,300	382
2.9	202,000	1.7	629	30.0		311R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	23,300	26,800	10,300	382
2.9	197,200	2.5	614	30.0		314R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	31,500	38,400	14,100	418
3.1	185,900	1.0	579	10.0	309L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	15,700	21,400	5,540	348
3.1	189,400	1.0	590	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	18,500	23,900	10,100	364
3.2	178,600	1.5	556	15.0	310L4		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	18,300	23,700	9,880	364

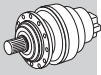
P₁ = 10 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ		
					IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ			
3.2	182,400	2.0	568	15.0	311L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	23,000	26,400	9,950	382	
3.2	181,100	2.6	564	15.0	313L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	31,900	39,900	12,200	400	
3.4	171,700	2.5	535	30.0		313R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	31,600	39,600	12,000	400
3.5	163,000	1.3	507	15.0	310L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	18,100	23,400	9,580	364	
3.5	166,100	1.3	517	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	18,100	23,400	9,640	364
3.5	164,500	2.3	512	15.0	311L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	22,600	26,000	9,610	382	
3.5	167,000	2.0	520	30.0		311R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	22,700	26,100	9,660	382
3.5	165,000	2.5	514	15.0	313L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	31,400	39,400	11,800	400	
3.6	159,400	2.9	496	30.0		313R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	31,300	39,200	11,700	400
3.7	157,400	1.9	490	30.0		311R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	22,500	25,800	9,470	382
3.9	149,300	1.0	465	10.0	309L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	15,200	20,700	5,150	348	
4.0	144,800	1.7	451	15.0	310L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,800	23,000	9,210	364	
4.0	145,900	1.2	454	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,800	23,000	9,230	364
4.0	144,700	2.8	450	30.0		313R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	30,800	38,600	11,300	400
4.1	140,700	2.3	438	30.0		311R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	22,100	25,400	9,120	382
4.3	134,700	1.8	419	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,600	22,700	8,990	364
4.4	130,300	1.2	406	10.0	309L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,900	20,300	4,920	348	
4.4	132,800	1.2	413	20.0		309R4	BE132MA4	BX132MA4		N210TC	15,000	20,400	4,960	348	
4.4	131,800	2.7	410	15.0	311L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	21,900	25,200	8,930	382	
4.4	132,600	2.6	413	30.0		311R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	22,000	25,200	8,940	382
4.6	125,800	1.3	392	15.0	310L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,400	22,500	8,790	364	
4.8	120,300	1.1	374	20.0		309R4	BE132MA4	BX132MA4		N210TC	14,800	20,100	4,800	348	
5.0	116,600	0.9	363	20.0		307R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	5,930	330
5.0	116,700	1.8	363	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,200	22,300	8,570	364
5.1	116,100	1.4	351	24.0	310L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4		17,200	22,200	8,470	364	
5.2	112,100	1.2	349	10.0	307L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	5,860	330	
5.2	112,100	1.7	349	10.0	309L4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	4,680	348	
5.3	111,400	1.0	337	15.0	309L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	4,630	348	
5.4	106,400	0.9	331	20.0		307R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	5,750	330
5.4	106,400	1.4	331	20.0		309R4	BE132MA4	BX132MA4		N210TC	14,700	20,000	4,600	348	
5.4	107,300	2.1	334	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,200	22,200	8,340	364
5.9	98,000	2.1	305	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,200	22,200	8,090	364
6.0	96,400	1.3	300	20.0		307R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	5,570	330
6.1	97,800	2.1	295	24.0	310L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4		17,200	22,200	8,000	364	
6.2	96,400	2.5	291	24.0	311L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4		21,500	24,700	7,960	382	
6.3	93,900	1.0	284	15.0	307L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	5,460	330	
6.3	91,400	1.1	285	20.0		307R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	5,470	330
6.3	93,900	1.5	284	15.0	309L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	4,370	348	
6.3	91,400	1.6	285	20.0		309R4	BE132MA4	BX132MA4		N210TC	14,700	20,000	4,380	348	
6.4	90,900	2.4	283	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,200	22,200	7,890	364
7.0	82,900	1.5	258	20.0		307R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	5,290	330
7.0	82,900	1.8	258	20.0		309R4	BE132MA4	BX132MA4		N210TC	14,700	20,000	4,240	348	
7.0	83,000	2.4	258	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,200	22,200	7,650	364
7.2	79,300	0.9	249	16.0		306R4				N210TC	11,700	14,800	4,070	312	
7.2	82,500	2.0	249	24.0	310L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4		17,200	22,200	7,560	364	
7.5	79,200	1.0	239	15.0	307L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	5,160	330	
7.5	79,200	1.5	239	15.0	309L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	4,130	348	
7.6	78,900	0.9	238	10.0	306L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	11,700	14,800	4,010	312	
7.7	75,200	2.8	234	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,200	22,200	7,400	364
7.8	74,000	0.9	230	16.0		306R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	11,700	14,800	3,960	312
7.8	74,600	1.3	232	20.0		307R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	5,110	330
7.8	74,600	2.0	232	20.0		309R4	BE132MA4	BX132MA4		N210TC	14,700	20,000	4,090	348	
7.8	76,200	2.4	230	24.0	310L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4		17,200	22,200	7,360	364	
8.1	73,200	1.5	221	15.0	307L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	5,030	330	
8.1	73,800	1.6	223	15.0	309L3	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	14,700	20,000	4,030	348	
8.4	68,600	1.2	214	16.0		306R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	11,700	14,800	3,870	312
8.7	66,100	2.9	206	20.0		310R4	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	17,200	22,200	7,090	364



A






P₁ = 10 hp

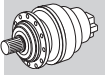


A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ	📄
					BE132MA4	BX132MA4	ME4LA4	MX4LA4		NHC/HC NPC/PC	HZ/PZ	FZ		
8.8	67,800	1.0	205	10.0	306L3						11,700	14,800	3,810	312
8.8	66,100	1.8	206	20.0		307R4					14,700	20,000	4,910	330
8.8	66,100	2.6	206	20.0		309R4					14,700	20,000	3,930	348
8.9	66,800	1.4	202	15.0	307L3						14,700	20,000	4,880	330
8.9	66,800	2.2	202	15.0	309L3						14,700	20,000	3,900	348
8.9	66,800	2.8	202	24.0	310L3						17,200	22,200	7,050	364
9.4	61,300	2.0	191	20.0		307R4					14,700	20,000	4,790	330
9.4	61,300	2.5	191	20.0		309R4					14,700	20,000	3,830	348
9.5	62,800	0.9	190	10.0	306L3						11,700	14,800	3,720	312
9.9	58,100	1.4	181	16.0		306R4					11,700	14,800	3,660	312
9.9	60,500	2.1	183	15.0	309L3						14,700	20,000	3,770	348
10.2	58,600	1.9	177	15.0	307L3						14,600	19,900	4,670	330
10.2	58,700	2.7	177	24.0	310L3						17,100	22,100	6,750	364
10.7	53,900	1.2	168	16.0		306R4					11,500	14,500	3,570	312
10.9	53,100	1.8	165	20.0		307R4					14,300	19,500	4,560	330
10.9	53,100	2.7	165	20.0		309R4					14,300	19,500	3,650	348
11.1	53,500	1.8	162	15.0	307L3						14,200	19,300	4,530	330
11.1	53,500	2.6	162	15.0	309L3						14,200	19,300	3,620	348
11.4	50,900	0.9	158	16.0		305R4					8,220	10,400	2,400	294
11.4	50,700	1.6	158	16.0		306R4					11,300	14,200	3,500	312
11.8	50,300	1.3	152	10.0	306L3						11,200	14,100	3,450	312
11.8	48,800	2.4	152	20.0		307R4					14,000	19,000	4,440	330
12.3	48,500	2.4	146	15.0	307L3						13,800	18,800	4,380	330
12.5	47,700	1.0	144	19.0		306R3					11,000	13,800	3,390	312
12.7	46,800	1.0	142	10.0	305L3						7,950	10,000	2,310	294
12.8	46,700	1.5	141	10.0	306L3						10,900	13,700	3,370	312
13.0	46,000	2.0	139	15.0	307L3						13,600	18,500	4,310	330
13.9	41,500	1.1	129	16.0		305R4					7,730	9,770	2,240	294
14.3	41,700	2.7	126	15.0	307L3						13,200	17,900	4,170	330
14.8	40,200	1.7	121	10.0	306L3						10,400	13,100	3,200	312
15.0	39,700	1.9	120	30.0		307R3					13,000	17,700	4,100	330
15.0	39,700	2.9	120	30.0		309R3					13,000	17,700	3,280	348
15.1	39,500	1.5	119	19.0		306R3					10,400	13,100	3,180	312
15.9	37,500	2.4	113	15.0	307L3						12,800	17,400	4,020	330
16.0	37,200	1.7	112	10.0	306L3						10,200	12,800	3,120	312
17.2	34,400	0.9	105	10.0	304L3						7,260	9,170	2,090	276
17.2	34,600	1.3	105	10.0	305L3						7,260	9,170	2,090	294
17.3	34,500	2.2	104	10.0	306L3						9,960	12,600	3,040	312
18.2	32,800	2.3	99.0	30.0		307R3					12,300	16,700	3,850	330
18.3	32,600	1.8	98.5	19.0		306R3					9,790	12,300	2,990	312
19.7	30,300	1.0	91.5	19.0		305R3					6,970	8,810	2,000	294
20.0	29,900	1.0	90.2	10.0	304L3						6,940	8,770	1,990	276
20.0	29,900	1.2	90.2	10.0	305L3						6,940	8,770	1,990	294
20.1	28,700	1.0	89.4	16.0		304R4					6,920	8,750	1,980	276
20.4	29,200	2.5	88.3	10.0	306L3						9,480	11,900	2,880	312
21.2	28,100	2.3	84.7	19.0		306R3					9,360	11,800	2,840	312
22.0	27,100	2.2	81.9	10.0	306L3						9,260	11,700	2,810	312
22.9	26,100	1.0	78.7	19.0		304R3					6,670	8,420	1,900	276
22.9	26,100	1.5	78.7	19.0		305R3					6,670	8,420	1,900	294
23.3	25,600	1.2	77.2	10.0	304L3						6,630	8,370	1,890	276
23.3	25,600	1.6	77.2	10.0	305L3						6,630	8,370	1,890	294
23.4	25,500	2.8	77.0	10.0	306L3						9,100	11,500	2,750	312
24.5	24,300	1.3	73.3	19.0		305R3					6,530	8,240	1,860	294
24.7	24,100	2.7	72.9	19.0		306R3					8,950	11,300	2,700	312
24.8	24,800	1.9	72.5	17.0	306L2						8,930	11,300	2,700	312
24.9	23,900	1.2	72.3	10.0	304L3						6,500	8,210	1,850	276
24.9	23,900	1.5	72.3	10.0	305L3						6,500	8,210	1,850	294

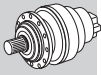
P₁ = 10 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
26.7	22,400	2.8	67.5	19.0		306R3	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	8,740	11,000	2,630	312
27.6	21,600	2.9	65.2	10.0	306L3		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	8,650	10,900	2,600	312
28.5	20,900	1.1	63.1	10.0	303L3		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	6,240	7,880	1,770	258
28.5	20,900	0.9	63.1	19.0		303R3	BE132MA4	BX132MA4			N210TC	6,240	7,880	1,770	258
28.5	20,900	1.5	63.1	10.0	304L3		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	6,240	7,880	1,770	276
28.5	20,900	1.2	63.1	19.0		304R3	BE132MA4	BX132MA4			N210TC	6,240	7,880	1,770	276
28.5	20,900	2.0	63.1	10.0	305L3		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	6,240	7,880	1,770	294
28.5	20,900	1.8	63.1	19.0		305R3	BE132MA4	BX132MA4			N210TC	6,240	7,880	1,770	294
30	20,200	1.0	59.1	12.0	304L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	6,120	7,730	1,730	276
32	19,200	2.4	56.3	17.0	306L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4		8,280	10,400	2,480	312
32	19,100	1.6	55.8	12.0	305L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	6,010	7,590	1,690	294
33	17,800	0.9	54.2	19.0		303R3					N210TC	5,960	7,530	1,680	258
33	17,900	1.8	54.2	19.0		305R3	BE132MA4	BX132MA4			N210TC	5,960	7,530	1,680	294
34	17,700	1.1	53.4	10.0	303L3		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,930	7,490	1,670	258
34	17,700	1.6	53.4	10.0	304L3		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,930	7,490	1,670	276
34	17,700	2.0	53.4	10.0	305L3		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,930	7,490	1,670	294
36	16,600	1.2	50.3	19.0		303R3	BE132MA4	BX132MA4			N210TC	5,830	7,360	1,640	258
36	16,600	1.8	50.3	19.0		304R3	BE132MA4	BX132MA4			N210TC	5,830	7,360	1,640	276
36	16,600	2.3	50.3	19.0		305R3	BE132MA4	BX132MA4			N210TC	5,830	7,360	1,640	294
38	16,200	1.3	47.3	12.0	304L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,720	7,230	1,600	276
39	15,400	1.2	46.6	19.0		303R3	BE132MA4	BX132MA4			N210TC	5,700	7,190	1,600	258
39	15,400	1.6	46.6	19.0		304R3	BE132MA4	BX132MA4			N210TC	5,700	7,190	1,600	276
39	15,400	2.5	46.6	19.0		305R3	BE132MA4	BX132MA4			N210TC	5,700	7,190	1,600	294
40	15,200	1.1	44.6	12.0	303L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,620	7,100	1,570	258
40	15,200	2.1	44.6	12.0	305L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,620	7,100	1,570	294
41	14,400	1.9	43.6	10.0	304L3		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,580	7,050	1,560	276
42	14,100	1.3	42.6	19.0		303R3	BE132MA4	BX132MA4			N210TC	5,540	7,000	1,550	258
42	14,100	2.0	42.6	19.0		304R3	BE132MA4	BX132MA4			N210TC	5,540	7,000	1,550	276
42	14,100	2.3	42.6	19.0		305R3	BE132MA4	BX132MA4			N210TC	5,540	7,000	1,550	294
47	13,100	1.0	38.4	10.0	301L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,800	3,320	500	242
47	13,100	1.4	38.4	12.0	303L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,370	6,790	1,500	258
47	13,100	1.9	38.4	12.0	304L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,370	6,790	1,500	276
47	13,100	2.9	38.4	12.0	305L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,370	6,790	1,500	294
48	12,300	1.1	37.3	16.0		301R3	BE132MA4	BX132MA4			N210TC	2,770	3,290	490	242
49	12,300	1.7	37.1	19.0		303R3	BE132MA4	BX132MA4			N210TC	5,320	6,720	1,480	258
49	12,300	2.5	37.1	19.0		304R3	BE132MA4	BX132MA4			N210TC	5,320	6,720	1,480	276
50	12,200	1.3	35.8	12.0	303L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,260	6,650	1,460	258
50	12,200	2.6	35.8	12.0	305L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,260	6,650	1,460	294
54	11,400	1.0	33.3	10.0	301L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,680	3,180	480	242
57	10,400	1.7	31.5	19.0		303R3	BE132MA4	BX132MA4			N210TC	5,060	6,390	1,400	258
57	10,400	2.6	31.5	19.0		304R3	BE132MA4	BX132MA4			N210TC	5,060	6,390	1,400	276
59	10,500	1.8	30.8	12.0	303L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,030	6,350	1,390	258
59	10,500	2.4	30.8	12.0	304L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,030	6,350	1,390	276
59	10,500	1.3	30.7	10.0	301L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,620	3,110	460	242
59	10,100	1.3	30.4	16.0		301R3	BE132MA4	BX132MA4			N210TC	2,610	3,100	460	242
68	9,020	1.8	26.4	12.0	303L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	4,800	6,070	1,320	258
70	8,510	2.0	25.7	19.0		303R3	BE132MA4	BX132MA4			N210TC	4,760	6,020	1,310	258
73	8,220	1.5	24.8	16.0		301R3	BE132MA4	BX132MA4			N210TC	2,460	2,920	430	242
73	8,390	0.9	24.8	24.0		303R2					N210TC	4,710	5,950	1,290	258
73	8,400	1.5	24.6	10.0	301L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,450	2,910	430	242
73	8,370	2.1	24.5	12.0	303L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	4,700	5,930	1,290	258
79	7,760	2.4	22.7	12.0	303L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	4,590	5,800	1,260	258
87	7,090	2.1	20.8	12.0	303L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	4,470	5,650	1,220	258
90	6,850	1.6	20.1	10.0	301L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,310	2,740	400	242
94	6,560	2.0	19.2	24.0		303R2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	4,370	5,520	1,190	258
98	6,300	1.0	18.5	16.0		301R2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,250	2,670	390	242
99	6,210	1.0	18.2	10.0	300L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,240	2,820	390	226



A

P₁ = 10 hp



A

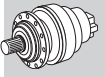
n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
99	6,210	1.8	18.2	10.0	301L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,240	2,660	390	242
99	6,190	2.7	18.1	12.0	303L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	4,290	5,420	1,160	258
113	5,420	2.9	15.9	24.0		303R2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	4,120	5,210	1,120	258
117	5,240	2.7	15.3	12.0	303L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	4,080	5,160	1,100	258
121	5,070	1.2	14.8	10.0	300L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,110	2,660	360	226
121	5,070	2.1	14.8	10.0	301L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,110	2,500	360	242
122	5,040	1.6	14.8	16.0		301R2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	2,100	2,490	360	242
149	4,130	1.4	12.1	10.0	300L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,980	2,500	340	226
149	4,130	2.5	12.1	10.0	301L2		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,980	2,350	340	242
152	4,040	1.2	11.8	16.0		300R2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,970	2,480	340	226
152	4,040	2.4	11.8	16.0		301R2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,970	2,330	340	242
186	3,400	1.9	9.70	15.0	303L1		BE132MA4	BX132MA4	ME4LA4	MX4LA4		3,550	4,490	940	258
200	3,170	1.7	9.00	10.0	301L1		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,810	2,150	310	242
206	2,980	1.7	8.70	16.0		300R2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,800	2,270	300	226
250	2,530	1.4	7.20	10.0	300L1		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,690	2,140	290	226
250	2,530	2.5	7.20	10.0	301L1		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,690	2,010	290	242
252	2,440	2.0	7.10	16.0		300R2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,690	2,130	280	226
312	2,030	2.0	5.80	10.0	300L1		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,590	2,000	270	226
422	1,500	2.8	4.30	10.0	300L1		BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	1,450	1,830	240	226

P₁ = 15 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
1.0	889,800	1.6	1893	24.0	317L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		89,600	95,100	33,700	462
1.1	749,700	2.0	1595	24.0	317L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		87,400	92,800	32,400	462
1.2	701,600	1.0	1492	24.0	315L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		35,700	43,600	19,000	434
1.4	600,500	1.1	1277	20.0	314L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		34,900	42,600	18,000	418
1.4	603,500	1.4	1284	24.0	315L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		35,000	42,700	18,100	434
1.4	619,800	2.4	1318	24.0	317L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		85,100	90,400	30,400	462
1.5	581,800	1.8	1238	24.0	316L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		54,200	60,000	29,800	450
1.6	516,600	1.3	1099	20.0	314L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		34,200	41,700	17,200	418
1.6	519,200	1.6	1104	24.0	315L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		34,200	41,800	17,200	434
1.6	533,100	2.8	1134	24.0	317L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		83,200	88,400	28,900	462
1.7	487,800	1.5	1038	20.0	314L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		33,900	41,400	16,800	418
1.7	490,200	1.8	1043	24.0	315L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		33,900	41,400	16,900	434
1.7	490,200	2.3	1043	24.0	316L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		52,900	58,600	28,100	450
1.8	476,700	1.0	1014	15.0	313L4		BE160M4	BX160MB4				34,600	43,400	14,900	400
1.9	435,300	1.5	926	20.0	314L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		33,400	40,700	16,200	418
1.9	437,400	1.8	931	24.0	315L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		33,400	40,800	16,200	434
1.9	448,200	2.8	953	67.0		317R4	BE160M4	BX160MB4	ME5SA4	MX5SB4		81,200	86,300	27,300	462
2.0	424,900	1.0	904	15.0	311L4		BE160M4	BX160MB4				24,600	28,200	11,600	382
2.0	418,100	1.1	889	15.0	313L4		BE160M4	BX160MB4				34,000	42,600	14,200	400
2.0	427,500	1.5	909	54.0		315R4	BE160M4	BX160MB4	ME5SA4	MX5SB4		33,300	40,600	16,100	434
2.1	403,200	1.8	858	20.0	314L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		33,000	40,300	15,800	418
2.1	405,200	2.2	862	24.0	315L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		33,000	40,300	15,800	434
2.1	405,200	2.8	862	24.0	316L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		51,400	57,000	26,400	450
2.2	387,700	1.0	825	15.0	311L4		BE160M4	BX160MB4				24,200	27,800	11,300	382
2.2	382,000	3.0	813	24.0	316L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		51,000	56,500	25,900	450
2.3	371,300	1.2	790	15.0	313L4		BE160M4	BX160MB4				33,400	41,900	13,700	400
2.3	365,900	1.0	778	30.0		313R4	BE160M4	BX160MB4				33,400	41,800	13,600	400
2.3	367,700	2.1	782	54.0		315R4	BE160M4	BX160MB4	ME5SA4	MX5SB4		32,600	39,800	15,300	434
2.4	346,900	2.0	738	20.0	314L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		32,300	39,400	15,000	418
2.4	348,600	2.5	742	24.0	315L4		BE160M4	BX160MB4	ME5SA4	MX5SB4		32,300	39,500	15,100	434

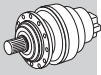
P₁ = 15 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ		
					BE160M4	BX160MB4	BE160M4	BX160MB4		ME5SA4	MX5SB4	NHC/HC NPC/PC		HZ/PZ	FZ
2.5	340,400	1.2	724	15.0	311L4	BE160M4	BX160MB4				23,800	27,300	10,800	382	
2.6	326,800	1.3	695	15.0	313L4	BE160M4	BX160MB4				32,800	41,100	13,100	400	
2.7	314,200	2.2	668	20.0	314L4	BE160M4	BX160MB4	ME5SA4	MX5SB4		31,900	38,900	14,500	418	
2.7	315,800	2.8	672	24.0	315L4	BE160M4	BX160MB4	ME5SA4	MX5SB4		31,900	38,900	14,600	434	
2.7	309,900	2.5	659	54.0		315R4	BE160M4	BX160MB4	ME5SA4	MX5SB4		31,800	38,800	14,500	434
2.8	297,600	1.5	633	15.0	313L4	BE160M4	BX160MB4				32,400	40,500	12,700	400	
2.8	304,000	1.4	647	30.0		313R4	BE160M4	BX160MB4			32,500	40,700	12,800	400	
2.9	294,600	1.2	627	15.0	311L4	BE160M4	BX160MB4				23,300	26,800	10,300	382	
2.9	295,600	1.2	629	30.0		311R4	BE160M4	BX160MB4			23,300	26,800	10,300	382	
2.9	288,500	1.7	614	30.0		314R4	BE160M4	BX160MB4			31,500	38,400	14,100	418	
3.1	276,400	2.5	588	20.0	314L4	BE160M4	BX160MB4	ME5SA4	MX5SB4		31,300	38,200	13,900	418	
3.2	261,300	1.0	556	15.0	310L4	BE160M4	BX160MB4				18,300	23,700	9,880	364	
3.2	266,900	1.4	568	15.0	311L4	BE160M4	BX160MB4				23,000	26,400	9,950	382	
3.2	265,000	1.8	564	15.0	313L4	BE160M4	BX160MB4				31,900	39,900	12,200	400	
3.2	260,500	2.7	554	20.0	314L4	BE160M4	BX160MB4	ME5SA4	MX5SB4		31,000	37,800	13,700	418	
3.4	251,300	1.7	535	30.0		313R4	BE160M4	BX160MB4			31,600	39,600	12,000	400	
3.4	248,200	2.4	528	30.0		314R4	BE160M4	BX160MB4			30,800	37,600	13,400	418	
3.5	238,500	0.9	507	15.0	310L4	BE160M4	BX160MB4				18,100	23,400	9,580	364	
3.5	243,100	0.9	517	20.0		310R4	BE160M4	BX160MB4			18,100	23,400	9,640	364	
3.5	240,800	1.5	512	15.0	311L4	BE160M4	BX160MB4				22,600	26,000	9,610	382	
3.5	244,300	1.4	520	30.0		311R4	BE160M4	BX160MB4			22,700	26,100	9,660	382	
3.5	241,500	1.7	514	15.0	313L4	BE160M4	BX160MB4				31,400	39,400	11,800	400	
3.6	233,200	2.0	496	30.0		313R4	BE160M4	BX160MB4			31,300	39,200	11,700	400	
3.6	232,500	3.0	495	20.0	314L4	BE160M4	BX160MB4	ME5SA4	MX5SB4		30,500	37,200	13,200	418	
3.7	230,300	1.3	490	30.0		311R4	BE160M4	BX160MB4			22,500	25,800	9,470	382	
4.0	211,900	1.2	451	15.0	310L4	BE160M4	BX160MB4				17,800	23,000	9,210	364	
4.0	212,400	2.2	452	15.0	313L4	BE160M4	BX160MB4				30,900	38,600	11,300	400	
4.0	211,800	1.9	450	30.0		313R4	BE160M4	BX160MB4			30,800	38,600	11,300	400	
4.0	209,100	2.8	445	30.0		314R4	BE160M4	BX160MB4			30,100	36,700	12,700	418	
4.1	205,900	1.6	438	30.0		311R4	BE160M4	BX160MB4			22,100	25,400	9,120	382	
4.3	197,100	1.2	419	20.0		310R4	BE160M4	BX160MB4			17,600	22,700	8,990	364	
4.4	192,900	1.8	410	15.0	311L4	BE160M4	BX160MB4				21,900	25,200	8,930	382	
4.4	194,100	1.8	413	30.0		311R4	BE160M4	BX160MB4			22,000	25,200	8,940	382	
4.6	184,100	0.9	392	15.0	310L4	BE160M4	BX160MB4				17,400	22,500	8,790	364	
4.6	185,300	2.6	394	15.0	313L4	BE160M4	BX160MB4				30,300	37,900	10,800	400	
4.6	182,200	2.2	388	30.0		313R4	BE160M4	BX160MB4			30,200	37,800	10,800	400	
5.0	170,800	1.2	363	20.0		310R4	BE160M4	BX160MB4			17,200	22,300	8,570	364	
5.1	169,900	1.0	351	24.0	310L3	BE160M4	BX160MB4	ME5SA4	MX5SB4		17,200	22,200	8,470	364	
5.1	165,500	2.8	352	15.0	313L4	BE160M4	BX160MB4				29,900	37,400	10,400	400	
5.2	164,100	1.1	349	10.0	309L4	BE160M4	BX160MB4				14,700	20,000	4,680	348	
5.2	163,400	2.1	348	15.0	311L4	BE160M4	BX160MB4				21,500	24,700	8,450	382	
5.2	162,500	2.8	346	30.0		313R4	BE160M4	BX160MB4			29,900	37,400	10,400	400	
5.3	160,400	2.1	341	30.0		311R4	BE160M4	BX160MB4			21,500	24,700	8,390	382	
5.4	155,700	1.0	331	20.0		309R4	BE160M4	BX160MB4			14,700	20,000	4,600	348	
5.4	157,100	1.5	334	20.0		310R4	BE160M4	BX160MB4			17,200	22,200	8,340	364	
5.6	151,200	2.2	322	30.0		311R4	BE160M4	BX160MB4			21,500	24,700	8,230	382	
5.8	145,200	2.7	309	30.0		313R4	BE160M4	BX160MB4			29,900	37,400	9,990	400	
5.9	143,400	1.4	305	20.0		310R4	BE160M4	BX160MB4			17,200	22,200	8,090	364	
5.9	147,200	2.3	304	24.0	313L3	BE160M4	BX160MB4	ME5SA4	MX5SB4		29,900	37,400	9,940	400	
6.1	143,100	1.4	295	24.0	310L3	BE160M4	BX160MB4	ME5SA4	MX5SB4		17,200	22,200	8,000	364	
6.1	138,000	2.3	294	30.0		311R4	BE160M4	BX160MB4			21,500	24,700	7,980	382	
6.2	141,100	1.7	291	24.0	311L3	BE160M4	BX160MB4	ME5SA4	MX5SB4		21,500	24,700	7,960	382	
6.3	137,400	1.0	284	15.0	309L3	BE160M4	BX160MB4				14,700	20,000	4,370	348	
6.3	133,700	1.1	285	20.0		309R4	BE160M4	BX160MB4			14,700	20,000	4,380	348	
6.4	133,100	1.6	283	20.0		310R4	BE160M4	BX160MB4			17,200	22,200	7,890	364	
6.8	125,000	2.5	266	30.0		311R4	BE160M4	BX160MB4			21,500	24,700	7,720	382	
7.0	121,300	1.0	258	20.0		307R4	BE160M4	BX160MB4			14,700	20,000	5,290	330	



A

P₁ = 15 hp

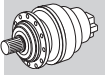


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n ₂ rpm	T ₂ lb-in	S	i	Pt hp							Rn ₂ [lbs]				
					IE2	IE3	IE2	IE3	NEMA	NHC/HC NPC/PC	HZ/PZ	FZ			
7.0	121,300	1.3	258	20.0		309R4	BE160M4	BX160MB4				14,700	20,000	4,240	348
7.0	121,400	1.6	258	20.0		310R4	BE160M4	BX160MB4				17,200	22,200	7,650	364
7.2	120,800	1.3	249	24.0	310L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		17,200	22,200	7,560	364
7.3	118,900	2.5	245	24.0	311L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		21,500	24,700	7,520	382
7.5	116,000	1.0	239	15.0	309L3		BE160M4	BX160MB4				14,700	20,000	4,130	348
7.7	110,000	1.9	234	20.0		310R4	BE160M4	BX160MB4				17,200	22,200	7,400	364
7.8	109,200	1.3	232	20.0		309R4	BE160M4	BX160MB4				14,700	20,000	4,090	348
7.8	111,500	1.6	230	24.0	310L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		17,200	22,200	7,360	364
7.9	107,500	2.8	229	30.0		311R4	BE160M4	BX160MB4				21,500	24,700	7,350	382
8.1	107,100	1.0	221	15.0	307L3		BE160M4	BX160MB4				14,700	20,000	5,030	330
8.1	108,000	1.1	223	15.0	309L3		BE160M4	BX160MB4				14,700	20,000	4,030	348
8.7	96,800	2.0	206	20.0		310R4	BE160M4	BX160MB4				17,200	22,200	7,090	364
8.8	96,700	1.3	206	20.0		307R4	BE160M4	BX160MB4				14,700	20,000	4,910	330
8.8	96,700	1.7	206	20.0		309R4	BE160M4	BX160MB4				14,700	20,000	3,930	348
8.9	97,700	1.0	202	15.0	307L3		BE160M4	BX160MB4				14,700	20,000	4,880	330
8.9	97,700	1.5	202	15.0	309L3		BE160M4	BX160MB4				14,700	20,000	3,900	348
8.9	97,800	1.9	202	24.0	310L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		17,200	22,200	7,050	364
8.9	98,300	2.9	203	24.0	311L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		21,500	24,700	7,060	382
9.4	89,600	1.3	191	20.0		307R4	BE160M4	BX160MB4				14,700	20,000	4,790	330
9.4	89,600	1.7	191	20.0		309R4	BE160M4	BX160MB4				14,700	20,000	3,830	348
9.4	92,700	3.0	191	24.0	311L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		21,500	24,700	6,920	382
9.5	89,000	2.2	189	20.0		310R4	BE160M4	BX160MB4				17,200	22,200	6,900	364
9.9	85,100	1.0	181	16.0		306R4	BE160M4	BX160MB4				11,700	14,800	3,660	312
9.9	88,500	1.4	183	15.0	309L3		BE160M4	BX160MB4				14,700	20,000	3,770	348
10.2	85,800	1.3	177	15.0	307L3		BE160M4	BX160MB4				14,600	19,900	4,670	330
10.2	85,900	1.9	177	24.0	310L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		17,100	22,100	6,750	364
10.9	77,700	1.2	165	20.0		307R4	BE160M4	BX160MB4				14,300	19,500	4,560	330
10.9	77,700	1.8	165	20.0		309R4	BE160M4	BX160MB4				14,300	19,500	3,650	348
11.0	79,300	2.3	164	24.0	310L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		16,700	21,600	6,570	364
11.1	78,300	1.2	162	15.0	307L3		BE160M4	BX160MB4				14,200	19,300	4,530	330
11.1	78,300	1.8	162	15.0	309L3		BE160M4	BX160MB4				14,200	19,300	3,620	348
11.2	75,400	2.4	160	20.0		310R4	BE160M4	BX160MB4				16,600	21,500	6,530	364
11.4	74,200	1.1	158	16.0		306R4	BE160M4	BX160MB4				11,300	14,200	3,500	312
11.8	71,400	1.6	152	20.0		307R4	BE160M4	BX160MB4				14,000	19,000	4,440	330
11.8	71,400	2.2	152	20.0		309R4	BE160M4	BX160MB4				14,000	19,000	3,550	348
12.3	70,900	1.6	146	15.0	307L3		BE160M4	BX160MB4				13,800	18,800	4,380	330
12.7	68,700	2.5	142	24.0	310L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		16,000	20,700	6,260	364
12.8	68,300	1.0	141	10.0	306L3		BE160M4	BX160MB4				10,900	13,700	3,370	312
13.0	67,300	1.4	139	15.0	307L3		BE160M4	BX160MB4				13,600	18,500	4,310	330
13.0	67,300	2.1	139	15.0	309L3		BE160M4	BX160MB4				13,600	18,500	3,440	348
13.2	63,900	2.7	136	20.0		310R4	BE160M4	BX160MB4				15,800	20,400	6,180	364
13.8	63,200	2.7	130	24.0	310L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		15,600	20,200	6,090	364
14.3	61,000	1.8	126	15.0	307L3		BE160M4	BX160MB4				13,200	17,900	4,170	330
14.3	61,000	2.3	126	15.0	309L3		BE160M4	BX160MB4				13,200	17,900	3,330	348
14.8	58,800	1.2	121	10.0	306L3		BE160M4	BX160MB4				10,400	13,100	3,200	312
15.0	58,000	1.3	120	30.0		307R3	BE160M4	BX160MB4				13,000	17,700	4,100	330
15.0	58,000	2.0	120	30.0		309R3	BE160M4	BX160MB4				13,000	17,700	3,280	348
15.0	58,000	2.5	120	30.0		310R3	BE160M4	BX160MB4				15,200	19,700	5,920	364
15.1	57,800	1.0	119	19.0		306R3	BE160M4	BX160MB4				10,400	13,100	3,180	312
15.1	57,700	2.9	119	24.0	310L3		BE160M4	BX160MB4	ME5SA4	MX5SB4		15,200	19,600	5,910	364
15.9	54,900	1.7	113	15.0	307L3		BE160M4	BX160MB4				12,800	17,400	4,020	330
15.9	54,900	2.4	113	15.0	309L3		BE160M4	BX160MB4				12,800	17,400	3,220	348
16.0	54,400	1.2	112	10.0	306L3		BE160M4	BX160MB4				10,200	12,800	3,120	312
17.3	50,500	1.5	104	10.0	306L3		BE160M4	BX160MB4				9,960	12,600	3,040	312
17.9	48,600	2.2	100	15.0	307L3		BE160M4	BX160MB4				12,300	16,800	3,860	330
17.9	48,600	2.8	100	15.0	309L3		BE160M4	BX160MB4				12,300	16,800	3,090	348
18.2	48,000	1.6	99.0	30.0		307R3	BE160M4	BX160MB4				12,300	16,700	3,850	330

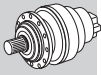
P₁ = 15 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ	
					IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ		
18.2	48,000	2.3	99.0	30.0		309R3	BE160M4	BX160MB4			12,300	16,700	3,080	348
18.2	48,000	2.9	99.0	30.0		310R3	BE160M4	BX160MB4			14,400	18,600	5,560	364
18.3	47,700	1.2	98.5	19.0		306R3	BE160M4	BX160MB4			9,790	12,300	2,990	312
19.4	45,100	2.3	93.0	15.0	307L3		BE160M4	BX160MB4			12,000	16,400	3,770	330
19.4	45,100	2.8	93.0	15.0	309L3		BE160M4	BX160MB4			12,000	16,400	3,010	348
20.4	42,800	1.7	88.3	10.0	306L3		BE160M4	BX160MB4			9,480	11,900	2,880	312
21.2	41,100	1.6	84.7	19.0		306R3	BE160M4	BX160MB4			9,360	11,800	2,840	312
21.6	40,400	2.2	83.4	30.0		307R3	BE160M4	BX160MB4			11,700	15,800	3,630	330
21.6	40,400	2.9	83.4	30.0		309R3	BE160M4	BX160MB4			11,700	15,800	2,910	348
22.0	39,700	1.5	81.9	10.0	306L3		BE160M4	BX160MB4			9,260	11,700	2,810	312
22.3	39,100	2.3	80.6	15.0	307L3		BE160M4	BX160MB4			11,500	15,700	3,590	330
22.9	38,100	2.5	78.6	30.0		307R3	BE160M4	BX160MB4			11,500	15,600	3,560	330
23.3	37,400	1.1	77.2	10.0	305L3		BE160M4	BX160MB4			6,630	8,370	1,890	294
23.4	37,300	1.9	77.0	10.0	306L3		BE160M4	BX160MB4			9,100	11,500	2,750	312
24.3	35,900	2.8	74.1	15.0	307L3		BE160M4	BX160MB4			11,200	15,300	3,490	330
24.7	35,300	1.8	72.9	19.0		306R3	BE160M4	BX160MB4			8,950	11,300	2,700	312
24.8	36,200	1.3	72.5	17.0	306L2		BE160M4	BX160MB4	ME5SA4	MX5SB4	8,930	11,300	2,700	312
24.9	35,000	1.0	72.3	10.0	305L3		BE160M4	BX160MB4			6,500	8,210	1,850	294
25.1	34,800	2.5	71.8	30.0		307R3	BE160M4	BX160MB4			11,100	15,100	3,460	330
26.7	32,700	1.9	67.5	19.0		306R3	BE160M4	BX160MB4			8,740	11,000	2,630	312
27.6	31,600	2.0	65.2	10.0	306L3		BE160M4	BX160MB4			8,650	10,900	2,600	312
27.7	31,500	3.0	65.0	30.0		307R3	BE160M4	BX160MB4			10,800	14,700	3,340	330
27.7	31,500	3.0	65.0	30.0		309R3	BE160M4	BX160MB4			10,800	14,700	2,670	348
28.5	30,600	1.0	63.1	10.0	304L3		BE160M4	BX160MB4			6,240	7,880	1,770	276
28.5	30,600	1.3	63.1	10.0	305L3		BE160M4	BX160MB4			6,240	7,880	1,770	294
31	28,200	2.3	58.1	19.0		306R3	BE160M4	BX160MB4			8,360	10,500	2,510	312
32	28,100	1.6	56.3	17.0	306L2		BE160M4	BX160MB4	ME5SA4	MX5SB4	8,280	10,400	2,480	312
32	27,900	1.1	55.8	12.0	305L2		BE160M4	BX160MB4			6,010	7,590	1,690	294
34	25,900	1.1	53.4	10.0	304L3		BE160M4	BX160MB4			5,930	7,490	1,670	276
34	25,900	1.3	53.4	10.0	305L3		BE160M4	BX160MB4			5,930	7,490	1,670	294
34	25,800	2.3	53.2	10.0	306L3		BE160M4	BX160MB4			8,140	10,300	2,430	312
39	23,200	2.5	46.5	17.0	306L2		BE160M4	BX160MB4	ME5SA4	MX5SB4	7,820	9,860	2,330	312
39	22,400	2.9	46.3	19.0		306R3	BE160M4	BX160MB4			7,810	9,840	2,320	312
40	22,300	1.4	44.6	12.0	305L2		BE160M4	BX160MB4			5,620	7,100	1,570	294
41	21,100	1.3	43.6	10.0	304L3		BE160M4	BX160MB4			5,580	7,050	1,560	276
46	19,000	2.9	39.2	19.0		306R3	BE160M4	BX160MB4			7,430	9,360	2,200	312
47	19,200	3.0	38.4	17.0	306L2		BE160M4	BX160MB4	ME5SA4	MX5SB4	7,380	9,310	2,180	312
47	19,200	1.0	38.4	12.0	303L2		BE160M4	BX160MB4			5,370	6,790	1,500	258
47	19,200	1.3	38.4	12.0	304L2		BE160M4	BX160MB4			5,370	6,790	1,500	276
47	19,200	2.0	38.4	12.0	305L2		BE160M4	BX160MB4			5,370	6,790	1,500	294
50	17,900	0.9	35.8	12.0	303L2		BE160M4	BX160MB4			5,260	6,650	1,460	258
50	17,900	1.8	35.8	12.0	305L2		BE160M4	BX160MB4			5,260	6,650	1,460	294
59	15,400	1.2	30.8	12.0	303L2		BE160M4	BX160MB4			5,030	6,350	1,390	258
59	15,400	1.6	30.8	12.0	304L2		BE160M4	BX160MB4			5,030	6,350	1,390	276
59	15,400	2.4	30.8	12.0	305L2		BE160M4	BX160MB4			5,030	6,350	1,390	294
68	13,200	1.2	26.4	12.0	303L2		BE160M4	BX160MB4			4,800	6,070	1,320	258
68	13,200	2.4	26.4	12.0	305L2		BE160M4	BX160MB4			4,800	6,070	1,320	294
73	12,300	1.5	24.5	12.0	303L2		BE160M4	BX160MB4			4,700	5,930	1,290	258
73	12,300	2.2	24.5	12.0	304L2		BE160M4	BX160MB4			4,700	5,930	1,290	276
73	12,300	2.6	24.5	12.0	305L2		BE160M4	BX160MB4			4,700	5,930	1,290	294
79	11,400	1.6	22.7	12.0	303L2		BE160M4	BX160MB4			4,590	5,800	1,260	258
79	11,400	2.1	22.7	12.0	304L2		BE160M4	BX160MB4			4,590	5,800	1,260	276
79	11,400	2.9	22.7	12.0	305L2		BE160M4	BX160MB4			4,590	5,800	1,260	294
87	10,400	1.5	20.8	12.0	303L2		BE160M4	BX160MB4			4,470	5,650	1,220	258
87	10,400	2.5	20.8	12.0	304L2		BE160M4	BX160MB4			4,470	5,650	1,220	276
87	10,400	2.6	20.8	12.0	305L2		BE160M4	BX160MB4			4,470	5,650	1,220	294
99	9,050	1.9	18.1	12.0	303L2		BE160M4	BX160MB4			4,290	5,420	1,160	258



A

P₁ = 15 hp








A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
99	9,050	2.7	18.1	12.0	304L2		BE160M4	BX160MB4				4,290	5,420	1,160	276
117	7,670	1.9	15.3	12.0	303L2		BE160M4	BX160MB4				4,080	5,160	1,100	258
144	6,260	2.2	12.5	12.0	303L2		BE160M4	BX160MB4				3,840	4,850	1,030	258
186	4,980	1.3	9.70	15.0	303L1		BE160M4	BX160MB4	ME5SA4	MX5SB4		3,550	4,490	940	258
240	3,860	2.6	7.50	15.0	303L1		BE160M4	BX160MB4	ME5SA4	MX5SB4		3,290	4,160	870	258

P₁ = 20 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
1.0	1,201,200	1.2	1893	24.0	317L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	89,600	95,100	33,700	462
1.1	1,012,100	1.5	1595	24.0	317L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	87,400	92,800	32,400	462
1.1	814,800	1.0	1284	24.0	315L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	35,000	42,700	18,100	434
1.4	836,700	1.8	1318	24.0	317L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	85,100	90,400	30,400	462
1.5	785,400	1.4	1238	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	54,200	60,000	29,800	450
1.6	697,400	0.9	1099	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	34,200	41,700	17,200	418
1.6	700,900	1.2	1104	24.0	315L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	34,200	41,800	17,200	434
1.6	719,700	2.1	1134	24.0	317L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	83,200	88,400	28,900	462
1.7	658,500	1.1	1038	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	33,900	41,400	16,800	418
1.7	661,800	1.4	1043	24.0	315L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	33,900	41,400	16,900	434
1.7	661,800	1.7	1043	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	52,900	58,600	28,100	450
1.7	655,200	2.4	1032	24.0	317L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	82,100	87,300	28,000	462
1.9	587,600	1.1	926	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	33,400	40,700	16,200	418
1.9	590,500	1.4	931	24.0	315L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	33,400	40,800	16,200	434
1.9	605,000	2.1	953	67.0		317R4	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	81,200	86,300	27,300	462
2.0	577,100	1.1	909	54.0		315R4	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	33,300	40,600	16,100	434
2.0	573,500	2.6	904	24.0	317L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	80,600	85,600	26,800	462
2.1	544,400	1.3	858	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	33,000	40,300	15,800	418
2.1	547,100	1.6	862	24.0	315L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	33,000	40,300	15,800	434
2.1	547,100	2.0	862	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	51,400	57,000	26,400	450
2.2	515,700	2.2	813	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	51,000	56,500	25,900	450
2.2	509,800	2.9	803	67.0		317R4	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	79,200	84,200	25,800	462
2.3	501,300	0.9	790	15.0	313L4		BE160L4	BX160LA4			N250TC	33,400	41,900	13,700	400
2.3	496,400	1.6	782	54.0		315R4	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	32,600	39,800	15,300	434
2.4	468,300	1.5	738	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	32,300	39,400	15,000	418
2.4	470,600	1.9	742	24.0	315L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	32,300	39,500	15,100	434
2.4	470,600	2.3	742	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	50,300	55,800	25,100	450
2.5	460,900	2.4	726	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	50,200	55,600	24,900	450
2.6	441,200	1.0	695	15.0	313L4		BE160L4	BX160LA4			N250TC	32,800	41,100	13,100	400
2.6	434,500	2.5	685	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	49,800	55,200	24,400	450
2.7	424,200	1.7	668	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	31,900	38,900	14,500	418
2.7	426,300	2.1	672	24.0	315L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	31,900	38,900	14,600	434
2.7	418,300	1.8	659	54.0		315R4	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	31,800	38,800	14,500	434
2.8	401,700	1.1	633	15.0	313L4		BE160L4	BX160LA4			N250TC	32,400	40,500	12,700	400
2.8	410,400	1.1	647	30.0		313R4	BE160L4	BX160LA4			N250TC	32,500	40,700	12,800	400
2.9	389,500	1.3	614	30.0		314R4	BE160L4	BX160LA4			N250TC	31,500	38,400	14,100	418
2.9	395,600	2.2	623	54.0		315R4	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	31,500	38,500	14,200	434
2.9	396,500	2.7	625	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	49,100	54,500	23,700	450
2.9	395,600	2.5	623	60.0		316R4	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	49,100	54,400	23,700	450
3.0	375,000	2.3	591	24.0	315L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	31,300	38,200	14,000	434
3.0	375,000	2.8	591	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	48,700	54,000	23,300	450
3.1	373,100	1.9	588	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	31,300	38,200	13,900	418
3.2	360,300	1.0	568	15.0	311L4		BE160L4	BX160LA4			N250TC	23,000	26,400	9,950	382
3.2	357,800	1.3	564	15.0	313L4		BE160L4	BX160LA4			N250TC	31,900	39,900	12,200	400

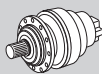
P₁ = 20 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
3.2	351,700	2.0	554	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	31,000	37,800	13,700	418
3.2	359,200	2.9	566	24.0	316L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	48,400	53,700	22,900	450
3.4	339,300	1.2	535	30.0		313R4	BE160L4	BX160LA4			N250TC	31,600	39,600	12,000	400
3.4	335,100	1.8	528	30.0		314R4	BE160L4	BX160LA4			N250TC	30,800	37,600	13,400	418
3.4	338,600	2.6	533	24.0	315L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	30,800	37,600	13,500	434
3.4	333,300	2.6	525	54.0		315R4	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	30,800	37,600	13,400	434
3.5	325,000	1.1	512	15.0	311L4		BE160L4	BX160LA4			N250TC	22,600	26,000	9,610	382
3.5	329,800	1.0	520	30.0		311R4	BE160L4	BX160LA4			N250TC	22,700	26,100	9,660	382
3.5	326,000	1.3	514	15.0	313L4		BE160L4	BX160LA4			N250TC	31,400	39,400	11,800	400
3.6	314,900	1.5	496	30.0		313R4	BE160L4	BX160LA4			N250TC	31,300	39,200	11,700	400
3.6	313,900	2.2	495	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	30,500	37,200	13,200	418
3.7	310,900	1.0	490	30.0		311R4	BE160L4	BX160LA4			N250TC	22,500	25,800	9,470	382
3.7	309,000	2.8	487	24.0	315L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	30,400	37,200	13,100	434
3.9	290,800	2.4	458	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	30,200	36,800	12,800	418
4.0	286,700	1.6	452	15.0	313L4		BE160L4	BX160LA4			N250TC	30,900	38,600	11,300	400
4.0	285,900	1.4	450	30.0		313R4	BE160L4	BX160LA4			N250TC	30,800	38,600	11,300	400
4.0	282,300	2.1	445	30.0		314R4	BE160L4	BX160LA4			N250TC	30,100	36,700	12,700	418
4.1	277,900	1.2	438	30.0		311R4	BE160L4	BX160LA4			N250TC	22,100	25,400	9,120	382
4.3	266,100	0.9	419	20.0		310R4	BE160L4	BX160LA4			N250TC	17,600	22,700	8,990	364
4.3	267,000	2.6	421	30.0		314R4	BE160L4	BX160LA4			N250TC	29,800	36,400	12,500	418
4.4	260,400	1.3	410	15.0	311L4		BE160L4	BX160LA4			N250TC	21,900	25,200	8,930	382
4.4	262,000	1.3	413	30.0		311R4	BE160L4	BX160LA4			N250TC	22,000	25,200	8,940	382
4.6	250,100	1.9	394	15.0	313L4		BE160L4	BX160LA4			N250TC	30,300	37,900	10,800	400
4.6	245,900	1.6	388	30.0		313R4	BE160L4	BX160LA4			N250TC	30,200	37,800	10,800	400
4.6	246,300	2.8	388	20.0	314L4		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	29,500	36,000	12,100	418
5.1	223,400	2.1	352	15.0	313L4		BE160L4	BX160LA4			N250TC	29,900	37,400	10,400	400
5.2	220,600	1.5	348	15.0	311L4		BE160L4	BX160LA4			N250TC	21,500	24,700	8,450	382
5.2	219,300	2.1	346	30.0		313R4	BE160L4	BX160LA4			N250TC	29,900	37,400	10,400	400
5.3	216,600	1.5	341	30.0		311R4	BE160L4	BX160LA4			N250TC	21,500	24,700	8,390	382
5.4	212,100	1.1	334	20.0		310R4	BE160L4	BX160LA4			N250TC	17,200	22,200	8,340	364
5.6	204,100	1.6	322	30.0		311R4	BE160L4	BX160LA4			N250TC	21,500	24,700	8,230	382
5.8	196,000	2.0	309	30.0		313R4	BE160L4	BX160LA4			N250TC	29,900	37,400	9,990	400
5.9	193,500	1.0	305	20.0		310R4	BE160L4	BX160LA4			N250TC	17,200	22,200	8,090	364
5.9	198,700	1.7	304	24.0	313L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	29,900	37,400	9,940	400
6.1	193,200	1.0	295	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	17,200	22,200	8,000	364
6.1	186,300	1.7	294	30.0		311R4	BE160L4	BX160LA4			N250TC	21,500	24,700	7,980	382
6.2	190,500	1.3	291	24.0	311L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	21,500	24,700	7,960	382
6.4	179,600	1.2	283	20.0		310R4	BE160L4	BX160LA4			N250TC	17,200	22,200	7,890	364
6.4	178,400	2.3	281	30.0		313R4	BE160L4	BX160LA4			N250TC	29,900	37,400	9,690	400
6.8	168,800	1.8	266	30.0		311R4	BE160L4	BX160LA4			N250TC	21,500	24,700	7,720	382
7.0	163,800	0.9	258	20.0		309R4	BE160L4	BX160LA4			N250TC	14,700	20,000	4,240	348
7.0	163,900	1.2	258	20.0		310R4	BE160L4	BX160LA4			N250TC	17,200	22,200	7,650	364
7.1	165,100	2.4	252	24.0	313L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	29,900	37,400	9,340	400
7.2	163,100	1.0	249	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	17,200	22,200	7,560	364
7.3	160,500	1.8	245	24.0	311L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	21,500	24,700	7,520	382
7.5	156,700	2.9	240	34.0	314L3		BE160L4	BX160LA4			N250TC	29,200	35,600	10,300	418
7.6	150,300	2.3	237	30.0		313R4	BE160L4	BX160LA4			N250TC	29,900	37,400	9,150	400
7.7	148,500	1.4	234	20.0		310R4	BE160L4	BX160LA4			N250TC	17,200	22,200	7,400	364
7.8	147,400	1.0	232	20.0		309R4	BE160L4	BX160LA4			N250TC	14,700	20,000	4,090	348
7.8	150,600	1.2	230	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	17,200	22,200	7,360	364
7.9	145,200	2.0	229	30.0		311R4	BE160L4	BX160LA4			N250TC	21,500	24,700	7,350	382
8.6	136,500	2.9	209	24.0	313L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	29,900	37,400	8,770	400
8.7	130,600	1.5	206	20.0		310R4	BE160L4	BX160LA4			N250TC	17,200	22,200	7,090	364
8.8	130,500	0.9	206	20.0		307R4	BE160L4	BX160LA4			N250TC	14,700	20,000	4,910	330
8.8	130,500	1.3	206	20.0		309R4	BE160L4	BX160LA4			N250TC	14,700	20,000	3,930	348
8.9	131,900	1.1	202	15.0	309L3		BE160L4	BX160LA4			N250TC	14,700	20,000	3,900	348
8.9	132,000	1.4	202	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	17,200	22,200	7,050	364



A






P₁ = 20 hp

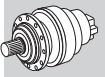


A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
8.9	132,700	2.2	203	24.0	311L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	21,500	24,700	7,060	382
9.0	127,300	2.3	201	30.0		313R4	BE160L4	BX160LA4			N250TC	29,900	37,400	8,660	400
9.1	125,700	2.3	198	30.0		311R4	BE160L4	BX160LA4			N250TC	21,500	24,700	7,000	382
9.4	121,000	1.0	191	20.0		307R4	BE160L4	BX160LA4			N250TC	14,700	20,000	4,790	330
9.4	121,000	1.3	191	20.0		309R4	BE160L4	BX160LA4			N250TC	14,700	20,000	3,830	348
9.4	125,100	2.2	191	24.0	311L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	21,500	24,700	6,920	382
9.5	120,200	1.6	189	20.0		310R4	BE160L4	BX160LA4			N250TC	17,200	22,200	6,900	364
9.8	117,100	2.3	185	30.0		313R4	BE160L4	BX160LA4			N250TC	29,900	37,400	8,420	400
9.9	119,500	1.1	183	15.0	309L3		BE160L4	BX160LA4			N250TC	14,700	20,000	3,770	348
9.9	115,700	2.3	182	30.0		311R4	BE160L4	BX160LA4			N250TC	21,500	24,700	6,810	382
9.9	119,100	2.9	182	24.0	313L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	29,900	37,400	8,380	400
10.2	115,800	0.9	177	15.0	307L3		BE160L4	BX160LA4			N250TC	14,600	19,900	4,670	330
10.2	116,000	1.4	177	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	17,100	22,100	6,750	364
10.5	111,800	2.5	171	24.0	311L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	21,200	24,700	6,670	382
10.9	104,800	0.9	165	20.0		307R4	BE160L4	BX160LA4			N250TC	14,300	19,500	4,560	330
10.9	104,800	1.3	165	20.0		309R4	BE160L4	BX160LA4			N250TC	14,300	19,500	3,650	348
11.0	107,100	1.7	164	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	16,700	21,600	6,570	364
11.1	105,700	1.3	162	15.0	309L3		BE160L4	BX160LA4			N250TC	14,200	19,300	3,620	348
11.2	101,800	1.8	160	20.0		310R4	BE160L4	BX160LA4			N250TC	16,600	21,500	6,530	364
11.2	105,400	2.5	161	24.0	311L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	20,800	24,700	6,540	382
11.7	98,000	2.3	154	30.0		311R4	BE160L4	BX160LA4			N250TC	20,600	24,700	6,440	382
11.8	96,400	1.2	152	20.0		307R4	BE160L4	BX160LA4			N250TC	14,000	19,000	4,440	330
11.8	96,400	1.6	152	20.0		309R4	BE160L4	BX160LA4			N250TC	14,000	19,000	3,550	348
12.2	96,200	2.8	147	24.0	311L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	20,300	24,700	6,340	382
12.3	95,700	1.2	146	15.0	307L3		BE160L4	BX160LA4			N250TC	13,800	18,800	4,380	330
12.3	96,000	2.4	147	54.0		311R3	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	20,300	24,700	6,330	382
12.7	92,700	1.9	142	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	16,000	20,700	6,260	364
13.0	90,800	1.0	139	15.0	307L3		BE160L4	BX160LA4			N250TC	13,600	18,500	4,310	330
13.0	90,800	1.5	139	15.0	309L3		BE160L4	BX160LA4			N250TC	13,600	18,500	3,440	348
13.2	86,200	2.0	136	20.0		310R4	BE160L4	BX160LA4			N250TC	15,800	20,400	6,180	364
13.5	87,100	2.9	133	24.0	311L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	19,700	24,700	6,130	382
13.8	85,300	2.0	130	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	15,600	20,200	6,090	364
14.3	82,400	1.3	126	15.0	307L3		BE160L4	BX160LA4			N250TC	13,200	17,900	4,170	330
14.3	82,400	1.7	126	15.0	309L3		BE160L4	BX160LA4			N250TC	13,200	17,900	3,330	348
15.0	78,400	1.0	120	30.0		307R3	BE160L4	BX160LA4			N250TC	13,000	17,700	4,100	330
15.0	78,400	1.5	120	30.0		309R3	BE160L4	BX160LA4			N250TC	13,000	17,700	3,280	348
15.0	78,400	1.9	120	30.0		310R3	BE160L4	BX160LA4			N250TC	15,200	19,700	5,920	364
15.1	77,900	2.1	119	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	15,200	19,600	5,910	364
15.9	74,100	1.2	113	15.0	307L3		BE160L4	BX160LA4			N250TC	12,800	17,400	4,020	330
15.9	74,100	1.8	113	15.0	309L3		BE160L4	BX160LA4			N250TC	12,800	17,400	3,220	348
16.3	72,300	2.3	111	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	14,900	19,200	5,760	364
17.3	68,200	1.1	104	10.0	306L3		BE160L4	BX160LA4			N250TC	9,960	12,600	3,040	312
17.9	65,600	1.6	100	15.0	307L3		BE160L4	BX160LA4			N250TC	12,300	16,800	3,860	330
17.9	65,600	2.1	100	15.0	309L3		BE160L4	BX160LA4			N250TC	12,300	16,800	3,090	348
17.9	66,000	2.4	101	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	14,500	18,700	5,590	364
18.2	64,800	1.2	99.0	30.0		307R3	BE160L4	BX160LA4			N250TC	12,300	16,700	3,850	330
18.2	64,800	1.7	99.0	30.0		309R3	BE160L4	BX160LA4			N250TC	12,300	16,700	3,080	348
18.2	64,800	2.1	99.0	30.0		310R3	BE160L4	BX160LA4			N250TC	14,400	18,600	5,560	364
19.4	60,900	1.7	93.0	15.0	307L3		BE160L4	BX160LA4			N250TC	12,000	16,400	3,770	330
19.4	60,900	2.1	93.0	15.0	309L3		BE160L4	BX160LA4			N250TC	12,000	16,400	3,010	348
19.7	59,700	2.6	91.3	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	14,000	18,100	5,410	364
20.4	57,800	1.3	88.3	10.0	306L3		BE160L4	BX160LA4			N250TC	9,480	11,900	2,880	312
21.2	55,400	1.2	84.7	19.0		306R3	BE160L4	BX160LA4			N250TC	9,360	11,800	2,840	312
21.6	54,600	1.6	83.4	30.0		307R3	BE160L4	BX160LA4			N250TC	11,700	15,800	3,630	330
21.6	54,600	2.2	83.4	30.0		309R3	BE160L4	BX160LA4			N250TC	11,700	15,800	2,910	348
21.6	54,600	2.3	83.4	30.0		310R3	BE160L4	BX160LA4			N250TC	13,700	17,700	5,250	364
22.0	53,600	1.1	81.9	10.0	306L3		BE160L4	BX160LA4			N250TC	9,260	11,700	2,810	312

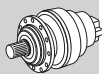
P₁ = 20 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
22.3	52,700	1.7	80.6	15.0	307L3		BE160L4	BX160LA4			N250TC	11,500	15,700	3,590	330
22.3	52,700	2.4	80.6	15.0	309L3		BE160L4	BX160LA4			N250TC	11,500	15,700	2,870	348
22.4	52,600	2.8	80.3	24.0	310L3		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	13,500	17,500	5,180	364
22.9	51,400	1.9	78.6	30.0		307R3	BE160L4	BX160LA4			N250TC	11,500	15,600	3,560	330
22.9	51,400	2.3	78.6	30.0		310R3	BE160L4	BX160LA4			N250TC	13,400	17,300	5,150	364
23.4	50,400	1.4	77.0	10.0	306L3		BE160L4	BX160LA4			N250TC	9,100	11,500	2,750	312
24.3	48,500	2.0	74.1	15.0	307L3		BE160L4	BX160LA4			N250TC	11,200	15,300	3,490	330
24.3	48,500	2.6	74.1	15.0	309L3		BE160L4	BX160LA4			N250TC	11,200	15,300	2,790	348
24.7	47,700	1.4	72.9	19.0		306R3	BE160L4	BX160LA4			N250TC	8,950	11,300	2,700	312
24.8	48,900	0.9	72.5	17.0	306L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	8,930	11,300	2,700	312
25.1	46,900	1.9	71.8	30.0		307R3	BE160L4	BX160LA4			N250TC	11,100	15,100	3,460	330
25.1	46,900	2.3	71.8	30.0		309R3	BE160L4	BX160LA4			N250TC	11,100	15,100	2,760	348
25.1	46,900	2.3	71.8	30.0		310R3	BE160L4	BX160LA4			N250TC	13,100	16,900	4,990	364
26.7	44,200	1.4	67.5	19.0		306R3	BE160L4	BX160LA4			N250TC	8,740	11,000	2,630	312
27.6	42,700	1.5	65.2	10.0	306L3		BE160L4	BX160LA4			N250TC	8,650	10,900	2,600	312
27.7	42,500	2.2	65.0	30.0		307R3	BE160L4	BX160LA4			N250TC	10,800	14,700	3,340	330
27.7	42,500	2.2	65.0	30.0		309R3	BE160L4	BX160LA4			N250TC	10,800	14,700	2,670	348
27.7	42,500	2.3	65.0	30.0		310R3	BE160L4	BX160LA4			N250TC	12,700	16,400	4,830	364
28.5	41,300	1.0	63.1	10.0	305L3		BE160L4	BX160LA4			N250TC	6,240	7,880	1,770	294
28.5	41,200	0.9	63.1	19.0		305R3					N250TC	6,240	7,880	1,770	294
29.7	39,600	2.4	60.5	15.0	307L3		BE160L4	BX160LA4			N250TC	10,600	14,400	3,260	330
29.7	39,600	3.0	60.5	15.0	309L3		BE160L4	BX160LA4			N250TC	10,600	14,400	2,610	348
31	38,000	1.7	58.1	19.0		306R3	BE160L4	BX160LA4			N250TC	8,360	10,500	2,510	312
32	37,900	1.2	56.3	17.0	306L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	8,280	10,400	2,480	312
32	36,600	2.3	55.9	30.0		307R3	BE160L4	BX160LA4			N250TC	10,300	14,100	3,180	330
32	36,600	2.3	55.9	30.0		309R3	BE160L4	BX160LA4			N250TC	10,300	14,100	2,540	348
32	36,600	2.3	55.9	30.0		310R3	BE160L4	BX160LA4			N250TC	12,100	15,700	4,590	364
34	34,900	1.0	53.4	10.0	305L3		BE160L4	BX160LA4			N250TC	5,930	7,490	1,670	294
34	34,800	1.7	53.2	10.0	306L3		BE160L4	BX160LA4			N250TC	8,140	10,300	2,430	312
35	33,500	2.7	51.3	15.0	307L3		BE160L4	BX160LA4			N250TC	10,100	13,700	3,090	330
36	32,900	0.9	50.3	19.0		304R3					N250TC	5,830	7,360	1,640	276
36	32,900	1.2	50.3	19.0		305R3					N250TC	5,830	7,360	1,640	294
39	31,500	2.3	46.7	24.0	307L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	9,800	13,300	3,000	330
39	30,500	1.2	46.6	19.0		305R3					N250TC	5,700	7,190	1,600	294
39	31,400	1.8	46.5	17.0	306L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	7,820	9,860	2,330	312
39	30,300	2.1	46.3	19.0		306R3	BE160L4	BX160LA4			N250TC	7,810	9,840	2,320	312
40	30,100	1.0	44.6	12.0	305L2		BE160L4	BX160LA4			N250TC	5,620	7,100	1,570	294
40	29,200	2.3	44.6	30.0		307R3	BE160L4	BX160LA4			N250TC	9,660	13,100	2,950	330
40	29,200	2.3	44.6	30.0		309R3	BE160L4	BX160LA4			N250TC	9,660	13,100	2,360	348
40	29,200	2.3	44.6	30.0		310R3	BE160L4	BX160LA4			N250TC	11,300	14,600	4,260	364
41	28,500	1.0	43.6	10.0	304L3		BE160L4	BX160LA4			N250TC	5,580	7,050	1,560	276
42	27,800	1.0	42.6	19.0		304R3					N250TC	5,540	7,000	1,550	276
42	27,800	1.2	42.6	19.0		305R3					N250TC	5,540	7,000	1,550	294
46	25,700	2.2	39.2	19.0		306R3	BE160L4	BX160LA4			N250TC	7,430	9,360	2,200	312
47	26,100	2.8	38.6	24.0	307L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	9,250	12,600	2,810	330
47	25,900	2.2	38.4	17.0	306L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	7,380	9,310	2,180	312
47	25,900	1.0	38.4	12.0	304L2		BE160L4	BX160LA4			N250TC	5,370	6,790	1,500	276
47	25,900	1.5	38.4	12.0	305L2		BE160L4	BX160LA4			N250TC	5,370	6,790	1,500	294
48	24,700	2.3	37.7	30.0		307R3	BE160L4	BX160LA4			N250TC	9,190	12,500	2,790	330
48	24,700	2.3	37.7	30.0		309R3	BE160L4	BX160LA4			N250TC	9,190	12,500	2,230	348
48	24,700	2.3	37.7	30.0		310R3	BE160L4	BX160LA4			N250TC	10,800	13,900	4,030	364
49	24,300	1.3	37.1	19.0		304R3					N250TC	5,320	6,720	1,480	276
49	24,300	1.5	37.1	19.0		305R3					N250TC	5,320	6,720	1,480	294
50	24,100	1.3	35.8	12.0	305L2		BE160L4	BX160LA4			N250TC	5,260	6,650	1,460	294
54	21,700	2.3	33.2	19.0		306R3	BE160L4	BX160LA4			N250TC	7,070	8,910	2,080	312
54	22,300	2.6	33.1	17.0	306L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	7,060	8,900	2,080	312
57	20,700	2.3	31.6	30.0		307R3	BE160L4	BX160LA4			N250TC	8,710	11,800	2,630	330



A






P₁ = 20 hp



A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
57	20,700	2.3	31.6	30.0		309R3	BE160L4	BX160LA4			N250TC	8,710	11,800	2,100	348
57	20,600	1.3	31.5	19.0		304R3					N250TC	5,060	6,390	1,400	276
57	20,600	1.5	31.5	19.0		305R3					N250TC	5,060	6,390	1,400	294
59	20,800	0.9	30.8	12.0	303L2		BE160L4	BX160LA4			N250TC	5,030	6,350	1,390	258
59	20,800	1.2	30.8	12.0	304L2		BE160L4	BX160LA4			N250TC	5,030	6,350	1,390	276
59	20,800	1.7	30.8	12.0	305L2		BE160L4	BX160LA4			N250TC	5,030	6,350	1,390	294
63	19,200	2.9	28.4	17.0	306L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	6,750	8,500	1,970	312
68	17,800	0.9	26.4	12.0	303L2		BE160L4	BX160LA4			N250TC	4,800	6,070	1,320	258
68	17,800	1.7	26.4	12.0	305L2		BE160L4	BX160LA4			N250TC	4,800	6,070	1,320	294
70	16,800	1.0	25.7	19.0		303R3					N250TC	4,760	6,020	1,310	258
70	16,800	1.6	25.7	19.0		304R3					N250TC	4,760	6,020	1,310	276
70	16,800	1.8	25.7	19.0		305R3					N250TC	4,760	6,020	1,310	294
73	16,500	1.1	24.5	12.0	303L2		BE160L4	BX160LA4			N250TC	4,700	5,930	1,290	258
73	16,500	1.6	24.5	12.0	304L2		BE160L4	BX160LA4			N250TC	4,700	5,930	1,290	276
73	16,500	1.9	24.5	12.0	305L2		BE160L4	BX160LA4			N250TC	4,700	5,930	1,290	294
79	15,300	1.2	22.7	12.0	303L2		BE160L4	BX160LA4			N250TC	4,590	5,800	1,260	258
79	15,300	1.6	22.7	12.0	304L2		BE160L4	BX160LA4			N250TC	4,590	5,800	1,260	276
79	15,300	2.2	22.7	12.0	305L2		BE160L4	BX160LA4			N250TC	4,590	5,800	1,260	294
87	14,000	1.1	20.8	12.0	303L2		BE160L4	BX160LA4			N250TC	4,470	5,650	1,220	258
87	14,000	1.8	20.8	12.0	304L2		BE160L4	BX160LA4			N250TC	4,470	5,650	1,220	276
87	14,000	1.9	20.8	12.0	305L2		BE160L4	BX160LA4			N250TC	4,470	5,650	1,220	294
94	13,000	1.0	19.2	24.0		303R2					N250TC	4,370	5,520	1,190	258
94	13,000	1.9	19.2	24.0		305R2					N250TC	4,370	5,520	1,190	294
94	13,000	2.3	19.2	24.0		306R2	BE160L4	BX160LA4			N250TC	6,000	7,560	1,730	312
99	12,200	0.9	18.2	10.0	301L2						N250TC	2,240	2,660	390	242
99	12,200	1.4	18.1	12.0	303L2		BE160L4	BX160LA4			N250TC	4,290	5,420	1,160	258
99	12,200	2.0	18.1	12.0	304L2		BE160L4	BX160LA4			N250TC	4,290	5,420	1,160	276
99	12,200	2.5	18.1	12.0	305L2		BE160L4	BX160LA4			N250TC	4,290	5,420	1,160	294
107	11,300	1.8	16.8	24.0		304R2					N250TC	4,200	5,300	1,140	276
113	10,700	1.4	15.9	24.0		303R2					N250TC	4,120	5,210	1,120	258
113	10,700	2.3	15.9	24.0		305R2					N250TC	4,120	5,210	1,120	294
113	10,700	2.3	15.9	24.0		306R2	BE160L4	BX160LA4			N250TC	5,670	7,140	1,630	312
117	10,400	1.4	15.3	12.0	303L2		BE160L4	BX160LA4			N250TC	4,080	5,160	1,100	258
117	10,400	2.3	15.3	12.0	304L2		BE160L4	BX160LA4			N250TC	4,080	5,160	1,100	276
117	10,400	2.5	15.3	12.0	305L2		BE160L4	BX160LA4			N250TC	4,080	5,160	1,100	294
121	10,000	1.1	14.8	10.0	301L2						N250TC	2,110	2,500	360	242
132	9,210	1.8	13.7	24.0		303R2					N250TC	3,940	4,980	1,060	258
132	9,210	2.3	13.7	24.0		304R2					N250TC	3,940	4,980	1,060	276
132	9,210	2.3	13.7	24.0		305R2					N250TC	3,940	4,980	1,060	294
132	9,220	2.3	13.7	24.0		306R2	BE160L4	BX160LA4			N250TC	5,420	6,830	1,550	312
144	8,450	1.6	12.5	12.0	303L2		BE160L4	BX160LA4			N250TC	3,840	4,850	1,030	258
144	8,450	2.7	12.5	12.0	304L2		BE160L4	BX160LA4			N250TC	3,840	4,850	1,030	276
144	8,450	2.9	12.5	12.0	305L2		BE160L4	BX160LA4			N250TC	3,840	4,850	1,030	294
149	8,160	1.3	12.1	10.0	301L2						N250TC	1,980	2,350	340	242
152	7,970	1.2	11.8	16.0		301R2					N250TC	1,970	2,330	340	242
165	7,340	2.2	10.9	24.0		303R2					N250TC	3,680	4,650	980	258
165	7,340	2.3	10.9	24.0		304R2					N250TC	3,680	4,650	980	276
165	7,340	2.3	10.9	24.0		305R2					N250TC	3,680	4,650	980	294
165	7,350	2.3	10.9	24.0		306R2	BE160L4	BX160LA4			N250TC	5,060	6,380	1,430	312
186	6,720	0.9	9.70	15.0	303L1		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	3,550	4,490	940	258
195	6,220	2.3	9.20	24.0		303R2					N250TC	3,500	4,430	930	258
195	6,220	2.3	9.20	24.0		304R2					N250TC	3,500	4,430	930	276
195	6,220	2.3	9.20	24.0		305R2					N250TC	3,500	4,430	930	294
195	6,220	2.3	9.20	24.0		306R2	BE160L4	BX160LA4			N250TC	4,810	6,070	1,360	312
206	5,890	1.5	8.70	16.0		301R2					N250TC	1,800	2,130	300	242
240	5,220	2.0	7.50	15.0	303L1		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	3,290	4,160	870	258
250	5,000	1.3	7.20	10.0	301L1						N250TC	1,690	2,010	290	242






P₁ = 20 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
252	4,810	1.0	7.10	16.0							N250TC	1,690	2,130	280	226
252	4,810	1.8	7.10	16.0							N250TC	1,690	2,010	280	242
290	4,310	2.7	6.20	15.0	303L1		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	3,110	3,930	810	258
312	4,010	1.0	5.80	10.0	300L1						N250TC	1,590	2,000	270	226
312	4,010	1.9	5.80	10.0	301L1						N250TC	1,590	1,880	270	242
422	2,960	1.4	4.30	10.0	300L1						N250TC	1,450	1,830	240	226
422	2,960	2.5	4.30	10.0	301L1						N250TC	1,450	1,720	240	242
517	2,420	1.6	3.50	10.0	300L1						N250TC	1,360	1,720	220	226
517	2,420	2.9	3.50	10.0	301L1						N250TC	1,360	1,620	220	242

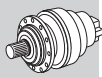


A

P₁ = 25 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp							NEMA	Rn ₂ [lbs]			
							IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
1.0	1,482,900	0.9	1893	24.0	317L4		BE180M4	BX180M4				89,600	95,100	33,700	462
1.1	1,249,500	1.2	1595	24.0	317L4		BE180M4	BX180M4				87,400	92,800	32,400	462
1.3	1,088,100	2.8	1389	40.0	319L4		BE180M4	BX180M4				99,000	109,100	41,200	486
1.4	1,032,900	1.4	1318	24.0	317L4		BE180M4	BX180M4				85,100	90,400	30,400	462
1.5	969,600	1.1	1238	24.0	316L4		BE180M4	BX180M4				54,200	60,000	29,800	450
1.6	865,300	0.9	1104	24.0	315L4		BE180M4	BX180M4				34,200	41,800	17,200	434
1.6	888,500	1.7	1134	24.0	317L4		BE180M4	BX180M4				83,200	88,400	28,900	462
1.7	817,000	1.1	1043	24.0	315L4		BE180M4	BX180M4				33,900	41,400	16,900	434
1.7	817,000	1.4	1043	24.0	316L4		BE180M4	BX180M4				52,900	58,600	28,100	450
1.7	808,900	2.0	1032	24.0	317L4		BE180M4	BX180M4				82,100	87,300	28,000	462
1.7	829,800	2.9	1059	30.0	318L4		BE180M4	BX180M4				84,100	88,000	37,700	474
1.9	729,100	1.1	931	24.0	315L4		BE180M4	BX180M4				33,400	40,800	16,200	434
1.9	747,000	1.7	953	67.0		317R4	BE180M4	BX180M4				81,200	86,300	27,300	462
2.0	712,500	0.9	909	54.0		315R4	BE180M4	BX180M4				33,300	40,600	16,100	434
2.0	708,100	2.1	904	24.0	317L4		BE180M4	BX180M4				80,600	85,600	26,800	462
2.1	672,000	1.1	858	20.0	314L4		BE180M4	BX180M4				33,000	40,300	15,800	418
2.1	675,400	1.3	862	24.0	315L4		BE180M4	BX180M4				33,000	40,300	15,800	434
2.1	675,400	1.7	862	24.0	316L4		BE180M4	BX180M4				51,400	57,000	26,400	450
2.2	636,600	1.8	813	24.0	316L4		BE180M4	BX180M4				51,000	56,500	25,900	450
2.2	629,400	2.3	803	67.0		317R4	BE180M4	BX180M4				79,200	84,200	25,800	462
2.3	612,900	1.3	782	54.0		315R4	BE180M4	BX180M4				32,600	39,800	15,300	434
2.3	620,600	2.6	792	24.0	317L4		BE180M4	BX180M4				79,100	84,000	25,600	462
2.4	578,100	1.2	738	20.0	314L4		BE180M4	BX180M4				32,300	39,400	15,000	418
2.4	581,000	1.5	742	24.0	315L4		BE180M4	BX180M4				32,300	39,500	15,100	434
2.4	581,000	1.9	742	24.0	316L4		BE180M4	BX180M4				50,300	55,800	25,100	450
2.5	569,100	2.0	726	24.0	316L4		BE180M4	BX180M4				50,200	55,600	24,900	450
2.5	563,400	2.8	719	24.0	317L4		BE180M4	BX180M4				78,000	82,900	24,800	462
2.6	536,400	2.0	685	24.0	316L4		BE180M4	BX180M4				49,800	55,200	24,400	450
2.7	523,700	1.3	668	20.0	314L4		BE180M4	BX180M4				31,900	38,900	14,500	418
2.7	526,300	1.7	672	24.0	315L4		BE180M4	BX180M4				31,900	38,900	14,600	434
2.7	516,400	1.5	659	54.0		315R4	BE180M4	BX180M4				31,800	38,800	14,500	434
2.7	530,300	2.7	677	67.0		317R4	BE180M4	BX180M4				77,300	82,100	24,300	462
2.9	488,400	1.8	623	54.0		315R4	BE180M4	BX180M4				31,500	38,500	14,200	434
2.9	489,500	2.2	625	24.0	316L4		BE180M4	BX180M4				49,100	54,500	23,700	450
2.9	488,400	2.0	623	60.0		316R4	BE180M4	BX180M4				49,100	54,400	23,700	450
2.9	490,400	2.8	626	67.0		317R4	BE180M4	BX180M4				76,500	81,200	23,700	462
3.0	463,000	1.9	591	24.0	315L4		BE180M4	BX180M4				31,300	38,200	14,000	434
3.0	463,000	2.2	591	24.0	316L4		BE180M4	BX180M4				48,700	54,000	23,300	450
3.1	460,700	1.5	588	20.0	314L4		BE180M4	BX180M4				31,300	38,200	13,900	418
3.2	434,200	1.6	554	20.0	314L4		BE180M4	BX180M4				31,000	37,800	13,700	418
3.2	443,400	2.3	566	24.0	316L4		BE180M4	BX180M4				48,400	53,700	22,900	450

P₁ = 25 hp



A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		IE2	IE3	NEMA	Rn ₂ [lbs]			FZ	
					BE180M4	BX180M4	BE180M4	BX180M4				NHC/HC NPC/PC	HZ/PZ	FZ		
3.4	418,000	2.1	533	24.0	315L4							30,800	37,600	13,500	434	
3.4	411,500	2.1	525	54.0		315R4						30,800	37,600	13,400	434	
3.4	418,000	2.4	533	24.0	316L4							48,000	53,200	22,500	450	
3.4	411,500	2.4	525	60.0		316R4						47,900	53,100	22,400	450	
3.6	387,500	1.8	495	20.0	314L4							30,500	37,200	13,200	418	
3.7	381,400	2.3	487	24.0	315L4							30,400	37,200	13,100	434	
3.7	381,400	2.6	487	24.0	316L4							47,400	52,600	21,800	450	
3.9	359,000	1.9	458	20.0	314L4							30,200	36,800	12,800	418	
4.1	345,500	2.5	441	24.0	315L4							30,000	36,600	12,700	434	
4.1	345,500	2.8	441	24.0	316L4							46,700	51,800	21,100	450	
4.1	346,700	2.9	443	60.0		316R4						46,800	51,800	21,100	450	
4.4	320,700	2.7	409	54.0		315R4						29,700	36,200	12,300	434	
4.4	320,700	3.0	409	60.0		316R4						46,300	51,300	20,600	450	
4.6	304,100	2.3	388	20.0	314L4							29,500	36,000	12,100	418	
4.9	289,600	3.0	370	24.0	315L4							29,300	35,700	11,900	434	
5.7	246,100	2.7	314	20.0	314L4							29,200	35,600	11,300	418	
5.9	245,400	1.4	304	24.0	313L3							29,900	37,400	9,940	400	
6.2	235,200	1.0	291	24.0	311L3							21,500	24,700	7,960	382	
7.1	203,800	2.0	252	24.0	313L3							29,900	37,400	9,340	400	
7.3	198,200	1.5	245	24.0	311L3							21,500	24,700	7,520	382	
7.5	193,500	2.4	240	34.0	314L3							29,200	35,600	10,300	418	
7.5	194,400	3.0	241	40.0	315L3							29,200	35,600	10,300	434	
7.8	185,900	1.0	230	24.0	310L3							17,200	22,200	7,360	364	
8.6	168,500	2.4	209	24.0	313L3							29,900	37,400	8,770	400	
8.9	163,000	1.2	202	24.0	310L3							17,200	22,200	7,050	364	
8.9	163,800	1.8	203	24.0	311L3							21,500	24,700	7,060	382	
9.3	156,400	2.6	194	24.0	313L3							29,900	37,400	8,550	400	
9.4	154,400	1.8	191	24.0	311L3							21,500	24,700	6,920	382	
9.9	147,000	2.3	182	24.0	313L3							29,900	37,400	8,380	400	
10.2	143,200	1.1	177	24.0	310L3							17,100	22,100	6,750	364	
10.2	142,000	2.8	176	24.0	313L3							29,700	37,100	8,280	400	
10.5	138,000	2.0	171	24.0	311L3							21,200	24,700	6,670	382	
11.0	132,200	1.4	164	24.0	310L3							16,700	21,600	6,570	364	
11.0	131,800	2.9	163	24.0	313L3							29,900	36,300	8,080	400	
11.2	130,100	2.0	161	24.0	311L3							20,800	24,700	6,540	382	
11.8	123,600	2.7	153	54.0		313R3						28,500	35,600	7,910	400	
12.2	118,700	2.2	147	24.0	311L3							20,300	24,700	6,340	382	
12.3	118,500	1.9	147	54.0		311R3						20,300	24,700	6,330	382	
12.7	114,500	1.5	142	24.0	310L3							16,000	20,700	6,260	364	
13.5	107,600	2.3	133	24.0	311L3							19,700	24,700	6,130	382	
13.8	105,300	1.6	130	24.0	310L3							15,600	20,200	6,090	364	
14.3	101,400	2.4	126	24.0	311L3							19,300	24,700	6,010	382	
14.6	99,800	2.5	124	54.0		311R3						19,200	24,700	5,980	382	
15.1	96,100	1.7	119	24.0	310L3							15,200	19,600	5,910	364	
15.7	92,500	2.6	115	24.0	311L3							18,800	24,200	5,830	382	
16.3	89,200	1.8	111	24.0	310L3							14,900	19,200	5,760	364	
17.3	83,800	2.8	104	24.0	311L3							18,300	23,500	5,640	382	
17.3	84,100	2.9	104	54.0		311R3						18,300	23,500	5,650	382	
17.9	81,400	1.9	101	24.0	310L3							14,500	18,700	5,590	364	
18.7	77,800	2.9	96.3	54.0		311R3						17,900	22,900	5,510	382	
19.7	73,800	2.1	91.3	24.0	310L3							14,000	18,100	5,410	364	
22.4	64,900	2.3	80.3	24.0	310L3							13,500	17,500	5,180	364	
24.4	59,700	2.5	73.9	24.0	310L3							13,200	17,000	5,040	364	
28.8	50,600	2.8	62.6	24.0	310L3							12,500	16,200	4,770	364	
32	46,800	1.0	56.3	17.0	306L2							8,280	10,400	2,480	312	
39	38,900	1.9	46.7	24.0	307L2							9,800	13,300	3,000	330	
39	38,900	2.8	46.7	24.0	309L2							9,800	13,300	2,400	348	

P₁ = 25 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ	
					BE180M4	BX180M4	BE180M4	BX180M4		NHC/HC NPC/PC	HZ/PZ	FZ		
39	38,700	1.5	46.5	17.0	306L2	BE180M4	BX180M4				7,820	9,860	2,330	312
47	32,200	2.3	38.6	24.0	307L2	BE180M4	BX180M4				9,250	12,600	2,810	330
47	32,000	1.8	38.4	17.0	306L2	BE180M4	BX180M4				7,380	9,310	2,180	312
54	27,500	2.1	33.1	17.0	306L2	BE180M4	BX180M4				7,060	8,900	2,080	312
55	27,100	3.0	32.6	24.0	307L2	BE180M4	BX180M4				8,790	12,000	2,660	330
63	23,700	2.4	28.4	17.0	306L2	BE180M4	BX180M4				6,750	8,500	1,970	312
68	21,900	2.4	26.4	17.0	306L2	BE180M4	BX180M4				6,590	8,310	1,920	312
79	18,900	2.7	22.7	17.0	306L2	BE180M4	BX180M4				6,300	7,940	1,830	312
240	6,440	1.6	7.50	15.0	303L1	BE180M4	BX180M4				3,290	4,160	870	258
240	6,440	2.9	7.50	17.0	305L1	BE180M4	BX180M4				3,290	4,160	870	294
274	5,640	2.8	6.60	16.0	304L1	BE180M4	BX180M4				3,160	4,000	830	276
290	5,320	2.2	6.20	15.0	303L1	BE180M4	BX180M4				3,110	3,930	810	258
338	4,580	2.7	5.30	15.0	303L1	BE180M4	BX180M4				2,970	3,750	770	258

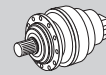


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P₁ = 30 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ		
					BE180L4	BX180L4	BE180L4	BX180L4		NHC/HC NPC/PC	HZ/PZ	FZ			
1.1	1,486,900	1.0	1595	24.0	317L4	BE180L4	BX180L4		N280TC		87,400	92,800	32,400	462	
1.3	1,294,800	2.4	1389	40.0	319L4	BE180L4	BX180L4				99,000	109,100	41,200	486	
1.4	1,229,200	1.2	1318	24.0	317L4	BE180L4	BX180L4		N280TC		85,100	90,400	30,400	462	
1.5	1,153,800	0.9	1238	24.0	316L4	BE180L4	BX180L4		N280TC		54,200	60,000	29,800	450	
1.5	1,113,800	2.7	1195	40.0	319L4	BE180L4	BX180L4				96,900	106,700	39,200	486	
1.6	1,057,400	1.4	1134	24.0	317L4	BE180L4	BX180L4		N280TC		83,200	88,400	28,900	462	
1.7	972,200	0.9	1043	24.0	315L4	BE180L4	BX180L4		N280TC		33,900	41,400	16,900	434	
1.7	972,200	1.2	1043	24.0	316L4	BE180L4	BX180L4		N280TC		52,900	58,600	28,100	450	
1.7	962,600	1.7	1032	24.0	317L4	BE180L4	BX180L4		N280TC		82,100	87,300	28,000	462	
1.7	987,500	2.4	1059	30.0	318L4	BE180L4	BX180L4				84,100	88,000	37,700	474	
1.9	867,600	0.9	931	24.0	315L4	BE180L4	BX180L4		N280TC		33,400	40,800	16,200	434	
1.9	888,900	1.4	953	67.0		317R4	BE180L4	BX180L4		N280TC		81,200	86,300	27,300	462
2.0	842,600	1.7	904	24.0	317L4	BE180L4	BX180L4		N280TC		80,600	85,600	26,800	462	
2.0	849,500	2.8	911	30.0	318L4	BE180L4	BX180L4				82,300	86,100	35,800	474	
2.1	803,700	1.1	862	24.0	315L4	BE180L4	BX180L4		N280TC		33,000	40,300	15,800	434	
2.1	803,700	1.4	862	24.0	316L4	BE180L4	BX180L4		N280TC		51,400	57,000	26,400	450	
2.2	757,600	1.5	813	24.0	316L4	BE180L4	BX180L4		N280TC		51,000	56,500	25,900	450	
2.2	749,000	1.9	803	67.0		317R4	BE180L4	BX180L4		N280TC		79,200	84,200	25,800	462
2.3	729,300	1.1	782	54.0		315R4	BE180L4	BX180L4		N280TC		32,600	39,800	15,300	434
2.3	738,500	2.2	792	24.0	317L4	BE180L4	BX180L4		N280TC		79,100	84,000	25,600	462	
2.4	687,900	1.0	738	20.0	314L4	BE180L4	BX180L4		N280TC		32,300	39,400	15,000	418	
2.4	691,400	1.3	742	24.0	315L4	BE180L4	BX180L4		N280TC		32,300	39,500	15,100	434	
2.4	691,400	1.6	742	24.0	316L4	BE180L4	BX180L4		N280TC		50,300	55,800	25,100	450	
2.5	677,200	1.6	726	24.0	316L4	BE180L4	BX180L4		N280TC		50,200	55,600	24,900	450	
2.5	670,500	2.3	719	24.0	317L4	BE180L4	BX180L4		N280TC		78,000	82,900	24,800	462	
2.6	638,300	1.7	685	24.0	316L4	BE180L4	BX180L4		N280TC		49,800	55,200	24,400	450	
2.7	623,200	1.1	668	20.0	314L4	BE180L4	BX180L4		N280TC		31,900	38,900	14,500	418	
2.7	626,300	1.4	672	24.0	315L4	BE180L4	BX180L4		N280TC		31,900	38,900	14,600	434	
2.7	614,500	1.2	659	54.0		315R4	BE180L4	BX180L4		N280TC		31,800	38,800	14,500	434
2.7	631,100	2.3	677	67.0		317R4	BE180L4	BX180L4		N280TC		77,300	82,100	24,300	462
2.9	581,200	1.5	623	54.0		315R4	BE180L4	BX180L4		N280TC		31,500	38,500	14,200	434
2.9	582,500	1.9	625	24.0	316L4	BE180L4	BX180L4		N280TC		49,100	54,500	23,700	450	
2.9	581,200	1.7	623	60.0		316R4	BE180L4	BX180L4		N280TC		49,100	54,400	23,700	450
2.9	576,700	2.6	619	24.0	317L4	BE180L4	BX180L4		N280TC		76,300	81,100	23,600	462	
2.9	583,600	2.3	626	67.0		317R4	BE180L4	BX180L4		N280TC		76,500	81,200	23,700	462
3.0	550,900	1.6	591	24.0	315L4	BE180L4	BX180L4		N280TC		31,300	38,200	14,000	434	
3.0	550,900	1.9	591	24.0	316L4	BE180L4	BX180L4		N280TC		48,700	54,000	23,300	450	

P₁ = 30 hp



A

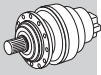
n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ
					BE180L4	BX180L4	BE180L4	BX180L4		NHC/HC NPC/PC	HZ/PZ	FZ	
3.1	548,200	1.3	588	20.0	314L4		BE180L4	BX180L4	N280TC	31,300	38,200	13,900	418
3.2	524,300	0.9	564	15.0	313L4				N280TC	31,900	39,900	12,200	400
3.2	516,700	1.4	554	20.0	314L4		BE180L4	BX180L4	N280TC	31,000	37,800	13,700	418
3.2	527,700	2.0	566	24.0	316L4		BE180L4	BX180L4	N280TC	48,400	53,700	22,900	450
3.3	514,400	2.8	552	24.0	317L4		BE180L4	BX180L4	N280TC	75,100	79,800	22,700	462
3.4	491,000	1.2	528	30.0		314R4			N280TC	30,800	37,600	13,400	418
3.4	497,400	1.8	533	24.0	315L4		BE180L4	BX180L4	N280TC	30,800	37,600	13,500	434
3.4	489,700	1.8	525	54.0		315R4	BE180L4	BX180L4	N280TC	30,800	37,600	13,400	434
3.4	497,400	2.1	533	24.0	316L4		BE180L4	BX180L4	N280TC	48,000	53,200	22,500	450
3.4	489,700	2.1	525	60.0		316R4	BE180L4	BX180L4	N280TC	47,900	53,100	22,400	450
3.5	484,800	2.9	520	67.0		317R4	BE180L4	BX180L4	N280TC	74,500	79,100	22,300	462
3.6	461,400	1.0	496	30.0		313R4			N280TC	31,300	39,200	11,700	400
3.6	461,100	1.5	495	20.0	314L4		BE180L4	BX180L4	N280TC	30,500	37,200	13,200	418
3.7	453,900	1.9	487	24.0	315L4		BE180L4	BX180L4	N280TC	30,400	37,200	13,100	434
3.7	453,900	2.2	487	24.0	316L4		BE180L4	BX180L4	N280TC	47,400	52,600	21,800	450
3.9	427,200	1.6	458	20.0	314L4		BE180L4	BX180L4	N280TC	30,200	36,800	12,800	418
4.0	420,100	1.1	452	15.0	313L4				N280TC	30,900	38,600	11,300	400
4.0	418,900	1.0	450	30.0		313R4			N280TC	30,800	38,600	11,300	400
4.0	413,700	1.4	445	30.0		314R4			N280TC	30,100	36,700	12,700	418
4.1	411,200	2.1	441	24.0	315L4		BE180L4	BX180L4	N280TC	30,000	36,600	12,700	434
4.1	411,200	2.4	441	24.0	316L4		BE180L4	BX180L4	N280TC	46,700	51,800	21,100	450
4.1	412,600	2.4	443	60.0		316R4	BE180L4	BX180L4	N280TC	46,800	51,800	21,100	450
4.3	391,300	1.8	421	30.0		314R4			N280TC	29,800	36,400	12,500	418
4.4	381,700	0.9	410	15.0	311L4				N280TC	21,900	25,200	8,930	382
4.4	383,900	0.9	413	30.0		311R4			N280TC	22,000	25,200	8,940	382
4.4	381,600	2.3	409	54.0		315R4	BE180L4	BX180L4	N280TC	29,700	36,200	12,300	434
4.4	381,600	2.5	409	60.0		316R4	BE180L4	BX180L4	N280TC	46,300	51,300	20,600	450
4.6	366,500	1.3	394	15.0	313L4				N280TC	30,300	37,900	10,800	400
4.6	360,400	1.1	388	30.0		313R4			N280TC	30,200	37,800	10,800	400
4.6	361,800	1.9	388	20.0	314L4		BE180L4	BX180L4	N280TC	29,500	36,000	12,100	418
4.9	344,600	2.5	370	24.0	315L4		BE180L4	BX180L4	N280TC	29,300	35,700	11,900	434
4.9	344,600	2.7	370	24.0	316L4		BE180L4	BX180L4	N280TC	45,600	50,500	19,900	450
5.1	327,400	1.4	352	15.0	313L4				N280TC	29,900	37,400	10,400	400
5.1	329,700	2.1	355	30.0		314R4			N280TC	29,200	35,600	11,800	418
5.2	323,300	1.0	348	15.0	311L4				N280TC	21,500	24,700	8,450	382
5.2	321,400	1.4	346	30.0		313R4			N280TC	29,900	37,400	10,400	400
5.2	321,500	2.6	345	54.0		315R4	BE180L4	BX180L4	N280TC	29,200	35,600	11,700	434
5.2	321,500	2.8	345	60.0		316R4	BE180L4	BX180L4	N280TC	45,400	50,300	19,400	450
5.3	317,400	1.1	341	30.0		311R4			N280TC	21,500	24,700	8,390	382
5.5	306,400	2.9	329	24.0	316L4		BE180L4	BX180L4	N280TC	45,400	50,300	19,100	450
5.6	299,100	1.1	322	30.0		311R4			N280TC	21,500	24,700	8,230	382
5.7	292,800	2.3	314	20.0	314L4		BE180L4	BX180L4	N280TC	29,200	35,600	11,300	418
5.8	287,200	1.4	309	30.0		313R4			N280TC	29,900	37,400	9,990	400
5.9	292,000	1.2	304	24.0	313L3		BE180L4	BX180L4	N280TC	29,900	37,400	9,940	400
6.0	281,900	2.9	302	24.0	315L4		BE180L4	BX180L4	N280TC	29,200	35,600	11,200	434
6.1	273,000	1.2	294	30.0		311R4			N280TC	21,500	24,700	7,980	382
6.4	261,500	1.5	281	30.0		313R4			N280TC	29,900	37,400	9,690	400
6.5	256,900	2.5	276	30.0		314R4			N280TC	29,200	35,600	10,800	418
6.7	250,500	2.7	269	54.0		315R4	BE180L4	BX180L4	N280TC	29,200	35,600	10,700	434
6.8	247,300	1.3	266	30.0		311R4			N280TC	21,500	24,700	7,720	382
7.1	242,600	1.6	252	24.0	313L3		BE180L4	BX180L4	N280TC	29,900	37,400	9,340	400
7.3	235,800	1.3	245	24.0	311L3		BE180L4	BX180L4	N280TC	21,500	24,700	7,520	382
7.5	230,200	2.0	240	34.0	314L3		BE180L4	BX180L4	N280TC	29,200	35,600	10,300	418
7.5	231,400	2.5	241	40.0	315L3		BE180L4	BX180L4		29,200	35,600	10,300	434
7.6	220,300	1.5	237	30.0		313R4			N280TC	29,900	37,400	9,150	400
7.6	221,000	2.7	238	30.0		314R4			N280TC	29,200	35,600	10,300	418
7.7	217,600	0.9	234	20.0		310R4			N280TC	17,200	22,200	7,400	364

P₁ = 30 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ
					BE180L4	BX180L4	BE180L4	BX180L4		NHC/HC NPC/PC	HZ/PZ	FZ	
7.9	212,700	1.4	229	30.0		311R4			N280TC	21,500	24,700	7,350	382
8.6	200,500	2.0	209	24.0	313L3		BE180L4	BX180L4	N280TC	29,900	37,400	8,770	400
8.7	191,400	1.0	206	20.0		310R4			N280TC	17,200	22,200	7,090	364
8.7	198,000	2.8	206	34.0	314L3		BE180L4	BX180L4		29,200	35,600	9,820	418
8.9	194,000	1.0	202	24.0	310L3		BE180L4	BX180L4	N280TC	17,200	22,200	7,050	364
8.9	195,000	1.5	203	24.0	311L3		BE180L4	BX180L4	N280TC	21,500	24,700	7,060	382
9.0	186,600	1.5	201	30.0		313R4			N280TC	29,900	37,400	8,660	400
9.1	184,300	1.5	198	30.0		311R4			N280TC	21,500	24,700	7,000	382
9.3	186,100	2.2	194	24.0	313L3		BE180L4	BX180L4	N280TC	29,900	37,400	8,550	400
9.4	183,800	1.5	191	24.0	311L3		BE180L4	BX180L4	N280TC	21,500	24,700	6,920	382
9.5	176,100	1.1	189	20.0		310R4			N280TC	17,200	22,200	6,900	364
9.5	176,100	2.8	189	30.0		314R4			N280TC	29,200	35,600	9,550	418
9.8	171,700	1.5	185	30.0		313R4			N280TC	29,900	37,400	8,420	400
9.9	169,500	1.5	182	30.0		311R4			N280TC	21,500	24,700	6,810	382
9.9	174,900	2.0	182	24.0	313L3		BE180L4	BX180L4	N280TC	29,900	37,400	8,380	400
10.2	170,400	0.9	177	24.0	310L3		BE180L4	BX180L4	N280TC	17,100	22,100	6,750	364
10.2	169,000	2.3	176	24.0	313L3		BE180L4	BX180L4	N280TC	29,700	37,100	8,280	400
10.5	164,300	1.7	171	24.0	311L3		BE180L4	BX180L4	N280TC	21,200	24,700	6,670	382
10.9	153,600	0.9	165	20.0		309R4			N280TC	14,300	19,500	3,650	348
11.0	157,300	1.2	164	24.0	310L3		BE180L4	BX180L4	N280TC	16,700	21,600	6,570	364
11.0	156,800	2.5	163	24.0	313L3		BE180L4	BX180L4	N280TC	29,000	36,300	8,080	400
11.1	154,900	0.9	162	15.0	309L3				N280TC	14,200	19,300	3,620	348
11.2	149,200	1.2	160	20.0		310R4			N280TC	16,600	21,500	6,530	364
11.2	154,800	1.7	161	24.0	311L3		BE180L4	BX180L4	N280TC	20,800	24,700	6,540	382
11.5	151,000	2.9	157	74.0		314R3C	BE180L4	BX180L4		28,000	34,200	8,970	418
11.7	143,600	1.5	154	30.0		311R4			N280TC	20,600	24,700	6,440	382
11.8	141,300	1.1	152	20.0		309R4			N280TC	14,000	19,000	3,550	348
11.8	147,100	2.3	153	54.0		313R3	BE180L4	BX180L4	N280TC	28,500	35,600	7,910	400
11.9	145,300	2.6	151	24.0	313L3		BE180L4	BX180L4	N280TC	28,400	35,500	7,880	400
12.2	141,300	1.9	147	24.0	311L3		BE180L4	BX180L4	N280TC	20,300	24,700	6,340	382
12.3	141,000	1.6	147	54.0		311R3	BE180L4	BX180L4	N280TC	20,300	24,700	6,330	382
12.6	137,500	2.7	143	24.0	313L3		BE180L4	BX180L4	N280TC	27,900	34,900	7,730	400
12.7	136,300	1.3	142	24.0	310L3		BE180L4	BX180L4	N280TC	16,000	20,700	6,260	364
13.0	133,100	1.0	139	15.0	309L3				N280TC	13,600	18,500	3,440	348
13.2	126,400	1.4	136	20.0		310R4			N280TC	15,800	20,400	6,180	364
13.3	129,600	2.8	135	24.0	313L3		BE180L4	BX180L4	N280TC	27,400	34,300	7,580	400
13.5	128,000	2.0	133	24.0	311L3		BE180L4	BX180L4	N280TC	19,700	24,700	6,130	382
13.8	125,300	1.4	130	24.0	310L3		BE180L4	BX180L4	N280TC	15,600	20,200	6,090	364
14.2	122,200	2.8	127	54.0		313R3	BE180L4	BX180L4	N280TC	26,900	33,700	7,430	400
14.3	120,700	0.9	126	15.0	307L3				N280TC	13,200	17,900	4,170	330
14.3	120,700	1.1	126	15.0	309L3				N280TC	13,200	17,900	3,330	348
14.3	120,700	2.0	126	24.0	311L3		BE180L4	BX180L4	N280TC	19,300	24,700	6,010	382
14.6	118,800	2.1	124	54.0		311R3	BE180L4	BX180L4	N280TC	19,200	24,700	5,980	382
15.0	114,800	1.0	120	30.0		309R3			N280TC	13,000	17,700	3,280	348
15.0	114,800	1.3	120	30.0		310R3			N280TC	15,200	19,700	5,920	364
15.1	114,400	1.4	119	24.0	310L3		BE180L4	BX180L4	N280TC	15,200	19,600	5,910	364
15.7	110,100	2.2	115	24.0	311L3		BE180L4	BX180L4	N280TC	18,800	24,200	5,830	382
15.9	108,600	1.2	113	15.0	309L3				N280TC	12,800	17,400	3,220	348
16.3	106,200	1.6	111	24.0	310L3		BE180L4	BX180L4	N280TC	14,900	19,200	5,760	364
17.3	99,700	2.3	104	24.0	311L3		BE180L4	BX180L4	N280TC	18,300	23,500	5,640	382
17.3	100,100	2.4	104	54.0		311R3	BE180L4	BX180L4	N280TC	18,300	23,500	5,650	382
17.9	96,200	1.1	100	15.0	307L3				N280TC	12,300	16,800	3,860	330
17.9	96,200	1.4	100	15.0	309L3				N280TC	12,300	16,800	3,090	348
17.9	96,900	1.6	101	24.0	310L3		BE180L4	BX180L4	N280TC	14,500	18,700	5,590	364
18.2	94,900	1.2	99.0	30.0		309R3			N280TC	12,300	16,700	3,080	348
18.2	94,900	1.5	99.0	30.0		310R3			N280TC	14,400	18,600	5,560	364
18.7	92,600	2.5	96.3	54.0		311R3	BE180L4	BX180L4	N280TC	17,900	22,900	5,510	382



P₁ = 30 hp

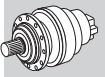


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n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ
					BE180L4	BX180L4	BE180L4	BX180L4		NHC/HC NPC/PC	HZ/PZ	FZ	
19.4	89,200	1.2	93.0	15.0	307L3				N280TC	12,000	16,400	3,770	330
19.4	89,200	1.4	93.0	15.0	309L3				N280TC	12,000	16,400	3,010	348
19.7	87,800	1.8	91.3	24.0	310L3	BE180L4	BX180L4		N280TC	14,000	18,100	5,410	364
20.2	85,800	2.6	89.3	24.0	311L3	BE180L4	BX180L4		N280TC	17,400	22,400	5,370	382
21.6	80,000	1.1	83.4	30.0			307R3		N280TC	11,700	15,800	3,630	330
21.6	80,000	1.5	83.4	30.0			309R3		N280TC	11,700	15,800	2,910	348
21.6	80,000	1.5	83.4	30.0			310R3		N280TC	13,700	17,700	5,250	364
22.2	78,000	2.8	81.1	54.0			311R3	BE180L4 BX180L4	N280TC	17,000	21,800	5,200	382
22.3	77,300	1.2	80.6	15.0	307L3				N280TC	11,500	15,700	3,590	330
22.3	77,300	1.7	80.6	15.0	309L3				N280TC	11,500	15,700	2,870	348
22.4	77,200	1.9	80.3	24.0	310L3	BE180L4	BX180L4		N280TC	13,500	17,500	5,180	364
22.9	75,400	1.3	78.6	30.0			307R3		N280TC	11,500	15,600	3,560	330
22.9	75,400	1.5	78.6	30.0			310R3		N280TC	13,400	17,300	5,150	364
23.3	74,300	2.9	77.3	24.0	311L3	BE180L4	BX180L4		N280TC	16,700	21,500	5,120	382
23.4	73,800	1.0	77.0	10.0	306L3				N280TC	9,100	11,500	2,750	312
24.3	71,100	1.4	74.1	15.0	307L3				N280TC	11,200	15,300	3,490	330
24.3	71,100	1.8	74.1	15.0	309L3				N280TC	11,200	15,300	2,790	348
24.4	71,000	2.1	73.9	24.0	310L3	BE180L4	BX180L4		N280TC	13,200	17,000	5,040	364
24.7	69,900	0.9	72.9	19.0			306R3		N280TC	8,950	11,300	2,700	312
25.1	68,800	1.3	71.8	30.0			307R3		N280TC	11,100	15,100	3,460	330
25.1	68,800	1.5	71.8	30.0			309R3		N280TC	11,100	15,100	2,760	348
25.1	68,800	1.5	71.8	30.0			310R3		N280TC	13,100	16,900	4,990	364
26.7	64,700	1.0	67.5	19.0			306R3		N280TC	8,740	11,000	2,630	312
27.6	62,500	1.0	65.2	10.0	306L3				N280TC	8,650	10,900	2,600	312
27.7	62,300	1.5	65.0	30.0			307R3		N280TC	10,800	14,700	3,340	330
27.7	62,300	1.5	65.0	30.0			309R3		N280TC	10,800	14,700	2,670	348
27.7	62,300	1.5	65.0	30.0			310R3		N280TC	12,700	16,400	4,830	364
28.8	60,200	2.3	62.6	24.0	310L3	BE180L4	BX180L4		N280TC	12,500	16,200	4,770	364
29.7	58,000	1.6	60.5	15.0	307L3				N280TC	10,600	14,400	3,260	330
29.7	58,000	2.0	60.5	15.0	309L3				N280TC	10,600	14,400	2,610	348
31	55,700	1.2	58.1	19.0			306R3		N280TC	8,360	10,500	2,510	312
32	53,600	1.5	55.9	30.0			307R3		N280TC	10,300	14,100	3,180	330
32	53,600	1.5	55.9	30.0			309R3		N280TC	10,300	14,100	2,540	348
32	53,600	1.5	55.9	30.0			310R3		N280TC	12,100	15,700	4,590	364
34	51,100	1.2	53.2	10.0	306L3				N280TC	8,140	10,300	2,430	312
34	51,000	2.6	53.0	24.0	310L3	BE180L4	BX180L4		N280TC	11,900	15,400	4,510	364
35	49,100	1.9	51.3	15.0	307L3				N280TC	10,100	13,700	3,090	330
35	49,100	2.3	51.3	15.0	309L3				N280TC	10,100	13,700	2,470	348
39	46,300	1.6	46.7	24.0	307L2	BE180L4	BX180L4		N280TC	9,800	13,300	3,000	330
39	46,300	2.4	46.7	24.0	309L2	BE180L4	BX180L4		N280TC	9,800	13,300	2,400	348
39	46,300	2.6	46.7	30.0	310L2	BE180L4	BX180L4		N280TC	11,500	14,800	4,330	364
39	46,100	1.2	46.5	17.0	306L2	BE180L4	BX180L4		N280TC	7,820	9,860	2,330	312
39	44,400	1.4	46.3	19.0			306R3		N280TC	7,810	9,840	2,320	312
40	42,700	1.5	44.6	30.0			307R3		N280TC	9,660	13,100	2,950	330
40	42,700	1.5	44.6	30.0			309R3		N280TC	9,660	13,100	2,360	348
40	42,700	1.5	44.6	30.0			310R3		N280TC	11,300	14,600	4,260	364
46	37,600	1.5	39.2	19.0			306R3		N280TC	7,430	9,360	2,200	312
47	38,300	1.9	38.6	24.0	307L2	BE180L4	BX180L4		N280TC	9,250	12,600	2,810	330
47	38,300	2.9	38.6	24.0	309L2	BE180L4	BX180L4		N280TC	9,250	12,600	2,250	348
47	38,100	1.5	38.4	17.0	306L2	BE180L4	BX180L4		N280TC	7,380	9,310	2,180	312
47	38,000	1.0	38.4	12.0	305L2				N280TC	5,370	6,790	1,500	294
48	36,200	1.5	37.7	30.0			307R3		N280TC	9,190	12,500	2,790	330
48	36,200	1.5	37.7	30.0			309R3		N280TC	9,190	12,500	2,230	348
48	36,200	1.5	37.7	30.0			310R3		N280TC	10,800	13,900	4,030	364
49	35,600	1.1	37.1	19.0			305R3		N280TC	5,320	6,720	1,480	294
54	31,800	1.5	33.2	19.0			306R3		N280TC	7,070	8,910	2,080	312
54	32,800	1.8	33.1	17.0	306L2	BE180L4	BX180L4		N280TC	7,060	8,900	2,080	312

P₁ = 30 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IE2		IE3		NEMA	Rn ₂ [lbs]			FZ
					BE180L4	BX180L4	BE180L4	BX180L4		NHC/HC NPC/PC	HZ/PZ	FZ	
55	32,300	2.5	32.6	24.0	307L2		BE180L4	BX180L4	N280TC	8,790	12,000	2,660	330
57	30,300	1.5	31.6	30.0		307R3			N280TC	8,710	11,800	2,630	330
57	30,300	1.5	31.6	30.0		309R3			N280TC	8,710	11,800	2,100	348
57	30,200	1.1	31.5	19.0		305R3			N280TC	5,060	6,390	1,400	294
59	30,400	1.2	30.8	12.0	305L2				N280TC	5,030	6,350	1,390	294
59	30,400	2.7	30.7	24.0	307L2		BE180L4	BX180L4	N280TC	8,630	11,700	2,600	330
63	28,200	2.0	28.4	17.0	306L2		BE180L4	BX180L4	N280TC	6,750	8,500	1,970	312
64	27,700	2.8	28.0	24.0	307L2		BE180L4	BX180L4	N280TC	8,400	11,400	2,530	330
68	26,100	1.2	26.4	12.0	305L2				N280TC	4,800	6,070	1,320	294
68	26,100	2.0	26.4	17.0	306L2		BE180L4	BX180L4	N280TC	6,590	8,310	1,920	312
70	24,600	1.1	25.7	19.0		304R3			N280TC	4,760	6,020	1,310	276
70	24,600	1.2	25.7	19.0		305R3			N280TC	4,760	6,020	1,310	294
73	24,200	1.1	24.5	12.0	304L2				N280TC	4,700	5,930	1,290	276
73	24,200	1.3	24.5	12.0	305L2				N280TC	4,700	5,930	1,290	294
77	23,300	2.9	23.5	47.0		307R2	BE180L4	BX180L4	N280TC	7,970	10,800	2,380	330
79	22,500	1.1	22.7	12.0	304L2				N280TC	4,590	5,800	1,260	276
79	22,500	1.5	22.7	12.0	305L2				N280TC	4,590	5,800	1,260	294
79	22,500	2.3	22.7	17.0	306L2		BE180L4	BX180L4	N280TC	6,300	7,940	1,830	312
87	20,500	1.2	20.8	12.0	304L2				N280TC	4,470	5,650	1,220	276
87	20,500	1.3	20.8	12.0	305L2				N280TC	4,470	5,650	1,220	294
94	19,000	1.3	19.2	24.0		305R2			N280TC	4,370	5,520	1,190	294
94	19,000	1.5	19.2	24.0		306R2			N280TC	6,000	7,560	1,730	312
99	17,900	0.9	18.1	12.0	303L2				N280TC	4,290	5,420	1,160	258
99	17,900	1.4	18.1	12.0	304L2				N280TC	4,290	5,420	1,160	276
99	17,900	1.7	18.1	12.0	305L2				N280TC	4,290	5,420	1,160	294
100	17,900	2.8	18.1	17.0	306L2		BE180L4	BX180L4	N280TC	5,890	7,420	1,700	312
107	16,600	1.2	16.8	24.0		304R2			N280TC	4,200	5,300	1,140	276
113	15,700	1.0	15.9	24.0		303R2			N280TC	4,120	5,210	1,120	258
113	15,700	1.5	15.9	24.0		305R2			N280TC	4,120	5,210	1,120	294
113	15,700	1.5	15.9	24.0		306R2			N280TC	5,670	7,140	1,630	312
117	15,200	0.9	15.3	12.0	303L2				N280TC	4,080	5,160	1,100	258
117	15,200	1.6	15.3	12.0	304L2				N280TC	4,080	5,160	1,100	276
117	15,200	1.7	15.3	12.0	305L2				N280TC	4,080	5,160	1,100	294
118	15,200	2.8	15.3	17.0	306L2		BE180L4	BX180L4	N280TC	5,600	7,060	1,610	312
132	13,500	1.2	13.7	24.0		303R2			N280TC	3,940	4,980	1,060	258
132	13,500	1.5	13.7	24.0		304R2			N280TC	3,940	4,980	1,060	276
132	13,500	1.5	13.7	24.0		305R2			N280TC	3,940	4,980	1,060	294
132	13,500	1.5	13.7	24.0		306R2			N280TC	5,420	6,830	1,550	312
144	12,400	1.1	12.5	12.0	303L2				N280TC	3,840	4,850	1,030	258
144	12,400	1.8	12.5	12.0	304L2				N280TC	3,840	4,850	1,030	276
144	12,400	2.0	12.5	12.0	305L2				N280TC	3,840	4,850	1,030	294
165	10,800	1.5	10.9	24.0		303R2			N280TC	3,680	4,650	980	258
165	10,800	1.5	10.9	24.0		304R2			N280TC	3,680	4,650	980	276
165	10,800	1.5	10.9	24.0		305R2			N280TC	3,680	4,650	980	294
165	10,800	1.5	10.9	24.0		306R2			N280TC	5,060	6,380	1,430	312
195	9,120	1.5	9.20	24.0		303R2			N280TC	3,500	4,430	930	258
195	9,120	1.5	9.20	24.0		304R2			N280TC	3,500	4,430	930	276
195	9,120	1.5	9.20	24.0		305R2			N280TC	3,500	4,430	930	294
195	9,120	1.5	9.20	24.0		306R2			N280TC	4,810	6,070	1,360	312
206	8,640	1.1	8.70	16.0		301R2			N280TC	1,800	2,130	300	242
240	7,660	1.3	7.50	15.0	303L1		BE180L4	BX180L4	N280TC	3,290	4,160	870	258
240	7,660	2.5	7.50	17.0	305L1		BE180L4	BX180L4	N280TC	3,290	4,160	870	294
252	7,050	1.2	7.10	16.0		301R2			N280TC	1,690	2,010	280	242
274	6,710	2.3	6.60	16.0	304L1		BE180L4	BX180L4	N280TC	3,160	4,000	830	276
290	6,330	1.8	6.20	15.0	303L1		BE180L4	BX180L4	N280TC	3,110	3,930	810	258
312	5,880	1.3	5.80	10.0	301L1				N280TC	1,590	1,880	270	242
338	5,450	2.3	5.30	15.0	303L1		BE180L4	BX180L4	N280TC	2,970	3,750	770	258



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P₁ = 30 hp







n ₂ rpm	T ₂ lb-in	S	i	Pt hp	Motor Models		IE2		IE3		NEMA	Rn ₂ [lbs]			Icon
					BE180L4	BX180L4	IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
422	4,340	1.0	4.30	10.0	300L1						N280TC	1,450	1,830	240	226
422	4,340	1.7	4.30	10.0	301L1						N280TC	1,450	1,720	240	242
424	4,340	2.8	4.30	15.0	303L1						N280TC	2,780	3,510	720	258
517	3,550	1.1	3.50	10.0	300L1						N280TC	1,360	1,720	220	226
517	3,550	2.0	3.50	10.0	301L1						N280TC	1,360	1,620	220	242

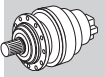
P₁ = 40 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	Motor Models		IE...	IE...	NEMA	Rn ₂ [lbs]			Icon	
					319L4	317L4				IE200L4	IE200L4	N320TC		NHC/HC NPC/PC
1.3	1,762,700	1.7	1389	40.0	319L4		IEC200L4		N320TC		99,000	109,100	41,200	486
1.5	1,516,300	2.0	1195	40.0	319L4		IEC200L4		N320TC		96,900	106,700	39,200	486
1.6	1,439,400	1.0	1134	24.0	317L4		IEC200L4				83,200	88,400	28,900	462
1.7	1,310,400	1.2	1032	24.0	317L4		IEC200L4				82,100	87,300	28,000	462
1.7	1,344,300	1.8	1059	30.0	318L4		IEC200L4		N320TC		84,100	88,000	37,700	474
1.8	1,277,600	2.3	1007	40.0	319L4		IEC200L4		N320TC		94,600	104,200	37,000	486
1.9	1,210,100	1.0	953	67.0		317R4	IEC200L4				81,200	86,300	27,300	462
2.0	1,147,100	1.3	904	24.0	317L4		IEC200L4				80,600	85,600	26,800	462
2.0	1,156,400	2.0	911	30.0	318L4		IEC200L4		N320TC		82,300	86,100	35,800	474
2.0	1,157,300	2.5	912	40.0	319L4		IEC200L4		N320TC		93,300	102,700	35,800	486
2.0	1,150,500	2.5	906	150.0		319R4C	IEC200L4		N320TC		93,200	102,600	35,800	486
2.1	1,094,100	1.0	862	24.0	316L4		IEC200L4				51,400	57,000	26,400	450
2.1	1,079,600	2.9	851	40.0	319L4		IEC200L4		N320TC		92,300	101,700	35,000	486
2.2	1,031,300	1.1	813	24.0	316L4		IEC200L4				51,000	56,500	25,900	450
2.2	1,019,600	1.4	803	67.0		317R4	IEC200L4				79,200	84,200	25,800	462
2.3	1,005,300	1.6	792	24.0	317L4		IEC200L4				79,100	84,000	25,600	462
2.3	974,400	2.4	768	30.0	318L4		IEC200L4		N320TC		80,300	84,000	33,800	474
2.3	989,600	2.9	780	150.0		319R4C	IEC200L4		N320TC		91,200	100,400	34,000	486
2.4	941,200	0.9	742	24.0	315L4		IEC200L4				32,300	39,500	15,100	434
2.4	941,200	1.2	742	24.0	316L4		IEC200L4				50,300	55,800	25,100	450
2.5	921,900	1.2	726	24.0	316L4		IEC200L4				50,200	55,600	24,900	450
2.5	912,700	1.7	719	24.0	317L4		IEC200L4				78,000	82,900	24,800	462
2.5	921,500	2.5	726	30.0	318L4		IEC200L4		N320TC		79,700	83,300	33,200	474
2.6	869,000	1.3	685	24.0	316L4		IEC200L4				49,800	55,200	24,400	450
2.6	877,400	2.6	691	150.0		318R4C	IEC200L4		N320TC		79,100	82,800	32,700	474
2.7	852,600	1.0	672	24.0	315L4		IEC200L4				31,900	38,900	14,600	434
2.7	836,600	0.9	659	54.0		315R4	IEC200L4				31,800	38,800	14,500	434
2.7	859,100	1.7	677	67.0		317R4	IEC200L4				77,300	82,100	24,300	462
2.8	821,000	2.8	647	30.0	318L4		IEC200L4		N320TC		78,400	82,000	32,000	474
2.9	791,200	1.1	623	54.0		315R4	IEC200L4				31,500	38,500	14,200	434
2.9	793,000	1.4	625	24.0	316L4		IEC200L4				49,100	54,500	23,700	450
2.9	791,200	1.2	623	60.0		316R4	IEC200L4				49,100	54,400	23,700	450
2.9	785,200	1.9	619	24.0	317L4		IEC200L4				76,300	81,100	23,600	462
2.9	794,500	1.7	626	67.0		317R4	IEC200L4				76,500	81,200	23,700	462
2.9	776,500	2.9	612	30.0	318L4		IEC200L4		N320TC		77,700	81,300	31,400	474
3.0	750,000	1.2	591	24.0	315L4		IEC200L4				31,300	38,200	14,000	434
3.0	750,000	1.4	591	24.0	316L4		IEC200L4				48,700	54,000	23,300	450
3.0	754,800	2.9	595	150.0		318R4C	IEC200L4		N320TC		77,400	81,000	31,100	474
3.1	746,300	0.9	588	20.0	314L4		IEC200L4				31,300	38,200	13,900	418
3.2	703,500	1.0	554	20.0	314L4		IEC200L4				31,000	37,800	13,700	418
3.2	718,400	1.4	566	24.0	316L4		IEC200L4				48,400	53,700	22,900	450
3.3	700,200	2.1	552	24.0	317L4		IEC200L4				75,100	79,800	22,700	462
3.4	677,100	1.3	533	24.0	315L4		IEC200L4				30,800	37,600	13,500	434
3.4	666,700	1.3	525	54.0		315R4	IEC200L4				30,800	37,600	13,400	434
3.4	677,100	1.5	533	24.0	316L4		IEC200L4				48,000	53,200	22,500	450

The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.

P₁ = 40 hp

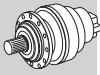
n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NEMA	NHC/HC NPC/PC	Rn ₂ [lbs] HZ/PZ	FZ		
3.4	666,700	1.5	525	60.0		316R4	IEC200L4					47,900	53,100	22,400	450
3.5	660,000	2.1	520	67.0		317R4	IEC200L4					74,500	79,100	22,300	462
3.6	627,800	1.1	495	20.0	314L4		IEC200L4					30,500	37,200	13,200	418
3.7	617,900	1.4	487	24.0	315L4		IEC200L4					30,400	37,200	13,100	434
3.7	617,900	1.6	487	24.0	316L4		IEC200L4					47,400	52,600	21,800	450
3.7	625,700	2.2	493	24.0	317L4		IEC200L4					73,900	78,500	21,900	462
3.9	581,500	1.2	458	20.0	314L4		IEC200L4					30,200	36,800	12,800	418
4.0	569,700	2.4	449	24.0	317L4		IEC200L4					72,900	77,500	21,200	462
4.1	559,800	1.5	441	24.0	315L4		IEC200L4					30,000	36,600	12,700	434
4.1	559,800	1.7	441	24.0	316L4		IEC200L4					46,700	51,800	21,100	450
4.1	561,700	1.8	443	60.0		316R4	IEC200L4					46,800	51,800	21,100	450
4.1	556,100	2.4	438	67.0		317R4	IEC200L4					72,700	77,200	21,100	462
4.4	519,500	1.7	409	54.0		315R4	IEC200L4					29,700	36,200	12,300	434
4.4	519,500	1.8	409	60.0		316R4	IEC200L4					46,300	51,300	20,600	450
4.5	506,400	2.4	399	67.0		317R4	IEC200L4					71,700	76,200	20,400	462
4.6	492,600	1.4	388	20.0	314L4		IEC200L4					29,500	36,000	12,100	418
4.9	469,100	1.8	370	24.0	315L4		IEC200L4					29,300	35,700	11,900	434
4.9	469,100	2.0	370	24.0	316L4		IEC200L4					45,600	50,500	19,900	450
5.0	457,300	2.8	360	24.0	317L4		IEC200L4					70,700	75,100	19,700	462
5.2	437,700	1.9	345	54.0		315R4	IEC200L4					29,200	35,600	11,700	434
5.2	437,700	2.1	345	60.0		316R4	IEC200L4					45,400	50,300	19,400	450
5.4	426,700	2.4	336	67.0		317R4	IEC200L4					70,700	75,100	19,300	462
5.5	417,100	2.1	329	24.0	316L4		IEC200L4					45,400	50,300	19,100	450
5.7	398,600	1.7	314	20.0	314L4		IEC200L4					29,200	35,600	11,300	418
6.0	383,700	2.1	302	24.0	315L4		IEC200L4					29,200	35,600	11,200	434
6.0	383,700	2.3	302	24.0	316L4		IEC200L4					45,400	50,300	18,600	450
6.2	366,800	2.4	289	60.0		316R4	IEC200L4					45,400	50,300	18,300	450
6.7	341,100	2.0	269	54.0		315R4	IEC200L4					29,200	35,600	10,700	434
6.7	341,100	2.4	269	60.0		316R4	IEC200L4					45,400	50,300	17,900	450
6.9	332,500	2.4	262	67.0		317R4	IEC200L4					70,700	75,100	17,700	462
7.0	325,000	2.5	256	24.0	316L4		IEC200L4					45,400	50,300	17,600	450
7.1	330,200	1.2	252	24.0	313L3		IEC200L4					29,900	37,400	9,340	400
7.3	321,000	0.9	245	24.0	311L3		IEC200L4					21,500	24,700	7,520	382
7.5	313,400	1.5	240	34.0	314L3		IEC200L4			N320TC		29,200	35,600	10,300	418
7.5	315,000	1.8	241	40.0	315L3		IEC200L4			N320TC		29,200	35,600	10,300	434
8.0	285,900	2.3	225	54.0		315R4	IEC200L4					29,200	35,600	10,100	434
8.0	285,900	2.8	225	60.0		316R4	IEC200L4					45,400	50,300	16,900	450
8.2	278,600	2.4	220	67.0		317R4	IEC200L4					70,700	75,100	16,700	462
8.4	272,400	2.9	215	24.0	316L4		IEC200L4					45,400	50,300	16,600	450
8.6	273,000	1.5	209	24.0	313L3		IEC200L4					29,900	37,400	8,770	400
8.7	269,600	2.1	206	34.0	314L3		IEC200L4			N320TC		29,200	35,600	9,820	418
8.7	271,000	2.6	207	40.0	315L3		IEC200L4			N320TC		29,200	35,600	9,840	434
8.9	265,400	1.1	203	24.0	311L3		IEC200L4					21,500	24,700	7,060	382
9.3	253,300	1.6	194	24.0	313L3		IEC200L4					29,900	37,400	8,550	400
9.4	250,200	1.1	191	24.0	311L3		IEC200L4					21,500	24,700	6,920	382
9.9	238,200	1.4	182	24.0	313L3		IEC200L4					29,900	37,400	8,380	400
10.2	230,000	1.7	176	24.0	313L3		IEC200L4					29,700	37,100	8,280	400
10.3	228,300	3.0	175	40.0	315L3		IEC200L4			N320TC		28,900	35,300	9,290	434
10.4	227,200	2.4	174	34.0	314L3		IEC200L4			N320TC		28,800	35,200	9,280	418
10.5	223,600	1.2	171	24.0	311L3		IEC200L4					21,200	24,700	6,670	382
11.0	213,500	1.8	163	24.0	313L3		IEC200L4					29,000	36,300	8,080	400
11.0	214,800	2.5	164	34.0	314L3		IEC200L4			N320TC		28,400	34,600	9,110	418
11.2	210,800	1.3	161	24.0	311L3		IEC200L4					20,800	24,700	6,540	382
11.5	205,600	2.2	157	74.0		314R3C	IEC200L4			N320TC		28,000	34,200	8,970	418
11.5	205,600	2.7	157	120.0		315R3C	IEC200L4			N320TC		28,000	34,200	8,970	434
11.8	200,200	1.7	153	54.0		313R3	IEC200L4					28,500	35,600	7,910	400
11.9	197,900	1.9	151	24.0	313L3		IEC200L4					28,400	35,500	7,880	400



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The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.

P₁ = 40 hp









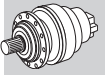
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n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
12.2	192,400	1.4	147	24.0	311L3		IEC200L4			20,300	24,700	6,340	382
12.3	191,900	1.2	147	54.0		311R3	IEC200L4			20,300	24,700	6,330	382
12.6	187,100	2.0	143	24.0	313L3		IEC200L4			27,900	34,900	7,730	400
12.7	185,500	0.9	142	24.0	310L3		IEC200L4			16,000	20,700	6,260	364
13.0	181,000	3.0	138	34.0	314L3		IEC200L4		N320TC	26,900	32,900	8,600	418
13.3	176,500	2.1	135	24.0	313L3		IEC200L4			27,400	34,300	7,580	400
13.3	176,800	2.9	135	74.0		314R3C	IEC200L4		N320TC	26,800	32,700	8,540	418
13.5	174,300	1.4	133	24.0	311L3		IEC200L4			19,700	24,700	6,130	382
13.8	170,600	1.0	130	24.0	310L3		IEC200L4			15,600	20,200	6,090	364
14.2	166,300	2.1	127	54.0		313R3	IEC200L4			26,900	33,700	7,430	400
14.3	164,300	1.5	126	24.0	311L3		IEC200L4			19,300	24,700	6,010	382
14.6	161,700	1.6	124	54.0		311R3	IEC200L4			19,200	24,700	5,980	382
14.9	157,700	2.2	121	24.0	313L3		IEC200L4			26,500	33,200	7,300	400
15.1	155,700	1.1	119	24.0	310L3		IEC200L4			15,200	19,600	5,910	364
15.7	149,900	1.6	115	24.0	311L3		IEC200L4			18,800	24,200	5,830	382
15.8	149,000	2.9	114	74.0		314R3C	IEC200L4		N320TC	25,400	31,000	8,060	418
15.9	148,500	2.7	114	74.0		314R3B	IEC200L4		N320TC	25,400	31,000	8,050	418
16.3	144,500	1.1	111	24.0	310L3		IEC200L4			14,900	19,200	5,760	364
16.4	143,600	2.4	110	24.0	313L3		IEC200L4			25,800	32,200	7,080	400
16.7	140,900	3.0	108	74.0		314R3C	IEC200L4		N320TC	25,000	30,500	7,910	418
16.8	140,200	2.3	107	54.0		313R3	IEC200L4			25,600	32,000	7,020	400
17.3	135,800	1.7	104	24.0	311L3		IEC200L4			18,300	23,500	5,640	382
17.3	136,300	1.8	104	54.0		311R3	IEC200L4			18,300	23,500	5,650	382
17.9	131,900	1.2	101	24.0	310L3		IEC200L4			14,500	18,700	5,590	364
18.5	127,600	2.4	97.5	54.0		313R3	IEC200L4			24,900	31,100	6,810	400
18.7	126,000	1.8	96.3	54.0		311R3	IEC200L4			17,900	22,900	5,510	382
19.5	121,000	2.7	92.4	24.0	313L3		IEC200L4			24,500	30,600	6,680	400
19.7	119,500	1.3	91.3	24.0	310L3		IEC200L4			14,000	18,100	5,410	364
20.2	116,800	1.9	89.3	24.0	311L3		IEC200L4			17,400	22,400	5,370	382
21.9	107,500	2.4	82.2	54.0		313R3	IEC200L4			23,600	29,600	6,430	400
22.2	106,200	2.0	81.1	54.0		311R3	IEC200L4			17,000	21,800	5,200	382
22.4	105,100	1.4	80.3	24.0	310L3		IEC200L4			13,500	17,500	5,180	364
23.3	101,200	2.1	77.3	24.0	311L3		IEC200L4			16,700	21,500	5,120	382
24.4	96,700	1.5	73.9	24.0	310L3		IEC200L4			13,200	17,000	5,040	364
25.3	93,100	2.2	71.1	24.0	311L3		IEC200L4			16,300	20,900	4,980	382
25.7	91,500	2.4	69.9	54.0		313R3	IEC200L4			22,500	28,200	6,090	400
26.5	89,000	2.3	68.0	54.0		311R3	IEC200L4			16,100	20,700	4,900	382
28.1	83,800	2.4	64.0	54.0		313R3	IEC200L4			21,900	27,400	5,910	400
28.5	82,700	2.4	63.2	54.0		311R3	IEC200L4			15,700	20,200	4,790	382
28.8	81,900	1.7	62.6	24.0	310L3		IEC200L4			12,500	16,200	4,770	364
29.9	78,800	2.5	60.2	24.0	311L3		IEC200L4			15,500	19,900	4,710	382
34	70,200	2.4	53.7	54.0		313R3	IEC200L4			20,800	26,000	5,580	400
34	69,400	1.9	53.0	24.0	310L3		IEC200L4			11,900	15,400	4,510	364
34	69,300	2.4	53.0	54.0		311R3	IEC200L4			14,900	19,200	4,510	382
36	66,100	2.8	50.5	24.0	311L3		IEC200L4			14,700	18,900	4,440	382
39	63,000	1.2	46.7	24.0	307L2		IEC200L4			9,800	13,300	3,000	330
39	63,000	1.8	46.7	24.0	309L2		IEC200L4			9,800	13,300	2,400	348
39	63,000	1.9	46.7	30.0	310L2		IEC200L4		N320TC	11,500	14,800	4,330	364
39	62,700	0.9	46.5	17.0	306L2		IEC200L4			7,820	9,860	2,330	312
47	52,100	1.4	38.6	24.0	307L2		IEC200L4			9,250	12,600	2,810	330
47	52,100	2.1	38.6	24.0	309L2		IEC200L4			9,250	12,600	2,250	348
47	52,100	2.2	38.6	30.0	310L2		IEC200L4		N320TC	10,900	14,000	4,060	364
47	51,900	1.1	38.4	17.0	306L2		IEC200L4			7,380	9,310	2,180	312
54	44,600	1.3	33.1	17.0	306L2		IEC200L4			7,060	8,900	2,080	312
55	43,900	1.8	32.6	24.0	307L2		IEC200L4			8,790	12,000	2,660	330
55	43,900	2.5	32.6	24.0	309L2		IEC200L4			8,790	12,000	2,120	348
55	43,900	2.5	32.6	30.0	310L2		IEC200L4		N320TC	10,300	13,300	3,840	364

The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.







P₁ = 40 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NHC/HC NPC/PC	Rn ₂ [lbs]			
							IE...	IE...			HZ/PZ	FZ		
59	41,400	1.9	30.7	24.0	307L2		IEC200L4				8,630	11,700	2,600	330
59	41,400	2.7	30.7	30.0	310L2		IEC200L4		N320TC		10,100	13,100	3,760	364
63	38,400	1.5	28.4	17.0	306L2		IEC200L4				6,750	8,500	1,970	312
64	37,800	2.0	28.0	24.0	307L2		IEC200L4				8,400	11,400	2,530	330
64	37,800	2.8	28.0	24.0	309L2		IEC200L4				8,400	11,400	2,020	348
64	37,800	2.8	28.0	30.0	310L2		IEC200L4		N320TC		9,850	12,700	3,650	364
68	35,500	1.5	26.4	17.0	306L2		IEC200L4				6,590	8,310	1,920	312
71	34,200	2.2	25.4	24.0	307L2		IEC200L4				8,150	11,100	2,440	330
71	34,200	2.6	25.4	24.0	309L2		IEC200L4				8,150	11,100	1,950	348
71	34,200	3.0	25.3	74.0		310R2C	IEC200L4		N320TC		9,560	12,300	3,530	364
77	31,800	2.2	23.5	47.0		307R2	IEC200L4				7,970	10,800	2,380	330
77	31,800	2.4	23.5	47.0		309R2	IEC200L4				7,970	10,800	1,910	348
79	30,600	1.7	22.7	17.0	306L2		IEC200L4				6,300	7,940	1,830	312
83	29,400	2.5	21.8	24.0	307L2		IEC200L4				7,790	10,600	2,320	330
83	29,400	2.9	21.8	24.0	309L2		IEC200L4				7,790	10,600	1,860	348
91	26,800	2.4	19.8	47.0		307R2	IEC200L4				7,570	10,300	2,250	330
91	26,800	2.4	19.8	47.0		309R2	IEC200L4				7,570	10,300	1,800	348
100	24,400	2.0	18.1	17.0	306L2		IEC200L4				5,890	7,420	1,700	312
104	23,500	2.9	17.4	24.0	307L2		IEC200L4				7,280	9,900	2,150	330
117	20,800	2.4	15.5	47.0		307R2	IEC200L4				7,030	9,560	2,070	330
117	20,800	2.4	15.5	47.0		309R2	IEC200L4				7,030	9,560	1,660	348
118	20,600	2.0	15.3	17.0	306L2		IEC200L4				5,600	7,060	1,610	312
139	17,500	2.3	13.0	17.0	306L2		IEC200L4				5,330	6,720	1,520	312
139	17,500	2.5	13.0	47.0		307R2	IEC200L4				6,670	9,060	1,950	330
139	17,500	2.5	13.0	47.0		309R2	IEC200L4				6,670	9,060	1,560	348
240	10,400	1.0	7.50	15.0	303L1		IEC200L4				3,290	4,160	870	258
240	10,400	1.8	7.50	17.0	305L1		IEC200L4				3,290	4,160	870	294
274	9,140	1.7	6.60	16.0	304L1		IEC200L4				3,160	4,000	830	276
290	8,620	1.4	6.20	15.0	303L1		IEC200L4				3,110	3,930	810	258
290	8,620	2.6	6.20	17.0	305L1		IEC200L4				3,110	3,930	810	294
338	7,420	1.7	5.30	15.0	303L1		IEC200L4				2,970	3,750	770	258
338	7,420	2.2	5.30	16.0	304L1		IEC200L4				2,970	3,750	770	276
338	7,420	2.9	5.30	17.0	305L1		IEC200L4				2,970	3,750	770	294
424	5,910	2.0	4.30	15.0	303L1		IEC200L4				2,780	3,510	720	258
424	5,910	2.7	4.30	16.0	304L1		IEC200L4				2,780	3,510	720	276
500	5,010	2.3	3.60	15.0	303L1		IEC200L4				2,640	3,340	680	258



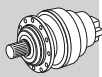
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P₁ = 50 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NHC/HC NPC/PC	Rn ₂ [lbs]			
							IE...	IE...			HZ/PZ	FZ		
1.3	2,170,700	1.4	1389	40.0	319L4		IEC225S4		N320TC		99,000	109,100	41,200	486
1.5	1,867,300	1.6	1195	40.0	319L4		IEC225S4		N320TC		96,900	106,700	39,200	486
1.6	1,753,200	2.7	1122	47.0	321L4		IEC225S4		N320TC		135,900	161,800	230,400	498
1.7	1,655,500	1.4	1059	30.0	318L4		IEC225S4		N320TC		84,100	88,000	37,700	474
1.8	1,573,400	1.9	1007	40.0	319L4		IEC225S4		N320TC		94,600	104,200	37,000	486
2.0	1,424,100	1.7	911	30.0	318L4		IEC225S4		N320TC		82,300	86,100	35,800	474
2.0	1,425,200	2.0	912	40.0	319L4		IEC225S4		N320TC		93,300	102,700	35,800	486
2.0	1,416,800	2.0	906	150.0		319R4C	IEC225S4		N320TC		93,200	102,600	35,800	486
2.1	1,329,500	2.4	851	40.0	319L4		IEC225S4		N320TC		92,300	101,700	35,000	486
2.3	1,199,900	1.9	768	30.0	318L4		IEC225S4		N320TC		80,300	84,000	33,800	474
2.3	1,218,700	2.3	780	150.0		319R4C	IEC225S4		N320TC		91,200	100,400	34,000	486
2.5	1,134,800	2.1	726	30.0	318L4		IEC225S4		N320TC		79,700	83,300	33,200	474
2.5	1,120,200	2.7	717	40.0	319L4		IEC225S4		N320TC		90,100	99,200	33,100	486

The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.

P₁ = 50 hp








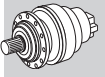
A

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NEMA	Rn ₂ [lbs]				
											NHC/HC NPC/PC	HZ/PZ	FZ		
2.6	1,080,500	2.1	691	150.0											
2.7	1,059,400	2.9	678	40.0	319L4	318R4C	IEC225S4			N320TC	79,100	82,800	32,700	474	
2.7	1,023,400	2.7	655	130.0		319R4B	IEC225S4			N320TC	89,400	98,400	32,500	486	
2.7	1,026,900	2.7	657	150.0		319R4C	IEC225S4			N320TC	89,000	97,900	32,100	486	
2.8	1,011,100	2.2	647	30.0	318L4		IEC225S4			N320TC	89,000	98,000	32,100	486	
2.9	956,200	2.3	612	30.0	318L4		IEC225S4			N320TC	78,400	82,000	32,000	474	
3.0	929,500	2.4	595	150.0		318R4C	IEC225S4			N320TC	77,700	81,300	31,400	474	
3.2	867,700	3.0	555	150.0		319R4C	IEC225S4			N320TC	77,400	81,000	31,100	474	
3.4	823,500	3.0	525	150.0		319R4C				N320TC	86,900	95,700	30,400	486	
3.5	805,700	2.6	515	30.0	318L4		IEC225S4			N320TC	86,200	94,900	29,800	486	
3.6	780,500	2.7	499	120.0		318R4B	IEC225S4			N320TC	75,900	79,400	29,600	474	
3.6	783,200	2.7	501	150.0		318R4C	IEC225S4			N320TC	75,500	79,000	29,300	474	
3.8	745,100	2.8	477	30.0	318L4		IEC225S4			N320TC	75,600	79,000	29,400	474	
3.8	740,700	2.8	474	150.0		318R4C	IEC225S4			N320TC	75,000	78,500	28,900	474	
7.1	406,700	2.6	252	47.0	317L3		IEC225S4			N320TC	75,000	78,400	28,800	474	
7.5	386,000	1.2	240	34.0	314L3		IEC225S4			N320TC	70,700	75,100	17,500	462	
7.5	387,900	1.5	241	40.0	315L3		IEC225S4			N320TC	29,200	35,600	10,300	418	
8.7	332,000	1.7	206	34.0	314L3		IEC225S4			N320TC	29,200	35,600	9,820	418	
8.7	333,700	2.1	207	40.0	315L3		IEC225S4			N320TC	29,200	35,600	9,840	434	
10.3	281,100	2.4	175	40.0	315L3		IEC225S4			N320TC	29,200	35,600	9,840	434	
10.4	279,800	2.0	174	34.0	314L3		IEC225S4			N320TC	28,900	35,300	9,290	434	
10.9	265,900	2.5	165	40.0	315L3		IEC225S4			N320TC	28,800	35,200	9,280	418	
10.9	265,900	2.6	165	47.0	316L3		IEC225S4			N320TC	28,400	34,700	9,120	434	
11.0	264,600	2.0	164	34.0	314L3		IEC225S4			N320TC	28,400	34,600	9,110	418	
11.5	253,200	1.7	157	74.0		314R3C	IEC225S4			N320TC	44,200	49,000	15,200	450	
11.5	253,200	2.2	157	120.0		315R3C	IEC225S4			N320TC	28,000	34,200	8,970	418	
13.0	222,900	2.4	138	34.0	314L3		IEC225S4			N320TC	28,000	34,200	8,970	434	
13.3	217,800	2.3	135	74.0		314R3C	IEC225S4			N320TC	26,900	32,900	8,600	418	
13.3	217,800	2.9	135	120.0		315R3C	IEC225S4			N320TC	26,800	32,700	8,540	418	
15.8	183,500	2.4	114	74.0		314R3C	IEC225S4			N320TC	26,800	32,700	8,540	434	
15.8	183,500	3.0	114	120.0		315R3C	IEC225S4			N320TC	25,400	31,000	8,060	418	
15.9	182,900	2.2	114	74.0		314R3B	IEC225S4			N320TC	25,400	31,000	8,060	434	
15.9	182,900	2.8	114	100.0		315R3B	IEC225S4			N320TC	25,400	31,000	8,050	418	
16.7	173,700	2.8	108	34.0	314L3		IEC225S4			N320TC	25,400	31,000	8,050	434	
16.7	173,500	2.4	108	74.0		314R3C	IEC225S4			N320TC	25,000	30,500	7,920	418	
16.7	174,200	3.0	108	120.0		315R3C				N320TC	25,000	30,500	7,910	418	
18.4	157,300	2.9	97.6	74.0		314R3B	IEC225S4			N320TC	25,000	30,500	7,910	434	
19.8	146,200	2.7	90.7	74.0		314R3C	IEC225S4			N320TC	24,300	29,600	7,660	418	
39	77,600	1.6	46.7	30.0	310L2		IEC225S4			N320TC	23,700	29,000	7,470	418	
46	64,500	2.6	38.8	35.0	311L2		IEC225S4			N320TC	11,500	14,800	4,330	364	
47	64,200	1.8	38.6	30.0	310L2		IEC225S4			N320TC	13,600	17,500	4,070	382	
55	54,100	2.1	32.6	30.0	310L2		IEC225S4			N320TC	10,900	14,000	4,060	364	
59	51,000	2.2	30.7	30.0	310L2		IEC225S4			N320TC	10,300	13,300	3,840	364	
64	46,500	2.3	28.0	30.0	310L2		IEC225S4			N320TC	10,100	13,100	3,760	364	
71	42,100	2.5	25.4	30.0	310L2		IEC225S4			N320TC	9,850	12,700	3,650	364	
71	42,100	2.4	25.3	74.0		310R2C	IEC225S4			N320TC	9,570	12,400	3,530	364	
83	36,200	2.8	21.8	30.0	310L2		IEC225S4			N320TC	9,560	12,300	3,530	364	
84	35,500	2.8	21.3	74.0		310R2C	IEC225S4			N320TC	9,140	11,800	3,360	364	
240	12,800	2.7	7.50	24.0	306L1		IEC225S4			N320TC	9,080	11,700	3,330	364	
										N320TC	4,520	5,700	1,270	312	

The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.

P₁ = 60 hp

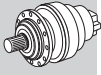
n ₂ rpm	T ₂ lb-in	S	i	Pt hp					NEMA	Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
1.3	2,633,100	1.2	1389	40.0	319L4		IEC225M4		N360TC	99,000	109,100	41,200	486
1.5	2,265,100	1.3	1195	40.0	319L4		IEC225M4		N360TC	96,900	106,700	39,200	486
1.6	2,126,700	2.2	1122	47.0	321L4		IEC225M4		N360TC	135,900	161,800	230,400	498
1.7	2,008,200	1.2	1059	30.0	318L4		IEC225M4		N360TC	84,100	88,000	37,700	474
1.8	1,908,500	1.6	1007	40.0	319L4		IEC225M4		N360TC	94,600	104,200	37,000	486
1.9	1,791,900	2.7	945	47.0	321L4		IEC225M4		N360TC	132,600	157,800	217,600	498
2.0	1,727,500	1.4	911	30.0	318L4		IEC225M4		N360TC	82,300	86,100	35,800	474
2.0	1,728,800	1.7	912	40.0	319L4		IEC225M4		N360TC	93,300	102,700	35,800	486
2.0	1,718,600	1.7	906	150.0		319R4C	IEC225M4		N360TC	93,200	102,600	35,800	486
2.1	1,612,700	1.9	851	40.0	319L4		IEC225M4		N360TC	92,300	101,700	35,000	486
2.3	1,455,600	1.6	768	30.0	318L4		IEC225M4		N360TC	80,300	84,000	33,800	474
2.3	1,478,400	1.9	780	150.0		319R4C	IEC225M4		N360TC	91,200	100,400	34,000	486
2.5	1,376,600	1.7	726	30.0	318L4		IEC225M4		N360TC	79,700	83,300	33,200	474
2.5	1,358,900	2.3	717	40.0	319L4		IEC225M4		N360TC	90,100	99,200	33,100	486
2.6	1,310,700	1.8	691	150.0		318R4C	IEC225M4		N360TC	79,100	82,800	32,700	474
2.7	1,285,100	2.4	678	40.0	319L4		IEC225M4		N360TC	89,400	98,400	32,500	486
2.7	1,241,400	2.2	655	130.0		319R4B	IEC225M4		N360TC	89,000	97,900	32,100	486
2.7	1,245,700	2.2	657	150.0		319R4C	IEC225M4		N360TC	89,000	98,000	32,100	486
2.8	1,226,500	1.8	647	30.0	318L4		IEC225M4		N360TC	78,400	82,000	32,000	474
2.9	1,159,900	1.9	612	30.0	318L4		IEC225M4		N360TC	77,700	81,300	31,400	474
3.0	1,127,500	2.0	595	150.0		318R4C	IEC225M4		N360TC	77,400	81,000	31,100	474
3.2	1,082,800	2.7	571	40.0	319L4		IEC225M4		N360TC	87,200	96,100	30,700	486
3.2	1,067,900	2.5	563	130.0		319R4B	IEC225M4		N360TC	87,100	95,900	30,500	486
3.2	1,052,600	2.4	555	150.0		319R4C	IEC225M4		N360TC	86,900	95,700	30,400	486
3.4	1,001,400	2.8	528	40.0	319L4		IEC225M4		N360TC	86,300	95,000	29,900	486
3.4	995,500	2.5	525	150.0		319R4C	IEC225M4		N360TC	86,200	94,900	29,800	486
3.5	977,300	2.2	515	30.0	318L4		IEC225M4		N360TC	75,900	79,400	29,600	474
3.6	946,800	2.2	499	120.0		318R4B	IEC225M4		N360TC	75,500	79,000	29,300	474
3.6	950,000	2.2	501	150.0		318R4C	IEC225M4		N360TC	75,600	79,000	29,400	474
3.8	903,800	2.3	477	30.0	318L4		IEC225M4		N360TC	75,000	78,500	28,900	474
3.8	898,500	2.3	474	150.0		318R4C	IEC225M4		N360TC	75,000	78,400	28,800	474
3.8	899,800	2.8	475	130.0		319R4B	IEC225M4		N360TC	85,000	93,500	28,800	486
4.1	838,800	2.8	442	150.0		319R4C	IEC225M4		N360TC	84,100	92,600	28,200	486
4.2	814,400	2.5	430	120.0		318R4B	IEC225M4		N360TC	73,900	77,300	27,900	474
4.3	801,000	2.5	422	30.0	318L4		IEC225M4		N360TC	73,700	77,100	27,700	474
4.5	761,600	2.6	402	30.0	318L4		IEC225M4		N360TC	73,200	76,600	27,300	474
4.5	757,000	2.6	399	150.0		318R4C	IEC225M4		N360TC	73,100	76,500	27,200	474
5.0	686,200	2.8	362	120.0		318R4B	IEC225M4		N360TC	72,100	75,500	26,300	474
5.3	638,300	3.0	337	30.0	318L4		IEC225M4		N360TC	72,100	75,400	25,700	474
5.3	649,000	2.9	342	120.0		318R4B	IEC225M4		N360TC	72,100	75,400	25,900	474
7.1	493,300	2.1	252	47.0	317L3		IEC225M4		N360TC	70,700	75,100	17,500	462
7.5	468,200	1.0	240	34.0	314L3		IEC225M4		N360TC	29,200	35,600	10,300	418
7.5	470,500	1.2	241	40.0	315L3		IEC225M4		N360TC	29,200	35,600	10,300	434
8.5	415,600	2.9	213	47.0	317L3		IEC225M4		N360TC	70,700	75,100	16,500	462
8.7	402,800	1.4	206	34.0	314L3		IEC225M4		N360TC	29,200	35,600	9,820	418
8.7	404,800	1.7	207	40.0	315L3		IEC225M4		N360TC	29,200	35,600	9,840	434
10.3	341,000	2.0	175	40.0	315L3		IEC225M4		N360TC	28,900	35,300	9,290	434
10.4	339,400	1.6	174	34.0	314L3		IEC225M4		N360TC	28,800	35,200	9,280	418
10.9	322,500	2.1	165	40.0	315L3		IEC225M4		N360TC	28,400	34,700	9,120	434
10.9	322,500	2.1	165	47.0	316L3		IEC225M4		N360TC	44,200	49,000	15,200	450
11.0	320,900	1.7	164	34.0	314L3		IEC225M4		N360TC	28,400	34,600	9,110	418
11.5	307,100	1.4	157	74.0		314R3C	IEC225M4		N360TC	28,000	34,200	8,970	418
11.5	307,100	1.8	157	120.0		315R3C	IEC225M4		N360TC	28,000	34,200	8,970	434
12.9	271,800	2.5	139	40.0	315L3		IEC225M4		N360TC	27,000	32,900	8,620	434
12.9	271,800	2.5	139	47.0	316L3		IEC225M4		N360TC	42,000	46,600	14,400	450
13.0	270,400	2.0	138	34.0	314L3		IEC225M4		N360TC	26,900	32,900	8,600	418
13.3	264,200	1.9	135	74.0		314R3C	IEC225M4		N360TC	26,800	32,700	8,540	418



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The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.

P₁ = 60 hp



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
n ₂ rpm	T ₂ lb-in	S	i	Pt hp			IE...	IE...	NEMA	Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
13.3	264,200	2.4	135	120.0			315R3C	IEC225M4	N360TC	26,800	32,700	8,540	434
15.4	229,000	2.9	117	47.0	316L3			IEC225M4	N360TC	39,900	44,200	13,600	450
15.8	222,600	2.0	114	74.0			314R3C	IEC225M4	N360TC	25,400	31,000	8,060	418
15.8	222,600	2.4	114	120.0			315R3C	IEC225M4	N360TC	25,400	31,000	8,060	434
15.9	221,800	1.8	114	74.0			314R3B	IEC225M4	N360TC	25,400	31,000	8,050	418
15.9	221,800	2.3	114	100.0			315R3B	IEC225M4	N360TC	25,400	31,000	8,050	434
16.6	211,800	2.8	108	40.0	315L3			IEC225M4	N360TC	25,000	30,600	7,930	434
16.6	212,500	3.0	108	47.0	316L3				N360TC	39,000	43,200	13,200	450
16.7	210,700	2.3	108	34.0	314L3			IEC225M4	N360TC	25,000	30,500	7,920	418
16.7	210,500	2.0	108	74.0			314R3C	IEC225M4	N360TC	25,000	30,500	7,910	418
16.7	210,500	2.5	108	120.0			315R3C	IEC225M4	N360TC	25,000	30,500	7,910	434
16.7	210,500	2.9	108	120.0			316R3C	IEC225M4	N360TC	38,900	43,100	13,200	450
18.4	190,800	2.4	97.6	74.0			314R3B	IEC225M4	N360TC	24,300	29,600	7,660	418
19.4	181,300	2.5	92.7	34.0	314L3			IEC225M4	N360TC	23,900	29,200	7,530	418
19.8	177,400	2.2	90.7	74.0			314R3C	IEC225M4	N360TC	23,700	29,000	7,470	418
19.8	177,400	2.8	90.7	120.0			315R3C	IEC225M4	N360TC	23,700	29,000	7,470	434
21.9	160,800	2.7	82.3	74.0			314R3B	IEC225M4	N360TC	23,100	28,100	7,230	418
23.1	152,100	2.8	77.8	74.0			314R3B	IEC225M4	N360TC	22,700	27,700	7,100	418
24.4	144,400	3.0	73.9	34.0	314L3			IEC225M4	N360TC	22,300	27,200	6,980	418
25.5	138,200	2.7	70.7	74.0			314R3C	IEC225M4	N360TC	22,000	26,900	6,880	418
39	94,200	1.3	46.7	30.0	310L2			IEC225M4	N360TC	11,500	14,800	4,330	364
46	78,200	2.1	38.8	35.0	311L2			IEC225M4	N360TC	13,600	17,500	4,070	382
47	77,900	1.5	38.6	30.0	310L2			IEC225M4	N360TC	10,900	14,000	4,060	364
55	65,900	2.6	32.7	35.0	311L2			IEC225M4	N360TC	12,900	16,600	3,840	382
55	65,600	1.7	32.6	30.0	310L2			IEC225M4	N360TC	10,300	13,300	3,840	364
59	61,800	1.8	30.7	30.0	310L2			IEC225M4	N360TC	10,100	13,100	3,760	364
64	56,400	1.9	28.0	30.0	310L2			IEC225M4	N360TC	9,850	12,700	3,650	364
65	55,500	2.9	27.6	35.0	311L2			IEC225M4	N360TC	12,300	15,800	3,630	382
71	51,400	3.0	25.5	35.0	311L2			IEC225M4	N360TC	12,000	15,400	3,540	382
71	51,100	2.1	25.4	30.0	310L2			IEC225M4	N360TC	9,570	12,400	3,530	364
71	51,100	2.0	25.3	74.0			310R2C	IEC225M4	N360TC	9,560	12,300	3,530	364
71	51,100	2.9	25.3	120.0			311R2C	IEC225M4	N360TC	12,000	15,400	3,530	382
83	44,000	2.3	21.8	30.0	310L2			IEC225M4	N360TC	9,140	11,800	3,360	364
84	43,000	2.3	21.3	74.0			310R2C	IEC225M4	N360TC	9,080	11,700	3,330	364
98	36,900	2.5	18.3	74.0			310R2B	IEC225M4	N360TC	8,670	11,200	3,170	364
104	35,000	2.7	17.4	30.0	310L2			IEC225M4	N360TC	8,540	11,000	3,110	364
108	33,500	2.8	16.6	74.0			310R2C	IEC225M4	N360TC	8,430	10,900	3,070	364
117	31,100	2.9	15.4	74.0			310R2B	IEC225M4	N360TC	8,240	10,600	2,990	364
240	15,600	2.2	7.50	24.0	306L1			IEC225M4	N360TC	4,520	5,700	1,270	312
290	12,900	2.7	6.20	24.0	306L1			IEC225M4	N360TC	4,270	5,380	1,190	312

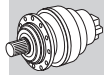
P₁ = 75 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp			IE...	IE...	NEMA	Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
1.3	3,209,800	1.0	1389	40.0	319L4			IEC250M4	N360TC	99,000	109,100	41,200	486
1.4	2,957,400	2.6	1280	67.0	323L4			IEC250M4		0	0	220,700	510
1.4	2,957,400	2.9	1280	87.0	325L4			IEC250M4		0	0	280,900	514
1.5	2,761,100	1.1	1195	40.0	319L4			IEC250M4	N360TC	96,900	106,700	39,200	486
1.6	2,592,400	1.8	1122	47.0	321L4			IEC250M4	N360TC	135,900	161,800	230,400	498
1.6	2,544,000	3.0	1101	67.0	323L4			IEC250M4		0	0	209,900	510
1.7	2,448,000	1.0	1059	30.0	318L4			IEC250M4	N360TC	84,100	88,000	37,700	474
1.8	2,326,500	1.3	1007	40.0	319L4			IEC250M4	N360TC	94,600	104,200	37,000	486
1.9	2,184,300	2.2	945	47.0	321L4			IEC250M4	N360TC	132,600	157,800	217,600	498
2.0	2,105,800	1.1	911	30.0	318L4			IEC250M4	N360TC	82,300	86,100	35,800	474

The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.

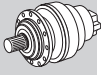
P₁ = 75 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NHC/HC NPC/PC	Rn ₂ [lbs]		
							IE...	IE...	NEMA		HZ/PZ	FZ	
2.0	2,107,500	1.4	912	40.0	319L4		IEC250M4		N360TC	93,300	102,700	35,800	486
2.0	2,095,000	1.4	906	150.0		319R4C	IEC250M4		N360TC	93,200	102,600	35,800	486
2.1	1,965,900	1.6	851	40.0	319L4		IEC250M4		N360TC	92,300	101,700	35,000	486
2.3	1,774,400	1.3	768	30.0	318L4		IEC250M4		N360TC	80,300	84,000	33,800	474
2.3	1,802,100	1.6	780	150.0		319R4C	IEC250M4		N360TC	91,200	100,400	34,000	486
2.3	1,840,500	2.6	796	47.0	321L4		IEC250M4		N360TC	129,400	154,000	205,600	498
2.4	1,702,100	2.7	736	47.0	321L4		IEC250M4		N360TC	128,000	152,300	200,300	498
2.5	1,678,100	1.4	726	30.0	318L4		IEC250M4		N360TC	79,700	83,300	33,200	474
2.5	1,656,500	1.9	717	40.0	319L4		IEC250M4		N360TC	90,100	99,200	33,100	486
2.5	1,692,000	2.7	732	170.0		321R4C	IEC250M4		N360TC	127,900	152,200	199,900	498
2.6	1,597,800	1.4	691	150.0		318R4C	IEC250M4		N360TC	79,100	82,800	32,700	474
2.7	1,566,600	1.9	678	40.0	319L4		IEC250M4		N360TC	89,400	98,400	32,500	486
2.7	1,513,300	1.8	655	130.0		319R4B	IEC250M4		N360TC	89,000	97,900	32,100	486
2.7	1,518,500	1.8	657	150.0		319R4C	IEC250M4		N360TC	89,000	98,000	32,100	486
2.8	1,495,100	1.5	647	30.0	318L4		IEC250M4		N360TC	78,400	82,000	32,000	474
2.9	1,413,900	1.6	612	30.0	318L4		IEC250M4		N360TC	77,700	81,300	31,400	474
2.9	1,425,700	2.9	617	170.0		321R4C	IEC250M4		N360TC	124,800	148,500	188,800	498
3.0	1,374,400	1.6	595	150.0		318R4C	IEC250M4		N360TC	77,400	81,000	31,100	474
3.2	1,320,000	2.2	571	40.0	319L4		IEC250M4		N360TC	87,200	96,100	30,700	486
3.2	1,301,700	2.0	563	130.0		319R4B	IEC250M4		N360TC	87,100	95,900	30,500	486
3.2	1,283,100	2.0	555	150.0		319R4C	IEC250M4		N360TC	86,900	95,700	30,400	486
3.4	1,220,700	2.3	528	40.0	319L4		IEC250M4		N360TC	86,300	95,000	29,900	486
3.4	1,213,500	2.0	525	150.0		319R4C	IEC250M4		N360TC	86,200	94,900	29,800	486
3.5	1,191,400	1.8	515	30.0	318L4		IEC250M4		N360TC	75,900	79,400	29,600	474
3.5	1,184,400	2.9	512	170.0		321R4C	IEC250M4		N360TC	121,500	144,600	177,500	498
3.6	1,154,100	1.8	499	120.0		318R4B	IEC250M4		N360TC	75,500	79,000	29,300	474
3.6	1,158,100	1.8	501	150.0		318R4C	IEC250M4		N360TC	75,600	79,000	29,400	474
3.7	1,110,900	2.9	481	170.0		321R4C	IEC250M4		N360TC	120,400	143,300	173,700	498
3.8	1,101,800	1.9	477	30.0	318L4		IEC250M4		N360TC	75,000	78,500	28,900	474
3.8	1,095,200	1.9	474	150.0		318R4C	IEC250M4		N360TC	75,000	78,400	28,800	474
3.8	1,096,800	2.3	475	130.0		319R4B	IEC250M4		N360TC	85,000	93,500	28,800	486
4.0	1,028,600	2.6	445	40.0	319L4		IEC250M4		N360TC	84,200	92,700	28,200	486
4.1	1,022,500	2.3	442	150.0		319R4C	IEC250M4		N360TC	84,100	92,600	28,200	486
4.2	992,800	2.0	430	120.0		318R4B	IEC250M4		N360TC	73,900	77,300	27,900	474
4.3	976,400	2.1	422	30.0	318L4		IEC250M4		N360TC	73,700	77,100	27,700	474
4.5	928,300	2.1	402	30.0	318L4		IEC250M4		N360TC	73,200	76,600	27,300	474
4.5	922,800	2.2	399	150.0		318R4C	IEC250M4		N360TC	73,100	76,500	27,200	474
4.5	926,800	2.8	401	130.0		319R4B	IEC250M4		N360TC	82,900	91,300	27,300	486
4.5	922,900	2.9	399	170.0		321R4C	IEC250M4		N360TC	117,300	139,600	163,300	498
4.7	876,500	2.9	379	130.0		319R4B	IEC250M4		N360TC	82,300	90,600	26,800	486
5.0	836,500	2.3	362	120.0		318R4B	IEC250M4		N360TC	72,100	75,500	26,300	474
5.2	796,700	2.7	345	150.0		319R4C	IEC250M4		N360TC	81,700	89,900	25,900	486
5.3	778,000	2.4	337	30.0	318L4		IEC250M4		N360TC	72,100	75,400	25,700	474
5.3	791,100	2.4	342	120.0		318R4B	IEC250M4		N360TC	72,100	75,400	25,900	474
5.8	723,400	2.6	313	30.0	318L4		IEC250M4		N360TC	72,100	75,400	25,100	474
5.8	719,100	2.6	311	150.0		318R4C	IEC250M4		N360TC	72,100	75,400	25,000	474
5.9	708,100	2.9	306	170.0		321R4C	IEC250M4		N360TC	115,500	137,500	149,500	498
6.2	666,600	2.7	288	120.0		318R4B	IEC250M4		N360TC	72,100	75,400	24,400	474
6.9	606,300	2.9	262	30.0	318L4		IEC250M4		N360TC	72,100	75,400	23,700	474
7.1	601,300	1.8	252	47.0	317L3		IEC250M4		N360TC	70,700	75,100	17,500	462
7.5	573,600	1.0	241	40.0	315L3		IEC250M4		N360TC	29,200	35,600	10,300	434
8.5	506,700	2.4	213	47.0	317L3		IEC250M4		N360TC	70,700	75,100	16,500	462
8.7	491,000	1.1	206	34.0	314L3		IEC250M4		N360TC	29,200	35,600	9,820	418
8.7	493,400	1.4	207	40.0	315L3		IEC250M4		N360TC	29,200	35,600	9,840	434
10.0	426,900	2.7	179	47.0	317L3		IEC250M4		N360TC	70,600	75,000	15,600	462
10.3	415,700	1.6	175	40.0	315L3		IEC250M4		N360TC	28,900	35,300	9,290	434
10.4	413,700	1.3	174	34.0	314L3		IEC250M4		N360TC	28,800	35,200	9,280	418









The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.

P₁ = 75 hp



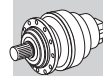
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n ₂ rpm	T ₂ lb-in	S	i	Pt hp						NEMA	NHC/HC NPC/PC	Rn ₂ [lbs] HZ/PZ	FZ		
10.9	393,200	1.7	165	40.0	315L3							28,400	34,700	9,120	434
10.9	393,200	1.8	165	47.0	316L3							44,200	49,000	15,200	450
10.9	394,800	2.6	166	47.0	317L3							68,900	73,200	15,200	462
10.9	392,500	2.6	165	130.0		317R3C	IEC250M4					68,800	73,100	15,200	462
11.0	391,200	1.4	164	34.0	314L3						N360TC	28,400	34,600	9,110	418
11.5	374,400	1.2	157	74.0		314R3C	IEC250M4				N360TC	28,000	34,200	8,970	418
11.5	374,400	1.5	157	120.0		315R3C	IEC250M4				N360TC	28,000	34,200	8,970	434
12.9	331,300	2.1	139	40.0	315L3						N360TC	27,000	32,900	8,620	434
12.9	331,300	2.1	139	47.0	316L3						N360TC	42,000	46,600	14,400	450
13.0	329,700	1.6	138	34.0	314L3						N360TC	26,900	32,900	8,600	418
13.0	330,700	2.9	139	130.0		317R3C	IEC250M4					65,400	69,400	14,400	462
13.1	328,000	2.9	138	47.0	317L3						N360TC	65,200	69,300	14,300	462
13.3	322,000	1.6	135	74.0		314R3C	IEC250M4				N360TC	26,800	32,700	8,540	418
13.3	322,000	2.0	135	120.0		315R3C	IEC250M4				N360TC	26,800	32,700	8,540	434
15.4	279,100	2.4	117	47.0	316L3						N360TC	39,900	44,200	13,600	450
15.6	274,700	2.9	115	130.0		317R3C	IEC250M4					61,800	65,700	13,500	462
15.8	271,300	1.6	114	74.0		314R3C	IEC250M4				N360TC	25,400	31,000	8,060	418
15.8	271,300	2.0	114	120.0		315R3C	IEC250M4				N360TC	25,400	31,000	8,060	434
15.9	270,400	1.5	114	74.0		314R3B	IEC250M4				N360TC	25,400	31,000	8,050	418
15.9	270,400	1.9	114	100.0		315R3B	IEC250M4				N360TC	25,400	31,000	8,050	434
16.6	258,100	2.3	108	40.0	315L3						N360TC	25,000	30,600	7,930	434
16.6	258,100	2.5	108	47.0	316L3						N360TC	39,000	43,200	13,200	450
16.6	257,700	2.9	108	130.0		317R3C	IEC250M4					60,600	64,400	13,200	462
16.7	256,900	1.9	108	34.0	314L3						N360TC	25,000	30,500	7,920	418
16.7	256,600	1.6	108	74.0		314R3C	IEC250M4				N360TC	25,000	30,500	7,910	418
16.7	256,600	2.0	108	120.0		315R3C	IEC250M4				N360TC	25,000	30,500	7,910	434
16.7	256,600	2.4	108	120.0		316R3C	IEC250M4				N360TC	38,900	43,100	13,200	450
18.4	232,600	2.0	97.6	74.0		314R3B	IEC250M4				N360TC	24,300	29,600	7,660	418
18.4	232,600	2.5	97.6	100.0		315R3B	IEC250M4				N360TC	24,300	29,600	7,660	434
19.4	221,000	2.1	92.7	34.0	314L3						N360TC	23,900	29,200	7,530	418
19.7	217,500	2.6	91.3	40.0	315L3						N360TC	23,800	29,000	7,490	434
19.7	217,500	2.8	91.3	47.0	316L3						N360TC	37,000	41,100	12,500	450
19.8	216,200	1.8	90.7	74.0		314R3C	IEC250M4				N360TC	23,700	29,000	7,470	418
19.8	216,200	2.3	90.7	120.0		315R3C	IEC250M4				N360TC	23,700	29,000	7,470	434
19.8	216,200	2.7	90.7	120.0		316R3C	IEC250M4				N360TC	37,000	41,000	12,500	450
20.0	214,100	2.9	89.8	130.0		317R3C	IEC250M4					57,400	60,900	12,400	462
21.9	196,000	2.2	82.3	74.0		314R3B	IEC250M4				N360TC	23,100	28,100	7,230	418
21.9	196,000	2.8	82.3	100.0		315R3B	IEC250M4				N360TC	23,100	28,100	7,230	434
23.1	185,400	2.3	77.8	74.0		314R3B	IEC250M4				N360TC	22,700	27,700	7,100	418
23.1	185,400	2.9	77.8	100.0		315R3B	IEC250M4				N360TC	22,700	27,700	7,100	434
23.1	185,400	3.0	77.8	100.0		316R3B	IEC250M4				N360TC	35,300	39,100	11,800	450
24.4	176,100	2.4	73.9	34.0	314L3						N360TC	22,300	27,200	6,980	418
25.5	168,500	2.2	70.7	74.0		314R3C	IEC250M4				N360TC	22,000	26,900	6,880	418
25.5	168,500	2.7	70.7	120.0		315R3C	IEC250M4				N360TC	22,000	26,900	6,880	434
25.5	168,500	2.9	70.7	120.0		316R3C	IEC250M4				N360TC	34,300	38,000	11,500	450
26.1	164,200	2.9	68.9	130.0		317R3C	IEC250M4					53,000	56,300	11,400	462
27.5	156,200	2.7	65.5	74.0		314R3B	IEC250M4				N360TC	21,500	26,300	6,710	418
28.8	149,200	2.7	62.6	34.0	314L3						N360TC	21,200	25,900	6,600	418
35	121,700	2.7	51.1	74.0		314R3B	IEC250M4				N360TC	20,000	24,400	6,170	418
39	114,800	1.0	46.7	30.0	310L2						N360TC	11,500	14,800	4,330	364
44	99,500	2.5	40.5	40.0	313L2						N360TC	19,100	23,900	5,080	400
46	95,400	1.8	38.8	35.0	311L2						N360TC	13,600	17,500	4,070	382
47	94,900	1.2	38.6	30.0	310L2						N360TC	10,900	14,000	4,060	364
54	82,700	2.9	33.6	40.0	313L2						N360TC	18,100	22,600	4,770	400
55	80,400	2.1	32.7	35.0	311L2						N360TC	12,900	16,600	3,840	382
55	80,000	1.4	32.6	30.0	310L2						N360TC	10,300	13,300	3,840	364
59	75,400	1.5	30.7	30.0	310L2						N360TC	10,100	13,100	3,760	364

The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.

P₁ = 75 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IEC		IEC		NEMA	Rn ₂ [lbs]			FZ
					310L2	311L2	313R2C	310R2C		NHC/HC NPC/PC	HZ/PZ	FZ	
64	68,800	1.6	28.0	30.0	310L2			IEC250M4	N360TC	9,850	12,700	3,650	364
65	67,700	2.4	27.6	35.0	311L2			IEC250M4	N360TC	12,300	15,800	3,630	382
68	64,900	2.9	26.4	120.0		313R2C		IEC250M4	N360TC	16,800	21,000	4,400	400
71	62,600	2.4	25.5	35.0	311L2			IEC250M4	N360TC	12,000	15,400	3,540	382
71	62,300	1.7	25.4	30.0	310L2			IEC250M4	N360TC	9,570	12,400	3,530	364
71	62,200	1.6	25.3	74.0		310R2C		IEC250M4	N360TC	9,560	12,300	3,530	364
71	62,200	2.4	25.3	120.0		311R2C		IEC250M4	N360TC	12,000	15,400	3,530	382
82	53,900	2.9	22.0	120.0		313R2C		IEC250M4	N360TC	15,900	19,900	4,140	400
83	53,600	1.9	21.8	30.0	310L2			IEC250M4	N360TC	9,140	11,800	3,360	364
84	52,800	2.8	21.5	35.0	311L2			IEC250M4	N360TC	11,400	14,600	3,340	382
84	52,400	1.9	21.3	74.0		310R2C		IEC250M4	N360TC	9,080	11,700	3,330	364
84	52,400	2.7	21.3	120.0		311R2C		IEC250M4	N360TC	11,400	14,600	3,330	382
98	45,200	2.1	18.3	74.0		310R2B			N360TC	8,670	11,200	3,170	364
98	45,000	3.0	18.3	100.0		311R2B		IEC250M4	N360TC	10,800	13,900	3,170	382
104	42,700	2.2	17.4	30.0	310L2			IEC250M4	N360TC	8,540	11,000	3,110	364
107	41,400	2.9	16.8	120.0		313R2C		IEC250M4	N360TC	14,700	18,400	3,790	400
108	40,900	2.3	16.6	74.0		310R2C		IEC250M4	N360TC	8,430	10,900	3,070	364
108	40,900	2.9	16.6	120.0		311R2C		IEC250M4	N360TC	10,500	13,500	3,070	382
117	38,100	2.3	15.4	74.0		310R2B			N360TC	8,240	10,600	2,990	364
122	36,200	2.5	14.7	30.0	310L2			IEC250M4	N360TC	8,130	10,500	2,940	364
150	29,700	2.9	12.0	74.0		310R2B			N360TC	7,650	9,870	2,750	364
240	19,000	1.8	7.50	24.0	306L1			IEC250M4	N360TC	4,520	5,700	1,270	312
290	15,700	2.2	6.20	24.0	306L1			IEC250M4	N360TC	4,270	5,380	1,190	312
338	13,500	2.5	5.30	24.0	306L1			IEC250M4	N360TC	4,080	5,150	1,130	312

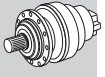


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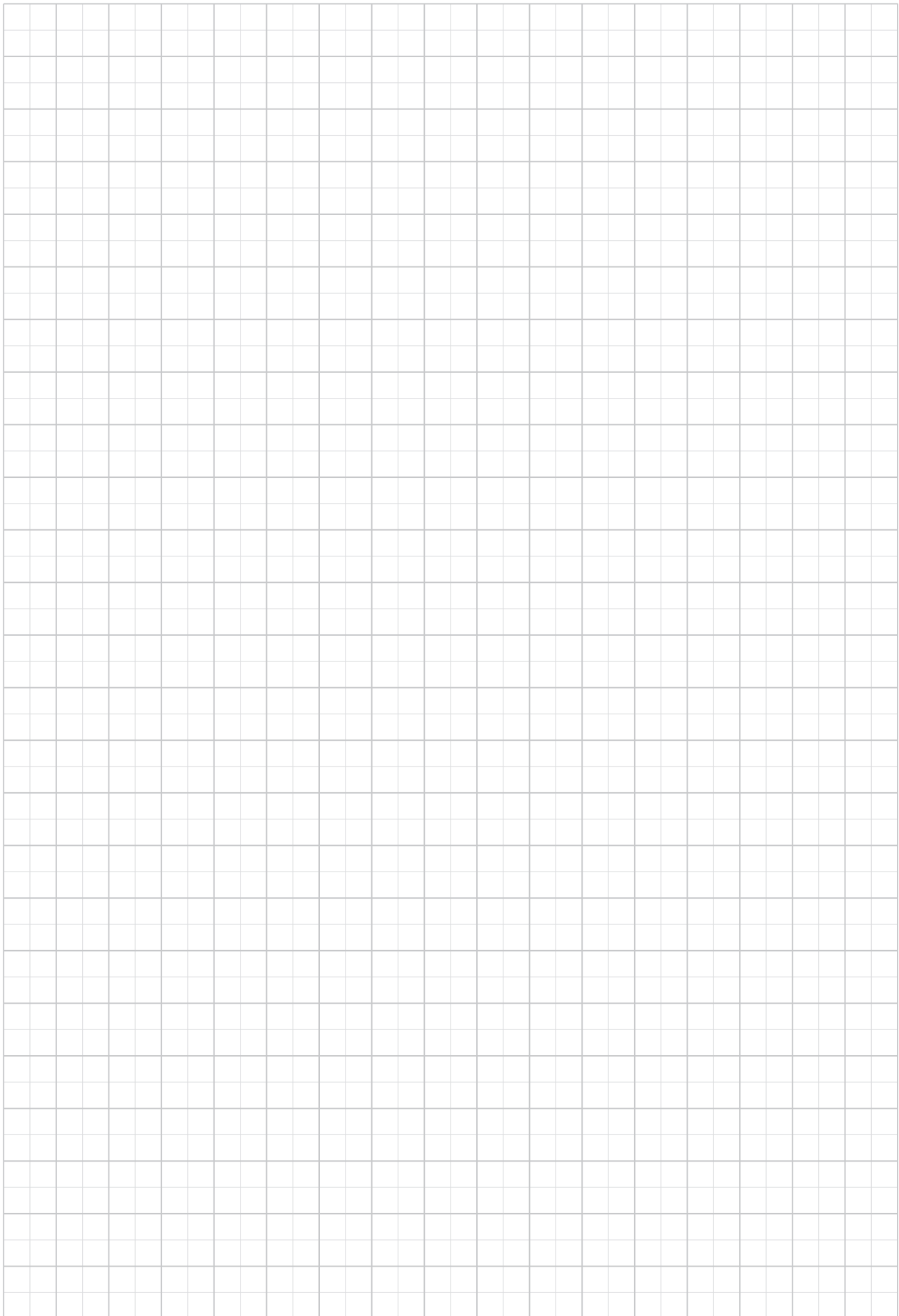
P₁ = 100 hp

n ₂ rpm	T ₂ lb-in	S	i	Pt hp	IEC		IEC		NEMA	Rn ₂ [lbs]			FZ
					323L4	325L4	319L3	318L3		315L2	NHC/HC NPC/PC	HZ/PZ	
1.4	4,045,400	1.9	1280	67.0	323L4				N400TC			220,700	510
1.4	4,045,400	2.1	1280	87.0	325L4				N400TC			280,900	514
1.6	3,479,900	2.2	1101	67.0	323L4				N400TC			209,900	510
1.6	3,479,900	2.4	1101	87.0	325L4				N400TC			267,100	514
1.8	3,241,500	2.3	1025	67.0	323L4				N400TC			205,000	510
2.0	2,788,400	2.7	882	67.0	323L4				N400TC			194,900	510
8.1	726,500	2.8	223	67.0	319L3				N400TC	81,700	89,900	22,400	486
9.6	613,900	2.9	188	67.0	319L3				N400TC	81,700	89,900	21,200	486
10.6	554,000	2.8	170	54.0	318L3				N400TC	70,800	74,100	20,500	474
47	129,800	2.9	38.6	60.0	315L2				N400TC	18,400	22,400	5,620	434

The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.

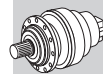


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25.2 3/V - 3/A GEARMOTOR RATING CHARTS

Reading the rating chart.



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P₁ = 20 hp														
n ₂ rpm	T ₂ in-bs	S	i								Rn ₂ [lbs]			
						IE2	IE3	IE2	IE3		NEMA	NHC/HC NPC/PC	HZ/PZ	
5.0	212,300	1.6	370	3/V 13L3	3/V 15L3	BE160L4 BX160LA4					33,300	41,600	13,500	400
5.0	231,900	2.5	386			BE160L4 BX160LA4					32,600	39,800	15,400	434
13.0	88,800	1.1	140			3/A 07L2	BE160L4 BX160LA4	ME5LA4	MX5LA4	N250TC	14,700	20,000	5,440	330
14.0	82,100	1.2	130			3/A 07L2	BE160L4 BX160LA4	ME5LA4	MX5LA4	N250TC	14,700	20,000	5,300	330
16.0	68,800	1.1	109			3/A 07L2	BE160L4 BX160LA4	ME5LA4	MX5LA4	N250TC	14,700	20,000	5,000	330

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 ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

1 Power applied at gearbox input shaft

9 Compact motor size and pole number

2 Gearbox output speed

10 Size of the NEMA motor adaptor

Torque delivered at output shaft:

Permitted overhung loading on output shaft, based on:

3 - specified service factor
- 10000 h theoretical lifetime

11 - service factor $f_s=1$
- 10000 h theoretical lifetime
- speed of output n_2

4 Service factor

For forces not applied at shaft midpoint, see diagrams provided in the specific gearbox overall dimensioning pages

5 Gear ratio

6 Model and frame size of combined planetary + worm gear unit

12 Dimensions page. Gearmotor overall dimensions refer to matches with BONFIGLIOLI motors only

7 Model and frame size of combined planetary + helical bevel gear unit

8 IEC motor size and pole number



The selection of motors without brake takes into account the requirements of Regulation EC 640/2009 (see section **M** of this catalogue). When the motor rated power is above 0.75kW (1HP), BN/M motors can be provided.



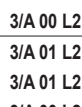
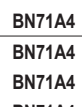






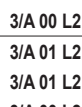
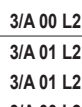
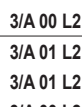
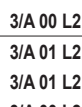



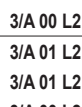
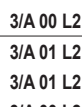
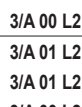
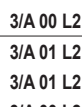
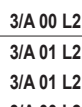
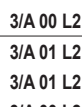
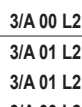
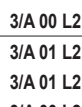
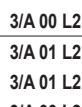
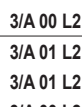
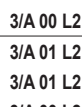
Considering that the Regulation EC 640/2009 shall not apply to the motors equipped with brake, the brakemotor selection takes into account BN/M motors only, without taking into account the rated power. BX, BE, MX and ME brakemotors are available on request.

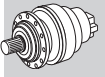
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P₁ = 0.33 hp

n ₂ rpm	T ₂ in-bs	S	i	Motor Type			NEMA	Rn ₂ [lbs]			FZ	File	
				3/V 06L3	3/V 03L3	IE1		NHC/HC NPC/PC	HZ/PZ	FZ			
0.60	22,000	2.8	2588	3/V 06L3		BN71A4	N56C	17,200	21,700	7,870	312		
0.70	19,600	1.0	2511	3/V 03L3		BN71A4	N56C	12,500	15,800	5,400	258		
0.70	19,900	1.3	2366	3/V 04L3		BN71A4	N56C	12,400	15,700	5,400	276		
0.70	18,700	2.1	2232	3/V 05L3		BN71A4	N56C	12,300	15,500	5,400	294		
0.80	15,700	1.4	2009	3/V 03L3		BN71A4	N56C	12,100	15,300	5,400	258		
0.90	14,400	1.1	1869	3/V 01L3		BN71A4	N56C	6,240	7,410	1,800	242		
0.90	15,900	1.7	1774	3/V 04L3		BN71A4	N56C	11,900	15,000	5,400	276		
0.90	15,900	1.7	1893	3/V 04L3		BN71A4	N56C	12,000	15,200	5,400	276		
0.90	15,000	2.8	1786	3/V 05L3		BN71A4	N56C	11,900	15,000	5,400	294		
1.0	10,600	1.0	1381	3/V 00L3		BN71A4	N56C	5,980	7,550	1,800	226		
1.0	9,640	1.5	1198	3/V 01L3		BN71A4	N56C	5,860	6,950	1,800	242		
1.0	10,600	1.6	1381	3/V 01L3		BN71A4	N56C	5,980	7,100	1,800	242		
1.0	12,000	1.2	1495	3/V 01L3		BN71A4	N56C	6,050	7,180	1,800	242		
1.0	9,290	2.2	1189	3/V 03L3		BN71A4	N56C	11,200	14,200	5,400	258		
1.0	10,800	2.3	1385	3/V 03L3		BN71A4	N56C	11,500	14,500	5,400	258		
1.0	12,600	1.7	1610	3/V 03L3		BN71A4	N56C	11,700	14,800	5,400	258		
1.0	13,500	1.9	1728	3/V 03L3		BN71A4	N56C	11,800	15,000	5,400	258		
1.0	10,300	3.0	1152	3/V 04L3		BN71A4	N56C	11,200	14,100	5,400	276		
1.0	12,700	2.0	1419	3/V 04L3		BN71A4	N56C	11,500	14,600	5,400	276		
1.0	12,900	2.5	1536	3/V 04L3		BN71A4	N56C	11,700	14,700	5,400	276		
1.0	15,000	2.6	1674	3/V 05L3		BN71A4	N56C	11,800	14,900	5,400	294		
2.0	8,260	1.9	731		3/A 03 L2	BN71A4	N56C	10,400	13,200	5,030	258		
2.0	5,860	1.6	689	3/V 00L3		BN71A4	N56C	5,410	6,840	1,660	226		
2.0	6,290	1.5	818	3/V 00L3		BN71A4	N56C	5,550	7,010	1,760	226		
2.0	6,950	1.0	904	3/V 00L3		BN71A4	N56C	5,630	7,110	1,800	226		
2.0	8,520	1.2	1107	3/V 00L3		BN71A4	N56C	5,790	7,310	1,800	226		
2.0	5,860	2.6	689	3/V 01L3		BN71A4	N56C	5,410	6,430	1,660	242		
2.0	7,170	1.8	799	3/V 01L3		BN71A4	N56C	5,530	6,560	1,740	242		
2.0	6,950	1.6	904	3/V 01L3		BN71A4	N56C	5,630	6,680	1,800	242		
2.0	8,950	1.5	997	3/V 01L3		BN71A4	N56C	5,710	6,770	1,800	242		
2.0	8,890	2.0	1105	3/V 01L3		BN71A4	N56C	5,790	6,870	1,800	242		
2.0	6,840	2.7	793	3/V 03L3		BN71A4	N56C	10,600	13,400	5,220	258		
2.0	7,960	2.9	923	3/V 03L3		BN71A4	N56C	10,800	13,700	5,400	258		
2.0	7,990	2.9	1023	3/V 03L3		BN71A4	N56C	11,000	13,900	5,400	258		
2.0	8,790	2.7	887	3/V 04L3		BN71A4	N56C	10,800	13,600	5,400	276		
3.0	6,020	1.6	533		3/A 01 L2	BN71A4	M05C4	N56C	5,200	6,170	1,510	242	
3.0	7,510	1.4	665		3/A 01 L2	BN71A4	M05C4	N56C	5,360	6,370	1,630	242	
3.0	5,590	2.7	495		3/A 03 L2	BN71A4	N56C	N56C	9,870	12,500	4,420	258	
3.0	6,480	2.3	574		3/A 03 L2	BN71A4	N56C	N56C	10,100	12,700	4,640	258	
3.0	6,830	2.3	605		3/A 03 L2	BN71A4	N56C	N56C	10,200	12,800	4,730	258	



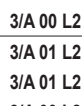
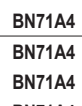




















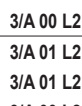




P₁ = 0.33 hp

n ₂ rpm	T ₂ in-bs	S	i				IE1	IE1	NEMA	Rn ₂ [lbs]			FZ	
										NHC/HC NPC/PC	HZ/PZ			
3.0	4,330	2.1	509				BN71A4		N56C	5,180	6,550	1,500	226	
3.0	4,780	1.3	562				BN71A4		N56C	5,260	6,640	1,550	226	
3.0	5,260	1.8	654				BN71A4		N56C	5,370	6,790	1,630	226	
3.0	4,330	2.6	509				BN71A4		N56C	5,180	6,150	1,500	242	
3.0	4,780	2.6	562				BN71A4		N56C	5,260	6,240	1,550	242	
3.0	5,260	2.0	654				BN71A4		N56C	5,370	6,380	1,630	242	
4.0	4,410	1.1	391			3/A 00 L2	BN71A4	M05C4	N56C	4,970	6,280	1,360	226	
4.0	4,980	1.2	441			3/A 00 L2	BN71A4	M05C4	N56C	5,060	6,390	1,420	226	
4.0	4,450	1.6	394			3/A 01 L2	BN71A4	M05C4	N56C	4,980	5,910	1,370	242	
4.0	5,130	2.0	454			3/A 01 L2	BN71A4	M05C4	N56C	5,080	6,030	1,430	242	
4.0	3,540	2.4	415				BN71A4		N56C	5,040	6,360	1,400	226	
4.0	3,510	1.8	436				BN71A4		N56C	5,070	6,400	1,430	226	
4.0	4,130	2.9	443				BN71A4		N56C	5,080	6,030	1,430	242	
5.0	3,600	1.1	319			3/A 00 L2	BN71A4	M05C4	N56C	4,830	6,100	1,270	226	
5.0	4,170	1.2	369			3/A 00 L2	BN71A4	M05C4	N56C	4,930	6,230	1,340	226	
5.0	3,510	2.9	311			3/A 01 L2	BN71A4	M05C4	N56C	4,810	5,710	1,260	242	
5.0	4,110	2.8	364			3/A 01 L2	BN71A4	M05C4	N56C	4,920	5,840	1,330	242	
6.0	3,340	1.7	296			3/A 00 L2	BN71A4	M05C4	N56C	4,780	6,030	1,240	226	
6.0	3,040	3.0	269			3/A 01 L2	BN71A4	M05C4	N56C	4,710	5,600	1,200	242	
7.0	2,860	1.7	253			3/A 00 L2	BN71A4	M05C4	N56C	4,670	5,900	1,180	226	
8.0	2,290	2.5	203			3/A 00 L2	BN71A4	M05C4	N56C	4,530	5,720	1,090	226	
8.0	2,470	2.2	219			3/A 00 L2	BN71A4	M05C4	N56C	4,580	5,780	1,120	226	
8.0	2,480	3.0	220			3/A 01 L2	BN71A4	M05C4	N56C	4,580	5,440	1,120	242	
10.0	1,940	2.5	171			3/A 00 L2	BN71A4	M05C4	N56C	4,450	5,620	1,030	226	

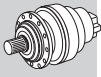


A






P₁ = 0.5 hp

n ₂ rpm	M ₂ Nm	S	i				IE1	IE1	NEMA	Rn ₂ [lbs]			FZ	
										NHC/HC NPC/PC	HZ/PZ			
0.70	28,400	0.9	2366				BN71B4	M1SD4	N56C	12,400	15,700	5,400	276	
0.70	31,500	2.0	2588				BN71B4	M1SD4	N56C	17,200	21,700	7,870	312	
0.80	22,400	1.0	2009				BN71B4	M1SD4	N56C	12,100	15,300	5,400	258	
0.80	26,800	1.5	2232				BN71B4	M1SD4	N56C	12,300	15,500	5,400	294	
0.80	26,000	2.9	2139				BN71B4	M1SD4	N56C	16,800	21,200	7,870	312	
0.90	22,700	1.2	1893				BN71B4	M1SD4	N56C	12,000	15,200	5,400	276	
1.0	13,800	1.0	1198				BN71B4		N56C	5,860	6,950	1,800	242	
1.0	15,200	1.1	1381				BN71B4		N56C	5,980	7,100	1,800	242	
1.0	13,300	1.5	1189				BN71B4	M1SD4	N56C	11,200	14,200	5,400	258	
1.0	15,400	1.6	1385				BN71B4	M1SD4	N56C	11,500	14,500	5,400	258	
1.0	18,000	1.2	1610				BN71B4	M1SD4	N56C	11,700	14,800	5,400	258	
1.0	19,300	1.3	1728				BN71B4	M1SD4	N56C	11,800	15,000	5,400	258	
1.0	14,800	2.1	1152				BN71B4	M1SD4	N56C	11,200	14,100	5,400	276	
1.0	14,800	2.1	1231				BN71B4	M1SD4	N56C	11,300	14,300	5,400	276	
1.0	18,200	1.4	1419				BN71B4	M1SD4	N56C	11,500	14,600	5,400	276	
1.0	18,400	1.8	1536				BN71B4	M1SD4	N56C	11,700	14,700	5,400	276	
1.0	22,800	1.2	1774				BN71B4	M1SD4	N56C	11,900	15,000	5,400	276	
1.0	17,200	2.3	1431				BN71B4	M1SD4	N56C	11,500	14,600	5,400	294	
1.0	21,500	1.8	1674				BN71B4	M1SD4	N56C	11,800	14,900	5,400	294	
1.0	21,400	1.9	1786				BN71B4	M1SD4	N56C	11,900	15,000	5,400	294	
2.0	11,800	1.3	731			3/A 03 L2	BN71B4	M1SD4	N56C	10,400	13,200	5,030	258	
2.0	8,370	1.1	689				BN71B4		N56C	5,410	6,840	1,660	226	
2.0	8,990	1.1	818				BN71B4		N56C	5,550	7,010	1,760	226	
2.0	8,370	1.8	689				BN71B4		N56C	5,410	6,430	1,660	242	
2.0	10,200	1.3	799				BN71B4		N56C	5,530	6,560	1,740	242	







P₁ = 0.5 hp



A

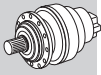
n ₂ rpm	M ₂ Nm	S	i					NEMA	Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
2.0	9,930	1.1	904	3/V 01L3		BN71B4		N56C	5,630	6,680	1,800	242
2.0	12,800	1.1	997	3/V 01L3		BN71B4		N56C	5,710	6,770	1,800	242
2.0	12,700	1.4	1105	3/V 01L3		BN71B4		N56C	5,790	6,870	1,800	242
2.0	9,070	2.6	736	3/V 03L3		BN71B4	M1SD4	N56C	10,500	13,200	5,090	258
2.0	9,770	1.9	793	3/V 03L3		BN71B4	M1SD4	N56C	10,600	13,400	5,220	258
2.0	11,400	2.0	923	3/V 03L3		BN71B4	M1SD4	N56C	10,800	13,700	5,400	258
2.0	11,400	2.1	1023	3/V 03L3		BN71B4	M1SD4	N56C	11,000	13,900	5,400	258
2.0	10,000	2.3	710	3/V 04L3		BN71B4	M1SD4	N56C	10,400	13,200	5,030	276
2.0	10,200	2.8	769	3/V 04L3		BN71B4	M1SD4	N56C	10,600	13,300	5,170	276
2.0	12,600	1.9	887	3/V 04L3		BN71B4	M1SD4	N56C	10,800	13,600	5,400	276
2.0	11,800	2.9	981	3/V 04L3		BN71B4	M1SD4	N56C	10,900	13,800	5,400	276
2.0	12,700	3.0	1057	3/V 05L3		BN71B4	M1SD4	N56C	11,000	14,000	5,400	294
2.0	14,900	2.6	1116	3/V 05L3		BN71B4	M1SD4	N56C	11,100	14,100	5,400	294
3.0	8,590	1.2	533		3/A 01 L2	BN71B4	M1SD4	N56C	5,200	6,170	1,510	242
3.0	10,700	1.0	665		3/A 01 L2	BN71B4	M1SD4	N56C	5,360	6,370	1,630	242
3.0	7,990	1.9	495		3/A 03 L2	BN71B4	M1SD4	N56C	9,870	12,500	4,420	258
3.0	9,260	1.6	574		3/A 03 L2	BN71B4	M1SD4	N56C	10,100	12,700	4,640	258
3.0	9,760	1.6	605		3/A 03 L2	BN71B4	M1SD4	N56C	10,200	12,800	4,730	258
3.0	8,400	2.6	521		3/A 04 L2	BN71B4	M1SD4	N56C	9,940	12,600	4,500	276
3.0	9,590	3.0	594		3/A 05L2	BN71B4	M1SD4	N56C	10,100	12,800	4,700	294
3.0	6,190	1.4	509	3/V 00L3		BN71B4		N56C	5,180	6,550	1,500	226
3.0	6,830	0.9	562	3/V 00L3		BN71B4		N56C	5,260	6,640	1,550	226
3.0	7,520	1.2	654	3/V 00L3		BN71B4		N56C	5,370	6,790	1,630	226
3.0	6,190	1.8	509	3/V 01L3		BN71B4		N56C	5,180	6,150	1,500	242
3.0	6,830	1.8	562	3/V 01L3		BN71B4		N56C	5,260	6,240	1,550	242
3.0	7,520	1.4	654	3/V 01L3		BN71B4		N56C	5,370	6,380	1,630	242
3.0	6,770	2.6	502	3/V 03L3		BN71B4	M1SD4	N56C	9,930	12,500	4,480	258
3.0	7,680	2.6	623	3/V 03L3		BN71B4	M1SD4	N56C	10,200	12,900	4,820	258
4.0	6,350	1.2	394		3/A 01 L2	BN71B4	M1SD4	N56C	4,980	5,910	1,370	242
4.0	7,330	1.4	454		3/A 01 L2	BN71B4	M1SD4	N56C	5,080	6,030	1,430	242
4.0	6,600	2.5	409		3/A 03 L2	BN71B4	M1SD4	N56C	9,610	12,100	4,150	258
4.0	7,560	2.9	469		3/A 04 L2	BN71B4	M1SD4	N56C	9,790	12,400	4,340	276
4.0	5,050	1.7	415	3/V 00L3		BN71B4		N56C	5,040	6,360	1,400	226
4.0	5,010	1.3	436	3/V 00L3		BN71B4		N56C	5,070	6,400	1,430	226
4.0	5,870	2.8	430	3/V 01L3		BN71B4		N56C	5,060	6,010	1,420	242
4.0	5,900	2.1	443	3/V 01L3		BN71B4		N56C	5,080	6,030	1,430	242
5.0	5,020	2.0	311		3/A 01 L2	BN71B4	M1SD4	N56C	4,810	5,710	1,260	242
5.0	5,880	2.0	364		3/A 01 L2	BN71B4	M1SD4	N56C	4,920	5,840	1,330	242
5.0	5,250	2.8	326		3/A 03 L2	BN71B4	M1SD4	N56C	9,300	11,700	3,840	258
6.0	4,780	1.2	296		3/A 00 L2	BN71B4	M1SD4	N56C	4,780	6,030	1,240	226
6.0	4,340	2.1	269		3/A 01 L2	BN71B4	M1SD4	N56C	4,710	5,600	1,200	242
7.0	4,080	1.2	253		3/A 00 L2	BN71B4	M1SD4	N56C	4,670	5,900	1,180	226
7.0	4,110	2.5	255		3/A 01 L2	BN71B4	M1SD4	N56C	4,680	5,550	1,180	242
8.0	3,270	1.8	203		3/A 00 L2	BN71B4	M1SD4	N56C	4,530	5,720	1,090	226
8.0	3,530	1.6	219		3/A 00 L2	BN71B4	M1SD4	N56C	4,580	5,780	1,120	226
8.0	3,540	2.1	220		3/A 01 L2	BN71B4	M1SD4	N56C	4,580	5,440	1,120	242
9.0	3,080	3.0	184		3/A 01 L2			N56C	4,470	5,300	1,060	242
10.0	2,770	1.8	171		3/A 00 L2	BN71B4	M1SD4	N56C	4,450	5,620	1,030	226
13.0	2,160	2.3	134		3/A 00 L2	BN71B4	M1SD4	N56C	4,450	5,620	950	226
17.0	1,670	2.9	100		3/A 00 L2			N56C	4,450	5,620	860	226

P₁ = 0.75 hp

n ₂ rpm	T ₂ in-bs	S	i						NEMA	Rn ₂ [lbs]			
										NHC/HC NPC/PC	HZ/PZ	FZ	
0.70	49,100	1.3	2588	3/V 06L3		BN80A4	M1LA4	N56C		17,200	21,700	7,870	312
0.70	45,000	2.2	2472	3/V 07L3		BN80A4				21,400	29,100	10,100	330
0.80	41,700	0.9	2232	3/V 05L3		BN80A4	M1LA4	N56C		12,300	15,500	5,400	294
0.80	40,600	1.9	2139	3/V 06L3		BN80A4	M1LA4	N56C		16,800	21,200	7,870	312
0.80	41,300	2.4	2150	3/V 07L3		BN80A4				21,000	28,600	10,100	330
1.0	20,700	1.0	1189	3/V 03L3		BN80A4	M1LA4	N56C		11,200	14,200	5,400	258
1.0	24,100	1.0	1385	3/V 03L3		BN80A4	M1LA4	N56C		11,500	14,500	5,400	258
1.0	23,000	1.3	1152	3/V 04L3		BN80A4	M1LA4	N56C		11,200	14,100	5,400	276
1.0	23,000	1.4	1231	3/V 04L3		BN80A4	M1LA4	N56C		11,300	14,300	5,400	276
1.0	28,400	0.9	1419	3/V 04L3		BN80A4	M1LA4	N56C		11,500	14,600	5,400	276
1.0	28,700	1.1	1536	3/V 04L3		BN80A4	M1LA4	N56C		11,700	14,700	5,400	276
1.0	23,000	2.1	1231	3/V 05L3		BN80A4	M1LA4	N56C		11,300	14,300	5,400	294
1.0	26,800	1.5	1431	3/V 05L3		BN80A4	M1LA4	N56C		11,500	14,600	5,400	294
1.0	33,500	1.2	1674	3/V 05L3		BN80A4	M1LA4	N56C		11,800	14,900	5,400	294
1.0	33,400	1.2	1786	3/V 05L3		BN80A4	M1LA4	N56C		11,900	15,000	5,400	294
1.0	23,000	3.0	1212	3/V 06L3		BN80A4	M1LA4	N56C		15,500	19,500	7,870	312
1.0	27,500	2.6	1395	3/V 06L3		BN80A4	M1LA4	N56C		15,800	19,900	7,870	312
1.0	33,500	2.3	1768	3/V 06L3		BN80A4	M1LA4	N56C		16,300	20,600	7,870	312
2.0	13,100	1.2	689	3/V 01L3		BN80A4		N56C		5,410	6,430	1,660	242
2.0	14,100	1.7	736	3/V 03L3		BN80A4	M1LA4	N56C		10,500	13,200	5,090	258
2.0	15,200	1.2	793	3/V 03L3		BN80A4	M1LA4	N56C		10,600	13,400	5,220	258
2.0	17,700	1.3	923	3/V 03L3		BN80A4	M1LA4	N56C		10,800	13,700	5,400	258
2.0	17,800	1.3	1023	3/V 03L3		BN80A4	M1LA4	N56C		11,000	13,900	5,400	258
2.0	15,700	1.4	710	3/V 04L3		BN80A4	M1LA4	N56C		10,400	13,200	5,030	276
2.0	16,000	1.8	769	3/V 04L3		BN80A4	M1LA4	N56C		10,600	13,300	5,170	276
2.0	19,600	1.2	887	3/V 04L3		BN80A4	M1LA4	N56C		10,800	13,600	5,400	276
2.0	18,300	1.8	981	3/V 04L3		BN80A4	M1LA4	N56C		10,900	13,800	5,400	276
2.0	15,400	2.3	715	3/V 05L3		BN80A4	M1LA4	N56C		10,400	13,200	5,050	294
2.0	15,900	2.3	793	3/V 05L3		BN80A4	M1LA4	N56C		10,600	13,400	5,220	294
2.0	18,600	2.0	894	3/V 05L3		BN80A4	M1LA4	N56C		10,800	13,600	5,400	294
2.0	19,800	1.9	1057	3/V 05L3		BN80A4	M1LA4	N56C		11,000	14,000	5,400	294
2.0	23,200	1.7	1116	3/V 05L3		BN80A4	M1LA4	N56C		11,100	14,100	5,400	294
3.0	12,500	1.2	495		3/A 03 L2	BN80A4	M1LA4	N56C		9,870	12,500	4,420	258
3.0	14,400	1.1	574		3/A 03 L2	BN80A4	M1LA4	N56C		10,100	12,700	4,640	258
3.0	15,200	1.1	605		3/A 03 L2	BN80A4	M1LA4	N56C		10,200	12,800	4,730	258
3.0	13,100	1.7	521		3/A 04 L2	BN80A4	M1LA4	N56C		9,940	12,600	4,500	276
3.0	12,400	2.7	491		3/A 05L2	BN80A4	M1LA4	N56C		9,860	12,500	4,410	294
3.0	15,000	1.9	594		3/A 05L2	BN80A4	M1LA4	N56C		10,100	12,800	4,700	294
3.0	9,650	0.9	509	3/V 00L3		BN80A4		N56C		5,180	6,550	1,500	226
3.0	9,650	1.2	509	3/V 01L3		BN80A4		N56C		5,180	6,150	1,500	242
3.0	10,700	1.2	562	3/V 01L3		BN80A4		N56C		5,260	6,240	1,550	242
3.0	10,600	1.6	502	3/V 03L3		BN80A4	M1LA4	N56C		9,930	12,500	4,480	258
3.0	10,400	2.3	544	3/V 03L3		BN80A4	M1LA4	N56C		10,000	12,700	4,600	258
3.0	12,000	1.6	623	3/V 03L3		BN80A4	M1LA4	N56C		10,200	12,900	4,820	258
3.0	9,370	2.8	501	3/V 04L3		BN80A4	M1LA4	N56C		9,930	12,500	4,480	276
3.0	11,800	2.3	568	3/V 04L3		BN80A4	M1LA4	N56C		10,100	12,800	4,670	276
3.0	12,500	2.5	623	3/V 04L3		BN80A4	M1LA4	N56C		10,200	12,900	4,820	276
3.0	11,400	3.0	529	3/V 05L3		BN80A4	M1LA4	N56C		10,000	12,600	4,560	294
4.0	11,300	0.9	454		3/A 01 L2			N56C		5,080	6,030	1,430	242
4.0	10,300	1.6	409		3/A 03 L2	BN80A4	M1LA4	N56C		9,610	12,100	4,150	258
4.0	9,730	2.2	386		3/A 04 L2	BN80A4	M1LA4	N56C		9,530	12,000	4,070	276
4.0	11,800	1.8	469		3/A 04 L2	BN80A4	M1LA4	N56C		9,790	12,400	4,340	276
4.0	10,000	2.8	398		3/A 05L2	BN80A4	M1LA4	N56C		9,570	12,100	4,110	294
4.0	7,880	1.1	415	3/V 00L3		BN80A4		N56C		5,040	6,360	1,400	226
4.0	9,150	1.8	430	3/V 01L3		BN80A4		N56C		5,060	6,010	1,420	242
4.0	9,200	1.3	443	3/V 01L3		BN80A4		N56C		5,080	6,030	1,430	242
4.0	8,300	2.4	395	3/V 03L3		BN80A4	M1LA4	N56C		9,600	12,100	4,140	258



P₁ = 0.75 hp



A

n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]				
									NHC/HC NPC/PC	HZ/PZ	FZ		
4.0	8,850	2.3	460	3/V 03L3			BN80A4	M1LA4	N56C	9,810	12,400	4,360	258
5.0	7,830	1.3	311			3/A 01 L2	BN80A4	M1LA4	N56C	4,810	5,710	1,260	242
5.0	9,160	1.3	364			3/A 01 L2	BN80A4	M1LA4	N56C	4,920	5,840	1,330	242
5.0	8,190	1.8	326			3/A 03 L2	BN80A4	M1LA4	N56C	9,300	11,700	3,840	258
5.0	8,860	2.0	352			3/A 03 L2	BN80A4	M1LA4	N56C	9,400	11,900	3,950	258
5.0	7,990	2.7	317			3/A 04 L2	BN80A4	M1LA4	N56C	9,260	11,700	3,810	276
5.0	8,780	2.4	349			3/A 04 L2	BN80A4	M1LA4	N56C	9,390	11,900	3,930	276
6.0	6,770	1.3	269			3/A 01 L2	BN80A4	M1LA4	N56C	4,710	5,600	1,200	242
6.0	6,770	2.4	269			3/A 03 L2	BN80A4	M1LA4	N56C	9,050	11,400	3,610	258
6.0	6,770	2.4	269			3/A 03 L2	BN80A4	M1LA4	N56C	9,050	11,400	3,610	258
7.0	6,420	1.6	255			3/A 01 L2	BN80A4	M1LA4	N56C	4,680	5,550	1,180	242
8.0	5,100	1.1	203			3/A 00 L2	BN80A4	M1LA4	N56C	4,530	5,720	1,090	226
8.0	5,510	1.0	219			3/A 00 L2	BN80A4	M1LA4	N56C	4,580	5,780	1,120	226
8.0	5,140	2.2	204			3/A 01 L2	BN80A4	M1LA4	N56C	4,530	5,380	1,100	242
8.0	5,530	1.3	220			3/A 01 L2	BN80A4	M1LA4	N56C	4,580	5,440	1,120	242
8.0	5,530	2.6	220			3/A 03 L2	BN80A4	M1LA4	N56C	8,790	11,100	3,370	258
9.0	4,640	2.0	184			3/A 01 L2	BN80A4	M1LA4	N56C	4,470	5,300	1,060	242
10.0	4,310	1.1	171			3/A 00 L2	BN80A4	M1LA4	N56C	4,450	5,620	1,030	226
10.0	4,190	2.4	166			3/A 01 L2	BN80A4	M1LA4	N56C	4,450	5,280	1,020	242
13.0	3,370	1.4	134			3/A 00 L2	BN80A4	M1LA4	N56C	4,450	5,620	950	226
16.0	2,700	2.1	107			3/A 00 L2	BN80A4	M1LA4	N56C	4,450	5,620	890	226
17.0	2,520	1.9	100			3/A 00 L2	BN80A4	M1LA4	N56C	4,450	5,620	860	226
19.0	2,230	2.2	88.6			3/A 00 L2	BN80A4	M1LA4	N56C	4,430	5,590	830	226
21.0	2,020	2.8	80.2			3/A 00 L2	BN80A4	M1LA4	N56C	4,300	5,430	800	226

P₁ = 1 hp

n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]				
									NHC/HC NPC/PC	HZ/PZ	FZ		
0.30	122,800	2.5	5081	3/V 10L4			BE80B4	ME2SB4	N56C	27,900	36,000	14,600	364
0.30	122,800	2.5	5081	3/V 10L4			BE80B4	ME2SB4	N56C	27,900	36,000	14,600	364
0.40	112,300	2.4	4036	3/V 10L4			BE80B4	ME2SB4	N56C	27,000	34,800	14,600	364
0.40	112,100	2.4	4637	3/V 10L4			BE80B4	ME2SB4	N56C	27,500	35,500	14,600	364
0.40	112,300	2.4	4036	3/V 10L4			BE80B4	ME2SB4	N56C	27,000	34,800	14,600	364
0.40	112,100	2.4	4637	3/V 10L4			BE80B4	ME2SB4	N56C	27,500	35,500	14,600	364
0.70	64,500	1.0	2588	3/V 06L3			BE80B4	ME2SB4	N56C	17,200	21,700	7,870	312
0.70	59,100	1.6	2472	3/V 07L3			BE80B4	ME2SB4		21,400	29,100	10,100	330
0.80	53,300	1.4	2139	3/V 06L3			BE80B4	ME2SB4	N56C	16,800	21,200	7,870	312
0.80	54,300	1.8	2150	3/V 07L3			BE80B4	ME2SB4		21,000	28,600	10,100	330
0.90	46,900	2.3	1964	3/V 07L3			BE80B4	ME2SB4		20,700	28,200	10,100	330
1.0	30,200	1.0	1231	3/V 04L3			BE80B4	ME2SB4	N56C	11,300	14,300	5,400	276
1.0	30,200	1.6	1231	3/V 05L3			BE80B4	ME2SB4	N56C	11,300	14,300	5,400	294
1.0	35,200	1.1	1431	3/V 05L3			BE80B4	ME2SB4	N56C	11,500	14,600	5,400	294
1.0	43,900	0.9	1786	3/V 05L3			BE80B4	ME2SB4	N56C	11,900	15,000	5,400	294
1.0	30,200	2.3	1212	3/V 06L3			BE80B4	ME2SB4	N56C	15,500	19,500	7,870	312
1.0	36,200	2.0	1395	3/V 06L3			BE80B4	ME2SB4	N56C	15,800	19,900	7,870	312
1.0	44,100	1.7	1768	3/V 06L3			BE80B4	ME2SB4	N56C	16,300	20,600	7,870	312
1.0	40,100	2.4	1545	3/V 07L3			BE80B4	ME2SB4		20,000	27,200	10,100	330
2.0	18,600	1.3	736	3/V 03L3			BE80B4	ME2SB4	N56C	10,500	13,200	5,090	258
2.0	20,000	0.9	793	3/V 03L3			BE80B4	ME2SB4	N56C	10,600	13,400	5,220	258
2.0	23,300	1.0	923	3/V 03L3			BE80B4	ME2SB4	N56C	10,800	13,700	5,400	258
2.0	23,400	1.0	1023	3/V 03L3			BE80B4	ME2SB4	N56C	11,000	13,900	5,400	258
2.0	20,600	1.1	710	3/V 04L3			BE80B4	ME2SB4	N56C	10,400	13,200	5,030	276
2.0	21,000	1.4	769	3/V 04L3			BE80B4	ME2SB4	N56C	10,600	13,300	5,170	276

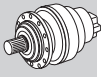
P₁ = 1 hp

n ₂ rpm	T ₂ in-bs	S	i	IE2			NEMA			Rn ₂ [lbs]			FZ	FZ
				3/V 04L3	3/V 05L3	3/V 06L3	BE80B4	ME2SB4	N56C	NHC/HC NPC/PC	HZ/PZ	FZ		
2.0	25,700	0.9	887	3/V 04L3			BE80B4	ME2SB4	N56C	10,800	13,600	5,400	276	
2.0	24,100	1.4	981	3/V 04L3			BE80B4	ME2SB4	N56C	10,900	13,800	5,400	276	
2.0	30,300	1.0	1152	3/V 04L3			BE80B4	ME2SB4	N56C	11,200	14,100	5,400	276	
2.0	20,300	1.8	715	3/V 05L3			BE80B4	ME2SB4	N56C	10,400	13,200	5,050	294	
2.0	20,800	1.7	793	3/V 05L3			BE80B4	ME2SB4	N56C	10,600	13,400	5,220	294	
2.0	24,400	1.5	894	3/V 05L3			BE80B4	ME2SB4	N56C	10,800	13,600	5,400	294	
2.0	26,000	1.5	1057	3/V 05L3			BE80B4	ME2SB4	N56C	11,000	14,000	5,400	294	
2.0	30,500	1.3	1116	3/V 05L3			BE80B4	ME2SB4	N56C	11,100	14,100	5,400	294	
2.0	26,700	2.6	930	3/V 06L3			BE80B4	ME2SB4	N56C	14,900	18,800	7,870	312	
2.0	29,900	2.4	1153	3/V 06L3			BE80B4	ME2SB4	N56C	15,400	19,400	7,870	312	
3.0	17,200	1.3	521		3/A 04 L2		BE80B4	ME2SB4	N56C	9,940	12,600	4,500	276	
3.0	19,600	1.5	594		3/A 05L2		BE80B4	ME2SB4	N56C	10,100	12,800	4,700	294	
3.0	19,600	2.6	611		3/A 06L2		BE80B4	ME2SB4	N56C	14,000	17,600	6,920	312	
3.0	21,500	2.4	671		3/A 06L2		BE80B4	ME2SB4	N56C	14,200	17,900	7,140	312	
3.0	13,900	1.3	502	3/V 03L3			BE80B4	ME2SB4	N56C	9,930	12,500	4,480	258	
3.0	13,700	1.8	544	3/V 03L3			BE80B4	ME2SB4	N56C	10,000	12,700	4,600	258	
3.0	15,700	1.2	623	3/V 03L3			BE80B4	ME2SB4	N56C	10,200	12,900	4,820	258	
3.0	12,300	2.2	501	3/V 04L3			BE80B4	ME2SB4	N56C	9,930	12,500	4,480	276	
3.0	15,500	1.8	568	3/V 04L3			BE80B4	ME2SB4	N56C	10,100	12,800	4,670	276	
3.0	16,400	1.9	623	3/V 04L3			BE80B4	ME2SB4	N56C	10,200	12,900	4,820	276	
3.0	15,000	2.3	529	3/V 05L3			BE80B4	ME2SB4	N56C	10,000	12,600	4,560	294	
3.0	16,700	2.5	576	3/V 05L3			BE80B4	ME2SB4	N56C	10,100	12,800	4,690	294	
3.0	16,400	2.4	623	3/V 05L3			BE80B4	ME2SB4	N56C	10,200	12,900	4,820	294	
4.0	13,500	1.2	409		3/A 03 L2		BE80B4	ME2SB4	N56C	9,610	12,100	4,150	258	
4.0	16,400	0.9	495		3/A 03 L2		BE80B4	ME2SB4	N56C	9,870	12,500	4,420	258	
4.0	15,500	1.4	469		3/A 04 L2		BE80B4	ME2SB4	N56C	9,790	12,400	4,340	276	
4.0	13,200	2.1	398		3/A 05L2		BE80B4	ME2SB4	N56C	9,570	12,100	4,110	294	
4.0	14,000	2.6	422		3/A 05L2		BE80B4	ME2SB4	N56C	9,650	12,200	4,190	294	
4.0	16,200	2.1	491		3/A 05L2		BE80B4	ME2SB4	N56C	9,860	12,500	4,410	294	
4.0	12,000	1.4	430	3/V 01L3			BE80B4	ME2SB4	N56C	5,060	6,010	1,420	242	
4.0	12,100	1.0	443	3/V 01L3			BE80B4	ME2SB4	N56C	5,080	6,030	1,430	242	
4.0	10,900	1.8	395	3/V 03L3			BE80B4	ME2SB4	N56C	9,600	12,100	4,140	258	
4.0	11,600	1.8	460	3/V 03L3			BE80B4	ME2SB4	N56C	9,810	12,400	4,360	258	
4.0	12,400	2.7	453	3/V 04L3			BE80B4	ME2SB4	N56C	9,790	12,400	4,330	276	
4.0	11,500	2.8	397	3/V 05L3			BE80B4	ME2SB4	N56C	9,600	12,100	4,140	294	
5.0	12,000	1.0	364		3/A 01 L2		BE80B4	ME2SB4	N56C	4,920	5,840	1,330	242	
5.0	10,800	1.4	326		3/A 03 L2		BE80B4	ME2SB4	N56C	9,300	11,700	3,840	258	
5.0	11,600	1.5	352		3/A 03 L2		BE80B4	ME2SB4	N56C	9,400	11,900	3,950	258	
5.0	10,500	2.0	317		3/A 04 L2		BE80B4	ME2SB4	N56C	9,260	11,700	3,810	276	
5.0	11,500	1.8	349		3/A 04 L2		BE80B4	ME2SB4	N56C	9,390	11,900	3,930	276	
5.0	12,800	1.7	386		3/A 04 L2		BE80B4	ME2SB4	N56C	9,530	12,000	4,070	276	
5.0	10,900	2.9	329		3/A 05L2		BE80B4	ME2SB4	N56C	9,310	11,800	3,860	294	
5.0	10,500	3.0	384	3/V 04L3			BE80B4	ME2SB4	N56C	9,560	12,100	4,100	276	
6.0	8,900	1.0	269		3/A 01 L2		BE80B4	ME2SB4	N56C	4,710	5,600	1,200	242	
6.0	10,300	1.0	311		3/A 01 L2		BE80B4	ME2SB4	N56C	4,810	5,710	1,260	242	
6.0	8,900	1.8	269		3/A 03 L2		BE80B4	ME2SB4	N56C	9,050	11,400	3,610	258	
6.0	8,900	1.8	269		3/A 03 L2		BE80B4	ME2SB4	N56C	9,050	11,400	3,610	258	
6.0	9,370	2.7	283		3/A 04 L2		BE80B4	ME2SB4	N56C	9,110	11,500	3,670	276	
7.0	8,430	1.2	255		3/A 01 L2		BE80B4	ME2SB4	N56C	4,680	5,550	1,180	242	
8.0	7,260	1.0	220		3/A 01 L2		BE80B4	ME2SB4	N56C	4,580	5,440	1,120	242	
8.0	7,270	2.0	220		3/A 03 L2		BE80B4	ME2SB4	N56C	8,790	11,100	3,370	258	
9.0	6,090	1.5	184		3/A 01 L2		BE80B4	ME2SB4	N56C	4,470	5,300	1,060	242	
9.0	6,760	1.7	204		3/A 01 L2		BE80B4	ME2SB4	N56C	4,530	5,380	1,100	242	
10.0	5,500	1.9	166		3/A 01 L2		BE80B4	ME2SB4	N56C	4,450	5,280	1,020	242	
10.0	6,010	2.7	182		3/A 03 L2		BE80B4	ME2SB4	N56C	8,550	10,800	3,160	258	
13.0	4,430	1.1	134		3/A 00 L2		BE80B4	ME2SB4	N56C	4,450	5,620	950	226	
13.0	4,410	2.6	133		3/A 01 L2		BE80B4	ME2SB4	N56C	4,450	5,280	950	242	



A

P₁ = 1 hp



A

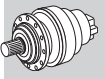
n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
16.0	3,550	1.6	107					N56C	4,450	5,620	890	226
17.0	3,310	1.5	100					N56C	4,450	5,620	860	226
20.0	2,930	1.7	88.6					N56C	4,430	5,590	830	226
22.0	2,650	2.2	80.2					N56C	4,300	5,430	800	226
25.0	2,350	2.4	71.0					N56C	4,140	5,230	770	226
29.0	2,020	2.8	61.2					N56C	3,960	5,010	730	226
34	1,710	2.8	51.8					N56C	3,770	4,760	690	226

P₁ = 1.5 hp

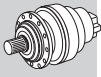
n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
0.30	179,800	1.7	5081	3/V 10L4				N140TC	27,900	36,000	14,600	364
0.30	179,800	1.7	5081	3/V 10L4				N140TC	27,900	36,000	14,600	364
0.30	184,900	2.3	5021	3/V 11L4				N140TC	12,700	39,900	14,600	382
0.30	181,000	2.6	5047	3/V 13L4				N140TC	43,200	51,900	18,000	400
0.40	164,300	1.6	4036	3/V 10L4				N140TC	27,000	34,800	14,600	364
0.40	164,000	1.7	4637	3/V 10L4				N140TC	27,500	35,500	14,600	364
0.40	164,300	1.6	4036	3/V 10L4				N140TC	27,000	34,800	14,600	364
0.40	164,000	1.7	4637	3/V 10L4				N140TC	27,500	35,500	14,600	364
0.40	147,200	2.9	4106	3/V 11L4				N140TC	12,300	38,800	14,600	382
0.40	164,600	2.4	4410	3/V 11L4				N140TC	12,500	39,200	14,600	382
0.50	133,200	2.3	3273	3/V 10L4				N140TC	26,200	33,800	14,600	364
0.50	131,500	2.1	3570	3/V 10L4				N140TC	26,500	34,200	14,600	364
0.50	133,200	2.3	3273	3/V 10L4				N140TC	26,200	33,800	14,600	364
0.50	131,500	2.1	3570	3/V 10L4				N140TC	26,500	34,200	14,600	364
0.50	127,600	2.9	3557	3/V 11L4				N140TC	12,100	38,000	14,600	382
0.60	115,400	2.3	2835	3/V 10L4				N140TC	25,600	33,100	14,600	364
0.60	115,400	2.3	2835	3/V 10L4				N140TC	25,600	33,100	14,600	364
0.70	86,500	1.1	2472	3/V 07L3				N140TC	21,400	29,100	10,100	330
0.70	101,100	3.0	2455	3/V 10L4				N140TC	25,100	32,400	14,600	364
0.70	101,100	3.0	2455	3/V 10L4				N140TC	25,100	32,400	14,600	364
0.80	78,000	1.0	2139	3/V 06L3				N140TC	16,800	21,200	7,870	312
0.80	79,500	1.2	2150	3/V 07L3				N140TC	21,000	28,600	10,100	330
0.90	68,700	1.6	1964	3/V 07L3				N140TC	20,700	28,200	10,100	330
1.0	44,300	1.1	1231	3/V 05L3				N140TC	11,300	14,300	5,400	294
1.0	44,200	1.6	1212	3/V 06L3				N140TC	15,500	19,500	7,870	312
1.0	53,000	1.4	1395	3/V 06L3				N140TC	15,800	19,900	7,870	312
1.0	64,500	1.2	1768	3/V 06L3				N140TC	16,300	20,600	7,870	312
1.0	47,600	2.6	1288	3/V 07L3				N140TC	19,500	26,600	10,100	330
1.0	52,200	2.1	1411	3/V 07L3				N140TC	19,800	26,900	10,100	330
1.0	58,700	1.6	1545	3/V 07L3				N140TC	20,000	27,200	10,100	330
2.0	30,700	0.9	769	3/V 04L3				N140TC	10,600	13,300	5,170	276
2.0	35,300	1.0	981	3/V 04L3				N140TC	10,900	13,800	5,400	276
2.0	29,700	1.2	715	3/V 05L3				N140TC	10,400	13,200	5,050	294
2.0	30,500	1.2	793	3/V 05L3				N140TC	10,600	13,400	5,220	294
2.0	35,700	1.0	894	3/V 05L3				N140TC	10,800	13,600	5,400	294
2.0	38,000	1.0	1057	3/V 05L3				N140TC	11,000	14,000	5,400	294
2.0	29,600	2.2	698	3/V 06L3				N140TC	14,300	18,000	7,300	312
2.0	30,000	2.2	791	3/V 06L3				N140TC	14,600	18,300	7,610	312
2.0	39,000	1.7	930	3/V 06L3				N140TC	14,900	18,800	7,870	312
2.0	37,700	2.2	992	3/V 06L3				N140TC	15,000	19,000	7,870	312
2.0	43,800	1.6	1153	3/V 06L3				N140TC	15,400	19,400	7,870	312
2.0	32,400	2.7	773	3/V 07L3				N140TC	18,100	24,700	9,710	330

P₁ = 1.5 hp

n ₂ rpm	T ₂ in-bs	S	i						NEMA	Rn ₂ [lbs]			
				IE2	IE2	NEMA	NHC/HC NPC/PC	HZ/PZ		FZ			
2.0	44,600	2.1	1159	3/V 07L3		BE90S4	ME3SA4	N140TC	19,200	26,200	10,100	330	
3.0	28,800	1.0	594		3/A 05L2	BE90S4	ME3SA4	N140TC	10,100	12,800	4,700	294	
3.0	23,700	2.6	505		3/A 06L2	BE90S4	ME3SA4	N140TC	13,600	17,100	6,490	312	
3.0	26,000	2.4	555		3/A 06L2	BE90S4	ME3SA4	N140TC	13,800	17,400	6,700	312	
3.0	28,700	1.8	611		3/A 06L2	BE90S4	ME3SA4	N140TC	14,000	17,600	6,920	312	
3.0	31,500	1.6	671		3/A 06L2	BE90S4	ME3SA4	N140TC	14,200	17,900	7,140	312	
3.0	20,100	1.2	544	3/V 03L3		BE90S4		N140TC	10,000	12,700	4,600	258	
3.0	18,000	1.5	501	3/V 04L3		BE90S4	ME3SA4	N140TC	9,930	12,500	4,480	276	
3.0	22,700	1.2	568	3/V 04L3		BE90S4	ME3SA4	N140TC	10,100	12,800	4,670	276	
3.0	24,000	1.3	623	3/V 04L3		BE90S4	ME3SA4	N140TC	10,200	12,900	4,820	276	
3.0	21,900	1.5	529	3/V 05L3		BE90S4	ME3SA4	N140TC	10,000	12,600	4,560	294	
3.0	24,500	1.7	576	3/V 05L3		BE90S4	ME3SA4	N140TC	10,100	12,800	4,690	294	
3.0	24,000	1.6	623	3/V 05L3		BE90S4	ME3SA4	N140TC	10,200	12,900	4,820	294	
3.0	27,800	3.0	661	3/V 06L3		BE90S4	ME3SA4	N140TC	14,200	17,900	7,170	312	
4.0	22,700	1.0	469		3/A 04 L2	BE90S4	ME3SA4	N140TC	9,790	12,400	4,340	276	
4.0	19,300	1.4	398		3/A 05L2	BE90S4	ME3SA4	N140TC	9,570	12,100	4,110	294	
4.0	20,500	1.8	422		3/A 05L2	BE90S4	ME3SA4	N140TC	9,650	12,200	4,190	294	
4.0	23,800	1.4	491		3/A 05L2	BE90S4	ME3SA4	N140TC	9,860	12,500	4,410	294	
4.0	18,200	2.7	388		3/A 06L2	BE90S4	ME3SA4	N140TC	13,100	16,500	5,940	312	
4.0	16,000	1.2	395	3/V 03L3		BE90S4		N140TC	9,600	12,100	4,140	258	
4.0	17,000	1.2	460	3/V 03L3		BE90S4		N140TC	9,810	12,400	4,360	258	
4.0	18,100	1.8	453	3/V 04L3		BE90S4	ME3SA4	N140TC	9,790	12,400	4,330	276	
4.0	16,800	1.9	397	3/V 05L3		BE90S4	ME3SA4	N140TC	9,600	12,100	4,140	294	
4.0	19,600	2.1	462	3/V 05L3		BE90S4	ME3SA4	N140TC	9,810	12,400	4,360	294	
5.0	15,800	0.9	326		3/A 03 L2	BE90S4	ME3SA4	N140TC	9,300	11,700	3,840	258	
5.0	17,000	1.0	352		3/A 03 L2	BE90S4	ME3SA4	N140TC	9,400	11,900	3,950	258	
5.0	15,400	1.4	317		3/A 04 L2	BE90S4	ME3SA4	N140TC	9,260	11,700	3,810	276	
5.0	16,900	1.3	349		3/A 04 L2	BE90S4	ME3SA4	N140TC	9,390	11,900	3,930	276	
5.0	18,700	1.1	386		3/A 04 L2	BE90S4	ME3SA4	N140TC	9,530	12,000	4,070	276	
5.0	15,900	2.0	329		3/A 05L2	BE90S4	ME3SA4	N140TC	9,310	11,800	3,860	294	
5.0	15,300	2.0	384	3/V 04L3		BE90S4	ME3SA4	N140TC	9,560	12,100	4,100	276	
6.0	13,000	1.2	269		3/A 03 L2	BE90S4	ME3SA4	N140TC	9,050	11,400	3,610	258	
6.0	13,000	1.2	269		3/A 03 L2	BE90S4	ME3SA4	N140TC	9,050	11,400	3,610	258	
6.0	13,700	1.8	283		3/A 04 L2	BE90S4	ME3SA4	N140TC	9,110	11,500	3,670	276	
6.0	13,500	2.4	280		3/A 05L2	BE90S4	ME3SA4	N140TC	9,100	11,500	3,650	294	
7.0	12,100	2.6	250		3/A 04 L2	BE90S4	ME3SA4	N140TC	8,950	11,300	3,520	276	
8.0	10,600	1.4	220		3/A 03 L2	BE90S4	ME3SA4	N140TC	8,790	11,100	3,370	258	
8.0	9,940	2.6	205		3/A 04 L2	BE90S4	ME3SA4	N140TC	8,700	11,000	3,300	276	
8.0	10,900	2.8	226		3/A 04 L2	BE90S4	ME3SA4	N140TC	8,820	11,100	3,400	276	
8.0	10,300	2.7	212		3/A 05L2	BE90S4	ME3SA4	N140TC	8,750	11,000	3,330	294	
8.0	10,300	2.7	212		3/A 05L2	BE90S4	ME3SA4	N140TC	8,750	11,000	3,330	294	
9.0	8,920	1.0	184		3/A 01 L2	BE90S4	ME3SA4	N140TC	4,470	5,300	1,060	242	
9.0	9,890	1.2	204		3/A 01 L2	BE90S4	ME3SA4	N140TC	4,530	5,380	1,100	242	
10.0	8,050	1.3	166		3/A 01 L2	BE90S4	ME3SA4	N140TC	4,450	5,280	1,020	242	
10.0	8,800	1.8	182		3/A 03 L2	BE90S4	ME3SA4	N140TC	8,550	10,800	3,160	258	
12.0	7,220	2.9	149		3/A 04 L2	BE90S4	ME3SA4	N140TC	8,540	10,800	2,960	276	
13.0	6,450	1.8	133		3/A 01 L2	BE90S4	ME3SA4	N140TC	4,450	5,280	950	242	
16.0	5,200	1.1	107		3/A 00 L2	BE90S4	ME3SA4	N140TC	4,450	5,620	890	226	
17.0	4,850	1.0	100		3/A 00 L2	BE90S4	ME3SA4	N140TC	4,450	5,620	860	226	
17.0	4,920	2.1	102		3/A 01 L2	BE90S4	ME3SA4	N140TC	4,450	5,280	870	242	
20.0	4,290	1.1	88.6		3/A 00 L2	BE90S4	ME3SA4	N140TC	4,430	5,590	830	226	
21.0	3,940	2.9	81.3		3/A 01 L2	BE90S4	ME3SA4	N140TC	4,320	5,130	810	242	
22.0	3,880	1.5	80.2		3/A 00 L2	BE90S4	ME3SA4	N140TC	4,300	5,430	800	226	
23.0	3,590	2.8	74.2		3/A 01 L2	BE90S4	ME3SA4	N140TC	4,200	4,980	780	242	
25.0	3,440	1.7	71.0		3/A 00 L2	BE90S4	ME3SA4	N140TC	4,140	5,230	770	226	
28.0	2,960	1.9	61.2		3/A 00 L2	BE90S4	ME3SA4	N140TC	3,960	5,010	730	226	
32	2,630	2.7	54.2		3/A 01 L2	BE90S4	ME3SA4	N140TC	3,820	4,540	710	242	



P₁ = 1.5 hp



A

n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]				
									NHC/HC NPC/PC	HZ/PZ	FZ		
34	2,510	1.9	51.8			3/A 00 L2	BE90S4	ME3SA4	N140TC	3,770	4,760	690	226
42	2,010	2.3	41.5			3/A 00 L2	BE90S4	ME3SA4	N140TC	3,530	4,460	650	226
43	1,940	2.7	40.1			3/A 01 L2	BE90S4	ME3SA4	N140TC	3,490	4,140	640	242
44	1,920	2.4	39.6			3/A 00 L2	BE90S4	ME3SA4	N140TC	3,480	4,390	630	226
55	1,540	2.4	31.7			3/A 00 L2	BE90S4	ME3SA4	N140TC	3,260	4,110	590	226
74	1,140	2.4	23.4			3/A 00 L2	BE90S4	ME3SA4	N140TC	2,970	3,750	530	226
91	930	2.4	19.1			3/A 00 L2	BE90S4	ME3SA4	N140TC	2,800	3,530	500	226

P₁ = 2 hp

n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]				
									NHC/HC NPC/PC	HZ/PZ	FZ		
0.30	245,700	1.2	5081			3/V 10L4	BE90LA4	ME3SB4	N140TC	27,900	36,000	14,600	364
0.30	245,700	1.2	5081			3/V 10L4	BE90LA4	ME3SB4	N140TC	27,900	36,000	14,600	364
0.30	252,700	1.7	5021			3/V 11L4	BE90LA4	ME3SB4	N140TC	12,700	39,900	14,600	382
0.30	247,300	1.9	5047			3/V 13L4	BE90LA4	ME3SB4	N140TC	43,200	51,900	18,000	400
0.40	224,600	1.2	4036			3/V 10L4	BE90LA4	ME3SB4	N140TC	27,000	34,800	14,600	364
0.40	224,200	1.2	4637			3/V 10L4	BE90LA4	ME3SB4	N140TC	27,500	35,500	14,600	364
0.40	224,600	1.2	4036			3/V 10L4	BE90LA4	ME3SB4	N140TC	27,000	34,800	14,600	364
0.40	224,200	1.2	4637			3/V 10L4	BE90LA4	ME3SB4	N140TC	27,500	35,500	14,600	364
0.40	201,200	2.1	4106			3/V 11L4	BE90LA4	ME3SB4	N140TC	12,300	38,800	14,600	382
0.40	224,900	1.8	4410			3/V 11L4	BE90LA4	ME3SB4	N140TC	12,500	39,200	14,600	382
0.40	206,300	2.4	4046			3/V 13L4	BE90LA4	ME3SB4	N140TC	43,200	51,900	18,000	400
0.40	231,300	2.2	4536			3/V 13L4	BE90LA4	ME3SB4	N140TC	43,200	51,900	18,000	400
0.50	182,100	1.7	3273			3/V 10L4	BE90LA4	ME3SB4	N140TC	26,200	33,800	14,600	364
0.50	179,700	1.5	3570			3/V 10L4	BE90LA4	ME3SB4	N140TC	26,500	34,200	14,600	364
0.50	182,100	1.7	3273			3/V 10L4	BE90LA4	ME3SB4	N140TC	26,200	33,800	14,600	364
0.50	179,700	1.5	3570			3/V 10L4	BE90LA4	ME3SB4	N140TC	26,500	34,200	14,600	364
0.50	179,200	2.3	3222			3/V 11L4	BE90LA4	ME3SB4	N140TC	11,900	37,500	14,600	382
0.50	174,300	2.1	3557			3/V 11L4	BE90LA4	ME3SB4	N140TC	12,100	38,000	14,600	382
0.50	181,500	2.7	3263			3/V 13L4	BE90LA4	ME3SB4	N140TC	43,200	51,900	18,000	400
0.50	195,600	2.6	3515			3/V 13L4	BE90LA4	ME3SB4	N140TC	43,200	51,900	18,000	400
0.60	157,700	1.7	2835			3/V 10L4	BE90LA4	ME3SB4	N140TC	25,600	33,100	14,600	364
0.60	157,700	1.7	2835			3/V 10L4	BE90LA4	ME3SB4	N140TC	25,600	33,100	14,600	364
0.60	158,700	2.7	2887			3/V 11L4	BE90LA4	ME3SB4	N140TC	11,700	36,900	14,600	382
0.70	138,200	2.2	2455			3/V 10L4	BE90LA4	ME3SB4	N140TC	25,100	32,400	14,600	364
0.70	138,200	2.2	2455			3/V 10L4	BE90LA4	ME3SB4	N140TC	25,100	32,400	14,600	364
0.80	122,900	2.3	2209			3/V 10L4	BE90LA4	ME3SB4	N140TC	24,700	31,900	14,600	364
0.80	122,900	2.3	2209			3/V 10L4	BE90LA4	ME3SB4	N140TC	24,700	31,900	14,600	364
0.90	93,900	1.2	1964			3/V 07L3	BE90LA4	ME3SB4	N140TC	20,700	28,200	10,100	330
0.90	112,200	2.3	2016			3/V 10L4	BE90LA4	ME3SB4	N140TC	24,400	31,500	14,600	364
0.90	112,200	2.3	2016			3/V 10L4	BE90LA4	ME3SB4	N140TC	24,400	31,500	14,600	364
1.0	60,400	1.1	1212			3/V 06L3	BE90LA4	ME3SB4	N140TC	15,500	19,500	7,870	312
1.0	72,400	1.0	1395			3/V 06L3	BE90LA4	ME3SB4	N140TC	15,800	19,900	7,870	312
1.0	65,100	1.9	1288			3/V 07L3	BE90LA4	ME3SB4	N140TC	19,500	26,600	10,100	330
1.0	71,300	1.5	1411			3/V 07L3	BE90LA4	ME3SB4	N140TC	19,800	26,900	10,100	330
1.0	80,200	1.2	1545			3/V 07L3	BE90LA4	ME3SB4	N140TC	20,000	27,200	10,100	330
1.0	101,600	2.3	1826			3/V 10L4	BE90LA4	ME3SB4	N140TC	24,100	31,100	14,600	364
1.0	101,600	2.3	1826			3/V 10L4	BE90LA4	ME3SB4	N140TC	24,100	31,100	14,600	364
2.0	40,500	1.6	698			3/V 06L3	BE90LA4	ME3SB4	N140TC	14,300	18,000	7,300	312
2.0	41,000	1.6	791			3/V 06L3	BE90LA4	ME3SB4	N140TC	14,600	18,300	7,610	312
2.0	53,300	1.3	930			3/V 06L3	BE90LA4	ME3SB4	N140TC	14,900	18,800	7,870	312
2.0	51,500	1.6	992			3/V 06L3	BE90LA4	ME3SB4	N140TC	15,000	19,000	7,870	312
2.0	59,800	1.2	1153			3/V 06L3	BE90LA4	ME3SB4	N140TC	15,400	19,400	7,870	312

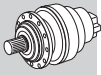
P₁ = 2 hp

n ₂ rpm	T ₂ in-bs	S	i						Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
2.0	44,300	1.9	773						18,100	24,700	9,710	330
2.0	48,400	2.3	921						18,600	25,300	10,100	330
2.0	52,600	2.4	1015						18,900	25,700	10,100	330
2.0	60,900	1.5	1159						19,200	26,200	10,100	330
3.0	32,400	1.9	505		3/A 06L2	BE90LA4	ME3SB4	N140TC	13,600	17,100	6,490	312
3.0	35,500	1.8	555		3/A 06L2	BE90LA4	ME3SB4	N140TC	13,800	17,400	6,700	312
3.0	39,200	1.3	611		3/A 06L2	BE90LA4	ME3SB4	N140TC	14,000	17,600	6,920	312
3.0	43,000	1.2	671		3/A 06L2	BE90LA4	ME3SB4	N140TC	14,200	17,900	7,140	312
3.0	24,600	1.1	501		3/V 04L3	BE90LA4	ME3SB4	N140TC	9,930	12,500	4,480	276
3.0	32,800	0.9	623		3/V 04L3	BE90LA4	ME3SB4	N140TC	10,200	12,900	4,820	276
3.0	30,000	1.1	529		3/V 05L3	BE90LA4	ME3SB4	N140TC	10,000	12,600	4,560	294
3.0	33,400	1.3	576		3/V 05L3	BE90LA4	ME3SB4	N140TC	10,100	12,800	4,690	294
3.0	32,800	1.2	623		3/V 05L3	BE90LA4	ME3SB4	N140TC	10,200	12,900	4,820	294
3.0	30,200	2.2	527		3/V 06L3	BE90LA4	ME3SB4	N140TC	13,700	17,300	6,640	312
3.0	32,600	2.3	569		3/V 06L3	BE90LA4	ME3SB4	N140TC	13,900	17,500	6,820	312
3.0	37,900	2.2	661		3/V 06L3	BE90LA4	ME3SB4	N140TC	14,200	17,900	7,170	312
4.0	26,400	1.1	398		3/A 05L2	BE90LA4	ME3SB4	N140TC	9,570	12,100	4,110	294
4.0	27,900	1.3	422		3/A 05L2	BE90LA4	ME3SB4	N140TC	9,650	12,200	4,190	294
4.0	32,500	1.0	491		3/A 05L2	BE90LA4	ME3SB4	N140TC	9,860	12,500	4,410	294
4.0	24,800	2.0	388		3/A 06L2	BE90LA4	ME3SB4	N140TC	13,100	16,500	5,940	312
4.0	27,800	2.5	435		3/A 06L2	BE90LA4	ME3SB4	N140TC	13,300	16,800	6,170	312
4.0	28,100	2.8	439		3/A 07L2	BE90LA4	ME3SB4	N140TC	16,700	22,700	7,960	330
4.0	24,700	1.3	453		3/V 04L3	BE90LA4	ME3SB4	N140TC	9,790	12,400	4,330	276
4.0	23,000	1.4	397		3/V 05L3	BE90LA4	ME3SB4	N140TC	9,600	12,100	4,140	294
4.0	26,800	1.5	462		3/V 05L3	BE90LA4	ME3SB4	N140TC	9,810	12,400	4,360	294
4.0	22,900	2.9	395		3/V 06L3	BE90LA4	ME3SB4	N140TC	13,200	16,600	6,040	312
5.0	21,000	1.0	317		3/A 04 L2	BE90LA4	ME3SB4	N140TC	9,260	11,700	3,810	276
5.0	23,100	0.9	349		3/A 04 L2	BE90LA4	ME3SB4	N140TC	9,390	11,900	3,930	276
5.0	21,800	1.5	329		3/A 05L2	BE90LA4	ME3SB4	N140TC	9,310	11,800	3,860	294
5.0	20,500	2.8	321		3/A 06L2	BE90LA4	ME3SB4	N140TC	12,700	16,100	5,580	312
5.0	24,400	2.2	380		3/A 06L2	BE90LA4	ME3SB4	N140TC	13,100	16,500	5,900	312
5.0	21,000	1.5	384		3/V 04L3	BE90LA4	ME3SB4	N140TC	9,560	12,100	4,100	276
6.0	17,800	0.9	269		3/A 03 L2	BE90LA4	ME3SB4	N140TC	9,050	11,400	3,610	258
6.0	17,800	0.9	269		3/A 03 L2	BE90LA4	ME3SB4	N140TC	9,050	11,400	3,610	258
6.0	18,700	1.3	283		3/A 04 L2	BE90LA4	ME3SB4	N140TC	9,110	11,500	3,670	276
6.0	18,500	1.7	280		3/A 05L2	BE90LA4	ME3SB4	N140TC	9,100	11,500	3,650	294
7.0	16,500	1.9	250		3/A 04 L2	BE90LA4	ME3SB4	N140TC	8,950	11,300	3,520	276
7.0	15,900	2.4	241		3/A 05L2	BE90LA4	ME3SB4	N140TC	8,900	11,200	3,480	294
7.0	17,100	2.8	267		3/A 06L2	BE90LA4	ME3SB4	N140TC	12,400	15,600	5,250	312
8.0	14,500	1.0	220		3/A 03 L2	BE90LA4	ME3SB4	N140TC	8,790	11,100	3,370	258
8.0	13,600	1.9	205		3/A 04 L2	BE90LA4	ME3SB4	N140TC	8,700	11,000	3,300	276
8.0	14,900	2.1	226		3/A 04 L2	BE90LA4	ME3SB4	N140TC	8,820	11,100	3,400	276
8.0	14,000	2.0	212		3/A 05L2	BE90LA4	ME3SB4	N140TC	8,750	11,000	3,330	294
8.0	14,000	2.0	212		3/A 05L2	BE90LA4	ME3SB4	N140TC	8,750	11,000	3,330	294
10.0	11,000	0.9	166		3/A 01 L2	BE90LA4	ME3SB4	N140TC	4,450	5,280	1,020	242
10.0	12,000	1.3	182		3/A 03 L2	BE90LA4	ME3SB4	N140TC	8,550	10,800	3,160	258
10.0	11,500	2.2	174		3/A 04 L2	BE90LA4	ME3SB4	N140TC	8,540	10,800	3,120	276
10.0	11,600	2.7	176		3/A 05L2	BE90LA4	ME3SB4	N140TC	8,540	10,800	3,130	294
11.0	10,700	2.4	162		3/A 04 L2	BE90LA4	ME3SB4	N140TC	8,540	10,800	3,050	276
11.0	10,700	2.4	162		3/A 05L2	BE90LA4	ME3SB4	N140TC	8,540	10,800	3,050	294
12.0	9,870	2.1	149		3/A 04 L2	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,960	276
13.0	8,820	1.3	133		3/A 01 L2	BE90LA4	ME3SB4	N140TC	4,450	5,280	950	242
13.0	8,550	2.8	129		3/A 04 L2	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,830	276
15.0	7,740	2.7	117		3/A 04 L2	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,730	276
17.0	6,720	1.5	102		3/A 01 L2	BE90LA4	ME3SB4	N140TC	4,450	5,280	870	242
18.0	6,410	2.3	96.9		3/A 03 L2	BE90LA4	ME3SB4	N140TC	8,540	10,800	2,570	258
20.0	5,860	2.5	88.5		3/A 03 L2	BE90LA4	ME3SB4	N140TC	8,500	10,700	2,490	258



A

P₁ = 2 hp









A

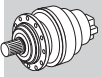
n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]				
									NHC/HC NPC/PC	HZ/PZ	FZ		
21.0	5,380	2.1	81.3			3/A 01 L2	BE90LA4	ME3SB4	N140TC	4,320	5,130	810	242
22.0	5,310	1.1	80.2			3/A 00 L2	BE90LA4	ME3SB4	N140TC	4,300	5,430	800	226
23.0	4,910	2.1	74.2			3/A 01 L2	BE90LA4	ME3SB4	N140TC	4,200	4,980	780	242
25.0	4,700	1.2	71.0			3/A 00 L2	BE90LA4	ME3SB4	N140TC	4,140	5,230	770	226
28.0	4,050	1.4	61.2			3/A 00 L2	BE90LA4	ME3SB4	N140TC	3,960	5,010	730	226
29.0	3,930	2.8	59.4			3/A 01 L2	BE90LA4	ME3SB4	N140TC	3,930	4,660	730	242
32	3,590	2.0	54.2			3/A 01 L2	BE90LA4	ME3SB4	N140TC	3,820	4,540	710	242
34	3,430	1.4	51.8			3/A 00 L2	BE90LA4	ME3SB4	N140TC	3,770	4,760	690	226
35	3,250	2.3	49.1			3/A 01 L2	BE90LA4	ME3SB4	N140TC	3,710	4,400	680	242
40	2,910	2.8	43.9			3/A 01 L2	BE90LA4	ME3SB4	N140TC	3,590	4,260	660	242
42	2,750	1.7	41.5			3/A 00 L2	BE90LA4	ME3SB4	N140TC	3,530	4,460	650	226
43	2,650	2.0	40.1			3/A 01 L2	BE90LA4	ME3SB4	N140TC	3,490	4,140	640	242
44	2,620	1.7	39.6			3/A 00 L2	BE90LA4	ME3SB4	N140TC	3,480	4,390	630	226
49	2,370	2.8	35.8			3/A 01 L2	BE90LA4	ME3SB4	N140TC	3,380	4,010	610	242
55	2,100	1.7	31.7			3/A 00 L2	BE90LA4	ME3SB4	N140TC	3,260	4,110	590	226
56	2,060	2.7	31.2			3/A 01 L2	BE90LA4	ME3SB4	N140TC	3,240	3,840	590	242
74	1,550	1.7	23.4			3/A 00 L2	BE90LA4	ME3SB4	N140TC	2,970	3,750	530	226
76	1,520	2.7	23.0			3/A 01 L2	BE90LA4	ME3SB4	N140TC	2,960	3,510	530	242
91	1,270	1.7	19.1			3/A 00 L2	BE90LA4	ME3SB4	N140TC	2,800	3,530	500	226
93	1,240	2.7	18.8			3/A 01 L2	BE90LA4	ME3SB4	N140TC	2,780	3,300	500	242

P₁ = 3 hp

n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]				
									NHC/HC NPC/PC	HZ/PZ	FZ		
0.30	369,800	1.2	5021			3/V 11L4	BE100LA4	ME3LA4	12,700	39,900	14,600	14,600	382
0.30	362,000	1.3	5047			3/V 13L4	BE100LA4	ME3LA4	43,200	51,900	18,000	18,000	400
0.30	405,800	2.2	5234			3/V 15L4	BE100LA4		46,300	54,600	20,200	20,200	434
0.40	294,500	1.5	4106			3/V 11L4	BE100LA4	ME3LA4	12,300	38,800	14,600	14,600	382
0.40	329,100	1.2	4410			3/V 11L4	BE100LA4	ME3LA4	12,500	39,200	14,600	14,600	382
0.40	301,900	1.6	4046			3/V 13L4	BE100LA4	ME3LA4	43,200	51,900	18,000	18,000	400
0.40	338,500	1.5	4536			3/V 13L4	BE100LA4	ME3LA4	43,200	51,900	18,000	18,000	400
0.40	321,200	2.2	3993			3/V 14L4	BE100LA4		45,600	54,600	20,200	20,200	418
0.40	321,200	2.2	3993			3/V 14L4	BE100LA4		45,600	54,600	20,200	20,200	418
0.40	321,800	2.3	4312			3/V 14L4	BE100LA4		46,100	54,600	20,200	20,200	418
0.40	321,800	2.3	4312			3/V 14L4	BE100LA4		46,100	54,600	20,200	20,200	418
0.40	370,100	2.0	4959			3/V 14L4	BE100LA4		46,300	54,600	20,200	20,200	418
0.40	370,100	2.0	4959			3/V 14L4	BE100LA4		46,300	54,600	20,200	20,200	418
0.40	323,400	2.9	4171			3/V 15L4	BE100LA4		45,900	54,600	20,200	20,200	434
0.40	383,800	2.4	4950			3/V 15L4	BE100LA4		46,300	54,600	20,200	20,200	434
0.40	383,800	2.9	4950			3/V 16L4	BE100LA4		73,200	81,100	33,700	33,700	450
0.50	266,500	1.1	3273			3/V 10L4	BE100LA4	ME3LA4	26,200	33,800	14,600	14,600	364
0.50	263,000	1.0	3570			3/V 10L4	BE100LA4	ME3LA4	26,500	34,200	14,600	14,600	364
0.50	266,500	1.1	3273			3/V 10L4	BE100LA4	ME3LA4	26,200	33,800	14,600	14,600	364
0.50	263,000	1.0	3570			3/V 10L4	BE100LA4	ME3LA4	26,500	34,200	14,600	14,600	364
0.50	262,300	1.6	3222			3/V 11L4	BE100LA4	ME3LA4	11,900	37,500	14,600	14,600	382
0.50	255,100	1.5	3557			3/V 11L4	BE100LA4	ME3LA4	12,100	38,000	14,600	14,600	382
0.50	265,600	1.8	3263			3/V 13L4	BE100LA4	ME3LA4	43,200	51,900	18,000	18,000	400
0.50	286,200	1.8	3515			3/V 13L4	BE100LA4	ME3LA4	43,200	51,900	18,000	18,000	400
0.50	256,000	2.9	3182			3/V 14L4	BE100LA4		44,100	53,900	20,200	20,200	418
0.50	256,000	2.9	3182			3/V 14L4	BE100LA4		44,100	53,900	20,200	20,200	418
0.60	230,800	1.2	2835			3/V 10L4	BE100LA4	ME3LA4	25,600	33,100	14,600	14,600	364
0.60	230,800	1.2	2835			3/V 10L4	BE100LA4	ME3LA4	25,600	33,100	14,600	14,600	364
0.60	232,200	1.8	2887			3/V 11L4	BE100LA4	ME3LA4	11,700	36,900	14,600	14,600	382

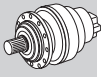
P₁ = 3 hp

n ₂ rpm	T ₂ in-bs	S	i						Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
0.60	207,000	2.4	2773	3/V 13L4		BE100LA4	ME3LA4	43,200	51,900	18,000	18,000	400
0.70	202,200	1.5	2455	3/V 10L4		BE100LA4	ME3LA4	25,100	32,400	14,600	14,600	364
0.70	202,200	1.5	2455	3/V 10L4		BE100LA4	ME3LA4	25,100	32,400	14,600	14,600	364
0.70	172,200	1.7	2329	3/V 11L3		BE100LA4		11,400	35,800	14,600	14,600	382
0.70	204,400	2.1	2510	3/V 11L4		BE100LA4	ME3LA4	11,500	36,200	14,600	14,600	382
0.70	179,700	2.4	2430	3/V 13L3		BE100LA4		43,200	51,900	18,000	18,000	400
0.80	165,400	0.9	2150	3/V 09L3		BE100LA4		21,000	28,600	8,090	8,090	348
0.80	179,900	1.6	2209	3/V 10L4		BE100LA4	ME3LA4	24,700	31,900	14,600	14,600	364
0.80	179,900	1.6	2209	3/V 10L4		BE100LA4	ME3LA4	24,700	31,900	14,600	14,600	364
0.90	164,100	1.6	2016	3/V 10L4		BE100LA4	ME3LA4	24,400	31,500	14,600	14,600	364
0.90	164,100	1.6	2016	3/V 10L4		BE100LA4	ME3LA4	24,400	31,500	14,600	14,600	364
0.90	145,100	2.6	1963	3/V 11L3		BE100LA4		11,100	34,900	14,600	14,600	382
1.0	95,200	1.3	1288	3/V 07L3		BE100LA4	ME3LA4	19,500	26,600	10,100	10,100	330
1.0	104,400	1.0	1411	3/V 07L3		BE100LA4	ME3LA4	19,800	26,900	10,100	10,100	330
1.0	99,100	1.9	1288	3/V 09L3		BE100LA4		19,500	26,600	8,090	8,090	348
1.0	115,200	1.4	1497	3/V 09L3		BE100LA4		19,900	27,100	8,090	8,090	348
1.0	116,800	1.1	1623	3/V 09L3		BE100LA4		20,200	27,400	8,090	8,090	348
1.0	128,900	1.5	1792	3/V 09L3		BE100LA4		20,500	27,800	8,090	8,090	348
1.0	94,400	2.0	1227	3/V 10L3		BE100LA4		22,700	29,400	14,600	14,600	364
1.0	108,600	1.8	1411	3/V 10L3		BE100LA4		23,200	30,000	14,600	14,600	364
1.0	136,500	2.2	1657	3/V 10L4		BE100LA4	ME3LA4	23,700	30,700	14,600	14,600	364
1.0	148,700	1.6	1826	3/V 10L4		BE100LA4	ME3LA4	24,100	31,100	14,600	14,600	364
1.0	136,500	2.2	1657	3/V 10L4		BE100LA4	ME3LA4	23,700	30,700	14,600	14,600	364
1.0	148,700	1.6	1826	3/V 10L4		BE100LA4	ME3LA4	24,100	31,100	14,600	14,600	364
2.0	60,000	1.1	791	3/V 06L3		BE100LA4	ME3LA4	14,600	18,300	7,610	7,610	312
2.0	75,300	1.1	992	3/V 06L3		BE100LA4	ME3LA4	15,000	19,000	7,870	7,870	312
2.0	58,500	2.1	761	3/V 07L3		BE100LA4	ME3LA4	18,100	24,600	9,660	9,660	330
2.0	64,900	1.3	773	3/V 07L3		BE100LA4	ME3LA4	18,100	24,700	9,710	9,710	330
2.0	70,800	1.5	921	3/V 07L3		BE100LA4	ME3LA4	18,600	25,300	10,100	10,100	330
2.0	77,000	1.6	1015	3/V 07L3		BE100LA4	ME3LA4	18,900	25,700	10,100	10,100	330
2.0	89,200	1.0	1159	3/V 07L3		BE100LA4	ME3LA4	19,200	26,200	10,100	10,100	330
2.0	60,800	2.1	761	3/V 09L3		BE100LA4		18,100	24,600	7,720	7,720	348
2.0	67,100	2.6	840	3/V 09L3		BE100LA4		18,400	25,000	7,980	7,980	348
2.0	77,200	2.0	1004	3/V 09L3		BE100LA4		18,800	25,600	8,090	8,090	348
2.0	92,600	1.5	1159	3/V 09L3		BE100LA4		19,200	26,200	8,090	8,090	348
2.0	73,600	2.6	921	3/V 10L3		BE100LA4		21,800	28,200	14,600	14,600	364
2.0	86,200	2.9	1120	3/V 10L3		BE100LA4		22,400	29,000	14,600	14,600	364
3.0	47,400	1.3	505		3/A 06L2	BE100LA4	ME3LA4	13,600	17,100	6,490	6,490	312
3.0	52,000	1.2	555		3/A 06L2	BE100LA4	ME3LA4	13,800	17,400	6,700	6,700	312
3.0	44,200	1.5	527	3/V 06L3		BE100LA4	ME3LA4	13,700	17,300	6,640	6,640	312
3.0	47,800	1.6	569	3/V 06L3		BE100LA4	ME3LA4	13,900	17,500	6,820	6,820	312
3.0	55,500	1.5	661	3/V 06L3		BE100LA4	ME3LA4	14,200	17,900	7,170	7,170	312
3.0	59,200	1.1	698	3/V 06L3		BE100LA4	ME3LA4	14,300	18,000	7,300	7,300	312
3.0	42,600	2.8	507	3/V 07L3		BE100LA4	ME3LA4	17,100	23,200	8,440	8,440	330
3.0	50,400	2.5	655	3/V 07L3		BE100LA4	ME3LA4	17,700	24,100	9,180	9,180	330
3.0	52,300	3.0	655	3/V 09L3		BE100LA4		17,700	24,100	7,350	7,350	348
4.0	40,700	1.7	435		3/A 06L2	BE100LA4	ME3LA4	13,300	16,800	6,170	6,170	312
4.0	38,000	2.1	405		3/A 07L2	BE100LA4	ME3LA4	16,500	22,400	7,750	7,750	330
4.0	41,100	1.9	439		3/A 07L2	BE100LA4	ME3LA4	16,700	22,700	7,960	7,960	330
4.0	36,200	0.9	453	3/V 04L3		BE100LA4	ME3LA4	9,790	12,400	4,330	4,330	276
4.0	33,700	1.0	397	3/V 05L3		BE100LA4	ME3LA4	9,600	12,100	4,140	4,140	294
4.0	39,200	1.1	462	3/V 05L3		BE100LA4	ME3LA4	9,810	12,400	4,360	4,360	294
4.0	33,600	2.0	395	3/V 06L3		BE100LA4	ME3LA4	13,200	16,600	6,040	6,040	312
4.0	36,200	2.1	427	3/V 06L3		BE100LA4	ME3LA4	13,300	16,800	6,190	6,190	312
4.0	38,600	2.8	460	3/V 07L3		BE100LA4	ME3LA4	16,900	22,900	8,170	8,170	330
5.0	31,900	1.0	329		3/A 05L2	BE100LA4	ME3LA4	9,310	11,800	3,860	3,860	294
5.0	30,000	1.9	321		3/A 06L2	BE100LA4	ME3LA4	12,700	16,100	5,580	5,580	312



A







P₁ = 3 hp

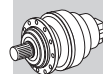


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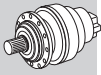
n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]				
									NHC/HC NPC/PC	HZ/PZ	FZ		
5.0	36,300	1.3	388			3/A 06L2	BE100LA4	ME3LA4	13,100	16,500	5,940	5,940	312
5.0	35,700	1.5	380			3/A 06L2	BE100LA4	ME3LA4	13,100	16,500	5,900	5,900	312
5.0	30,700	1.0	384	3/V 04L3			BE100LA4	ME3LA4	9,560	12,100	4,100	4,100	276
5.0	33,600	2.3	386	3/V 07L3			BE100LA4	ME3LA4	16,400	22,400	7,700	7,700	330
6.0	27,400	0.9	283			3/A 04 L2	BE100LA4	ME3LA4	9,110	11,500	3,670	3,670	276
6.0	27,100	1.2	280			3/A 05L2	BE100LA4	ME3LA4	9,100	11,500	3,650	3,650	294
6.0	25,800	2.7	276			3/A 06L2	BE100LA4	ME3LA4	12,500	15,700	5,300	5,300	312
6.0	26,400	2.9	282			3/A 07L2	BE100LA4	ME3LA4	15,600	21,300	6,870	6,870	330
7.0	24,200	1.3	250			3/A 04 L2	BE100LA4	ME3LA4	8,950	11,300	3,520	3,520	276
7.0	23,300	1.6	241			3/A 05L2	BE100LA4	ME3LA4	8,900	11,200	3,480	3,480	294
7.0	25,000	1.9	267			3/A 06L2	BE100LA4	ME3LA4	12,400	15,600	5,250	5,250	312
8.0	21,900	1.4	226			3/A 04 L2	BE100LA4	ME3LA4	8,820	11,100	3,400	3,400	276
8.0	20,600	1.3	212			3/A 05L2	BE100LA4	ME3LA4	8,750	11,000	3,330	3,330	294
8.0	20,600	1.3	212			3/A 05L2	BE100LA4	ME3LA4	8,750	11,000	3,330	3,330	294
8.0	20,700	2.8	221			3/A 06L2	BE100LA4	ME3LA4	12,100	15,200	4,930	4,930	312
9.0	19,900	1.3	205			3/A 04 L2	BE100LA4	ME3LA4	8,700	11,000	3,300	3,300	276
9.0	18,600	2.6	198			3/A 06L2	BE100LA4	ME3LA4	11,900	15,000	4,750	4,750	312
10.0	17,600	0.9	182			3/A 03 L2	BE100LA4	ME3LA4	8,550	10,800	3,160	3,160	258
10.0	16,800	1.5	174			3/A 04 L2	BE100LA4	ME3LA4	8,540	10,800	3,120	3,120	276
10.0	17,000	1.9	176			3/A 05L2	BE100LA4	ME3LA4	8,540	10,800	3,130	3,130	294
11.0	15,700	1.6	162			3/A 04 L2	BE100LA4	ME3LA4	8,540	10,800	3,050	3,050	276
11.0	15,700	1.6	162			3/A 05L2	BE100LA4	ME3LA4	8,540	10,800	3,050	3,050	294
12.0	14,400	1.5	149			3/A 04 L2	BE100LA4	ME3LA4	8,540	10,800	2,960	2,960	276
12.0	13,600	2.3	141			3/A 05L2	BE100LA4	ME3LA4	8,540	10,800	2,910	2,910	294
14.0	12,500	1.9	129			3/A 04 L2	BE100LA4	ME3LA4	8,540	10,800	2,830	2,830	276
14.0	11,700	2.7	121			3/A 05L2	BE100LA4	ME3LA4	8,540	10,800	2,760	2,760	294
15.0	11,300	1.9	117			3/A 04 L2	BE100LA4	ME3LA4	8,540	10,800	2,730	2,730	276
17.0	9,830	1.0	102			3/A 01 L2	BE100LA4	ME3LA4	4,450	5,280	870	870	242
17.0	9,870	2.3	102			3/A 04 L2	BE100LA4	ME3LA4	8,540	10,800	2,610	2,610	276
17.0	10,000	2.7	104			3/A 05L2	BE100LA4	ME3LA4	8,540	10,800	2,620	2,620	294
18.0	9,380	1.6	96.9			3/A 03 L2	BE100LA4	ME3LA4	8,540	10,800	2,570	2,570	258
19.0	8,780	2.4	90.7			3/A 04 L2	BE100LA4	ME3LA4	8,540	10,800	2,510	2,510	276
20.0	8,570	1.7	88.5			3/A 03 L2	BE100LA4	ME3LA4	8,500	10,700	2,490	2,490	258
21.0	7,880	1.5	81.3			3/A 01 L2	BE100LA4	ME3LA4	4,320	5,130	810	810	242
21.0	7,910	2.7	81.7			3/A 04 L2	BE100LA4	ME3LA4	8,300	10,500	2,430	2,430	276
24.0	7,180	1.4	74.2			3/A 01 L2	BE100LA4	ME3LA4	4,200	4,980	780	780	242
24.0	7,080	2.2	73.2			3/A 03 L2	BE100LA4	ME3LA4	8,030	10,100	2,340	2,340	258
28.0	6,090	2.2	62.9			3/A 03 L2	BE100LA4	ME3LA4	7,670	9,690	2,220	2,220	258
29.0	5,920	1.0	61.2			3/A 00 L2	BE100LA4	ME3LA4	3,960	5,010	730	730	226
29.0	5,750	1.9	59.4			3/A 01 L2	BE100LA4	ME3LA4	3,930	4,660	730	730	242
32	5,250	1.4	54.2			3/A 01 L2	BE100LA4	ME3LA4	3,820	4,540	710	710	242
33	5,080	2.9	52.5			3/A 03 L2	BE100LA4	ME3LA4	7,270	9,180	2,090	2,090	258
33	5,080	2.9	52.5			3/A 03 L2	BE100LA4	ME3LA4	7,270	9,180	2,090	2,090	258
34	5,020	1.0	51.8			3/A 00 L2	BE100LA4	ME3LA4	3,770	4,760	690	690	226
36	4,750	1.5	49.1			3/A 01 L2	BE100LA4	ME3LA4	3,710	4,400	680	680	242
40	4,250	1.9	43.9			3/A 01 L2	BE100LA4	ME3LA4	3,590	4,260	660	660	242
42	4,020	1.1	41.5			3/A 00 L2	BE100LA4	ME3LA4	3,530	4,460	650	650	226
44	3,830	1.2	39.6			3/A 00 L2	BE100LA4	ME3LA4	3,480	4,390	630	630	226
44	3,880	1.4	40.1			3/A 01 L2	BE100LA4	ME3LA4	3,490	4,140	640	640	242
49	3,470	1.9	35.8			3/A 01 L2	BE100LA4	ME3LA4	3,380	4,010	610	610	242
55	3,070	1.2	31.7			3/A 00 L2	BE100LA4	ME3LA4	3,260	4,110	590	590	226
56	3,020	1.9	31.2			3/A 01 L2	BE100LA4	ME3LA4	3,240	3,840	590	590	242
74	2,270	1.2	23.4			3/A 00 L2	BE100LA4	ME3LA4	2,970	3,750	530	530	226
76	2,230	1.9	23.0			3/A 01 L2	BE100LA4	ME3LA4	2,960	3,510	530	530	242
91	1,850	1.2	19.1			3/A 00 L2	BE100LA4	ME3LA4	2,800	3,530	500	500	226
93	1,820	1.9	18.8			3/A 01 L2	BE100LA4	ME3LA4	2,780	3,300	500	500	242

P₁ = 4 hp

n ₂ rpm	T ₂ in-bs	S	i						Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
0.30	497,700	0.9	5047	3/V 13L4		BE100LB4	ME3LB4	N180TC	43,200	51,900	18,000	400
0.30	508,900	1.5	4959	3/V 14L4		BE100LB4		N180TC	46,300	54,600	20,200	418
0.30	508,900	1.5	4959	3/V 14L4		BE100LB4		N180TC	46,300	54,600	20,200	418
0.30	558,000	1.6	5234	3/V 15L4		BE100LB4		N180TC	46,300	54,600	20,200	434
0.40	404,900	1.1	4106	3/V 11L4		BE100LB4	ME3LB4	N180TC	12,300	38,800	14,600	382
0.40	415,200	1.2	4046	3/V 13L4		BE100LB4	ME3LB4	N180TC	43,200	51,900	18,000	400
0.40	465,500	1.1	4536	3/V 13L4		BE100LB4	ME3LB4	N180TC	43,200	51,900	18,000	400
0.40	441,700	1.6	3993	3/V 14L4		BE100LB4		N180TC	45,600	54,600	20,200	418
0.40	441,700	1.6	3993	3/V 14L4		BE100LB4		N180TC	45,600	54,600	20,200	418
0.40	442,500	1.7	4312	3/V 14L4		BE100LB4		N180TC	46,100	54,600	20,200	418
0.40	442,500	1.7	4312	3/V 14L4		BE100LB4		N180TC	46,100	54,600	20,200	418
0.40	444,700	2.1	4171	3/V 15L4		BE100LB4		N180TC	45,900	54,600	20,200	434
0.40	527,800	1.8	4950	3/V 15L4		BE100LB4		N180TC	46,300	54,600	20,200	434
0.40	444,700	2.8	4171	3/V 16L4		BE100LB4		N180TC	71,400	79,200	33,700	450
0.40	527,800	2.1	4950	3/V 16L4		BE100LB4		N180TC	73,200	81,100	33,700	450
0.50	360,700	1.2	3222	3/V 11L4		BE100LB4	ME3LB4	N180TC	11,900	37,500	14,600	382
0.50	350,800	1.1	3557	3/V 11L4		BE100LB4	ME3LB4	N180TC	12,100	38,000	14,600	382
0.50	365,200	1.3	3263	3/V 13L4		BE100LB4	ME3LB4	N180TC	43,200	51,900	18,000	400
0.50	393,600	1.3	3515	3/V 13L4		BE100LB4	ME3LB4	N180TC	43,200	51,900	18,000	400
0.50	352,000	2.1	3182	3/V 14L4		BE100LB4		N180TC	44,100	53,900	20,200	418
0.50	352,000	2.1	3182	3/V 14L4		BE100LB4		N180TC	44,100	53,900	20,200	418
0.60	319,300	1.3	2887	3/V 11L4		BE100LB4	ME3LB4	N180TC	11,700	36,900	14,600	382
0.60	284,600	1.7	2773	3/V 13L4		BE100LB4	ME3LB4	N180TC	43,200	51,900	18,000	400
0.60	296,600	2.5	2782	3/V 14L4		BE100LB4		N180TC	43,300	52,800	20,200	418
0.60	296,600	2.5	2782	3/V 14L4		BE100LB4		N180TC	43,300	52,800	20,200	418
0.70	278,100	1.1	2455	3/V 10L4		BE100LB4	ME3LB4	N180TC	25,100	32,400	14,600	364
0.70	278,100	1.1	2455	3/V 10L4		BE100LB4	ME3LB4	N180TC	25,100	32,400	14,600	364
0.70	236,800	1.3	2329	3/V 11L3		BE100LB4			11,400	35,800	14,600	382
0.70	281,000	1.5	2510	3/V 11L4		BE100LB4	ME3LB4	N180TC	11,500	36,200	14,600	382
0.70	247,100	1.8	2430	3/V 13L3		BE100LB4			43,200	51,900	18,000	400
0.70	235,700	2.5	2318	3/V 14L3		BE100LB4			42,200	51,500	20,200	418
0.70	256,900	2.9	2504	3/V 14L4		BE100LB4		N180TC	42,600	52,000	20,200	418
0.70	256,900	2.9	2504	3/V 14L4		BE100LB4		N180TC	42,600	52,000	20,200	418
0.80	247,300	1.2	2209	3/V 10L4		BE100LB4	ME3LB4	N180TC	24,700	31,900	14,600	364
0.80	247,300	1.2	2209	3/V 10L4		BE100LB4	ME3LB4	N180TC	24,700	31,900	14,600	364
0.90	225,700	1.2	2016	3/V 10L4		BE100LB4	ME3LB4	N180TC	24,400	31,500	14,600	364
0.90	225,700	1.2	2016	3/V 10L4		BE100LB4	ME3LB4	N180TC	24,400	31,500	14,600	364
0.90	199,600	1.9	1963	3/V 11L3		BE100LB4			11,100	34,900	14,600	382
0.90	205,300	2.5	2019	3/V 13L3		BE100LB4			42,400	51,900	18,000	400
1.0	131,000	1.0	1288	3/V 07L3		BE100LB4	ME3LB4	N180TC	19,500	26,600	10,100	330
1.0	127,400	1.1	1159	3/V 09L3		BE100LB4		N180TC	19,200	26,200	8,090	348
1.0	136,300	1.4	1288	3/V 09L3		BE100LB4		N180TC	19,500	26,600	8,090	348
1.0	158,400	1.0	1497	3/V 09L3		BE100LB4		N180TC	19,900	27,100	8,090	348
1.0	177,300	1.1	1792	3/V 09L3		BE100LB4		N180TC	20,500	27,800	8,090	348
1.0	129,800	1.5	1227	3/V 10L3		BE100LB4		N180TC	22,700	29,400	14,600	364
1.0	149,300	1.3	1411	3/V 10L3		BE100LB4		N180TC	23,200	30,000	14,600	364
1.0	187,700	1.6	1657	3/V 10L4		BE100LB4	ME3LB4	N180TC	23,700	30,700	14,600	364
1.0	204,400	1.2	1826	3/V 10L4		BE100LB4	ME3LB4	N180TC	24,100	31,100	14,600	364
1.0	187,700	1.6	1657	3/V 10L4		BE100LB4	ME3LB4	N180TC	23,700	30,700	14,600	364
1.0	204,400	1.2	1826	3/V 10L4		BE100LB4	ME3LB4	N180TC	24,100	31,100	14,600	364
1.0	133,100	2.3	1275	3/V 11L3		BE100LB4			10,400	32,800	14,600	382
1.0	143,900	2.7	1378	3/V 11L3		BE100LB4			10,600	33,200	14,600	382
1.0	170,800	2.2	1636	3/V 11L3		BE100LB4			10,800	34,000	14,600	382
1.0	175,700	2.9	1682	3/V 13L3		BE100LB4			41,300	51,700	18,000	400
2.0	80,500	1.5	761	3/V 07L3		BE100LB4	ME3LB4	N180TC	18,100	24,600	9,660	330
2.0	89,200	1.0	773	3/V 07L3		BE100LB4	ME3LB4	N180TC	18,100	24,700	9,710	330
2.0	97,400	1.1	921	3/V 07L3		BE100LB4	ME3LB4	N180TC	18,600	25,300	10,100	330









P₁ = 4 hp

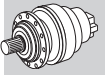


A

n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
2.0	105,900	1.2	1015	3/V 07L3		BE100LB4	ME3LB4	N180TC	18,900	25,700	10,100	330
2.0	83,600	1.5	761	3/V 09L3		BE100LB4		N180TC	18,100	24,600	7,720	348
2.0	84,600	2.2	800	3/V 09L3		BE100LB4		N180TC	18,200	24,800	7,850	348
2.0	92,300	1.9	840	3/V 09L3		BE100LB4		N180TC	18,400	25,000	7,980	348
2.0	106,200	1.5	1004	3/V 09L3		BE100LB4		N180TC	18,800	25,600	8,090	348
2.0	101,200	1.9	921	3/V 10L3		BE100LB4		N180TC	21,800	28,200	14,600	364
2.0	106,200	2.7	1004	3/V 10L3		BE100LB4		N180TC	22,100	28,500	14,600	364
2.0	118,500	2.1	1120	3/V 10L3		BE100LB4		N180TC	22,400	29,000	14,600	364
3.0	65,100	0.9	505		3/A 06L2	BE100LB4	ME3LB4	N180TC	13,600	17,100	6,490	312
3.0	60,800	1.1	527	3/V 06L3		BE100LB4	ME3LB4	N180TC	13,700	17,300	6,640	312
3.0	65,700	1.2	569	3/V 06L3		BE100LB4	ME3LB4	N180TC	13,900	17,500	6,820	312
3.0	76,300	1.1	661	3/V 06L3		BE100LB4	ME3LB4	N180TC	14,200	17,900	7,170	312
3.0	58,500	2.1	507	3/V 07L3		BE100LB4	ME3LB4	N180TC	17,100	23,200	8,440	330
3.0	69,200	1.8	655	3/V 07L3		BE100LB4	ME3LB4	N180TC	17,700	24,100	9,180	330
3.0	71,900	2.2	655	3/V 09L3		BE100LB4		N180TC	17,700	24,100	7,350	348
4.0	50,000	1.0	388		3/A 06L2	BE100LB4	ME3LB4	N180TC	13,100	16,500	5,940	312
4.0	56,000	1.2	435		3/A 06L2	BE100LB4	ME3LB4	N180TC	13,300	16,800	6,170	312
4.0	52,200	1.5	405		3/A 07L2	BE100LB4	ME3LB4	N180TC	16,500	22,400	7,750	330
4.0	56,500	1.4	439		3/A 07L2	BE100LB4	ME3LB4	N180TC	16,700	22,700	7,960	330
4.0	46,200	1.5	395	3/V 06L3		BE100LB4	ME3LB4	N180TC	13,200	16,600	6,040	312
4.0	49,800	1.5	427	3/V 06L3		BE100LB4	ME3LB4	N180TC	13,300	16,800	6,190	312
4.0	46,200	1.7	386	3/V 07L3		BE100LB4	ME3LB4	N180TC	16,400	22,400	7,700	330
4.0	53,100	2.1	460	3/V 07L3		BE100LB4	ME3LB4	N180TC	16,900	22,900	8,170	330
5.0	41,300	1.4	321		3/A 06L2	BE100LB4	ME3LB4	N180TC	12,700	16,100	5,580	312
5.0	49,000	1.1	380		3/A 06L2	BE100LB4	ME3LB4	N180TC	13,100	16,500	5,900	312
5.0	44,000	2.3	341		3/A 07L2	BE100LB4	ME3LB4	N180TC	16,100	21,900	7,320	330
5.0	40,700	2.8	370	3/V 09L3		BE100LB4		N180TC	16,300	22,200	6,080	348
6.0	34,400	1.4	267		3/A 06L2	BE100LB4	ME3LB4	N180TC	12,400	15,600	5,250	312
6.0	35,500	1.9	276		3/A 06L2	BE100LB4	ME3LB4	N180TC	12,500	15,700	5,300	312
6.0	36,300	2.1	282		3/A 07L2	BE100LB4	ME3LB4	N180TC	15,600	21,300	6,870	330
7.0	33,300	0.9	250		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,950	11,300	3,520	276
7.0	32,000	1.2	241		3/A 05L2	BE100LB4	ME3LB4	N180TC	8,900	11,200	3,480	294
7.0	31,100	2.6	241		3/A 07L2	BE100LB4	ME3LB4	N180TC	15,300	20,800	6,520	330
8.0	27,300	0.9	205		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,700	11,000	3,300	276
8.0	30,000	1.0	226		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,820	11,100	3,400	276
8.0	28,300	1.0	212		3/A 05L2	BE100LB4	ME3LB4	N180TC	8,750	11,000	3,330	294
8.0	28,300	1.0	212		3/A 05L2	BE100LB4	ME3LB4	N180TC	8,750	11,000	3,330	294
8.0	28,500	2.0	221		3/A 06L2	BE100LB4	ME3LB4	N180TC	12,100	15,200	4,930	312
8.0	28,700	2.8	223		3/A 07L2	BE100LB4	ME3LB4	N180TC	15,100	20,600	6,350	330
9.0	24,500	2.8	190		3/A 06L2	BE100LB4	ME3LB4	N180TC	11,800	14,900	4,680	312
9.0	25,500	1.9	198		3/A 06L2	BE100LB4	ME3LB4	N180TC	11,900	15,000	4,750	312
10.0	23,200	1.1	174		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	3,120	276
10.0	23,400	1.4	176		3/A 05L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	3,130	294
11.0	21,600	1.2	162		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	3,050	276
11.0	21,600	1.2	162		3/A 05L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	3,050	294
11.0	21,100	2.7	164		3/A 06L2	BE100LB4	ME3LB4	N180TC	11,700	14,800	4,460	312
12.0	19,900	1.1	149		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,960	276
12.0	18,700	1.7	141		3/A 05L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,910	294
13.0	17,200	1.4	129		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,830	276
14.0	16,100	1.9	121		3/A 05L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,760	294
14.0	16,600	2.9	125		3/A 06L2	BE100LB4	ME3LB4	N180TC	11,700	14,800	4,070	312
15.0	15,600	1.4	117		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,730	276
17.0	13,600	1.7	102		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,610	276
17.0	13,800	2.0	104		3/A 05L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,620	294
18.0	12,900	1.2	96.9		3/A 03 L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,570	258
19.0	12,100	1.8	90.7		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,540	10,800	2,510	276
20.0	11,800	1.2	88.5		3/A 03 L2	BE100LB4	ME3LB4	N180TC	8,500	10,700	2,490	258







P₁ = 4 hp

n ₂ rpm	T ₂ in-bs	S	i						Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
20.0	11,400	2.7	85.6		3/A 05L2	BE100LB4	ME3LB4	N180TC	8,410	10,600	2,460	294
21.0	10,800	1.1	81.3		3/A 01 L2	BE100LB4	ME3LB4	N180TC	4,320	5,130	810	242
21.0	10,900	1.9	81.7		3/A 04 L2	BE100LB4	ME3LB4	N180TC	8,300	10,500	2,430	276
23.0	9,870	1.0	74.2		3/A 01 L2	BE100LB4	ME3LB4	N180TC	4,200	4,980	780	242
23.0	10,100	2.7	75.8		3/A 05L2	BE100LB4	ME3LB4	N180TC	8,110	10,200	2,360	294
24.0	9,740	1.6	73.2		3/A 03 L2	BE100LB4	ME3LB4	N180TC	8,030	10,100	2,340	258
25.0	9,110	2.8	68.4		3/A 04 L2	BE100LB4	ME3LB4	N180TC	7,870	9,940	2,290	276
28.0	8,380	1.6	62.9		3/A 03 L2	BE100LB4	ME3LB4	N180TC	7,670	9,690	2,220	258
29.0	7,910	1.4	59.4		3/A 01 L2	BE100LB4	ME3LB4	N180TC	3,930	4,660	730	242
32	7,220	1.0	54.2		3/A 01 L2	BE100LB4	ME3LB4	N180TC	3,820	4,540	710	242
32	7,260	2.8	54.5		3/A 04 L2	BE100LB4	ME3LB4	N180TC	7,350	9,290	2,120	276
33	6,990	2.1	52.5		3/A 03 L2	BE100LB4	ME3LB4	N180TC	7,270	9,180	2,090	258
33	6,990	2.1	52.5		3/A 03 L2	BE100LB4	ME3LB4	N180TC	7,270	9,180	2,090	258
35	6,530	1.1	49.1		3/A 01 L2	BE100LB4	ME3LB4	N180TC	3,710	4,400	680	242
40	5,850	1.4	43.9		3/A 01 L2	BE100LB4	ME3LB4	N180TC	3,590	4,260	660	242
40	5,780	2.3	43.4		3/A 03 L2	BE100LB4	ME3LB4	N180TC	6,860	8,670	1,960	258
43	5,340	1.0	40.1		3/A 01 L2	BE100LB4	ME3LB4	N180TC	3,490	4,140	640	242
43	5,390	2.6	40.5		3/A 03 L2	BE100LB4	ME3LB4	N180TC	6,720	8,490	1,920	258
48	4,770	1.4	35.8		3/A 01 L2	BE100LB4	ME3LB4	N180TC	3,380	4,010	610	242
52	4,460	2.6	33.5		3/A 03 L2	BE100LB4	ME3LB4	N180TC	6,350	8,020	1,800	258
56	4,150	1.4	31.2		3/A 01 L2	BE100LB4	ME3LB4	N180TC	3,240	3,840	590	242
60	3,830	2.6	28.8		3/A 03 L2	BE100LB4	ME3LB4	N180TC	6,070	7,670	1,710	258
75	3,070	1.4	23.0		3/A 01 L2	BE100LB4	ME3LB4	N180TC	2,960	3,510	530	242
76	3,060	2.6	23.0		3/A 03 L2	BE100LB4	ME3LB4	N180TC	5,670	7,160	1,590	258
89	2,590	2.6	19.4		3/A 03 L2	BE100LB4	ME3LB4	N180TC	5,390	6,810	1,500	258
92	2,500	1.4	18.8		3/A 01 L2	BE100LB4	ME3LB4	N180TC	2,780	3,300	500	242

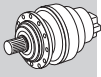


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P₁ = 5 hp

n ₂ rpm	T ₂ in-bs	S	i						Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
0.30	676,400	1.3	5234		3/V 15L4	BE112M4		N180TC	46,300	54,600	20,200	434
0.40	503,200	1.0	4046		3/V 13L4	BE112M4		N180TC	43,200	51,900	18,000	400
0.40	564,200	0.9	4536		3/V 13L4	BE112M4		N180TC	43,200	51,900	18,000	400
0.40	539,000	1.7	4171		3/V 15L4	BE112M4		N180TC	45,900	54,600	20,200	434
0.40	639,700	1.5	4950		3/V 15L4	BE112M4		N180TC	46,300	54,600	20,200	434
0.40	539,000	2.3	4171		3/V 16L4	BE112M4		N180TC	71,400	79,200	33,700	450
0.40	639,700	1.7	4950		3/V 16L4	BE112M4		N180TC	73,200	81,100	33,700	450
0.50	437,200	1.0	3222		3/V 11L4	BE112M4		N180TC	11,900	37,500	14,600	382
0.50	442,700	1.1	3263		3/V 13L4	BE112M4		N180TC	43,200	51,900	18,000	400
0.50	477,000	1.1	3515		3/V 13L4	BE112M4		N180TC	43,200	51,900	18,000	400
0.50	420,000	2.9	3250		3/V 16L4	BE112M4		N180TC	68,900	76,400	33,700	450
0.50	454,200	2.7	3514		3/V 16L4	BE112M4		N180TC	69,700	77,300	33,700	450
0.60	387,100	1.1	2887		3/V 11L4	BE112M4		N180TC	11,700	36,900	14,600	382
0.60	344,900	1.4	2773		3/V 13L4	BE112M4		N180TC	43,200	51,900	18,000	400
0.60	353,900	2.9	2738		3/V 16L4	BE112M4		N180TC	67,300	74,600	33,700	450
0.70	287,100	1.0	2329		3/V 11L3	BE112M4			11,400	35,800	14,600	382
0.70	340,600	1.3	2510		3/V 11L4	BE112M4		N180TC	11,500	36,200	14,600	382
0.70	299,500	1.4	2430		3/V 13L3	BE112M4			43,200	51,900	18,000	400
0.80	299,800	1.0	2209		3/V 10L4	BE112M4		N180TC	24,700	31,900	14,600	364
0.80	299,800	1.0	2209		3/V 10L4	BE112M4		N180TC	24,700	31,900	14,600	364
0.80	285,600	2.1	2318		3/V 14L3	BE112M4			42,200	51,500	20,200	418
0.90	273,600	1.0	2016		3/V 10L4	BE112M4		N180TC	24,400	31,500	14,600	364
0.90	273,600	1.0	2016		3/V 10L4	BE112M4		N180TC	24,400	31,500	14,600	364



P₁ = 5 hp

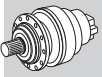


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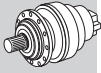
n ₂ rpm	T ₂ in-bs	S	i						Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
0.90	241,900	1.6	1963	3/V 11L3		BE112M4			11,100	34,900	14,600	382
0.90	248,800	2.1	2019	3/V 13L3		BE112M4			42,400	51,900	18,000	400
0.90	245,700	2.6	1994	3/V 14L3		BE112M4			41,300	50,400	20,200	418
1.0	165,200	1.1	1288	3/V 09L3		BE112M4		N180TC	19,500	26,600	8,090	348
1.0	214,900	0.9	1792	3/V 09L3		BE112M4		N180TC	20,500	27,800	8,090	348
1.0	157,400	1.2	1227	3/V 10L3		BE112M4		N180TC	22,700	29,400	14,600	364
1.0	181,000	1.1	1411	3/V 10L3		BE112M4		N180TC	23,200	30,000	14,600	364
1.0	227,500	1.3	1657	3/V 10L4		BE112M4		N180TC	23,700	30,700	14,600	364
1.0	247,800	1.0	1826	3/V 10L4		BE112M4		N180TC	24,100	31,100	14,600	364
1.0	227,500	1.3	1657	3/V 10L4		BE112M4		N180TC	23,700	30,700	14,600	364
1.0	247,800	1.0	1826	3/V 10L4		BE112M4		N180TC	24,100	31,100	14,600	364
1.0	161,300	1.9	1275	3/V 11L3		BE112M4			10,400	32,800	14,600	382
1.0	174,400	2.2	1378	3/V 11L3		BE112M4			10,600	33,200	14,600	382
1.0	207,000	1.8	1636	3/V 11L3		BE112M4			10,800	34,000	14,600	382
1.0	163,400	2.9	1291	3/V 13L3		BE112M4			39,700	49,800	18,000	400
1.0	179,400	2.8	1418	3/V 13L3		BE112M4			40,300	50,400	18,000	400
1.0	212,900	2.4	1682	3/V 13L3		BE112M4			41,300	51,700	18,000	400
1.0	165,000	2.6	1339	3/V 14L3		BE112M4			39,000	47,600	20,200	418
1.0	195,800	2.6	1589	3/V 14L3		BE112M4			40,000	48,800	20,200	418
2.0	97,600	1.3	761	3/V 07L3		BE112M4		N180TC	18,100	24,600	9,660	330
2.0	118,000	0.9	921	3/V 07L3		BE112M4		N180TC	18,600	25,300	10,100	330
2.0	128,400	1.0	1015	3/V 07L3		BE112M4		N180TC	18,900	25,700	10,100	330
2.0	101,400	1.3	761	3/V 09L3		BE112M4		N180TC	18,100	24,600	7,720	348
2.0	102,600	1.8	800	3/V 09L3		BE112M4		N180TC	18,200	24,800	7,850	348
2.0	111,900	1.6	840	3/V 09L3		BE112M4		N180TC	18,400	25,000	7,980	348
2.0	128,700	1.2	1004	3/V 09L3		BE112M4		N180TC	18,800	25,600	8,090	348
2.0	154,400	0.9	1159	3/V 09L3		BE112M4		N180TC	19,200	26,200	8,090	348
2.0	122,600	1.6	921	3/V 10L3		BE112M4		N180TC	21,800	28,200	14,600	364
2.0	128,700	2.2	1004	3/V 10L3		BE112M4		N180TC	22,100	28,500	14,600	364
2.0	143,600	1.7	1120	3/V 10L3		BE112M4		N180TC	22,400	29,000	14,600	364
2.0	123,700	2.6	1004	3/V 11L3		BE112M4			10,100	31,700	14,600	382
3.0	73,700	0.9	527	3/V 06L3		BE112M4		N180TC	13,700	17,300	6,640	312
3.0	79,600	1.0	569	3/V 06L3		BE112M4		N180TC	13,900	17,500	6,820	312
3.0	71,000	1.7	507	3/V 07L3		BE112M4		N180TC	17,100	23,200	8,440	330
3.0	83,900	1.5	655	3/V 07L3		BE112M4		N180TC	17,700	24,100	9,180	330
3.0	87,200	1.8	655	3/V 09L3		BE112M4		N180TC	17,700	24,100	7,350	348
4.0	67,900	1.0	435		3/A 06L2	BE112M4	ME4SA4	N180TC	13,300	16,800	6,170	312
4.0	63,300	1.2	405		3/A 07L2	BE112M4	ME4SA4	N180TC	16,500	22,400	7,750	330
4.0	68,500	1.2	439		3/A 07L2	BE112M4	ME4SA4	N180TC	16,700	22,700	7,960	330
4.0	56,000	1.2	395	3/V 06L3		BE112M4		N180TC	13,200	16,600	6,040	312
4.0	60,400	1.3	427	3/V 06L3		BE112M4		N180TC	13,300	16,800	6,190	312
4.0	64,400	1.7	460	3/V 07L3		BE112M4		N180TC	16,900	22,900	8,170	330
4.0	58,900	2.7	442	3/V 09L3		BE112M4		N180TC	16,800	22,800	6,440	348
5.0	50,100	1.2	321		3/A 06L2	BE112M4	ME4SA4	N180TC	12,700	16,100	5,580	312
5.0	59,400	0.9	380		3/A 06L2	BE112M4	ME4SA4	N180TC	13,100	16,500	5,900	312
5.0	53,300	1.9	341		3/A 07L2	BE112M4	ME4SA4	N180TC	16,100	21,900	7,320	330
5.0	56,000	1.4	386	3/V 07L3		BE112M4		N180TC	16,400	22,400	7,700	330
5.0	49,300	2.3	370	3/V 09L3		BE112M4		N180TC	16,300	22,200	6,080	348
6.0	43,100	1.6	276		3/A 06L2	BE112M4	ME4SA4	N180TC	12,500	15,700	5,300	312
6.0	44,000	1.7	282		3/A 07L2	BE112M4	ME4SA4	N180TC	15,600	21,300	6,870	330
7.0	38,800	1.0	241		3/A 05L2	BE112M4	ME4SA4	N180TC	8,900	11,200	3,480	294
7.0	41,700	1.2	267		3/A 06L2	BE112M4	ME4SA4	N180TC	12,400	15,600	5,250	312
7.0	37,700	2.1	241		3/A 07L2	BE112M4	ME4SA4	N180TC	15,300	20,800	6,520	330
8.0	34,500	1.7	221		3/A 06L2	BE112M4	ME4SA4	N180TC	12,100	15,200	4,930	312
8.0	34,800	2.3	223		3/A 07L2	BE112M4	ME4SA4	N180TC	15,100	20,600	6,350	330
9.0	29,700	2.3	190		3/A 06L2	BE112M4	ME4SA4	N180TC	11,800	14,900	4,680	312
9.0	30,900	1.6	198		3/A 06L2	BE112M4	ME4SA4	N180TC	11,900	15,000	4,750	312

P₁ = 5 hp






n ₂ rpm	T ₂ in-bs	S	i						Rn ₂ [lbs]			
				IE2	IE2	NEMA	NHC/HC NPC/PC	HZ/PZ	FZ			
9.0	30,900	2.5	198		3/A 07L2	BE112M4	ME4SA4	N180TC	14,900	20,200	6,100	330
10.0	28,100	0.9	174		3/A 04 L2	BE112M4		N180TC	8,540	10,800	3,120	276
10.0	28,300	1.1	176		3/A 05L2	BE112M4	ME4SA4	N180TC	8,540	10,800	3,130	294
11.0	26,200	1.0	162		3/A 04 L2	BE112M4	ME4SA4	N180TC	8,540	10,800	3,050	276
11.0	26,200	1.0	162		3/A 05L2	BE112M4	ME4SA4	N180TC	8,540	10,800	3,050	294
11.0	25,600	2.2	164		3/A 06L2	BE112M4	ME4SA4	N180TC	11,700	14,800	4,460	312
12.0	22,700	1.4	141		3/A 05L2	BE112M4	ME4SA4	N180TC	8,540	10,800	2,910	294
13.0	20,900	1.2	129		3/A 04 L2	BE112M4	ME4SA4	N180TC	8,540	10,800	2,830	276
14.0	19,500	1.6	121		3/A 05L2	BE112M4	ME4SA4	N180TC	8,540	10,800	2,760	294
14.0	20,100	2.4	125		3/A 06L2	BE112M4	ME4SA4	N180TC	11,700	14,800	4,070	312
15.0	18,900	1.1	117		3/A 04 L2	BE112M4	ME4SA4	N180TC	8,540	10,800	2,730	276
17.0	16,400	1.4	102		3/A 04 L2	BE112M4	ME4SA4	N180TC	8,540	10,800	2,610	276
17.0	16,700	1.6	104		3/A 05L2	BE112M4	ME4SA4	N180TC	8,540	10,800	2,620	294
18.0	15,600	1.0	96.9		3/A 03 L2	BE112M4		N180TC	8,540	10,800	2,570	258
18.0	15,900	3.0	98.3		3/A 06L2	BE112M4	ME4SA4	N180TC	11,700	14,800	3,760	312
19.0	14,600	1.4	90.7		3/A 04 L2	BE112M4	ME4SA4	N180TC	8,540	10,800	2,510	276
20.0	14,300	1.0	88.5		3/A 03 L2	BE112M4		N180TC	8,500	10,700	2,490	258
20.0	13,800	2.3	85.6		3/A 05L2	BE112M4	ME4SA4	N180TC	8,410	10,600	2,460	294
20.0	14,300	2.6	88.5		3/A 06L2	BE112M4	ME4SA4	N180TC	11,700	14,700	3,630	312
21.0	13,200	1.6	81.7		3/A 04 L2	BE112M4	ME4SA4	N180TC	8,300	10,500	2,430	276
21.0	13,400	3.0	81.2		3/A 06L2			N180TC	11,400	14,300	3,530	312
23.0	12,200	2.2	75.8		3/A 05L2	BE112M4	ME4SA4	N180TC	8,110	10,200	2,360	294
24.0	11,800	1.3	73.2		3/A 03 L2	BE112M4		N180TC	8,030	10,100	2,340	258
24.0	11,700	2.5	72.5		3/A 05L2	BE112M4	ME4SA4	N180TC	8,010	10,100	2,330	294
25.0	11,000	2.3	68.4		3/A 04 L2	BE112M4	ME4SA4	N180TC	7,870	9,940	2,290	276
25.0	11,500	3.0	69.9		3/A 06L2			N180TC	10,900	13,700	3,360	312
28.0	10,200	1.3	62.9		3/A 03 L2	BE112M4		N180TC	7,670	9,690	2,220	258
28.0	10,100	2.5	62.4		3/A 04 L2	BE112M4	ME4SA4	N180TC	7,650	9,670	2,220	276
28.0	10,100	2.8	62.6		3/A 05L2	BE112M4	ME4SA4	N180TC	7,660	9,680	2,220	294
29.0	9,590	1.2	59.4		3/A 01 L2	BE112M4		N180TC	3,930	4,660	730	242
31	9,150	3.0	55.7		3/A 06L2			N180TC	10,200	12,800	3,110	312
32	8,800	2.3	54.5		3/A 04 L2	BE112M4	ME4SA4	N180TC	7,350	9,290	2,120	276
33	8,470	1.7	52.5		3/A 03 L2	BE112M4		N180TC	7,270	9,180	2,090	258
33	8,470	1.7	52.5		3/A 03 L2	BE112M4		N180TC	7,270	9,180	2,090	258
35	7,920	0.9	49.1		3/A 01 L2	BE112M4		N180TC	3,710	4,400	680	242
35	8,030	2.5	49.7		3/A 04 L2	BE112M4	ME4SA4	N180TC	7,150	9,030	2,050	276
37	7,750	3.0	47.2		3/A 06L2			N180TC	9,670	12,200	2,940	312
39	7,140	2.8	44.3		3/A 04 L2	BE112M4	ME4SA4	N180TC	6,900	8,720	1,980	276
40	7,090	1.2	43.9		3/A 01 L2	BE112M4		N180TC	3,590	4,260	660	242
40	7,000	1.9	43.4		3/A 03 L2	BE112M4		N180TC	6,860	8,670	1,960	258
43	6,540	2.2	40.5		3/A 03 L2	BE112M4		N180TC	6,720	8,490	1,920	258
49	5,780	1.2	35.8		3/A 01 L2	BE112M4		N180TC	3,380	4,010	610	242
52	5,400	2.2	33.5		3/A 03 L2	BE112M4		N180TC	6,350	8,020	1,800	258
56	5,030	1.1	31.2		3/A 01 L2	BE112M4		N180TC	3,240	3,840	590	242
60	4,650	2.2	28.8		3/A 03 L2	BE112M4		N180TC	6,070	7,670	1,710	258
76	3,720	1.1	23.0		3/A 01 L2	BE112M4		N180TC	2,960	3,510	530	242
76	3,700	2.2	23.0		3/A 03 L2	BE112M4		N180TC	5,670	7,160	1,590	258
90	3,140	2.2	19.4		3/A 03 L2	BE112M4		N180TC	5,390	6,810	1,500	258
93	3,030	1.1	18.8		3/A 01 L2	BE112M4		N180TC	2,780	3,300	500	242



P₁ = 7.5 hp

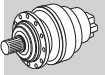


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n ₂ rpm	T ₂ in-bs	S	i	 						NEMA	Rn ₂ [lbs]				
				IE2	IE3	IE2	IE3	NHC/HC NPC/PC	HZ/PZ		FZ				
0.30	1,025,600	2.4	5099	3/V 18L4		BE132S4	BX132S4					113,100	122,100	45,000	474
0.40	804,600	0.9	4312	3/V 14L4		BE132S4	BX132S4			N210TC		46,100	54,600	20,200	418
0.40	808,600	1.1	4171	3/V 15L4		BE132S4	BX132S4			N210TC		45,900	54,600	20,200	434
0.40	959,600	1.0	4950	3/V 15L4		BE132S4	BX132S4			N210TC		46,300	54,600	20,200	434
0.40	808,600	1.5	4171	3/V 16L4		BE132S4	BX132S4			N210TC		71,400	79,200	33,700	450
0.40	959,600	1.1	4950	3/V 16L4		BE132S4	BX132S4			N210TC		73,200	81,100	33,700	450
0.40	830,600	2.0	4129	3/V 17L4		BE132S4	BX132S4					99,400	105,700	33,700	462
0.40	819,400	2.2	4449	3/V 17L4		BE132S4	BX132S4					99,400	105,700	33,700	462
0.40	882,300	2.8	4387	3/V 18L4		BE132S4	BX132S4					113,100	119,500	45,000	474
0.50	706,800	1.0	3472	3/V 14L4		BE132S4	BX132S4			N210TC		44,700	54,500	20,200	418
0.50	671,700	1.4	3300	3/V 15L4		BE132S4	BX132S4			N210TC		44,400	54,100	20,200	434
0.50	710,300	1.2	3489	3/V 15L4		BE132S4	BX132S4			N210TC		44,700	54,600	20,200	434
0.50	630,000	1.9	3250	3/V 16L4		BE132S4	BX132S4			N210TC		68,900	76,400	33,700	450
0.50	681,300	1.8	3514	3/V 16L4		BE132S4	BX132S4			N210TC		69,700	77,300	33,700	450
0.60	517,500	0.9	2773	3/V 13L4		BE132S4	BX132S4			N210TC		43,200	51,900	18,000	400
0.60	539,300	1.4	2782	3/V 14L4		BE132S4	BX132S4			N210TC		43,300	52,800	20,200	418
0.60	640,000	1.2	3182	3/V 14L4		BE132S4	BX132S4			N210TC		44,100	53,900	20,200	418
0.60	566,000	1.6	2781	3/V 15L4		BE132S4	BX132S4			N210TC		43,300	52,800	20,200	434
0.60	530,900	1.9	2738	3/V 16L4		BE132S4	BX132S4			N210TC		67,300	74,600	33,700	450
0.60	524,200	2.8	2773	3/V 17L4		BE132S4	BX132S4					99,400	105,700	33,700	462
0.60	637,200	2.7	3168	3/V 17L4		BE132S4	BX132S4					99,400	105,700	33,700	462
0.70	449,200	1.0	2430	3/V 13L3		BE132S4	BX132S4					43,200	51,900	18,000	400
0.70	467,200	1.6	2504	3/V 14L4		BE132S4	BX132S4			N210TC		42,600	52,000	20,200	418
0.80	428,500	1.4	2318	3/V 14L3		BE132S4	BX132S4					42,200	51,500	20,200	418
0.80	422,700	1.7	2318	3/V 15L3		BE132S4	BX132S4					42,200	51,500	20,200	434
0.80	441,000	2.6	2167	3/V 16L4		BE132S4	BX132S4			N210TC		65,100	72,100	33,700	450
0.80	476,900	2.6	2343	3/V 16L4		BE132S4	BX132S4			N210TC		65,800	72,900	33,700	450
0.90	362,800	1.0	1963	3/V 11L3		BE132S4	BX132S4					11,100	34,900	14,600	382
0.90	373,200	1.4	2019	3/V 13L3		BE132S4	BX132S4					42,400	51,900	18,000	400
0.90	368,600	1.7	1994	3/V 14L3		BE132S4	BX132S4					41,300	50,400	20,200	418
0.90	363,600	2.3	1994	3/V 15L3		BE132S4	BX132S4					41,300	50,400	20,200	434
1.0	242,000	1.3	1275	3/V 11L3		BE132S4	BX132S4					10,400	32,800	14,600	382
1.0	261,700	1.5	1378	3/V 11L3		BE132S4	BX132S4					10,600	33,200	14,600	382
1.0	310,500	1.2	1636	3/V 11L3		BE132S4	BX132S4					10,800	34,000	14,600	382
1.0	245,100	1.9	1291	3/V 13L3		BE132S4	BX132S4					39,700	49,800	18,000	400
1.0	269,100	1.8	1418	3/V 13L3		BE132S4	BX132S4					40,300	50,400	18,000	400
1.0	315,700	1.4	1620	3/V 13L3		BE132S4	BX132S4					41,100	51,400	18,000	400
1.0	319,400	1.6	1682	3/V 13L3		BE132S4	BX132S4					41,300	51,700	18,000	400
1.0	251,400	2.2	1324	3/V 14L3		BE132S4	BX132S4					38,900	47,500	20,200	418
1.0	247,500	1.7	1339	3/V 14L3		BE132S4	BX132S4					39,000	47,600	20,200	418
1.0	293,700	1.7	1589	3/V 14L3		BE132S4	BX132S4					40,000	48,800	20,200	418
1.0	315,500	2.2	1662	3/V 14L3		BE132S4	BX132S4					40,200	49,100	20,200	418
1.0	265,800	2.9	1400	3/V 15L3		BE132S4	BX132S4					39,200	47,900	20,200	434
1.0	315,500	2.8	1662	3/V 15L3		BE132S4	BX132S4					40,200	49,100	20,200	434
1.0	371,600	2.6	1826	3/V 16L4		BE132S4	BX132S4			N210TC		63,500	70,400	33,700	450
2.0	153,900	1.2	800	3/V 09L3		BE132S4	BX132S4			N210TC		18,200	24,800	7,850	348
2.0	167,900	1.0	840	3/V 09L3		BE132S4	BX132S4			N210TC		18,400	25,000	7,980	348
2.0	162,100	1.2	773	3/V 10L3		BE132S4	BX132S4			N210TC		21,300	27,500	14,000	364
2.0	184,000	1.0	921	3/V 10L3		BE132S4	BX132S4			N210TC		21,800	28,200	14,600	364
2.0	193,100	1.5	1004	3/V 10L3		BE132S4	BX132S4			N210TC		22,100	28,500	14,600	364
2.0	215,500	1.2	1120	3/V 10L3		BE132S4	BX132S4			N210TC		22,400	29,000	14,600	364
2.0	140,300	2.5	720	3/V 11L3		BE132S4	BX132S4					9,630	30,300	13,700	382
2.0	171,500	2.1	827	3/V 11L3		BE132S4	BX132S4					9,820	30,900	14,300	382
2.0	170,900	2.1	900	3/V 11L3		BE132S4	BX132S4					9,940	31,200	14,600	382
2.0	185,600	1.7	1004	3/V 11L3		BE132S4	BX132S4					10,100	31,700	14,600	382
2.0	214,800	1.7	1103	3/V 11L3		BE132S4	BX132S4					10,200	32,200	14,600	382
2.0	144,300	2.8	741	3/V 13L3		BE132S4	BX132S4					36,700	46,000	17,000	400

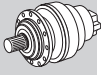
P₁ = 7.5 hp

n ₂ rpm	T ₂ in-bs	S	i	3/V		IE2		IE3		NEMA	Rn ₂ [lbs]			FZ	FZ
				IE2	IE3	IE2	IE3	NHC/HC NPC/PC	HZ/PZ		FZ				
2.0	169,500	2.8	870	3/V 13L3		BE132S4	BX132S4					37,600	47,000	18,000	400
2.0	209,300	2.2	1009	3/V 13L3		BE132S4	BX132S4					38,400	48,000	18,000	400
2.0	206,500	2.2	1088	3/V 13L3		BE132S4	BX132S4					38,800	48,600	18,000	400
2.0	164,700	2.7	794	3/V 14L3		BE132S4	BX132S4					36,200	44,200	19,600	418
2.0	173,900	2.8	893	3/V 14L3		BE132S4	BX132S4					36,800	44,900	20,200	418
2.0	206,700	2.7	997	3/V 14L3		BE132S4	BX132S4					37,400	45,600	20,200	418
2.0	211,800	2.2	1116	3/V 14L3		BE132S4	BX132S4					38,000	46,400	20,200	418
3.0	106,500	1.1	507	3/V 07L3		BE132S4	BX132S4			N210TC		17,100	23,200	8,440	330
3.0	125,900	1.0	655	3/V 07L3		BE132S4	BX132S4			N210TC		17,700	24,100	9,180	330
3.0	106,500	1.2	507	3/V 09L3		BE132S4	BX132S4			N210TC		17,100	23,200	6,750	348
3.0	130,800	1.2	655	3/V 09L3		BE132S4	BX132S4			N210TC		17,700	24,100	7,350	348
3.0	106,500	2.2	507	3/V 10L3		BE132S4	BX132S4			N210TC		20,000	25,900	12,200	364
3.0	117,500	1.9	560	3/V 10L3		BE132S4	BX132S4			N210TC		20,300	26,300	12,600	364
3.0	128,800	1.5	614	3/V 10L3		BE132S4	BX132S4			N210TC		20,600	26,600	13,000	364
3.0	152,400	1.2	701	3/V 10L3		BE132S4	BX132S4			N210TC		21,000	27,100	13,600	364
3.0	133,600	2.7	644	3/V 11L3		BE132S4	BX132S4					9,480	29,800	13,200	382
3.0	135,500	2.8	696	3/V 14L3		BE132S4	BX132S4					35,500	43,300	18,700	418
4.0	96,600	1.1	460	3/V 07L3		BE132S4	BX132S4			N210TC		16,900	22,900	8,170	330
4.0	88,300	1.8	442	3/V 09L3		BE132S4	BX132S4			N210TC		16,800	22,800	6,440	348
4.0	91,600	2.6	436	3/V 10L3		BE132S4	BX132S4			N210TC		19,600	25,300	11,600	364
5.0	80,000	1.2	341		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		16,100	21,900	7,320	330
5.0	84,000	0.9	386	3/V 07L3		BE132S4	BX132S4			N210TC		16,400	22,400	7,700	330
5.0	74,000	1.6	370	3/V 09L3		BE132S4	BX132S4			N210TC		16,300	22,200	6,080	348
6.0	64,600	1.1	276		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		12,500	15,700	5,300	312
6.0	66,000	1.2	282		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		15,600	21,300	6,870	330
7.0	56,600	1.4	241		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		15,300	20,800	6,520	330
8.0	51,700	1.1	221		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		12,100	15,200	4,930	312
8.0	52,200	1.5	223		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		15,100	20,600	6,350	330
9.0	44,500	1.5	190		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		11,800	14,900	4,680	312
9.0	46,400	1.0	198		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		11,900	15,000	4,750	312
9.0	46,300	1.7	198		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		14,900	20,200	6,100	330
10.0	42,200	2.3	180		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		14,700	20,000	5,920	330
11.0	38,400	1.5	164		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		11,700	14,800	4,460	312
11.0	36,300	2.2	155		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		14,700	20,000	5,630	330
13.0	34,100	0.9	141		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		8,540	10,800	2,910	294
13.0	33,000	2.1	141		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		11,700	14,800	4,240	312
13.0	32,900	3.0	140		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		14,700	20,000	5,440	330
14.0	30,100	1.6	125		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		11,700	14,800	4,070	312
15.0	29,300	1.1	121		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		8,540	10,800	2,760	294
16.0	26,300	2.1	112		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		11,700	14,800	3,930	312
17.0	24,700	0.9	102		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		8,540	10,800	2,610	276
17.0	25,100	1.1	104		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		8,540	10,800	2,620	294
18.0	23,800	2.0	98.3		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		11,700	14,800	3,760	312
19.0	22,000	1.0	90.7		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		8,540	10,800	2,510	276
20.0	21,400	1.7	88.5		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		11,700	14,700	3,630	312
20.0	21,200	2.8	87.7		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		14,600	19,800	4,650	330
21.0	20,700	1.5	85.6		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		8,410	10,600	2,460	294
22.0	19,800	1.1	81.7		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		8,300	10,500	2,430	276
22.0	19,700	2.0	81.2		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		11,400	14,300	3,530	312
23.0	18,300	1.5	75.8		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4			8,110	10,200	2,360	294
24.0	17,600	1.7	72.5		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4			8,010	10,100	2,330	294
25.0	16,900	2.0	69.9		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		10,900	13,700	3,360	312
26.0	16,600	1.5	68.4		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		7,870	9,940	2,290	276
26.0	16,500	2.8	68.3		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		13,500	18,400	4,280	330
28.0	15,100	1.7	62.4		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		7,650	9,670	2,220	276
28.0	15,200	1.9	62.6		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4			7,660	9,680	2,220	294
29.0	14,600	2.7	60.1		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC		10,400	13,100	3,190	312







A





P₁ = 7.5 hp



A

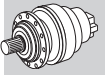
n ₂ rpm	T ₂ in-bs	S	i							NEMA	Rn ₂ [lbs]			
				IE2	IE3	IE2	IE3	NHC/HC NPC/PC	HZ/PZ		FZ			
31	13,800	2.1	57.0		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4		7,450	9,410	2,150	294
31	13,900	2.8	57.3		3/A 07L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	12,800	17,400	4,040	330
32	13,200	1.5	54.5		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	7,350	9,290	2,120	276
32	13,500	2.0	55.7		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	10,200	12,800	3,110	312
33	12,900	2.1	53.3		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4		7,300	9,220	2,100	294
34	12,500	2.7	51.7		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	9,940	12,500	3,040	312
35	12,000	1.7	49.7		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	7,150	9,030	2,050	276
37	11,400	2.0	47.2		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	9,670	12,200	2,940	312
40	10,700	1.9	44.3		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,900	8,720	1,980	276
40	10,700	2.7	44.0		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4		6,890	8,710	1,970	294
45	9,470	2.1	39.1		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,650	8,400	1,900	276
45	9,440	2.8	39.0		3/A 05L2	BE132S4	BX132S4	ME4SB4	MX4SB4		6,650	8,400	1,900	294
50	8,540	2.4	35.3		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,450	8,150	1,830	276
50	8,450	2.7	34.9		3/A 06L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	8,830	11,100	2,660	312
58	7,310	2.8	30.2		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	6,150	7,770	1,740	276
69	6,190	2.7	25.6		3/A 04 L2	BE132S4	BX132S4	ME4SB4	MX4SB4	N210TC	5,860	7,400	1,650	276

P₁ = 10 hp

n ₂ rpm	T ₂ in-bs	S	i							NEMA	Rn ₂ [lbs]			
				IE2	IE3	IE2	IE3	NHC/HC NPC/PC	HZ/PZ		FZ			
0.30	1,401,700	1.8	5099	3/V 18L4	BE132MA4	BX132MA4					113,100	122,100	45,000	474
0.30	1,333,900	2.7	5164	3/V 19L4	BE132MA4	BX132MA4					132,500	145,800	45,000	486
0.40	1,105,000	1.1	4171	3/V 16L4	BE132MA4	BX132MA4			N210TC		71,400	79,200	33,700	450
0.40	1,135,100	1.4	4129	3/V 17L4	BE132MA4	BX132MA4					99,400	105,700	33,700	462
0.40	1,119,800	1.6	4449	3/V 17L4	BE132MA4	BX132MA4					99,400	105,700	33,700	462
0.40	1,205,800	2.1	4387	3/V 18L4	BE132MA4	BX132MA4					113,100	119,500	45,000	474
0.40	1,125,700	3.0	4095	3/V 19L4	BE132MA4	BX132MA4					128,100	141,100	45,000	486
0.40	1,254,800	2.5	4457	3/V 19L4	BE132MA4	BX132MA4					129,700	142,800	45,000	486
0.50	918,000	1.0	3300	3/V 15L4	BE132MA4	BX132MA4			N210TC		44,400	54,100	20,200	434
0.50	970,700	0.9	3489	3/V 15L4	BE132MA4	BX132MA4			N210TC		44,700	54,600	20,200	434
0.50	861,100	1.4	3250	3/V 16L4	BE132MA4	BX132MA4			N210TC		68,900	76,400	33,700	450
0.50	931,100	1.3	3514	3/V 16L4	BE132MA4	BX132MA4			N210TC		69,700	77,300	33,700	450
0.50	960,900	2.6	3496	3/V 18L4	BE132MA4	BX132MA4					110,500	115,700	45,000	474
0.50	1,016,000	2.4	3696	3/V 18L4	BE132MA4	BX132MA4					111,400	116,600	45,000	474
0.60	737,100	1.0	2782	3/V 14L4	BE132MA4	BX132MA4			N210TC		43,300	52,800	20,200	418
0.60	773,500	1.2	2781	3/V 15L4	BE132MA4	BX132MA4			N210TC		43,300	52,800	20,200	434
0.60	725,500	1.4	2738	3/V 16L4	BE132MA4	BX132MA4			N210TC		67,300	74,600	33,700	450
0.60	716,400	2.1	2773	3/V 17L4	BE132MA4	BX132MA4					99,400	105,700	33,700	462
0.60	870,800	1.9	3168	3/V 17L4	BE132MA4	BX132MA4					99,400	105,700	33,700	462
0.60	809,600	3.0	2945	3/V 18L4	BE132MA4	BX132MA4					107,900	112,900	45,000	474
0.70	638,500	1.2	2504	3/V 14L4	BE132MA4	BX132MA4			N210TC		42,600	52,000	20,200	418
0.80	585,600	1.0	2318	3/V 14L3	BE132MA4	BX132MA4					42,200	51,500	20,200	418
0.80	577,700	1.3	2318	3/V 15L3	BE132MA4	BX132MA4					42,200	51,500	20,200	434
0.80	602,800	1.9	2167	3/V 16L4	BE132MA4	BX132MA4			N210TC		65,100	72,100	33,700	450
0.80	651,800	1.9	2343	3/V 16L4	BE132MA4	BX132MA4			N210TC		65,800	72,900	33,700	450
0.80	630,900	3.0	2295	3/V 18L4	BE132MA4	BX132MA4					104,100	108,900	45,000	474
0.90	510,100	1.0	2019	3/V 13L3	BE132MA4	BX132MA4					42,400	51,900	18,000	400
0.90	503,800	1.2	1994	3/V 14L3	BE132MA4	BX132MA4					41,300	50,400	20,200	418
0.90	497,000	1.7	1994	3/V 15L3	BE132MA4	BX132MA4					41,300	50,400	20,200	434
1.0	330,700	0.9	1275	3/V 11L3	BE132MA4	BX132MA4					10,400	32,800	14,600	382
1.0	357,600	1.1	1378	3/V 11L3	BE132MA4	BX132MA4					10,600	33,200	14,600	382
1.0	334,900	1.4	1291	3/V 13L3	BE132MA4	BX132MA4					39,700	49,800	18,000	400
1.0	367,800	1.3	1418	3/V 13L3	BE132MA4	BX132MA4					40,300	50,400	18,000	400

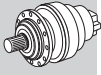
P₁ = 10 hp

n ₂ rpm	T ₂ in-bs	S	i	3/V		IE2		IE3		NEMA	Rn ₂ [lbs]			FZ	
				BE132MA4	BX132MA4	IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ		
1.0	431,400	1.0	1620	3/V 13L3		BE132MA4	BX132MA4					41,100	51,400	18,000	400
1.0	436,500	1.2	1682	3/V 13L3		BE132MA4	BX132MA4					41,300	51,700	18,000	400
1.0	343,600	1.6	1324	3/V 14L3		BE132MA4	BX132MA4					38,900	47,500	20,200	418
1.0	338,200	1.2	1339	3/V 14L3		BE132MA4	BX132MA4					39,000	47,600	20,200	418
1.0	401,400	1.2	1589	3/V 14L3		BE132MA4	BX132MA4					40,000	48,800	20,200	418
1.0	431,200	1.6	1662	3/V 14L3		BE132MA4	BX132MA4					40,200	49,100	20,200	418
1.0	354,000	2.4	1329	3/V 15L3		BE132MA4	BX132MA4					39,000	47,500	20,200	434
1.0	363,300	2.1	1400	3/V 15L3		BE132MA4	BX132MA4					39,200	47,900	20,200	434
1.0	431,200	2.0	1662	3/V 15L3		BE132MA4	BX132MA4					40,200	49,100	20,200	434
1.0	343,600	2.9	1324	3/V 16L3		BE132MA4	BX132MA4					60,600	67,200	33,700	450
1.0	412,300	2.4	1589	3/V 16L3		BE132MA4	BX132MA4					62,200	69,000	33,700	450
1.0	507,900	1.9	1826	3/V 16L4		BE132MA4	BX132MA4			N210TC		63,500	70,400	33,700	450
2.0	263,900	1.1	1004	3/V 10L3		BE132MA4	BX132MA4			N210TC		22,100	28,500	14,600	364
2.0	191,700	1.8	720	3/V 11L3		BE132MA4	BX132MA4					9,630	30,300	13,700	382
2.0	234,300	1.5	827	3/V 11L3		BE132MA4	BX132MA4					9,820	30,900	14,300	382
2.0	233,500	1.5	900	3/V 11L3		BE132MA4	BX132MA4					9,940	31,200	14,600	382
2.0	253,700	1.2	1004	3/V 11L3		BE132MA4	BX132MA4					10,100	31,700	14,600	382
2.0	293,600	1.3	1103	3/V 11L3		BE132MA4	BX132MA4					10,200	32,200	14,600	382
2.0	197,200	2.1	741	3/V 13L3		BE132MA4	BX132MA4					36,700	46,000	17,000	400
2.0	231,700	2.1	870	3/V 13L3		BE132MA4	BX132MA4					37,600	47,000	18,000	400
2.0	286,000	1.6	1009	3/V 13L3		BE132MA4	BX132MA4					38,400	48,000	18,000	400
2.0	282,200	1.6	1088	3/V 13L3		BE132MA4	BX132MA4					38,800	48,600	18,000	400
2.0	225,100	1.9	794	3/V 14L3		BE132MA4	BX132MA4					36,200	44,200	19,600	418
2.0	237,700	2.1	893	3/V 14L3		BE132MA4	BX132MA4					36,800	44,900	20,200	418
2.0	282,500	1.9	997	3/V 14L3		BE132MA4	BX132MA4					37,400	45,600	20,200	418
2.0	289,500	1.6	1116	3/V 14L3		BE132MA4	BX132MA4					38,000	46,400	20,200	418
2.0	238,000	3.0	840	3/V 15L3		BE132MA4	BX132MA4					36,500	44,500	20,000	434
2.0	282,500	2.9	997	3/V 15L3		BE132MA4	BX132MA4					37,400	45,600	20,200	434
2.0	298,300	2.7	1120	3/V 15L3		BE132MA4	BX132MA4					38,000	46,400	20,200	434
3.0	145,500	1.6	507	3/V 10L3		BE132MA4	BX132MA4			N210TC		20,000	25,900	12,200	364
3.0	160,600	1.4	560	3/V 10L3		BE132MA4	BX132MA4			N210TC		20,300	26,300	12,600	364
3.0	176,000	1.1	614	3/V 10L3		BE132MA4	BX132MA4			N210TC		20,600	26,600	13,000	364
3.0	208,200	0.9	701	3/V 10L3		BE132MA4	BX132MA4			N210TC		21,000	27,100	13,600	364
3.0	182,600	1.9	644	3/V 11L3		BE132MA4	BX132MA4					9,480	29,800	13,200	382
3.0	185,200	2.1	696	3/V 14L3		BE132MA4	BX132MA4					35,500	43,300	18,700	418
4.0	120,700	1.3	442	3/V 09L3		BE132MA4	BX132MA4			N210TC		16,800	22,800	6,440	348
4.0	125,200	1.9	436	3/V 10L3		BE132MA4	BX132MA4			N210TC		19,600	25,300	11,600	364
5.0	109,300	0.9	341	3/V 09L3	3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		16,100	21,900	7,320	330
5.0	101,100	1.1	370			BE132MA4	BX132MA4			N210TC		16,300	22,200	6,080	348
7.0	77,300	1.0	241		3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		15,300	20,800	6,520	330
8.0	71,400	1.1	223		3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		15,100	20,600	6,350	330
9.0	60,800	1.1	190		3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		11,800	14,900	4,680	312
9.0	63,300	1.2	198		3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		14,900	20,200	6,100	330
10.0	57,700	1.7	180		3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		14,700	20,000	5,920	330
11.0	52,400	1.1	164		3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		11,700	14,800	4,460	312
11.0	49,600	1.6	155		3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		14,700	20,000	5,630	330
13.0	45,100	1.5	141		3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		11,700	14,800	4,240	312
13.0	44,900	2.2	140		3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		14,700	20,000	5,440	330
14.0	41,200	1.2	125		3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		11,700	14,800	4,070	312
14.0	41,500	2.4	130		3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		14,700	20,000	5,300	330
16.0	35,900	1.5	112		3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		11,700	14,800	3,930	312
16.0	34,800	2.2	109		3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		14,700	20,000	5,000	330
18.0	32,500	1.4	98.3		3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		11,700	14,800	3,760	312
20.0	29,300	1.2	88.5		3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		11,700	14,700	3,630	312
20.0	29,000	2.0	87.7		3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		14,600	19,800	4,650	330
21.0	28,300	1.1	85.6		3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		8,410	10,600	2,460	294
22.0	26,900	1.5	81.2		3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC		11,400	14,300	3,530	312







A





P₁ = 10 hp





A

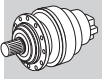
n ₂ rpm	T ₂ in-bs	S	i							NEMA	Rn ₂ [lbs]				
				IE2	IE3	IE2	IE3	NHC/HC NPC/PC	HZ/PZ		FZ				
23.0	25,100	1.1	75.8			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		8,110	10,200	2,360	294
24.0	24,000	1.2	72.5			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		8,010	10,100	2,330	294
25.0	23,100	1.5	69.9			3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	10,900	13,700	3,360	312
26.0	22,600	1.1	68.4			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	7,870	9,940	2,290	276
26.0	22,600	2.0	68.3			3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	13,500	18,400	4,280	330
28.0	20,600	1.2	62.4			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	7,650	9,670	2,220	276
28.0	20,700	1.4	62.6			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		7,660	9,680	2,220	294
29.0	19,900	2.0	60.1			3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	10,400	13,100	3,190	312
31	18,900	1.6	57.0			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		7,450	9,410	2,150	294
31	18,900	2.0	57.3			3/A 07L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	12,800	17,400	4,040	330
32	18,000	1.1	54.5			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	7,350	9,290	2,120	276
32	18,400	1.5	55.7			3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	10,200	12,800	3,110	312
33	17,600	1.5	53.3			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		7,300	9,220	2,100	294
34	17,100	2.0	51.7			3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	9,940	12,500	3,040	312
35	16,500	1.2	49.7			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	7,150	9,030	2,050	276
37	15,600	1.5	47.2			3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	9,670	12,200	2,940	312
40	14,600	1.4	44.3			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	6,900	8,720	1,980	276
40	14,600	2.0	44.0			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		6,890	8,710	1,970	294
43	13,600	2.4	41.1			3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	9,270	11,700	2,810	312
45	12,900	1.6	39.1			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	6,650	8,400	1,900	276
45	12,900	2.1	39.0			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		6,650	8,400	1,900	294
50	11,700	1.7	35.3			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	6,450	8,150	1,830	276
50	11,600	2.0	34.9			3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	8,830	11,100	2,660	312
54	10,800	2.4	32.7			3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	8,660	10,900	2,610	312
55	10,700	2.7	32.2			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		6,280	7,930	1,780	294
58	9,980	2.0	30.2			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	6,150	7,770	1,740	276
63	9,180	2.7	27.7			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	6,000	7,580	1,690	276
63	9,180	2.7	27.7			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		6,000	7,580	1,690	294
63	9,170	2.4	27.7			3/A 06L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	8,240	10,400	2,470	312
69	8,460	2.0	25.6			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,860	7,400	1,650	276
80	7,310	2.7	22.1			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,610	7,080	1,570	276
80	7,310	2.7	22.1			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		5,610	7,080	1,570	294
94	6,190	2.7	18.7			3/A 04 L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4	N210TC	5,330	6,740	1,480	276
94	6,190	2.7	18.7			3/A 05L2	BE132MA4	BX132MA4	ME4LA4	MX4LA4		5,330	6,740	1,480	294

P₁ = 15 hp

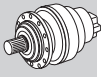
n ₂ rpm	T ₂ in-bs	S	i							NEMA	Rn ₂ [lbs]				
				IE2	IE3	IE2	IE3	NHC/HC NPC/PC	HZ/PZ		FZ				
0.30	2,051,300	1.2	5099	3/V 18L4		BE160M4	BX160MB4					113,100	122,100	45,000	474
0.30	1,952,100	1.8	5164	3/V 19L4		BE160M4	BX160MB4					132,500	145,800	45,000	486
0.40	1,661,100	1.0	4129	3/V 17L4		BE160M4	BX160MB4					99,400	105,700	33,700	462
0.40	1,764,600	1.4	4387	3/V 18L4		BE160M4	BX160MB4					113,100	119,500	45,000	474
0.40	1,647,300	2.0	4095	3/V 19L4		BE160M4	BX160MB4					128,100	141,100	45,000	486
0.40	1,836,300	1.7	4457	3/V 19L4		BE160M4	BX160MB4					129,700	142,800	45,000	486
0.40	1,852,400	2.6	4550	3/V 21L4		BE160M4	BX160MB4					175,100	207,500	269,800	498
0.40	1,929,700	2.5	5040	3/V 21L4		BE160M4	BX160MB4					175,100	207,500	269,800	498
0.50	1,476,100	1.0	3583	3/V 17L4		BE160M4	BX160MB4					99,400	105,700	33,700	462
0.50	1,406,100	1.8	3496	3/V 18L4		BE160M4	BX160MB4					110,500	115,700	45,000	474
0.50	1,486,800	1.7	3696	3/V 18L4		BE160M4	BX160MB4					111,400	116,600	45,000	474
0.50	1,331,000	2.4	3231	3/V 19L4		BE160M4	BX160MB4					123,900	136,400	45,000	486
0.50	1,538,900	2.6	3780	3/V 21L4		BE160M4	BX160MB4					175,100	207,500	269,800	498
0.60	1,048,400	1.4	2773	3/V 17L4		BE160M4	BX160MB4					99,400	105,700	33,700	462
0.60	1,274,400	1.3	3168	3/V 17L4		BE160M4	BX160MB4					99,400	105,700	33,700	462

P₁ = 15 hp

n ₂ rpm	T ₂ in-bs	S	i			IE2		IE3		NEMA	Rn ₂ [lbs]			
						IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
0.60	1,184,800	2.0	2945	3/V 18L4		BE160M4	BX160MB4				107,900	112,900	45,000	474
0.70	1,060,000	1.3	2485	3/V 17L4		BE160M4	BX160MB4				99,400	105,700	33,700	462
0.70	1,015,100	2.4	2464	3/V 18L4		BE160M4	BX160MB4				105,200	110,000	45,000	474
0.80	882,100	1.3	2167	3/V 16L4		BE160M4	BX160MB4				65,100	72,100	33,700	450
0.80	953,800	1.3	2343	3/V 16L4		BE160M4	BX160MB4				65,800	72,900	33,700	450
0.80	923,200	2.0	2295	3/V 18L4		BE160M4	BX160MB4				104,100	108,900	45,000	474
0.90	727,300	1.1	1994	3/V 15L3		BE160M4	BX160MB4				41,300	50,400	20,200	434
0.90	880,600	1.9	2065	3/V 17L4		BE160M4	BX160MB4				99,400	105,700	33,700	462
1.0	518,000	1.6	1329	3/V 15L3		BE160M4	BX160MB4				39,000	47,500	20,200	434
1.0	531,600	1.4	1400	3/V 15L3		BE160M4	BX160MB4				39,200	47,900	20,200	434
1.0	630,900	1.4	1662	3/V 15L3		BE160M4	BX160MB4				40,200	49,100	20,200	434
1.0	502,800	2.0	1324	3/V 16L3		BE160M4	BX160MB4				60,600	67,200	33,700	450
1.0	603,300	1.6	1589	3/V 16L3		BE160M4	BX160MB4				62,200	69,000	33,700	450
1.0	743,200	1.3	1826	3/V 16L4		BE160M4	BX160MB4				63,500	70,400	33,700	450
1.0	509,900	2.6	1215	3/V 17L3		BE160M4	BX160MB4				93,200	99,000	33,700	462
1.0	538,800	2.5	1365	3/V 17L3		BE160M4	BX160MB4				94,800	100,700	33,700	462
1.0	733,100	2.2	1780	3/V 17L4		BE160M4	BX160MB4				98,400	104,600	33,700	462
2.0	280,600	1.3	720	3/V 11L3		BE160M4	BX160MB4				9,630	30,300	13,700	382
2.0	342,900	1.0	827	3/V 11L3		BE160M4	BX160MB4				9,820	30,900	14,300	382
2.0	288,600	1.4	741	3/V 13L3		BE160M4	BX160MB4				36,700	46,000	17,000	400
2.0	344,000	1.1	810	3/V 13L3		BE160M4	BX160MB4				37,200	46,600	17,500	400
2.0	339,100	1.4	870	3/V 13L3		BE160M4	BX160MB4				37,600	47,000	18,000	400
2.0	418,600	1.1	1009	3/V 13L3		BE160M4	BX160MB4				38,400	48,000	18,000	400
2.0	329,500	1.3	794	3/V 14L3		BE160M4	BX160MB4				36,200	44,200	19,600	418
2.0	347,800	1.4	893	3/V 14L3		BE160M4	BX160MB4				36,800	44,900	20,200	418
2.0	413,400	1.3	997	3/V 14L3		BE160M4	BX160MB4				37,400	45,600	20,200	418
2.0	348,400	2.0	840	3/V 15L3		BE160M4	BX160MB4				36,500	44,500	20,000	434
2.0	413,400	2.0	997	3/V 15L3		BE160M4	BX160MB4				37,400	45,600	20,200	434
2.0	436,500	1.9	1120	3/V 15L3		BE160M4	BX160MB4				38,000	46,400	20,200	434
2.0	333,400	2.6	794	3/V 16L3		BE160M4	BX160MB4				56,400	62,500	32,700	450
2.0	352,300	2.5	893	3/V 16L3		BE160M4	BX160MB4				57,300	63,500	33,700	450
2.0	418,100	2.5	1059	3/V 16L3		BE160M4	BX160MB4				58,700	65,100	33,700	450
2.0	357,000	2.6	851	3/V 17L3		BE160M4	BX160MB4				88,600	94,100	33,400	462
2.0	429,700	2.6	1024	3/V 17L3		BE160M4	BX160MB4				90,900	96,600	33,700	462
2.0	447,600	2.5	1134	3/V 17L3		BE160M4	BX160MB4				92,300	98,000	33,700	462
3.0	212,900	1.1	507	3/V 10L3		BE160M4	BX160MB4				20,000	25,900	12,200	364
3.0	235,000	1.0	560	3/V 10L3		BE160M4	BX160MB4				20,300	26,300	12,600	364
3.0	216,500	1.4	510	3/V 11L3		BE160M4	BX160MB4				9,170	28,800	12,200	382
3.0	234,100	1.4	551	3/V 11L3		BE160M4	BX160MB4				9,270	29,100	12,500	382
3.0	267,200	1.3	644	3/V 11L3		BE160M4	BX160MB4				9,480	29,800	13,200	382
3.0	219,300	2.1	516	3/V 13L3		BE160M4	BX160MB4				34,900	43,700	15,100	400
3.0	240,800	1.8	567	3/V 13L3		BE160M4	BX160MB4				35,300	44,200	15,600	400
3.0	285,800	1.5	673	3/V 13L3		BE160M4	BX160MB4				36,200	45,300	16,500	400
3.0	254,800	1.9	580	3/V 14L3		BE160M4	BX160MB4				34,600	42,200	17,600	418
3.0	282,300	2.2	665	3/V 14L3		BE160M4	BX160MB4				35,300	43,100	18,500	418
3.0	271,000	1.4	696	3/V 14L3		BE160M4	BX160MB4				35,500	43,300	18,700	418
3.0	282,300	2.7	665	3/V 15L3		BE160M4	BX160MB4				35,300	43,100	18,500	434
3.0	280,900	2.6	669	3/V 16L3		BE160M4	BX160MB4				55,000	61,000	30,800	450
4.0	183,100	1.3	436	3/V 10L3		BE160M4	BX160MB4				19,600	25,300	11,600	364
4.0	182,400	1.9	430	3/V 11L3		BE160M4	BX160MB4				8,950	28,100	11,500	382
4.0	187,000	2.2	425	3/V 13L3		BE160M4	BX160MB4				33,900	42,500	14,100	400
4.0	174,700	2.3	397	3/V 14L3		BE160M4	BX160MB4				32,800	40,000	15,500	418
4.0	189,500	2.2	446	3/V 14L3		BE160M4	BX160MB4				33,300	40,700	16,200	418
4.0	219,200	2.3	499	3/V 14L3		BE160M4	BX160MB4				33,900	41,300	16,800	418
5.0	157,300	2.2	370	3/V 13L3		BE160M4	BX160MB4				33,300	41,600	13,500	400
10.0	84,400	1.1	180		3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4		14,700	20,000	5,920	330
11.0	72,600	1.1	155		3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4		14,700	20,000	5,630	330



P₁ = 15 hp



A

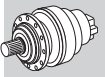
n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]			
				IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
13.0	66,000	1.0	141	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	11,700	14,800	4,240	312
13.0	65,800	1.5	140	3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	14,700	20,000	5,440	330
14.0	60,800	1.6	130	3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	14,700	20,000	5,300	330
16.0	52,600	1.0	112	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	11,700	14,800	3,930	312
16.0	50,900	1.5	109	3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	14,700	20,000	5,000	330
18.0	47,600	1.0	98.3	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	11,700	14,800	3,760	312
20.0	42,500	1.4	87.7	3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	14,600	19,800	4,650	330
22.0	39,300	1.0	81.2	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	11,400	14,300	3,530	312
25.0	33,800	1.0	69.9	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	10,900	13,700	3,360	312
26.0	33,100	1.4	68.3	3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	13,500	18,400	4,280	330
29.0	29,100	1.4	60.1	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	10,400	13,100	3,190	312
31	27,700	1.4	57.3	3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	12,800	17,400	4,040	330
32	27,000	1.0	55.7	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	10,200	12,800	3,110	312
34	25,000	1.4	51.7	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	9,940	12,500	3,040	312
36	23,800	2.7	49.2	3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	12,200	16,700	3,840	330
37	22,800	1.0	47.2	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	9,670	12,200	2,940	312
43	19,900	1.6	41.1	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	9,270	11,700	2,810	312
43	20,100	2.7	41.5	3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	11,600	15,800	3,630	330
51	16,900	1.4	34.9	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	8,830	11,100	2,660	312
54	15,800	1.6	32.7	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	8,660	10,900	2,610	312
55	15,600	2.7	32.3	3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	10,800	14,700	3,340	330
64	13,400	1.6	27.7	3/A 06L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	8,240	10,400	2,470	312
65	13,100	2.7	27.1	3/A 07L2	BE160M4	BX160MB4	ME5SA4	MX5SB4	10,200	13,900	3,150	330

P₁ = 20 hp

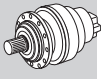
n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]			
				IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
0.30	2,635,400	1.4	5164	3/V 19L4	BE160L4	BX160LA4			132,500	145,800	45,000	486
0.40	2,382,200	1.0	4387	3/V 18L4	BE160L4	BX160LA4			113,100	119,500	45,000	474
0.40	2,223,900	1.5	4095	3/V 19L4	BE160L4	BX160LA4			128,100	141,100	45,000	486
0.40	2,479,000	1.3	4457	3/V 19L4	BE160L4	BX160LA4			129,700	142,800	45,000	486
0.40	2,500,800	2.0	4550	3/V 21L4	BE160L4	BX160LA4			175,100	207,500	269,800	498
0.40	2,605,200	1.9	5040	3/V 21L4	BE160L4	BX160LA4			175,100	207,500	269,800	498
0.50	1,898,300	1.3	3496	3/V 18L4	BE160L4	BX160LA4			110,500	115,700	45,000	474
0.50	2,007,200	1.2	3696	3/V 18L4	BE160L4	BX160LA4			111,400	116,600	45,000	474
0.50	1,796,800	1.8	3231	3/V 19L4	BE160L4	BX160LA4			123,900	136,400	45,000	486
0.50	2,025,700	2.3	3600	3/V 21L4	BE160L4	BX160LA4			175,100	207,500	269,800	498
0.50	2,077,500	2.0	3780	3/V 21L4	BE160L4	BX160LA4			175,100	207,500	269,800	498
0.60	1,415,400	1.0	2773	3/V 17L4	BE160L4	BX160LA4			99,400	105,700	33,700	462
0.60	1,720,400	1.0	3168	3/V 17L4	BE160L4	BX160LA4			99,400	105,700	33,700	462
0.60	1,599,500	1.5	2945	3/V 18L4	BE160L4	BX160LA4			107,900	112,900	45,000	474
0.70	1,431,000	1.0	2485	3/V 17L4	BE160L4	BX160LA4			99,400	105,700	33,700	462
0.70	1,370,400	1.8	2464	3/V 18L4	BE160L4	BX160LA4			105,200	110,000	45,000	474
0.70	1,435,900	2.3	2582	3/V 19L4	BE160L4	BX160LA4			120,000	132,100	45,000	486
0.80	1,190,800	1.0	2167	3/V 16L4	BE160L4	BX160LA4		N250TC	65,100	72,100	33,700	450
0.80	1,287,600	1.0	2343	3/V 16L4	BE160L4	BX160LA4		N250TC	65,800	72,900	33,700	450
0.80	1,246,400	1.5	2295	3/V 18L4	BE160L4	BX160LA4			104,100	108,900	45,000	474
0.90	1,188,800	1.4	2065	3/V 17L4	BE160L4	BX160LA4			99,400	105,700	33,700	462
1.0	699,400	1.2	1329	3/V 15L3	BE160L4	BX160LA4			39,000	47,500	20,200	434
1.0	717,700	1.1	1400	3/V 15L3	BE160L4	BX160LA4			39,200	47,900	20,200	434
1.0	851,800	1.0	1662	3/V 15L3	BE160L4	BX160LA4			40,200	49,100	20,200	434
1.0	678,800	1.5	1324	3/V 16L3	BE160L4	BX160LA4			60,600	67,200	33,700	450
1.0	814,500	1.2	1589	3/V 16L3	BE160L4	BX160LA4			62,200	69,000	33,700	450

P₁ = 20 hp

n ₂ rpm	T ₂ in-bs	S	i	3/V		IE2		IE3		NEMA	Rn ₂ [lbs]			FZ
				BE160L4	BX160LA4	IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ	
1.0	1,003,400	1.0	1826	3/V 16L4		BE160L4	BX160LA4			N250TC	63,500	70,400	33,700	450
1.0	688,400	1.9	1215	3/V 17L3		BE160L4	BX160LA4				93,200	99,000	33,700	462
1.0	727,400	1.9	1365	3/V 17L3		BE160L4	BX160LA4				94,800	100,700	33,700	462
1.0	989,700	1.6	1780	3/V 17L4		BE160L4	BX160LA4				98,400	104,600	33,700	462
1.0	847,900	2.7	1473	3/V 18L4		BE160L4	BX160LA4				97,700	102,200	45,000	474
1.0	1,006,300	2.5	1748	3/V 18L4		BE160L4	BX160LA4				100,100	104,700	45,000	474
1.0	1,064,100	2.3	1848	3/V 18L4		BE160L4	BX160LA4				100,900	105,600	45,000	474
2.0	378,800	0.9	720	3/V 11L3		BE160L4	BX160LA4				9,630	30,300	13,700	382
2.0	389,600	1.0	741	3/V 13L3		BE160L4	BX160LA4				36,700	46,000	17,000	400
2.0	457,700	1.0	870	3/V 13L3		BE160L4	BX160LA4				37,600	47,000	18,000	400
2.0	444,800	1.0	794	3/V 14L3		BE160L4	BX160LA4				36,200	44,200	19,600	418
2.0	469,600	1.0	893	3/V 14L3		BE160L4	BX160LA4				36,800	44,900	20,200	418
2.0	558,100	1.0	997	3/V 14L3		BE160L4	BX160LA4				37,400	45,600	20,200	418
2.0	470,300	1.5	840	3/V 15L3		BE160L4	BX160LA4				36,500	44,500	20,000	434
2.0	558,100	1.5	997	3/V 15L3		BE160L4	BX160LA4				37,400	45,600	20,200	434
2.0	589,300	1.4	1120	3/V 15L3		BE160L4	BX160LA4				38,000	46,400	20,200	434
2.0	450,100	2.0	794	3/V 16L3		BE160L4	BX160LA4				56,400	62,500	32,700	450
2.0	475,600	1.9	893	3/V 16L3		BE160L4	BX160LA4				57,300	63,500	33,700	450
2.0	564,500	1.9	1059	3/V 16L3		BE160L4	BX160LA4				58,700	65,100	33,700	450
2.0	469,900	2.6	810	3/V 17L3		BE160L4	BX160LA4				87,900	93,400	32,900	462
2.0	481,900	2.0	851	3/V 17L3		BE160L4	BX160LA4				88,600	94,100	33,400	462
2.0	580,100	2.0	1024	3/V 17L3		BE160L4	BX160LA4				90,900	96,600	33,700	462
2.0	604,300	1.9	1134	3/V 17L3		BE160L4	BX160LA4				92,300	98,000	33,700	462
3.0	292,300	1.0	510	3/V 11L3		BE160L4	BX160LA4				9,170	28,800	12,200	382
3.0	316,000	1.1	551	3/V 11L3		BE160L4	BX160LA4				9,270	29,100	12,500	382
3.0	360,700	1.0	644	3/V 11L3		BE160L4	BX160LA4				9,480	29,800	13,200	382
3.0	296,000	1.6	516	3/V 13L3		BE160L4	BX160LA4				34,900	43,700	15,100	400
3.0	325,100	1.3	567	3/V 13L3		BE160L4	BX160LA4				35,300	44,200	15,600	400
3.0	385,800	1.1	673	3/V 13L3		BE160L4	BX160LA4				36,200	45,300	16,500	400
3.0	344,000	1.4	580	3/V 14L3		BE160L4	BX160LA4				34,600	42,200	17,600	418
3.0	381,100	1.6	665	3/V 14L3		BE160L4	BX160LA4				35,300	43,100	18,500	418
3.0	365,900	1.0	696	3/V 14L3		BE160L4	BX160LA4				35,500	43,300	18,700	418
3.0	321,100	2.3	560	3/V 15L3		BE160L4	BX160LA4				34,400	42,000	17,400	434
3.0	381,100	2.0	665	3/V 15L3		BE160L4	BX160LA4				35,300	43,100	18,500	434
3.0	379,300	2.0	669	3/V 16L3		BE160L4	BX160LA4				55,000	61,000	30,800	450
4.0	247,200	1.0	436	3/V 10L3		BE160L4	BX160LA4			N250TC	19,600	25,300	11,600	364
4.0	246,300	1.4	430	3/V 11L3		BE160L4	BX160LA4				8,950	28,100	11,500	382
4.0	252,400	1.6	425	3/V 13L3		BE160L4	BX160LA4				33,900	42,500	14,100	400
4.0	235,800	1.7	397	3/V 14L3		BE160L4	BX160LA4				32,800	40,000	15,500	418
4.0	255,900	1.6	446	3/V 14L3		BE160L4	BX160LA4				33,300	40,700	16,200	418
4.0	295,900	1.7	499	3/V 14L3		BE160L4	BX160LA4				33,900	41,300	16,800	418
4.0	255,900	2.3	446	3/V 15L3		BE160L4	BX160LA4				33,300	40,700	16,200	434
4.0	295,900	2.5	499	3/V 15L3		BE160L4	BX160LA4				33,900	41,300	16,800	434
5.0	212,300	1.6	370	3/V 13L3		BE160L4	BX160LA4				33,300	41,600	13,500	400
5.0	231,900	2.5	386	3/V 15L3		BE160L4	BX160LA4				32,600	39,800	15,400	434
13.0	88,800	1.1	140	3/A 07L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	14,700	20,000	5,440	330
14.0	82,100	1.2	130	3/A 07L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	14,700	20,000	5,300	330
16.0	68,800	1.1	109	3/A 07L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	14,700	20,000	5,000	330
20.0	57,300	1.0	87.7	3/A 07L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	14,600	19,800	4,650	330
26.0	44,700	1.0	68.3	3/A 07L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	13,500	18,400	4,280	330
29.0	39,300	1.0	60.1	3/A 06L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	10,400	13,100	3,190	312
31	37,400	1.0	57.3	3/A 07L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	12,800	17,400	4,040	330
34	33,800	1.0	51.7	3/A 06L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	9,940	12,500	3,040	312
36	32,200	2.0	49.2	3/A 07L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	12,200	16,700	3,840	330
43	26,800	1.2	41.1	3/A 06L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	9,270	11,700	2,810	312
43	27,100	2.0	41.5	3/A 07L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	11,600	15,800	3,630	330
51	22,800	1.0	34.9	3/A 06L2		BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	8,830	11,100	2,660	312



P₁ = 20 hp







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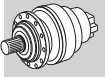
n ₂ rpm	T ₂ in-bs	S	i							NEMA	Rn ₂ [lbs]				
						IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ		
54	21,400	1.2	32.7			3/A 06L2	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	8,660	10,900	2,610	312
55	21,100	2.0	32.3			3/A 07L2	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	10,800	14,700	3,340	330
64	18,100	1.2	27.7			3/A 06L2	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	8,240	10,400	2,470	312
65	17,700	2.0	27.1			3/A 07L2	BE160L4	BX160LA4	ME5LA4	MX5LA4	N250TC	10,200	13,900	3,150	330

P₁ = 25 hp





n ₂ rpm	T ₂ in-bs	S	i							NEMA	Rn ₂ [lbs]				
						IE2	IE3	IE2	IE3		NHC/HC NPC/PC	HZ/PZ	FZ		
0.30	3,253,500	1.1	5164	3/V 19L4		BE180M4	BX180M4					132,500	145,800	45,000	486
0.40	2,745,500	1.2	4095	3/V 19L4		BE180M4	BX180M4					128,100	141,100	45,000	486
0.40	3,060,500	1.0	4457	3/V 19L4		BE180M4	BX180M4					129,700	142,800	45,000	486
0.40	3,087,400	1.6	4550	3/V 21L4		BE180M4	BX180M4					175,100	207,500	269,800	498
0.40	3,216,300	1.5	5040	3/V 21L4		BE180M4	BX180M4					175,100	207,500	269,800	498
0.50	2,343,600	1.1	3496	3/V 18L4		BE180M4	BX180M4					110,500	115,700	45,000	474
0.50	2,478,000	1.0	3696	3/V 18L4		BE180M4	BX180M4					111,400	116,600	45,000	474
0.50	2,218,300	1.5	3231	3/V 19L4		BE180M4	BX180M4					123,900	136,400	45,000	486
0.50	2,500,900	1.9	3600	3/V 21L4		BE180M4	BX180M4					175,100	207,500	269,800	498
0.50	2,564,900	1.6	3780	3/V 21L4		BE180M4	BX180M4					175,100	207,500	269,800	498
0.60	1,974,700	1.2	2945	3/V 18L4		BE180M4	BX180M4					107,900	112,900	45,000	474
0.70	1,691,800	1.5	2464	3/V 18L4		BE180M4	BX180M4					105,200	110,000	45,000	474
0.70	1,772,700	1.8	2582	3/V 19L4		BE180M4	BX180M4					120,000	132,100	45,000	486
0.70	1,750,600	2.6	2520	3/V 21L4		BE180M4	BX180M4					169,100	201,300	269,800	498
0.70	1,919,300	2.5	2700	3/V 21L4		BE180M4	BX180M4					170,800	203,300	269,800	498
0.80	1,538,700	1.2	2295	3/V 18L4		BE180M4	BX180M4					104,100	108,900	45,000	474
0.90	1,467,600	1.1	2065	3/V 17L4		BE180M4	BX180M4					99,400	105,700	33,700	462
1.0	863,400	1.0	1329	3/V 15L3		BE180M4	BX180M4					39,000	47,500	20,200	434
1.0	838,000	1.2	1324	3/V 16L3		BE180M4	BX180M4					60,600	67,200	33,700	450
1.0	1,005,600	1.0	1589	3/V 16L3		BE180M4	BX180M4					62,200	69,000	33,700	450
1.0	849,900	1.5	1215	3/V 17L3		BE180M4	BX180M4					93,200	99,000	33,700	462
1.0	898,000	1.5	1365	3/V 17L3		BE180M4	BX180M4					94,800	100,700	33,700	462
1.0	1,221,900	1.3	1780	3/V 17L4		BE180M4	BX180M4					98,400	104,600	33,700	462
1.0	885,700	2.7	1232	3/V 18L4		BE180M4	BX180M4					95,200	99,600	45,000	474
1.0	1,046,800	2.2	1473	3/V 18L4		BE180M4	BX180M4					97,700	102,200	45,000	474
1.0	1,242,400	2.0	1748	3/V 18L4		BE180M4	BX180M4					100,100	104,700	45,000	474
1.0	1,313,600	1.9	1848	3/V 18L4		BE180M4	BX180M4					100,900	105,600	45,000	474
2.0	580,600	1.2	840	3/V 15L3		BE180M4	BX180M4					36,500	44,500	20,000	434
2.0	689,100	1.2	997	3/V 15L3		BE180M4	BX180M4					37,400	45,600	20,200	434
2.0	727,500	1.1	1120	3/V 15L3		BE180M4	BX180M4					38,000	46,400	20,200	434
2.0	555,700	1.6	794	3/V 16L3		BE180M4	BX180M4					56,400	62,500	32,700	450
2.0	587,200	1.5	893	3/V 16L3		BE180M4	BX180M4					57,300	63,500	33,700	450
2.0	696,800	1.5	1059	3/V 16L3		BE180M4	BX180M4					58,700	65,100	33,700	450
2.0	580,100	2.1	810	3/V 17L3		BE180M4	BX180M4					87,900	93,400	32,900	462
2.0	594,900	1.6	851	3/V 17L3		BE180M4	BX180M4					88,600	94,100	33,400	462
2.0	716,100	1.6	1024	3/V 17L3		BE180M4	BX180M4					90,900	96,600	33,700	462
2.0	746,000	1.5	1134	3/V 17L3		BE180M4	BX180M4					92,300	98,000	33,700	462
2.0	550,000	3.0	765	3/V 18L4		BE180M4	BX180M4					89,000	93,100	43,000	474
2.0	705,800	3.0	982	3/V 18L4		BE180M4	BX180M4					92,200	96,500	45,000	474
2.0	837,700	2.9	1165	3/V 18L4		BE180M4	BX180M4					94,500	98,900	45,000	474
3.0	365,400	1.3	516	3/V 13L3		BE180M4	BX180M4					34,900	43,700	15,100	400
3.0	401,300	1.1	567	3/V 13L3		BE180M4	BX180M4					35,300	44,200	15,600	400
3.0	476,300	0.9	673	3/V 13L3		BE180M4	BX180M4					36,200	45,300	16,500	400
3.0	424,600	1.2	580	3/V 14L3		BE180M4	BX180M4					34,600	42,200	17,600	418
3.0	470,400	1.3	665	3/V 14L3		BE180M4	BX180M4					35,300	43,100	18,500	418

P₁ = 25 hp

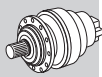
n ₂ rpm	T ₂ in-bs	S	i							NEMA	Rn ₂ [lbs]			
				IE2	IE3	IE2	IE3	NHC/HC NPC/PC	HZ/PZ		FZ			
3.0	396,400	1.8	560	3/V 15L3		BE180M4	BX180M4				34,400	42,000	17,400	434
3.0	470,400	1.6	665	3/V 15L3		BE180M4	BX180M4				35,300	43,100	18,500	434
3.0	379,300	2.5	530	3/V 16L3		BE180M4	BX180M4				53,200	59,000	28,500	450
3.0	468,200	1.6	669	3/V 16L3		BE180M4	BX180M4				55,000	61,000	30,800	450
3.0	406,100	2.6	567	3/V 17L3		BE180M4	BX180M4				83,600	88,800	29,200	462
3.0	445,200	2.6	608	3/V 17L3		BE180M4	BX180M4				84,400	89,700	29,900	462
3.0	488,800	2.6	683	3/V 17L3		BE180M4	BX180M4				85,800	91,200	31,000	462
4.0	304,100	1.2	430	3/V 11L3		BE180M4	BX180M4				8,950	28,100	11,500	382
4.0	311,600	1.3	425	3/V 13L3		BE180M4	BX180M4				33,900	42,500	14,100	400
4.0	291,100	1.4	397	3/V 14L3		BE180M4	BX180M4				32,800	40,000	15,500	418
4.0	315,900	1.3	446	3/V 14L3		BE180M4	BX180M4				33,300	40,700	16,200	418
4.0	365,300	1.4	499	3/V 14L3		BE180M4	BX180M4				33,900	41,300	16,800	418
4.0	315,900	1.8	446	3/V 15L3		BE180M4	BX180M4				33,300	40,700	16,200	434
4.0	365,300	2.0	499	3/V 15L3		BE180M4	BX180M4				33,900	41,300	16,800	434
4.0	319,600	2.6	446	3/V 16L3		BE180M4	BX180M4				51,900	57,500	26,900	450
5.0	262,100	1.3	370	3/V 13L3		BE180M4	BX180M4				33,300	41,600	13,500	400
5.0	286,300	2.0	386	3/V 15L3		BE180M4	BX180M4				32,600	39,800	15,400	434
14.0	101,300	1.0	130		3/A 07L2	BE180M4	BX180M4				14,700	20,000	5,300	330
16.0	84,900	0.9	109		3/A 07L2	BE180M4	BX180M4				14,700	20,000	5,000	330
36	39,700	1.6	49.2		3/A 07L2	BE180M4	BX180M4				12,200	16,700	3,840	330
43	33,100	1.0	41.1		3/A 06L2	BE180M4	BX180M4				9,270	11,700	2,810	312
43	33,500	1.6	41.5		3/A 07L2	BE180M4	BX180M4				11,600	15,800	3,630	330
54	26,400	1.0	32.7		3/A 06L2	BE180M4	BX180M4				8,660	10,900	2,610	312
55	26,100	1.6	32.3		3/A 07L2	BE180M4	BX180M4				10,800	14,700	3,340	330
64	22,400	1.0	27.7		3/A 06L2	BE180M4	BX180M4				8,240	10,400	2,470	312
65	21,900	1.6	27.1		3/A 07L2	BE180M4	BX180M4				10,200	13,900	3,150	330



P₁ = 30 hp

n ₂ rpm	T ₂ in-bs	S	i							NEMA	Rn ₂ [lbs]			
				IE2	IE3	IE2	IE3	NHC/HC NPC/PC	HZ/PZ		FZ			
0.30	3,871,700	0.9	5164	3/V 19L4		BE180L4	BX180L4				132,500	145,800	45,000	486
0.40	3,267,200	1.0	4095	3/V 19L4		BE180L4	BX180L4				128,100	141,100	45,000	486
0.40	3,674,000	1.3	4550	3/V 21L4		BE180L4	BX180L4				175,100	207,500	269,800	498
0.40	3,827,300	1.3	5040	3/V 21L4		BE180L4	BX180L4				175,100	207,500	269,800	498
0.50	2,639,800	1.2	3231	3/V 19L4		BE180L4	BX180L4				123,900	136,400	45,000	486
0.50	2,976,000	1.6	3600	3/V 21L4		BE180L4	BX180L4				175,100	207,500	269,800	498
0.50	3,052,200	1.3	3780	3/V 21L4		BE180L4	BX180L4				175,100	207,500	269,800	498
0.60	2,349,800	1.0	2945	3/V 18L4		BE180L4	BX180L4				107,900	112,900	45,000	474
0.70	2,013,300	1.2	2464	3/V 18L4		BE180L4	BX180L4				105,200	110,000	45,000	474
0.70	2,109,600	1.5	2582	3/V 19L4		BE180L4	BX180L4				120,000	132,100	45,000	486
0.70	2,083,200	2.2	2520	3/V 21L4		BE180L4	BX180L4				169,100	201,300	269,800	498
0.70	2,283,900	2.1	2700	3/V 21L4		BE180L4	BX180L4				170,800	203,300	269,800	498
0.80	1,831,000	1.0	2295	3/V 18L4		BE180L4	BX180L4				104,100	108,900	45,000	474
0.80	1,924,500	2.5	2275	3/V 21L4		BE180L4	BX180L4				166,700	198,400	269,800	498
0.90	1,746,500	0.9	2065	3/V 17L4		BE180L4	BX180L4				99,400	105,700	33,700	462
0.90	1,598,800	2.5	1890	3/V 21L4		BE180L4	BX180L4				162,300	193,200	269,800	498
1.0	997,200	1.0	1324	3/V 16L3		BE180L4	BX180L4				60,600	67,200	33,700	450
1.0	1,011,400	1.3	1215	3/V 17L3		BE180L4	BX180L4				93,200	99,000	33,700	462
1.0	1,068,600	1.3	1365	3/V 17L3		BE180L4	BX180L4				94,800	100,700	33,700	462
1.0	1,454,000	1.1	1780	3/V 17L4		BE180L4	BX180L4				98,400	104,600	33,700	462
1.0	1,054,000	2.3	1232	3/V 18L4		BE180L4	BX180L4				95,200	99,600	45,000	474







P₁ = 30 hp









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n ₂ rpm	T ₂ in-bs	S	i	3/V 18L4		3/V 15L3		3/V 17L3		NEMA	Rn ₂ [lbs]			FZ
				BE180L4	BX180L4	BE180L4	BX180L4	BE180L4	BX180L4		NHC/HC NPC/PC	HZ/PZ	FZ	
1.0	1,245,700	1.8	1473	3/V 18L4	BE180L4	BX180L4					97,700	102,200	45,000	474
1.0	1,478,400	1.7	1748	3/V 18L4	BE180L4	BX180L4					100,100	104,700	45,000	474
1.0	1,563,200	1.6	1848	3/V 18L4	BE180L4	BX180L4					100,900	105,600	45,000	474
2.0	690,900	1.0	840	3/V 15L3	BE180L4	BX180L4					36,500	44,500	20,000	434
2.0	820,000	1.0	997	3/V 15L3	BE180L4	BX180L4					37,400	45,600	20,200	434
2.0	865,700	0.9	1120	3/V 15L3	BE180L4	BX180L4					38,000	46,400	20,200	434
2.0	661,300	1.3	794	3/V 16L3	BE180L4	BX180L4					56,400	62,500	32,700	450
2.0	698,700	1.3	893	3/V 16L3	BE180L4	BX180L4					57,300	63,500	33,700	450
2.0	829,200	1.3	1059	3/V 16L3	BE180L4	BX180L4					58,700	65,100	33,700	450
2.0	690,300	1.8	810	3/V 17L3	BE180L4	BX180L4					87,900	93,400	32,900	462
2.0	708,000	1.3	851	3/V 17L3	BE180L4	BX180L4					88,600	94,100	33,400	462
2.0	852,200	1.3	1024	3/V 17L3	BE180L4	BX180L4					90,900	96,600	33,700	462
2.0	887,800	1.3	1134	3/V 17L3	BE180L4	BX180L4					92,300	98,000	33,700	462
2.0	654,500	2.5	765	3/V 18L4	BE180L4	BX180L4					89,000	93,100	43,000	474
2.0	839,900	2.5	982	3/V 18L4	BE180L4	BX180L4					92,200	96,500	45,000	474
2.0	996,800	2.4	1165	3/V 18L4	BE180L4	BX180L4					94,500	98,900	45,000	474
3.0	434,900	1.1	516	3/V 13L3	BE180L4	BX180L4					34,900	43,700	15,100	400
3.0	505,300	1.0	580	3/V 14L3	BE180L4	BX180L4					34,600	42,200	17,600	418
3.0	559,800	1.1	665	3/V 14L3	BE180L4	BX180L4					35,300	43,100	18,500	418
3.0	471,700	1.5	560	3/V 15L3	BE180L4	BX180L4					34,400	42,000	17,400	434
3.0	559,800	1.4	665	3/V 15L3	BE180L4	BX180L4					35,300	43,100	18,500	434
3.0	451,400	2.1	530	3/V 16L3	BE180L4	BX180L4					53,200	59,000	28,500	450
3.0	557,200	1.3	669	3/V 16L3	BE180L4	BX180L4					55,000	61,000	30,800	450
3.0	446,400	2.5	512	3/V 17L3	BE180L4	BX180L4					82,400	87,500	28,200	462
3.0	483,200	2.2	567	3/V 17L3	BE180L4	BX180L4					83,600	88,800	29,200	462
3.0	529,800	2.2	608	3/V 17L3	BE180L4	BX180L4					84,400	89,700	29,900	462
3.0	581,700	2.2	683	3/V 17L3	BE180L4	BX180L4					85,800	91,200	31,000	462
4.0	361,800	1.0	430	3/V 11L3	BE180L4	BX180L4					8,950	28,100	11,500	382
4.0	370,800	1.1	425	3/V 13L3	BE180L4	BX180L4					33,900	42,500	14,100	400
4.0	346,400	1.2	397	3/V 14L3	BE180L4	BX180L4					32,800	40,000	15,500	418
4.0	375,900	1.1	446	3/V 14L3	BE180L4	BX180L4					33,300	40,700	16,200	418
4.0	434,700	1.2	499	3/V 14L3	BE180L4	BX180L4					33,900	41,300	16,800	418
4.0	375,900	1.5	446	3/V 15L3	BE180L4	BX180L4					33,300	40,700	16,200	434
4.0	434,700	1.7	499	3/V 15L3	BE180L4	BX180L4					33,900	41,300	16,800	434
4.0	346,400	2.5	397	3/V 16L3	BE180L4	BX180L4					51,100	56,600	25,900	450
4.0	380,300	2.2	446	3/V 16L3	BE180L4	BX180L4					51,900	57,500	26,900	450
4.0	370,800	2.5	425	3/V 17L3	BE180L4	BX180L4					80,200	85,200	26,500	462
5.0	311,900	1.1	370	3/V 13L3	BE180L4	BX180L4					33,300	41,600	13,500	400
5.0	340,700	1.7	386	3/V 15L3	BE180L4	BX180L4					32,600	39,800	15,400	434
36	47,300	1.4	49.2		3/A 07L2	BE180L4	BX180L4			N280TC	12,200	16,700	3,840	330
43	39,800	1.4	41.5		3/A 07L2	BE180L4	BX180L4			N280TC	11,600	15,800	3,630	330
55	31,000	1.4	32.3		3/A 07L2	BE180L4	BX180L4			N280TC	10,800	14,700	3,340	330
65	26,000	1.4	27.1		3/A 07L2	BE180L4	BX180L4			N280TC	10,200	13,900	3,150	330

P₁ = 40 hp

n ₂ rpm	T ₂ in-bs	S	i						Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
0.30	5,210,400	0.9	5040	3/V 21L4		IEC200L4			175,100	207,500	269,800	498
0.40	5,001,600	1.0	4550	3/V 21L4		IEC200L4			175,100	207,500	269,800	498
0.50	3,593,600	0.9	3231	3/V 19L4		IEC200L4			123,900	136,400	45,000	486
0.50	4,051,500	1.2	3600	3/V 21L4		IEC200L4			175,100	207,500	269,800	498
0.50	4,155,100	1.0	3780	3/V 21L4		IEC200L4			175,100	207,500	269,800	498
0.70	2,740,800	0.9	2464	3/V 18L4		IEC200L4			105,200	110,000	45,000	474
0.70	2,871,900	1.1	2582	3/V 19L4		IEC200L4			120,000	132,100	45,000	486
0.70	2,836,000	1.6	2520	3/V 21L4		IEC200L4			169,100	201,300	269,800	498
0.70	3,109,300	1.5	2700	3/V 21L4		IEC200L4			170,800	203,300	269,800	498
0.80	2,619,900	1.9	2275	3/V 21L4		IEC200L4			166,700	198,400	269,800	498
0.90	2,176,500	1.9	1890	3/V 21L4		IEC200L4			162,300	193,200	269,800	498
1.0	1,376,900	0.9	1215	3/V 17L3		IEC200L4			93,200	99,000	33,700	462
1.0	1,454,800	0.9	1365	3/V 17L3		IEC200L4			94,800	100,700	33,700	462
1.0	1,434,900	1.7	1232	3/V 18L4		IEC200L4			95,200	99,600	45,000	474
1.0	1,695,800	1.3	1473	3/V 18L4		IEC200L4			97,700	102,200	45,000	474
1.0	2,012,600	1.2	1748	3/V 18L4		IEC200L4			100,100	104,700	45,000	474
1.0	2,128,100	1.2	1848	3/V 18L4		IEC200L4			100,900	105,600	45,000	474
1.0	1,484,000	2.5	1260	3/V 21L4		IEC200L4			153,200	182,300	269,800	498
1.0	1,786,300	2.5	1517	3/V 21L4		IEC200L4			157,300	187,200	269,800	498
1.0	2,119,900	2.2	1800	3/V 21L4		IEC200L4			161,200	191,800	269,800	498
2.0	900,300	1.0	794	3/V 16L3		IEC200L4			56,400	62,500	32,700	450
2.0	951,200	0.9	893	3/V 16L3		IEC200L4			57,300	63,500	33,700	450
2.0	1,128,900	0.9	1059	3/V 16L3		IEC200L4			58,700	65,100	33,700	450
2.0	939,800	1.3	810	3/V 17L3		IEC200L4			87,900	93,400	32,900	462
2.0	963,800	1.0	851	3/V 17L3		IEC200L4			88,600	94,100	33,400	462
2.0	1,160,100	1.0	1024	3/V 17L3		IEC200L4			90,900	96,600	33,700	462
2.0	1,208,600	0.9	1134	3/V 17L3		IEC200L4			92,300	98,000	33,700	462
2.0	891,000	1.8	765	3/V 18L4		IEC200L4			89,000	93,100	43,000	474
2.0	1,143,400	1.8	982	3/V 18L4		IEC200L4			92,200	96,500	45,000	474
2.0	1,357,000	1.8	1165	3/V 18L4		IEC200L4			94,500	98,900	45,000	474
3.0	642,200	1.1	560	3/V 15L3		IEC200L4			34,400	42,000	17,400	434
3.0	762,100	1.0	665	3/V 15L3		IEC200L4			35,300	43,100	18,500	434
3.0	614,500	1.6	530	3/V 16L3		IEC200L4			53,200	59,000	28,500	450
3.0	758,600	1.0	669	3/V 16L3		IEC200L4			55,000	61,000	30,800	450
3.0	607,700	1.9	512	3/V 17L3		IEC200L4			82,400	87,500	28,200	462
3.0	657,800	1.6	567	3/V 17L3		IEC200L4			83,600	88,800	29,200	462
3.0	721,200	1.6	608	3/V 17L3		IEC200L4			84,400	89,700	29,900	462
3.0	791,800	1.6	683	3/V 17L3		IEC200L4			85,800	91,200	31,000	462
4.0	511,700	1.1	446	3/V 15L3		IEC200L4			33,300	40,700	16,200	434
4.0	591,800	1.3	499	3/V 15L3		IEC200L4			33,900	41,300	16,800	434
4.0	471,600	1.9	397	3/V 16L3		IEC200L4			51,100	56,600	25,900	450
4.0	517,700	1.6	446	3/V 16L3		IEC200L4			51,900	57,500	26,900	450
4.0	491,700	2.2	405	3/V 17L3		IEC200L4			79,700	84,600	26,100	462
4.0	504,900	1.9	425	3/V 17L3		IEC200L4			80,200	85,200	26,500	462
5.0	463,800	1.3	386	3/V 15L3		IEC200L4			32,600	39,800	15,400	434

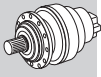
P₁ = 50 hp

n ₂ rpm	T ₂ in-bs	S	i						Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
0.50	4,989,300	1.0	3600	3/V 21L4		IEC225S4			175,100	207,500	269,800	498
0.70	3,536,600	0.9	2582	3/V 19L4		IEC225S4			120,000	132,100	45,000	486
0.70	3,492,500	1.3	2520	3/V 21L4		IEC225S4			169,100	201,300	269,800	498
0.70	3,829,000	1.2	2700	3/V 21L4		IEC225S4			170,800	203,300	269,800	498

The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.



P₁ = 50 hp



A

n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
0.80	3,226,300	1.5	2275	3/V 21L4			IEC225S4		166,700	198,400	269,800	498
0.90	2,680,300	1.5	1890	3/V 21L4			IEC225S4		162,300	193,200	269,800	498
1.0	1,767,000	1.4	1232	3/V 18L4			IEC225S4		95,200	99,600	45,000	474
1.0	2,088,400	1.1	1473	3/V 18L4			IEC225S4		97,700	102,200	45,000	474
1.0	2,478,500	1.0	1748	3/V 18L4			IEC225S4		100,100	104,700	45,000	474
1.0	2,620,700	0.9	1848	3/V 18L4			IEC225S4		100,900	105,600	45,000	474
1.0	1,827,500	2.1	1260	3/V 21L4			IEC225S4		153,200	182,300	269,800	498
1.0	2,199,800	2.1	1517	3/V 21L4			IEC225S4		157,300	187,200	269,800	498
1.0	2,610,700	1.8	1800	3/V 21L4			IEC225S4		161,200	191,800	269,800	498
2.0	1,157,300	1.1	810	3/V 17L3			IEC225S4		87,900	93,400	32,900	462
2.0	1,097,200	1.5	765	3/V 18L4			IEC225S4		89,000	93,100	43,000	474
2.0	1,408,100	1.5	982	3/V 18L4			IEC225S4		92,200	96,500	45,000	474
2.0	1,671,100	1.4	1165	3/V 18L4			IEC225S4		94,500	98,900	45,000	474
2.0	1,557,000	2.5	1062	3/V 21L4			IEC225S4		149,500	177,900	269,800	498
3.0	790,800	0.9	560	3/V 15L3			IEC225S4		34,400	42,000	17,400	434
3.0	756,700	1.3	530	3/V 16L3			IEC225S4		53,200	59,000	28,500	450
3.0	748,400	1.5	512	3/V 17L3			IEC225S4		82,400	87,500	28,200	462
3.0	810,100	1.3	567	3/V 17L3			IEC225S4		83,600	88,800	29,200	462
3.0	888,200	1.3	608	3/V 17L3			IEC225S4		84,400	89,700	29,900	462
3.0	975,100	1.3	683	3/V 17L3			IEC225S4		85,800	91,200	31,000	462
4.0	630,200	0.9	446	3/V 15L3			IEC225S4		33,300	40,700	16,200	434
4.0	728,800	1.0	499	3/V 15L3			IEC225S4		33,900	41,300	16,800	434
4.0	580,700	1.5	397	3/V 16L3			IEC225S4		51,100	56,600	25,900	450
4.0	637,600	1.3	446	3/V 16L3			IEC225S4		51,900	57,500	26,900	450
4.0	605,600	1.8	405	3/V 17L3			IEC225S4		79,700	84,600	26,100	462
4.0	621,700	1.5	425	3/V 17L3			IEC225S4		80,200	85,200	26,500	462
5.0	571,200	1.0	386	3/V 15L3			IEC225S4		32,600	39,800	15,400	434

P₁ = 60 hp

n ₂ rpm	T ₂ in-bs	S	i					NEMA	Rn ₂ [lbs]			
									NHC/HC NPC/PC	HZ/PZ	FZ	
0.70	4,236,500	1.1	2520	3/V 21L4			IEC225M4		169,100	201,300	269,800	498
0.70	4,644,700	1.0	2700	3/V 21L4			IEC225M4		170,800	203,300	269,800	498
0.80	3,913,700	1.3	2275	3/V 21L4			IEC225M4		166,700	198,400	269,800	498
0.90	3,251,300	1.3	1890	3/V 21L4			IEC225M4		162,300	193,200	269,800	498
1.0	2,143,400	1.1	1232	3/V 18L4			IEC225M4		95,200	99,600	45,000	474
1.0	2,216,800	1.7	1260	3/V 21L4			IEC225M4		153,200	182,300	269,800	498
1.0	2,668,400	1.7	1517	3/V 21L4			IEC225M4		157,300	187,200	269,800	498
1.0	3,166,800	1.5	1800	3/V 21L4			IEC225M4		161,200	191,800	269,800	498
2.0	1,331,000	1.2	765	3/V 18L4			IEC225M4		89,000	93,100	43,000	474
2.0	1,708,100	1.2	982	3/V 18L4			IEC225M4		92,200	96,500	45,000	474
2.0	2,027,100	1.2	1165	3/V 18L4			IEC225M4		94,500	98,900	45,000	474
2.0	1,888,600	2.1	1062	3/V 21L4			IEC225M4		149,500	177,900	269,800	498
3.0	917,900	1.0	530	3/V 16L3			IEC225M4		53,200	59,000	28,500	450
3.0	907,800	1.3	512	3/V 17L3			IEC225M4		82,400	87,500	28,200	462
3.0	982,700	1.1	567	3/V 17L3			IEC225M4		83,600	88,800	29,200	462
3.0	1,077,400	1.1	608	3/V 17L3			IEC225M4		84,400	89,700	29,900	462
3.0	1,182,900	1.1	683	3/V 17L3			IEC225M4		85,800	91,200	31,000	462
4.0	704,400	1.3	397	3/V 16L3			IEC225M4		51,100	56,600	25,900	450
4.0	773,400	1.1	446	3/V 16L3			IEC225M4		51,900	57,500	26,900	450
4.0	734,600	1.5	405	3/V 17L3			IEC225M4		79,700	84,600	26,100	462
4.0	754,200	1.3	425	3/V 17L3			IEC225M4		80,200	85,200	26,500	462

The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 HP.

25.3 RATING CHARTS FOR INLINE UNITS 300 L

Reading the rating chart.

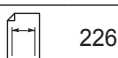


301 L							242		21,800 lb·in				
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in	
									NHC/NPC	HZ/PZ	FZ		
1800	301L1	3.48	517	7,030	40	8.2	71 to 132	N56C to N280TC	1,680	1,990	280	30,093	
	301L1	4.26	422	7,350	40	8.2	71 to 132	N56C to N280TC	1,780	2,120	300	30,093	
	301L1	5.77	312	7,800	40	8.2	71 to 132	N56C to N280TC	1,950	2,320	330	30,093	
	301L1	7.20	250	6,320	26	8.2	71 to 132	N56C to N280TC	2,090	2,480	360	30,093	
	301L1	9.00	200	5,250	17.2	8.2	71 to 132	N56C to N280TC	2,230	2,650	390	30,093	
	301L2	12.1	149	10,200	26	8.2	71 to 132	N56C to N280TC	2,440	2,890	430	30,093	
	301L2	14.8	121	10,700	22	8.2	71 to 132	N56C to N280TC	2,590	3,080	460	30,093	
	301L2	18.2	99	11,400	19.0	8.2	71 to 132	N56C to N280TC	2,750	3,270	490	30,093	

The rated torque of the gearbox, independent of installed mechanical power

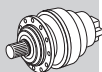
1	Reference torque	8	Gearbox thermal capacity
2	Gearbox drive speed	9	Frame size of available IEC motor
3	Frame size of the in-line gear unit	10	Frame size of available NEMA motor
4	Gear ratio	11	Permitted overhung loading on output shaft, based on: - service factor $f_S=1$ - 10000 h theoretical lifetime - speed of output n_2 For forces not applied at shaft midpoint, see diagrams provided in the specific gearbox overall dimensioning pages
5	Gearbox output speed	12	Maximum torque
6	Gearbox rated output torque based on: - service factor $f_S=1$ - 10000 h theoretical lifetime	13	Dimensions page
7	Gearbox rated input power, based on: - service factor $f_S=1$ - 10000 h theoretical lifetime		

300 L



226

11,060 lb-in



B




n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in	
								NHC/NPC	HZ/PZ	FZ		
1800	300L1	3.48	517	3,950	27	8.2	71 to 132	N56C to N280TC	1,680	2,120	280	17,701
	300L1	4.26	422	4,140	27	8.2	71 to 132	N56C to N280TC	1,780	2,250	300	21,242
	300L1	5.77	312	3,960	20	8.2	71 to 132	N56C to N280TC	1,950	2,460	330	21,242
	300L1	7.20	250	3,430	14.0	8.2	71 to 132	N56C to N280TC	2,090	2,630	360	21,242
	300L1	9.00	200	2,660	8.7	8.2	71 to 132	N56C to N280TC	2,230	2,820	390	21,242
	300L2	12.1	149	5,740	14.4	8.2	71 to 132	N56C to N280TC	2,440	3,080	430	17,701
	300L2	14.8	121	6,010	12.3	8.2	71 to 132	N56C to N280TC	2,590	3,270	460	17,701
	300L2	18.2	99	6,390	10.7	8.2	71 to 132	N56C to N280TC	2,750	3,480	490	21,242
	300L2	20.1	90	5,600	8.5	8.2	71 to 132	N56C to N280TC	2,840	3,580	510	17,701
	300L2	24.6	73	6,830	8.4	8.2	71 to 132	N56C to N280TC	3,020	3,810	540	21,242
	300L2	30.7	59	7,180	7.1	8.2	71 to 132	N56C to N280TC	3,220	4,070	580	21,242
	300L2	33.3	54	5,730	5.2	8.2	71 to 132	N56C to N280TC	3,300	4,170	600	21,242
	300L2	38.4	47	7,440	5.9	8.2	71 to 132	N56C to N280TC	3,450	4,350	630	21,242
	300L2	41.5	43	5,750	4.2	8.2	71 to 132	N56C to N280TC	3,530	4,460	650	21,242
	300L2	51.9	35	5,750	3.4	8.2	71 to 132	N56C to N280TC	3,770	4,770	690	21,242
	300L2	64.8	27.8	4,870	2.3	8.2	71 to 132	N56C to N280TC	4,030	5,090	750	21,242
	300L3	51.6	35	7,470	4.5	8.2	71 to 132	N56C to N280TC	3,770	4,760	690	17,701
	300L3	63.2	28.5	7,500	3.7	8.2	71 to 132	N56C to N280TC	4,000	5,060	740	21,242
	300L3	69.9	25.8	5,750	2.6	8.2	71 to 132	N56C to N280TC	4,130	5,210	770	17,701
	300L3	77.5	23.2	7,520	3.0	8.2	71 to 132	N56C to N280TC	4,260	5,370	790	21,242
	300L3	85.6	21.0	7,530	2.8	8.2	71 to 132	N56C to N280TC	4,380	5,540	820	21,242
	300L3	105	17.2	7,550	2.3	8.2	71 to 132	N56C to N280TC	4,450	5,620	880	21,242
	300L3	116	15.5	5,750	1.6	8.2	71 to 132	N56C to N280TC	4,450	5,620	910	21,242
	300L3	131	13.8	7,580	1.8	8.2	71 to 132	N56C to N280TC	4,450	5,620	950	21,242
	300L3	142	12.7	7,590	1.7	8.2	71 to 132	N56C to N280TC	4,450	5,620	970	21,242
	300L3	177	10.2	7,610	1.3	8.2	71 to 132	N56C to N280TC	4,450	5,620	1,050	21,242
	300L3	192	9.4	5,750	0.94	8.2	71 to 132	N56C to N280TC	4,490	5,670	1,070	21,242
	300L3	221	8.1	7,840	1.1	8.2	71 to 132	N56C to N280TC	4,580	5,790	1,130	21,242
	300L3	240	7.5	5,750	0.75	8.2	71 to 132	N56C to N280TC	4,640	5,850	1,160	21,242
	300L3	299	6.0	5,750	0.60	8.2	71 to 132	N56C to N280TC	4,790	6,040	1,250	21,242
300L3	374	4.8	5,790	0.48	8.2	71 to 132	N56C to N280TC	4,940	6,240	1,340	21,242	
300L4	330	5.4	8,300	0.81	6.6	71 to 132	N56C to N280TC	4,850	6,130	1,290	21,242	
300L4	403	4.5	5,860	0.47	6.6	71 to 132	N56C to N280TC	4,990	6,310	1,380	21,242	
300L4	447	4.0	8,730	0.63	6.6	71 to 132	N56C to N280TC	5,070	6,400	1,420	21,242	
300L4	494	3.6	8,880	0.58	6.6	71 to 132	N56C to N280TC	5,140	6,490	1,470	21,242	
300L4	558	3.2	9,060	0.52	6.6	71 to 132	N56C to N280TC	5,230	6,610	1,530	21,242	
300L4	616	2.9	9,220	0.48	6.6	71 to 132	N56C to N280TC	5,310	6,700	1,590	21,242	
300L4	755	2.4	9,550	0.41	6.6	71 to 132	N56C to N280TC	5,460	6,900	1,700	21,242	
300L4	819	2.2	9,680	0.38	6.6	71 to 132	N56C to N280TC	5,530	6,980	1,740	21,242	
300L4	942	1.9	9,910	0.34	6.6	71 to 132	N56C to N280TC	5,640	7,120	1,800	21,242	
300L4	1022	1.8	10,000	0.32	6.6	71 to 132	N56C to N280TC	5,700	7,200	1,800	21,242	
300L4	1108	1.6	6,980	0.20	6.6	71 to 132	N56C to N280TC	5,770	7,290	1,800	21,242	
300L4	1275	1.4	10,400	0.26	6.6	71 to 132	N56C to N280TC	5,890	7,430	1,800	21,242	
300L4	1383	1.3	7,260	0.17	6.6	71 to 132	N56C to N280TC	5,960	7,520	1,800	21,242	
300L4	1591	1.1	10,800	0.22	6.6	71 to 132	N56C to N280TC	6,080	7,640	1,800	21,242	
300L4	1725	1.0	7,550	0.14	6.6	71 to 132	N56C to N280TC	6,150	7,640	1,800	21,242	
300L4	2153	0.84	7,610	0.11	6.6	71 to 132	N56C to N280TC	6,350	7,640	1,800	21,242	
300L4	2692	0.67	8,850	0.11	6.6	71 to 132	N56C to N280TC	6,550	7,640	1,800	21,242	
1200	300L1	3.48	345	4,460	25	11.2	71 to 132	N56C to N280TC	1,890	2,390	320	17,701
	300L1	4.26	281	4,670	22	11.2	71 to 132	N56C to N280TC	2,010	2,540	350	21,242
	300L1	5.77	208	4,480	15.2	11.2	71 to 132	N56C to N280TC	2,200	2,780	380	21,242
	300L1	7.20	167	3,870	10.6	11.2	71 to 132	N56C to N280TC	2,360	2,980	410	21,242
	300L1	9.00	133	3,000	6.6	11.2	71 to 132	N56C to N280TC	2,520	3,180	440	21,242
	300L2	12.1	99	6,460	10.8	11.2	71 to 132	N56C to N280TC	2,750	3,480	490	17,701
	300L2	14.8	81	6,680	9.1	11.2	71 to 132	N56C to N280TC	2,930	3,700	520	17,701
	300L2	18.2	66	6,990	7.8	11.2	71 to 132	N56C to N280TC	3,110	3,930	560	21,242
	300L2	20.1	60	5,710	5.8	11.2	71 to 132	N56C to N280TC	3,210	4,050	580	17,701
	300L2	24.6	49	7,440	6.1	11.2	71 to 132	N56C to N280TC	3,410	4,300	620	21,242
	300L2	30.7	39	7,460	4.9	11.2	71 to 132	N56C to N280TC	3,640	4,600	670	21,242
	300L2	33.3	36	5,750	3.5	11.2	71 to 132	N56C to N280TC	3,730	4,710	690	21,242
	300L2	38.4	31	7,490	3.9	11.2	71 to 132	N56C to N280TC	3,890	4,910	720	21,242

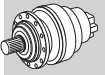
300 L



226

11,060 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	300L2	41.5	28.9	5,750	2.8	11.2	71 to 132	N56C to N280TC	3,990	5,030	740	21,242
	300L2	51.9	23.1	5,750	2.2	11.2	71 to 132	N56C to N280TC	4,260	5,380	800	21,242
	300L2	64.8	18.5	4,870	1.5	11.2	71 to 132	N56C to N280TC	4,450	5,620	860	21,242
	300L3	51.6	23.2	7,520	3.0	11.2	71 to 132	N56C to N280TC	4,260	5,370	790	17,701
	300L3	63.2	19.0	7,540	2.5	11.2	71 to 132	N56C to N280TC	4,450	5,620	850	21,242
	300L3	69.9	17.2	5,750	1.7	11.2	71 to 132	N56C to N280TC	4,450	5,620	880	17,701
	300L3	77.5	15.5	7,560	2.0	11.2	71 to 132	N56C to N280TC	4,450	5,620	910	21,242
	300L3	85.6	14.0	7,570	1.8	11.2	71 to 132	N56C to N280TC	4,450	5,620	940	21,242
	300L3	105	11.4	7,600	1.5	11.2	71 to 132	N56C to N280TC	4,450	5,620	1,010	21,242
	300L3	116	10.4	5,750	1.0	11.2	71 to 132	N56C to N280TC	4,450	5,620	1,040	21,242
	300L3	131	9.2	7,710	1.2	11.2	71 to 132	N56C to N280TC	4,510	5,690	1,080	21,242
	300L3	142	8.5	7,800	1.1	11.2	71 to 132	N56C to N280TC	4,560	5,760	1,110	21,242
	300L3	177	6.8	8,050	0.95	11.2	71 to 132	N56C to N280TC	4,710	5,940	1,200	21,242
	300L3	192	6.2	5,750	0.62	11.2	71 to 132	N56C to N280TC	4,760	6,010	1,230	21,242
	300L3	221	5.4	8,310	0.78	11.2	71 to 132	N56C to N280TC	4,860	6,130	1,290	21,242
	300L3	240	5.0	5,750	0.50	11.2	71 to 132	N56C to N280TC	4,910	6,200	1,320	21,242
	300L3	299	4.0	5,970	0.42	11.2	71 to 132	N56C to N280TC	5,070	6,400	1,430	21,242
	300L3	374	3.2	6,200	0.35	11.2	71 to 132	N56C to N280TC	5,240	6,610	1,540	21,242
	300L4	330	3.6	8,880	0.58	8.9	71 to 132	N56C to N280TC	5,140	6,490	1,470	21,242
	300L4	403	3.0	6,270	0.33	8.9	71 to 132	N56C to N280TC	5,290	6,680	1,580	21,242
	300L4	447	2.7	9,360	0.45	8.9	71 to 132	N56C to N280TC	5,370	6,780	1,630	21,242
	300L4	494	2.4	9,520	0.41	8.9	71 to 132	N56C to N280TC	5,450	6,880	1,690	21,242
	300L4	558	2.2	9,710	0.37	8.9	71 to 132	N56C to N280TC	5,540	7,000	1,760	21,242
	300L4	616	1.9	9,880	0.34	8.9	71 to 132	N56C to N280TC	5,620	7,100	1,800	21,242
	300L4	755	1.6	10,200	0.29	8.9	71 to 132	N56C to N280TC	5,790	7,310	1,800	21,242
	300L4	819	1.5	10,400	0.27	8.9	71 to 132	N56C to N280TC	5,860	7,390	1,800	21,242
	300L4	942	1.3	10,600	0.24	8.9	71 to 132	N56C to N280TC	5,970	7,540	1,800	21,242
	300L4	1022	1.2	10,800	0.23	8.9	71 to 132	N56C to N280TC	6,040	7,630	1,800	21,242
	300L4	1108	1.1	7,500	0.15	8.9	71 to 132	N56C to N280TC	6,110	7,640	1,800	21,242
	300L4	1275	0.94	11,100	0.19	8.9	71 to 132	N56C to N280TC	6,240	7,640	1,800	21,242
	300L4	1383	0.87	7,610	0.12	8.9	71 to 132	N56C to N280TC	6,310	7,640	1,800	21,242
	300L4	1591	0.75	11,100	0.15	8.9	71 to 132	N56C to N280TC	6,440	7,640	1,800	21,242
	300L4	1725	0.70	7,610	0.09	8.9	71 to 132	N56C to N280TC	6,510	7,640	1,800	21,242
	300L4	2153	0.56	7,610	0.08	8.9	71 to 132	N56C to N280TC	6,720	7,640	1,800	21,242
300L4	2692	0.45	8,850	0.07	8.9	71 to 132	N56C to N280TC	6,940	7,640	1,800	21,242	






301 L

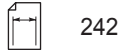


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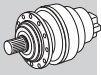
21,800 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	301L1	3.48	517	7,030	40	8.2	71 to 132	N56C to N280TC	1,680	1,990	280	30,093
	301L1	4.26	422	7,350	40	8.2	71 to 132	N56C to N280TC	1,780	2,120	300	30,093
	301L1	5.77	312	7,800	40	8.2	71 to 132	N56C to N280TC	1,950	2,320	330	30,093
	301L1	7.20	250	6,320	26	8.2	71 to 132	N56C to N280TC	2,090	2,480	360	30,093
	301L1	9.00	200	5,250	17.2	8.2	71 to 132	N56C to N280TC	2,230	2,650	390	30,093
	301L2	12.1	149	10,200	26	8.2	71 to 132	N56C to N280TC	2,440	2,890	430	30,093
	301L2	14.8	121	10,700	22	8.2	71 to 132	N56C to N280TC	2,590	3,080	460	30,093
	301L2	18.2	99	11,400	19.0	8.2	71 to 132	N56C to N280TC	2,750	3,270	490	30,093
	301L2	20.1	90	11,100	16.7	8.2	71 to 132	N56C to N280TC	2,840	3,370	510	30,093
	301L2	24.6	73	12,500	15.4	8.2	71 to 132	N56C to N280TC	3,020	3,580	540	30,093
	301L2	30.7	59	13,300	13.2	8.2	71 to 132	N56C to N280TC	3,220	3,830	580	30,093
	301L2	33.3	54	11,400	10.4	8.2	71 to 132	N56C to N280TC	3,300	3,920	600	30,093
	301L2	38.4	47	13,600	10.7	8.2	71 to 132	N56C to N280TC	3,450	4,090	630	30,093
	301L2	41.5	43	11,500	8.4	8.2	71 to 132	N56C to N280TC	3,530	4,190	650	30,093
	301L2	51.9	35	11,500	6.7	8.2	71 to 132	N56C to N280TC	3,770	4,480	690	30,093
	301L2	64.8	27.8	10,200	4.8	8.2	71 to 132	N56C to N280TC	4,030	4,790	750	30,093
	301L3	51.6	35	14,300	8.6	8.2	71 to 132	N56C to N280TC	3,770	4,470	690	30,093
	301L3	63.2	28.5	14,400	7.1	8.2	71 to 132	N56C to N280TC	4,000	4,750	740	30,093

301 L



21,800 lb-in



B




n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in		
								NHC/NPC	HZ/PZ	FZ			
1800	301L3	69.9	25.8	11,500	5.2	8.2	71 to 132	N56C to N280TC	4,130	4,900	770	30,093	
	301L3	77.5	23.2	14,600	5.9	8.2	71 to 132	N56C to N280TC	4,260	5,050	790	30,093	
	301L3	85.6	21.0	14,700	5.4	8.2	71 to 132	N56C to N280TC	4,380	5,200	820	30,093	
	301L3	105	17.2	14,900	4.4	8.2	71 to 132	N56C to N280TC	4,450	5,280	880	30,093	
	301L3	116	15.5	11,500	3.1	8.2	71 to 132	N56C to N280TC	4,450	5,280	910	30,093	
	301L3	131	13.8	15,000	3.6	8.2	71 to 132	N56C to N280TC	4,450	5,280	950	30,093	
	301L3	142	12.7	15,100	3.3	8.2	71 to 132	N56C to N280TC	4,450	5,280	970	30,093	
	301L3	177	10.2	15,300	2.7	8.2	71 to 132	N56C to N280TC	4,450	5,280	1,050	30,093	
	301L3	192	9.4	11,500	1.9	8.2	71 to 132	N56C to N280TC	4,490	5,330	1,070	30,093	
	301L3	221	8.1	15,600	2.2	8.2	71 to 132	N56C to N280TC	4,580	5,440	1,130	30,093	
	301L3	240	7.5	11,500	1.5	8.2	71 to 132	N56C to N280TC	4,640	5,500	1,160	30,093	
	301L3	299	6.0	11,500	1.2	8.2	71 to 132	N56C to N280TC	4,790	5,680	1,250	30,093	
	301L3	374	4.8	11,600	0.97	8.2	71 to 132	N56C to N280TC	4,940	5,860	1,340	30,093	
	301L4	330	5.4	16,500	1.6	6.6	71 to 132	N56C to N280TC	4,850	5,760	1,290	30,093	
	301L4	403	4.5	11,700	0.94	6.6	71 to 132	N56C to N280TC	4,990	5,930	1,380	30,093	
	301L4	447	4.0	17,400	1.3	6.6	71 to 132	N56C to N280TC	5,070	6,020	1,420	30,093	
	301L4	494	3.6	17,700	1.2	6.6	71 to 132	N56C to N280TC	5,140	6,100	1,470	30,093	
	301L4	558	3.2	18,100	1.0	6.6	71 to 132	N56C to N280TC	5,230	6,210	1,530	30,093	
	301L4	616	2.9	18,400	0.96	6.6	71 to 132	N56C to N280TC	5,310	6,300	1,590	30,093	
	301L4	755	2.4	19,100	0.82	6.6	71 to 132	N56C to N280TC	5,460	6,480	1,700	30,093	
	301L4	819	2.2	19,300	0.76	6.6	71 to 132	N56C to N280TC	5,530	6,560	1,740	30,093	
	301L4	942	1.9	19,700	0.68	6.6	71 to 132	N56C to N280TC	5,640	6,690	1,800	30,093	
	301L4	1022	1.8	20,000	0.63	6.6	71 to 132	N56C to N280TC	5,700	6,770	1,800	30,093	
	301L4	1108	1.6	14,000	0.41	6.6	71 to 132	N56C to N280TC	5,770	6,850	1,800	30,093	
	301L4	1275	1.4	20,700	0.52	6.6	71 to 132	N56C to N280TC	5,890	6,990	1,800	30,093	
	301L4	1383	1.3	14,500	0.34	6.6	71 to 132	N56C to N280TC	5,960	7,070	1,800	30,093	
	301L4	1591	1.1	17,700	0.36	6.6	71 to 132	N56C to N280TC	6,080	7,210	1,800	30,093	
	301L4	1725	1.0	15,100	0.28	6.6	71 to 132	N56C to N280TC	6,150	7,300	1,800	30,093	
	301L4	2153	0.84	15,200	0.23	6.6	71 to 132	N56C to N280TC	6,350	7,530	1,800	30,093	
	301L4	2692	0.67	15,200	0.18	6.6	71 to 132	N56C to N280TC	6,550	7,640	1,800	30,093	
	1200	301L1	3.48	345	7,940	40	11.2	71 to 132	N56C to N280TC	1,890	2,250	320	30,093
		301L1	4.26	281	8,310	38	11.2	71 to 132	N56C to N280TC	2,010	2,390	350	30,093
301L1		5.77	208	8,810	30	11.2	71 to 132	N56C to N280TC	2,200	2,620	380	30,093	
301L1		7.20	167	7,140	19.5	11.2	71 to 132	N56C to N280TC	2,360	2,800	410	30,093	
301L1		9.00	133	5,930	12.9	11.2	71 to 132	N56C to N280TC	2,520	2,990	440	30,093	
301L2		12.1	99	11,500	19.2	11.2	71 to 132	N56C to N280TC	2,750	3,270	490	30,093	
301L2		14.8	81	12,100	16.5	11.2	71 to 132	N56C to N280TC	2,930	3,470	520	30,093	
301L2		18.2	66	12,900	14.3	11.2	71 to 132	N56C to N280TC	3,110	3,690	560	30,093	
301L2		20.1	60	11,400	11.5	11.2	71 to 132	N56C to N280TC	3,210	3,800	580	30,093	
301L2		24.6	49	14,000	11.5	11.2	71 to 132	N56C to N280TC	3,410	4,040	620	30,093	
301L2		30.7	39	14,200	9.3	11.2	71 to 132	N56C to N280TC	3,640	4,320	670	30,093	
301L2		33.3	36	11,500	7.0	11.2	71 to 132	N56C to N280TC	3,730	4,430	690	30,093	
301L2		38.4	31	13,600	7.2	11.2	71 to 132	N56C to N280TC	3,890	4,620	720	30,093	
301L2		41.5	28.9	11,500	5.6	11.2	71 to 132	N56C to N280TC	3,990	4,730	740	30,093	
301L2		51.9	23.1	11,500	4.5	11.2	71 to 132	N56C to N280TC	4,260	5,060	800	30,093	
301L2		64.8	18.5	10,200	3.2	11.2	71 to 132	N56C to N280TC	4,450	5,280	860	30,093	
301L3		51.6	23.2	14,600	5.9	11.2	71 to 132	N56C to N280TC	4,260	5,050	790	30,093	
301L3		63.2	19.0	14,800	4.9	11.2	71 to 132	N56C to N280TC	4,450	5,280	850	30,093	
301L3		69.9	17.2	11,500	3.4	11.2	71 to 132	N56C to N280TC	4,450	5,280	880	30,093	
301L3		77.5	15.5	14,900	4.0	11.2	71 to 132	N56C to N280TC	4,450	5,280	910	30,093	
301L3		85.6	14.0	15,000	3.7	11.2	71 to 132	N56C to N280TC	4,450	5,280	940	30,093	
301L3		105	11.4	15,200	3.0	11.2	71 to 132	N56C to N280TC	4,450	5,280	1,010	30,093	
301L3		116	10.4	11,500	2.1	11.2	71 to 132	N56C to N280TC	4,450	5,280	1,040	30,093	
301L3		131	9.2	15,500	2.5	11.2	71 to 132	N56C to N280TC	4,510	5,350	1,080	30,093	
301L3		142	8.5	15,600	2.3	11.2	71 to 132	N56C to N280TC	4,560	5,410	1,110	30,093	
301L3		177	6.8	16,100	1.9	11.2	71 to 132	N56C to N280TC	4,710	5,590	1,200	30,093	
301L3		192	6.2	11,500	1.2	11.2	71 to 132	N56C to N280TC	4,760	5,650	1,230	30,093	
301L3		221	5.4	16,100	1.5	11.2	71 to 132	N56C to N280TC	4,860	5,760	1,290	30,093	
301L3		240	5.0	11,500	1.0	11.2	71 to 132	N56C to N280TC	4,910	5,830	1,320	30,093	
301L3		299	4.0	11,900	0.83	11.2	71 to 132	N56C to N280TC	5,070	6,020	1,430	30,093	
301L3		374	3.2	12,400	0.69	11.2	71 to 132	N56C to N280TC	5,240	6,210	1,540	30,093	

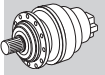
301 L



242

21,800 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	301L4	330	3.6	17,700	1.2	8.9	71 to 132	N56C to N280TC	5,140	6,110	1,470	30,093
	301L4	403	3.0	12,500	0.67	8.9	71 to 132	N56C to N280TC	5,290	6,280	1,580	30,093
	301L4	447	2.7	18,700	0.90	8.9	71 to 132	N56C to N280TC	5,370	6,370	1,630	30,093
	301L4	494	2.4	19,000	0.83	8.9	71 to 132	N56C to N280TC	5,450	6,470	1,690	30,093
	301L4	558	2.2	19,400	0.75	8.9	71 to 132	N56C to N280TC	5,540	6,580	1,760	30,093
	301L4	616	1.9	19,700	0.69	8.9	71 to 132	N56C to N280TC	5,620	6,670	1,800	30,093
	301L4	755	1.6	20,300	0.58	8.9	71 to 132	N56C to N280TC	5,790	6,870	1,800	30,093
	301L4	819	1.5	20,500	0.54	8.9	71 to 132	N56C to N280TC	5,860	6,950	1,800	30,093
	301L4	942	1.3	21,000	0.48	8.9	71 to 132	N56C to N280TC	5,970	7,090	1,800	30,093
	301L4	1022	1.2	21,200	0.45	8.9	71 to 132	N56C to N280TC	6,040	7,170	1,800	30,093
	301L4	1108	1.1	15,000	0.29	8.9	71 to 132	N56C to N280TC	6,110	7,260	1,800	30,093
	301L4	1275	0.94	21,800	0.37	8.9	71 to 132	N56C to N280TC	6,240	7,400	1,800	30,093
	301L4	1383	0.87	15,200	0.24	8.9	71 to 132	N56C to N280TC	6,310	7,490	1,800	30,093
	301L4	1591	0.75	17,700	0.24	8.9	71 to 132	N56C to N280TC	6,440	7,640	1,800	30,093
	301L4	1725	0.70	15,200	0.19	8.9	71 to 132	N56C to N280TC	6,510	7,640	1,800	30,093
	301L4	2153	0.56	15,200	0.15	8.9	71 to 132	N56C to N280TC	6,720	7,640	1,800	30,093
	301L4	2692	0.45	15,200	0.12	8.9	71 to 132	N56C to N280TC	6,940	7,640	1,800	30,093






303 L

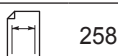


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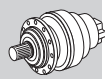
26,270 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	303L1	3.60	500	11,600	54	12.1	132 to 200	N250TC to N280TC	3,250	4,110	860	46,024
	303L1	4.25	424	12,000	54	12.1	132 to 200	N250TC to N280TC	3,420	4,320	910	46,024
	303L1	5.33	338	12,500	54	12.1	132 to 200	N250TC to N280TC	3,660	4,620	980	46,024
	303L1	6.20	290	11,700	54	12.1	132 to 200	N250TC to N280TC	3,830	4,840	1,030	46,024
	303L1	7.50	240	10,200	40	12.1	132 to 200	N250TC to N280TC	4,050	5,120	1,090	46,024
	303L1	9.67	186	6,320	19.2	12.1	132 to 200	N250TC to N280TC	4,370	5,530	1,190	46,024
	303L2	12.5	144	13,700	27	9.9	71 to 160	N56C to N280TC	4,730	5,970	1,300	46,024
	303L2	15.3	117	14,300	27	9.9	71 to 160	N56C to N280TC	5,020	6,350	1,390	46,024
	303L2	18.1	99	16,900	27	9.9	71 to 160	N56C to N280TC	5,280	6,670	1,470	46,024
	303L2	20.8	87	15,200	22	9.9	71 to 160	N56C to N280TC	5,500	6,950	1,540	46,024
	303L2	22.7	79	18,300	24	9.9	71 to 160	N56C to N280TC	5,650	7,140	1,580	46,024
	303L2	24.5	73	18,000	22	9.9	71 to 160	N56C to N280TC	5,780	7,310	1,620	46,024
	303L2	26.4	68	16,100	18.5	9.9	71 to 160	N56C to N280TC	5,920	7,470	1,660	46,024
	303L2	30.8	58	18,700	18.5	9.9	71 to 160	N56C to N280TC	6,190	7,820	1,750	46,024
	303L2	35.8	50	16,100	13.7	9.9	71 to 160	N56C to N280TC	6,480	8,180	1,840	46,024
	303L2	38.4	47	19,000	15.0	9.9	71 to 160	N56C to N280TC	6,620	8,360	1,890	46,024
	303L2	44.6	40	16,100	11.0	9.9	71 to 160	N56C to N280TC	6,920	8,740	1,980	46,024
	303L2	55.8	32	16,100	8.8	9.9	71 to 160	N56C to N280TC	7,400	9,350	2,140	46,024
303L3	53.4	34	19,000	11.1	8.2	71 to 160	N56C to N280TC	7,300	9,230	2,100	46,024	
303L3	63.1	28.5	21,900	10.9	8.2	71 to 160	N56C to N280TC	7,680	9,700	2,220	46,024	
303L3	72.3	24.9	19,500	8.5	8.2	71 to 160	N56C to N280TC	8,000	10,100	2,330	46,024	
303L3	77.2	23.3	22,000	8.9	8.2	71 to 160	N56C to N280TC	8,160	10,300	2,380	46,024	
303L3	90.2	20.0	19,700	6.8	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,510	46,024	
303L3	105	17.2	22,500	6.7	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,630	46,024	
303L3	113	16.0	16,100	4.5	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,700	46,024	
303L3	124	14.5	16,100	4.0	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,790	46,024	
303L3	141	12.7	22,700	5.0	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,910	46,024	
303L3	152	11.8	16,100	3.3	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,990	46,024	
303L3	164	11.0	19,400	3.7	8.2	71 to 160	N56C to N280TC	8,540	10,800	3,060	46,024	
303L3	178	10.1	19,500	3.4	8.2	71 to 160	N56C to N280TC	8,540	10,800	3,140	46,024	
303L3	190	9.5	16,100	2.7	8.2	71 to 160	N56C to N280TC	8,610	10,900	3,210	46,024	
303L3	220	8.2	19,900	2.8	8.2	71 to 160	N56C to N280TC	8,790	11,100	3,380	46,024	
303L3	258	7.0	16,200	2.0	8.2	71 to 160	N56C to N280TC	8,990	11,400	3,560	46,024	
303L3	276	6.5	19,600	2.2	8.2	71 to 160	N56C to N280TC	9,080	11,500	3,640	46,024	
303L3	321	5.6	16,300	1.6	8.2	71 to 160	N56C to N280TC	9,280	11,700	3,830	46,024	
303L3	389	4.6	14,700	1.2	8.2	71 to 160	N56C to N280TC	9,540	12,000	4,080	46,024	

303 L



26,270 lb-in






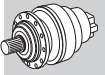
B

n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
								NHC/NPC	HZ/PZ	FZ		
1800	303L3	402	4.5	16,600	1.3	8.2	71 to 160	N56C to N280TC	9,580	12,100	4,120	46,024
	303L4	413	4.4	20,200	1.6	6.6	71 to 160	N56C to N280TC	9,620	12,200	4,160	46,024
	303L4	446	4.0	24,900	1.8	6.6	71 to 160	N56C to N280TC	9,720	12,300	4,270	46,024
	303L4	492	3.7	23,700	1.5	6.6	71 to 160	N56C to N280TC	9,860	12,500	4,410	46,024
	303L4	556	3.2	24,900	1.4	6.6	71 to 160	N56C to N280TC	10,000	12,700	4,600	46,024
	303L4	649	2.8	20,400	1.0	6.6	71 to 160	N56C to N280TC	10,300	13,000	4,840	46,024
	303L4	718	2.5	18,400	0.83	6.6	71 to 160	N56C to N280TC	10,400	13,100	5,000	46,024
	303L4	816	2.2	24,000	0.95	6.6	71 to 160	N56C to N280TC	10,600	13,400	5,220	46,024
	303L4	896	2.0	19,100	0.69	6.6	71 to 160	N56C to N280TC	10,700	13,600	5,390	46,024
	303L4	1018	1.8	24,100	0.76	6.6	71 to 160	N56C to N280TC	10,900	13,800	5,400	46,024
	303L4	1098	1.6	19,800	0.58	6.6	71 to 160	N56C to N280TC	11,100	14,000	5,400	46,024
	303L4	1278	1.4	24,100	0.61	6.6	71 to 160	N56C to N280TC	11,300	14,300	5,400	46,024
	303L4	1370	1.3	20,600	0.48	6.6	71 to 160	N56C to N280TC	11,400	14,400	5,400	46,024
	303L4	1586	1.1	19,900	0.40	6.6	71 to 160	N56C to N280TC	11,700	14,700	5,400	46,024
	303L4	1854	0.97	21,600	0.38	6.6	71 to 160	N56C to N280TC	11,900	15,100	5,400	46,024
	303L4	1991	0.90	25,200	0.41	6.6	71 to 160	N56C to N280TC	12,000	15,200	5,400	46,024
	303L4	2243	0.80	17,700	0.25	6.6	71 to 160	N56C to N280TC	12,200	15,500	5,400	46,024
	303L4	2799	0.64	17,700	0.20	6.6	71 to 160	N56C to N280TC	12,600	16,000	5,400	46,024
1200	303L1	3.60	333	13,100	54	16.4	132 to 200	N250TC to N280TC	3,670	4,640	980	46,024
	303L1	4.25	282	13,500	54	16.4	132 to 200	N250TC to N280TC	3,860	4,880	1,040	46,024
	303L1	5.33	225	14,100	52	16.4	132 to 200	N250TC to N280TC	4,130	5,220	1,120	46,024
	303L1	6.20	194	13,200	42	16.4	132 to 200	N250TC to N280TC	4,320	5,460	1,180	46,024
	303L1	7.50	160	11,500	30	16.4	132 to 200	N250TC to N280TC	4,580	5,780	1,250	46,024
	303L1	9.67	124	7,130	14.5	16.4	132 to 200	N250TC to N280TC	4,940	6,240	1,360	46,024
	303L2	12.5	96	15,500	25	13.4	71 to 160	N56C to N280TC	5,340	6,740	1,490	46,024
	303L2	15.3	78	16,200	21	13.4	71 to 160	N56C to N280TC	5,670	7,170	1,590	46,024
	303L2	18.1	66	19,100	21	13.4	71 to 160	N56C to N280TC	5,960	7,530	1,680	46,024
	303L2	20.8	58	17,200	16.8	13.4	71 to 160	N56C to N280TC	6,210	7,850	1,760	46,024
	303L2	22.7	53	18,900	16.8	13.4	71 to 160	N56C to N280TC	6,390	8,070	1,810	46,024
	303L2	24.5	49	20,200	16.7	13.4	71 to 160	N56C to N280TC	6,530	8,250	1,860	46,024
	303L2	26.4	45	16,100	12.3	13.4	71 to 160	N56C to N280TC	6,680	8,440	1,910	46,024
	303L2	30.8	39	19,000	12.5	13.4	71 to 160	N56C to N280TC	6,990	8,830	2,000	46,024
	303L2	35.8	34	16,100	9.1	13.4	71 to 160	N56C to N280TC	7,310	9,240	2,110	46,024
	303L2	38.4	31	19,100	10.1	13.4	71 to 160	N56C to N280TC	7,470	9,440	2,160	46,024
	303L2	44.6	26.9	16,100	7.3	13.4	71 to 160	N56C to N280TC	7,820	9,870	2,270	46,024
	303L2	55.8	21.5	16,100	5.8	13.4	71 to 160	N56C to N280TC	8,360	10,600	2,440	46,024
	303L3	53.4	22.5	19,500	7.6	11.2	71 to 160	N56C to N280TC	8,250	10,400	2,410	46,024
	303L3	63.1	19.0	22,500	7.4	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,550	46,024
	303L3	72.3	16.6	19,900	5.8	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,660	46,024
	303L3	77.2	15.5	22,700	6.1	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,720	46,024
	303L3	90.2	13.3	20,200	4.7	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,870	46,024
	303L3	105	11.5	23,200	4.6	11.2	71 to 160	N56C to N280TC	8,540	10,800	3,010	46,024
	303L3	113	10.6	16,100	3.0	11.2	71 to 160	N56C to N280TC	8,540	10,800	3,090	46,024
	303L3	124	9.6	16,100	2.7	11.2	71 to 160	N56C to N280TC	8,590	10,800	3,190	46,024
	303L3	141	8.5	23,300	3.4	11.2	71 to 160	N56C to N280TC	8,750	11,000	3,330	46,024
	303L3	152	7.9	16,200	2.2	11.2	71 to 160	N56C to N280TC	8,840	11,200	3,420	46,024
	303L3	164	7.3	19,600	2.5	11.2	71 to 160	N56C to N280TC	8,930	11,300	3,500	46,024
	303L3	178	6.8	19,600	2.3	11.2	71 to 160	N56C to N280TC	9,030	11,400	3,600	46,024
	303L3	190	6.3	16,200	1.8	11.2	71 to 160	N56C to N280TC	9,120	11,500	3,680	46,024
	303L3	220	5.4	19,900	1.9	11.2	71 to 160	N56C to N280TC	9,320	11,800	3,860	46,024
	303L3	258	4.7	16,500	1.3	11.2	71 to 160	N56C to N280TC	9,530	12,000	4,070	46,024
	303L3	276	4.3	20,100	1.5	11.2	71 to 160	N56C to N280TC	9,620	12,200	4,170	46,024
	303L3	321	3.7	17,100	1.1	11.2	71 to 160	N56C to N280TC	9,830	12,400	4,380	46,024
	303L3	389	3.1	15,200	0.82	11.2	71 to 160	N56C to N280TC	10,100	12,800	4,670	46,024
	303L3	402	3.0	17,800	0.93	11.2	71 to 160	N56C to N280TC	10,200	12,800	4,720	46,024
	303L4	413	2.9	21,700	1.1	8.9	71 to 160	N56C to N280TC	10,200	12,900	4,760	46,024
	303L4	446	2.7	24,900	1.2	8.9	71 to 160	N56C to N280TC	10,300	13,000	4,890	46,024
	303L4	492	2.4	23,900	1.0	8.9	71 to 160	N56C to N280TC	10,500	13,200	5,050	46,024
	303L4	556	2.2	25,100	0.97	8.9	71 to 160	N56C to N280TC	10,600	13,400	5,260	46,024
	303L4	649	1.8	20,700	0.69	8.9	71 to 160	N56C to N280TC	10,900	13,700	5,400	46,024

303 L 258




26,270 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	303L4	718	1.7	19,700	0.59	8.9	71 to 160	N56C to N280TC	11,000	13,900	5,400	46,024
	303L4	816	1.5	24,300	0.64	8.9	71 to 160	N56C to N280TC	11,200	14,200	5,400	46,024
	303L4	896	1.3	20,500	0.49	8.9	71 to 160	N56C to N280TC	11,400	14,400	5,400	46,024
	303L4	1018	1.2	24,400	0.52	8.9	71 to 160	N56C to N280TC	11,600	14,600	5,400	46,024
	303L4	1098	1.1	21,300	0.42	8.9	71 to 160	N56C to N280TC	11,700	14,800	5,400	46,024
	303L4	1278	0.94	25,200	0.42	8.9	71 to 160	N56C to N280TC	12,000	15,100	5,400	46,024
	303L4	1370	0.88	21,600	0.34	8.9	71 to 160	N56C to N280TC	12,100	15,300	5,400	46,024
	303L4	1586	0.76	19,900	0.27	8.9	71 to 160	N56C to N280TC	12,400	15,600	5,400	46,024
	303L4	1854	0.65	21,600	0.25	8.9	71 to 160	N56C to N280TC	12,600	16,000	5,400	46,024
	303L4	1991	0.60	25,200	0.27	8.9	71 to 160	N56C to N280TC	12,800	16,100	5,400	46,024
	303L4	2243	0.53	17,700	0.17	8.9	71 to 160	N56C to N280TC	13,000	16,400	5,400	46,024
	303L4	2799	0.43	17,700	0.14	8.9	71 to 160	N56C to N280TC	13,400	16,600	5,400	46,024



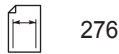
304 L 276

35,050 lb-in

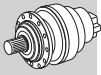
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in	
									NHC/NPC	HZ/PZ	FZ		
1800	304L1	3.60	500	15,500	67	13.2	132 to 200	N250TC to N280TC	3,250	4,110	860	64,610	
	304L1	4.25	424	16,000	67	13.2	132 to 200	N250TC to N280TC	3,420	4,320	910	64,610	
	304L1	5.33	338	16,700	67	13.2	132 to 200	N250TC to N280TC	3,660	4,620	980	64,610	
	304L1	6.57	274	15,600	67	13.2	132 to 200	N250TC to N280TC	3,900	4,920	1,050	64,610	
1800	304L2	12.5	144	22,500	40	9.9	71 to 160	N56C to N280TC	4,730	5,970	1,300	64,610	
	304L2	15.3	117	23,900	40	9.9	71 to 160	N56C to N280TC	5,020	6,350	1,390	64,610	
	304L2	18.1	99	24,700	40	9.9	71 to 160	N56C to N280TC	5,280	6,670	1,470	64,610	
	304L2	20.8	87	25,600	37	9.9	71 to 160	N56C to N280TC	5,500	6,950	1,540	64,610	
	304L2	22.7	79	24,400	33	9.9	71 to 160	N56C to N280TC	5,650	7,140	1,580	64,610	
	304L2	24.5	73	27,000	33	9.9	71 to 160	N56C to N280TC	5,780	7,310	1,620	64,610	
	304L2	30.8	58	24,900	25	9.9	71 to 160	N56C to N280TC	6,190	7,820	1,750	64,610	
	304L2	38.4	47	25,200	19.9	9.9	71 to 160	N56C to N280TC	6,620	8,360	1,890	64,610	
	304L2	47.3	38	21,200	13.6	9.9	71 to 160	N56C to N280TC	7,040	8,900	2,020	64,610	
	304L2	59.1	30	21,200	10.9	9.9	71 to 160	N56C to N280TC	7,530	9,510	2,180	64,610	
	1800	304L3	43.6	41	27,900	20	8.2	71 to 160	N56C to N280TC	6,870	8,680	1,970	64,610
		304L3	53.4	34	28,300	16.6	8.2	71 to 160	N56C to N280TC	7,300	9,230	2,100	64,610
		304L3	63.1	28.5	30,700	15.2	8.2	71 to 160	N56C to N280TC	7,680	9,700	2,220	64,610
		304L3	72.3	24.9	28,800	12.5	8.2	71 to 160	N56C to N280TC	8,000	10,100	2,330	64,610
		304L3	77.2	23.3	30,800	12.5	8.2	71 to 160	N56C to N280TC	8,160	10,300	2,380	64,610
		304L3	90.2	20.0	29,000	10.1	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,510	64,610
304L3		105	17.2	31,000	9.3	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,630	64,610	
304L3		111	16.3	29,600	8.4	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,680	64,610	
304L3		130	13.8	31,100	7.5	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,830	64,610	
304L3		141	12.7	31,200	6.9	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,910	64,610	
304L3		150	12.0	30,100	6.3	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,970	64,610	
304L3		165	10.9	21,200	4.0	8.2	71 to 160	N56C to N280TC	8,540	10,800	3,060	64,610	
304L3		178	10.1	25,200	4.4	8.2	71 to 160	N56C to N280TC	8,540	10,800	3,140	64,610	
304L3		202	8.9	21,200	3.3	8.2	71 to 160	N56C to N280TC	8,680	11,000	3,280	64,610	
304L3		220	8.2	31,600	4.5	8.2	71 to 160	N56C to N280TC	8,790	11,100	3,380	64,610	
304L3		273	6.6	21,200	2.4	8.2	71 to 160	N56C to N280TC	9,070	11,500	3,630	64,610	
1800	304L3	341	5.3	21,200	1.9	8.2	71 to 160	N56C to N280TC	9,360	11,800	3,900	64,610	
	304L3	426	4.2	21,500	1.6	8.2	71 to 160	N56C to N280TC	9,660	12,200	4,200	64,610	
	304L4	413	4.4	25,800	2.0	6.6	71 to 160	N56C to N280TC	9,620	12,200	4,160	64,610	
	304L4	446	4.0	32,800	2.4	6.6	71 to 160	N56C to N280TC	9,720	12,300	4,270	64,610	
	304L4	492	3.7	32,900	2.2	6.6	71 to 160	N56C to N280TC	9,860	12,500	4,410	64,610	
	304L4	556	3.2	33,000	1.9	6.6	71 to 160	N56C to N280TC	10,000	12,700	4,600	64,610	
	304L4	649	2.8	31,100	1.5	6.6	71 to 160	N56C to N280TC	10,300	13,000	4,840	64,610	
	304L4	702	2.6	22,600	1.0	6.6	71 to 160	N56C to N280TC	10,400	13,100	4,970	64,610	
	304L4	816	2.2	33,400	1.3	6.6	71 to 160	N56C to N280TC	10,600	13,400	5,220	64,610	
	304L4	1018	1.8	33,900	1.1	6.6	71 to 160	N56C to N280TC	10,900	13,800	5,400	64,610	
1800	304L4	1164	1.5	24,600	0.68	6.6	71 to 160	N56C to N280TC	11,200	14,100	5,400	64,610	
	304L4	1271	1.4	34,300	0.87	6.6	71 to 160	N56C to N280TC	11,300	14,300	5,400	64,610	

B

304 L



35,050 lb-in



B




n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
								NHC/NPC	HZ/PZ	FZ		
1800	304L4	1344	1.3	32,300	0.78	6.6	71 to 160	N56C to N280TC	11,400	14,400	5,400	64,610
	304L4	1586	1.1	34,700	0.71	6.6	71 to 160	N56C to N280TC	11,700	14,700	5,400	64,610
	304L4	1815	0.99	26,600	0.47	6.6	71 to 160	N56C to N280TC	11,900	15,000	5,400	64,610
	304L4	1991	0.90	33,100	0.54	6.6	71 to 160	N56C to N280TC	12,000	15,200	5,400	64,610
	304L4	2269	0.79	26,600	0.38	6.6	71 to 160	N56C to N280TC	12,300	15,500	5,400	64,610
	304L4	2453	0.73	26,600	0.35	6.6	71 to 160	N56C to N280TC	12,400	15,700	5,400	64,610
1200	304L1	3.60	333	17,500	67	17.8	132 to 200	N250TC to N280TC	3,670	4,640	980	64,610
	304L1	4.25	282	18,000	67	17.8	132 to 200	N250TC to N280TC	3,860	4,880	1,040	64,610
	304L1	5.33	225	18,800	67	17.8	132 to 200	N250TC to N280TC	4,130	5,220	1,120	64,610
	304L1	6.57	183	17,700	53	17.8	132 to 200	N250TC to N280TC	4,400	5,560	1,200	64,610
304L2	12.5	96	25,200	40	13.4	71 to 160	N56C to N280TC	5,340	6,740	1,490	64,610	
	15.3	78	25,900	34	13.4	71 to 160	N56C to N280TC	5,670	7,170	1,590	64,610	
	18.1	66	27,900	31	13.4	71 to 160	N56C to N280TC	5,960	7,530	1,680	64,610	
	20.8	58	27,100	26	13.4	71 to 160	N56C to N280TC	6,210	7,850	1,760	64,610	
	22.7	53	25,100	22	13.4	71 to 160	N56C to N280TC	6,390	8,070	1,810	64,610	
	24.5	49	30,400	25	13.4	71 to 160	N56C to N280TC	6,530	8,250	1,860	64,610	
	30.8	39	25,200	16.6	13.4	71 to 160	N56C to N280TC	6,990	8,830	2,000	64,610	
	38.4	31	25,200	13.3	13.4	71 to 160	N56C to N280TC	7,470	9,440	2,160	64,610	
	47.3	25.4	21,200	9.0	13.4	71 to 160	N56C to N280TC	7,960	10,000	2,310	64,610	
	59.1	20.3	21,200	7.2	13.4	71 to 160	N56C to N280TC	8,510	10,700	2,490	64,610	
	304L3	43.6	27.5	28,600	13.7	11.2	71 to 160	N56C to N280TC	7,760	9,810	2,250	64,610
		53.4	22.5	29,000	11.3	11.2	71 to 160	N56C to N280TC	8,250	10,400	2,410	64,610
		63.1	19.0	30,900	10.2	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,550	64,610
		72.3	16.6	29,500	8.5	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,660	64,610
		77.2	15.5	31,100	8.4	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,720	64,610
		90.2	13.3	29,900	6.9	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,870	64,610
		105	11.5	31,200	6.2	11.2	71 to 160	N56C to N280TC	8,540	10,800	3,010	64,610
		111	10.9	30,300	5.7	11.2	71 to 160	N56C to N280TC	8,540	10,800	3,070	64,610
130		9.2	31,500	5.0	11.2	71 to 160	N56C to N280TC	8,650	10,900	3,240	64,610	
141		8.5	31,600	4.7	11.2	71 to 160	N56C to N280TC	8,750	11,000	3,330	64,610	
150		8.0	30,600	4.3	11.2	71 to 160	N56C to N280TC	8,820	11,100	3,400	64,610	
165		7.3	21,200	2.7	11.2	71 to 160	N56C to N280TC	8,940	11,300	3,510	64,610	
178		6.8	25,200	3.0	11.2	71 to 160	N56C to N280TC	9,030	11,400	3,600	64,610	
202		5.9	21,200	2.2	11.2	71 to 160	N56C to N280TC	9,200	11,600	3,750	64,610	
220		5.4	32,300	3.1	11.2	71 to 160	N56C to N280TC	9,320	11,800	3,860	64,610	
273		4.4	21,400	1.6	11.2	71 to 160	N56C to N280TC	9,610	12,100	4,150	64,610	
341		3.5	21,900	1.3	11.2	71 to 160	N56C to N280TC	9,920	12,500	4,470	64,610	
426		2.8	22,400	1.1	11.2	71 to 160	N56C to N280TC	10,200	12,900	4,810	64,610	
304L4	413	2.9	27,600	1.4	8.9	71 to 160	N56C to N280TC	10,200	12,900	4,760	64,610	
	446	2.7	33,100	1.6	8.9	71 to 160	N56C to N280TC	10,300	13,000	4,890	64,610	
	492	2.4	33,200	1.5	8.9	71 to 160	N56C to N280TC	10,500	13,200	5,050	64,610	
	556	2.2	33,500	1.3	8.9	71 to 160	N56C to N280TC	10,600	13,400	5,260	64,610	
	649	1.8	31,700	1.0	8.9	71 to 160	N56C to N280TC	10,900	13,700	5,400	64,610	
	702	1.7	24,200	0.74	8.9	71 to 160	N56C to N280TC	11,000	13,900	5,400	64,610	
	816	1.5	34,300	0.90	8.9	71 to 160	N56C to N280TC	11,200	14,200	5,400	64,610	
	1018	1.2	34,700	0.73	8.9	71 to 160	N56C to N280TC	11,600	14,600	5,400	64,610	
	1164	1.0	26,400	0.49	8.9	71 to 160	N56C to N280TC	11,800	14,900	5,400	64,610	
	1271	0.94	35,000	0.59	8.9	71 to 160	N56C to N280TC	12,000	15,100	5,400	64,610	
	1344	0.89	32,800	0.53	8.9	71 to 160	N56C to N280TC	12,100	15,200	5,400	64,610	
	1586	0.76	35,000	0.48	8.9	71 to 160	N56C to N280TC	12,400	15,600	5,400	64,610	
	1815	0.66	26,600	0.31	8.9	71 to 160	N56C to N280TC	12,600	15,900	5,400	64,610	
	1991	0.60	33,100	0.36	8.9	71 to 160	N56C to N280TC	12,800	16,100	5,400	64,610	
	2269	0.53	26,600	0.25	8.9	71 to 160	N56C to N280TC	13,000	16,400	5,400	64,610	
	2453	0.49	26,600	0.23	8.9	71 to 160	N56C to N280TC	13,100	16,600	5,400	64,610	

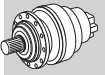
305 L



294

51,340 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	305L1	3.60	500	19,900	80	14.3	132 to 200	N250TC to N280TC	3,250	4,110	860	77,877
	305L1	4.25	424	20,500	80	14.3	132 to 200	N250TC to N280TC	3,420	4,320	910	77,877
	305L1	5.33	338	21,400	80	14.3	132 to 200	N250TC to N280TC	3,660	4,620	980	77,877
	305L1	6.20	290	22,200	80	14.3	132 to 200	N250TC to N280TC	3,830	4,840	1,030	77,877
	305L1	7.50	240	19,000	75	14.3	132 to 200	N250TC to N280TC	4,050	5,120	1,090	77,877
	305L2	12.5	144	24,500	40	9.9	71 to 160	N56C to N280TC	4,730	5,970	1,300	77,877
	305L2	15.3	117	25,600	40	9.9	71 to 160	N56C to N280TC	5,020	6,350	1,390	77,877
	305L2	18.1	99	30,300	40	9.9	71 to 160	N56C to N280TC	5,280	6,670	1,470	77,877
	305L2	20.8	87	27,300	40	9.9	71 to 160	N56C to N280TC	5,500	6,950	1,540	77,877
	305L2	22.7	79	33,100	40	9.9	71 to 160	N56C to N280TC	5,650	7,140	1,580	77,877
	305L2	24.5	73	32,100	40	9.9	71 to 160	N56C to N280TC	5,780	7,310	1,620	77,877
	305L2	26.4	68	31,100	36	9.9	71 to 160	N56C to N280TC	5,920	7,470	1,660	77,877
	305L2	30.8	58	36,200	36	9.9	71 to 160	N56C to N280TC	6,190	7,820	1,750	77,877
	305L2	35.8	50	31,400	27	9.9	71 to 160	N56C to N280TC	6,480	8,180	1,840	77,877
	305L2	38.4	47	37,900	30	9.9	71 to 160	N56C to N280TC	6,620	8,360	1,890	77,877
	305L2	44.6	40	31,500	21	9.9	71 to 160	N56C to N280TC	6,920	8,740	1,980	77,877
	305L2	55.8	32	31,200	17.0	9.9	71 to 160	N56C to N280TC	7,400	9,350	2,140	77,877
	305L3	53.4	34	34,700	20	8.2	71 to 160	N56C to N280TC	7,300	9,230	2,100	77,877
	305L3	63.1	28.5	40,700	20	8.2	71 to 160	N56C to N280TC	7,680	9,700	2,220	77,877
	305L3	72.3	24.9	36,200	15.7	8.2	71 to 160	N56C to N280TC	8,000	10,100	2,330	77,877
	305L3	77.2	23.3	41,600	16.8	8.2	71 to 160	N56C to N280TC	8,160	10,300	2,380	77,877
	305L3	90.2	20.0	37,000	12.8	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,510	77,877
	305L3	105	17.2	43,400	13.0	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,630	77,877
	305L3	113	16.0	31,700	8.8	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,700	77,877
	305L3	124	14.5	31,800	8.0	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,790	77,877
	305L3	141	12.7	44,600	9.9	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,910	77,877
	305L3	152	11.8	31,800	6.5	8.2	71 to 160	N56C to N280TC	8,540	10,800	2,990	77,877
	305L3	164	11.0	38,900	7.4	8.2	71 to 160	N56C to N280TC	8,540	10,800	3,060	77,877
	305L3	178	10.1	38,900	6.9	8.2	71 to 160	N56C to N280TC	8,540	10,800	3,140	77,877
	305L3	190	9.5	31,900	5.2	8.2	71 to 160	N56C to N280TC	8,610	10,900	3,210	77,877
	305L3	220	8.2	42,000	6.0	8.2	71 to 160	N56C to N280TC	8,790	11,100	3,380	77,877
	305L3	258	7.0	31,900	3.9	8.2	71 to 160	N56C to N280TC	8,990	11,400	3,560	77,877
	305L3	276	6.5	39,300	4.5	8.2	71 to 160	N56C to N280TC	9,080	11,500	3,640	77,877
	305L3	321	5.6	31,900	3.1	8.2	71 to 160	N56C to N280TC	9,280	11,700	3,830	77,877
	305L3	389	4.6	27,600	2.2	8.2	71 to 160	N56C to N280TC	9,540	12,000	4,080	77,877
	305L3	402	4.5	32,400	2.5	6.6	71 to 160	N56C to N280TC	9,580	12,100	4,120	77,877
	305L4	413	4.4	40,500	3.2	6.6	71 to 160	N56C to N280TC	9,620	12,200	4,160	77,877
	305L4	446	4.0	48,600	3.5	6.6	71 to 160	N56C to N280TC	9,720	12,300	4,270	77,877
	305L4	492	3.7	47,100	3.1	6.6	71 to 160	N56C to N280TC	9,860	12,500	4,410	77,877
	305L4	556	3.2	48,600	2.8	6.6	71 to 160	N56C to N280TC	10,000	12,700	4,600	77,877
	305L4	649	2.8	39,700	2.0	6.6	71 to 160	N56C to N280TC	10,300	13,000	4,840	77,877
	305L4	718	2.5	35,400	1.6	6.6	71 to 160	N56C to N280TC	10,400	13,100	5,000	77,877
	305L4	816	2.2	47,600	1.9	6.6	71 to 160	N56C to N280TC	10,600	13,400	5,220	77,877
	305L4	896	2.0	36,800	1.3	6.6	71 to 160	N56C to N280TC	10,700	13,600	5,390	77,877
305L4	1018	1.8	47,900	1.5	6.6	71 to 160	N56C to N280TC	10,900	13,800	5,400	77,877	
305L4	1098	1.6	38,100	1.1	6.6	71 to 160	N56C to N280TC	11,100	14,000	5,400	77,877	
305L4	1278	1.4	47,700	1.2	6.6	71 to 160	N56C to N280TC	11,300	14,300	5,400	77,877	
305L4	1370	1.3	39,600	0.93	6.6	71 to 160	N56C to N280TC	11,400	14,400	5,400	77,877	
305L4	1586	1.1	42,000	0.85	6.6	71 to 160	N56C to N280TC	11,700	14,700	5,400	77,877	
305L4	1854	0.97	41,500	0.72	6.6	71 to 160	N56C to N280TC	11,900	15,100	5,400	77,877	
305L4	1991	0.90	49,600	0.80	6.6	71 to 160	N56C to N280TC	12,000	15,200	5,400	77,877	
305L4	2243	0.80	33,600	0.48	6.6	71 to 160	N56C to N280TC	12,200	15,500	5,400	77,877	
305L4	2799	0.64	33,600	0.39	6.6	71 to 160	N56C to N280TC	12,600	16,000	5,400	77,877	
1200	305L1	3.60	333	22,500	80	19.3	132 to 200	N250TC to N280TC	3,670	4,640	980	77,877
	305L1	4.25	282	23,200	80	19.3	132 to 200	N250TC to N280TC	3,860	4,880	1,040	77,877
	305L1	5.33	225	24,200	80	19.3	132 to 200	N250TC to N280TC	4,130	5,220	1,120	77,877
	305L1	6.20	194	25,100	80	19.3	132 to 200	N250TC to N280TC	4,320	5,460	1,180	77,877
	305L1	7.50	160	21,400	56	19.3	132 to 200	N250TC to N280TC	4,580	5,780	1,250	77,877
	305L2	12.5	96	27,700	40	13.4	71 to 160	N56C to N280TC	5,340	6,740	1,490	77,877
	305L2	15.3	78	29,000	38	13.4	71 to 160	N56C to N280TC	5,670	7,170	1,590	77,877



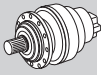
B

305 L



294

51,340 lb-in



B

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	305L2	18.1	66	34,200	38	13.4	71 to 160	N56C to N280TC	5,960	7,530	1,680	77,877
	305L2	20.8	58	30,800	30	13.4	71 to 160	N56C to N280TC	6,210	7,850	1,760	77,877
	305L2	22.7	53	37,300	33	13.4	71 to 160	N56C to N280TC	6,390	8,070	1,810	77,877
	305L2	24.5	49	36,100	30	13.4	71 to 160	N56C to N280TC	6,530	8,250	1,860	77,877
	305L2	26.4	45	31,400	24	13.4	71 to 160	N56C to N280TC	6,680	8,440	1,910	77,877
	305L2	30.8	39	38,000	25	13.4	71 to 160	N56C to N280TC	6,990	8,830	2,000	77,877
	305L2	35.8	34	31,500	17.8	13.4	71 to 160	N56C to N280TC	7,310	9,240	2,110	77,877
	305L2	38.4	31	38,200	20	13.4	71 to 160	N56C to N280TC	7,470	9,440	2,160	77,877
	305L2	44.6	26.9	31,600	14.3	13.4	71 to 160	N56C to N280TC	7,820	9,870	2,270	77,877
	305L2	55.8	21.5	31,400	11.4	13.4	71 to 160	N56C to N280TC	8,360	10,600	2,440	77,877
	305L3	53.4	22.5	36,300	14.2	11.2	71 to 160	N56C to N280TC	8,250	10,400	2,410	77,877
	305L3	63.1	19.0	43,000	14.2	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,550	77,877
	305L3	72.3	16.6	37,700	10.9	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,660	77,877
	305L3	77.2	15.5	44,000	11.9	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,720	77,877
	305L3	90.2	13.3	38,600	8.9	11.2	71 to 160	N56C to N280TC	8,540	10,800	2,870	77,877
	305L3	105	11.5	46,000	9.2	11.2	71 to 160	N56C to N280TC	8,540	10,800	3,010	77,877
	305L3	113	10.6	31,800	5.9	11.2	71 to 160	N56C to N280TC	8,540	10,800	3,090	77,877
	305L3	124	9.6	31,900	5.3	11.2	71 to 160	N56C to N280TC	8,590	10,800	3,190	77,877
	305L3	141	8.5	46,400	6.8	11.2	71 to 160	N56C to N280TC	8,750	11,000	3,330	77,877
	305L3	152	7.9	31,900	4.4	11.2	71 to 160	N56C to N280TC	8,840	11,200	3,420	77,877
	305L3	164	7.3	39,200	5.0	11.2	71 to 160	N56C to N280TC	8,930	11,300	3,500	77,877
	305L3	178	6.8	39,300	4.6	11.2	71 to 160	N56C to N280TC	9,030	11,400	3,600	77,877
	305L3	190	6.3	31,900	3.5	11.2	71 to 160	N56C to N280TC	9,120	11,500	3,680	77,877
	305L3	220	5.4	42,000	4.0	11.2	71 to 160	N56C to N280TC	9,320	11,800	3,860	77,877
	305L3	258	4.7	32,200	2.6	11.2	71 to 160	N56C to N280TC	9,530	12,000	4,070	77,877
	305L3	276	4.3	40,300	3.0	11.2	71 to 160	N56C to N280TC	9,620	12,200	4,170	77,877
	305L3	321	3.7	33,300	2.2	11.2	71 to 160	N56C to N280TC	9,830	12,400	4,380	77,877
	305L3	389	3.1	28,700	1.5	11.2	71 to 160	N56C to N280TC	10,100	12,800	4,670	77,877
	305L3	402	3.0	34,500	1.8	8.9	71 to 160	N56C to N280TC	10,200	12,800	4,720	77,877
	305L4	413	2.9	43,500	2.3	8.9	71 to 160	N56C to N280TC	10,200	12,900	4,760	77,877
	305L4	446	2.7	48,700	2.3	8.9	71 to 160	N56C to N280TC	10,300	13,000	4,890	77,877
	305L4	492	2.4	47,400	2.1	8.9	71 to 160	N56C to N280TC	10,500	13,200	5,050	77,877
	305L4	556	2.2	49,100	1.9	8.9	71 to 160	N56C to N280TC	10,600	13,400	5,260	77,877
	305L4	649	1.8	40,300	1.3	8.9	71 to 160	N56C to N280TC	10,900	13,700	5,400	77,877
	305L4	718	1.7	38,000	1.1	8.9	71 to 160	N56C to N280TC	11,000	13,900	5,400	77,877
	305L4	816	1.5	48,300	1.3	8.9	71 to 160	N56C to N280TC	11,200	14,200	5,400	77,877
	305L4	896	1.3	39,500	0.95	8.9	71 to 160	N56C to N280TC	11,400	14,400	5,400	77,877
	305L4	1018	1.2	48,700	1.0	8.9	71 to 160	N56C to N280TC	11,600	14,600	5,400	77,877
	305L4	1098	1.1	40,900	0.80	8.9	71 to 160	N56C to N280TC	11,700	14,800	5,400	77,877
	305L4	1278	0.94	49,600	0.83	8.9	71 to 160	N56C to N280TC	12,000	15,100	5,400	77,877
	305L4	1370	0.88	41,500	0.65	8.9	71 to 160	N56C to N280TC	12,100	15,300	5,400	77,877
	305L4	1586	0.76	42,000	0.57	8.9	71 to 160	N56C to N280TC	12,400	15,600	5,400	77,877
	305L4	1854	0.65	41,500	0.48	8.9	71 to 160	N56C to N280TC	12,600	16,000	5,400	77,877
	305L4	1991	0.60	49,600	0.54	8.9	71 to 160	N56C to N280TC	12,800	16,100	5,400	77,877
	305L4	2243	0.53	33,600	0.32	8.9	71 to 160	N56C to N280TC	13,000	16,400	5,400	77,877
	305L4	2799	0.43	33,600	0.26	8.9	71 to 160	N56C to N280TC	13,400	16,600	5,400	77,877

306 L

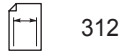


312

95,950 lb-in

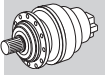
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	306L1	3.60	500	31,500	101	19.8	160 to 250	N320TC to N360TC	4,470	5,630	1,250	131,876
	306L1	4.25	424	32,600	101	19.8	160 to 250	N320TC to N360TC	4,700	5,920	1,320	131,876
	306L1	5.33	338	34,000	101	19.8	160 to 250	N320TC to N360TC	5,030	6,340	1,420	131,876
	306L1	6.20	290	35,200	101	19.8	160 to 250	N320TC to N360TC	5,260	6,630	1,500	131,876
	306L1	7.50	240	34,300	101	19.8	160 to 250	N320TC to N360TC	5,570	7,020	1,600	131,876
	306L2	13.0	139	40,400	54	14.3	132 to 200	N250TC to N280TC	6,560	8,270	1,910	131,876
	306L2	15.3	118	41,800	54	14.3	132 to 200	N250TC to N280TC	6,900	8,690	2,020	131,876
	306L2	18.1	100	49,400	54	14.3	132 to 200	N250TC to N280TC	7,250	9,140	2,140	131,876

306 L



95,950 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	306L2	22.7	79	51,500	54	14.3	132 to 200	N250TC to N280TC	7,760	9,780	2,310	131,876
	306L2	26.4	68	53,400	54	14.3	132 to 200	N250TC to N280TC	8,120	10,200	2,430	131,876
	306L2	28.4	63	56,200	54	14.3	132 to 200	N250TC to N280TC	8,310	10,500	2,490	131,876
	306L2	33.1	54	58,800	54	14.3	132 to 200	N250TC to N280TC	8,690	11,000	2,620	131,876
	306L2	38.4	47	57,200	45	14.3	132 to 200	N250TC to N280TC	9,090	11,500	2,750	131,876
	306L2	46.5	39	57,200	37	14.3	132 to 200	N250TC to N280TC	9,630	12,100	2,930	131,876
	306L2	56.3	32	45,700	25	14.3	132 to 200	N250TC to N280TC	10,200	12,800	3,120	131,876
	306L2	72.5	24.8	46,300	19.4	14.3	132 to 200	N250TC to N280TC	11,000	13,900	3,400	131,876
	306L3	53.2	34	59,900	27	8.2	71 to 160	N56C to N280TC	10,000	12,600	3,070	131,876
	306L3	65.2	27.6	63,200	27	8.2	71 to 160	N56C to N280TC	10,700	13,400	3,280	131,876
	306L3	77.0	23.4	71,200	27	8.2	71 to 160	N56C to N280TC	11,200	14,100	3,470	131,876
	306L3	81.9	22.0	59,400	23	8.2	71 to 160	N56C to N280TC	11,400	14,400	3,540	131,876
	306L3	88.3	20.4	73,100	26	8.2	71 to 160	N56C to N280TC	11,700	14,700	3,630	131,876
	306L3	104	17.3	75,800	23	8.2	71 to 160	N56C to N280TC	11,700	14,800	3,840	131,876
	306L3	112	16.0	64,500	18.0	8.2	71 to 160	N56C to N280TC	11,700	14,800	3,930	131,876
	306L3	121	14.8	67,700	17.5	8.2	71 to 160	N56C to N280TC	11,700	14,800	4,030	131,876
	306L3	141	12.8	68,700	15.3	8.2	71 to 160	N56C to N280TC	11,700	14,800	4,240	131,876
	306L3	152	11.8	66,200	13.6	8.2	71 to 160	N56C to N280TC	11,700	14,800	4,350	131,876
	306L3	190	9.5	57,500	9.5	8.2	71 to 160	N56C to N280TC	11,800	14,900	4,680	131,876
	306L3	205	8.8	70,900	10.8	8.2	71 to 160	N56C to N280TC	12,000	15,100	4,800	131,876
	306L3	222	8.1	57,600	8.1	8.2	71 to 160	N56C to N280TC	12,100	15,200	4,930	131,876
	306L3	238	7.6	71,600	9.4	8.2	71 to 160	N56C to N280TC	12,200	15,400	5,050	131,876
	306L3	268	6.7	48,700	5.7	8.2	71 to 160	N56C to N280TC	12,400	15,700	5,260	131,876
	306L3	288	6.3	48,700	5.3	8.2	71 to 160	N56C to N280TC	12,600	15,800	5,380	131,876
	306L3	325	5.5	48,700	4.7	8.2	71 to 160	N56C to N280TC	12,800	16,100	5,600	131,876
	306L3	405	4.4	49,300	3.8	8.2	71 to 160	N56C to N280TC	13,200	16,600	6,030	131,876
	306L4	391	4.6	58,600	4.8	6.6	71 to 160	N56C to N280TC	13,100	16,500	5,960	131,876
	306L4	444	4.1	87,200	6.3	6.6	71 to 160	N56C to N280TC	13,400	16,800	6,220	131,876
	306L4	509	3.5	83,600	5.3	6.6	71 to 160	N56C to N280TC	13,600	17,200	6,510	131,876
	306L4	589	3.1	80,000	4.4	6.6	71 to 160	N56C to N280TC	13,900	17,500	6,830	131,876
	306L4	636	2.8	83,600	4.2	6.6	71 to 160	N56C to N280TC	14,100	17,700	7,010	131,876
	306L4	700	2.6	82,300	3.8	6.6	71 to 160	N56C to N280TC	14,200	18,000	7,230	131,876
	306L4	809	2.2	67,500	2.7	6.6	71 to 160	N56C to N280TC	14,500	18,300	7,590	131,876
	306L4	877	2.1	67,700	2.5	6.6	71 to 160	N56C to N280TC	14,700	18,500	7,800	131,876
	306L4	1015	1.8	83,400	2.7	6.6	71 to 160	N56C to N280TC	15,000	18,900	7,870	131,876
	306L4	1095	1.6	68,400	2.0	6.6	71 to 160	N56C to N280TC	15,200	19,100	7,870	131,876
	306L4	1279	1.4	72,000	1.8	6.6	71 to 160	N56C to N280TC	15,500	19,600	7,870	131,876
	306L4	1475	1.2	87,800	1.9	6.6	71 to 160	N56C to N280TC	15,800	20,000	7,870	131,876
	306L4	1597	1.1	74,800	1.5	6.6	71 to 160	N56C to N280TC	16,000	20,200	7,870	131,876
	306L4	1843	0.98	89,200	1.6	6.6	71 to 160	N56C to N280TC	16,400	20,600	7,870	131,876
306L4	2074	0.87	62,000	0.96	6.6	71 to 160	N56C to N280TC	16,600	21,000	7,870	131,876	
306L4	2337	0.77	62,000	0.86	6.6	71 to 160	N56C to N280TC	16,900	21,300	7,870	131,876	
306L4	2916	0.62	62,000	0.69	6.6	71 to 160	N56C to N280TC	17,500	22,000	7,870	131,876	
1200	306L1	3.60	333	35,600	101	27	160 to 250	N320TC to N360TC	5,050	6,360	1,430	131,876
	306L1	4.25	282	36,800	101	27	160 to 250	N320TC to N360TC	5,300	6,690	1,510	131,876
	306L1	5.33	225	38,400	101	27	160 to 250	N320TC to N360TC	5,680	7,160	1,630	131,876
	306L1	6.20	194	39,800	101	27	160 to 250	N320TC to N360TC	5,940	7,490	1,710	131,876
	306L1	7.50	160	38,700	101	27	160 to 250	N320TC to N360TC	6,290	7,930	1,830	131,876
	306L2	13.0	93	45,700	54	19.3	132 to 200	N250TC to N280TC	7,410	9,340	2,190	131,876
	306L2	15.3	78	47,200	54	19.3	132 to 200	N250TC to N280TC	7,790	9,820	2,320	131,876
	306L2	18.1	66	55,700	54	19.3	132 to 200	N250TC to N280TC	8,190	10,300	2,450	131,876
	306L2	22.7	53	58,100	52	19.3	132 to 200	N250TC to N280TC	8,760	11,000	2,640	131,876
	306L2	26.4	46	59,100	45	19.3	132 to 200	N250TC to N280TC	9,170	11,600	2,780	131,876
	306L2	28.4	42	61,300	44	19.3	132 to 200	N250TC to N280TC	9,380	11,800	2,850	131,876
	306L2	33.1	36	62,200	38	19.3	132 to 200	N250TC to N280TC	9,810	12,400	2,990	131,876
	306L2	38.4	31	57,300	30	19.3	132 to 200	N250TC to N280TC	10,300	12,900	3,150	131,876
	306L2	46.5	25.8	57,300	25	19.3	132 to 200	N250TC to N280TC	10,900	13,700	3,350	131,876
	306L2	56.3	21.3	46,700	16.8	19.3	132 to 200	N250TC to N280TC	11,500	14,500	3,570	131,876
	306L2	72.5	16.6	47,400	13.2	19.3	132 to 200	N250TC to N280TC	11,700	14,800	3,890	131,876
	306L3	53.2	22.5	66,600	26	11.2	71 to 160	N56C to N280TC	11,300	14,300	3,510	131,876

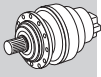


306 L






312

95,950 lb-in



B




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	306L3	65.2	18.4	70,200	22	11.2	71 to 160	N56C to N280TC	11,700	14,800	3,760	131,876
	306L3	77.0	15.6	77,400	21	11.2	71 to 160	N56C to N280TC	11,700	14,800	3,970	131,876
	306L3	81.9	14.7	63,000	16.1	11.2	71 to 160	N56C to N280TC	11,700	14,800	4,050	131,876
	306L3	88.3	13.6	78,900	18.7	11.2	71 to 160	N56C to N280TC	11,700	14,800	4,150	131,876
	306L3	104	11.5	82,500	16.5	11.2	71 to 160	N56C to N280TC	11,700	14,800	4,390	131,876
	306L3	112	10.7	66,800	12.4	11.2	71 to 160	N56C to N280TC	11,700	14,800	4,500	131,876
	306L3	121	9.9	70,400	12.1	11.2	71 to 160	N56C to N280TC	11,800	14,800	4,620	131,876
	306L3	141	8.5	71,100	10.5	11.2	71 to 160	N56C to N280TC	12,000	15,100	4,860	131,876
	306L3	152	7.9	67,200	9.2	11.2	71 to 160	N56C to N280TC	12,100	15,300	4,980	131,876
	306L3	190	6.3	57,700	6.3	11.2	71 to 160	N56C to N280TC	12,500	15,800	5,360	131,876
	306L3	205	5.9	72,700	7.4	11.2	71 to 160	N56C to N280TC	12,700	16,000	5,500	131,876
	306L3	222	5.4	57,800	5.4	11.2	71 to 160	N56C to N280TC	12,800	16,100	5,650	131,876
	306L3	238	5.0	73,400	6.4	11.2	71 to 160	N56C to N280TC	12,900	16,300	5,780	131,876
	306L3	268	4.5	49,200	3.8	11.2	71 to 160	N56C to N280TC	13,200	16,600	6,020	131,876
	306L3	288	4.2	49,600	3.6	11.2	71 to 160	N56C to N280TC	13,300	16,800	6,160	131,876
	306L3	325	3.7	50,200	3.2	11.2	71 to 160	N56C to N280TC	13,500	17,100	6,410	131,876
	306L3	405	3.0	51,300	2.6	11.2	71 to 160	N56C to N280TC	14,000	17,600	6,900	131,876
	306L4	391	3.1	62,900	3.5	8.9	71 to 160	N56C to N280TC	13,900	17,500	6,820	131,876
	306L4	444	2.7	87,200	4.2	8.9	71 to 160	N56C to N280TC	14,100	17,800	7,120	131,876
	306L4	509	2.4	83,600	3.5	8.9	71 to 160	N56C to N280TC	14,400	18,200	7,450	131,876
	306L4	589	2.0	84,200	3.1	8.9	71 to 160	N56C to N280TC	14,700	18,600	7,820	131,876
	306L4	636	1.9	83,600	2.8	8.9	71 to 160	N56C to N280TC	14,900	18,800	7,870	131,876
	306L4	700	1.7	85,400	2.6	8.9	71 to 160	N56C to N280TC	15,100	19,000	7,870	131,876
	306L4	809	1.5	68,700	1.8	8.9	71 to 160	N56C to N280TC	15,400	19,400	7,870	131,876
	306L4	877	1.4	68,900	1.7	8.9	71 to 160	N56C to N280TC	15,600	19,700	7,870	131,876
	306L4	1015	1.2	84,100	1.8	8.9	71 to 160	N56C to N280TC	15,900	20,100	7,870	131,876
	306L4	1095	1.1	69,600	1.4	8.9	71 to 160	N56C to N280TC	16,100	20,300	7,870	131,876
	306L4	1279	0.94	76,400	1.3	8.9	71 to 160	N56C to N280TC	16,500	20,700	7,870	131,876
	306L4	1475	0.81	89,200	1.3	8.9	71 to 160	N56C to N280TC	16,800	21,200	7,870	131,876
	306L4	1597	0.75	76,400	1.0	8.9	71 to 160	N56C to N280TC	17,000	21,400	7,870	131,876
	306L4	1843	0.65	89,200	1.0	8.9	71 to 160	N56C to N280TC	17,300	21,900	7,870	131,876
	306L4	2074	0.58	62,000	0.64	8.9	71 to 160	N56C to N280TC	17,600	22,200	7,870	131,876
	306L4	2337	0.51	62,000	0.57	8.9	71 to 160	N56C to N280TC	17,900	22,600	7,870	131,876
306L4	2916	0.41	62,000	0.46	8.9	71 to 160	N56C to N280TC	18,500	23,300	7,870	131,876	

307 L

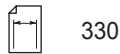


330

138,780 lb-in

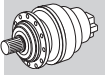
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	307L1	3.43	525	42,800	154	24	180 to 250	N320TC to N360TC	5,510	7,490	1,580	164,623
	307L1	4.09	440	44,100	154	24	180 to 250	N320TC to N360TC	5,810	7,900	1,680	185,866
	307L1	5.25	343	46,400	154	24	180 to 250	N320TC to N360TC	6,260	8,510	1,820	185,866
	307L1	6.23	289	48,200	154	24	180 to 250	N320TC to N360TC	6,590	8,960	1,930	185,866
	307L2	12.3	146	62,900	80	19.8	132 to 200	N250TC to N280TC	8,090	11,000	2,420	164,623
	307L2	14.7	122	64,800	80	19.8	132 to 200	N250TC to N280TC	8,530	11,600	2,570	185,866
	307L2	17.4	104	68,100	80	19.8	132 to 200	N250TC to N280TC	8,960	12,200	2,710	185,866
	307L2	21.8	83	72,800	80	19.8	132 to 200	N250TC to N280TC	9,600	13,000	2,930	185,866
	307L2	25.4	71	76,200	80	19.8	132 to 200	N250TC to N280TC	10,000	13,700	3,080	185,866
	307L2	28.0	64	76,700	80	19.8	132 to 200	N250TC to N280TC	10,300	14,100	3,180	185,866
	307L2	30.7	59	80,700	80	19.8	132 to 200	N250TC to N280TC	10,600	14,500	3,280	185,866
	307L2	32.6	55	80,200	75	19.8	132 to 200	N250TC to N280TC	10,800	14,700	3,350	185,866
	307L2	38.6	47	73,100	57	19.8	132 to 200	N250TC to N280TC	11,400	15,500	3,540	185,866
	307L2	46.7	39	73,600	48	19.8	132 to 200	N250TC to N280TC	12,100	16,400	3,770	185,866
	307L3	51.3	35	91,300	40	12.1	71 to 160	N56C to N280TC	12,400	16,900	3,890	185,866
	307L3	60.5	29.7	94,600	40	12.1	71 to 160	N56C to N280TC	13,000	17,700	4,110	185,866
	307L3	74.1	24.3	98,800	40	12.1	71 to 160	N56C to N280TC	13,800	18,800	4,400	185,866
	307L3	80.6	22.3	88,900	35	12.1	71 to 160	N56C to N280TC	14,200	19,300	4,530	185,866
	307L3	93.0	19.4	103,800	35	12.1	71 to 160	N56C to N280TC	14,700	20,000	4,750	185,866
	307L3	100	17.9	105,500	33	12.1	71 to 160	N56C to N280TC	14,700	20,000	4,870	185,866

307 L




138,780 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
									NHC/NPC	HZ/PZ	FZ		
1800	307L3	113	15.9	91,600	25	12.1	71 to 160	N56C to N280TC	14,700	20,000	5,070	185,866	
	307L3	126	14.3	110,700	28	12.1	71 to 160	N56C to N280TC	14,700	20,000	5,250	185,866	
	307L3	139	13.0	93,300	21	12.1	71 to 160	N56C to N280TC	14,700	20,000	5,420	185,866	
	307L3	146	12.3	114,400	24	12.1	71 to 160	N56C to N280TC	14,700	20,000	5,520	185,866	
	307L3	162	11.1	94,600	18.3	12.1	71 to 160	N56C to N280TC	14,700	20,000	5,710	185,866	
	307L3	177	10.2	108,600	19.2	12.1	71 to 160	N56C to N280TC	14,700	20,000	5,880	185,866	
	307L3	202	8.9	96,200	14.9	12.1	71 to 160	N56C to N280TC	14,900	20,300	6,140	185,866	
	307L3	221	8.1	111,700	15.8	12.1	71 to 160	N56C to N280TC	15,100	20,600	6,330	185,866	
	307L3	239	7.5	77,000	10.1	12.1	71 to 160	N56C to N280TC	15,300	20,800	6,500	185,866	
	307L3	284	6.3	98,400	10.9	12.1	71 to 160	N56C to N280TC	15,700	21,300	6,880	185,866	
	307L3	336	5.3	77,000	7.2	12.1	71 to 160	N56C to N280TC	16,100	21,800	7,290	185,866	
	307L4	349	5.2	131,200	12.1	8.2	71 to 160	N56C to N280TC	16,100	21,900	7,380	185,866	
	307L4	406	4.4	102,000	8.1	8.2	71 to 160	N56C to N280TC	16,500	22,400	7,760	185,866	
	307L4	465	3.9	104,400	7.2	8.2	71 to 160	N56C to N280TC	16,800	22,900	8,120	185,866	
	307L4	509	3.5	124,000	7.9	8.2	71 to 160	N56C to N280TC	17,000	23,200	8,370	185,866	
	307L4	579	3.1	131,800	7.3	8.2	71 to 160	N56C to N280TC	17,300	23,600	8,730	185,866	
	307L4	654	2.8	110,600	5.5	8.2	71 to 160	N56C to N280TC	17,600	24,000	9,090	185,866	
	307L4	722	2.5	131,800	5.9	8.2	71 to 160	N56C to N280TC	17,900	24,300	9,400	185,866	
	307L4	801	2.2	114,400	4.6	8.2	71 to 160	N56C to N280TC	18,200	24,700	9,730	185,866	
	307L4	906	2.0	133,500	4.8	8.2	71 to 160	N56C to N280TC	18,500	25,100	10,100	185,866	
	307L4	999	1.8	118,800	3.8	8.2	71 to 160	N56C to N280TC	18,800	25,500	10,100	185,866	
	307L4	1157	1.6	121,800	3.4	8.2	71 to 160	N56C to N280TC	19,100	26,000	10,100	185,866	
	307L4	1274	1.4	108,900	2.8	8.2	71 to 160	N56C to N280TC	19,400	26,400	10,100	185,866	
	307L4	1408	1.3	136,900	3.1	8.2	71 to 160	N56C to N280TC	19,700	26,800	10,100	185,866	
	307L4	1591	1.1	131,300	2.7	8.2	71 to 160	N56C to N280TC	20,000	27,300	10,100	185,866	
	307L4	1767	1.0	138,600	2.5	8.2	71 to 160	N56C to N280TC	20,300	27,700	10,100	185,866	
	307L4	2041	0.88	126,800	2.0	8.2	71 to 160	N56C to N280TC	20,800	28,200	10,100	185,866	
	307L4	2423	0.74	97,400	1.3	8.2	71 to 160	N56C to N280TC	21,300	28,900	10,100	185,866	
	1200	307L1	3.43	350	48,400	154	33	180 to 250	N320TC to N360TC	6,220	8,460	1,810	164,623
		307L1	4.09	293	49,800	154	33	180 to 250	N320TC to N360TC	6,560	8,920	1,920	185,866
		307L1	5.25	229	52,400	154	33	180 to 250	N320TC to N360TC	7,070	9,610	2,080	185,866
		307L1	6.23	193	54,500	154	33	180 to 250	N320TC to N360TC	7,440	10,100	2,210	185,866
307L2		12.3	97	70,600	80	27	132 to 200	N250TC to N280TC	9,130	12,400	2,770	164,623	
307L2		14.7	81	73,100	80	27	132 to 200	N250TC to N280TC	9,630	13,100	2,940	185,866	
307L2		17.4	69	76,800	80	27	132 to 200	N250TC to N280TC	10,100	13,800	3,110	185,866	
307L2		21.8	55	82,200	76	27	132 to 200	N250TC to N280TC	10,800	14,700	3,350	185,866	
307L2		25.4	47	85,600	68	27	132 to 200	N250TC to N280TC	11,300	15,400	3,520	185,866	
307L2		28.0	43	83,800	61	27	132 to 200	N250TC to N280TC	11,700	15,900	3,640	185,866	
307L2		30.7	39	87,900	58	27	132 to 200	N250TC to N280TC	12,000	16,300	3,750	185,866	
307L2		32.6	37	85,000	53	27	132 to 200	N250TC to N280TC	12,200	16,600	3,830	185,866	
307L2		38.6	31	74,100	39	27	132 to 200	N250TC to N280TC	12,900	17,500	4,050	185,866	
307L2		46.7	25.7	74,600	32	27	132 to 200	N250TC to N280TC	13,600	18,500	4,320	185,866	
307L3		51.3	23.4	99,600	40	16.4	71 to 160	N56C to N280TC	14,000	19,000	4,460	185,866	
307L3		60.5	19.8	103,200	36	16.4	71 to 160	N56C to N280TC	14,700	20,000	4,710	185,866	
307L3		74.1	16.2	107,800	30	16.4	71 to 160	N56C to N280TC	14,700	20,000	5,040	185,866	
307L3		80.6	14.9	92,100	24	16.4	71 to 160	N56C to N280TC	14,700	20,000	5,180	185,866	
307L3		93.0	12.9	113,200	25	16.4	71 to 160	N56C to N280TC	14,700	20,000	5,430	185,866	
307L3		100	12.0	115,100	24	16.4	71 to 160	N56C to N280TC	14,700	20,000	5,570	185,866	
307L3		113	10.6	95,000	17.5	16.4	71 to 160	N56C to N280TC	14,700	20,000	5,800	185,866	
307L3		126	9.5	120,400	19.9	16.4	71 to 160	N56C to N280TC	14,800	20,100	6,010	185,866	
307L3		139	8.6	96,400	14.5	16.4	71 to 160	N56C to N280TC	15,000	20,400	6,210	185,866	
307L3		146	8.2	120,800	17.2	16.4	71 to 160	N56C to N280TC	15,100	20,500	6,320	185,866	
307L3		162	7.4	97,400	12.6	16.4	71 to 160	N56C to N280TC	15,300	20,800	6,530	185,866	
307L3		177	6.8	108,900	12.8	16.4	71 to 160	N56C to N280TC	15,500	21,100	6,730	185,866	
307L3		202	6.0	98,900	10.2	16.4	71 to 160	N56C to N280TC	15,800	21,500	7,030	185,866	
307L3		221	5.4	113,700	10.7	16.4	71 to 160	N56C to N280TC	16,000	21,800	7,250	185,866	
307L3		239	5.0	77,000	6.7	16.4	71 to 160	N56C to N280TC	16,200	22,000	7,450	185,866	
307L3		284	4.2	102,900	7.6	16.4	71 to 160	N56C to N280TC	16,600	22,600	7,880	185,866	
307L3		336	3.6	80,800	5.0	16.4	71 to 160	N56C to N280TC	17,000	23,100	8,340	185,866	
307L4		349	3.4	131,800	8.1	11.2	71 to 160	N56C to N280TC	17,100	23,300	8,450	185,866	
307L4	406	3.0	109,300	5.8	11.2	71 to 160	N56C to N280TC	17,500	23,800	8,880	185,866		

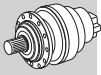


B




307 L

 330


138,780 lb-in






B

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	307L4	465	2.6	111,800	5.2	11.2	71 to 160	N56C to N280TC	17,800	24,200	9,290	185,866
	307L4	509	2.4	124,500	5.3	11.2	71 to 160	N56C to N280TC	18,000	24,500	9,580	185,866
	307L4	579	2.1	133,200	4.9	11.2	71 to 160	N56C to N280TC	18,400	25,000	10,000	185,866
	307L4	654	1.8	118,500	3.9	11.2	71 to 160	N56C to N280TC	18,700	25,400	10,100	185,866
	307L4	722	1.7	134,900	4.0	11.2	71 to 160	N56C to N280TC	19,000	25,800	10,100	185,866
	307L4	801	1.5	122,600	3.3	11.2	71 to 160	N56C to N280TC	19,300	26,200	10,100	185,866
	307L4	906	1.3	136,600	3.2	11.2	71 to 160	N56C to N280TC	19,600	26,600	10,100	185,866
	307L4	999	1.2	127,300	2.7	11.2	71 to 160	N56C to N280TC	19,900	27,000	10,100	185,866
	307L4	1157	1.0	130,500	2.4	11.2	71 to 160	N56C to N280TC	20,300	27,600	10,100	185,866
	307L4	1274	0.94	108,900	1.8	11.2	71 to 160	N56C to N280TC	20,600	28,000	10,100	185,866
	307L4	1408	0.85	138,800	2.1	11.2	71 to 160	N56C to N280TC	20,900	28,400	10,100	185,866
	307L4	1591	0.75	132,800	1.8	11.2	71 to 160	N56C to N280TC	21,200	28,900	10,100	185,866
	307L4	1767	0.68	138,800	1.7	11.2	71 to 160	N56C to N280TC	21,600	29,300	10,100	185,866
	307L4	2041	0.59	126,800	1.3	11.2	71 to 160	N56C to N280TC	22,000	29,900	10,100	185,866
	307L4	2423	0.50	97,400	0.86	11.2	71 to 160	N56C to N280TC	22,600	30,700	10,100	185,866

309 L

 348

205,700 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	309L1	3.43	525	58,800	201	27	180 to 250	N320TC to N360TC	5,510	7,490	1,260	246,936
	309L1	4.09	440	60,500	201	27	180 to 250	N320TC to N360TC	5,810	7,900	1,340	256,672
	309L1	5.25	343	63,700	201	27	180 to 250	N320TC to N360TC	6,260	8,510	1,460	256,672
	309L1	6.23	289	66,200	201	27	180 to 250	N320TC to N360TC	6,590	8,960	1,540	256,672
	309L2	12.3	146	66,100	80	19.8	132 to 200	N250TC to N280TC	8,090	11,000	1,940	246,936
	309L2	14.7	122	78,800	80	19.8	132 to 200	N250TC to N280TC	8,530	11,600	2,050	256,672
	309L2	17.4	104	81,500	80	19.8	132 to 200	N250TC to N280TC	8,960	12,200	2,170	256,672
	309L2	21.8	83	85,000	80	19.8	132 to 200	N250TC to N280TC	9,600	13,000	2,340	256,672
	309L2	25.4	71	88,200	80	19.8	132 to 200	N250TC to N280TC	10,000	13,700	2,460	256,672
	309L2	28.0	64	105,200	80	19.8	132 to 200	N250TC to N280TC	10,300	14,100	2,550	256,672
	309L2	32.6	55	110,000	80	19.8	132 to 200	N250TC to N280TC	10,800	14,700	2,680	256,672
	309L2	38.6	47	109,700	80	19.8	132 to 200	N250TC to N280TC	11,400	15,500	2,830	256,672
	309L2	46.7	39	110,400	72	19.8	132 to 200	N250TC to N280TC	12,100	16,400	3,020	256,672
	309L3	51.3	35	113,100	40	12.1	71 to 160	N56C to N280TC	12,400	16,900	3,110	256,672
	309L3	60.5	29.7	118,500	40	12.1	71 to 160	N56C to N280TC	13,000	17,700	3,290	256,672
	309L3	74.1	24.3	126,000	40	12.1	71 to 160	N56C to N280TC	13,800	18,800	3,520	256,672
	309L3	80.6	22.3	127,500	40	12.1	71 to 160	N56C to N280TC	14,200	19,300	3,620	256,672
	309L3	93.0	19.4	127,200	40	12.1	71 to 160	N56C to N280TC	14,700	20,000	3,800	256,672
	309L3	100	17.9	138,000	40	12.1	71 to 160	N56C to N280TC	14,700	20,000	3,890	256,672
	309L3	113	15.9	134,000	37	12.1	71 to 160	N56C to N280TC	14,700	20,000	4,060	256,672
	309L3	126	14.3	137,900	34	12.1	71 to 160	N56C to N280TC	14,700	20,000	4,200	256,672
	309L3	139	13.0	138,000	31	12.1	71 to 160	N56C to N280TC	14,700	20,000	4,340	256,672
	309L3	162	11.1	141,100	27	12.1	71 to 160	N56C to N280TC	14,700	20,000	4,570	256,672
	309L3	183	9.9	126,600	22	12.1	71 to 160	N56C to N280TC	14,700	20,000	4,760	256,672
	309L3	202	8.9	144,400	22	12.1	71 to 160	N56C to N280TC	14,900	20,300	4,920	256,672
	309L3	223	8.1	115,100	16.2	12.1	71 to 160	N56C to N280TC	15,100	20,600	5,080	256,672
	309L3	239	7.5	115,100	15.0	12.1	71 to 160	N56C to N280TC	15,300	20,800	5,200	256,672
	309L3	284	6.3	137,400	15.2	12.1	71 to 160	N56C to N280TC	15,700	21,300	5,510	256,672
	309L3	336	5.3	115,100	10.7	12.1	71 to 160	N56C to N280TC	16,100	21,800	5,830	256,672
	309L4	349	5.2	187,000	17.3	8.2	71 to 160	N56C to N280TC	16,100	21,900	5,900	256,672
	309L4	406	4.4	153,000	12.2	8.2	71 to 160	N56C to N280TC	16,500	22,400	6,200	256,672
	309L4	465	3.9	156,600	10.9	8.2	71 to 160	N56C to N280TC	16,800	22,900	6,490	256,672
	309L4	509	3.5	126,600	8.0	8.2	71 to 160	N56C to N280TC	17,000	23,200	6,690	256,672
	309L4	579	3.1	188,200	10.5	8.2	71 to 160	N56C to N280TC	17,300	23,600	6,990	256,672
	309L4	654	2.8	158,700	7.8	8.2	71 to 160	N56C to N280TC	17,600	24,000	7,270	256,672
	309L4	722	2.5	188,200	8.4	8.2	71 to 160	N56C to N280TC	17,900	24,300	7,520	256,672
	309L4	801	2.2	160,400	6.5	8.2	71 to 160	N56C to N280TC	18,200	24,700	7,780	256,672
	309L4	906	2.0	157,100	5.6	8.2	71 to 160	N56C to N280TC	18,500	25,100	8,090	256,672
	309L4	999	1.8	160,800	5.2	8.2	71 to 160	N56C to N280TC	18,800	25,500	8,090	256,672

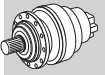
309 L




348

205,700 lb-in

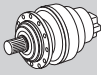
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	309L4	1149	1.6	138,700	3.9	8.2	71 to 160	N56C to N280TC	19,100	26,000	8,090	256,672
	309L4	1286	1.4	141,600	3.6	8.2	71 to 160	N56C to N280TC	19,400	26,400	8,090	256,672
	309L4	1380	1.3	143,400	3.4	8.2	71 to 160	N56C to N280TC	19,600	26,700	8,090	256,672
	309L4	1605	1.1	147,400	3.0	8.2	71 to 160	N56C to N280TC	20,100	27,300	8,090	256,672
	309L4	1723	1.0	149,300	2.8	8.2	71 to 160	N56C to N280TC	20,300	27,600	8,090	256,672
	309L4	2003	0.90	150,500	2.4	8.2	71 to 160	N56C to N280TC	20,700	28,200	8,090	256,672
	309L4	2423	0.74	150,500	2.0	8.2	71 to 160	N56C to N280TC	21,300	28,900	8,090	256,672
1200	309L1	3.43	350	66,400	201	37	180 to 250	N320TC to N360TC	6,220	8,460	1,450	246,936
	309L1	4.09	293	68,300	201	37	180 to 250	N320TC to N360TC	6,560	8,920	1,530	256,672
	309L1	5.25	229	71,900	201	37	180 to 250	N320TC to N360TC	7,070	9,610	1,670	256,672
	309L1	6.23	193	74,700	201	37	180 to 250	N320TC to N360TC	7,440	10,100	1,770	256,672
	309L2	12.3	97	74,600	80	27	132 to 200	N250TC to N280TC	9,130	12,400	2,220	256,672
	309L2	14.7	81	89,000	80	27	132 to 200	N250TC to N280TC	9,630	13,100	2,350	256,672
	309L2	17.4	69	92,100	80	27	132 to 200	N250TC to N280TC	10,100	13,800	2,490	256,672
	309L2	21.8	55	96,000	80	27	132 to 200	N250TC to N280TC	10,800	14,700	2,680	256,672
	309L2	25.4	47	98,800	79	27	132 to 200	N250TC to N280TC	11,300	15,400	2,820	256,672
	309L2	28.0	43	115,900	80	27	132 to 200	N250TC to N280TC	11,700	15,900	2,910	256,672
	309L2	32.6	37	118,500	74	27	132 to 200	N250TC to N280TC	12,200	16,600	3,060	256,672
	309L2	38.6	31	111,100	58	27	132 to 200	N250TC to N280TC	12,900	17,500	3,240	256,672
	309L2	46.7	25.7	111,800	48	27	132 to 200	N250TC to N280TC	13,600	18,500	3,460	256,672
	309L3	51.3	23.4	125,700	40	16.4	71 to 160	N56C to N280TC	14,000	19,000	3,560	256,672
	309L3	60.5	19.8	133,900	40	16.4	71 to 160	N56C to N280TC	14,700	20,000	3,770	256,672
	309L3	74.1	16.2	142,300	40	16.4	71 to 160	N56C to N280TC	14,700	20,000	4,030	256,672
	309L3	80.6	14.9	135,200	35	16.4	71 to 160	N56C to N280TC	14,700	20,000	4,140	256,672
	309L3	93.0	12.9	141,700	32	16.4	71 to 160	N56C to N280TC	14,700	20,000	4,350	256,672
	309L3	100	12.0	155,800	32	16.4	71 to 160	N56C to N280TC	14,700	20,000	4,460	256,672
	309L3	113	10.6	142,100	26	16.4	71 to 160	N56C to N280TC	14,700	20,000	4,640	256,672
	309L3	126	9.5	151,900	25	16.4	71 to 160	N56C to N280TC	14,800	20,100	4,810	256,672
	309L3	139	8.6	144,700	22	16.4	71 to 160	N56C to N280TC	15,000	20,400	4,970	256,672
	309L3	162	7.4	146,100	18.9	16.4	71 to 160	N56C to N280TC	15,300	20,800	5,230	256,672
	309L3	183	6.6	126,600	14.5	16.4	71 to 160	N56C to N280TC	15,600	21,200	5,440	256,672
	309L3	202	6.0	148,200	15.3	16.4	71 to 160	N56C to N280TC	15,800	21,500	5,630	256,672
	309L3	223	5.4	115,100	10.8	16.4	71 to 160	N56C to N280TC	16,000	21,800	5,820	256,672
	309L3	239	5.0	115,100	10.0	16.4	71 to 160	N56C to N280TC	16,200	22,000	5,960	256,672
	309L3	284	4.2	139,800	10.3	16.4	71 to 160	N56C to N280TC	16,600	22,600	6,300	256,672
	309L3	336	3.6	120,900	7.5	16.4	71 to 160	N56C to N280TC	17,000	23,100	6,670	256,672
	309L4	349	3.4	188,200	11.6	11.2	71 to 160	N56C to N280TC	17,100	23,300	6,760	256,672
	309L4	406	3.0	163,900	8.7	11.2	71 to 160	N56C to N280TC	17,500	23,800	7,100	256,672
	309L4	465	2.6	167,800	7.8	11.2	71 to 160	N56C to N280TC	17,800	24,200	7,430	256,672
	309L4	509	2.4	126,800	5.4	11.2	71 to 160	N56C to N280TC	18,000	24,500	7,660	256,672
	309L4	579	2.1	188,800	7.0	11.2	71 to 160	N56C to N280TC	18,400	25,000	8,000	256,672
	309L4	654	1.8	160,800	5.3	11.2	71 to 160	N56C to N280TC	18,700	25,400	8,090	256,672
	309L4	722	1.7	189,600	5.6	11.2	71 to 160	N56C to N280TC	19,000	25,800	8,090	256,672
	309L4	801	1.5	161,200	4.3	11.2	71 to 160	N56C to N280TC	19,300	26,200	8,090	256,672
	309L4	906	1.3	161,000	3.8	11.2	71 to 160	N56C to N280TC	19,600	26,600	8,090	256,672
	309L4	999	1.2	161,600	3.5	11.2	71 to 160	N56C to N280TC	19,900	27,000	8,090	256,672
	309L4	1149	1.0	149,300	2.8	11.2	71 to 160	N56C to N280TC	20,300	27,600	8,090	256,672
	309L4	1286	0.93	150,500	2.5	11.2	71 to 160	N56C to N280TC	20,600	28,000	8,090	256,672
	309L4	1380	0.87	150,500	2.3	11.2	71 to 160	N56C to N280TC	20,800	28,300	8,090	256,672
309L4	1605	0.75	150,500	2.0	11.2	71 to 160	N56C to N280TC	21,300	28,900	8,090	256,672	
309L4	1723	0.70	150,500	1.9	11.2	71 to 160	N56C to N280TC	21,500	29,200	8,090	256,672	
309L4	2003	0.60	150,500	1.6	11.2	71 to 160	N56C to N280TC	21,900	29,800	8,090	256,672	
309L4	2423	0.50	150,500	1.3	11.2	71 to 160	N56C to N280TC	22,600	30,700	8,090	256,672	



310 L

 364

301,990 lb-in



B




n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
								NHC/NPC	HZ/PZ	FZ		
1800	310L1	4.09	440	61,400	235	38	200 to 250	N320TC to N360TC	6,810	8,800	2,420	421,296
	310L1	5.25	343	64,600	235	38	200 to 250	N320TC to N360TC	7,340	9,480	2,630	421,296
	310L1	6.23	289	67,200	235	38	200 to 250	N320TC to N360TC	7,730	9,980	2,790	421,296
	310L2	14.7	122	90,200	101	24	160 to 250	N320TC to N360TC	10,000	12,900	3,710	421,296
	310L2	17.4	104	94,800	101	24	160 to 250	N320TC to N360TC	10,500	13,600	3,920	421,296
	310L2	21.8	83	101,500	101	24	160 to 250	N320TC to N360TC	11,300	14,500	4,230	421,296
	310L2	25.4	71	106,100	101	24	160 to 250	N320TC to N360TC	11,800	15,200	4,450	421,296
	310L2	28.0	64	106,800	101	24	160 to 250	N320TC to N360TC	12,100	15,700	4,600	421,296
	310L2	30.7	59	112,400	101	24	160 to 250	N320TC to N360TC	12,500	16,100	4,740	421,296
	310L2	32.6	55	111,800	101	24	160 to 250	N320TC to N360TC	12,700	16,400	4,830	421,296
	310L2	38.6	47	115,600	91	24	160 to 250	N320TC to N360TC	13,400	17,300	5,120	421,296
	310L2	46.7	39	120,400	78	24	160 to 250	N320TC to N360TC	14,100	18,300	5,450	421,296
	310L3	53.0	34	132,400	54	19.8	132 to 200	N250TC to N280TC	14,700	19,000	5,690	421,296
	310L3	62.6	28.8	139,200	54	19.8	132 to 200	N250TC to N280TC	15,400	19,900	6,010	421,296
	310L3	73.9	24.4	146,300	54	19.8	132 to 200	N250TC to N280TC	16,200	21,000	6,350	421,296
	310L3	80.3	22.4	146,600	54	19.8	132 to 200	N250TC to N280TC	16,600	21,500	6,530	421,296
	310L3	91.3	19.7	155,900	53	19.8	132 to 200	N250TC to N280TC	17,200	22,200	6,820	421,296
	310L3	101	17.9	156,900	49	19.8	132 to 200	N250TC to N280TC	17,200	22,200	7,040	421,296
	310L3	110	16.3	165,000	47	19.8	132 to 200	N250TC to N280TC	17,200	22,200	7,260	421,296
	310L3	119	15.1	164,900	43	19.8	132 to 200	N250TC to N280TC	17,200	22,200	7,440	421,296
	310L3	130	13.8	173,500	42	19.8	132 to 200	N250TC to N280TC	17,200	22,200	7,670	421,296
	310L3	142	12.7	173,800	38	19.8	132 to 200	N250TC to N280TC	17,200	22,200	7,890	421,296
	310L3	164	11.0	185,700	36	19.8	132 to 200	N250TC to N280TC	17,200	22,200	8,280	421,296
	310L3	177	10.2	160,800	28	19.8	132 to 200	N250TC to N280TC	17,200	22,200	8,500	421,296
	310L3	202	8.9	189,900	29	19.8	132 to 200	N250TC to N280TC	17,500	22,600	8,880	421,296
	310L3	230	7.8	183,400	25	19.8	132 to 200	N250TC to N280TC	17,800	23,000	9,270	421,296
	310L3	249	7.2	162,100	20	19.8	132 to 200	N250TC to N280TC	18,000	23,300	9,520	421,296
	310L3	295	6.1	200,800	21	19.8	132 to 200	N250TC to N280TC	18,500	23,900	10,100	421,296
	310L3	350	5.1	163,000	14.5	19.8	132 to 200	N250TC to N280TC	18,900	24,500	10,700	421,296
	310L4	392	4.6	165,800	13.7	12.1	71 to 160	N56C to N280TC	19,200	24,800	11,100	421,296
	310L4	451	4.0	250,700	17.9	12.1	71 to 160	N56C to N280TC	19,600	25,300	11,600	421,296
	310L4	507	3.5	219,000	13.9	12.1	71 to 160	N56C to N280TC	20,000	25,800	12,100	421,296
	310L4	556	3.2	266,000	15.4	12.1	71 to 160	N56C to N280TC	20,200	26,100	12,400	421,296
	310L4	637	2.8	227,500	11.5	12.1	71 to 160	N56C to N280TC	20,600	26,600	13,000	421,296
	310L4	726	2.5	232,600	10.3	12.1	71 to 160	N56C to N280TC	21,000	27,100	13,600	421,296
	310L4	818	2.2	237,300	9.4	12.1	71 to 160	N56C to N280TC	21,400	27,600	14,200	421,296
	310L4	939	1.9	290,700	10.0	12.1	71 to 160	N56C to N280TC	21,800	28,200	14,600	421,296
	310L4	1021	1.8	246,200	7.8	12.1	71 to 160	N56C to N280TC	22,100	28,500	14,600	421,296
	310L4	1164	1.5	251,700	7.0	12.1	71 to 160	N56C to N280TC	22,500	29,000	14,600	421,296
	310L4	1259	1.4	240,300	6.2	12.1	71 to 160	N56C to N280TC	22,700	29,400	14,600	421,296
	310L4	1438	1.3	218,900	4.9	12.1	71 to 160	N56C to N280TC	23,200	29,900	14,600	421,296
	310L4	1672	1.1	226,400	4.4	12.1	71 to 160	N56C to N280TC	23,700	30,600	14,600	421,296
	310L4	1794	1.0	230,000	4.1	12.1	71 to 160	N56C to N280TC	23,900	30,900	14,600	421,296
	310L4	2022	0.89	230,100	3.7	12.1	71 to 160	N56C to N280TC	24,300	31,400	14,600	421,296
	310L4	2523	0.71	230,100	2.9	12.1	71 to 160	N56C to N280TC	25,100	32,400	14,600	421,296
1200	310L1	4.09	293	69,300	235	52	200 to 250	N320TC to N360TC	7,690	9,930	2,770	421,296
	310L1	5.25	229	73,000	235	52	200 to 250	N320TC to N360TC	8,290	10,700	3,010	421,296
	310L1	6.23	193	75,900	235	52	200 to 250	N320TC to N360TC	8,730	11,300	3,190	421,296
	310L2	14.7	81	101,800	101	33	160 to 250	N320TC to N360TC	11,300	14,600	4,250	421,296
	310L2	17.4	69	107,000	101	33	160 to 250	N320TC to N360TC	11,900	15,300	4,490	421,296
	310L2	21.8	55	114,600	101	33	160 to 250	N320TC to N360TC	12,700	16,400	4,840	421,296
	310L2	25.4	47	119,900	96	33	160 to 250	N320TC to N360TC	13,300	17,200	5,090	421,296
	310L2	28.0	43	120,700	87	33	160 to 250	N320TC to N360TC	13,700	17,700	5,260	421,296
	310L2	30.7	39	125,600	83	33	160 to 250	N320TC to N360TC	14,100	18,200	5,420	421,296
	310L2	32.6	37	126,300	78	33	160 to 250	N320TC to N360TC	14,300	18,500	5,530	421,296
	310L2	38.6	31	126,200	66	33	160 to 250	N320TC to N360TC	15,100	19,500	5,860	421,296
	310L2	46.7	25.7	131,500	57	33	160 to 250	N320TC to N360TC	16,000	20,600	6,240	421,296
	310L3	53.0	22.6	149,500	54	27	132 to 200	N250TC to N280TC	16,600	21,400	6,510	421,296
	310L3	62.6	19.2	157,200	52	27	132 to 200	N250TC to N280TC	17,200	22,200	6,880	421,296

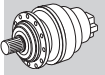
310 L



364

301,990 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2} max lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	310L3	73.9	16.2	165,200	47	27	132 to 200	N250TC to N280TC	17,200	22,200	7,270	421,296
	310L3	80.3	14.9	165,600	43	27	132 to 200	N250TC to N280TC	17,200	22,200	7,480	421,296
	310L3	91.3	13.1	176,000	40	27	132 to 200	N250TC to N280TC	17,200	22,200	7,800	421,296
	310L3	101	11.9	177,200	37	27	132 to 200	N250TC to N280TC	17,200	22,200	8,060	421,296
	310L3	110	10.9	186,400	35	27	132 to 200	N250TC to N280TC	17,200	22,200	8,310	421,296
	310L3	119	10.1	186,300	33	27	132 to 200	N250TC to N280TC	17,200	22,200	8,520	421,296
	310L3	130	9.2	195,900	31	27	132 to 200	N250TC to N280TC	17,400	22,500	8,790	421,296
	310L3	142	8.5	191,400	28	27	132 to 200	N250TC to N280TC	17,600	22,800	9,030	421,296
	310L3	164	7.3	209,700	27	27	132 to 200	N250TC to N280TC	18,000	23,200	9,480	421,296
	310L3	177	6.8	162,300	19.1	27	132 to 200	N250TC to N280TC	18,200	23,500	9,730	421,296
	310L3	202	5.9	201,500	21	27	132 to 200	N250TC to N280TC	18,500	23,900	10,200	421,296
	310L3	230	5.2	192,000	17.4	27	132 to 200	N250TC to N280TC	18,900	24,400	10,600	421,296
	310L3	249	4.8	164,300	13.8	27	132 to 200	N250TC to N280TC	19,100	24,700	10,900	421,296
	310L3	295	4.1	213,100	15.1	27	132 to 200	N250TC to N280TC	19,600	25,300	11,500	421,296
	310L3	350	3.4	176,000	10.5	27	132 to 200	N250TC to N280TC	20,100	25,900	12,200	421,296
	310L4	392	3.1	180,100	9.9	16.4	71 to 160	N56C to N280TC	20,400	26,300	12,700	421,296
	310L4	451	2.7	281,200	13.4	16.4	71 to 160	N56C to N280TC	20,800	26,900	13,300	421,296
	310L4	507	2.4	234,400	9.9	16.4	71 to 160	N56C to N280TC	21,200	27,300	13,800	421,296
	310L4	556	2.2	288,700	11.2	16.4	71 to 160	N56C to N280TC	21,400	27,700	14,200	421,296
	310L4	637	1.9	243,500	8.2	16.4	71 to 160	N56C to N280TC	21,900	28,200	14,600	421,296
310L4	726	1.7	248,900	7.4	16.4	71 to 160	N56C to N280TC	22,300	28,800	14,600	421,296	
310L4	818	1.5	254,000	6.7	16.4	71 to 160	N56C to N280TC	22,700	29,200	14,600	421,296	
310L4	939	1.3	297,700	6.8	16.4	71 to 160	N56C to N280TC	23,100	29,800	14,600	421,296	
310L4	1021	1.2	263,600	5.6	16.4	71 to 160	N56C to N280TC	23,400	30,200	14,600	421,296	
310L4	1164	1.0	269,500	5.0	16.4	71 to 160	N56C to N280TC	23,800	30,800	14,600	421,296	
310L4	1259	0.95	247,800	4.2	16.4	71 to 160	N56C to N280TC	24,100	31,100	14,600	421,296	
310L4	1438	0.83	230,100	3.4	16.4	71 to 160	N56C to N280TC	24,600	31,700	14,600	421,296	
310L4	1672	0.72	230,100	3.0	16.4	71 to 160	N56C to N280TC	25,100	32,400	14,600	421,296	
310L4	1794	0.67	230,100	2.8	16.4	71 to 160	N56C to N280TC	25,300	32,700	14,600	421,296	
310L4	2022	0.59	230,100	2.4	16.4	71 to 160	N56C to N280TC	25,800	33,300	14,600	421,296	
310L4	2523	0.48	230,100	2.0	16.4	71 to 160	N56C to N280TC	26,600	34,400	14,600	421,296	






311 L




382

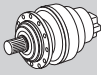
427,760 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2} max lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	311L1	4.09	440	88,500	268	38	—	—	8,520	10,900	2,420	515,999
	311L1	5.25	343	97,900	268	38	—	—	9,180	11,800	2,630	515,999
	311L1	6.23	289	97,200	268	38	—	—	9,670	12,400	2,790	515,999
	311L2	14.0	128	128,000	154	29	180 to 250	N320TC to N360TC	12,300	15,800	3,650	515,999
	311L2	16.7	108	135,000	154	29	180 to 250	N320TC to N360TC	13,000	16,700	3,870	515,999
	311L2	18.0	100	141,600	154	29	180 to 250	N320TC to N360TC	13,300	17,100	3,970	515,999
	311L2	21.5	84	145,500	154	29	180 to 250	N320TC to N360TC	14,000	18,000	4,210	515,999
	311L2	25.5	71	153,100	154	29	180 to 250	N320TC to N360TC	14,800	19,000	4,450	515,999
	311L2	27.6	65	160,900	154	29	180 to 250	N320TC to N360TC	15,100	19,400	4,570	515,999
	311L2	32.7	55	169,400	154	29	180 to 250	N320TC to N360TC	15,900	20,400	4,840	515,999
	311L2	38.8	46	167,500	131	29	180 to 250	N320TC to N360TC	16,700	21,500	5,120	515,999
	311L3	50.5	36	188,000	80	19.8	132 to 200	N250TC to N280TC	18,100	23,300	5,590	515,999
	311L3	60.2	29.9	198,200	80	19.8	132 to 200	N250TC to N280TC	19,100	24,500	5,930	515,999
	311L3	71.1	25.3	208,300	80	19.8	132 to 200	N250TC to N280TC	20,100	24,700	6,270	515,999
	311L3	77.3	23.3	213,600	80	19.8	132 to 200	N250TC to N280TC	20,600	24,700	6,450	515,999
	311L3	89.3	20.2	223,000	78	19.8	132 to 200	N250TC to N280TC	21,500	24,700	6,760	515,999
	311L3	104	17.3	233,300	70	19.8	132 to 200	N250TC to N280TC	21,500	24,700	7,110	515,999
	311L3	115	15.7	240,400	66	19.8	132 to 200	N250TC to N280TC	21,500	24,700	7,350	515,999
311L3	126	14.3	247,000	62	19.8	132 to 200	N250TC to N280TC	21,500	24,700	7,580	515,999	
311L3	133	13.5	251,500	59	19.8	132 to 200	N250TC to N280TC	21,500	24,700	7,730	515,999	
311L3	147	12.2	266,500	57	19.8	132 to 200	N250TC to N280TC	21,500	24,700	7,990	515,999	
311L3	161	11.2	266,200	52	19.8	132 to 200	N250TC to N280TC	21,500	24,700	8,230	515,999	
311L3	171	10.5	278,800	51	19.8	132 to 200	N250TC to N280TC	21,500	24,700	8,400	515,999	

311 L

 382

427,760 lb-in






B

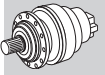
n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in		
								NHC/NPC	HZ/PZ	FZ			
1800	311L3	191	9.4	277,800	45	19.8	132 to 200	N250TC to N280TC	21,700	24,900	8,720	515,999	
	311L3	203	8.9	287,900	44	19.8	132 to 200	N250TC to N280TC	21,900	25,200	8,890	515,999	
	311L3	245	7.3	295,600	38	19.8	132 to 200	N250TC to N280TC	22,500	25,800	9,470	515,999	
	311L3	291	6.2	239,000	26	19.8	132 to 200	N250TC to N280TC	23,100	26,500	10,000	515,999	
	311L4	348	5.2	335,300	31	12.1	71 to 160	N56C to N280TC	23,700	27,200	10,600	515,999	
	311L4	410	4.4	350,600	28	12.1	71 to 160	N56C to N280TC	24,200	27,800	11,200	515,999	
	311L4	512	3.5	371,400	23	12.1	71 to 160	N56C to N280TC	25,000	28,700	12,100	515,999	
	311L4	568	3.2	367,900	21	12.1	71 to 160	N56C to N280TC	25,400	29,100	12,500	515,999	
	311L4	627	2.9	342,000	17.6	12.1	71 to 160	N56C to N280TC	25,700	29,600	13,000	515,999	
	311L4	724	2.5	405,900	18.1	12.1	71 to 160	N56C to N280TC	26,300	30,200	13,600	515,999	
	311L4	825	2.2	388,500	15.2	12.1	71 to 160	N56C to N280TC	26,800	30,700	14,200	515,999	
	311L4	904	2.0	411,100	14.7	12.1	71 to 160	N56C to N280TC	27,100	31,100	14,600	515,999	
	311L4	986	1.8	366,500	12.0	12.1	71 to 160	N56C to N280TC	27,500	31,500	14,600	515,999	
	311L4	1058	1.7	370,300	11.3	12.1	71 to 160	N56C to N280TC	27,700	31,900	14,600	515,999	
	311L4	1230	1.5	378,500	9.9	12.1	71 to 160	N56C to N280TC	28,300	32,500	14,600	515,999	
	311L4	1415	1.3	372,300	8.5	12.1	71 to 160	N56C to N280TC	28,900	33,200	14,600	515,999	
	311L4	1680	1.1	297,700	5.7	12.1	71 to 160	N56C to N280TC	29,600	34,000	14,600	515,999	
	311L4	1766	1.0	379,900	6.9	12.1	71 to 160	N56C to N280TC	29,800	34,300	14,600	515,999	
	311L4	2096	0.86	300,900	4.6	12.1	71 to 160	N56C to N280TC	30,600	35,100	14,600	515,999	
	1200	311L1	4.09	293	99,900	268	52	—	—	9,620	12,400	2,770	515,999
		311L1	5.25	229	110,500	268	52	—	—	10,400	13,300	3,010	515,999
		311L1	6.23	193	109,800	268	52	—	—	10,900	14,000	3,190	515,999
		311L2	14.0	86	144,600	154	39	180 to 250	N320TC to N360TC	13,900	17,900	4,180	515,999
		311L2	16.7	72	152,400	154	39	180 to 250	N320TC to N360TC	14,700	18,900	4,430	515,999
		311L2	18.0	67	159,900	154	39	180 to 250	N320TC to N360TC	15,000	19,300	4,540	515,999
		311L2	21.5	56	164,300	154	39	180 to 250	N320TC to N360TC	15,800	20,300	4,820	515,999
		311L2	25.5	47	172,900	137	39	180 to 250	N320TC to N360TC	16,700	21,400	5,100	515,999
		311L2	27.6	44	181,800	133	39	180 to 250	N320TC to N360TC	17,100	21,900	5,230	515,999
		311L2	32.7	37	191,400	118	39	180 to 250	N320TC to N360TC	18,000	23,100	5,540	515,999
		311L2	38.8	31	184,000	96	39	180 to 250	N320TC to N360TC	18,900	24,300	5,870	515,999
		311L3	50.5	23.8	212,300	80	27	132 to 200	N250TC to N280TC	20,500	24,700	6,400	515,999
		311L3	60.2	19.9	223,900	78	27	132 to 200	N250TC to N280TC	21,500	24,700	6,790	515,999
311L3		71.1	16.9	235,300	69	27	132 to 200	N250TC to N280TC	21,500	24,700	7,180	515,999	
311L3		77.3	15.5	241,300	65	27	132 to 200	N250TC to N280TC	21,500	24,700	7,380	515,999	
311L3		89.3	13.4	251,900	59	27	132 to 200	N250TC to N280TC	21,500	24,700	7,740	515,999	
311L3		104	11.6	263,500	53	27	132 to 200	N250TC to N280TC	21,500	24,700	8,140	515,999	
311L3		115	10.5	271,400	49	27	132 to 200	N250TC to N280TC	21,500	24,700	8,410	515,999	
311L3		126	9.6	279,000	46	27	132 to 200	N250TC to N280TC	21,700	24,900	8,670	515,999	
311L3		133	9.0	284,000	44	27	132 to 200	N250TC to N280TC	21,900	25,100	8,850	515,999	
311L3		147	8.2	291,300	41	27	132 to 200	N250TC to N280TC	22,200	25,500	9,140	515,999	
311L3		161	7.4	300,700	39	27	132 to 200	N250TC to N280TC	22,500	25,800	9,430	515,999	
311L3		171	7.0	297,400	36	27	132 to 200	N250TC to N280TC	22,700	26,000	9,610	515,999	
311L3		191	6.3	295,100	32	27	132 to 200	N250TC to N280TC	23,000	26,400	9,980	515,999	
311L3		203	5.9	304,500	31	27	132 to 200	N250TC to N280TC	23,200	26,700	10,200	515,999	
311L3		245	4.9	312,900	27	27	132 to 200	N250TC to N280TC	23,900	27,400	10,800	515,999	
311L3		291	4.1	244,900	17.5	27	132 to 200	N250TC to N280TC	24,400	28,100	11,500	515,999	
311L4		348	3.5	373,100	23	16.4	71 to 160	N56C to N280TC	25,100	28,800	12,200	515,999	
311L4		410	2.9	389,500	20	16.4	71 to 160	N56C to N280TC	25,700	29,500	12,900	515,999	
311L4		512	2.3	407,200	17.1	16.4	71 to 160	N56C to N280TC	26,500	30,400	13,900	515,999	
311L4		568	2.1	389,600	14.8	16.4	71 to 160	N56C to N280TC	26,900	30,900	14,300	515,999	
311L4		627	1.9	363,900	12.5	16.4	71 to 160	N56C to N280TC	27,300	31,300	14,600	515,999	
311L4		724	1.7	415,500	12.3	16.4	71 to 160	N56C to N280TC	27,800	32,000	14,600	515,999	
311L4		825	1.5	402,200	10.5	16.4	71 to 160	N56C to N280TC	28,400	32,600	14,600	515,999	
311L4		904	1.3	420,800	10.0	16.4	71 to 160	N56C to N280TC	28,700	33,000	14,600	515,999	
311L4		986	1.2	388,800	8.5	16.4	71 to 160	N56C to N280TC	29,100	33,400	14,600	515,999	
311L4		1058	1.1	392,900	8.0	16.4	71 to 160	N56C to N280TC	29,400	33,700	14,600	515,999	
311L4		1230	0.98	400,100	7.0	16.4	71 to 160	N56C to N280TC	30,000	34,500	14,600	515,999	
311L4		1415	0.85	380,600	5.8	16.4	71 to 160	N56C to N280TC	30,600	35,200	14,600	515,999	
311L4		1680	0.71	300,900	3.9	16.4	71 to 160	N56C to N280TC	31,400	36,100	14,600	515,999	
311L4		1766	0.68	380,600	4.6	16.4	71 to 160	N56C to N280TC	31,600	36,300	14,600	515,999	
311L4		2096	0.57	300,900	3.1	16.4	71 to 160	N56C to N280TC	32,400	37,200	14,600	515,999	

313 L

 400

513,100 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in	
									NHC/NPC	HZ/PZ	FZ		
1800	313L2	14.2	127	189,600	201	33	180 to 250	N320TC to N360TC	17,200	21,500	4,510	929,329	
	313L2	16.9	106	197,000	201	33	180 to 250	N320TC to N360TC	18,100	22,700	4,780	929,329	
	313L2	18.5	97	201,700	201	33	180 to 250	N320TC to N360TC	18,600	23,300	4,930	929,329	
	313L2	21.8	83	213,400	201	33	180 to 250	N320TC to N360TC	19,500	24,400	5,200	929,329	
	313L2	25.8	70	223,500	201	33	180 to 250	N320TC to N360TC	20,500	25,700	5,510	929,329	
	313L2	28.4	63	229,100	201	33	180 to 250	N320TC to N360TC	21,100	26,500	5,680	929,329	
	313L2	33.6	53	241,100	201	33	180 to 250	N320TC to N360TC	22,200	27,800	6,010	929,329	
	313L2	40.5	44	251,400	188	33	180 to 250	N320TC to N360TC	23,500	29,400	6,400	929,329	
	313L3	51.1	35	274,300	80	19.8	132 to 200	N250TC to N280TC	25,200	31,600	6,910	929,329	
	313L3	61.0	29.5	289,300	80	19.8	132 to 200	N250TC to N280TC	26,600	33,300	7,330	929,329	
	313L3	72.0	25.0	304,000	80	19.8	132 to 200	N250TC to N280TC	27,900	35,000	7,750	929,329	
	313L3	78.3	23.0	313,000	80	19.8	132 to 200	N250TC to N280TC	28,700	35,900	7,970	929,329	
	313L3	92.4	19.5	328,900	80	19.8	132 to 200	N250TC to N280TC	29,900	37,400	8,420	929,329	
	313L3	110	16.4	344,900	80	19.8	132 to 200	N250TC to N280TC	29,900	37,400	8,920	929,329	
	313L3	120	14.9	353,200	80	19.8	132 to 200	N250TC to N280TC	29,900	37,400	9,200	929,329	
	313L3	135	13.3	368,400	80	19.8	132 to 200	N250TC to N280TC	29,900	37,400	9,550	929,329	
	313L3	143	12.6	371,800	80	19.8	132 to 200	N250TC to N280TC	29,900	37,400	9,740	929,329	
	313L3	151	11.9	378,000	78	19.8	132 to 200	N250TC to N280TC	29,900	37,400	9,920	929,329	
	313L3	163	11.0	388,500	75	19.8	132 to 200	N250TC to N280TC	29,900	37,400	10,200	929,329	
	313L3	176	10.2	395,500	70	19.8	132 to 200	N250TC to N280TC	29,900	37,400	10,400	929,329	
	313L3	182	9.9	345,200	59	19.8	132 to 200	N250TC to N280TC	29,900	37,500	10,600	929,329	
	313L3	194	9.3	406,100	66	19.8	132 to 200	N250TC to N280TC	30,200	37,800	10,800	929,329	
	313L3	209	8.6	398,300	60	19.8	132 to 200	N250TC to N280TC	30,500	38,200	11,000	929,329	
	313L3	252	7.1	398,300	49	19.8	132 to 200	N250TC to N280TC	31,400	39,300	11,800	929,329	
	313L3	304	5.9	345,200	36	19.8	132 to 200	N250TC to N280TC	32,200	40,300	12,500	929,329	
	313L4	352	5.1	462,500	40	12.1	71 to 160	N56C to N280TC	32,900	41,200	13,200	929,329	
	313L4	394	4.6	486,800	40	12.1	71 to 160	N56C to N280TC	33,400	41,800	13,700	929,329	
	313L4	452	4.0	471,900	34	12.1	71 to 160	N56C to N280TC	34,100	42,700	14,300	929,329	
	313L4	514	3.5	419,200	26	12.1	71 to 160	N56C to N280TC	34,700	43,500	14,900	929,329	
	313L4	564	3.2	478,900	27	12.1	71 to 160	N56C to N280TC	35,200	44,000	15,400	929,329	
	313L4	633	2.8	460,200	23	12.1	71 to 160	N56C to N280TC	35,800	44,800	16,000	929,329	
	313L4	695	2.6	437,900	20	12.1	71 to 160	N56C to N280TC	36,200	45,400	16,500	929,329	
	313L4	790	2.3	460,900	18.8	12.1	71 to 160	N56C to N280TC	36,900	46,200	17,200	929,329	
	313L4	889	2.0	456,000	16.5	12.1	71 to 160	N56C to N280TC	37,500	47,000	17,900	929,329	
	313L4	1014	1.8	466,100	14.8	12.1	71 to 160	N56C to N280TC	38,200	47,900	18,000	929,329	
	313L4	1117	1.6	463,600	13.4	12.1	71 to 160	N56C to N280TC	38,800	48,600	18,000	929,329	
	313L4	1266	1.4	483,700	12.3	12.1	71 to 160	N56C to N280TC	39,500	49,400	18,000	929,329	
	313L4	1394	1.3	465,300	10.8	12.1	71 to 160	N56C to N280TC	40,000	50,100	18,000	929,329	
	313L4	1502	1.2	497,800	10.7	12.1	71 to 160	N56C to N280TC	40,500	50,700	18,000	929,329	
	313L4	1817	0.99	513,100	9.1	12.1	71 to 160	N56C to N280TC	41,600	51,900	18,000	929,329	
	313L4	2187	0.82	433,700	6.4	12.1	71 to 160	N56C to N280TC	42,700	51,900	18,000	929,329	
	1200	313L1	4.14	290	148,000	335	67	—	—	13,400	16,800	3,420	929,329
		313L1	5.40	222	157,400	335	67	—	—	14,500	18,200	3,740	929,329
		313L1	6.50	185	165,700	335	67	—	—	15,300	19,200	3,980	929,329
		313L2	14.2	84	214,300	201	45	180 to 250	N320TC to N360TC	19,400	24,300	5,160	929,329
		313L2	16.9	71	222,500	201	45	180 to 250	N320TC to N360TC	20,400	25,600	5,480	929,329
		313L2	18.5	65	227,700	201	45	180 to 250	N320TC to N360TC	21,000	26,300	5,640	929,329
		313L2	21.8	55	240,700	201	45	180 to 250	N320TC to N360TC	22,000	27,600	5,950	929,329
313L2		25.8	46	252,400	198	45	180 to 250	N320TC to N360TC	23,200	29,000	6,300	929,329	
313L2		28.4	42	258,600	185	45	180 to 250	N320TC to N360TC	23,900	29,900	6,500	929,329	
313L2		33.6	36	272,200	164	45	180 to 250	N320TC to N360TC	25,100	31,400	6,880	929,329	
313L2		40.5	29.6	274,000	137	45	180 to 250	N320TC to N360TC	26,600	33,200	7,320	929,329	
313L3		51.1	23.5	309,800	80	27	132 to 200	N250TC to N280TC	28,500	35,700	7,910	929,329	
313L3		61.0	19.7	326,700	80	27	132 to 200	N250TC to N280TC	29,900	37,400	8,390	929,329	
313L3		72.0	16.7	343,300	80	27	132 to 200	N250TC to N280TC	29,900	37,400	8,870	929,329	
313L3		78.3	15.3	353,500	80	27	132 to 200	N250TC to N280TC	29,900	37,400	9,120	929,329	
313L3		92.4	13.0	371,500	80	27	132 to 200	N250TC to N280TC	29,900	37,400	9,640	929,329	
313L3		110	10.9	389,500	74	27	132 to 200	N250TC to N280TC	29,900	37,400	10,200	929,329	
313L3		120	10.0	398,300	69	27	132 to 200	N250TC to N280TC	29,900	37,400	10,500	929,329	
313L3		135	8.9	415,000	64	27	132 to 200	N250TC to N280TC	30,400	38,000	10,900	929,329	



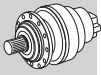
B

313 L



400

513,100 lb-in



B

n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
								NHC/NPC	HZ/PZ	FZ		
1200	313L3	143	8.4	398,300	58	27	132 to 200	N250TC to N280TC	30,600	38,400	11,200	929,329
	313L3	151	7.9	398,300	55	27	132 to 200	N250TC to N280TC	30,900	38,700	11,400	929,329
	313L3	163	7.4	427,600	55	27	132 to 200	N250TC to N280TC	31,200	39,100	11,700	929,329
	313L3	176	6.8	398,300	47	27	132 to 200	N250TC to N280TC	31,600	39,500	11,900	929,329
	313L3	182	6.6	345,200	40	27	132 to 200	N250TC to N280TC	31,700	39,700	12,100	929,329
	313L3	194	6.2	440,700	47	27	132 to 200	N250TC to N280TC	32,000	40,100	12,300	929,329
	313L3	209	5.8	398,300	40	27	132 to 200	N250TC to N280TC	32,300	40,500	12,600	929,329
	313L3	252	4.8	401,200	33	27	132 to 200	N250TC to N280TC	33,200	41,600	13,500	929,329
	313L3	304	4.0	355,100	24	27	132 to 200	N250TC to N280TC	34,100	42,700	14,300	929,329
	313L4	352	3.4	464,800	28	16.4	71 to 160	N56C to N280TC	34,800	43,600	15,100	929,329
	313L4	394	3.0	486,800	27	16.4	71 to 160	N56C to N280TC	35,400	44,300	15,600	929,329
	313L4	452	2.7	484,800	23	16.4	71 to 160	N56C to N280TC	36,100	45,200	16,400	929,329
	313L4	514	2.3	445,200	18.6	16.4	71 to 160	N56C to N280TC	36,800	46,000	17,100	929,329
	313L4	564	2.1	487,400	18.6	16.4	71 to 160	N56C to N280TC	37,300	46,700	17,600	929,329
	313L4	633	1.9	462,400	15.7	16.4	71 to 160	N56C to N280TC	37,900	47,400	18,000	929,329
	313L4	695	1.7	468,300	14.5	16.4	71 to 160	N56C to N280TC	38,400	48,100	18,000	929,329
	313L4	790	1.5	464,100	12.6	16.4	71 to 160	N56C to N280TC	39,100	49,000	18,000	929,329
	313L4	889	1.3	488,000	11.8	16.4	71 to 160	N56C to N280TC	39,800	49,800	18,000	929,329
	313L4	1014	1.2	498,800	10.6	16.4	71 to 160	N56C to N280TC	40,500	50,700	18,000	929,329
	313L4	1117	1.1	466,800	9.0	16.4	71 to 160	N56C to N280TC	41,100	51,400	18,000	929,329
313L4	1266	0.95	513,100	8.7	16.4	71 to 160	N56C to N280TC	41,800	51,900	18,000	929,329	
313L4	1394	0.86	467,300	7.2	16.4	71 to 160	N56C to N280TC	42,400	51,900	18,000	929,329	
313L4	1502	0.80	513,100	7.3	16.4	71 to 160	N56C to N280TC	42,900	51,900	18,000	929,329	
313L4	1817	0.66	513,100	6.1	16.4	71 to 160	N56C to N280TC	43,200	51,900	18,000	929,329	
313L4	2187	0.55	433,700	4.3	16.4	71 to 160	N56C to N280TC	43,200	51,900	18,000	929,329	

314 L



418

743,470 lb-in

n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
								NHC/NPC	HZ/PZ	FZ		
1800	314L2	17.4	104	277,500	235	44	200 to 250	N320TC to N360TC	17,800	21,700	5,430	1,017,836
	314L2	22.3	81	314,300	235	44	200 to 250	N320TC to N360TC	19,200	23,400	5,900	1,017,836
	314L2	26.5	68	312,800	235	44	200 to 250	N320TC to N360TC	20,200	24,700	6,250	1,017,836
	314L2	28.0	64	320,600	235	44	200 to 250	N320TC to N360TC	20,500	25,100	6,360	1,017,836
	314L2	33.2	54	337,400	235	44	200 to 250	N320TC to N360TC	21,600	26,400	6,740	1,017,836
	314L2	38.6	47	296,200	233	44	200 to 250	N320TC to N360TC	22,600	27,600	7,080	1,017,836
	314L3	62.6	28.8	407,200	101	27	160 to 250	N320TC to N360TC	26,100	31,900	8,320	1,017,836
	314L3	73.9	24.4	428,000	101	27	160 to 250	N320TC to N360TC	27,500	33,500	8,790	1,017,836
	314L3	92.7	19.4	458,300	101	27	160 to 250	N320TC to N360TC	29,200	35,600	9,490	1,017,836
	314L3	108	16.7	479,500	101	27	160 to 250	N320TC to N360TC	29,200	35,600	9,970	1,017,836
	314L3	138	13.0	542,700	101	27	160 to 250	N320TC to N360TC	29,200	35,600	10,800	1,017,836
	314L3	164	11.0	537,400	101	27	160 to 250	N320TC to N360TC	29,200	35,600	11,500	1,017,836
	314L3	174	10.4	546,500	99	27	160 to 250	N320TC to N360TC	29,200	35,600	11,700	1,017,836
	314L3	206	8.7	557,500	85	27	160 to 250	N320TC to N360TC	29,700	36,300	12,400	1,017,836
	314L3	240	7.5	460,200	60	27	160 to 250	N320TC to N360TC	30,400	37,100	13,000	1,017,836
	314L4	314	5.7	659,600	54	16.5	132 to 200	N250TC to N280TC	31,600	38,500	14,200	1,017,836
	314L4	388	4.6	689,100	54	16.5	132 to 200	N250TC to N280TC	32,500	39,700	15,300	1,017,836
	314L4	458	3.9	694,100	49	16.5	132 to 200	N250TC to N280TC	33,300	40,700	16,200	1,017,836
	314L4	495	3.6	696,500	45	16.5	132 to 200	N250TC to N280TC	33,700	41,100	16,600	1,017,836
	314L4	554	3.2	700,000	41	16.5	132 to 200	N250TC to N280TC	34,200	41,800	17,200	1,017,836
314L4	588	3.1	701,800	39	16.5	132 to 200	N250TC to N280TC	34,500	42,100	17,600	1,017,836	
314L4	668	2.7	705,700	34	16.5	132 to 200	N250TC to N280TC	35,200	42,900	18,300	1,017,836	
314L4	738	2.4	709,000	31	16.5	132 to 200	N250TC to N280TC	35,700	43,500	18,900	1,017,836	
314L4	858	2.1	714,700	27	16.5	132 to 200	N250TC to N280TC	36,400	44,500	19,900	1,017,836	
314L4	926	1.9	638,200	22	16.5	132 to 200	N250TC to N280TC	36,800	45,000	20,200	1,017,836	
314L4	1038	1.7	722,000	22	16.5	132 to 200	N250TC to N280TC	37,400	45,700	20,200	1,017,836	
314L4	1099	1.6	653,900	19.2	16.5	132 to 200	N250TC to N280TC	37,800	46,100	20,200	1,017,836	

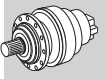
314 L



418

743,470 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	314L4	1277	1.4	667,900	16.9	16.5	132 to 200	N250TC to N280TC	38,600	47,100	20,200	1,017,836
	314L4	1485	1.2	572,700	12.4	16.5	132 to 200	N250TC to N280TC	39,400	48,100	20,200	1,017,836
	314L4	1796	1.0	591,000	10.6	16.5	132 to 200	N250TC to N280TC	40,500	49,400	20,200	1,017,836
1200	314L2	17.4	69	313,200	235	59	200 to 250	N320TC to N360TC	20,100	24,500	6,210	1,017,836
	314L2	22.3	54	353,500	235	59	200 to 250	N320TC to N360TC	21,700	26,400	6,750	1,017,836
	314L2	26.5	45	352,800	235	59	200 to 250	N320TC to N360TC	22,800	27,800	7,150	1,017,836
	314L2	28.0	43	361,400	235	59	200 to 250	N320TC to N360TC	23,200	28,300	7,280	1,017,836
	314L2	33.2	36	379,900	231	59	200 to 250	N320TC to N360TC	24,400	29,800	7,710	1,017,836
	314L2	38.6	31	332,700	174	59	200 to 250	N320TC to N360TC	25,500	31,200	8,110	1,017,836
	314L3	62.6	19.2	460,000	101	37	160 to 250	N320TC to N360TC	29,200	35,600	9,520	1,017,836
	314L3	73.9	16.2	483,500	101	37	160 to 250	N320TC to N360TC	29,200	35,600	10,100	1,017,836
	314L3	92.7	12.9	517,700	101	37	160 to 250	N320TC to N360TC	29,200	35,600	10,900	1,017,836
	314L3	108	11.1	541,600	101	37	160 to 250	N320TC to N360TC	29,200	35,600	11,400	1,017,836
	314L3	138	8.7	606,800	91	37	160 to 250	N320TC to N360TC	29,800	36,300	12,400	1,017,836
	314L3	164	7.3	609,500	77	37	160 to 250	N320TC to N360TC	30,500	37,200	13,100	1,017,836
	314L3	174	6.9	566,600	68	37	160 to 250	N320TC to N360TC	30,700	37,500	13,400	1,017,836
	314L3	206	5.8	573,300	58	37	160 to 250	N320TC to N360TC	31,500	38,400	14,200	1,017,836
	314L3	240	5.0	460,200	40	37	160 to 250	N320TC to N360TC	32,200	39,300	14,900	1,017,836
	314L4	314	3.8	695,000	48	22	132 to 200	N250TC to N280TC	33,500	40,800	16,300	1,017,836
	314L4	388	3.1	701,500	39	22	132 to 200	N250TC to N280TC	34,500	42,100	17,500	1,017,836
	314L4	458	2.6	706,600	33	22	132 to 200	N250TC to N280TC	35,300	43,100	18,500	1,017,836
	314L4	495	2.4	709,200	31	22	132 to 200	N250TC to N280TC	35,700	43,600	19,000	1,017,836
	314L4	554	2.2	713,500	28	22	132 to 200	N250TC to N280TC	36,300	44,300	19,700	1,017,836
	314L4	588	2.0	715,700	26	22	132 to 200	N250TC to N280TC	36,600	44,700	20,100	1,017,836
	314L4	668	1.8	720,700	23	22	132 to 200	N250TC to N280TC	37,300	45,500	20,200	1,017,836
	314L4	738	1.6	724,500	21	22	132 to 200	N250TC to N280TC	37,800	46,100	20,200	1,017,836
	314L4	858	1.4	730,300	18.3	22	132 to 200	N250TC to N280TC	38,600	47,100	20,200	1,017,836
	314L4	926	1.3	675,800	15.7	22	132 to 200	N250TC to N280TC	39,000	47,600	20,200	1,017,836
	314L4	1038	1.2	737,700	15.3	22	132 to 200	N250TC to N280TC	39,700	48,400	20,200	1,017,836
	314L4	1099	1.1	692,300	13.5	22	132 to 200	N250TC to N280TC	40,000	48,800	20,200	1,017,836
	314L4	1277	0.94	701,000	11.8	22	132 to 200	N250TC to N280TC	40,900	49,900	20,200	1,017,836
	314L4	1485	0.81	591,200	8.6	22	132 to 200	N250TC to N280TC	41,800	51,000	20,200	1,017,836
	314L4	1796	0.67	591,200	7.1	22	132 to 200	N250TC to N280TC	42,900	52,400	20,200	1,017,836



315 L

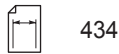


434

930,000 lb-in

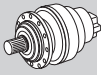
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	315L2	17.4	104	346,900	268	49	—	—	17,800	21,700	5,430	1,194,851
	315L2	22.3	81	392,800	268	49	—	—	19,200	23,400	5,900	1,194,851
	315L2	26.5	68	391,100	268	49	—	—	20,200	24,700	6,250	1,194,851
	315L2	28.0	64	400,800	268	49	—	—	20,500	25,100	6,360	1,194,851
	315L2	33.2	54	421,700	268	49	—	—	21,600	26,400	6,740	1,194,851
	315L2	38.6	47	370,300	268	49	—	—	22,600	27,600	7,080	1,194,851
315L3	59.6	30	501,600	154	33	180 to 250	N320TC to N360TC	25,800	31,400	8,190	1,194,851	
315L3	71.1	25.3	528,900	154	33	180 to 250	N320TC to N360TC	27,200	33,200	8,680	1,194,851	
315L3	91.3	19.7	570,100	154	33	180 to 250	N320TC to N360TC	29,200	35,600	9,440	1,194,851	
315L3	108	16.6	600,200	154	33	180 to 250	N320TC to N360TC	29,200	35,600	9,990	1,194,851	
315L3	139	12.9	679,400	153	33	180 to 250	N320TC to N360TC	29,200	35,600	10,900	1,194,851	
315L3	165	10.9	672,800	128	33	180 to 250	N320TC to N360TC	29,200	35,600	11,500	1,194,851	
315L3	174	10.3	684,100	123	33	180 to 250	N320TC to N360TC	29,200	35,600	11,700	1,194,851	
315L3	207	8.7	697,100	105	33	180 to 250	N320TC to N360TC	29,700	36,300	12,400	1,194,851	
315L3	241	7.5	575,300	75	33	180 to 250	N320TC to N360TC	30,400	37,100	13,000	1,194,851	
315L4	302	6.0	815,200	80	19.8	132 to 200	N250TC to N280TC	31,400	38,300	14,100	1,194,851	

315 L






434

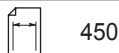
930,000 lb-in



B




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	315L4	370	4.9	859,500	75	19.8	132 to 200	N250TC to N280TC	32,300	39,400	15,000	1,194,851
	315L4	441	4.1	866,200	63	19.8	132 to 200	N250TC to N280TC	33,100	40,400	16,000	1,194,851
	315L4	487	3.7	870,000	58	19.8	132 to 200	N250TC to N280TC	33,600	41,000	16,500	1,194,851
	315L4	533	3.4	873,500	53	19.8	132 to 200	N250TC to N280TC	34,100	41,600	17,000	1,194,851
	315L4	591	3.0	877,400	48	19.8	132 to 200	N250TC to N280TC	34,600	42,200	17,600	1,194,851
	315L4	672	2.7	882,400	42	19.8	132 to 200	N250TC to N280TC	35,200	43,000	18,400	1,194,851
	315L4	741	2.4	886,500	39	19.8	132 to 200	N250TC to N280TC	35,700	43,600	19,000	1,194,851
	315L4	862	2.1	893,600	33	19.8	132 to 200	N250TC to N280TC	36,500	44,500	19,900	1,194,851
	315L4	930	1.9	798,400	28	19.8	132 to 200	N250TC to N280TC	36,900	45,000	20,200	1,194,851
	315L4	1043	1.7	902,700	28	19.8	132 to 200	N250TC to N280TC	37,500	45,700	20,200	1,194,851
	315L4	1104	1.6	817,900	24	19.8	132 to 200	N250TC to N280TC	37,800	46,100	20,200	1,194,851
	315L4	1284	1.4	835,400	21	19.8	132 to 200	N250TC to N280TC	38,600	47,100	20,200	1,194,851
	315L4	1492	1.2	716,400	15.5	19.8	132 to 200	N250TC to N280TC	39,400	48,100	20,200	1,194,851
	315L4	1805	1.00	738,900	13.2	19.8	132 to 200	N250TC to N280TC	40,500	49,500	20,200	1,194,851
1200	315L2	17.4	69	391,500	268	67	—	—	20,100	24,500	6,210	1,194,851
	315L2	22.3	54	441,900	268	67	—	—	21,700	26,400	6,750	1,194,851
	315L2	26.5	45	441,100	268	67	—	—	22,800	27,800	7,150	1,194,851
	315L2	28.0	43	451,800	268	67	—	—	23,200	28,300	7,280	1,194,851
	315L2	33.2	36	474,900	268	67	—	—	24,400	29,800	7,710	1,194,851
	315L2	38.6	31	415,900	218	67	—	—	25,500	31,200	8,110	1,194,851
	315L3	59.6	20.1	566,600	154	45	180 to 250	N320TC to N360TC	29,100	35,500	9,370	1,194,851
	315L3	71.1	16.9	597,500	154	45	180 to 250	N320TC to N360TC	29,200	35,600	9,940	1,194,851
	315L3	91.3	13.1	644,000	147	45	180 to 250	N320TC to N360TC	29,200	35,600	10,800	1,194,851
	315L3	108	11.1	678,000	131	45	180 to 250	N320TC to N360TC	29,200	35,600	11,400	1,194,851
	315L3	139	8.6	759,300	114	45	180 to 250	N320TC to N360TC	29,800	36,300	12,400	1,194,851
	315L3	165	7.3	763,100	96	45	180 to 250	N320TC to N360TC	30,500	37,200	13,200	1,194,851
	315L3	174	6.9	708,500	85	45	180 to 250	N320TC to N360TC	30,800	37,500	13,400	1,194,851
	315L3	207	5.8	716,900	72	45	180 to 250	N320TC to N360TC	31,500	38,500	14,200	1,194,851
	315L3	241	5.0	575,500	50	45	180 to 250	N320TC to N360TC	32,200	39,300	14,900	1,194,851
	315L4	302	4.0	867,300	62	27	132 to 200	N250TC to N280TC	33,300	40,600	16,100	1,194,851
	315L4	370	3.2	875,000	51	27	132 to 200	N250TC to N280TC	34,200	41,800	17,200	1,194,851
	315L4	441	2.7	881,800	43	27	132 to 200	N250TC to N280TC	35,100	42,900	18,300	1,194,851
	315L4	487	2.5	885,700	39	27	132 to 200	N250TC to N280TC	35,600	43,500	18,900	1,194,851
	315L4	533	2.2	890,100	36	27	132 to 200	N250TC to N280TC	36,100	44,000	19,500	1,194,851
	315L4	591	2.0	894,900	33	27	132 to 200	N250TC to N280TC	36,600	44,700	20,100	1,194,851
	315L4	672	1.8	901,100	29	27	132 to 200	N250TC to N280TC	37,300	45,500	20,200	1,194,851
	315L4	741	1.6	905,800	26	27	132 to 200	N250TC to N280TC	37,800	46,200	20,200	1,194,851
	315L4	862	1.4	913,100	23	27	132 to 200	N250TC to N280TC	38,600	47,200	20,200	1,194,851
	315L4	930	1.3	845,300	19.5	27	132 to 200	N250TC to N280TC	39,100	47,700	20,200	1,194,851
	315L4	1043	1.2	922,400	19.0	27	132 to 200	N250TC to N280TC	39,700	48,500	20,200	1,194,851
	315L4	1104	1.1	866,000	16.9	27	132 to 200	N250TC to N280TC	40,000	48,900	20,200	1,194,851
	315L4	1284	0.93	876,200	14.7	27	132 to 200	N250TC to N280TC	40,900	49,900	20,200	1,194,851
	315L4	1492	0.80	738,900	10.6	27	132 to 200	N250TC to N280TC	41,800	51,000	20,200	1,194,851
	315L4	1805	0.66	738,900	8.8	27	132 to 200	N250TC to N280TC	42,900	52,400	20,200	1,194,851

316 L



450




1,228,660 lb-in

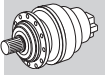
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									HC/PC	HZ/PZ	FZ	
1800	316L2	17.4	104	367,900	268	55	—	—	27,700	30,700	9,050	1,699,344
	316L2	22.3	81	404,800	268	55	—	—	29,900	33,100	9,830	1,699,344
	316L2	26.5	68	400,600	268	55	—	—	31,500	34,900	10,400	1,699,344
316L3	59.6	30	531,400	154	38	180 to 250	N320TC to N360TC	40,100	44,500	13,600	1,699,344	
316L3	71.1	25.3	560,400	154	38	180 to 250	N320TC to N360TC	42,300	46,900	14,500	1,699,344	
316L3	76.5	23.5	588,000	154	38	180 to 250	N320TC to N360TC	43,300	47,900	14,800	1,699,344	

316 L



1,228,660 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
									HC/PC	HZ/PZ	FZ		
1800	316L3	91.3	19.7	604,000	154	38	180 to 250	N320TC to N360TC	45,400	50,300	15,700	1,699,344	
	316L3	108	16.6	636,000	154	38	180 to 250	N320TC to N360TC	45,400	50,300	16,600	1,699,344	
	316L3	117	15.4	665,900	154	38	180 to 250	N320TC to N360TC	45,400	50,300	17,100	1,699,344	
	316L3	139	12.9	685,500	154	38	180 to 250	N320TC to N360TC	45,400	50,300	18,100	1,699,344	
	316L3	165	10.9	690,900	131	38	180 to 250	N320TC to N360TC	45,400	50,300	19,200	1,699,344	
	316L4	215	8.4	780,800	80	19.8	132 to 200	N250TC to N280TC	46,600	51,600	20,900	1,699,344	
	316L4	256	7.0	823,200	80	19.8	132 to 200	N250TC to N280TC	47,800	52,900	22,200	1,699,344	
	316L4	302	6.0	865,200	80	19.8	132 to 200	N250TC to N280TC	48,900	54,200	23,400	1,699,344	
	316L4	329	5.5	887,100	80	19.8	132 to 200	N250TC to N280TC	49,500	54,900	24,100	1,699,344	
	316L4	370	4.9	918,600	80	19.8	132 to 200	N250TC to N280TC	50,300	55,800	25,100	1,699,344	
	316L4	441	4.1	967,000	71	19.8	132 to 200	N250TC to N280TC	51,600	57,200	26,600	1,699,344	
	316L4	487	3.7	995,200	66	19.8	132 to 200	N250TC to N280TC	52,300	58,000	27,500	1,699,344	
	316L4	533	3.4	1,022,100	62	19.8	132 to 200	N250TC to N280TC	53,000	58,800	28,300	1,699,344	
	316L4	566	3.2	1,039,800	59	19.8	132 to 200	N250TC to N280TC	53,500	59,300	28,900	1,699,344	
	316L4	591	3.0	1,034,800	56	19.8	132 to 200	N250TC to N280TC	53,800	59,700	29,300	1,699,344	
	316L4	625	2.9	1,078,500	56	19.8	132 to 200	N250TC to N280TC	54,200	60,100	29,900	1,699,344	
	316L4	685	2.6	1,099,000	52	19.8	132 to 200	N250TC to N280TC	55,000	60,900	30,800	1,699,344	
	316L4	726	2.5	1,116,200	50	19.8	132 to 200	N250TC to N280TC	55,400	61,400	31,400	1,699,344	
	316L4	741	2.4	1,092,700	48	19.8	132 to 200	N250TC to N280TC	55,600	61,600	31,600	1,699,344	
	316L4	812	2.2	1,128,900	45	19.8	132 to 200	N250TC to N280TC	56,300	62,400	32,600	1,699,344	
	316L4	862	2.1	1,114,700	42	19.8	132 to 200	N250TC to N280TC	56,800	63,000	33,200	1,699,344	
	316L4	1043	1.7	1,143,100	35	19.8	132 to 200	N250TC to N280TC	58,400	64,700	33,700	1,699,344	
	316L4	1237	1.5	1,064,200	28	19.8	132 to 200	N250TC to N280TC	59,800	66,300	33,700	1,699,344	
	1200	316L2	17.4	69	415,000	268	74	—	—	31,300	34,700	10,400	1,699,344
		316L2	22.3	54	460,900	268	74	—	—	33,800	37,400	11,300	1,699,344
		316L2	26.5	45	450,700	268	74	—	—	35,500	39,400	11,900	1,699,344
		316L3	59.6	20.1	600,300	154	52	180 to 250	N320TC to N360TC	45,300	50,200	15,600	1,699,344
		316L3	71.1	16.9	633,000	154	52	180 to 250	N320TC to N360TC	45,400	50,300	16,600	1,699,344
316L3		76.5	15.7	661,900	154	52	180 to 250	N320TC to N360TC	45,400	50,300	17,000	1,699,344	
316L3		91.3	13.1	682,300	154	52	180 to 250	N320TC to N360TC	45,400	50,300	18,000	1,699,344	
316L3		108	11.1	718,400	138	52	180 to 250	N320TC to N360TC	45,400	50,300	19,100	1,699,344	
316L3		117	10.2	749,700	133	52	180 to 250	N320TC to N360TC	45,400	50,300	19,600	1,699,344	
316L3		139	8.6	774,200	116	52	180 to 250	N320TC to N360TC	46,400	51,400	20,700	1,699,344	
316L3		165	7.3	780,300	99	52	180 to 250	N320TC to N360TC	47,500	52,700	21,900	1,699,344	
316L4		215	5.6	881,600	80	27	132 to 200	N250TC to N280TC	49,300	54,700	23,900	1,699,344	
316L4		256	4.7	929,000	78	27	132 to 200	N250TC to N280TC	50,600	56,100	25,400	1,699,344	
316L4		302	4.0	974,900	69	27	132 to 200	N250TC to N280TC	51,800	57,400	26,800	1,699,344	
316L4		329	3.7	998,800	65	27	132 to 200	N250TC to N280TC	52,400	58,100	27,600	1,699,344	
316L4		370	3.2	1,033,600	60	27	132 to 200	N250TC to N280TC	53,300	59,100	28,700	1,699,344	
316L4		441	2.7	1,088,000	53	27	132 to 200	N250TC to N280TC	54,700	60,600	30,400	1,699,344	
316L4		487	2.5	1,116,900	49	27	132 to 200	N250TC to N280TC	55,500	61,500	31,500	1,699,344	
316L4		533	2.2	1,127,700	45	27	132 to 200	N250TC to N280TC	56,200	62,300	32,400	1,699,344	
316L4		566	2.1	1,134,800	43	27	132 to 200	N250TC to N280TC	56,700	62,800	33,100	1,699,344	
316L4		591	2.0	1,118,800	41	27	132 to 200	N250TC to N280TC	57,000	63,200	33,500	1,699,344	
316L4		625	1.9	1,146,700	39	27	132 to 200	N250TC to N280TC	57,500	63,700	33,700	1,699,344	
316L4		685	1.8	1,157,900	36	27	132 to 200	N250TC to N280TC	58,200	64,600	33,700	1,699,344	
316L4		726	1.7	1,165,100	34	27	132 to 200	N250TC to N280TC	58,700	65,100	33,700	1,699,344	
316L4		741	1.6	1,152,900	33	27	132 to 200	N250TC to N280TC	58,900	65,300	33,700	1,699,344	
316L4		812	1.5	1,178,700	31	27	132 to 200	N250TC to N280TC	59,700	66,100	33,700	1,699,344	
316L4		862	1.4	1,176,100	29	27	132 to 200	N250TC to N280TC	60,200	66,700	33,700	1,699,344	
316L4		1043	1.2	1,206,000	25	27	132 to 200	N250TC to N280TC	61,800	68,500	33,700	1,699,344	
316L4		1237	0.97	1,097,500	19.1	27	132 to 200	N250TC to N280TC	63,400	70,200	33,700	1,699,344	

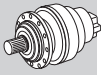


317 L



462

1,841,930 lb-in






B

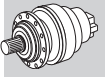
n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in	
								HC/PC	HZ/PZ	FZ		
1800	317L3	58.1	31	756,300	201	38	180 to 250	N320TC to N360TC	62,000	65,800	13,500	3,478,345
	317L3	69.3	26.0	781,500	201	38	180 to 250	N320TC to N360TC	65,300	69,400	14,300	3,478,345
	317L3	89.0	20.2	846,400	201	38	180 to 250	N320TC to N360TC	70,400	74,800	15,600	3,478,345
	317L3	106	17.0	886,700	201	38	180 to 250	N320TC to N360TC	70,700	75,100	16,500	3,478,345
	317L3	116	15.5	906,900	201	38	180 to 250	N320TC to N360TC	70,700	75,100	17,000	3,478,345
	317L3	138	13.1	955,000	201	38	180 to 250	N320TC to N360TC	70,700	75,100	18,000	3,478,345
	317L3	166	10.9	1,010,000	191	38	180 to 250	N320TC to N360TC	70,700	75,100	19,200	3,478,345
	317L3	179	10.0	1,158,100	201	38	180 to 250	N320TC to N360TC	70,700	75,100	19,700	3,478,345
	317L3	213	8.5	1,205,700	177	38	180 to 250	N320TC to N360TC	72,400	76,900	20,800	3,478,345
	317L3	252	7.1	1,056,300	131	38	180 to 250	N320TC to N360TC	74,200	78,800	22,100	3,478,345
	317L4	310	5.8	1,224,700	80	19.8	132 to 200	N250TC to N280TC	76,400	81,100	23,600	3,478,345
	317L4	360	5.0	1,281,300	80	19.8	132 to 200	N250TC to N280TC	78,000	82,900	24,900	3,478,345
	317L4	449	4.0	1,368,600	80	19.8	132 to 200	N250TC to N280TC	80,500	85,500	26,700	3,478,345
	317L4	493	3.7	1,399,500	80	19.8	132 to 200	N250TC to N280TC	81,600	86,700	27,600	3,478,345
	317L4	552	3.3	1,461,100	80	19.8	132 to 200	N250TC to N280TC	82,900	88,100	28,600	3,478,345
	317L4	619	2.9	1,497,300	78	19.8	132 to 200	N250TC to N280TC	84,300	89,500	29,800	3,478,345
	317L4	719	2.5	1,566,000	70	19.8	132 to 200	N250TC to N280TC	86,100	91,500	31,300	3,478,345
	317L4	792	2.3	1,602,000	65	19.8	132 to 200	N250TC to N280TC	87,300	92,800	32,300	3,478,345
	317L4	904	2.0	1,464,200	52	19.8	132 to 200	N250TC to N280TC	89,000	94,500	33,700	3,478,345
	317L4	1032	1.7	1,591,700	50	19.8	132 to 200	N250TC to N280TC	90,700	96,300	33,700	3,478,345
317L4	1134	1.6	1,477,400	42	19.8	132 to 200	N250TC to N280TC	91,900	97,600	33,700	3,478,345	
317L4	1318	1.4	1,486,200	36	19.8	132 to 200	N250TC to N280TC	93,900	99,800	33,700	3,478,345	
317L4	1595	1.1	1,497,500	30	19.8	132 to 200	N250TC to N280TC	96,500	102,500	33,700	3,478,345	
317L4	1893	0.95	1,382,000	24	19.8	132 to 200	N250TC to N280TC	98,900	105,100	33,700	3,478,345	
1200	317L2	16.9	71	589,500	335	82	—	—	48,400	51,400	10,300	3,478,345
	317L2	22.1	54	622,300	335	82	—	—	52,400	55,600	11,200	3,478,345
	317L2	26.6	45	657,300	335	82	—	—	55,400	58,800	11,900	3,478,345
	317L2	28.4	42	752,300	335	82	—	—	56,400	59,900	12,200	3,478,345
	317L2	34.1	35	795,300	335	82	—	—	59,700	63,400	13,000	3,478,345
	317L2	40.5	29.6	804,100	335	82	—	—	62,800	66,700	13,700	3,478,345
	317L3	58.1	20.7	854,200	201	52	180 to 250	N320TC to N360TC	70,000	74,300	15,500	3,478,345
	317L3	69.3	17.3	882,600	201	52	180 to 250	N320TC to N360TC	70,700	75,100	16,400	3,478,345
	317L3	89.0	13.5	955,200	201	52	180 to 250	N320TC to N360TC	70,700	75,100	17,800	3,478,345
	317L3	106	11.4	1,001,300	198	52	180 to 250	N320TC to N360TC	70,700	75,100	18,900	3,478,345
	317L3	116	10.3	1,024,900	184	52	180 to 250	N320TC to N360TC	70,700	75,100	19,500	3,478,345
	317L3	138	8.7	1,079,000	164	52	180 to 250	N320TC to N360TC	72,100	76,500	20,600	3,478,345
	317L3	166	7.2	1,140,600	144	52	180 to 250	N320TC to N360TC	74,000	78,600	22,000	3,478,345
	317L3	179	6.7	1,273,500	148	52	180 to 250	N320TC to N360TC	74,800	79,500	22,500	3,478,345
	317L3	213	5.6	1,325,400	130	52	180 to 250	N320TC to N360TC	76,700	81,500	23,900	3,478,345
	317L3	252	4.8	1,070,400	88	52	180 to 250	N320TC to N360TC	78,600	83,500	25,300	3,478,345
	317L4	310	3.9	1,383,200	80	27	132 to 200	N250TC to N280TC	80,900	86,000	27,100	3,478,345
	317L4	360	3.3	1,447,100	80	27	132 to 200	N250TC to N280TC	82,700	87,800	28,400	3,478,345
	317L4	449	2.7	1,545,600	74	27	132 to 200	N250TC to N280TC	85,300	90,600	30,600	3,478,345
	317L4	493	2.4	1,568,400	68	27	132 to 200	N250TC to N280TC	86,500	91,900	31,600	3,478,345
317L4	552	2.2	1,619,700	63	27	132 to 200	N250TC to N280TC	87,900	93,300	32,800	3,478,345	
317L4	619	1.9	1,584,200	55	27	132 to 200	N250TC to N280TC	89,300	94,900	33,700	3,478,345	
317L4	719	1.7	1,594,800	48	27	132 to 200	N250TC to N280TC	91,300	96,900	33,700	3,478,345	
317L4	792	1.5	1,712,100	46	27	132 to 200	N250TC to N280TC	92,500	98,300	33,700	3,478,345	
317L4	904	1.3	1,487,900	35	27	132 to 200	N250TC to N280TC	94,300	100,200	33,700	3,478,345	
317L4	1032	1.2	1,620,500	34	27	132 to 200	N250TC to N280TC	96,100	102,100	33,700	3,478,345	
317L4	1134	1.1	1,501,300	28	27	132 to 200	N250TC to N280TC	97,400	103,500	33,700	3,478,345	
317L4	1318	0.91	1,504,600	25	27	132 to 200	N250TC to N280TC	99,400	105,700	33,700	3,478,345	
317L4	1595	0.75	1,504,600	20	27	132 to 200	N250TC to N280TC	99,400	105,700	33,700	3,478,345	
317L4	1893	0.63	1,382,000	15.7	27	132 to 200	N250TC to N280TC	99,400	105,700	33,700	3,478,345	

318 L



2,483,350 lb·in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb·in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb·in
									HC/PC	HZ/PZ	FZ	
1800	318L3	76.5	23.5	1,214,100	268	44	—	—	68,600	71,800	19,800	4,425,375
	318L3	98.2	18.3	1,308,400	268	44	—	—	72,100	75,400	21,500	4,425,375
	318L3	117	15.4	1,377,400	268	44	—	—	72,100	75,400	22,700	4,425,375
	318L3	123	14.6	1,400,700	268	44	—	—	72,100	75,400	23,200	4,425,375
	318L3	146	12.3	1,474,500	268	44	—	—	72,100	75,400	24,500	4,425,375
	318L3	170	10.6	1,542,700	268	44	—	—	72,100	75,400	25,800	4,425,375
	318L4	262	6.9	1,757,100	154	24	180 to 250	N320TC to N360TC	76,100	79,600	29,800	4,425,375
	318L4	313	5.8	1,852,700	154	24	180 to 250	N320TC to N360TC	78,000	81,600	31,600	4,425,375
	318L4	337	5.3	1,893,600	154	24	180 to 250	N320TC to N360TC	78,800	82,500	32,400	4,425,375
	318L4	402	4.5	1,989,800	154	24	180 to 250	N320TC to N360TC	80,800	84,600	34,400	4,425,375
	318L4	422	4.3	2,017,000	154	24	180 to 250	N320TC to N360TC	81,400	85,200	34,900	4,425,375
	318L4	477	3.8	2,083,500	141	24	180 to 250	N320TC to N360TC	82,800	86,700	36,400	4,425,375
	318L4	515	3.5	2,127,800	133	24	180 to 250	N320TC to N360TC	83,800	87,600	37,300	4,425,375
	318L4	612	2.9	2,227,900	117	24	180 to 250	N320TC to N360TC	85,800	89,800	39,500	4,425,375
	318L4	647	2.8	2,261,600	113	24	180 to 250	N320TC to N360TC	86,500	90,500	40,300	4,425,375
	318L4	726	2.5	2,329,000	103	24	180 to 250	N320TC to N360TC	88,000	92,000	41,900	4,425,375
	318L4	768	2.3	2,338,200	98	24	180 to 250	N320TC to N360TC	88,700	92,800	42,600	4,425,375
	318L4	911	2.0	2,366,700	84	24	180 to 250	N320TC to N360TC	90,900	95,100	45,000	4,425,375
	318L4	1059	1.7	2,392,000	73	24	180 to 250	N320TC to N360TC	92,800	97,100	45,000	4,425,375
	1200	318L3	76.5	15.7	1,371,100	268	59	—	—	72,100	75,400	22,600
318L3		98.2	12.2	1,477,700	268	59	—	—	72,100	75,400	24,600	4,425,375
318L3		117	10.3	1,555,600	268	59	—	—	72,100	75,400	26,000	4,425,375
318L3		123	9.7	1,581,900	268	59	—	—	72,300	75,700	26,500	4,425,375
318L3		146	8.2	1,665,300	238	59	—	—	74,100	77,600	28,100	4,425,375
318L3		170	7.1	1,742,200	214	59	—	—	75,700	79,200	29,500	4,425,375
318L4		262	4.6	1,978,900	154	33	180 to 250	N320TC to N360TC	80,600	84,300	34,100	4,425,375
318L4		313	3.8	2,075,000	143	33	180 to 250	N320TC to N360TC	82,700	86,500	36,200	4,425,375
318L4		337	3.6	2,116,000	135	33	180 to 250	N320TC to N360TC	83,500	87,400	37,100	4,425,375
318L4		402	3.0	2,218,800	119	33	180 to 250	N320TC to N360TC	85,600	89,600	39,300	4,425,375
318L4		422	2.8	2,249,100	115	33	180 to 250	N320TC to N360TC	86,300	90,300	40,000	4,425,375
318L4		477	2.5	2,323,300	105	33	180 to 250	N320TC to N360TC	87,800	91,800	41,600	4,425,375
318L4		515	2.3	2,339,400	98	33	180 to 250	N320TC to N360TC	88,800	92,900	42,700	4,425,375
318L4		612	2.0	2,367,900	83	33	180 to 250	N320TC to N360TC	91,000	95,200	45,000	4,425,375
318L4		647	1.9	2,377,200	79	33	180 to 250	N320TC to N360TC	91,700	95,900	45,000	4,425,375
318L4		726	1.7	2,396,700	71	33	180 to 250	N320TC to N360TC	93,200	97,500	45,000	4,425,375
318L4		768	1.6	2,406,200	67	33	180 to 250	N320TC to N360TC	94,000	98,300	45,000	4,425,375
318L4		911	1.3	2,435,500	57	33	180 to 250	N320TC to N360TC	96,300	100,700	45,000	4,425,375
318L4		1059	1.1	2,461,500	50	33	180 to 250	N320TC to N360TC	98,400	102,900	45,000	4,425,375



319 L



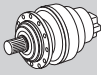
4,216,590 lb·in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb·in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb·in
									HC/PC	HZ/PZ	FZ	
1800	319L3	84.8	21.2	1,637,300	268	55	—	—	80,200	88,300	20,500	6,018,510
	319L3	109	16.5	1,863,700	268	55	—	—	81,700	89,900	22,200	6,018,510
	319L3	129	13.9	1,849,000	268	55	—	—	81,700	89,900	23,500	6,018,510
	319L3	137	13.2	1,898,500	268	55	—	—	81,700	89,900	24,000	6,018,510
	319L3	162	11.1	2,124,800	268	55	—	—	81,700	89,900	25,400	6,018,510
	319L3	188	9.6	1,758,300	268	55	—	—	82,200	90,500	26,700	6,018,510
	319L3	223	8.1	2,068,400	268	55	—	—	84,200	92,700	28,200	6,018,510
	319L4	347	5.2	2,502,800	154	33	180 to 250	N320TC to N360TC	89,700	98,800	32,700	6,018,510
	319L4	445	4.0	2,687,800	154	33	180 to 250	N320TC to N360TC	92,900	102,300	35,600	6,018,510
	319L4	528	3.4	2,821,300	154	33	180 to 250	N320TC to N360TC	95,200	104,900	37,600	6,018,510
	319L4	571	3.2	2,934,200	154	33	180 to 250	N320TC to N360TC	96,300	106,000	38,600	6,018,510
	319L4	678	2.7	3,041,300	145	33	180 to 250	N320TC to N360TC	98,700	108,700	40,900	6,018,510
	319L4	717	2.5	3,076,000	138	33	180 to 250	N320TC to N360TC	99,500	109,500	41,700	6,018,510




319 L

 486


4,216,590 lb-in






B

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									HC/PC	HZ/PZ	FZ	
1800	319L4	850	2.1	3,144,400	119	33	180 to 250	N320TC to N360TC	102,000	112,300	44,100	6,018,510
	319L4	912	2.0	2,902,200	103	33	180 to 250	N320TC to N360TC	103,000	113,400	45,000	6,018,510
	319L4	1007	1.8	2,965,000	95	33	180 to 250	N320TC to N360TC	104,400	115,000	45,000	6,018,510
	319L4	1195	1.5	3,047,200	82	33	180 to 250	N320TC to N360TC	107,000	117,800	45,000	6,018,510
	319L4	1389	1.3	3,073,100	71	33	180 to 250	N320TC to N360TC	109,400	120,400	45,000	6,018,510
1200	319L3	84.8	14.2	1,849,600	268	74	—	—	81,700	89,900	23,400	6,018,510
	319L3	109	11.0	2,105,300	268	74	—	—	81,700	89,900	25,400	6,018,510
	319L3	129	9.3	2,089,500	268	74	—	—	82,500	90,900	26,900	6,018,510
	319L3	137	8.8	2,142,300	268	74	—	—	83,200	91,600	27,400	6,018,510
	319L3	162	7.4	2,279,000	268	74	—	—	85,200	93,800	29,000	6,018,510
	319L3	188	6.4	1,984,300	220	74	—	—	87,100	95,900	30,600	6,018,510
	319L3	223	5.4	2,319,500	217	74	—	—	89,200	98,200	32,300	6,018,510
	319L4	347	3.5	2,809,200	154	45	180 to 250	N320TC to N360TC	95,000	104,600	37,500	6,018,510
	319L4	445	2.7	3,014,700	146	45	180 to 250	N320TC to N360TC	98,500	108,400	40,700	6,018,510
	319L4	528	2.3	3,128,100	127	45	180 to 250	N320TC to N360TC	100,900	111,100	43,100	6,018,510
	319L4	571	2.1	3,168,000	119	45	180 to 250	N320TC to N360TC	102,100	112,400	44,200	6,018,510
	319L4	678	1.8	3,257,200	103	45	180 to 250	N320TC to N360TC	104,600	115,200	45,000	6,018,510
	319L4	717	1.7	3,237,100	97	45	180 to 250	N320TC to N360TC	105,400	116,100	45,000	6,018,510
	319L4	850	1.4	3,306,700	84	45	180 to 250	N320TC to N360TC	108,000	119,000	45,000	6,018,510
	319L4	912	1.3	3,066,700	72	45	180 to 250	N320TC to N360TC	109,100	120,100	45,000	6,018,510
	319L4	1007	1.2	3,163,300	68	45	180 to 250	N320TC to N360TC	110,700	121,800	45,000	6,018,510
	319L4	1195	1.0	3,251,000	59	45	180 to 250	N320TC to N360TC	113,400	124,900	45,000	6,018,510
	319L4	1389	0.86	3,183,400	49	45	180 to 250	N320TC to N360TC	115,900	127,600	45,000	6,018,510

321 L

 498

5,803,790 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
									HC/PC	HZ/PZ	FZ		
1800	321L4	258	7.0	3,366,100	201	38	180 to 250	N320TC to N360TC	121,600	144,800	177,900	8,266,601	
	321L4	308	5.8	3,549,300	201	38	180 to 250	N320TC to N360TC	124,800	148,500	188,700	8,266,601	
	321L4	395	4.6	3,825,100	201	38	180 to 250	N320TC to N360TC	129,300	153,900	205,100	8,266,601	
	321L4	469	3.8	4,026,800	201	38	180 to 250	N320TC to N360TC	132,500	157,700	217,100	8,266,601	
	321L4	515	3.5	4,141,600	201	38	180 to 250	N320TC to N360TC	134,300	159,800	224,000	8,266,601	
	321L4	612	2.9	4,360,000	201	38	180 to 250	N320TC to N360TC	137,600	163,800	237,200	8,266,601	
	321L4	736	2.4	4,605,100	201	38	180 to 250	N320TC to N360TC	141,300	168,200	252,300	8,266,601	
	321L4	796	2.3	4,699,300	190	38	180 to 250	N320TC to N360TC	142,900	170,100	259,000	8,266,601	
	321L4	945	1.9	4,912,300	168	38	180 to 250	N320TC to N360TC	146,400	174,300	269,800	8,266,601	
	321L4	1122	1.6	4,659,200	134	38	180 to 250	N320TC to N360TC	150,000	178,600	269,800	8,266,601	
	1200	321L3	75.3	15.9	2,626,800	335	89	—	—	115,500	137,500	135,100	8,266,601
		321L3	98.2	12.2	2,844,200	335	89	—	—	115,500	137,500	147,600	8,266,601
321L3		118	10.2	3,006,900	335	89	—	—	115,500	137,500	157,000	8,266,601	
321L3		126	9.5	3,065,200	335	89	—	—	116,300	138,500	160,300	8,266,601	
321L3		152	7.9	3,240,500	335	89	—	—	119,500	142,200	170,600	8,266,601	
321L3		180	6.7	3,411,400	335	89	—	—	122,400	145,700	180,600	8,266,601	
321L4		258	4.6	3,801,500	201	52	180 to 250	N320TC to N360TC	128,900	153,400	203,700	8,266,601	
321L4		308	3.9	4,008,400	201	52	180 to 250	N320TC to N360TC	132,200	157,300	216,000	8,266,601	
321L4		395	3.0	4,319,900	201	52	180 to 250	N320TC to N360TC	137,000	163,100	234,800	8,266,601	
321L4		469	2.6	4,547,600	201	52	180 to 250	N320TC to N360TC	140,400	167,100	248,600	8,266,601	
321L4		515	2.3	4,663,600	195	52	180 to 250	N320TC to N360TC	142,300	169,300	256,500	8,266,601	
321L4		612	2.0	4,875,000	171	52	180 to 250	N320TC to N360TC	145,800	173,500	269,800	8,266,601	
321L4		736	1.6	5,114,700	149	52	180 to 250	N320TC to N360TC	149,700	178,200	269,800	8,266,601	
321L4		796	1.5	5,219,200	141	52	180 to 250	N320TC to N360TC	151,400	180,200	269,800	8,266,601	
321L4		945	1.3	5,455,800	124	52	180 to 250	N320TC to N360TC	155,100	184,700	269,800	8,266,601	
321L4		1122	1.1	4,734,400	91	52	180 to 250	N320TC to N360TC	159,000	189,200	269,800	8,266,601	

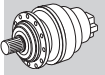
323 L



510

7,879,900 lb·in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2} max lb-in
									HC/PC	HZ/PZ	FZ	
1800	323L4	341	5.3	6,461,500	268	55	—	—	—	—	178,900	13,984,185
	323L4	390	4.6	6,652,800	268	55	—	—	—	—	187,100	13,984,185
	323L4	438	4.1	6,777,900	268	55	—	—	—	—	194,400	13,984,185
	323L4	500	3.6	6,926,300	268	55	—	—	—	—	203,300	13,984,185
	323L4	569	3.2	7,071,200	268	55	—	—	—	—	212,200	13,984,185
	323L4	628	2.9	7,185,000	268	55	—	—	—	—	219,300	13,984,185
	323L4	703	2.6	7,316,900	268	55	—	—	—	—	227,700	13,984,185
	323L4	758	2.4	7,374,300	268	55	—	—	—	—	233,500	13,984,185
	323L4	882	2.0	7,460,700	268	55	—	—	—	—	245,600	13,984,185
	323L4	1025	1.8	7,547,200	237	55	—	—	—	—	247,300	13,984,185
	323L4	1101	1.6	7,588,400	222	55	—	—	—	—	247,300	13,984,185
	323L4	1279	1.4	7,676,500	194	55	—	—	—	—	247,300	13,984,185
1200	323L4	341	3.5	6,950,900	268	74	—	—	—	—	204,800	13,984,185
	323L4	390	3.1	7,103,000	268	74	—	—	—	—	214,200	13,984,185
	323L4	438	2.7	7,236,600	268	74	—	—	—	—	222,600	13,984,185
	323L4	500	2.4	7,369,000	268	74	—	—	—	—	232,800	13,984,185
	323L4	569	2.1	7,441,700	268	74	—	—	—	—	242,900	13,984,185
	323L4	628	1.9	7,498,400	257	74	—	—	—	—	247,300	13,984,185
	323L4	703	1.7	7,563,300	231	74	—	—	—	—	247,300	13,984,185
	323L4	758	1.6	7,607,000	216	74	—	—	—	—	247,300	13,984,185
	323L4	882	1.4	7,696,100	188	74	—	—	—	—	247,300	13,984,185
	323L4	1025	1.2	7,785,400	163	74	—	—	—	—	247,300	13,984,185
	323L4	1101	1.1	7,827,900	153	74	—	—	—	—	247,300	13,984,185
	323L4	1279	0.94	7,879,900	132	74	—	—	—	—	247,300	13,984,185






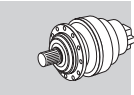
325 L



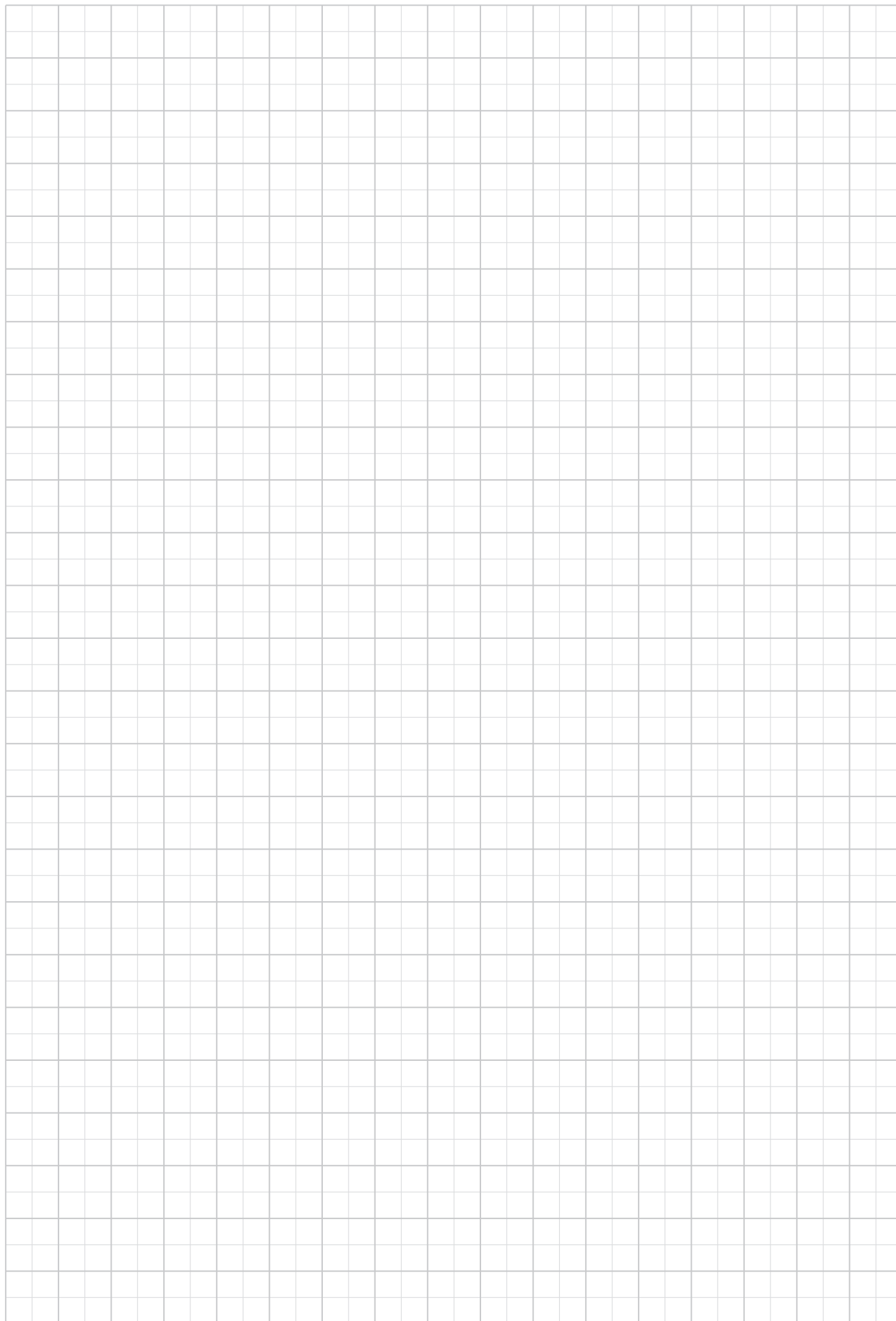
514

11,388,260 lb·in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2} max lb-in	
									HC/PC	HZ/PZ	FZ		
1800	325L4	341	5.3	7,808,600	268	71	—	—	—	—	227,700	17,701,500	
	325L4	390	4.6	7,979,700	268	71	—	—	—	—	238,100	17,701,500	
	325L4	438	4.1	8,415,500	268	71	—	—	—	—	247,500	17,701,500	
	325L4	500	3.6	8,599,800	268	71	—	—	—	—	258,800	17,701,500	
	325L4	569	3.2	8,936,900	268	71	—	—	—	—	270,100	17,701,500	
	325L4	628	2.9	9,206,000	268	71	—	—	—	—	279,100	17,701,500	
	325L4	703	2.6	9,370,300	268	71	—	—	—	—	289,800	17,701,500	
	325L4	758	2.4	9,855,000	268	71	—	—	—	—	297,200	17,701,500	
	325L4	882	2.0	9,839,300	268	71	—	—	—	—	312,600	17,701,500	
	325L4	1025	1.8	10,147,600	268	71	—	—	—	—	314,700	17,701,500	
	325L4	1101	1.6	8,524,800	250	71	—	—	—	—	314,700	17,701,500	
	325L4	1279	1.4	8,524,800	215	71	—	—	—	—	314,700	17,701,500	
	325L4	1279	1.4	8,524,800	215	71	—	—	—	—	314,700	17,701,500	
	1200	325L4	341	3.5	8,818,700	268	97	—	—	—	—	260,700	17,701,500
		325L4	390	3.1	9,011,900	268	97	—	—	—	—	272,600	17,701,500
325L4		438	2.7	9,504,000	268	97	—	—	—	—	283,300	17,701,500	
325L4		500	2.4	9,666,800	268	97	—	—	—	—	296,200	17,701,500	
325L4		569	2.1	9,901,800	268	97	—	—	—	—	309,200	17,701,500	
325L4		628	1.9	10,086,900	268	97	—	—	—	—	314,700	17,701,500	
325L4		703	1.7	10,205,600	268	97	—	—	—	—	314,700	17,701,500	
325L4		758	1.6	10,545,400	268	97	—	—	—	—	314,700	17,701,500	
325L4		882	1.4	10,691,700	261	97	—	—	—	—	314,700	17,701,500	
325L4		1025	1.2	11,026,700	231	97	—	—	—	—	314,700	17,701,500	
325L4		1101	1.1	8,524,800	167	97	—	—	—	—	314,700	17,701,500	
325L4		1279	0.94	8,524,800	143	97	—	—	—	—	314,700	17,701,500	
325L4		1279	0.94	8,524,800	143	97	—	—	—	—	314,700	17,701,500	






B



25.4 RATING CHARTS FOR RIGHT ANGLE UNITS 300 R

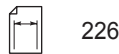
Reading the rating chart.

301 R								242		18,300 lb·in				
n ₁ rpm		i	n ₂ rpm	T _{n2} lb·in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb·in		
									NHC/NPC	HZ/PZ	FZ			
1800	301R2	7.13	252	87,20	20	13.2	71 to 132	N56C to N280TC	2,080	2,470	360	28,322		
	301R2	8.74	206	9,120	20	13.2	71 to 132	N56C to N280TC	2,210	2,620	380	28,322		
	301R2	11.8	152	9,680	20	13.2	71 to 132	N56C to N280TC	2,420	2,870	420	28,322		
	301R2	14.8	122	7,840	16.1	13.2	71 to 132	N56C to N280TC	2,590	3,070	460	28,322		
	301R2	18.5	98	6,550	10.8	13.2	71 to 132	N56C to N280TC	2,770	3,280	490	28,322		

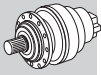
The rated torque of the gearbox, independent of installed mechanical power

1	Reference torque	8	Gearbox thermal capacity
2	Gearbox drive speed	9	Frame size of available IEC motor
3	Frame size of the right-angle gear unit. NOTE: letters (B) (C) near size indication identify different angle reduction dimensions. See dimensions pages.	10	Frame size of available NEMA motor
4	Gear ratio	11	Permitted overhung loading on output shaft, based on: - service factor $f_s=1$ - 10000 h theoretical lifetime - speed of output n_2 For forces not applied at shaft midpoint, see diagrams provided in the specific gearbox overall dimensioning pages
5	Gearbox output speed	12	Maximum torque
6	Gearbox rated output torque based on: - service factor $f_s=1$ - 10000 h theoretical lifetime	13	Dimensions page
7	Gearbox rated input power, based on: - service factor $f_s=1$ - 10000 h theoretical lifetime		

300 R



11,060 lb-in






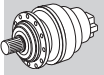
B

n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
								NHC/NPC	HZ/PZ	FZ		
1800	300R2	7.13	252	4,890	20	13.2	71 to 132	N56C to N280TC	2,080	2,630	360	17,702
	300R2	8.74	206	5,130	17.8	13.2	71 to 132	N56C to N280TC	2,210	2,790	380	21,242
	300R2	11.8	152	4,920	12.6	13.2	71 to 132	N56C to N280TC	2,420	3,060	420	21,242
	300R2	14.8	122	4,250	8.7	13.2	71 to 132	N56C to N280TC	2,590	3,270	460	21,242
	300R2	18.5	98	3,270	5.4	13.2	71 to 132	N56C to N280TC	2,770	3,490	490	21,242
	300R3	24.8	73	6,460	8.1	13.2	71 to 100	N56C to N280TC	3,020	3,820	540	17,702
	300R3	30.4	59	7,160	7.4	13.2	71 to 100	N56C to N280TC	3,210	4,060	580	21,242
	300R3	37.3	48	7,440	6.2	13.2	71 to 100	N56C to N280TC	3,420	4,310	620	21,242
	300R3	41.2	44	5,750	4.4	13.2	71 to 100	N56C to N280TC	3,520	4,440	640	21,242
	300R3	50.4	36	7,470	4.6	13.2	71 to 100	N56C to N280TC	3,740	4,720	690	21,242
	300R3	62.9	28.6	7,500	3.7	13.2	71 to 100	N56C to N280TC	4,000	5,050	740	21,242
	300R3	68.2	26.4	5,750	2.6	13.2	71 to 100	N56C to N280TC	4,100	5,170	760	21,242
	300R3	78.7	22.9	7,520	3.0	13.2	71 to 100	N56C to N280TC	4,270	5,400	800	21,242
	300R3	85.2	21.1	5,750	2.1	13.2	71 to 100	N56C to N280TC	4,380	5,530	820	21,242
	300R3	106	16.9	5,750	1.7	13.2	71 to 100	N56C to N280TC	4,450	5,620	880	21,242
	300R3	133	13.6	4,870	1.1	13.2	71 to 100	N56C to N280TC	4,450	5,620	950	21,242
	300R4	106	17.0	7,550	2.3	11.0	71 to 132	N56C to N280TC	4,450	5,620	880	21,242
	300R4	130	13.9	7,580	1.9	11.0	71 to 132	N56C to N280TC	4,450	5,620	940	21,242
	300R4	143	12.6	5,750	1.3	11.0	71 to 132	N56C to N280TC	4,450	5,620	970	21,242
	300R4	159	11.3	7,600	1.5	11.0	71 to 132	N56C to N280TC	4,450	5,620	1,010	21,242
	300R4	175	10.3	7,610	1.4	11.0	71 to 132	N56C to N280TC	4,450	5,620	1,040	21,242
	300R4	215	8.4	7,810	1.2	11.0	71 to 132	N56C to N280TC	4,570	5,760	1,120	21,242
	300R4	237	7.6	5,750	0.78	11.0	71 to 132	N56C to N280TC	4,630	5,850	1,150	21,242
	300R4	268	6.7	8,060	0.97	11.0	71 to 132	N56C to N280TC	4,710	5,950	1,200	21,242
	300R4	291	6.2	8,150	0.90	11.0	71 to 132	N56C to N280TC	4,770	6,020	1,230	21,242
	300R4	363	5.0	8,420	0.75	11.0	71 to 132	N56C to N280TC	4,920	6,210	1,330	21,242
	300R4	394	4.6	5,840	0.48	11.0	71 to 132	N56C to N280TC	4,980	6,280	1,370	21,242
	300R4	453	4.0	8,750	0.62	11.0	71 to 132	N56C to N280TC	5,080	6,410	1,430	21,242
	300R4	491	3.7	6,060	0.40	11.0	71 to 132	N56C to N280TC	5,140	6,490	1,470	21,242
	300R4	613	2.9	6,290	0.33	11.0	71 to 132	N56C to N280TC	5,300	6,700	1,580	21,242
300R4	766	2.3	6,530	0.28	11.0	71 to 132	N56C to N280TC	5,470	6,910	1,700	21,242	
1200	300R2	7.13	168	5,530	15.7	17.8	71 to 132	N56C to N280TC	2,350	2,970	410	17,702
	300R2	8.74	137	5,790	13.4	17.8	71 to 132	N56C to N280TC	2,500	3,150	440	21,242
	300R2	11.8	101	5,550	9.5	17.8	71 to 132	N56C to N280TC	2,730	3,450	490	21,242
	300R2	14.8	81	4,620	6.3	17.8	71 to 132	N56C to N280TC	2,920	3,690	520	21,242
	300R2	18.5	65	3,270	3.6	17.8	71 to 132	N56C to N280TC	3,120	3,950	560	21,242
	300R3	24.8	48	6,460	5.4	17.8	71 to 100	N56C to N280TC	3,420	4,310	620	17,702
	300R3	30.4	39	7,460	5.1	17.8	71 to 100	N56C to N280TC	3,630	4,580	670	21,242
	300R3	37.3	32	7,480	4.2	17.8	71 to 100	N56C to N280TC	3,860	4,870	710	21,242
	300R3	41.2	29.2	5,750	2.9	17.8	71 to 100	N56C to N280TC	3,980	5,020	740	21,242
	300R3	50.4	23.8	7,520	3.1	17.8	71 to 100	N56C to N280TC	4,220	5,330	790	21,242
	300R3	62.9	19.1	7,540	2.5	17.8	71 to 100	N56C to N280TC	4,450	5,620	850	21,242
	300R3	68.2	17.6	5,750	1.8	17.8	71 to 100	N56C to N280TC	4,450	5,620	870	21,242
	300R3	78.7	15.3	7,560	2.0	17.8	71 to 100	N56C to N280TC	4,450	5,620	910	21,242
	300R3	85.2	14.1	5,750	1.4	17.8	71 to 100	N56C to N280TC	4,450	5,620	940	21,242
	300R3	106	11.3	5,750	1.1	17.8	71 to 100	N56C to N280TC	4,450	5,620	1,010	21,242
	300R3	133	9.0	4,870	0.76	17.8	71 to 100	N56C to N280TC	4,520	5,700	1,090	21,242
	300R4	106	11.3	7,600	1.5	14.9	71 to 132	N56C to N280TC	4,450	5,620	1,010	21,242
	300R4	130	9.3	7,700	1.3	14.9	71 to 132	N56C to N280TC	4,500	5,680	1,080	21,242
	300R4	143	8.4	5,750	0.86	14.9	71 to 132	N56C to N280TC	4,570	5,760	1,120	21,242
	300R4	159	7.6	7,920	1.1	14.9	71 to 132	N56C to N280TC	4,630	5,850	1,150	21,242
	300R4	175	6.8	8,040	0.99	14.9	71 to 132	N56C to N280TC	4,700	5,930	1,190	21,242

300 R  226




11,060 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	300R4	215	5.6	8,280	0.83	14.9	71 to 132	N56C to N280TC	4,840	6,110	1,280	21,242
	300R4	237	5.1	5,750	0.52	14.9	71 to 132	N56C to N280TC	4,910	6,200	1,320	21,242
	300R4	268	4.5	8,570	0.69	14.9	71 to 132	N56C to N280TC	4,990	6,300	1,380	21,242
	300R4	291	4.1	8,690	0.64	14.9	71 to 132	N56C to N280TC	5,050	6,380	1,410	21,242
	300R4	363	3.3	9,030	0.53	14.9	71 to 132	N56C to N280TC	5,210	6,580	1,520	21,242
	300R4	394	3.0	6,250	0.34	14.9	71 to 132	N56C to N280TC	5,270	6,660	1,560	21,242
	300R4	453	2.6	9,380	0.45	14.9	71 to 132	N56C to N280TC	5,380	6,790	1,640	21,242
	300R4	491	2.4	6,490	0.28	14.9	71 to 132	N56C to N280TC	5,440	6,870	1,680	21,242
	300R4	613	2.0	6,750	0.24	14.9	71 to 132	N56C to N280TC	5,620	7,090	1,800	21,242
	300R4	766	1.6	7,030	0.20	14.9	71 to 132	N56C to N280TC	5,800	7,320	1,800	21,242




301 R  242

18,300 lb-in

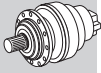
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	301R2	7.13	252	8,720	20	13.2	71 to 132	N56C to N280TC	2,080	2,470	360	28,322
	301R2	8.74	206	9,120	20	13.2	71 to 132	N56C to N280TC	2,210	2,620	380	28,322
	301R2	11.8	152	9,680	20	13.2	71 to 132	N56C to N280TC	2,420	2,870	420	28,322
	301R2	14.8	122	7,840	16.1	13.2	71 to 132	N56C to N280TC	2,590	3,070	460	28,322
	301R2	18.5	98	6,550	10.8	13.2	71 to 132	N56C to N280TC	2,770	3,280	490	28,322
	301R3	24.8	73	12,000	15.2	13.2	71 to 100	N56C to N280TC	3,020	3,590	540	30,093
	301R3	30.4	59	13,300	13.7	13.2	71 to 100	N56C to N280TC	3,210	3,820	580	30,093
	301R3	37.3	48	14,000	11.8	13.2	71 to 100	N56C to N280TC	3,420	4,050	620	30,093
	301R3	41.2	44	11,500	8.7	13.2	71 to 100	N56C to N280TC	3,520	4,180	640	30,093
	301R3	50.4	36	14,300	8.8	13.2	71 to 100	N56C to N280TC	3,740	4,440	690	30,093
	301R3	62.9	28.6	14,400	7.2	13.2	71 to 100	N56C to N280TC	4,000	4,750	740	30,093
	301R3	68.2	26.4	11,500	5.3	13.2	71 to 100	N56C to N280TC	4,100	4,860	760	30,093
	301R3	78.7	22.9	13,800	5.5	13.2	71 to 100	N56C to N280TC	4,270	5,070	800	30,093
	301R3	85.2	21.1	11,500	4.2	13.2	71 to 100	N56C to N280TC	4,380	5,200	820	30,093
	301R3	106	16.9	11,500	3.4	13.2	71 to 100	N56C to N280TC	4,450	5,280	880	30,093
	301R3	133	13.6	10,200	2.4	13.2	71 to 100	N56C to N280TC	4,450	5,280	950	30,093
	301R4	106	17.0	14,900	4.5	11.0	71 to 132	N56C to N280TC	4,450	5,280	880	30,093
	301R4	130	13.9	15,000	3.7	11.0	71 to 132	N56C to N280TC	4,450	5,280	940	30,093
	301R4	143	12.6	11,500	2.6	11.0	71 to 132	N56C to N280TC	4,450	5,280	970	30,093
	301R4	159	11.3	15,200	3.1	11.0	71 to 132	N56C to N280TC	4,450	5,280	1,010	30,093
	301R4	175	10.3	15,300	2.8	11.0	71 to 132	N56C to N280TC	4,450	5,280	1,040	30,093
	301R4	215	8.4	15,700	2.4	11.0	71 to 132	N56C to N280TC	4,570	5,420	1,120	30,093
	301R4	237	7.6	11,500	1.6	11.0	71 to 132	N56C to N280TC	4,630	5,500	1,150	30,093
	301R4	268	6.7	16,200	1.9	11.0	71 to 132	N56C to N280TC	4,710	5,590	1,200	30,093
	301R4	291	6.2	16,300	1.8	11.0	71 to 132	N56C to N280TC	4,770	5,660	1,230	30,093
	301R4	363	5.0	16,800	1.5	11.0	71 to 132	N56C to N280TC	4,920	5,840	1,330	30,093
	301R4	394	4.6	11,700	0.96	11.0	71 to 132	N56C to N280TC	4,980	5,910	1,370	30,093
	301R4	453	4.0	16,700	1.2	11.0	71 to 132	N56C to N280TC	5,080	6,030	1,430	30,093
	301R4	491	3.7	12,100	0.80	11.0	71 to 132	N56C to N280TC	5,140	6,100	1,470	30,093
	301R4	613	2.9	12,600	0.66	11.0	71 to 132	N56C to N280TC	5,300	6,290	1,580	30,093
301R4	766	2.3	13,100	0.55	11.0	71 to 132	N56C to N280TC	5,470	6,500	1,700	30,093	
1200	301R2	7.13	168	9,840	20	17.8	71 to 132	N56C to N280TC	2,350	2,790	410	28,322
	301R2	8.74	137	10,300	20	17.8	71 to 132	N56C to N280TC	2,500	2,960	440	28,322
	301R2	11.8	101	10,900	18.7	17.8	71 to 132	N56C to N280TC	2,730	3,250	490	28,322
	301R2	14.8	81	8,840	12.1	17.8	71 to 132	N56C to N280TC	2,920	3,470	520	28,322
	301R2	18.5	65	6,550	7.2	17.8	71 to 132	N56C to N280TC	3,120	3,710	560	28,322

B




301 R

 242


18,300 lb-in






B

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	301R3	24.8	48	12,700	10.6	17.8	71 to 100	N56C to N280TC	3,420	4,050	620	30,093
	301R3	30.4	39	14,200	9.7	17.8	71 to 100	N56C to N280TC	3,630	4,310	670	30,093
	301R3	37.3	32	14,300	8.0	17.8	71 to 100	N56C to N280TC	3,860	4,580	710	30,093
	301R3	41.2	29.2	11,500	5.8	17.8	71 to 100	N56C to N280TC	3,980	4,720	740	30,093
	301R3	50.4	23.8	14,600	6.0	17.8	71 to 100	N56C to N280TC	4,220	5,010	790	30,093
	301R3	62.9	19.1	14,800	4.9	17.8	71 to 100	N56C to N280TC	4,450	5,280	850	30,093
	301R3	68.2	17.6	11,500	3.5	17.8	71 to 100	N56C to N280TC	4,450	5,280	870	30,093
	301R3	78.7	15.3	14,000	3.7	17.8	71 to 100	N56C to N280TC	4,450	5,280	910	30,093
	301R3	85.2	14.1	11,500	2.8	17.8	71 to 100	N56C to N280TC	4,450	5,280	940	30,093
	301R3	106	11.3	11,500	2.3	17.8	71 to 100	N56C to N280TC	4,450	5,280	1,010	30,093
	301R3	133	9.0	10,200	1.6	17.8	71 to 100	N56C to N280TC	4,520	5,360	1,090	30,093
	301R4	106	11.3	15,200	3.1	14.9	71 to 132	N56C to N280TC	4,450	5,280	1,010	30,093
	301R4	130	9.3	15,500	2.6	14.9	71 to 132	N56C to N280TC	4,500	5,340	1,080	30,093
	301R4	143	8.4	11,500	1.7	14.9	71 to 132	N56C to N280TC	4,570	5,420	1,120	30,093
	301R4	159	7.6	15,900	2.2	14.9	71 to 132	N56C to N280TC	4,630	5,500	1,150	30,093
	301R4	175	6.8	16,100	2.0	14.9	71 to 132	N56C to N280TC	4,700	5,580	1,190	30,093
	301R4	215	5.6	16,600	1.7	14.9	71 to 132	N56C to N280TC	4,840	5,740	1,280	30,093
	301R4	237	5.1	11,500	1.0	14.9	71 to 132	N56C to N280TC	4,910	5,820	1,320	30,093
	301R4	268	4.5	17,100	1.4	14.9	71 to 132	N56C to N280TC	4,990	5,930	1,380	30,093
	301R4	291	4.1	17,400	1.3	14.9	71 to 132	N56C to N280TC	5,050	6,000	1,410	30,093
301R4	363	3.3	18,100	1.1	14.9	71 to 132	N56C to N280TC	5,210	6,190	1,520	30,093	
301R4	394	3.0	12,500	0.68	14.9	71 to 132	N56C to N280TC	5,270	6,260	1,560	30,093	
301R4	453	2.6	17,600	0.83	14.9	71 to 132	N56C to N280TC	5,380	6,390	1,640	30,093	
301R4	491	2.4	13,000	0.57	14.9	71 to 132	N56C to N280TC	5,440	6,460	1,680	30,093	
301R4	613	2.0	13,500	0.47	14.9	71 to 132	N56C to N280TC	5,620	6,670	1,800	30,093	
301R4	766	1.6	14,100	0.39	14.9	71 to 132	N56C to N280TC	5,800	6,890	1,800	30,093	


303 R

 258




26,270 lb-in

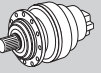
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	303R2	9.23	195	14,100	46	19.8	71 to 132	N56C to N280TC	4,310	5,450	1,170	46,024
	303R2	10.9	165	15,900	44	19.8	71 to 132	N56C to N280TC	4,530	5,730	1,240	46,024
	303R2	13.7	132	16,500	37	19.8	71 to 132	N56C to N280TC	4,850	6,130	1,340	46,024
	303R2	15.9	113	15,500	30	19.8	71 to 132	N56C to N280TC	5,080	6,410	1,400	46,024
	303R2	19.2	94	13,400	21	19.8	71 to 132	N56C to N280TC	5,380	6,790	1,500	46,024
	303R2	24.8	73	7,610	9.3	19.8	71 to 132	N56C to N280TC	5,800	7,330	1,630	46,024
	303R3	25.7	70	17,000	20	15.4	71 to 132	N56C to N280TC	5,860	7,410	1,650	46,024
	303R3	31.5	57	17,800	17.7	15.4	71 to 132	N56C to N280TC	6,230	7,870	1,760	46,024
	303R3	37.1	48	20,800	17.6	15.4	71 to 132	N56C to N280TC	6,550	8,270	1,860	46,024
	303R3	42.6	42	18,100	13.3	15.4	71 to 132	N56C to N280TC	6,820	8,620	1,950	46,024
	303R3	46.6	39	19,000	12.8	15.4	71 to 132	N56C to N280TC	7,010	8,860	2,010	46,024
	303R3	50.3	36	20,800	12.9	15.4	71 to 132	N56C to N280TC	7,170	9,060	2,060	46,024
	303R3	54.2	33	16,100	9.3	15.4	71 to 132	N56C to N280TC	7,340	9,270	2,110	46,024
	303R3	63.1	28.5	19,100	9.5	15.4	71 to 132	N56C to N280TC	7,680	9,700	2,220	46,024
	303R3	73.3	24.5	16,100	6.9	15.4	71 to 132	N56C to N280TC	8,030	10,100	2,340	46,024
	303R3	78.7	22.9	19,200	7.6	15.4	71 to 132	N56C to N280TC	8,210	10,400	2,400	46,024
	303R3	91.5	19.7	16,100	5.5	15.4	71 to 132	N56C to N280TC	8,540	10,800	2,520	46,024
	303R3	114	15.7	16,100	4.4	15.4	71 to 132	N56C to N280TC	8,540	10,800	2,710	46,024
	303R4	129	13.9	23,000	5.7	13.2	71 to 132	N56C to N280TC	8,540	10,800	2,830	46,024
	303R4	148	12.1	20,200	4.4	13.2	71 to 132	N56C to N280TC	8,540	10,800	2,960	46,024

303 R

 258

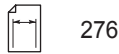
26,270 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	303R4	158	11.4	23,200	4.7	13.2	71 to 132	N56C to N280TC	8,540	10,800	3,020	46,024
	303R4	185	9.7	20,400	3.6	13.2	71 to 132	N56C to N280TC	8,580	10,800	3,180	46,024
	303R4	214	8.4	23,800	3.6	13.2	71 to 132	N56C to N280TC	8,760	11,100	3,340	46,024
	303R4	231	7.8	16,200	2.3	13.2	71 to 132	N56C to N280TC	8,850	11,200	3,430	46,024
	303R4	255	7.1	16,200	2.0	13.2	71 to 132	N56C to N280TC	8,980	11,300	3,540	46,024
	303R4	290	6.2	23,400	2.6	13.2	71 to 132	N56C to N280TC	9,150	11,600	3,700	46,024
	303R4	313	5.8	16,200	1.7	13.2	71 to 132	N56C to N280TC	9,240	11,700	3,790	46,024
	303R4	336	5.4	19,700	1.9	13.2	71 to 132	N56C to N280TC	9,340	11,800	3,880	46,024
	303R4	364	4.9	19,800	1.8	13.2	71 to 132	N56C to N280TC	9,450	11,900	3,990	46,024
	303R4	390	4.6	16,500	1.4	13.2	71 to 132	N56C to N280TC	9,540	12,100	4,080	46,024
	303R4	452	4.0	19,900	1.4	13.2	71 to 132	N56C to N280TC	9,740	12,300	4,290	46,024
	303R4	528	3.4	17,400	1.1	13.2	71 to 132	N56C to N280TC	9,960	12,600	4,520	46,024
	303R4	567	3.2	21,000	1.2	13.2	71 to 132	N56C to N280TC	10,100	12,700	4,620	46,024
	303R4	659	2.7	18,100	0.89	13.2	71 to 132	N56C to N280TC	10,300	13,000	4,860	46,024
	303R4	797	2.3	15,700	0.64	13.2	71 to 132	N56C to N280TC	10,600	13,300	5,180	46,024
	303R4	824	2.2	18,800	0.74	13.2	71 to 132	N56C to N280TC	10,600	13,400	5,240	46,024
1200	303R2	9.23	130	15,900	35	27	71 to 132	N56C to N280TC	4,870	6,150	1,340	46,024
	303R2	10.9	110	18,000	33	27	71 to 132	N56C to N280TC	5,120	6,470	1,420	46,024
	303R2	13.7	88	18,100	27	27	71 to 132	N56C to N280TC	5,480	6,920	1,530	46,024
	303R2	15.9	76	16,100	21	27	71 to 132	N56C to N280TC	5,730	7,240	1,610	46,024
	303R2	19.2	62	14,200	14.9	27	71 to 132	N56C to N280TC	6,070	7,670	1,710	46,024
	303R2	24.8	48	7,610	6.2	27	71 to 132	N56C to N280TC	6,550	8,280	1,860	46,024
	303R3	25.7	47	18,900	15.4	21	71 to 132	N56C to N280TC	6,620	8,370	1,890	46,024
	303R3	31.5	38	18,900	12.5	21	71 to 132	N56C to N280TC	7,040	8,890	2,020	46,024
	303R3	37.1	32	21,500	12.1	21	71 to 132	N56C to N280TC	7,400	9,340	2,130	46,024
	303R3	42.6	28.2	18,500	9.1	21	71 to 132	N56C to N280TC	7,710	9,740	2,230	46,024
	303R3	46.6	25.7	19,200	8.6	21	71 to 132	N56C to N280TC	7,920	10,000	2,300	46,024
	303R3	50.3	23.9	21,500	8.9	21	71 to 132	N56C to N280TC	8,100	10,200	2,360	46,024
	303R3	54.2	22.1	16,100	6.2	21	71 to 132	N56C to N280TC	8,290	10,500	2,420	46,024
	303R3	63.1	19.0	19,300	6.4	21	71 to 132	N56C to N280TC	8,540	10,800	2,550	46,024
	303R3	73.3	16.4	16,100	4.6	21	71 to 132	N56C to N280TC	8,540	10,800	2,680	46,024
	303R3	78.7	15.2	19,300	5.1	21	71 to 132	N56C to N280TC	8,540	10,800	2,740	46,024
	303R3	91.5	13.1	16,100	3.7	21	71 to 132	N56C to N280TC	8,540	10,800	2,880	46,024
	303R3	114	10.5	16,100	2.9	21	71 to 132	N56C to N280TC	8,540	10,800	3,110	46,024
	303R4	129	9.3	23,600	3.9	17.8	71 to 132	N56C to N280TC	8,630	10,900	3,230	46,024
	303R4	148	8.1	20,400	3.0	17.8	71 to 132	N56C to N280TC	8,800	11,100	3,390	46,024
	303R4	158	7.6	24,000	3.3	17.8	71 to 132	N56C to N280TC	8,890	11,200	3,460	46,024
	303R4	185	6.5	20,400	2.4	17.8	71 to 132	N56C to N280TC	9,090	11,500	3,640	46,024
	303R4	214	5.6	24,600	2.5	17.8	71 to 132	N56C to N280TC	9,280	11,700	3,830	46,024
	303R4	231	5.2	16,300	1.5	17.8	71 to 132	N56C to N280TC	9,380	11,800	3,930	46,024
	303R4	255	4.7	16,500	1.4	17.8	71 to 132	N56C to N280TC	9,510	12,000	4,060	46,024
	303R4	290	4.1	23,600	1.7	17.8	71 to 132	N56C to N280TC	9,690	12,200	4,230	46,024
	303R4	313	3.8	17,100	1.2	17.8	71 to 132	N56C to N280TC	9,790	12,400	4,340	46,024
	303R4	336	3.6	20,900	1.3	17.8	71 to 132	N56C to N280TC	9,890	12,500	4,450	46,024
	303R4	364	3.3	21,200	1.3	17.8	71 to 132	N56C to N280TC	10,000	12,600	4,570	46,024
	303R4	390	3.1	17,700	0.98	17.8	71 to 132	N56C to N280TC	10,100	12,800	4,670	46,024
	303R4	452	2.7	19,900	0.95	17.8	71 to 132	N56C to N280TC	10,300	13,000	4,910	46,024
	303R4	528	2.3	18,700	0.76	17.8	71 to 132	N56C to N280TC	10,600	13,300	5,170	46,024
	303R4	567	2.1	22,300	0.85	17.8	71 to 132	N56C to N280TC	10,700	13,500	5,290	46,024
	303R4	659	1.8	19,500	0.63	17.8	71 to 132	N56C to N280TC	10,900	13,800	5,400	46,024
	303R4	797	1.5	16,700	0.45	17.8	71 to 132	N56C to N280TC	11,200	14,100	5,400	46,024
	303R4	824	1.5	20,200	0.53	17.8	71 to 132	N56C to N280TC	11,200	14,200	5,400	46,024



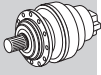
B

304 R



276

35,050 lb-in



B




n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
								NHC/NPC	HZ/PZ	FZ		
1800	304R2	9.23	195	14,100	46	19.8	71 to 132	N56C to N280TC	4,310	5,450	1,170	58,415
	304R2	10.9	165	16,600	46	19.8	71 to 132	N56C to N280TC	4,530	5,730	1,240	58,415
	304R2	13.7	132	20,900	46	19.8	71 to 132	N56C to N280TC	4,850	6,130	1,340	58,415
	304R2	16.8	107	20,700	37	19.8	71 to 132	N56C to N280TC	5,170	6,530	1,430	58,415
	304R3	25.7	70	26,200	20	15.4	71 to 132	N56C to N280TC	5,860	7,410	1,650	64,610
	304R3	31.5	57	26,800	20	15.4	71 to 132	N56C to N280TC	6,230	7,870	1,760	64,610
	304R3	37.1	48	30,400	20	15.4	71 to 132	N56C to N280TC	6,550	8,270	1,860	64,610
	304R3	42.6	42	27,900	20	15.4	71 to 132	N56C to N280TC	6,820	8,620	1,950	64,610
	304R3	46.6	39	25,200	16.9	15.4	71 to 132	N56C to N280TC	7,010	8,860	2,010	64,610
	304R3	50.3	36	30,600	19.0	15.4	71 to 132	N56C to N280TC	7,170	9,060	2,060	64,610
	304R3	63.1	28.5	25,200	12.5	15.4	71 to 132	N56C to N280TC	7,680	9,700	2,220	64,610
	304R3	78.7	22.9	25,200	10.0	15.4	71 to 132	N56C to N280TC	8,210	10,400	2,400	64,610
	304R3	97.0	18.6	21,200	6.8	15.4	71 to 132	N56C to N280TC	8,540	10,800	2,570	64,610
	304R3	121	14.8	21,200	5.5	15.4	71 to 132	N56C to N280TC	8,540	10,800	2,770	64,610
	304R4	89.4	20.1	29,200	10.5	13.2	71 to 132	N56C to N280TC	8,520	10,800	2,500	64,610
	304R4	109	16.4	29,500	8.7	13.2	71 to 132	N56C to N280TC	8,540	10,800	2,670	64,610
	304R4	129	13.9	31,100	7.8	13.2	71 to 132	N56C to N280TC	8,540	10,800	2,830	64,610
	304R4	148	12.1	30,100	6.6	13.2	71 to 132	N56C to N280TC	8,540	10,800	2,960	64,610
	304R4	158	11.4	31,300	6.4	13.2	71 to 132	N56C to N280TC	8,540	10,800	3,020	64,610
	304R4	185	9.7	30,500	5.3	13.2	71 to 132	N56C to N280TC	8,580	10,800	3,180	64,610
	304R4	214	8.4	31,700	4.8	13.2	71 to 132	N56C to N280TC	8,760	11,100	3,340	64,610
	304R4	227	7.9	30,600	4.4	13.2	71 to 132	N56C to N280TC	8,830	11,200	3,410	64,610
	304R4	267	6.7	32,100	3.9	13.2	71 to 132	N56C to N280TC	9,040	11,400	3,600	64,610
	304R4	290	6.2	32,200	3.6	13.2	71 to 132	N56C to N280TC	9,150	11,600	3,700	64,610
	304R4	307	5.9	30,900	3.2	13.2	71 to 132	N56C to N280TC	9,220	11,600	3,770	64,610
	304R4	338	5.3	21,200	2.0	13.2	71 to 132	N56C to N280TC	9,350	11,800	3,890	64,610
	304R4	364	4.9	25,300	2.2	13.2	71 to 132	N56C to N280TC	9,450	11,900	3,990	64,610
	304R4	414	4.4	21,400	1.7	13.2	71 to 132	N56C to N280TC	9,620	12,200	4,160	64,610
	304R4	452	4.0	32,500	2.3	13.2	71 to 132	N56C to N280TC	9,740	12,300	4,290	64,610
	304R4	560	3.2	22,100	1.3	13.2	71 to 132	N56C to N280TC	10,000	12,700	4,610	64,610
	304R4	699	2.6	22,600	1.0	13.2	71 to 132	N56C to N280TC	10,400	13,100	4,960	64,610
	1200	304R2	9.23	130	15,900	35	27	71 to 132	N56C to N280TC	4,870	6,150	1,340
304R2		10.9	110	18,700	35	27	71 to 132	N56C to N280TC	5,120	6,470	1,420	58,415
304R2		13.7	88	23,100	34	27	71 to 132	N56C to N280TC	5,480	6,920	1,530	58,415
304R2		16.8	71	21,200	25	27	71 to 132	N56C to N280TC	5,840	7,370	1,640	58,415
304R3		25.7	47	27,400	20	21	71 to 132	N56C to N280TC	6,620	8,370	1,890	64,610
304R3		31.5	38	27,800	18.4	21	71 to 132	N56C to N280TC	7,040	8,890	2,020	64,610
304R3		37.1	32	30,600	17.2	21	71 to 132	N56C to N280TC	7,400	9,340	2,130	64,610
304R3		42.6	28.2	28,600	14.0	21	71 to 132	N56C to N280TC	7,710	9,740	2,230	64,610
304R3		46.6	25.7	25,200	11.3	21	71 to 132	N56C to N280TC	7,920	10,000	2,300	64,610
304R3		50.3	23.9	30,800	12.8	21	71 to 132	N56C to N280TC	8,100	10,200	2,360	64,610
304R3		63.1	19.0	25,200	8.3	21	71 to 132	N56C to N280TC	8,540	10,800	2,550	64,610
304R3		78.7	15.2	25,200	6.7	21	71 to 132	N56C to N280TC	8,540	10,800	2,740	64,610
304R3		97.0	12.4	21,200	4.5	21	71 to 132	N56C to N280TC	8,540	10,800	2,940	64,610
304R3		121	9.9	21,200	3.6	21	71 to 132	N56C to N280TC	8,560	10,800	3,170	64,610
304R4		89.4	13.4	29,900	7.2	17.8	71 to 132	N56C to N280TC	8,540	10,800	2,860	64,610
304R4		109	11.0	30,300	5.9	17.8	71 to 132	N56C to N280TC	8,540	10,800	3,060	64,610
304R4		129	9.3	31,500	5.2	17.8	71 to 132	N56C to N280TC	8,630	10,900	3,230	64,610
304R4		148	8.1	30,600	4.4	17.8	71 to 132	N56C to N280TC	8,800	11,100	3,390	64,610
304R4		158	7.6	31,900	4.3	17.8	71 to 132	N56C to N280TC	8,890	11,200	3,460	64,610
304R4		185	6.5	30,800	3.6	17.8	71 to 132	N56C to N280TC	9,090	11,500	3,640	64,610
304R4		214	5.6	32,400	3.3	17.8	71 to 132	N56C to N280TC	9,280	11,700	3,830	64,610

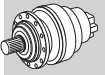
304 R



276

35,050 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	304R4	227	5.3	30,900	2.9	17.8	71 to 132	N56C to N280TC	9,350	11,800	3,900	64,610
	304R4	267	4.5	32,700	2.6	17.8	71 to 132	N56C to N280TC	9,580	12,100	4,120	64,610
	304R4	290	4.1	32,800	2.4	17.8	71 to 132	N56C to N280TC	9,690	12,200	4,230	64,610
	304R4	307	3.9	31,000	2.2	17.8	71 to 132	N56C to N280TC	9,770	12,300	4,310	64,610
	304R4	338	3.6	21,900	1.4	17.8	71 to 132	N56C to N280TC	9,900	12,500	4,450	64,610
	304R4	364	3.3	27,000	1.6	17.8	71 to 132	N56C to N280TC	10,000	12,600	4,570	64,610
	304R4	414	2.9	22,300	1.2	17.8	71 to 132	N56C to N280TC	10,200	12,900	4,770	64,610
	304R4	452	2.7	32,800	1.6	17.8	71 to 132	N56C to N280TC	10,300	13,000	4,910	64,610
	304R4	560	2.1	23,300	0.89	17.8	71 to 132	N56C to N280TC	10,600	13,400	5,270	64,610
	304R4	699	1.7	24,200	0.74	17.8	71 to 132	N56C to N280TC	11,000	13,900	5,400	64,610






B

305 R




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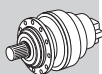
49,600 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	305R2	9.23	195	14,100	46	19.8	71 to 132	N56C to N280TC	4,310	5,450	1,170	68,151
	305R2	10.9	165	16,600	46	19.8	71 to 132	N56C to N280TC	4,530	5,730	1,240	68,151
	305R2	13.7	132	20,900	46	19.8	71 to 132	N56C to N280TC	4,850	6,130	1,340	68,151
	305R2	15.9	113	24,200	46	19.8	71 to 132	N56C to N280TC	5,080	6,410	1,400	68,151
	305R2	19.2	94	24,900	39	19.8	71 to 132	N56C to N280TC	5,380	6,790	1,500	68,151
	305R3	25.7	70	30,400	20	15.4	71 to 132	N56C to N280TC	5,860	7,410	1,650	77,887
	305R3	31.5	57	31,900	20	15.4	71 to 132	N56C to N280TC	6,230	7,870	1,760	77,887
	305R3	37.1	48	37,400	20	15.4	71 to 132	N56C to N280TC	6,550	8,270	1,860	77,887
	305R3	42.6	42	32,800	20	15.4	71 to 132	N56C to N280TC	6,820	8,620	1,950	77,887
	305R3	46.6	39	38,000	20	15.4	71 to 132	N56C to N280TC	7,010	8,860	2,010	77,887
	305R3	50.3	36	37,900	20	15.4	71 to 132	N56C to N280TC	7,170	9,060	2,060	77,887
	305R3	54.2	33	31,500	18.2	15.4	71 to 132	N56C to N280TC	7,340	9,270	2,110	77,887
	305R3	63.1	28.5	38,200	19.0	15.4	71 to 132	N56C to N280TC	7,680	9,700	2,220	77,887
305R3	73.3	24.5	31,600	13.5	15.4	71 to 132	N56C to N280TC	8,030	10,100	2,340	77,887	
305R3	78.7	22.9	38,400	15.3	15.4	71 to 132	N56C to N280TC	8,210	10,400	2,400	77,887	
305R3	91.5	19.7	31,700	10.8	15.4	71 to 132	N56C to N280TC	8,540	10,800	2,520	77,887	
305R3	114	15.7	31,600	8.6	15.4	71 to 132	N56C to N280TC	8,540	10,800	2,710	77,887	
305R4	129	13.9	44,900	11.2	13.2	71 to 132	N56C to N280TC	8,540	10,800	2,830	77,887	
305R4	148	12.1	38,900	8.5	13.2	71 to 132	N56C to N280TC	8,540	10,800	2,960	77,887	
305R4	158	11.4	46,100	9.4	13.2	71 to 132	N56C to N280TC	8,540	10,800	3,020	77,887	
305R4	185	9.7	39,700	6.9	13.2	71 to 132	N56C to N280TC	8,580	10,800	3,180	77,887	
305R4	214	8.4	47,300	7.1	13.2	71 to 132	N56C to N280TC	8,760	11,100	3,340	77,887	
305R4	231	7.8	31,900	4.4	13.2	71 to 132	N56C to N280TC	8,850	11,200	3,430	77,887	
305R4	255	7.1	31,900	4.0	13.2	71 to 132	N56C to N280TC	8,980	11,300	3,540	77,887	
305R4	290	6.2	46,700	5.2	13.2	71 to 132	N56C to N280TC	9,150	11,600	3,700	77,887	
305R4	313	5.8	31,900	3.3	13.2	71 to 132	N56C to N280TC	9,240	11,700	3,790	77,887	
305R4	336	5.4	39,500	3.8	13.2	71 to 132	N56C to N280TC	9,340	11,800	3,880	77,887	
305R4	364	4.9	39,600	3.5	13.2	71 to 132	N56C to N280TC	9,450	11,900	3,990	77,887	
305R4	390	4.6	32,300	2.7	13.2	71 to 132	N56C to N280TC	9,540	12,100	4,080	77,887	
305R4	452	4.0	42,000	3.0	13.2	71 to 132	N56C to N280TC	9,740	12,300	4,290	77,887	
305R4	528	3.4	33,800	2.1	13.2	71 to 132	N56C to N280TC	9,960	12,600	4,520	77,887	
305R4	567	3.2	42,000	2.4	13.2	71 to 132	N56C to N280TC	10,100	12,700	4,620	77,887	
305R4	659	2.7	34,900	1.7	13.2	71 to 132	N56C to N280TC	10,300	13,000	4,860	77,887	
305R4	797	2.3	29,700	1.2	13.2	71 to 132	N56C to N280TC	10,600	13,300	5,180	77,887	
305R4	824	2.2	36,200	1.4	13.2	71 to 132	N56C to N280TC	10,600	13,400	5,240	77,887	




305 R

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49,600 lb-in






B

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	305R2	9.23	130	15,900	35	27	71 to 132	N56C to N280TC	4,870	6,150	1,340	68,151
	305R2	10.9	110	18,700	35	27	71 to 132	N56C to N280TC	5,120	6,470	1,420	68,151
	305R2	13.7	88	23,600	35	27	71 to 132	N56C to N280TC	5,480	6,920	1,530	68,151
	305R2	15.9	76	27,400	35	27	71 to 132	N56C to N280TC	5,730	7,240	1,610	68,151
	305R2	19.2	62	25,900	27	27	71 to 132	N56C to N280TC	6,070	7,670	1,710	68,151
	305R3	25.7	47	33,900	20	21	71 to 132	N56C to N280TC	6,620	8,370	1,890	77,887
	305R3	31.5	38	34,200	20	21	71 to 132	N56C to N280TC	7,040	8,890	2,020	77,887
	305R3	37.1	32	39,700	20	21	71 to 132	N56C to N280TC	7,400	9,340	2,130	77,887
	305R3	42.6	28.2	34,500	16.9	21	71 to 132	N56C to N280TC	7,710	9,740	2,230	77,887
	305R3	46.6	25.7	38,300	17.1	21	71 to 132	N56C to N280TC	7,920	10,000	2,300	77,887
	305R3	50.3	23.9	40,400	16.8	21	71 to 132	N56C to N280TC	8,100	10,200	2,360	77,887
	305R3	54.2	22.1	31,600	12.2	21	71 to 132	N56C to N280TC	8,290	10,500	2,420	77,887
	305R3	63.1	19.0	38,500	12.7	21	71 to 132	N56C to N280TC	8,540	10,800	2,550	77,887
	305R3	73.3	16.4	31,700	9.0	21	71 to 132	N56C to N280TC	8,540	10,800	2,680	77,887
	305R3	78.7	15.2	38,700	10.2	21	71 to 132	N56C to N280TC	8,540	10,800	2,740	77,887
	305R3	91.5	13.1	31,800	7.2	21	71 to 132	N56C to N280TC	8,540	10,800	2,880	77,887
	305R3	114	10.5	31,800	5.8	21	71 to 132	N56C to N280TC	8,540	10,800	3,110	77,887
	305R4	129	9.3	47,100	7.8	17.8	71 to 132	N56C to N280TC	8,630	10,900	3,230	77,887
	305R4	148	8.1	39,700	5.8	17.8	71 to 132	N56C to N280TC	8,800	11,100	3,390	77,887
	305R4	158	7.6	47,500	6.5	17.8	71 to 132	N56C to N280TC	8,890	11,200	3,460	77,887
	305R4	185	6.5	39,700	4.6	17.8	71 to 132	N56C to N280TC	9,090	11,500	3,640	77,887
	305R4	214	5.6	48,200	4.8	17.8	71 to 132	N56C to N280TC	9,280	11,700	3,830	77,887
	305R4	231	5.2	31,900	3.0	17.8	71 to 132	N56C to N280TC	9,380	11,800	3,930	77,887
	305R4	255	4.7	32,200	2.7	17.8	71 to 132	N56C to N280TC	9,510	12,000	4,060	77,887
	305R4	290	4.1	47,100	3.5	17.8	71 to 132	N56C to N280TC	9,690	12,200	4,230	77,887
	305R4	313	3.8	33,200	2.3	17.8	71 to 132	N56C to N280TC	9,790	12,400	4,340	77,887
	305R4	336	3.6	41,900	2.7	17.8	71 to 132	N56C to N280TC	9,890	12,500	4,450	77,887
	305R4	364	3.3	42,500	2.5	17.8	71 to 132	N56C to N280TC	10,000	12,600	4,570	77,887
	305R4	390	3.1	34,300	1.9	17.8	71 to 132	N56C to N280TC	10,100	12,800	4,670	77,887
	305R4	452	2.7	42,000	2.0	17.8	71 to 132	N56C to N280TC	10,300	13,000	4,910	77,887
	305R4	528	2.3	36,000	1.5	17.8	71 to 132	N56C to N280TC	10,600	13,300	5,170	77,887
	305R4	567	2.1	44,400	1.7	17.8	71 to 132	N56C to N280TC	10,700	13,500	5,290	77,887
	305R4	659	1.8	37,400	1.2	17.8	71 to 132	N56C to N280TC	10,900	13,800	5,400	77,887
305R4	797	1.5	31,600	0.85	17.8	71 to 132	N56C to N280TC	11,200	14,100	5,400	77,887	
305R4	824	1.5	38,900	1.0	17.8	71 to 132	N56C to N280TC	11,200	14,200	5,400	77,887	

306 R

 312

64,610 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	306R2	9.23	195	14,100	46	19.8	71 to 160	N56C to N280TC	5,930	7,470	1,710	106,209
	306R2	10.9	165	16,600	46	19.8	71 to 160	N56C to N280TC	6,230	7,850	1,810	106,209
	306R2	13.7	132	20,900	46	19.8	71 to 160	N56C to N280TC	6,670	8,400	1,950	106,209
	306R2	15.9	113	24,200	46	19.8	71 to 160	N56C to N280TC	6,970	8,790	2,050	106,209
	306R2	19.2	94	29,200	46	19.8	71 to 160	N56C to N280TC	7,380	9,310	2,180	106,209
	306R3	33.2	54	49,100	46	15.4	71 to 160	N56C to N280TC	8,700	11,000	2,620	131,876
	306R3	39.2	46	55,300	44	15.4	71 to 160	N56C to N280TC	9,150	11,500	2,770	131,876
	306R3	46.3	39	64,000	43	15.4	71 to 160	N56C to N280TC	9,610	12,100	2,930	131,876
	306R3	58.1	31	64,800	35	15.4	71 to 160	N56C to N280TC	10,300	13,000	3,160	131,876
	306R3	67.5	26.7	61,800	29	15.4	71 to 160	N56C to N280TC	10,800	13,600	3,320	131,876
	306R3	72.9	24.7	64,500	28	15.4	71 to 160	N56C to N280TC	11,000	13,900	3,400	131,876

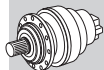
306 R




312

64,610 lb-in

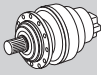
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	306R3	84.7	21.2	65,400	24	15.4	71 to 160	N56C to N280TC	11,500	14,500	3,580	131,876
	306R3	98.5	18.3	57,400	18.2	15.4	71 to 160	N56C to N280TC	11,700	14,800	3,760	131,876
	306R3	119	15.1	57,400	15.1	15.4	71 to 160	N56C to N280TC	11,700	14,800	4,010	131,876
	306R3	144	12.5	48,100	10.4	15.4	71 to 160	N56C to N280TC	11,700	14,800	4,270	131,876
	306R4	158	11.4	82,700	16.9	13.2	71 to 160	N56C to N280TC	11,700	14,800	4,400	131,876
	306R4	168	10.7	66,000	12.7	13.2	71 to 160	N56C to N280TC	11,700	14,800	4,500	131,876
	306R4	181	9.9	83,600	14.9	13.2	71 to 160	N56C to N280TC	11,700	14,800	4,610	131,876
	306R4	214	8.4	85,500	12.9	13.2	71 to 160	N56C to N280TC	12,000	15,200	4,870	131,876
	306R4	230	7.8	67,200	9.4	13.2	71 to 160	N56C to N280TC	12,200	15,300	5,000	131,876
	306R4	249	7.2	71,800	9.3	13.2	71 to 160	N56C to N280TC	12,300	15,500	5,120	131,876
	306R4	289	6.2	72,500	8.1	13.2	71 to 160	N56C to N280TC	12,600	15,800	5,390	131,876
	306R4	312	5.8	67,200	7.0	13.2	71 to 160	N56C to N280TC	12,700	16,000	5,530	131,876
	306R4	389	4.6	67,200	5.6	13.2	71 to 160	N56C to N280TC	13,100	16,500	5,950	131,876
	306R4	420	4.3	75,400	5.8	13.2	71 to 160	N56C to N280TC	13,200	16,700	6,100	131,876
	306R4	455	4.0	60,200	4.3	13.2	71 to 160	N56C to N280TC	13,400	16,900	6,270	131,876
	306R4	488	3.7	77,400	5.1	13.2	71 to 160	N56C to N280TC	13,500	17,100	6,420	131,876
	306R4	550	3.3	62,200	3.7	13.2	71 to 160	N56C to N280TC	13,800	17,400	6,680	131,876
	306R4	590	3.0	73,400	4.0	13.2	71 to 160	N56C to N280TC	13,900	17,500	6,840	131,876
	306R4	665	2.7	51,800	2.5	13.2	71 to 160	N56C to N280TC	14,100	17,800	7,110	131,876
	306R4	830	2.2	53,600	2.1	13.2	71 to 160	N56C to N280TC	14,600	18,400	7,660	131,876
1200	306R2	9.23	130	15,900	35	27	71 to 160	N56C to N280TC	6,690	8,430	1,960	106,209
	306R2	10.9	110	18,700	35	27	71 to 160	N56C to N280TC	7,030	8,870	2,070	106,209
	306R2	13.7	88	23,600	35	27	71 to 160	N56C to N280TC	7,530	9,490	2,230	106,209
	306R2	15.9	76	27,400	35	27	71 to 160	N56C to N280TC	7,880	9,930	2,350	106,209
	306R2	19.2	62	33,000	35	27	71 to 160	N56C to N280TC	8,340	10,500	2,500	106,209
	306R3	33.2	36	53,900	34	21	71 to 160	N56C to N280TC	9,830	12,400	3,000	131,876
	306R3	39.2	31	61,500	33	21	71 to 160	N56C to N280TC	10,300	13,000	3,170	131,876
	306R3	46.3	25.9	69,600	31	21	71 to 160	N56C to N280TC	10,900	13,700	3,350	131,876
	306R3	58.1	20.7	70,100	25	21	71 to 160	N56C to N280TC	11,600	14,600	3,610	131,876
	306R3	67.5	17.8	64,000	19.8	21	71 to 160	N56C to N280TC	11,700	14,800	3,800	131,876
	306R3	72.9	16.5	67,100	19.2	21	71 to 160	N56C to N280TC	11,700	14,800	3,900	131,876
	306R3	84.7	14.2	68,000	16.8	21	71 to 160	N56C to N280TC	11,700	14,800	4,100	131,876
	306R3	98.5	12.2	57,500	12.2	21	71 to 160	N56C to N280TC	11,700	14,800	4,310	131,876
	306R3	119	10.1	57,500	10.1	21	71 to 160	N56C to N280TC	11,700	14,800	4,590	131,876
	306R3	144	8.3	48,700	7.0	21	71 to 160	N56C to N280TC	12,000	15,200	4,890	131,876
	306R4	158	7.6	85,800	11.7	17.8	71 to 160	N56C to N280TC	12,200	15,400	5,040	131,876
	306R4	168	7.2	67,400	8.6	17.8	71 to 160	N56C to N280TC	12,300	15,500	5,150	131,876
	306R4	181	6.6	83,600	9.9	17.8	71 to 160	N56C to N280TC	12,400	15,700	5,280	131,876
	306R4	214	5.6	86,800	8.7	17.8	71 to 160	N56C to N280TC	12,700	16,100	5,580	131,876
	306R4	230	5.2	67,200	6.3	17.8	71 to 160	N56C to N280TC	12,900	16,200	5,720	131,876
	306R4	249	4.8	73,900	6.4	17.8	71 to 160	N56C to N280TC	13,000	16,400	5,870	131,876
	306R4	289	4.2	75,800	5.6	17.8	71 to 160	N56C to N280TC	13,300	16,800	6,170	131,876
	306R4	312	3.9	67,200	4.6	17.8	71 to 160	N56C to N280TC	13,400	17,000	6,320	131,876
	306R4	389	3.1	67,200	3.7	17.8	71 to 160	N56C to N280TC	13,900	17,500	6,810	131,876
	306R4	420	2.9	80,900	4.1	17.8	71 to 160	N56C to N280TC	14,000	17,700	6,990	131,876
	306R4	455	2.6	64,600	3.1	17.8	71 to 160	N56C to N280TC	14,200	17,900	7,170	131,876
	306R4	488	2.5	82,800	3.6	17.8	71 to 160	N56C to N280TC	14,300	18,100	7,340	131,876
	306R4	550	2.2	66,600	2.6	17.8	71 to 160	N56C to N280TC	14,600	18,400	7,640	131,876
	306R4	590	2.0	77,100	2.8	17.8	71 to 160	N56C to N280TC	14,700	18,600	7,830	131,876
	306R4	665	1.8	55,500	1.8	17.8	71 to 160	N56C to N280TC	15,000	18,900	7,870	131,876
	306R4	830	1.4	57,800	1.5	17.8	71 to 160	N56C to N280TC	15,500	19,500	7,870	131,876






307 R

 330


123,910 lb-in






B

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in	
									NHC/NPC	HZ/PZ	FZ		
1800	307R2	13.0	139	42800	100	38	132 to 200	N280TC	8,210	11,200	2,460	164,624	
	307R2	15.5	116	51100	100	38	132 to 200	N280TC	8,650	11,800	2,610	185,866	
	307R2	19.8	91	65500	100	38	132 to 200	N280TC	9,330	12,700	2,840	185,866	
	307R2	23.5	76	68800	89	38	132 to 200	N280TC	9,820	13,400	3,000	185,866	
	307R3	31.6	57	46700	46	24	71 to 160	N56C to N280TC	10,700	14,600	3,310	164,624	
	307R3	37.7	48	55700	46	24	71 to 160	N56C to N280TC	11,300	15,400	3,510	185,866	
	307R3	44.6	40	65900	46	24	71 to 160	N56C to N280TC	11,900	16,200	3,710	185,866	
	307R3	55.9	32	82600	46	24	71 to 160	N56C to N280TC	12,700	17,300	4,010	185,866	
	307R3	65.0	27.7	93000	45	24	71 to 160	N56C to N280TC	13,300	18,100	4,210	185,866	
	307R3	71.8	25.1	87900	38	24	71 to 160	N56C to N280TC	13,700	18,700	4,350	185,866	
	307R3	78.6	22.9	95600	38	24	71 to 160	N56C to N280TC	14,100	19,200	4,490	185,866	
	307R3	83.4	21.6	89100	33	24	71 to 160	N56C to N280TC	14,300	19,500	4,580	185,866	
	307R3	99.0	18.2	75500	24	24	71 to 160	N56C to N280TC	14,700	20,000	4,850	185,866	
	307R3	120	15.0	75900	19.8	24	71 to 160	N56C to N280TC	14,700	20,000	5,160	185,866	
	307R4	152	11.8	115300	20	16.5	71 to 160	N56C to N280TC	14,700	20,000	5,590	185,866	
	307R4	165	10.9	94800	18.5	16.5	71 to 160	N56C to N280TC	14,700	20,000	5,750	185,866	
	307R4	191	9.4	120500	20	16.5	71 to 160	N56C to N280TC	14,800	20,100	6,030	185,866	
	307R4	206	8.8	121800	19.1	16.5	71 to 160	N56C to N280TC	15,000	20,300	6,180	185,866	
	307R4	232	7.8	97100	13.5	16.5	71 to 160	N56C to N280TC	15,200	20,700	6,440	185,866	
	307R4	258	7.0	125800	15.7	16.5	71 to 160	N56C to N280TC	15,500	21,000	6,670	185,866	
	307R4	284	6.3	98500	11.2	16.5	71 to 160	N56C to N280TC	15,700	21,300	6,890	185,866	
	307R4	300	6.0	122800	13.2	16.5	71 to 160	N56C to N280TC	15,800	21,500	7,010	185,866	
	307R4	331	5.4	99500	9.7	16.5	71 to 160	N56C to N280TC	16,000	21,800	7,250	185,866	
	307R4	363	5.0	108900	9.7	16.5	71 to 160	N56C to N280TC	16,200	22,100	7,470	185,866	
	307R4	413	4.4	102400	8.0	16.5	71 to 160	N56C to N280TC	16,500	22,500	7,800	185,866	
	307R4	453	4.0	116800	8.3	16.5	71 to 160	N56C to N280TC	16,700	22,800	8,050	185,866	
	307R4	490	3.7	80500	5.3	16.5	71 to 160	N56C to N280TC	16,900	23,000	8,260	185,866	
	307R4	581	3.1	108500	6.0	16.5	71 to 160	N56C to N280TC	17,400	23,600	8,740	185,866	
	307R4	690	2.6	84500	3.9	16.5	71 to 160	N56C to N280TC	17,800	24,200	9,260	185,866	
	1200	307R2	13.0	93	48400	76	52	132 to 200	N280TC	9,270	12,600	2,820	164,624
		307R2	15.5	78	57700	76	52	132 to 200	N280TC	9,770	13,300	2,990	185,866
		307R2	19.8	61	74000	75	52	132 to 200	N280TC	10,500	14,300	3,250	185,866
307R2		23.5	51	72700	63	52	132 to 200	N280TC	11,100	15,100	3,440	185,866	
307R3		31.6	38	52200	34	33	71 to 160	N56C to N280TC	12,100	16,500	3,790	164,624	
307R3		37.7	32	63000	35	33	71 to 160	N56C to N280TC	12,800	17,400	4,020	185,866	
307R3		44.6	26.9	74400	35	33	71 to 160	N56C to N280TC	13,400	18,300	4,250	185,866	
307R3		55.9	21.5	93300	35	33	71 to 160	N56C to N280TC	14,400	19,500	4,590	185,866	
307R3		65.0	18.5	102800	33	33	71 to 160	N56C to N280TC	14,700	20,000	4,820	185,866	
307R3		71.8	16.7	91200	27	33	71 to 160	N56C to N280TC	14,700	20,000	4,980	185,866	
307R3		78.6	15.3	101900	27	33	71 to 160	N56C to N280TC	14,700	20,000	5,140	185,866	
307R3		83.4	14.4	92400	23	33	71 to 160	N56C to N280TC	14,700	20,000	5,240	185,866	
307R3		99.0	12.1	76500	16.1	33	71 to 160	N56C to N280TC	14,700	20,000	5,550	185,866	
307R3		120	10.0	77000	13.4	33	71 to 160	N56C to N280TC	14,700	20,000	5,910	185,866	
307R4		152	7.9	123600	17.5	22	71 to 160	N56C to N280TC	15,200	20,600	6,400	185,866	
307R4		165	7.3	97600	12.7	22	71 to 160	N56C to N280TC	15,400	20,900	6,580	185,866	
307R4		191	6.3	127600	14.4	22	71 to 160	N56C to N280TC	15,700	21,300	6,900	185,866	
307R4		206	5.8	129000	13.5	22	71 to 160	N56C to N280TC	15,900	21,600	7,080	185,866	
307R4		232	5.2	99800	9.2	22	71 to 160	N56C to N280TC	16,100	21,900	7,370	185,866	
307R4		258	4.7	131800	11.0	22	71 to 160	N56C to N280TC	16,400	22,300	7,640	185,866	
307R4		284	4.2	102900	7.8	22	71 to 160	N56C to N280TC	16,600	22,600	7,890	185,866	
307R4		300	4.0	124000	8.9	22	71 to 160	N56C to N280TC	16,700	22,800	8,030	185,866	
307R4		331	3.6	105600	6.9	22	71 to 160	N56C to N280TC	17,000	23,100	8,300	185,866	
307R4		363	3.3	108900	6.5	22	71 to 160	N56C to N280TC	17,200	23,400	8,560	185,866	
307R4		413	2.9	109600	5.7	22	71 to 160	N56C to N280TC	17,500	23,800	8,930	185,866	
307R4		453	2.6	121500	5.8	22	71 to 160	N56C to N280TC	17,700	24,100	9,210	185,866	
307R4		490	2.4	85200	3.7	22	71 to 160	N56C to N280TC	18,000	24,400	9,460	185,866	
307R4		581	2.1	115300	4.3	22	71 to 160	N56C to N280TC	18,400	25,000	10,000	185,866	
307R4		690	1.7	89700	2.8	22	71 to 160	N56C to N280TC	18,800	25,600	10,100	185,866	

309 R

 348


145,700 lb·in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb·in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb·in	
									NHC/NPC	HZ/PZ	FZ		
1800	309R2	13.0	139	42,800	100	38	132 to 200	N280TC	8,210	11,200	1,970	242,511	
	309R2	15.5	116	51,100	100	38	132 to 200	N280TC	8,650	11,800	2,090	242,511	
	309R2	19.8	91	65,500	100	38	132 to 200	N280TC	9,330	12,700	2,270	242,511	
	309R2	23.5	76	77,800	100	38	132 to 200	N280TC	9,820	13,400	2,400	242,511	
	309R3	31.6	57	46,700	46	24	71 to 160	N56C to N280TC	10,700	14,600	2,650	246,936	
	309R3	37.7	48	55,700	46	24	71 to 160	N56C to N280TC	11,300	15,400	2,810	256,672	
	309R3	44.6	40	65,900	46	24	71 to 160	N56C to N280TC	11,900	16,200	2,970	256,672	
	309R3	55.9	32	82,600	46	24	71 to 160	N56C to N280TC	12,700	17,300	3,210	256,672	
	309R3	65.0	27.7	94,300	45	24	71 to 160	N56C to N280TC	13,300	18,100	3,370	256,672	
	309R3	71.8	25.1	106,000	46	24	71 to 160	N56C to N280TC	13,700	18,700	3,480	256,672	
	309R3	83.4	21.6	118,200	44	24	71 to 160	N56C to N280TC	14,300	19,500	3,660	256,672	
	309R3	99.0	18.2	112,400	36	24	71 to 160	N56C to N280TC	14,700	20,000	3,880	256,672	
	309R3	120	15.0	113,600	30	24	71 to 160	N56C to N280TC	14,700	20,000	4,130	256,672	
	309R4	152	11.8	156,300	20	16.5	71 to 160	N56C to N280TC	14,700	20,000	4,470	256,672	
	309R4	165	10.9	141,500	20	16.5	71 to 160	N56C to N280TC	14,700	20,000	4,600	256,672	
	309R4	191	9.4	152,000	20	16.5	71 to 160	N56C to N280TC	14,800	20,100	4,820	256,672	
	309R4	206	8.8	168,800	20	16.5	71 to 160	N56C to N280TC	15,000	20,300	4,950	256,672	
	309R4	232	7.8	145,700	20	16.5	71 to 160	N56C to N280TC	15,200	20,700	5,150	256,672	
	309R4	258	7.0	153,300	19.2	16.5	71 to 160	N56C to N280TC	15,500	21,000	5,340	256,672	
	309R4	284	6.3	147,600	16.7	16.5	71 to 160	N56C to N280TC	15,700	21,300	5,510	256,672	
	309R4	331	5.4	149,100	14.5	16.5	71 to 160	N56C to N280TC	16,000	21,800	5,800	256,672	
	309R4	374	4.8	126,600	10.9	16.5	71 to 160	N56C to N280TC	16,300	22,200	6,040	256,672	
	309R4	413	4.4	153,500	12.0	16.5	71 to 160	N56C to N280TC	16,500	22,500	6,240	256,672	
	309R4	457	3.9	119,200	8.4	16.5	71 to 160	N56C to N280TC	16,800	22,800	6,460	256,672	
	309R4	490	3.7	120,400	7.9	16.5	71 to 160	N56C to N280TC	16,900	23,000	6,610	256,672	
	309R4	581	3.1	139,800	7.8	16.5	71 to 160	N56C to N280TC	17,400	23,600	7,000	256,672	
	309R4	690	2.6	126,600	5.9	16.5	71 to 160	N56C to N280TC	17,800	24,200	7,410	256,672	
	1200	309R2	13.0	93	48,400	76	52	132 to 200	N280TC	9,270	12,600	2,250	242,511
		309R2	15.5	78	57,700	76	52	132 to 200	N280TC	9,770	13,300	2,390	242,511
		309R2	19.8	61	74,000	75	52	132 to 200	N280TC	10,500	14,300	2,600	242,511
		309R2	23.5	51	87,800	75	52	132 to 200	N280TC	11,100	15,100	2,750	242,511
		309R3	31.6	38	52,800	35	33	71 to 160	N56C to N280TC	12,100	16,500	3,030	246,936
309R3		37.7	32	63,000	35	33	71 to 160	N56C to N280TC	12,800	17,400	3,220	256,672	
309R3		44.6	26.9	74,400	35	33	71 to 160	N56C to N280TC	13,400	18,300	3,400	256,672	
309R3		55.9	21.5	93,300	35	33	71 to 160	N56C to N280TC	14,400	19,500	3,670	256,672	
309R3		65.0	18.5	105,200	34	33	71 to 160	N56C to N280TC	14,700	20,000	3,860	256,672	
309R3		71.8	16.7	119,800	35	33	71 to 160	N56C to N280TC	14,700	20,000	3,990	256,672	
309R3		83.4	14.4	130,800	33	33	71 to 160	N56C to N280TC	14,700	20,000	4,190	256,672	
309R3		99.0	12.1	114,200	24	33	71 to 160	N56C to N280TC	14,700	20,000	4,440	256,672	
309R3		120	10.0	115,100	20	33	71 to 160	N56C to N280TC	14,700	20,000	4,730	256,672	
309R4		152	7.9	172,200	20	22	71 to 160	N56C to N280TC	15,200	20,600	5,120	256,672	
309R4		165	7.3	146,300	19.0	22	71 to 160	N56C to N280TC	15,400	20,900	5,260	256,672	
309R4		191	6.3	153,800	17.3	22	71 to 160	N56C to N280TC	15,700	21,300	5,520	256,672	
309R4		206	5.8	182,600	19.1	22	71 to 160	N56C to N280TC	15,900	21,600	5,660	256,672	
309R4		232	5.2	149,600	13.9	22	71 to 160	N56C to N280TC	16,100	21,900	5,900	256,672	
309R4		258	4.7	154,900	12.9	22	71 to 160	N56C to N280TC	16,400	22,300	6,110	256,672	
309R4		284	4.2	152,400	11.5	22	71 to 160	N56C to N280TC	16,600	22,600	6,310	256,672	
309R4		331	3.6	158,400	10.3	22	71 to 160	N56C to N280TC	17,000	23,100	6,640	256,672	
309R4		374	3.2	126,600	7.3	22	71 to 160	N56C to N280TC	17,300	23,500	6,920	256,672	
309R4		413	2.9	164,500	8.6	22	71 to 160	N56C to N280TC	17,500	23,800	7,150	256,672	
309R4		457	2.6	126,500	6.0	22	71 to 160	N56C to N280TC	17,800	24,200	7,390	256,672	
309R4		490	2.4	128,000	5.6	22	71 to 160	N56C to N280TC	18,000	24,400	7,570	256,672	

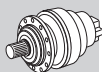





B

309 R


 348

145,700 lb-in






n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	309R4	581	2.1	139,800	5.2	22	71 to 160	N56C to N280TC	18,400	25,000	8,010	256,672
	309R4	690	1.7	136,100	4.2	22	71 to 160	N56C to N280TC	18,800	25,600	8,090	256,672

310 R

 364

301,990 lb-in

B




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	310R2B	12.0	150	84800	174	60	180 to 225	N320TC to N360TC	9,410	12,200	3,470	421,296
	310R2B	15.4	117	89,300	174	60	180 to 225	N320TC to N360TC	10,100	13,100	3,770	421,296
	310R2B	18.3	98	92,900	154	60	180 to 225	N320TC to N360TC	10,700	13,800	3,990	421,296
	310R2C	16.6	108	93,500	171	60	180 to 250	N320TC to N360TC	10,400	13,400	3,860	421,296
	310R2C	21.3	84	98,500	140	60	180 to 250	N320TC to N360TC	11,200	14,400	4,200	421,296
	310R2C	25.3	71	102,400	123	60	180 to 250	N320TC to N360TC	11,800	15,200	4,450	421,296
	310R3	37.7	48	55,700	46	24	71 to 160	N56C to N280TC	13,300	17,100	5,080	421,296
	310R3	44.6	40	65,900	46	24	71 to 160	N56C to N280TC	13,900	18,000	5,370	421,296
	310R3	55.9	32	82,600	46	24	71 to 160	N56C to N280TC	14,900	19,300	5,790	421,296
	310R3	65.0	27.7	96,000	46	24	71 to 160	N56C to N280TC	15,600	20,200	6,090	421,296
	310R3	71.8	25.1	106,000	46	24	71 to 160	N56C to N280TC	16,100	20,800	6,290	421,296
	310R3	78.6	22.9	116,200	46	24	71 to 160	N56C to N280TC	16,500	21,400	6,480	421,296
	310R3	83.4	21.6	123,300	46	24	71 to 160	N56C to N280TC	16,800	21,700	6,610	421,296
	310R3	99.0	18.2	139,000	44	24	71 to 160	N56C to N280TC	17,200	22,200	7,000	421,296
	310R3	120	15.0	147,700	39	24	71 to 160	N56C to N280TC	17,200	22,200	7,460	421,296
	310R4	136	13.2	175,600	42	16.5	71 to 160	N56C to N280TC	17,200	22,200	7,780	421,296
	310R4	160	11.2	184,600	37	16.5	71 to 160	N56C to N280TC	17,200	22,200	8,220	421,296
	310R4	189	9.5	194,000	33	16.5	71 to 160	N56C to N280TC	17,300	22,400	8,690	421,296
	310R4	206	8.7	190,400	30	16.5	71 to 160	N56C to N280TC	17,600	22,700	8,940	421,296
	310R4	234	7.7	206,700	29	16.5	71 to 160	N56C to N280TC	17,900	23,100	9,330	421,296
	310R4	258	7.0	196,900	25	16.5	71 to 160	N56C to N280TC	18,100	23,400	9,640	421,296
	310R4	283	6.4	218,900	25	16.5	71 to 160	N56C to N280TC	18,400	23,700	9,940	421,296
	310R4	305	5.9	201,700	21	16.5	71 to 160	N56C to N280TC	18,600	24,000	10,200	421,296
	310R4	334	5.4	230,100	22	16.5	71 to 160	N56C to N280TC	18,800	24,300	10,500	421,296
	310R4	363	5.0	207,000	18.4	16.5	71 to 160	N56C to N280TC	19,000	24,600	10,800	421,296
	310R4	419	4.3	244,900	18.8	16.5	71 to 160	N56C to N280TC	19,400	25,100	11,300	421,296
	310R4	454	4.0	170,900	12.1	16.5	71 to 160	N56C to N280TC	19,700	25,400	11,600	421,296
	310R4	517	3.5	219,700	13.7	16.5	71 to 160	N56C to N280TC	20,000	25,900	12,100	421,296
	310R4	590	3.1	192,900	10.6	16.5	71 to 160	N56C to N280TC	20,400	26,300	12,700	421,296
	310R4	639	2.8	183,100	9.2	16.5	71 to 160	N56C to N280TC	20,600	26,600	13,000	421,296
	310R4	757	2.4	230,000	9.8	16.5	71 to 160	N56C to N280TC	21,100	27,300	13,800	421,296
	310R4	898	2.0	197,100	7.1	16.5	71 to 160	N56C to N280TC	21,700	28,000	14,600	421,296
	1200	310R2B	12.0	100	95,800	161	82	180 to 225	N320TC to N360TC	10,600	13,700	3,970
310R2B		15.4	78	100,900	132	82	180 to 225	N320TC to N360TC	11,500	14,800	4,310	421,296
310R2B		18.3	66	104,900	116	82	180 to 225	N320TC to N360TC	12,100	15,600	4,570	421,296
310R2C		16.6	72	105,600	128	82	180 to 250	N320TC to N360TC	11,700	15,100	4,420	421,296
310R2C		21.3	56	111,300	105	82	180 to 250	N320TC to N360TC	12,600	16,300	4,810	421,296
310R2C		25.3	47	115,200	92	82	180 to 250	N320TC to N360TC	13,300	17,200	5,090	421,296
310R3		37.7	32	63,000	35	33	71 to 160	N56C to N280TC	15,000	19,300	5,810	421,296
310R3		44.6	26.9	74,400	35	33	71 to 160	N56C to N280TC	15,700	20,300	6,140	421,296
310R3		55.9	21.5	93,300	35	33	71 to 160	N56C to N280TC	16,900	21,800	6,620	421,296
310R3		65.0	18.5	108,500	35	33	71 to 160	N56C to N280TC	17,200	22,200	6,970	421,296
310R3		71.8	16.7	119,800	35	33	71 to 160	N56C to N280TC	17,200	22,200	7,200	421,296

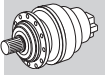
310 R



364

301,990 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1200	310R3	78.6	15.3	131,300	35	33	71 to 160	N56C to N280TC	17,200	22,200	7,420	421,296
	310R3	83.4	14.4	139,300	35	33	71 to 160	N56C to N280TC	17,200	22,200	7,570	421,296
	310R3	99.0	12.1	153,800	32	33	71 to 160	N56C to N280TC	17,200	22,200	8,010	421,296
	310R3	120	10.0	161,300	28	33	71 to 160	N56C to N280TC	17,200	22,200	8,540	421,296
	310R4	136	8.8	198,300	31	22	71 to 160	N56C to N280TC	17,500	22,600	8,910	421,296
	310R4	160	7.5	208,500	28	22	71 to 160	N56C to N280TC	17,900	23,200	9,410	421,296
	310R4	189	6.3	219,100	25	22	71 to 160	N56C to N280TC	18,400	23,700	9,950	421,296
	310R4	206	5.8	202,100	21	22	71 to 160	N56C to N280TC	18,600	24,000	10,200	421,296
	310R4	234	5.1	233,500	21	22	71 to 160	N56C to N280TC	18,900	24,500	10,700	421,296
	310R4	258	4.6	209,200	17.4	22	71 to 160	N56C to N280TC	19,200	24,800	11,000	421,296
	310R4	283	4.2	246,500	18.7	22	71 to 160	N56C to N280TC	19,500	25,100	11,400	421,296
	310R4	305	3.9	215,200	15.2	22	71 to 160	N56C to N280TC	19,700	25,400	11,700	421,296
	310R4	334	3.6	258,300	16.6	22	71 to 160	N56C to N280TC	19,900	25,700	12,000	421,296
	310R4	363	3.3	221,600	13.1	22	71 to 160	N56C to N280TC	20,200	26,000	12,400	421,296
	310R4	419	2.9	272,700	14.0	22	71 to 160	N56C to N280TC	20,600	26,600	13,000	421,296
	310R4	454	2.6	185,500	8.8	22	71 to 160	N56C to N280TC	20,800	26,900	13,300	421,296
	310R4	517	2.3	235,200	9.8	22	71 to 160	N56C to N280TC	21,200	27,400	13,900	421,296
	310R4	590	2.0	192,900	7.0	22	71 to 160	N56C to N280TC	21,600	27,900	14,500	421,296
	310R4	639	1.9	200,000	6.7	22	71 to 160	N56C to N280TC	21,900	28,200	14,600	421,296
	310R4	757	1.6	238,200	6.8	22	71 to 160	N56C to N280TC	22,400	28,900	14,600	421,296
310R4	898	1.3	215,700	5.2	22	71 to 160	N56C to N280TC	23,000	29,600	14,600	421,296	






311 R



382

427,760 lb-in

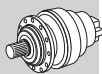
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	311R2B	12.0	150	99,600	201	82	180 to 250	N320TC to N360TC	11,800	15,100	3,470	515,999
	311R2B	15.4	117	129,300	201	82	180 to 250	N320TC to N360TC	12,700	16,300	3,770	515,999
	311R2B	18.3	98	134,300	201	82	180 to 250	N320TC to N360TC	13,400	17,200	3,990	515,999
	311R2C	16.6	108	120,500	201	99	180 to 250	N320TC to N360TC	13,000	16,700	3,860	515,999
	311R2C	21.3	84	141,900	201	99	180 to 250	N320TC to N360TC	14,000	18,000	4,200	515,999
	311R2C	25.3	71	147,500	177	99	180 to 250	N320TC to N360TC	14,700	18,900	4,450	515,999
	311R3	53.0	34	169,800	100	44	132 to 200	N280TC	18,400	23,600	5,680	515,999
	311R3	63.2	28.5	201,100	100	44	132 to 200	N280TC	19,400	24,700	6,030	515,999
	311R3	68.0	26.5	200,800	92	44	132 to 200	N280TC	19,800	24,700	6,180	515,999
	311R3	81.1	22.2	216,700	84	44	132 to 200	N280TC	20,900	24,700	6,550	515,999
	311R3	96.3	18.7	228,200	74	44	132 to 200	N280TC	21,500	24,700	6,940	515,999
	311R3	104	17.3	240,100	72	44	132 to 200	N280TC	21,500	24,700	7,120	515,999
	311R3	124	14.6	252,900	64	44	132 to 200	N280TC	21,500	24,700	7,540	515,999
	311R3	147	12.3	227,900	49	44	132 to 200	N280TC	21,500	24,700	7,980	515,999
	311R4	154	11.7	221,400	46	24	71 to 160	N56C to N280TC	21,500	24,700	8,120	515,999
	311R4	182	9.9	261,400	46	24	71 to 160	N56C to N280TC	21,600	24,800	8,580	515,999
	311R4	198	9.1	283,300	46	24	71 to 160	N56C to N280TC	21,800	25,100	8,820	515,999
	311R4	229	7.9	295,800	42	24	71 to 160	N56C to N280TC	22,300	25,600	9,260	515,999
	311R4	266	6.8	309,400	38	24	71 to 160	N56C to N280TC	22,800	26,100	9,730	515,999
	311R4	294	6.1	318,800	35	24	71 to 160	N56C to N280TC	23,100	26,500	10,100	515,999
311R4	322	5.6	327,600	33	24	71 to 160	N56C to N280TC	23,400	26,900	10,400	515,999	
311R4	341	5.3	333,500	32	24	71 to 160	N56C to N280TC	23,600	27,100	10,600	515,999	
311R4	413	4.4	347,400	27	24	71 to 160	N56C to N280TC	24,200	27,800	11,300	515,999	
311R4	438	4.1	322,100	24	24	71 to 160	N56C to N280TC	24,500	28,100	11,500	515,999	
311R4	490	3.7	305,400	20	24	71 to 160	N56C to N280TC	24,800	28,500	11,900	515,999	

311 R






382

427,760 lb-in



B




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2} max lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	311R4	520	3.5	331,500	21	24	71 to 160	N56C to N280TC	25,100	28,800	12,200	515,999
	311R4	629	2.9	342,300	17.6	24	71 to 160	N56C to N280TC	25,700	29,600	13,000	515,999
	311R4	746	2.4	262,500	11.4	24	71 to 160	N56C to N280TC	26,400	30,300	13,700	515,999
1200	311R2B	12.0	100	112,500	189	112	180 to 250	N320TC to N360TC	13,300	17,100	3,970	515,999
	311R2B	15.4	78	145,900	191	112	180 to 250	N320TC to N360TC	14,300	18,400	4,310	515,999
	311R2B	18.3	66	151,700	168	112	180 to 250	N320TC to N360TC	15,100	19,400	4,570	515,999
	311R2C	16.6	72	136,000	165	134	180 to 250	N320TC to N360TC	14,700	18,800	4,420	515,999
	311R2C	21.3	56	160,200	152	134	180 to 250	N320TC to N360TC	15,800	20,300	4,810	515,999
	311R2C	25.3	47	165,700	132	134	180 to 250	N320TC to N360TC	16,600	21,400	5,090	515,999
	311R3	53.0	22.6	191,800	76	59	132 to 200	N280TC	20,700	24,700	6,510	515,999
	311R3	63.2	19.0	227,100	75	59	132 to 200	N280TC	21,500	24,700	6,900	515,999
	311R3	68.0	17.6	226,700	70	59	132 to 200	N280TC	21,500	24,700	7,070	515,999
	311R3	81.1	14.8	244,800	63	59	132 to 200	N280TC	21,500	24,700	7,500	515,999
	311R3	96.3	12.5	257,700	56	59	132 to 200	N280TC	21,500	24,700	7,940	515,999
	311R3	104	11.5	271,400	54	59	132 to 200	N280TC	21,500	24,700	8,150	515,999
	311R3	124	9.7	284,400	48	59	132 to 200	N280TC	21,600	24,800	8,630	515,999
	311R3	147	8.2	239,000	34	59	132 to 200	N280TC	22,200	25,400	9,140	515,999
	311R4	154	7.8	250,000	35	33	71 to 160	N56C to N280TC	22,300	25,600	9,290	515,999
	311R4	182	6.6	295,100	35	33	71 to 160	N56C to N280TC	22,900	26,300	9,820	515,999
	311R4	198	6.1	319,900	35	33	71 to 160	N56C to N280TC	23,100	26,600	10,100	515,999
	311R4	229	5.2	334,000	31	33	71 to 160	N56C to N280TC	23,600	27,100	10,600	515,999
	311R4	266	4.5	348,000	28	33	71 to 160	N56C to N280TC	24,100	27,700	11,100	515,999
	311R4	294	4.1	351,400	26	33	71 to 160	N56C to N280TC	24,500	28,100	11,500	515,999
	311R4	322	3.7	365,700	24	33	71 to 160	N56C to N280TC	24,800	28,500	11,900	515,999
311R4	341	3.5	361,100	23	33	71 to 160	N56C to N280TC	25,000	28,700	12,100	515,999	
311R4	413	2.9	373,700	19.5	33	71 to 160	N56C to N280TC	25,700	29,500	12,900	515,999	
311R4	438	2.7	344,800	16.9	33	71 to 160	N56C to N280TC	25,900	29,800	13,200	515,999	
311R4	490	2.4	305,500	13.4	33	71 to 160	N56C to N280TC	26,300	30,200	13,700	515,999	
311R4	520	2.3	352,700	14.6	33	71 to 160	N56C to N280TC	26,600	30,500	13,900	515,999	
311R4	629	1.9	358,800	12.3	33	71 to 160	N56C to N280TC	27,300	31,300	14,600	515,999	
311R4	746	1.6	279,600	8.1	33	71 to 160	N56C to N280TC	28,000	32,100	14,600	515,999	

313 R



400

513,100 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2} max lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	313R2B	12.2	148	101,500	201	82	180 to 250	N320TC to N360TC	16,400	20,500	4,280	763,820
	313R2B	15.9	113	132,100	201	82	180 to 250	N320TC to N360TC	17,700	22,200	4,680	763,820
	313R2B	19.1	94	159,600	201	82	180 to 250	N320TC to N360TC	18,800	23,500	4,980	763,820
	313R2C	16.8	107	122,000	201	99	180 to 250	N320TC to N360TC	18,100	22,600	4,780	929,329
	313R2C	22.0	82	159,000	201	99	180 to 250	N320TC to N360TC	19,600	24,500	5,220	929,329
	313R2C	26.4	68	191,400	201	99	180 to 250	N320TC to N360TC	20,700	25,900	5,550	929,329
	313R3	53.7	34	172,000	100	44	132 to 200	N280TC	25,600	32,000	7,030	929,329
	313R3	64.0	28.1	205,200	100	44	132 to 200	N280TC	27,000	33,800	7,450	929,329
	313R3	69.9	25.7	224,100	100	44	132 to 200	N280TC	27,700	34,700	7,670	929,329
	313R3	82.2	21.9	263,400	100	44	132 to 200	N280TC	29,100	36,400	8,100	929,329
	313R3	97.5	18.5	312,500	100	44	132 to 200	N280TC	29,900	37,400	8,570	929,329
	313R3	107	16.8	326,200	95	44	132 to 200	N280TC	29,900	37,400	8,850	929,329
313R3	127	14.2	342,100	84	44	132 to 200	N280TC	29,900	37,400	9,370	929,329	
313R3	153	11.8	333,500	68	44	132 to 200	N280TC	29,900	37,400	9,960	929,329	

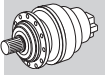
313 R



400

513,100 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	313R4	185	9.8	264,700	46	24	71 to 160	N56C to N280TC	30,000	37,500	10,600	929,329
	313R4	201	9.0	287,700	46	24	71 to 160	N56C to N280TC	30,300	38,000	10,900	929,329
	313R4	237	7.6	339,600	46	24	71 to 160	N56C to N280TC	31,100	38,900	11,500	929,329
	313R4	281	6.4	403,100	46	24	71 to 160	N56C to N280TC	31,800	39,900	12,200	929,329
	313R4	309	5.8	388,500	41	24	71 to 160	N56C to N280TC	32,300	40,400	12,600	929,329
	313R4	346	5.2	460,700	43	24	71 to 160	N56C to N280TC	32,800	41,100	13,100	929,329
	313R4	387	4.6	402,500	34	24	71 to 160	N56C to N280TC	33,300	41,700	13,600	929,329
	313R4	450	4.0	411,400	29	24	71 to 160	N56C to N280TC	34,100	42,600	14,300	929,329
	313R4	496	3.6	461,200	30	24	71 to 160	N56C to N280TC	34,500	43,200	14,700	929,329
	313R4	535	3.4	421,600	25	24	71 to 160	N56C to N280TC	34,900	43,700	15,100	929,329
	313R4	647	2.8	433,400	22	24	71 to 160	N56C to N280TC	35,900	44,900	16,100	929,329
	313R4	778	2.3	379,900	15.7	24	71 to 160	N56C to N280TC	36,800	46,100	17,100	929,329
1200	313R2B	12.2	99	114,700	191	112	180 to 250	N320TC to N360TC	18,500	23,200	4,900	763,820
	313R2B	15.9	76	148,600	190	112	180 to 250	N320TC to N360TC	20,000	25,100	5,360	763,820
	313R2B	19.1	63	181,800	193	112	180 to 250	N320TC to N360TC	21,200	26,500	5,700	763,820
	313R2C	16.8	71	137,800	165	134	180 to 250	N320TC to N360TC	20,400	25,600	5,470	929,329
	313R2C	22.0	55	179,500	165	134	180 to 250	N320TC to N360TC	22,100	27,700	5,970	929,329
	313R2C	26.4	45	213,700	164	134	180 to 250	N320TC to N360TC	23,400	29,300	6,350	929,329
	313R3	53.7	22.4	194,200	76	59	132 to 200	N280TC	28,900	36,200	8,040	929,329
	313R3	64.0	18.7	231,800	76	59	132 to 200	N280TC	29,900	37,400	8,530	929,329
	313R3	69.9	17.2	253,100	75	59	132 to 200	N280TC	29,900	37,400	8,790	929,329
	313R3	82.2	14.6	297,400	76	59	132 to 200	N280TC	29,900	37,400	9,270	929,329
	313R3	97.5	12.3	353,000	76	59	132 to 200	N280TC	29,900	37,400	9,810	929,329
	313R3	107	11.2	365,200	71	59	132 to 200	N280TC	29,900	37,400	10,100	929,329
	313R3	127	9.4	378,700	62	59	132 to 200	N280TC	30,100	37,700	10,700	929,329
	313R3	153	7.8	345,200	47	59	132 to 200	N280TC	30,900	38,700	11,400	929,329
	313R4	185	6.5	298,900	35	33	71 to 160	N56C to N280TC	31,800	39,800	12,100	929,329
	313R4	201	6.0	324,900	35	33	71 to 160	N56C to N280TC	32,200	40,300	12,500	929,329
	313R4	237	5.1	383,600	35	33	71 to 160	N56C to N280TC	32,900	41,200	13,200	929,329
	313R4	281	4.3	436,600	33	33	71 to 160	N56C to N280TC	33,700	42,200	14,000	929,329
	313R4	309	3.9	408,900	28	33	71 to 160	N56C to N280TC	34,200	42,800	14,400	929,329
	313R4	346	3.5	476,200	30	33	71 to 160	N56C to N280TC	34,800	43,500	15,000	929,329
	313R4	387	3.1	426,800	24	33	71 to 160	N56C to N280TC	35,300	44,200	15,500	929,329
	313R4	450	2.7	436,100	21	33	71 to 160	N56C to N280TC	36,100	45,200	16,300	929,329
	313R4	496	2.4	460,600	20.0	33	71 to 160	N56C to N280TC	36,600	45,800	16,900	929,329
	313R4	535	2.2	448,100	18.0	33	71 to 160	N56C to N280TC	37,000	46,300	17,300	929,329
313R4	647	1.9	462,700	15.4	33	71 to 160	N56C to N280TC	38,000	47,600	18,000	929,329	
313R4	778	1.5	405,000	11.2	33	71 to 160	N56C to N280TC	39,000	48,900	18,000	929,329	






314 R




318

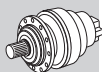
743,470 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	314R3B	51.1	35	322,700	174	60	180 to 225	N320TC to N360TC	24,600	30,000	7,780	1,017,836
	314R3B	65.5	27.5	415,300	174	60	180 to 225	N320TC to N360TC	26,500	32,400	8,450	1,017,836
	314R3B	77.8	23.1	432,500	174	60	180 to 225	N320TC to N360TC	27,900	34,100	8,950	1,017,836
	314R3B	82.3	21.9	439,600	167	60	180 to 225	N320TC to N360TC	28,400	34,600	9,110	1,017,836
	314R3B	97.6	18.4	462,100	148	60	180 to 225	N320TC to N360TC	29,200	35,600	9,650	1,017,836
	314R3B	113	15.9	403,300	111	60	180 to 225	N320TC to N360TC	29,200	35,600	10,100	1,017,836
	314R3C	70.7	25.5	368,100	163	60	180 to 250	N320TC to N360TC	27,100	33,100	8,670	1,017,836
	314R3C	90.7	19.8	396,800	137	60	180 to 250	N320TC to N360TC	29,200	35,600	9,420	1,017,836




314 R

 318

743,470 lb-in






B

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in	
									NHC/NPC	HZ/PZ	FZ		
1800	314R3C	108	16.7	417,700	121	60	180 to 250	N320TC to N360TC	29,200	35,600	9,970	1,017,836	
	314R3C	114	15.8	434,600	119	60	180 to 250	N320TC to N360TC	29,200	35,600	10,200	1,017,836	
	314R3C	135	13.3	508,000	118	60	180 to 250	N320TC to N360TC	29,200	35,600	10,800	1,017,836	
	314R3C	157	11.5	442,700	88	60	180 to 250	N320TC to N360TC	29,200	35,600	11,300	1,017,836	
	314R4	160	11.2	470,700	47	24	71 to 160	N56C to N280TC	29,200	35,600	11,400	1,017,836	
	314R4	189	9.5	494,700	47	24	71 to 160	N56C to N280TC	29,400	35,800	12,000	1,017,836	
	314R4	238	7.6	597,700	47	24	71 to 160	N56C to N280TC	30,300	37,000	13,000	1,017,836	
	314R4	276	6.5	635,000	47	24	71 to 160	N56C to N280TC	31,000	37,800	13,600	1,017,836	
	314R4	354	5.1	684,400	47	24	71 to 160	N56C to N280TC	32,100	39,200	14,800	1,017,836	
	314R4	421	4.3	691,500	47	24	71 to 160	N56C to N280TC	32,900	40,200	15,700	1,017,836	
	314R4	445	4.0	590,300	43	24	71 to 160	N56C to N280TC	33,200	40,500	16,000	1,017,836	
	314R4	528	3.4	599,400	37	24	71 to 160	N56C to N280TC	34,000	41,500	16,900	1,017,836	
	314R4	614	2.9	496,700	26	24	71 to 160	N56C to N280TC	34,700	42,400	17,800	1,017,836	
	1200	314R3B	51.1	23.5	364,500	149	82	180 to 225	N320TC to N360TC	27,800	33,900	8,900	1,017,836
		314R3B	65.5	18.3	472,300	150	82	180 to 225	N320TC to N360TC	29,200	35,600	9,670	1,017,836
		314R3B	77.8	15.4	486,700	131	82	180 to 225	N320TC to N360TC	29,200	35,600	10,200	1,017,836
314R3B		82.3	14.6	494,700	125	82	180 to 225	N320TC to N360TC	29,200	35,600	10,400	1,017,836	
314R3B		97.6	12.3	520,000	111	82	180 to 225	N320TC to N360TC	29,200	35,600	11,000	1,017,836	
314R3B		113	10.6	452,900	83	82	180 to 225	N320TC to N360TC	29,200	35,600	11,600	1,017,836	
314R3C		70.7	17.0	415,800	123	82	180 to 250	N320TC to N360TC	29,200	35,600	9,920	1,017,836	
314R3C		90.7	13.2	448,100	103	82	180 to 250	N320TC to N360TC	29,200	35,600	10,800	1,017,836	
314R3C		108	11.1	471,700	91	82	180 to 250	N320TC to N360TC	29,200	35,600	11,400	1,017,836	
314R3C		114	10.5	488,200	89	82	180 to 250	N320TC to N360TC	29,200	35,600	11,600	1,017,836	
314R3C		135	8.9	556,800	86	82	180 to 250	N320TC to N360TC	29,700	36,200	12,300	1,017,836	
314R3C		157	7.6	460,200	61	82	180 to 250	N320TC to N360TC	30,300	37,000	12,900	1,017,836	
314R4		160	7.5	531,600	47	33	71 to 160	N56C to N280TC	30,400	37,100	13,000	1,017,836	
314R4		189	6.3	558,800	47	33	71 to 160	N56C to N280TC	31,100	38,000	13,800	1,017,836	
314R4		238	5.1	670,700	47	33	71 to 160	N56C to N280TC	32,100	39,200	14,900	1,017,836	
314R4		276	4.3	691,100	47	33	71 to 160	N56C to N280TC	32,800	40,100	15,600	1,017,836	
314R4		354	3.4	698,700	42	33	71 to 160	N56C to N280TC	34,000	41,500	17,000	1,017,836	
314R4		421	2.9	704,000	36	33	71 to 160	N56C to N280TC	34,900	42,600	18,000	1,017,836	
314R4		445	2.7	611,900	30	33	71 to 160	N56C to N280TC	35,200	42,900	18,300	1,017,836	
314R4		528	2.3	624,300	25	33	71 to 160	N56C to N280TC	36,000	44,000	19,400	1,017,836	
314R4		614	2.0	529,200	18.5	33	71 to 160	N56C to N280TC	36,800	44,900	20,200	1,017,836	

315 R

 434

930,000 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in
									NHC/NPC	HZ/PZ	FZ	
1800	315R3B	51.1	35	403,400	201	82	180 to 250	N320TC to N360TC	24,600	30,000	7,780	1,194,851
	315R3B	65.5	27.5	519,100	201	82	180 to 250	N320TC to N360TC	26,500	32,400	8,450	1,194,851
	315R3B	77.8	23.1	540,600	201	82	180 to 250	N320TC to N360TC	27,900	34,100	8,950	1,194,851
	315R3B	82.3	21.9	549,500	201	82	180 to 250	N320TC to N360TC	28,400	34,600	9,110	1,194,851
	315R3B	97.6	18.4	577,600	185	82	180 to 250	N320TC to N360TC	29,200	35,600	9,650	1,194,851
	315R3B	113	15.9	504,100	139	82	180 to 250	N320TC to N360TC	29,200	35,600	10,100	1,194,851
	315R3C	70.7	25.5	460,200	201	99	180 to 250	N320TC to N360TC	27,100	33,100	8,670	1,194,851
	315R3C	90.7	19.8	495,900	171	99	180 to 250	N320TC to N360TC	29,200	35,600	9,420	1,194,851
	315R3C	108	16.7	522,100	152	99	180 to 250	N320TC to N360TC	29,200	35,600	9,970	1,194,851
	315R3C	114	15.8	543,200	149	99	180 to 250	N320TC to N360TC	29,200	35,600	10,200	1,194,851
	315R3C	135	13.3	635,000	147	99	180 to 250	N320TC to N360TC	29,200	35,600	10,800	1,194,851
	315R3C	157	11.5	553,300	110	99	180 to 250	N320TC to N360TC	29,200	35,600	11,300	1,194,851

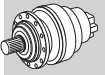
315 R



434

930,000 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in	
									NHC/NPC	HZ/PZ	FZ		
1800	315R4	225	8.0	651,500	93	44	132 to 200	N280TC	30,100	36,700	12,700	1,194,851	
	315R4	269	6.7	686,900	82	44	132 to 200	N280TC	30,900	37,700	13,500	1,194,851	
	315R4	345	5.2	830,600	78	44	132 to 200	N280TC	32,000	39,100	14,700	1,194,851	
	315R4	409	4.4	863,400	68	44	132 to 200	N280TC	32,800	40,000	15,600	1,194,851	
	315R4	525	3.4	872,900	54	44	132 to 200	N280TC	34,000	41,500	16,900	1,194,851	
	315R4	623	2.9	879,500	46	44	132 to 200	N280TC	34,800	42,500	17,900	1,194,851	
	315R4	659	2.7	764,000	37	44	132 to 200	N280TC	35,100	42,800	18,200	1,194,851	
	315R4	782	2.3	779,100	32	44	132 to 200	N280TC	36,000	43,900	19,300	1,194,851	
	315R4	909	2.0	660,200	23	44	132 to 200	N280TC	36,700	44,900	20,200	1,194,851	
1200	315R3B	51.1	23.5	455,600	186	112	180 to 250	N320TC to N360TC	27,800	33,900	8,900	1,194,851	
	315R3B	65.5	18.3	590,300	188	112	180 to 250	N320TC to N360TC	29,200	35,600	9,670	1,194,851	
	315R3B	77.8	15.4	608,400	163	112	180 to 250	N320TC to N360TC	29,200	35,600	10,200	1,194,851	
	315R3B	82.3	14.6	618,400	157	112	180 to 250	N320TC to N360TC	29,200	35,600	10,400	1,194,851	
	315R3B	97.6	12.3	650,100	139	112	180 to 250	N320TC to N360TC	29,200	35,600	11,000	1,194,851	
	315R3B	113	10.6	566,200	104	112	180 to 250	N320TC to N360TC	29,200	35,600	11,600	1,194,851	
	315R3C	70.7	17.0	519,700	153	134	180 to 250	N320TC to N360TC	29,200	35,600	9,920	1,194,851	
	315R3C	90.7	13.2	560,100	129	134	180 to 250	N320TC to N360TC	29,200	35,600	10,800	1,194,851	
	315R3C	108	11.1	589,600	114	134	180 to 250	N320TC to N360TC	29,200	35,600	11,400	1,194,851	
	315R3C	114	10.5	610,300	112	134	180 to 250	N320TC to N360TC	29,200	35,600	11,600	1,194,851	
	315R3C	135	8.9	696,100	107	134	180 to 250	N320TC to N360TC	29,700	36,200	12,300	1,194,851	
	315R3C	157	7.6	575,300	76	134	180 to 250	N320TC to N360TC	30,300	37,000	12,900	1,194,851	
		315R4	225	5.3	735,700	70	59	132 to 200	N280TC	31,900	38,900	14,600	1,194,851
		315R4	269	4.5	769,200	62	59	132 to 200	N280TC	32,700	39,900	15,500	1,194,851
		315R4	345	3.5	863,700	54	59	132 to 200	N280TC	33,900	41,400	16,800	1,194,851
		315R4	409	2.9	878,900	46	59	132 to 200	N280TC	34,700	42,400	17,800	1,194,851
		315R4	525	2.3	889,300	36	59	132 to 200	N280TC	36,000	43,900	19,400	1,194,851
		315R4	623	1.9	897,500	31	59	132 to 200	N280TC	36,900	45,000	20,200	1,194,851
		315R4	659	1.8	805,200	26	59	132 to 200	N280TC	37,200	45,400	20,200	1,194,851
		315R4	782	1.5	824,900	23	59	132 to 200	N280TC	38,100	46,500	20,200	1,194,851
		315R4	909	1.3	705,900	16.7	59	132 to 200	N280TC	38,900	47,500	20,200	1,194,851






316 R




450

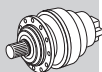
1,228,660 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb-in	
									HC/PC	HZ/PZ	FZ		
1800	316R3B	51.1	35	418,100	201	82	180 to 250	N320TC to N360TC	38,300	42,500	13,000	1,699,344	
	316R3B	65.5	27.5	533,500	201	82	180 to 250	N320TC to N360TC	41,300	45,800	14,100	1,699,344	
	316R3B	77.8	23.1	551,400	201	82	180 to 250	N320TC to N360TC	43,500	48,200	14,900	1,699,344	
	316R3C	70.7	25.5	496,500	201	99	180 to 250	N320TC to N360TC	42,200	46,800	14,400	1,699,344	
	316R3C	90.7	19.8	584,700	201	99	180 to 250	N320TC to N360TC	45,400	50,300	15,700	1,699,344	
	316R3C	108	16.7	607,900	177	99	180 to 250	N320TC to N360TC	45,400	50,300	16,600	1,699,344	
		316R4	225	8.0	792,200	113	49	132 to 200	N280TC	46,900	52,000	21,200	1,699,344
		316R4	269	6.7	835,200	100	49	132 to 200	N280TC	48,100	53,300	22,500	1,699,344
		316R4	289	6.2	881,400	98	49	132 to 200	N280TC	48,600	53,900	23,100	1,699,344
		316R4	345	5.2	900,000	84	49	132 to 200	N280TC	49,800	55,200	24,500	1,699,344
	316R4	409	4.4	946,100	75	49	132 to 200	N280TC	51,100	56,600	25,900	1,699,344	
	316R4	443	4.1	994,300	72	49	132 to 200	N280TC	51,600	57,200	26,600	1,699,344	
	316R4	525	3.4	1,004,100	62	49	132 to 200	N280TC	52,900	58,700	28,200	1,699,344	
	316R4	623	2.9	985,900	51	49	132 to 200	N280TC	54,200	60,100	29,800	1,699,344	




316 R

 450


1,228,660 lb-in






B

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2} max lb-in
									HC/PC	HZ/PZ	FZ	
1200	316R3B	51.1	23.5	475,200	194	112	180 to 250	N320TC to N360TC	43,300	48,000	14,800	1,699,344
	316R3B	65.5	18.3	605,400	193	112	180 to 250	N320TC to N360TC	45,400	50,300	16,100	1,699,344
	316R3B	77.8	15.4	622,700	167	112	180 to 250	N320TC to N360TC	45,400	50,300	17,100	1,699,344
	316R3C	70.7	17.0	560,800	165	134	180 to 250	N320TC to N360TC	45,400	50,300	16,500	1,699,344
	316R3C	90.7	13.2	660,300	152	134	180 to 250	N320TC to N360TC	45,400	50,300	18,000	1,699,344
	316R3C	108	11.1	686,500	133	134	180 to 250	N320TC to N360TC	45,400	50,300	19,000	1,699,344
	316R4	225	5.3	894,400	85	67	132 to 200	N280TC	49,700	55,100	24,300	1,699,344
	316R4	269	4.5	942,100	75	67	132 to 200	N280TC	51,000	56,500	25,800	1,699,344
	316R4	289	4.2	989,400	74	67	132 to 200	N280TC	51,500	57,100	26,400	1,699,344
	316R4	345	3.5	1,012,900	63	67	132 to 200	N280TC	52,800	58,500	28,000	1,699,344
316R4	409	2.9	1,064,100	56	67	132 to 200	N280TC	54,100	60,000	29,700	1,699,344	
316R4	443	2.7	1,094,000	53	67	132 to 200	N280TC	54,700	60,700	30,500	1,699,344	
316R4	525	2.3	1,101,500	45	67	132 to 200	N280TC	56,100	62,200	32,300	1,699,344	
316R4	623	1.9	1,039,900	36	67	132 to 200	N280TC	57,500	63,700	33,700	1,699,344	

317 R

 462

1,662,700 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	R _{n2} [lbs]			T _{n2} max lb-in
									HC/PC	HZ/PZ	FZ	
1800	317R3B	49.8	36	393,200	201	99	180 to 250	N320TC to N360TC	59,200	62,800	12,800	3,478,345
	317R3B	64.9	27.7	512,600	201	99	180 to 250	N320TC to N360TC	64,100	68,000	14,000	3,478,345
	317R3B	78.1	23.0	627,000	201	99	180 to 250	N320TC to N360TC	67,700	71,900	14,900	3,478,345
	317R3B	83.3	21.6	671,300	201	99	180 to 250	N320TC to N360TC	69,000	73,300	15,300	3,478,345
	317R3B	100	18.0	803,900	201	99	180 to 250	N320TC to N360TC	70,700	75,100	16,200	3,478,345
	317R3B	119	15.1	931,600	201	99	180 to 250	N320TC to N360TC	70,700	75,100	17,200	3,478,345
	317R3C	68.9	26.1	484,100	201	110	180 to 250	N320TC to N360TC	65,200	69,300	14,300	3,478,345
	317R3C	89.8	20.0	630,900	201	110	180 to 250	N320TC to N360TC	70,600	75,000	15,600	3,478,345
	317R3C	108	16.6	759,500	201	110	180 to 250	N320TC to N360TC	70,700	75,100	16,600	3,478,345
	317R3C	115	15.6	809,700	201	110	180 to 250	N320TC to N360TC	70,700	75,100	17,000	3,478,345
	317R3C	139	13.0	974,700	201	110	180 to 250	N320TC to N360TC	70,700	75,100	18,100	3,478,345
	317R3C	165	10.9	1,028,300	195	110	180 to 250	N320TC to N360TC	70,700	75,100	19,100	3,478,345
	317R4	220	8.2	682,500	100	55	132 to 200	N280TC	72,700	77,200	21,100	3,478,345
	317R4	262	6.9	814,300	100	55	132 to 200	N280TC	74,500	79,200	22,300	3,478,345
	317R4	336	5.4	1,045,100	100	55	132 to 200	N280TC	77,300	82,100	24,300	3,478,345
	317R4	399	4.5	1,240,300	100	55	132 to 200	N280TC	79,200	84,100	25,700	3,478,345
	317R4	438	4.1	1,320,200	97	55	132 to 200	N280TC	80,200	85,200	26,500	3,478,345
	317R4	520	3.5	1,385,600	86	55	132 to 200	N280TC	82,200	87,300	28,100	3,478,345
	317R4	626	2.9	1,351,600	70	55	132 to 200	N280TC	84,400	89,700	29,900	3,478,345
	317R4	677	2.7	1,443,100	69	55	132 to 200	N280TC	85,400	90,700	30,700	3,478,345
317R4	803	2.2	1,457,500	59	55	132 to 200	N280TC	87,500	92,900	32,500	3,478,345	
317R4	953	1.9	1,245,300	42	55	132 to 200	N280TC	89,700	95,200	33,700	3,478,345	
1200	317R3B	49.8	24.1	444,100	186	134	180 to 250	N320TC to N360TC	66,800	71,000	14,700	3,478,345
	317R3B	64.9	18.5	578,900	186	134	180 to 250	N320TC to N360TC	70,700	75,100	16,100	3,478,345
	317R3B	78.1	15.4	714,100	191	134	180 to 250	N320TC to N360TC	70,700	75,100	17,100	3,478,345
	317R3B	83.3	14.4	759,900	190	134	180 to 250	N320TC to N360TC	70,700	75,100	17,500	3,478,345
	317R3B	100	12.0	913,300	190	134	180 to 250	N320TC to N360TC	70,700	75,100	18,600	3,478,345
	317R3B	119	10.1	1,048,500	184	134	180 to 250	N320TC to N360TC	70,700	75,100	19,700	3,478,345
	317R3C	68.9	17.4	546,700	165	149	180 to 250	N320TC to N360TC	70,700	75,100	16,400	3,478,345
	317R3C	89.8	13.4	712,500	165	149	180 to 250	N320TC to N360TC	70,700	75,100	17,900	3,478,345
	317R3C	108	11.1	857,700	165	149	180 to 250	N320TC to N360TC	70,700	75,100	19,000	3,478,345
	317R3C	115	10.4	914,400	165	149	180 to 250	N320TC to N360TC	70,700	75,100	19,500	3,478,345

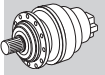
317 R



462

1,662,700 lb·in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb·in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb·in
									HC/PC	HZ/PZ	FZ	
1200	317R3C	139	8.6	1,100,800	165	149	180 to 250	N320TC to N360TC	72,100	76,600	20,700	3,478,345
	317R3C	165	7.3	1,055,900	134	149	180 to 250	N320TC to N360TC	73,900	78,500	21,900	3,478,345
	317R4	220	5.5	770,800	76	74	132 to 200	N280TC	77,000	81,800	24,100	3,478,345
	317R4	262	4.6	919,700	76	74	132 to 200	N280TC	79,000	83,900	25,600	3,478,345
	317R4	336	3.6	1,180,200	76	74	132 to 200	N280TC	81,900	87,000	27,800	3,478,345
	317R4	399	3.0	1,400,600	76	74	132 to 200	N280TC	83,900	89,100	29,400	3,478,345
	317R4	438	2.7	1,480,300	73	74	132 to 200	N280TC	85,000	90,300	30,400	3,478,345
	317R4	520	2.3	1,528,500	63	74	132 to 200	N280TC	87,100	92,600	32,200	3,478,345
	317R4	626	1.9	1,371,900	47	74	132 to 200	N280TC	89,500	95,000	33,700	3,478,345
	317R4	677	1.8	1,471,000	47	74	132 to 200	N280TC	90,500	96,100	33,700	3,478,345
	317R4	803	1.5	1,481,000	40	74	132 to 200	N280TC	92,700	98,500	33,700	3,478,345
	317R4	953	1.3	1,330,900	30	74	132 to 200	N280TC	95,000	100,900	33,700	3,478,345






318 R



474

2,483,350 lb·in

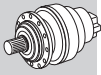
n ₁ rpm		i	n ₂ rpm	T _{n2} lb·in	P _{n1} hp	Pt hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			T _{n2 max} lb·in
									HC/PC	HZ/PZ	FZ	
1800	318R4B	225	8.0	1,677,500	201	99	180 to 250	N320TC to N360TC	74,400	77,800	28,300	4,425,375
	318R4B	288	6.2	1,807,800	201	99	180 to 250	N320TC to N360TC	77,100	80,700	30,800	4,425,375
	318R4B	342	5.3	1,903,100	179	99	180 to 250	N320TC to N360TC	79,000	82,700	32,600	4,425,375
	318R4B	362	5.0	1,934,900	172	99	180 to 250	N320TC to N360TC	79,600	83,300	33,200	4,425,375
	318R4B	430	4.2	2,026,000	152	99	180 to 250	N320TC to N360TC	81,600	85,400	35,100	4,425,375
	318R4B	499	3.6	2,109,700	136	99	180 to 250	N320TC to N360TC	83,400	87,200	36,900	4,425,375
	318R4C	311	5.8	1,849,400	192	121	180 to 250	N320TC to N360TC	77,900	81,500	31,600	4,425,375
	318R4C	399	4.5	1,986,700	161	121	180 to 250	N320TC to N360TC	80,800	84,500	34,300	4,425,375
	318R4C	474	3.8	2,080,200	142	121	180 to 250	N320TC to N360TC	82,800	86,600	36,300	4,425,375
	318R4C	501	3.6	2,111,600	136	121	180 to 250	N320TC to N360TC	83,400	87,300	37,000	4,425,375
	318R4C	595	3.0	2,211,000	120	121	180 to 250	N320TC to N360TC	85,500	89,400	39,200	4,425,375
	318R4C	691	2.6	2,302,300	107	121	180 to 250	N320TC to N360TC	87,300	91,400	41,200	4,425,375
	1200	318R4B	225	5.3	1,894,400	181	134	180 to 250	N320TC to N360TC	78,800	82,500	32,400
318R4B		288	4.2	2,029,900	151	134	180 to 250	N320TC to N360TC	81,700	85,500	35,200	4,425,375
318R4B		342	3.5	2,125,500	134	134	180 to 250	N320TC to N360TC	83,700	87,600	37,300	4,425,375
318R4B		362	3.3	2,157,600	128	134	180 to 250	N320TC to N360TC	84,400	88,300	38,000	4,425,375
318R4B		430	2.8	2,259,200	113	134	180 to 250	N320TC to N360TC	86,500	90,500	40,200	4,425,375
318R4B		499	2.4	2,334,200	101	134	180 to 250	N320TC to N360TC	88,400	92,400	42,300	4,425,375
318R4C		311	3.9	2,071,700	143	164	180 to 250	N320TC to N360TC	82,600	86,400	36,100	4,425,375
318R4C		399	3.0	2,215,300	119	164	180 to 250	N320TC to N360TC	85,600	89,500	39,300	4,425,375
318R4C		474	2.5	2,319,600	105	164	180 to 250	N320TC to N360TC	87,700	91,700	41,600	4,425,375
318R4C		501	2.4	2,334,700	100	164	180 to 250	N320TC to N360TC	88,400	92,500	42,300	4,425,375
318R4C		595	2.0	2,363,100	85	164	180 to 250	N320TC to N360TC	90,600	94,800	44,800	4,425,375
318R4C		691	1.7	2,388,400	74	164	180 to 250	N320TC to N360TC	92,600	96,800	45,000	4,425,375

319 R



486

3573230 lb-in



B

n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in	
								HC/PC	HZ/PZ	FZ		
1800	319R4B	249	7.2	1,907,900	201	104	180 to 250	N320TC to N360TC	85,500	94,200	29,300	6,018,510
	319R4B	320	5.6	2,416,900	201	104	180 to 250	N320TC to N360TC	88,700	97,600	31,800	6,018,510
	319R4B	379	4.7	2,552,200	201	104	180 to 250	N320TC to N360TC	90,800	100,000	33,700	6,018,510
	319R4B	401	4.5	2,609,700	201	104	180 to 250	N320TC to N360TC	91,600	100,800	34,300	6,018,510
	319R4B	475	3.8	2,553,300	174	104	180 to 250	N320TC to N360TC	93,800	103,300	36,300	6,018,510
	319R4B	563	3.2	2,656,100	152	104	180 to 250	N320TC to N360TC	96,100	105,800	38,500	6,018,510
	319R4B	655	2.7	2,745,400	135	104	180 to 250	N320TC to N360TC	98,200	108,100	40,400	6,018,510
	319R4C	345	5.2	2,176,200	201	126	180 to 250	N320TC to N360TC	89,600	98,700	32,700	6,018,510
	319R4C	442	4.1	2,345,400	171	126	180 to 250	N320TC to N360TC	92,900	102,200	35,500	6,018,510
	319R4C	525	3.4	2,469,000	152	126	180 to 250	N320TC to N360TC	95,200	104,800	37,600	6,018,510
	319R4C	555	3.2	2,575,800	150	126	180 to 250	N320TC to N360TC	95,900	105,600	38,300	6,018,510
	319R4C	657	2.7	2,752,000	135	126	180 to 250	N320TC to N360TC	98,300	108,200	40,500	6,018,510
	319R4C	780	2.3	2,846,700	118	126	180 to 250	N320TC to N360TC	100,700	110,900	42,900	6,018,510
	319R4C	906	2.0	2,900,000	103	126	180 to 250	N320TC to N360TC	102,900	113,300	45,000	6,018,510
1200	319R4B	249	4.8	2,154,500	186	141	180 to 250	N320TC to N360TC	90,600	99,800	33,500	6,018,510
	319R4B	320	3.8	2,723,300	183	141	180 to 250	N320TC to N360TC	93,900	103,400	36,400	6,018,510
	319R4B	379	3.2	2,874,400	163	141	180 to 250	N320TC to N360TC	96,300	106,000	38,600	6,018,510
	319R4B	401	3.0	2,927,100	157	141	180 to 250	N320TC to N360TC	97,000	106,800	39,300	6,018,510
	319R4B	475	2.5	2,803,400	127	141	180 to 250	N320TC to N360TC	99,400	109,400	41,600	6,018,510
	319R4B	563	2.1	2,883,400	110	141	180 to 250	N320TC to N360TC	101,900	112,100	44,000	6,018,510
	319R4B	655	1.8	2,931,800	96	141	180 to 250	N320TC to N360TC	104,100	114,600	45,000	6,018,510
	319R4C	345	3.5	2,457,700	153	171	180 to 250	N320TC to N360TC	95,000	104,600	37,400	6,018,510
	319R4C	442	2.7	2,648,700	129	171	180 to 250	N320TC to N360TC	98,400	108,300	40,600	6,018,510
	319R4C	525	2.3	2,788,400	114	171	180 to 250	N320TC to N360TC	100,800	111,000	43,000	6,018,510
	319R4C	555	2.2	2,868,500	111	171	180 to 250	N320TC to N360TC	101,600	111,900	43,800	6,018,510
	319R4C	657	1.8	2,955,100	97	171	180 to 250	N320TC to N360TC	104,100	114,600	45,000	6,018,510
	319R4C	780	1.5	3,037,000	84	171	180 to 250	N320TC to N360TC	106,700	117,500	45,000	6,018,510
	319R4C	906	1.3	3,064,300	73	171	180 to 250	N320TC to N360TC	109,000	120,000	45,000	6,018,510

321 R




498




5,803,790 lb-in

n ₁ rpm	i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	Pt hp	P (IEC)	NEMA	R _{n2} [lbs]			T _{n2 max} lb-in		
								HC/PC	HZ/PZ	FZ			
1800	321R4B	221	8.1	1,717,700	201	115	180 to 250	N320TC to N360TC	119,000	141,600	169,000	8,266,601	
	321R4B	288	6.2	2,219,300	201	115	180 to 250	N320TC to N360TC	123,600	147,100	184,600	8,266,601	
	321R4B	347	5.2	2,686,800	201	115	180 to 250	N320TC to N360TC	126,900	151,000	196,400	8,266,601	
	321R4B	370	4.9	2,839,400	201	115	180 to 250	N320TC to N360TC	128,100	152,400	200,600	8,266,601	
	321R4B	446	4.0	3,444,300	201	115	180 to 250	N320TC to N360TC	131,500	156,500	213,400	8,266,601	
	321R4B	529	3.4	4,065,500	201	115	180 to 250	N320TC to N360TC	134,800	160,400	225,900	8,266,601	
	321R4C	306	5.9	2,086,800	201	137	180 to 250	N320TC to N360TC	124,600	148,400	188,400	8,266,601	
	321R4C	399	4.5	2,720,100	201	137	180 to 250	N320TC to N360TC	129,500	154,100	205,700	8,266,601	
	321R4C	481	3.7	3,274,200	201	137	180 to 250	N320TC to N360TC	132,900	158,200	218,900	8,266,601	
	321R4C	512	3.5	3,490,800	201	137	180 to 250	N320TC to N360TC	134,200	159,700	223,600	8,266,601	
	321R4C	617	2.9	4,201,800	201	137	180 to 250	N320TC to N360TC	137,800	164,000	237,800	8,266,601	
	321R4C	732	2.5	4,581,400	201	137	180 to 250	N320TC to N360TC	141,200	168,000	251,800	8,266,601	
	1200	321R4B	221	5.4	1,952,900	190	156	180 to 250	N320TC to N360TC	126,100	150,100	193,500	8,266,601
		321R4B	288	4.2	2,530,100	189	156	180 to 250	N320TC to N360TC	130,900	155,900	211,300	8,266,601
321R4B		347	3.5	3,031,700	188	156	180 to 250	N320TC to N360TC	134,500	160,100	224,800	8,266,601	
321R4B		370	3.2	3,258,300	189	156	180 to 250	N320TC to N360TC	135,700	161,500	229,600	8,266,601	
321R4B		446	2.7	3,860,500	186	156	180 to 250	N320TC to N360TC	139,300	165,900	244,300	8,266,601	
321R4B		529	2.3	4,482,500	182	156	180 to 250	N320TC to N360TC	142,800	170,000	258,600	8,266,601	
321R4C		306	3.9	2,356,700	165	186	180 to 250	N320TC to N360TC	132,100	157,200	215,600	8,266,601	
321R4C		399	3.0	3,071,800	165	186	180 to 250	N320TC to N360TC	137,200	163,300	235,500	8,266,601	
321R4C		481	2.5	3,697,500	165	186	180 to 250	N320TC to N360TC	140,900	167,700	250,500	8,266,601	
321R4C		512	2.3	3,942,400	165	186	180 to 250	N320TC to N360TC	142,200	169,200	255,900	8,266,601	
321R4C		617	1.9	4,746,400	165	186	180 to 250	N320TC to N360TC	146,000	173,700	269,800	8,266,601	
321R4C		732	1.6	4,655,400	137	186	180 to 250	N320TC to N360TC	149,600	178,100	269,800	8,266,601	

25.5 3/V - PLANETARYWORM RATING CHARTS

Reading the rating chart.



3/V 00 L3						226		11,060 lb-in				
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]				
							NHP/NPC	HZ/PZ	FZ			
1800	3/V 00L3	415	4.3	8,620	0.89	B5 / B14						
	3/V 00L3	436	4.1	6,460	0.67	63 to 80	N56C	5,020	6,330	1,390		
	3/V 00L3	509	3.5	8,920	0.75	63 to 71	N56C	5,050	6,380	1,410		
	3/V 00L3	562	3.2	6,200	0.47	63 to 80	N56C	5,160	6,520	1,490		
	3/V 00L3	654	2.8	9,320	0.65	63 to 80	N56C	5,240	6,610	1,540		
						63 to 71	N56C	5,350	6,760	1,620		

1 Reference torque

2 Gearbox drive speed

3 Frame size of combined worm + planetary gearbox

4 Gear ratio

5 Gearbox output speed

Gearbox rated output torque based on:

6 - service factor $f_s=1$
- 10000 h theoretical lifetime

Gearbox rated input power, based on:

7 - service factor $f_s=1$
- 10000 h theoretical lifetime

8 Frame size of compatible IEC electric motor.

9 Frame size of compatible NEMA electric motor.

10 Permitted overhung loading on output shaft, based on:

- service factor $f_s=1$
- 10000 h theoretical lifetime
- speed of output n_2

For forces not applied at shaft midpoint, see diagrams provided in the specific gearbox overall dimensioning pages

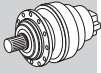
11 Dimensions page

3/V 00 L3






226

11,060 lb-in



B




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								NHP/NPC	HZ/PZ	FZ
1800	3/V 00L3	415	4.3	8,620	0.89	B5 / B14				
	3/V 00L3	436	4.1	6,460	0.67	63 to 80	N56C	5,020	6,330	1,390
	3/V 00L3	509	3.5	8,920	0.75	63 to 71	N56C	5,050	6,380	1,410
	3/V 00L3	562	3.2	6,200	0.47	63 to 80	N56C	5,160	6,520	1,490
	3/V 00L3	654	2.8	9,320	0.65	63 to 80	N56C	5,240	6,610	1,540
	3/V 00L3	689	2.6	9,400	0.58	63 to 71	N56C	5,350	6,760	1,620
	3/V 00L3	818	2.2	9,680	0.57	63 to 80	N56C	5,390	6,810	1,640
	3/V 00L3	903	2.0	6,730	0.36	63 to 71	N56C	5,530	6,980	1,740
	3/V 00L3	997	1.8	6,850	0.28	63 to 71	N56C	5,600	7,080	1,800
	3/V 00L3	1107	1.6	10,200	0.44	63 to 80	N56C	5,680	7,180	1,800
	3/V 00L3	1198	1.5	7,080	0.27	63 to 71	N56C	5,770	7,290	1,800
	3/V 00L3	1381	1.3	10,600	0.37	63 to 71	N56C	5,840	7,370	1,800
	3/V 00L3	1495	1.2	7,360	0.22	63 to 71	N56C	5,960	7,520	1,800
	3/V 00L3	1869	0.96	7,610	0.20	63 to 71	N56C	6,020	7,610	1,800
	3/V 00L3	2337	0.77	7,610	0.16	63 to 71	N56C	6,220	7,640	1,800
								6,420	7,640	1,800

3/V 01 L3



242

21,800 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								NHP/NPC	HZ/PZ	FZ
1800	3/V 01L3	430	4.2	16,600	1.4	B5 / B14				
	3/V 01L3	443	4.1	12,100	1.1	63 to 80	N56C	5,040	5,980	1,410
	3/V 01L3	509	3.5	11,200	0.94	63 to 80	N56C	5,060	6,010	1,420
	3/V 01L3	562	3.2	12,400	0.94	63 to 80	N56C	5,160	6,130	1,490
	3/V 01L3	654	2.8	10,400	0.72	63 to 80	N56C	5,240	6,220	1,540
	3/V 01L3	689	2.6	15,200	0.94	63 to 71	N56C	5,350	6,350	1,620
	3/V 01L3	799	2.3	13,200	0.67	63 to 80	N56C	5,390	6,400	1,640
	3/V 01L3	903	2.0	10,900	0.58	63 to 80	N56C	5,510	6,540	1,730
	3/V 01L3	997	1.8	13,700	0.56	63 to 71	N56C	5,600	6,650	1,800
	3/V 01L3	1105	1.6	17,600	0.72	63 to 80	N56C	5,680	6,750	1,800
	3/V 01L3	1198	1.5	14,200	0.54	63 to 71	N56C	5,770	6,850	1,800
	3/V 01L3	1381	1.3	16,600	0.58	63 to 71	N56C	5,840	6,930	1,800
	3/V 01L3	1495	1.2	14,700	0.45	63 to 71	N56C	5,960	7,070	1,800
	3/V 01L3	1869	0.96	15,200	0.39	63 to 71	N56C	6,020	7,150	1,800
	3/V 01L3	2337	0.77	15,200	0.31	63 to 71	N56C	6,220	7,380	1,800
								6,420	7,620	1,800

3/V 03 L3






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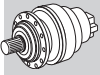
26,270 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								NHP/NPC	HZ/PZ	FZ
1800	3/V 03L3	395	4.6	19,600	1.9	B5 / B14				
	3/V 03L3	460	3.9	20,400	1.8	71 to 90	N56C to N140TC	9,560	12,100	4,100
	3/V 03L3	502	3.6	17,300	1.3	71 to 90	N56C to N140TC	9,770	12,300	4,320
	3/V 03L3	544	3.3	24,100	1.8	71 to 90	N56C to N140TC	9,890	12,500	4,440
	3/V 03L3	623	2.9	19,600	1.3	71 to 90	N56C to N140TC	10,000	12,600	4,560
	3/V 03L3	736	2.4	23,900	1.3	71 to 90	N56C to N140TC	10,200	12,900	4,770
	3/V 03L3	793	2.3	18,700	0.97	71 to 90	N56C to N140TC	10,400	13,200	5,040
	3/V 03L3	923	2.0	23,100	1.0	71 to 90	N56C to N140TC	10,600	13,300	5,170
	3/V 03L3	1023	1.8	23,400	1.0	71 to 90	N56C to N140TC	10,800	13,600	5,400
	3/V 03L3	1189	1.5	20,100	0.77	71 to 80	N56C	10,900	13,800	5,400
	3/V 03L3	1385	1.3	24,400	0.80	71 to 80	N56C	11,200	14,100	5,400
	3/V 03L3	1610	1.1	21,200	0.60	71 to 80	N56C	11,400	14,400	5,400
	3/V 03L3	1728	1.0	25,100	0.66	71 to 80	N56C	11,700	14,800	5,400
	3/V 03L3	2009	0.90	21,600	0.49	71 to 80	N56C	11,800	14,900	5,400
	3/V 03L3	2511	0.72	20,400	0.37	71 to 80	N56C	12,100	15,200	5,400
								12,400	15,700	5,400

3/V 04 L3 276

35,050 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
1800	3/V 04L3	384	4.7	31,000	3.1	B5				
						71 to 112	N56C to N180TC	9,520	12,000	4,060
						71 to 112	N56C to N180TC	9,750	12,300	4,290
						71 to 112	N56C to N180TC	9,890	12,500	4,440
						71 to 112	N56C to N180TC	10,100	12,700	4,630
						71 to 112	N56C to N180TC	10,200	12,900	4,770
						71 to 112	N56C to N180TC	10,400	13,100	4,980
						71 to 112	N56C to N180TC	10,500	13,300	5,120
						71 to 112	N56C to N180TC	10,700	13,600	5,370
						71 to 112	N56C to N180TC	10,900	13,700	5,400
						71 to 112	N56C to N180TC	11,100	14,100	5,400
						71 to 112	N56C to N180TC	11,200	14,200	5,400
						71 to 112	N56C to N180TC	11,500	14,500	5,400
						71 to 112	N56C to N180TC	11,600	14,700	5,400
						71 to 112	N56C to N180TC	11,800	15,000	5,400
						71 to 112	N56C to N180TC	12,000	15,100	5,400
						71 to 112	N56C to N180TC	12,300	15,600	5,400



B




3/V 05 L3 294

51,340 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
1800	3/V 05L3	396	4.5	32,300	2.9	B5				
						71 to 112	N56C to N180TC	9,560	12,100	4,110
						71 to 112	N56C to N180TC	9,770	12,300	4,320
						71 to 112	N56C to N180TC	9,960	12,600	4,520
						71 to 112	N56C to N180TC	10,100	12,700	4,650
						71 to 112	N56C to N180TC	10,200	12,900	4,770
						71 to 112	N56C to N180TC	10,400	13,100	5,000
						71 to 112	N56C to N180TC	10,600	13,300	5,170
						71 to 112	N56C to N180TC	10,700	13,600	5,380
						71 to 112	N56C to N180TC	11,000	13,900	5,400
						71 to 112	N56C to N180TC	11,100	14,000	5,400
						71 to 112	N56C to N180TC	11,200	14,200	5,400
						71 to 112	N56C to N180TC	11,500	14,500	5,400
						71 to 112	N56C to N180TC	11,700	14,800	5,400
						71 to 112	N56C to N180TC	11,900	15,000	5,400
						71 to 112	N56C to N180TC	12,200	15,500	5,400

3/V 06 L3 312

95,950 lb-in

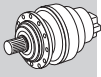
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
1800	3/V 06L3	395	4.6	67,200	6.1	B5				
						71 to 112	N56C to N180TC	13,100	16,600	5,980
						71 to 112	N56C to N180TC	13,300	16,700	6,140
						71 to 112	N56C to N180TC	13,700	17,200	6,580
						71 to 112	N56C to N180TC	13,800	17,400	6,750
						71 to 112	N56C to N180TC	14,100	17,800	7,100
						71 to 112	N56C to N180TC	14,200	18,000	7,230
						71 to 112	N56C to N180TC	14,500	18,300	7,540
						71 to 112	N56C to N180TC	14,800	18,700	7,870
						71 to 112	N56C to N180TC	15,000	18,900	7,870
						71 to 112	N56C to N180TC	15,300	19,300	7,870
						71 to 112	N56C to N180TC	15,400	19,400	7,870
						71 to 112	N56C to N180TC	15,700	19,800	7,870
						71 to 112	N56C to N180TC	16,300	20,500	7,870
						71 to 112	N56C to N180TC	16,700	21,100	7,870
						71 to 112	N56C to N180TC	17,200	21,600	7,870

3/V 07 L3



330

138,780 lb-in



B

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	P (IEC)	NEMA	Rn ₂ [lbs]		
								NHP/NPC	HZ/PZ	FZ
B5 / B14										
1800	3/V 07L3	386	4.7	77,800	7.0	80 to 132	N140TC to N210TC	16,400	22,300	7,630
	3/V 07L3	460	3.9	108,900	8.5	80 to 132	N140TC to N210TC	16,800	22,800	8,090
	3/V 07L3	507	3.5	120,400	8.6	80 to 132	N140TC to N210TC	17,000	23,100	8,360
	3/V 07L3	655	2.8	127,200	7.7	80 to 132	N140TC to N210TC	17,700	24,000	9,100
	3/V 07L3	761	2.4	124,300	6.4	80 to 132	N140TC to N210TC	18,000	24,500	9,570
	3/V 07L3	773	2.3	85,900	4.0	80 to 132	N140TC to N210TC	18,100	24,600	9,610
	3/V 07L3	920	2.0	108,900	4.7	80 to 132	N140TC to N210TC	18,500	25,200	10,100
	3/V 07L3	1015	1.8	126,200	5.0	80 to 132	N140TC to N210TC	18,800	25,600	10,100
	3/V 07L3	1159	1.6	91,200	3.1	80 to 132	N140TC to N210TC	19,200	26,000	10,100
	3/V 07L3	1288	1.4	124,100	4.0	80 to 132	N140TC to N210TC	19,400	26,400	10,100
	3/V 07L3	1411	1.3	108,900	3.2	80 to 132	N140TC to N210TC	19,700	26,800	10,100
	3/V 07L3	1545	1.2	95,200	2.5	80 to 132	N140TC to N210TC	20,000	27,100	10,100
	3/V 07L3	1964	0.92	108,900	2.4	80 to 132	N140TC to N210TC	20,700	28,100	10,100
	3/V 07L3	2150	0.84	97,400	1.9	80 to 132	N140TC to N210TC	20,900	28,500	10,100
3/V 07L3	2472	0.73	97,400	1.7	80 to 132	N140TC to N210TC	21,300	29,000	10,100	

3/V 09 L3



348

205,700 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	P (IEC)	NEMA	Rn ₂ [lbs]		
								NHP/NPC	HZ/PZ	FZ
B5										
1800	3/V 09L3	370	4.9	115,100	11.8	100 to 132	—	16,300	22,100	6,020
	3/V 09L3	442	4.1	156,900	13.5	100 to 132	—	16,700	22,700	6,380
	3/V 09L3	507	3.5	126,600	9.0	132 to 160	—	17,000	23,100	6,690
	3/V 09L3	655	2.8	154,900	9.0	100 to 132	—	17,700	24,000	7,280
	3/V 09L3	761	2.4	126,800	6.3	100 to 132	—	18,000	24,500	7,650
	3/V 09L3	800	2.3	188,500	9.3	100 to 132	—	18,200	24,700	7,780
	3/V 09L3	840	2.1	172,800	7.8	100 to 132	—	18,300	24,900	7,910
	3/V 09L3	1004	1.8	158,100	6.2	100 to 132	—	18,800	25,500	8,090
	3/V 09L3	1159	1.6	138,900	4.5	100 to 132	—	19,200	26,000	8,090
	3/V 09L3	1288	1.4	184,700	5.7	100 to 132	—	19,400	26,400	8,090
	3/V 09L3	1497	1.2	161,600	4.3	100 to 132	—	19,900	27,000	8,090
	3/V 09L3	1623	1.1	129,500	3.4	100 to 112	—	20,100	27,300	8,090
	3/V 09L3	1792	1.0	194,400	4.6	100 to 112	—	20,400	27,700	8,090
	3/V 09L3	2150	0.84	150,500	2.8	100 to 132	—	20,900	28,500	8,090
	3/V 09L3	2472	0.73	150,500	2.6	100 to 112	—	21,300	29,000	8,090





3/V 10 L3

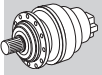


364





301,990 lb-in





n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	P (IEC)	NEMA	Rn ₂ [lbs]		
								NHP/NPC	HZ/PZ	FZ
B5										
1800	3/V 10L3	436	4.1	236,200	19.6	132 to 160	—	19,500	25,200	11,500
	3/V 10L3	507	3.5	229,300	16.3	132 to 160	—	20,000	25,800	12,100
	3/V 10L3	560	3.2	222,600	14.4	132 to 160	—	20,300	26,100	12,500
	3/V 10L3	614	2.9	192,900	11.4	132 to 160	—	20,500	26,500	12,900
	3/V 10L3	701	2.6	186,600	9.3	132 to 160	—	20,900	27,000	13,400
	3/V 10L3	773	2.3	190,600	8.9	132 to 160	—	21,200	27,400	13,900
	3/V 10L3	920	2.0	192,900	8.0	100 to 132	—	21,700	28,100	14,600
	3/V 10L3	1004	1.8	281,600	11.1	100 to 132	—	22,000	28,400	14,600
	3/V 10L3	1120	1.6	250,100	8.8	100 to 132	—	22,400	28,900	14,600
	3/V 10L3	1227	1.5	192,900	6.2	100 to 132	—	22,700	29,200	14,600
	3/V 10L3	1411	1.3	192,900	5.4	100 to 132	—	23,100	29,800	14,600

3/V 10 L4		 364		301,990 lb·in						
n_1 rpm		i	n_2 rpm	T_{n2} lb·in	P_{n1} hp	 P (IEC)	 NEMA	R_{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
						B5				
1800	3/V 10L4	1657	1.1	294,500	6.5	71 to 112	N56C to N180TC	23,600	30,500	14,600
	3/V 10L4	1826	0.99	236,000	4.8	71 to 112	N56C to N180TC	24,000	31,000	14,600
	3/V 10L4	2016	0.89	260,500	4.8	71 to 112	N56C to N180TC	24,300	31,400	14,600
	3/V 10L4	2209	0.81	285,500	4.8	71 to 112	N56C to N180TC	24,600	31,800	14,600
	3/V 10L4	2455	0.73	302,000	4.5	71 to 112	N56C to N180TC	25,000	32,300	14,600
	3/V 10L4	2835	0.63	270,800	3.6	71 to 112	N56C to N180TC	25,500	33,000	14,600
	3/V 10L4	3273	0.55	302,000	3.4	71 to 112	N56C to N180TC	26,100	33,600	14,600
	3/V 10L4	3570	0.50	270,800	3.1	71 to 112	N56C to N180TC	26,400	34,100	14,600
	3/V 10L4	4036	0.45	270,800	2.5	71 to 112	N56C to N180TC	26,900	34,700	14,600
	3/V 10L4	4637	0.39	270,800	2.5	71 to 112	N56C to N180TC	27,400	35,400	14,600
	3/V 10L4	5081	0.35	302,000	2.5	71 to 112	N56C to N180TC	27,800	35,800	14,600



B

3/V 11 L3		 382		427,760 lb·in						
n_1 rpm		i	n_2 rpm	T_{n2} lb·in	P_{n1} hp	 P (IEC)	 NEMA	R_{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
						B5				
1800	3/V 11L3	430	4.2	349,900	29	160 to 180	—	24,400	28,000	11,400
	3/V 11L3	510	3.5	305,400	21	160 to 180	—	25,000	28,700	12,100
	3/V 11L3	551	3.3	334,700	22	160 to 180	—	25,300	29,000	12,400
	3/V 11L3	644	2.8	354,100	20	132 to 160	—	25,800	29,700	13,100
	3/V 11L3	720	2.5	350,000	18.9	132 to 160	—	26,300	30,100	13,600
	3/V 11L3	827	2.2	357,200	15.8	132 to 160	—	26,800	30,700	14,200
	3/V 11L3	900	2.0	357,200	15.9	100 to 132	—	27,100	31,100	14,600
	3/V 11L3	1004	1.8	316,300	12.9	100 to 132	—	27,500	31,600	14,600
	3/V 11L3	1103	1.6	372,500	13.1	132 to 160	—	27,900	32,000	14,600
	3/V 11L3	1274	1.4	309,200	9.7	100 to 132	—	28,500	32,700	14,600
	3/V 11L3	1378	1.3	384,800	11.2	100 to 132	—	28,800	33,100	14,600
	3/V 11L3	1636	1.1	377,300	9.2	100 to 132	—	29,500	33,900	14,600
	3/V 11L3	1963	0.92	380,600	8.0	100 to 132	—	30,300	34,800	14,600
	3/V 11L3	2329	0.77	300,900	5.3	100 to 132	—	31,000	35,600	14,600

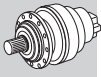
3/V 11 L4		 382		427,760 lb·in						
n_1 rpm		i	n_2 rpm	T_{n2} lb·in	P_{n1} hp	 P (IEC)	 NEMA	R_{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
						B5 / B14				
1800	3/V 11L4	2510	0.72	427,800	6.3	80 to 132	N140TC to N210TC	31,400	36,000	14,600
	3/V 11L4	2887	0.62	427,800	5.6	80 to 132	N140TC to N210TC	32,000	36,800	14,600
	3/V 11L4	3222	0.56	415,300	4.8	80 to 132	N140TC to N210TC	32,500	37,300	14,600
	3/V 11L4	3557	0.51	374,700	4.5	80 to 132	N140TC to N210TC	33,000	37,900	14,600
	3/V 11L4	4106	0.44	427,800	4.4	80 to 132	N140TC to N210TC	33,700	38,700	14,600
	3/V 11L4	4410	0.41	400,100	3.7	80 to 132	N140TC to N210TC	34,000	39,100	14,600
	3/V 11L4	5021	0.36	427,800	3.5	80 to 132	N140TC to N210TC	34,600	39,800	14,600

3/V 13 L3






400

513,100 lb-in



B




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
1800	3/V 13L3	370	4.9	350,000	34	B5 160 to 180	—	33,100	41,500	13,400
	3/V 13L3	425	4.2	408,000	33			33,800	42,300	14,000
	3/V 13L3	516	3.5	460,200	32			34,700	43,500	14,900
	3/V 13L3	567	3.2	425,200	27			35,200	44,100	15,400
	3/V 13L3	673	2.7	435,900	23			36,100	45,200	16,300
	3/V 13L3	741	2.4	405,500	21			36,600	45,800	16,900
	3/V 13L3	810	2.2	382,300	16.9			37,000	46,400	17,400
	3/V 13L3	870	2.1	476,300	21			37,400	46,900	17,800
	3/V 13L3	1009	1.8	465,700	16.9			38,200	47,900	18,000
	3/V 13L3	1088	1.7	452,800	16.6			38,600	48,400	18,000
	3/V 13L3	1291	1.4	465,900	14.4			39,600	49,600	18,000
	3/V 13L3	1418	1.3	493,000	13.9			40,100	50,200	18,000
	3/V 13L3	1620	1.1	426,500	10.2			40,900	51,200	18,000
	3/V 13L3	1682	1.1	507,300	12.0			41,100	51,500	18,000
	3/V 13L3	2019	0.89	513,100	10.4			42,200	51,900	18,000
	3/V 13L3	2430	0.74	433,700	7.3			43,200	51,900	18,000

3/V 13 L4



400

513,100 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
1800	3/V 13L4	2773	0.65	490,400	7.2	B5 / B14 80 to 132	N140TC to N210TC	43,200	51,900	18,000
	3/V 13L4	3263	0.55	490,400	5.6			43,200	51,900	18,000
	3/V 13L4	3515	0.51	513,100	5.4			43,200	51,900	18,000
	3/V 13L4	4046	0.44	490,400	4.9			43,200	51,900	18,000
	3/V 13L4	4536	0.40	513,100	4.6			43,200	51,900	18,000
	3/V 13L4	5046	0.36	469,100	3.9			43,200	51,900	18,000

3/V 14 L3






418

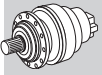
743,470 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
1800	3/V 14L3	397	4.5	407,900	35	B5 160 to 180	—	32,600	39,800	15,400
	3/V 14L3	446	4.0	421,800	34			33,200	40,500	16,000
	3/V 14L3	498	3.6	511,900	35			33,700	41,200	16,600
	3/V 14L3	579	3.1	492,600	29			34,500	42,100	17,500
	3/V 14L3	665	2.7	611,700	33			35,100	42,900	18,300
	3/V 14L3	695	2.6	380,800	21			35,400	43,200	18,600
	3/V 14L3	794	2.3	436,600	20			36,000	44,000	19,400
	3/V 14L3	893	2.0	488,700	21			36,700	44,700	20,200
	3/V 14L3	997	1.8	547,900	20			37,200	45,400	20,200
	3/V 14L3	1116	1.6	464,500	16.6			37,800	46,200	20,200
	3/V 14L3	1324	1.4	551,300	16.6			38,800	47,300	20,200
	3/V 14L3	1339	1.3	421,800	12.9			38,800	47,400	20,200
	3/V 14L3	1589	1.1	500,600	12.9			39,800	48,600	20,200
	3/V 14L3	1662	1.1	691,800	16.6			40,100	48,900	20,200
	3/V 14L3	1994	0.90	628,200	12.9			41,100	50,200	20,200
	3/V 14L3	2318	0.78	591,200	10.5			42,000	51,300	20,200

3/V 14 L4  418

743,470 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
						B5				
1800	3/V 14L4	2504	0.72	743,500	12.1	100 to 132	—	42,500	51,800	20,200
	3/V 14L4	2782	0.65	743,500	10.5	100 to 132	—	43,100	52,600	20,200
	3/V 14L4	3182	0.57	743,500	8.8	100 to 132	—	43,900	53,600	20,200
	3/V 14L4	3472	0.52	701,000	7.5	132 to 160	—	44,500	54,300	20,200
	3/V 14L4	3993	0.45	701,000	6.6	100 to 132	—	45,400	54,600	20,200
	3/V 14L4	4312	0.42	743,500	7.0	100 to 132	—	45,900	54,600	20,200
	3/V 14L4	4959	0.36	743,500	6.1	100 to 132	—	46,300	54,600	20,200



B




3/V 15 L3  434

930,000 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
						B5				
1800	3/V 15L3	386	4.7	581,100	51	132 to 225	—	32,500	39,700	15,300
	3/V 15L3	446	4.0	576,000	46	132 to 225	—	33,200	40,500	16,000
	3/V 15L3	498	3.6	745,400	52	132 to 225	—	33,700	41,200	16,600
	3/V 15L3	560	3.2	722,800	46	132 to 225	—	34,300	41,900	17,300
	3/V 15L3	665	2.7	764,600	41	132 to 225	—	35,100	42,900	18,300
	3/V 15L3	840	2.1	711,100	31	132 to 225	—	36,300	44,300	19,800
	3/V 15L3	997	1.8	806,200	30	132 to 225	—	37,200	45,400	20,200
	3/V 15L3	1120	1.6	816,000	28	132 to 225	—	37,900	46,200	20,200
	3/V 15L3	1329	1.4	839,600	25	132 to 225	—	38,800	47,400	20,200
	3/V 15L3	1400	1.3	769,400	22	132 to 225	—	39,100	47,700	20,200
	3/V 15L3	1662	1.1	866,400	21	132 to 225	—	40,100	48,900	20,200
	3/V 15L3	1994	0.90	834,300	17.4	132 to 225	—	41,100	50,200	20,200
	3/V 15L3	2318	0.78	738,900	13.3	132 to 225	—	42,000	51,300	20,200

3/V 15 L4  434

930,000 lb-in

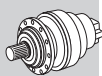
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHP/NPC	HZ/PZ	FZ
						B5				
1800	3/V 15L4	2780	0.65	929,300	12.5	132 to 160	—	43,100	52,600	20,200
	3/V 15L4	3300	0.55	929,300	10.5	132 to 160	—	44,200	53,900	20,200
	3/V 15L4	3489	0.52	876,200	9.4	132 to 160	—	44,500	54,400	20,200
	3/V 15L4	4171	0.43	929,300	8.7	100 to 132	—	45,700	54,600	20,200
	3/V 15L4	4950	0.36	929,300	7.3	100 to 132	—	46,300	54,600	20,200
	3/V 15L4	5234	0.34	876,200	6.5	100 to 132	—	46,300	54,600	20,200




3/V 16 L3



450

1,228,660 lb-in



n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								HC/PC	HZ/PZ	FZ
						B5				
1800	3/V 16L3	397	4.5	882,000	77	132 to 225	—	50,800	56,400	25,700
	3/V 16L3	446	4.0	826,800	65	132 to 225	—	51,700	57,300	26,700
	3/V 16L3	530	3.4	951,000	63	132 to 225	—	53,000	58,700	28,300
	3/V 16L3	669	2.7	743,200	40	132 to 225	—	54,800	60,700	30,600
	3/V 16L3	794	2.3	882,000	40	132 to 225	—	56,100	62,200	32,300
	3/V 16L3	893	2.0	891,800	38	132 to 225	—	57,100	63,300	33,600
	3/V 16L3	1059	1.7	1,050,700	38	132 to 225	—	58,500	64,800	33,700
	3/V 16L3	1324	1.4	992,300	30	132 to 225	—	60,400	66,900	33,700
	3/V 16L3	1589	1.1	992,300	25	132 to 225	—	62,000	68,700	33,700




B

3/V 16 L4



450

1,228,660 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								HC/PC	HZ/PZ	FZ
						B5				
1800	3/V 16L4	1826	0.99	958,500	19.6	132 to 160	—	63,200	70,100	33,700
	3/V 16L4	2167	0.83	1,137,500	19.6	132 to 160	—	64,800	71,800	33,700
	3/V 16L4	2343	0.77	1,228,700	19.5	132 to 160	—	65,500	72,600	33,700
	3/V 16L4	2738	0.66	1,010,100	14.4	100 to 132	—	67,000	74,300	33,700
	3/V 16L4	3250	0.55	1,198,800	14.4	100 to 132	—	68,700	76,100	33,700
	3/V 16L4	3514	0.51	1,228,700	13.7	100 to 132	—	69,400	77,000	33,700
	3/V 16L4	4171	0.43	1,228,700	11.5	100 to 132	—	71,100	78,900	33,700
	3/V 16L4	4950	0.36	1,097,500	8.7	100 to 132	—	72,900	80,800	33,700

3/V 17 L3






462

1,841,930 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								HC/PC	HZ/PZ	FZ
						B5				
1800	3/V 17L3	405	4.4	1,082,300	90	132 to 225	—	79,300	84,300	25,800
	3/V 17L3	425	4.2	944,300	77	132 to 225	—	79,900	84,900	26,300
	3/V 17L3	512	3.5	1,136,600	77	132 to 225	—	82,000	87,200	27,900
	3/V 17L3	567	3.2	1,050,500	65	132 to 225	—	83,200	88,400	28,900
	3/V 17L3	608	3.0	1,156,700	66	132 to 225	—	84,100	89,300	29,600
	3/V 17L3	683	2.6	1,264,500	65	132 to 225	—	85,500	90,800	30,800
	3/V 17L3	810	2.2	1,212,500	53	132 to 225	—	87,600	93,100	32,600
	3/V 17L3	851	2.1	944,300	40	132 to 225	—	88,200	93,700	33,100
	3/V 17L3	1024	1.8	1,136,600	40	132 to 225	—	90,600	96,200	33,700
	3/V 17L3	1134	1.6	1,133,100	38	132 to 225	—	91,900	97,600	33,700
	3/V 17L3	1215	1.5	1,295,800	39	132 to 225	—	92,800	98,600	33,700
	3/V 17L3	1365	1.3	1,364,000	38	132 to 225	—	94,400	100,300	33,700

3/V 17 L4 462

1,841,930 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			
								HC/PC	HZ/PZ	FZ	
						B5					
1800	3/V 17L4	1780	1.0	1,631,500	34	132 to 225	—	98,000	104,100	33,700	
	3/V 17L4	2065	0.87	1,631,300	28	132 to 225	—	99,400	105,700	33,700	
	3/V 17L4	2485	0.72	1,371,900	19.6	132 to 225	—	99,400	105,700	33,700	
	3/V 17L4	2773	0.65	1,472,900	21	132 to 225	—	99,400	105,700	33,700	
	3/V 17L4	3168	0.57	1,688,800	20	132 to 225	—	99,400	105,700	33,700	
	3/V 17L4	3583	0.50	1,504,600	15.5	132 to 225	—	99,400	105,700	33,700	
	3/V 17L4	4129	0.44	1,631,300	14.9	132 to 225	—	99,400	105,700	33,700	
	3/V 17L4	4449	0.40	1,796,700	16.6	132 to 225	—	99,400	105,700	33,700	
	3/V 17L4	4970	0.36	1,371,900	10.4	132 to 225	—	99,400	105,700	33,700	



B




3/V 18 L4 474

2,483,350 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			
								HC/PC	HZ/PZ	FZ	
						B5					
1800	3/V 18L4	765	2.4	1,637,500	75	132 to 225	—	88,600	92,700	42,600	
	3/V 18L4	982	1.8	2,101,400	75	132 to 225	—	91,800	96,100	45,000	
	3/V 18L4	1165	1.5	2,408,200	73	132 to 225	—	94,100	98,500	45,000	
	3/V 18L4	1232	1.5	2,417,700	69	132 to 225	—	94,900	99,200	45,000	
	3/V 18L4	1473	1.2	2,260,000	55	132 to 225	—	97,300	101,800	45,000	
	3/V 18L4	1748	1.0	2,478,200	50	132 to 225	—	99,700	104,300	45,000	
	3/V 18L4	1848	0.97	2,483,300	48	132 to 225	—	100,500	105,200	45,000	
	3/V 18L4	2295	0.78	1,884,600	31	132 to 225	—	103,700	108,500	45,000	
	3/V 18L4	2464	0.73	2,483,300	37	132 to 225	—	104,700	109,600	45,000	
	3/V 18L4	2945	0.61	2,418,600	31	132 to 225	—	107,400	112,400	45,000	
	3/V 18L4	3495	0.51	2,483,300	27	132 to 225	—	110,100	115,200	45,000	
	3/V 18L4	3696	0.49	2,483,300	25	132 to 225	—	111,000	116,100	45,000	
	3/V 18L4	4386	0.41	2,483,300	21	132 to 225	—	113,100	119,000	45,000	
	3/V 18L4	5099	0.35	2,483,300	18.4	132 to 225	—	113,100	121,600	45,000	

3/V 19 L4 486

4,216,590 lb-in

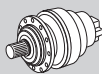
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]			
								HC/PC	HZ/PZ	FZ	
						B5					
1800	3/V 19L4	2582	0.70	3,232,400	46	132 to 225	—	119,500	131,600	45,000	
	3/V 19L4	3231	0.56	3,253,400	37	132 to 225	—	123,400	135,800	45,000	
	3/V 19L4	4095	0.44	3,362,800	31	132 to 225	—	127,600	140,500	45,000	
	3/V 19L4	4457	0.40	3,183,400	26	132 to 225	—	129,200	142,200	45,000	
	3/V 19L4	5164	0.35	3,573,200	28	132 to 225	—	131,900	145,200	45,000	




3/V 21 L4



498

5,803,790 lb·in

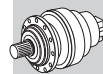





n ₁ rpm		i	n ₂ rpm	T _{n2} lb·in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								HC/PC	HZ/PZ	FZ
B5										
1800	3/V 21L4	1062	1.7	3,920,200	127	132 to 225	—	148,900	177,200	269,800
	3/V 21L4	1260	1.4	3,765,600	104	132 to 225	—	152,600	181,600	269,800
	3/V 21L4	1517	1.2	4,532,700	104	132 to 225	—	156,600	186,500	269,800
	3/V 21L4	1800	1.0	4,747,100	92	132 to 225	—	160,500	191,100	269,800
	3/V 21L4	1890	0.95	4,070,900	77	132 to 225	—	161,700	192,400	269,800
	3/V 21L4	2275	0.79	4,900,300	77	132 to 225	—	166,000	197,600	269,800
	3/V 21L4	2520	0.71	4,528,900	65	132 to 225	—	168,400	200,500	269,800
	3/V 21L4	2700	0.67	4,747,100	63	132 to 225	—	170,100	202,500	269,800
	3/V 21L4	3600	0.50	4,747,100	48	132 to 225	—	175,100	207,500	269,800
	3/V 21L4	3780	0.48	4,070,900	40	132 to 225	—	175,100	207,500	269,800
	3/V 21L4	4550	0.40	4,900,300	40	132 to 225	—	175,100	207,500	269,800
	3/V 21L4	5040	0.36	4,885,100	38	132 to 225	—	175,100	207,500	269,800

B

25.6 3/A - COMBINED UNITS RATING CHARTS

Reading the rating chart.



3/A 00 L2						11,060 lb-in				
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								NHC/NPC	HZ/PZ	FZ
1800	3/A 00 L2	19.1	94	2,190	3.6	63 to 112	N56C to N180TC	2,800	3,530	500
	3/A 00 L2	23.4	77	2,690	3.6	63 to 112	N56C to N180TC	2,970	3,750	530
	3/A 00 L2	31.7	57	3,640	3.6	63 to 112	N56C to N180TC	3,260	4,110	590
	3/A 00 L2	39.6	45	4,540	3.6	63 to 112	N56C to N180TC	3,480	4,390	630
	3/A 00 L2	41.5	43	4,590	3.5	63 to 112	N56C to N180TC	3,530	4,460	650

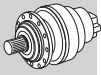
1	Reference torque	8	Frame size of available IEC motor
2	Gearbox drive speed	9	Frame size of available NEMA motor
3	Frame size of combined planetary + bevel helical unit	10	Permitted overhung loading on output shaft, based on: - service factor $f_S=1$ - 10000 h theoretical lifetime - speed of output n_2 For forces not applied at shaft midpoint, see diagrams provided in the specific gearbox overall dimensioning pages
4	Gear ratio	11	Dimensions page
5	Gearbox output speed		
	Gearbox rated output torque based on:		
6	- service factor $f_S=1$ - 10000 h theoretical lifetime		
	Gearbox rated input power, based on:		
7	- service factor $f_S=1$ - 10000 h theoretical lifetime		

3/A 00 L2






226

11,060 lb-in



B




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHC/NPC	HZ/PZ	FZ
1800	3/A 00 L2	19.1	94	2,190	3.6	63 to 112	N56C to N180TC	2,800	3,530	500
	3/A 00 L2	23.4	77	2,690	3.6	63 to 112	N56C to N180TC	2,970	3,750	530
	3/A 00 L2	31.7	57	3,640	3.6	63 to 112	N56C to N180TC	3,260	4,110	590
	3/A 00 L2	39.6	45	4,540	3.6	63 to 112	N56C to N180TC	3,480	4,390	630
	3/A 00 L2	41.5	43	4,590	3.5	63 to 112	N56C to N180TC	3,530	4,460	650
	3/A 00 L2	51.8	35	4,870	2.9	63 to 112	N56C to N180TC	3,770	4,760	690
	3/A 00 L2	61.2	29.4	5,750	2.9	63 to 112	N56C to N180TC	3,960	5,010	730
	3/A 00 L2	71.0	25.4	5,750	2.5	63 to 112	N56C to N180TC	4,140	5,230	770
	3/A 00 L2	80.2	22.4	5,750	2.2	63 to 112	N56C to N180TC	4,300	5,430	800
	3/A 00 L2	88.6	20.3	4,870	1.7	63 to 112	N56C to N180TC	4,430	5,590	830
	3/A 00 L2	100	18.0	4,870	1.5	63 to 112	N56C to N180TC	4,450	5,620	860
	3/A 00 L2	107	16.8	5,750	1.7	63 to 112	N56C to N180TC	4,450	5,620	890
	3/A 00 L2	134	13.4	4,870	1.1	63 to 112	N56C to N180TC	4,450	5,620	950
	3/A 00 L2	171	10.5	4,870	0.89	63 to 112	N56C to N180TC	4,450	5,620	1,030
	3/A 00 L2	203	8.9	5,750	0.89	63 to 112	N56C to N180TC	4,530	5,720	1,090
	3/A 00 L2	219	8.2	5,500	0.79	63 to 112	N56C to N180TC	4,580	5,780	1,120
	3/A 00 L2	253	7.1	4,870	0.60	63 to 112	N56C to N180TC	4,670	5,900	1,180
	3/A 00 L2	296	6.1	5,750	0.61	63 to 112	N56C to N180TC	4,780	6,030	1,240
	3/A 00 L2	319	5.6	3,880	0.38	63 to 71	N56C	4,830	6,100	1,270
	3/A 00 L2	369	4.9	4,880	0.41	63 to 112	N56C to N180TC	4,930	6,230	1,340
	3/A 00 L2	391	4.6	4,760	0.38	63 to 71	N56C	4,970	6,280	1,360
	3/A 00 L2	441	4.1	5,950	0.42	63 to 71	N56C	5,060	6,390	1,420
	3/A 00 L2	550	3.3	5,130	0.29	63 to 71	N56C	5,220	6,590	1,530
	3/A 00 L2	660	2.7	5,250	0.25	63 to 71	N56C	5,360	6,770	1,620

3/A 01 L2






242

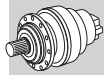
21,800 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	R _{n2} [lbs]		
								NHC/NPC	HZ/PZ	FZ
1800	3/A 01 L2	18.8	96	3,410	5.7	80 to 112	N140TC to N180TC	2,780	3,300	500
	3/A 01 L2	23.0	78	4,180	5.7	80 to 112	N140TC to N180TC	2,960	3,510	530
	3/A 01 L2	31.2	58	5,650	5.7	80 to 112	N140TC to N180TC	3,240	3,840	590
	3/A 01 L2	35.8	50	6,720	5.9	80 to 112	N140TC to N180TC	3,380	4,010	610
	3/A 01 L2	40.1	45	5,290	4.1	63 to 112	N56C to N180TC	3,490	4,140	640
	3/A 01 L2	43.9	41	8,230	5.9	80 to 112	N140TC to N180TC	3,590	4,260	660
	3/A 01 L2	49.1	37	7,330	4.7	63 to 112	N56C to N180TC	3,710	4,400	680
	3/A 01 L2	54.2	33	7,160	4.1	63 to 112	N56C to N180TC	3,820	4,540	710
	3/A 01 L2	59.4	30	11,100	5.9	80 to 112	N140TC to N180TC	3,930	4,660	730
	3/A 01 L2	74.2	24.3	10,200	4.3	80 to 112	N140TC to N180TC	4,200	4,980	780
	3/A 01 L2	81.3	22.1	11,500	4.4	63 to 112	N56C to N180TC	4,320	5,130	810
	3/A 01 L2	102	17.7	10,200	3.1	63 to 112	N56C to N180TC	4,450	5,280	870
	3/A 01 L2	133	13.5	11,500	2.7	63 to 112	N56C to N180TC	4,450	5,280	950
	3/A 01 L2	166	10.8	10,200	1.9	63 to 112	N56C to N180TC	4,450	5,280	1,020
	3/A 01 L2	184	9.8	9,140	1.6	63 to 112	N56C to N180TC	4,470	5,300	1,060
	3/A 01 L2	204	8.8	11,500	1.8	63 to 112	N56C to N180TC	4,530	5,380	1,100
	3/A 01 L2	220	8.2	7,330	1.0	63 to 112	N56C to N180TC	4,580	5,440	1,120
	3/A 01 L2	255	7.1	10,200	1.3	63 to 112	N56C to N180TC	4,680	5,550	1,180
	3/A 01 L2	269	6.7	8,970	1.0	63 to 112	N56C to N180TC	4,710	5,600	1,200
	3/A 01 L2	311	5.8	10,200	1.0	63 to 112	N56C to N180TC	4,810	5,710	1,260
	3/A 01 L2	364	4.9	11,500	0.99	63 to 112	N56C to N180TC	4,920	5,840	1,330
	3/A 01 L2	393	4.6	7,320	0.58	63 to 71	N56C	4,980	5,910	1,370
	3/A 01 L2	454	4.0	10,200	0.70	63 to 112	N56C to N180TC	5,080	6,030	1,430
	3/A 01 L2	533	3.4	9,910	0.58	63 to 71	N56C	5,200	6,170	1,510
	3/A 01 L2	665	2.7	10,200	0.48	63 to 71	N56C	5,360	6,370	1,630

3/A 03 L2 258

26,270 lb-in




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								NHC/NPC	HZ/PZ	FZ
1800	3/A 03 L2	19.4	93	6,810	11.0	80 to 112	N140TC to N180TC	5,390	6,810	1,500
	3/A 03 L2	23.0	78	8,040	11.0	80 to 112	N140TC to N180TC	5,670	7,160	1,590
	3/A 03 L2	28.8	63	10,100	11.0	80 to 112	N140TC to N180TC	6,070	7,670	1,710
	3/A 03 L2	33.5	54	11,700	11.0	80 to 112	N140TC to N180TC	6,350	8,020	1,800
	3/A 03 L2	40.5	44	14,200	11.0	80 to 112	N140TC to N180TC	6,720	8,490	1,920
	3/A 03 L2	43.4	41	13,100	9.4	80 to 112	N140TC to N180TC	6,860	8,670	1,960
	3/A 03 L2	52.5	34	14,600	8.7	80 to 112	N140TC to N180TC	7,270	9,180	2,090
	3/A 03 L2	52.5	34	14,600	8.7	80 to 112	N140TC to N180TC	7,270	9,180	2,090
	3/A 03 L2	62.9	28.6	13,300	6.6	63 to 112	N56C to N180TC	7,670	9,690	2,220
	3/A 03 L2	73.2	24.6	15,500	6.6	63 to 112	N56C to N180TC	8,030	10,100	2,340
	3/A 03 L2	88.5	20.3	14,600	5.2	63 to 112	N56C to N180TC	8,500	10,700	2,490
	3/A 03 L2	96.9	18.6	15,000	4.8	63 to 112	N56C to N180TC	8,540	10,800	2,570
	3/A 03 L2	182	9.9	16,100	2.8	63 to 112	N56C to N180TC	8,550	10,800	3,160
	3/A 03 L2	220	8.2	14,600	2.1	63 to 112	N56C to N180TC	8,790	11,100	3,370
	3/A 03 L2	269	6.7	16,200	1.9	63 to 112	N56C to N180TC	9,050	11,400	3,610
	3/A 03 L2	269	6.7	16,200	1.9	63 to 112	N56C to N180TC	9,050	11,400	3,610
	3/A 03 L2	326	5.5	14,600	1.4	63 to 112	N56C to N180TC	9,300	11,700	3,840
	3/A 03 L2	352	5.1	17,800	1.6	63 to 112	N56C to N180TC	9,400	11,900	3,950
	3/A 03 L2	409	4.4	16,700	1.3	63 to 112	N56C to N180TC	9,610	12,100	4,150
	3/A 03 L2	495	3.6	15,000	0.95	63 to 112	N56C to N180TC	9,870	12,500	4,420
	3/A 03 L2	574	3.1	15,200	0.83	63 to 112	N56C to N180TC	10,100	12,700	4,640
	3/A 03 L2	605	3.0	16,000	0.83	63 to 112	N56C to N180TC	10,200	12,800	4,730
	3/A 03 L2	731	2.5	15,500	0.66	63 to 112	N56C to N180TC	10,400	13,200	5,030



B

3/A 04 L2 276

35,050 lb-in

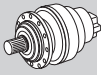
n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								NHC/NPC	HZ/PZ	FZ
1800	3/A 04 L2	18.7	96	17,000	28	80 to 132	N140TC to N210TC	5,330	6,740	1,480
	3/A 04 L2	22.1	81	20,100	28	80 to 132	N140TC to N210TC	5,610	7,080	1,570
	3/A 04 L2	25.6	70	17,000	21	80 to 132	N140TC to N210TC	5,860	7,400	1,650
	3/A 04 L2	27.7	65	24,800	28	80 to 132	N140TC to N210TC	6,000	7,580	1,690
	3/A 04 L2	30.2	60	20,100	21	80 to 132	N140TC to N210TC	6,150	7,770	1,740
	3/A 04 L2	35.3	51	20,100	17.8	80 to 132	N140TC to N210TC	6,450	8,150	1,830
	3/A 04 L2	39.1	46	20,100	16.1	80 to 132	N140TC to N210TC	6,650	8,400	1,900
	3/A 04 L2	44.3	41	20,100	14.2	80 to 132	N140TC to N210TC	6,900	8,720	1,980
	3/A 04 L2	49.7	36	20,100	12.6	63 to 132	N56C to N210TC	7,150	9,030	2,050
	3/A 04 L2	54.5	33	20,100	11.5	80 to 132	N140TC to N210TC	7,350	9,290	2,120
	3/A 04 L2	62.4	28.8	25,200	12.6	63 to 132	N140TC to N210TC	7,650	9,670	2,220
	3/A 04 L2	68.4	26.3	25,200	11.5	80 to 132	N56C to N210TC	7,870	9,940	2,290
	3/A 04 L2	81.7	22.0	21,000	8.1	63 to 132	N56C to N210TC	8,300	10,500	2,430
	3/A 04 L2	90.7	19.8	21,200	7.3	80 to 132	N140TC to N210TC	8,540	10,800	2,510
	3/A 04 L2	102	17.7	22,600	6.9	63 to 132	N56C to N210TC	8,540	10,800	2,610
	3/A 04 L2	117	15.4	21,200	5.7	80 to 132	N140TC to N210TC	8,540	10,800	2,730
	3/A 04 L2	129	13.9	24,100	5.8	63 to 132	N56C to N210TC	8,540	10,800	2,830
	3/A 04 L2	149	12.1	21,200	4.4	63 to 132	N56C to N210TC	8,540	10,800	2,960
	3/A 04 L2	162	11.1	25,700	5.0	63 to 132	N56C to N210TC	8,540	10,800	3,050
	3/A 04 L2	174	10.4	25,700	4.6	63 to 112	N56C to N180TC	8,540	10,800	3,120
	3/A 04 L2	205	8.8	25,700	3.9	63 to 112	N56C to N180TC	8,700	11,000	3,300
	3/A 04 L2	226	8.0	31,000	4.3	63 to 112	N56C to N180TC	8,820	11,100	3,400
	3/A 04 L2	250	7.2	31,000	3.9	63 to 112	N56C to N180TC	8,950	11,300	3,520
	3/A 04 L2	283	6.4	25,200	2.8	63 to 112	N56C to N180TC	9,110	11,500	3,670
	3/A 04 L2	317	5.7	21,200	2.1	63 to 112	N56C to N180TC	9,260	11,700	3,810
	3/A 04 L2	349	5.2	21,200	1.9	63 to 112	N56C to N180TC	9,390	11,900	3,930
	3/A 04 L2	386	4.7	21,300	1.7	63 to 112	N56C to N180TC	9,530	12,000	4,070
	3/A 04 L2	469	3.8	21,700	1.5	63 to 112	N56C to N180TC	9,790	12,400	4,340
	3/A 04 L2	520	3.5	21,900	1.3	63 to 112	N56C to N180TC	9,940	12,600	4,500

3/A 05 L2






294

51,340 lb-in



B




n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								NHC/NPC	HZ/PZ	FZ
1800	3/A 05L2	18.7	96	17,000	28	80 to 132	N140TC to N210TC	5,330	6,740	1,480
	3/A 05L2	22.1	81	20,100	28	80 to 132	N140TC to N210TC	5,610	7,080	1,570
	3/A 05L2	27.7	65	25,200	28	80 to 132	N140TC to N210TC	6,000	7,580	1,690
	3/A 05L2	32.2	56	29,300	28	80 to 132	N140TC to N210TC	6,280	7,930	1,780
	3/A 05L2	39.0	46	26,600	21	80 to 132	N140TC to N210TC	6,650	8,400	1,900
	3/A 05L2	44.0	41	29,300	21	80 to 132	N140TC to N210TC	6,890	8,710	1,970
	3/A 05L2	53.3	34	26,800	15.7	80 to 132	N140TC to N210TC	7,300	9,220	2,100
	3/A 05L2	57.0	32	29,300	16.1	80 to 132	N140TC to N210TC	7,450	9,410	2,150
	3/A 05L2	62.6	28.7	28,400	14.2	80 to 132	N140TC to N210TC	7,660	9,680	2,220
	3/A 05L2	72.5	24.8	29,300	12.6	63 to 132	N56C to N210TC	8,010	10,100	2,330
	3/A 05L2	75.8	23.8	27,000	11.1	80 to 132	N140TC to N210TC	8,110	10,200	2,360
	3/A 05L2	85.6	21.0	31,200	11.4	80 to 132	N140TC to N210TC	8,410	10,600	2,460
	3/A 05L2	104	17.4	27,100	8.2	80 to 132	N140TC to N210TC	8,540	10,800	2,620
	3/A 05L2	121	14.9	31,100	8.1	63 to 132	N56C to N210TC	8,540	10,800	2,760
	3/A 05L2	141	12.8	31,800	7.1	63 to 132	N56C to N210TC	8,540	10,800	2,910
	3/A 05L2	162	11.1	25,700	5.0	63 to 132	N56C to N210TC	8,540	10,800	3,050
	3/A 05L2	175	10.3	31,900	5.7	63 to 132	N56C to N210TC	8,540	10,800	3,130
	3/A 05L2	212	8.5	27,400	4.0	63 to 132	N56C to N210TC	8,750	11,000	3,330
	3/A 05L2	212	8.5	27,400	4.0	63 to 132	N56C to N210TC	8,750	11,000	3,330
	3/A 05L2	241	7.5	38,000	5.0	63 to 132	N56C to N210TC	8,900	11,200	3,480
	3/A 05L2	280	6.4	31,900	3.6	63 to 132	N56C to N210TC	9,100	11,500	3,650
	3/A 05L2	329	5.5	31,900	3.0	63 to 112	N56C to N180TC	9,310	11,800	3,860
	3/A 05L2	398	4.5	27,700	2.2	63 to 112	N56C to N180TC	9,570	12,100	4,110
	3/A 05L2	422	4.3	36,600	2.7	63 to 112	N56C to N180TC	9,650	12,200	4,190
	3/A 05L2	491	3.7	33,400	2.1	63 to 112	N56C to N180TC	9,860	12,500	4,410
	3/A 05L2	594	3.0	28,700	1.5	63 to 112	N56C to N180TC	10,100	12,800	4,700

3/A 06 L2



312




95,950 lb-in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								NHC/NPC	HZ/PZ	FZ
1800	3/A 06L2	27.7	65	21,700	24	80 to 180	N140TC to N280TC	8,240	10,400	2,470
	3/A 06L2	32.7	55	25,600	24	80 to 180	N140TC to N280TC	8,660	10,900	2,610
	3/A 06L2	34.9	52	23,200	21	80 to 180	N140TC to N280TC	8,830	11,100	2,660
	3/A 06L2	41.1	44	32,100	24	80 to 180	N140TC to N280TC	9,270	11,700	2,810
	3/A 06L2	47.2	38	23,200	15.4	80 to 180	N140TC to N280TC	9,670	12,200	2,940
	3/A 06L2	51.7	35	34,300	21	80 to 180	N140TC to N280TC	9,940	12,500	3,040
	3/A 06L2	55.7	32	27,400	15.4	80 to 180	N140TC to N280TC	10,200	12,800	3,110
	3/A 06L2	60.1	29.9	39,900	21	80 to 180	N140TC to N280TC	10,400	13,100	3,190
	3/A 06L2	69.9	25.8	34,300	15.4	80 to 180	N140TC to N280TC	10,900	13,700	3,360
	3/A 06L2	81.2	22.2	39,900	15.4	80 to 180	N140TC to N280TC	11,400	14,300	3,530
	3/A 06L2	88.5	20.3	36,600	13.0	80 to 180	N140TC to N280TC	11,700	14,700	3,630
	3/A 06L2	98.3	18.3	47,100	15.0	80 to 180	N140TC to N280TC	11,700	14,800	3,760
	3/A 06L2	112	16.0	54,800	15.8	80 to 180	N140TC to N280TC	11,700	14,800	3,930
	3/A 06L2	125	14.5	47,700	12.0	80 to 180	N140TC to N280TC	11,700	14,800	4,070
	3/A 06L2	141	12.8	68,700	15.8	80 to 180	N140TC to N280TC	11,700	14,800	4,240
	3/A 06L2	164	11.0	57,500	11.4	80 to 180	N140TC to N280TC	11,700	14,800	4,460
	3/A 06L2	190	9.5	68,800	11.7	80 to 180	N140TC to N280TC	11,800	14,900	4,680
	3/A 06L2	198	9.1	48,700	8.0	80 to 180	N140TC to N280TC	11,900	15,000	4,750
	3/A 06L2	221	8.2	57,600	8.4	80 to 180	N140TC to N280TC	12,100	15,200	4,930
	3/A 06L2	267	6.7	48,700	5.9	80 to 180	N140TC to N280TC	12,400	15,600	5,250
	3/A 06L2	276	6.5	68,800	8.1	63 to 180	N56C to N280TC	12,500	15,700	5,300
	3/A 06L2	321	5.6	57,800	5.8	63 to 180	N56C to N280TC	12,700	16,100	5,580
	3/A 06L2	388	4.6	49,000	4.1	63 to 180	N56C to N280TC	13,100	16,500	5,940
	3/A 06L2	380	4.7	54,800	4.7	63 to 180	N56C to N280TC	13,100	16,500	5,900
	3/A 06L2	435	4.1	68,800	5.1	63 to 180	N56C to N280TC	13,300	16,800	6,170
	3/A 06L2	505	3.6	61,300	3.9	63 to 180	N56C to N280TC	13,600	17,100	6,490
	3/A 06L2	555	3.2	62,300	3.6	63 to 180	N56C to N280TC	13,800	17,400	6,700
	3/A 06L2	611	2.9	51,400	2.7	63 to 180	N56C to N280TC	14,000	17,600	6,920
	3/A 06L2	671	2.7	51,800	2.5	63 to 180	N56C to N280TC	14,200	17,900	7,140

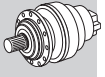
3/A 07 L2

330

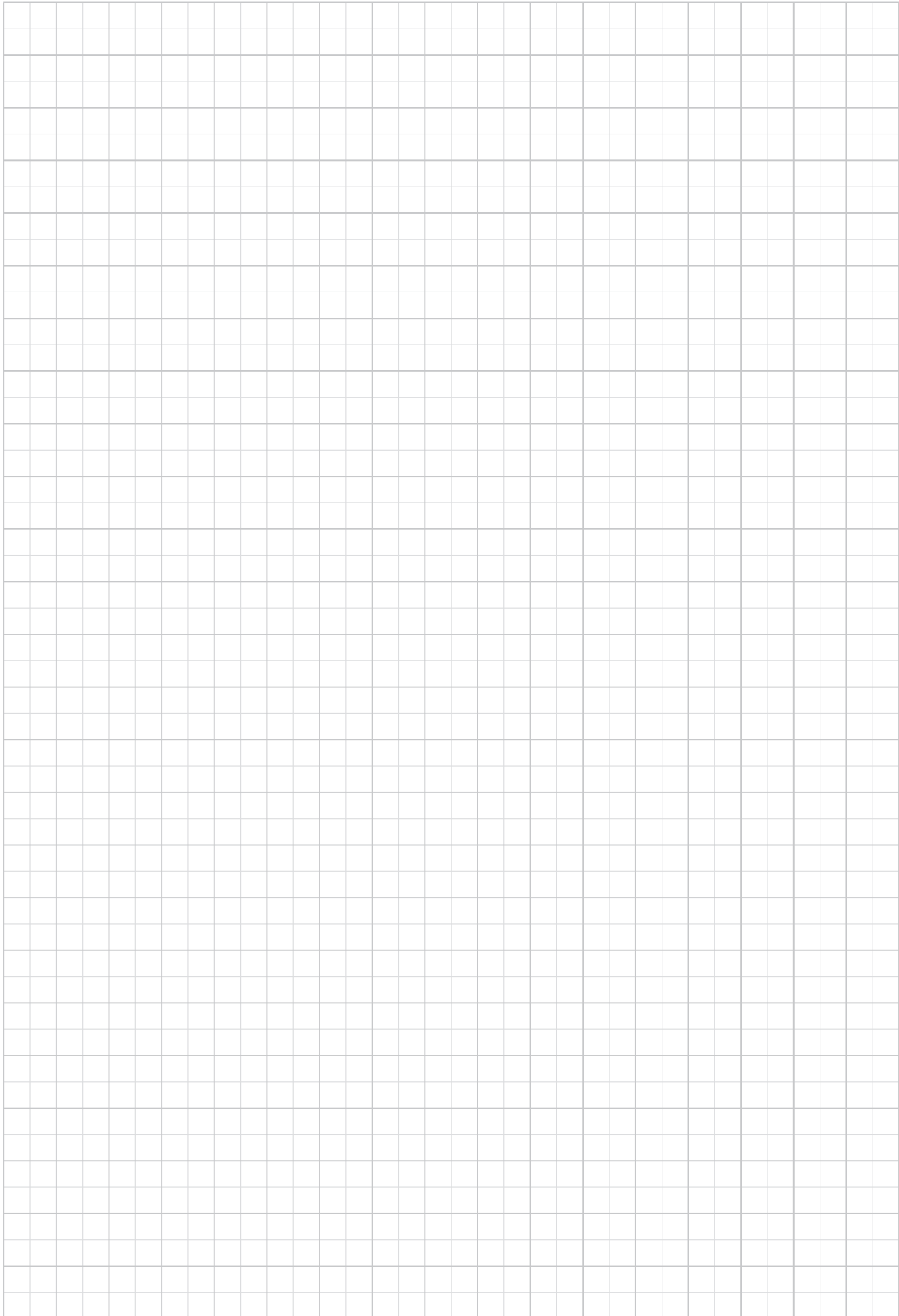
138,780 lb·in

n ₁ rpm		i	n ₂ rpm	T _{n2} lb-in	P _{n1} hp	 P (IEC)	 NEMA	Rn ₂ [lbs]		
								NHC/NPC	HZ/PZ	FZ
1800	3/A 07L2	27.1	66	35,300	41	132 to 180	N210TC to N280TC	10,200	13,900	3,150
	3/A 07L2	32.3	56	42,100	41	132 to 180	N210TC to N280TC	10,800	14,700	3,340
	3/A 07L2	41.5	43	54,000	41	132 to 180	N210TC to N280TC	11,600	15,800	3,630
	3/A 07L2	49.2	37	64,100	41	132 to 180	N210TC to N280TC	12,200	16,700	3,840
	3/A 07L2	57.3	31	38,200	21	80 to 180	N140TC to N280TC	12,800	17,400	4,040
	3/A 07L2	68.3	26.3	45,600	21	80 to 180	N140TC to N280TC	13,500	18,400	4,280
	3/A 07L2	87.7	20.5	58,600	21	80 to 180	N140TC to N280TC	14,600	19,800	4,650
	3/A 07L2	109	16.6	77,700	23	80 to 180	N140TC to N280TC	14,700	20,000	5,000
	3/A 07L2	130	13.9	98,400	25	80 to 180	N140TC to N280TC	14,700	20,000	5,300
	3/A 07L2	140	12.8	98,400	23	80 to 180	N140TC to N280TC	14,700	20,000	5,440
	3/A 07L2	155	11.6	79,100	16.5	80 to 180	N140TC to N280TC	14,700	20,000	5,630
	3/A 07L2	180	10.0	95,500	17.2	80 to 180	N140TC to N280TC	14,700	20,000	5,920
	3/A 07L2	198	9.1	77,000	12.6	80 to 180	N140TC to N280TC	14,900	20,200	6,100
	3/A 07L2	223	8.1	79,700	11.6	80 to 180	N140TC to N280TC	15,100	20,600	6,350
	3/A 07L2	241	7.5	79,700	10.7	80 to 180	N140TC to N280TC	15,300	20,800	6,520
	3/A 07L2	282	6.4	77,000	8.8	80 to 180	N140TC to N280TC	15,600	21,300	6,870
	3/A 07L2	341	5.3	99,700	9.4	80 to 180	N140TC to N280TC	16,100	21,900	7,320
	3/A 07L2	405	4.4	78,300	6.3	80 to 180	N140TC to N280TC	16,500	22,400	7,750
3/A 07L2	439	4.1	79,200	5.8	80 to 180	N140TC to N280TC	16,700	22,700	7,960	

**B**



B



25.7 RATING CHARTS FOR INLINE UNITS 300 L

Reading the rating chart.



		300 L						11,060 lb·in				
		226										
	i	T _{n2} [lb·in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
	1:	n ₂ ·h 10,000	n ₂ ·h 25,000	n ₂ ·h 50,000	n ₂ ·h 100,000	n ₂ ·h 500,000	n ₂ ·h 1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb·in]
L1	3.48	6,726	6,461	6,461	6,461	6,461	6,461	27	10.1	2000	4000	17,701
	4.26	11,063	9,470	8,408	7,611	7,434	6,372	27	10.1	2000	4000	21,242
	5.77	7,611	6,461	5,753	5,753	5,753	5,576	27	10.1	2000	4000	21,242
	7.20	6,195	5,310	4,868	4,868	4,868	4,514	22	10.1	2000	4000	21,242

2

3

4

5

6

7

8

9

1 Reference torque

2 Number of reduction stages (in-line gear unit)

3 Gear ratio

Gearbox rated output torque based on:

4 - service factor $f_S=1$
- $n_2 \cdot h$ indicated

5 Maximum power transmitted to input shaft

6 Gearbox thermal capacity

7 Input angular velocity

8 Maximum input angular velocity

9 Maximum output torque at gearbox

10 Page where dimensions can be sorted from

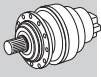
C

300 L



226

11,060 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	3.48	6,726	6,461	6,461	6,461	6,461	6,461	27	10.1	2000	4000	17,701
	4.26	11,063	9,470	8,408	7,611	7,434	6,372	27	10.1	2000	4000	21,242
	5.77	7,611	6,461	5,753	5,753	5,753	5,576	27	10.1	2000	4000	21,242
	7.20	6,195	5,310	4,868	4,868	4,868	4,514	22	10.1	2000	4000	21,242
	9.00	4,071	3,452	3,275	3,275	3,275	3,275	11.9	10.1	2000	4000	21,242
L2	12.1	6,726	6,461	6,461	6,461	6,461	6,461	16.0	10.1	2000	4000	17,701
	14.8	11,063	9,470	8,408	7,611	7,434	6,372	16.9	10.1	2000	4000	17,701
	18.2	11,063	9,470	8,408	7,611	7,434	6,372	13.9	10.1	2000	4000	21,242
	20.1	7,611	6,461	5,753	5,753	5,753	5,576	9.7	10.1	2000	4000	17,701
	24.6	11,063	9,470	8,408	7,611	7,434	6,372	10.5	10.1	2000	4000	21,242
	30.7	11,063	9,470	8,408	7,611	7,434	6,372	8.5	10.1	2000	4000	21,242
	33.3	7,611	6,461	5,753	5,753	5,753	5,576	5.8	10.1	2000	4000	21,242
	38.4	11,063	9,470	8,408	7,611	7,434	6,372	6.9	10.1	2000	4000	21,242
	41.5	7,611	6,461	5,753	5,753	5,753	5,576	4.7	10.1	2000	4000	21,242
	51.9	7,611	6,461	5,753	5,753	5,753	5,576	3.9	10.1	2000	4000	21,242
	64.8	6,195	5,310	4,868	4,868	4,868	4,514	2.7	10.1	2000	4000	21,242
L3	51.6	11,063	9,470	8,408	7,611	7,434	6,372	5.6	10.1	2000	4000	17,701
	63.2	11,063	9,470	8,408	7,611	7,434	6,372	4.7	10.1	2000	4000	21,242
	69.9	7,611	6,461	5,753	5,753	5,753	5,576	3.2	10.1	2000	4000	17,701
	77.5	11,063	9,470	8,408	7,611	7,434	6,372	4.0	10.1	2000	4000	21,242
	85.6	11,063	9,470	8,408	7,611	7,434	6,372	3.6	10.1	2000	4000	21,242
	105	11,063	9,470	8,408	7,611	7,434	6,372	2.9	10.1	2000	4000	21,242
	116	7,611	6,461	5,753	5,753	5,753	5,576	2.1	10.1	2000	4000	21,242
	131	11,063	9,470	8,408	7,611	7,434	6,372	2.4	10.1	2000	4000	21,242
	142	11,063	9,470	8,408	7,611	7,434	6,372	2.2	10.1	2000	4000	21,242
	177	11,063	9,470	8,408	7,611	7,434	6,372	1.7	10.1	2000	4000	21,242
	192	7,611	6,461	5,753	5,753	5,753	5,576	1.4	10.1	2000	4000	21,242
	221	11,063	9,470	8,408	7,611	7,434	6,372	1.4	10.1	2000	4000	21,242
	240	7,611	6,461	5,753	5,753	5,753	5,576	1.1	10.1	2000	4000	21,242
	299	7,611	6,461	5,753	5,753	5,753	5,576	0.88	10.1	2000	4000	21,242
374	7,611	6,461	5,753	5,753	5,753	5,576	0.71	10.1	2000	4000	21,242	
L4	330	11,063	9,470	8,408	7,611	7,434	6,372	0.96	8.0	2000	4000	21,242
	403	7,611	6,461	5,753	5,753	5,753	5,576	0.68	8.0	2000	4000	21,242
	447	11,063	9,470	8,408	7,611	7,434	6,372	0.71	8.0	2000	4000	21,242
	494	11,063	9,470	8,408	7,611	7,434	6,372	0.64	8.0	2000	4000	21,242
	558	11,063	9,470	8,408	7,611	7,434	6,372	0.57	8.0	2000	4000	21,242
	616	11,063	9,470	8,408	7,611	7,434	6,372	0.51	8.0	2000	4000	21,242
	755	11,063	9,470	8,408	7,611	7,434	6,372	0.42	8.0	2000	4000	21,242
	819	11,063	9,470	8,408	7,611	7,434	6,372	0.39	8.0	2000	4000	21,242
	942	11,063	9,470	8,408	7,611	7,434	6,372	0.34	8.0	2000	4000	21,242
	1022	11,063	9,470	8,408	7,611	7,434	6,372	0.31	8.0	2000	4000	21,242
	1108	7,611	6,461	5,753	5,753	5,753	5,576	0.25	8.0	2000	4000	21,242
	1275	11,063	9,470	8,408	7,611	7,434	6,372	0.25	8.0	2000	4000	21,242
	1383	7,611	6,461	5,753	5,753	5,753	5,576	0.20	8.0	2000	4000	21,242
	1591	11,063	9,470	8,408	7,611	7,434	6,372	0.20	8.0	2000	4000	21,242
	1725	7,611	6,461	5,753	5,753	5,753	5,576	0.16	8.0	2000	4000	21,242
	2153	7,611	6,461	5,753	5,753	5,753	5,576	0.13	8.0	2000	4000	21,242
2692	8,850	8,850	7,876	7,523	6,726	5,576	0.12	8.0	2000	4000	21,242	

C

301 L



242

21,800 lb-in


	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	3.48	13,187	12,656	12,656	12,656	12,656	11,505	40	10.1	2000	4000	30,092
	4.26	21,771	18,939	16,727	15,311	13,983	11,328	40	10.1	2000	4000	30,092
	5.77	15,222	12,921	11,505	11,505	11,505	10,974	40	10.1	2000	4000	30,092
	7.20	10,178	10,178	10,178	10,178	10,178	8,319	40	10.1	2000	4000	30,092
	9.00	8,142	6,903	6,461	6,461	6,461	6,461	21	10.1	2000	4000	30,092
L2	12.1	13,187	12,656	12,656	12,656	12,656	11,505	32	10.1	2000	4000	30,092
	14.8	21,771	18,939	16,727	15,311	13,983	11,328	34	10.1	2000	4000	30,092

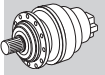
301 L



242

21,800 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
1:		10,000	25,000	50,000	100,000	500,000	1,000,000					
L2	18.2	21,771	18,939	16,727	15,311	13,983	11,328	28	10.1	2000	4000	30,092
	20.1	15,222	12,921	11,505	11,505	11,505	10,974	19.3	10.1	2000	4000	30,092
	24.6	21,771	18,939	16,727	15,311	13,983	11,328	21	10.1	2000	4000	30,092
	30.7	17,700	17,700	16,196	15,311	13,983	11,328	16.9	10.1	2000	4000	30,092
	33.3	15,222	12,921	11,505	11,505	11,505	10,974	11.7	10.1	2000	4000	30,092
	38.4	14,160	13,895	13,895	13,895	13,541	11,328	13.6	10.1	2000	4000	30,092
	41.5	15,222	12,921	11,505	11,505	11,505	10,974	9.4	10.1	2000	4000	30,092
	51.9	15,222	12,921	11,505	11,505	11,505	10,974	7.9	10.1	2000	4000	30,092
64.8	10,178	10,178	10,178	10,178	10,178	8,319	5.3	10.1	2000	4000	30,092	
L3	51.6	21,771	18,939	16,727	15,311	13,983	11,328	11.1	10.1	2000	4000	30,092
	63.2	21,771	18,939	16,727	15,311	13,983	11,328	9.4	10.1	2000	4000	30,092
	69.9	15,222	12,921	11,505	11,505	11,505	10,974	6.3	10.1	2000	4000	30,092
	77.5	21,771	18,939	16,727	15,311	13,983	11,328	7.9	10.1	2000	4000	30,092
	85.6	21,771	18,939	16,727	15,311	13,983	11,328	7.2	10.1	2000	4000	30,092
	105	21,771	18,939	16,727	15,311	13,983	11,328	5.9	10.1	2000	4000	30,092
	116	15,222	12,921	11,505	11,505	11,505	10,974	4.2	10.1	2000	4000	30,092
	131	21,771	18,939	16,727	15,311	13,983	11,328	4.7	10.1	2000	4000	30,092
	142	21,771	18,939	16,727	15,311	13,983	11,328	4.3	10.1	2000	4000	30,092
	177	21,771	18,939	16,727	15,311	13,983	11,328	3.5	10.1	2000	4000	30,092
	192	15,222	12,921	11,505	11,505	11,505	10,974	2.7	10.1	2000	4000	30,092
	221	17,700	17,700	16,196	15,311	13,983	11,328	2.8	10.1	2000	4000	30,092
	240	15,222	12,921	11,505	11,505	11,505	10,974	2.2	10.1	2000	4000	30,092
	299	15,222	12,921	11,505	11,505	11,505	10,974	1.7	10.1	2000	4000	30,092
374	15,222	12,921	11,505	11,505	11,505	10,974	1.4	10.1	2000	4000	30,092	
L4	330	21,771	18,939	16,727	15,311	13,983	11,328	1.9	8.0	2000	4000	30,092
	403	15,222	12,921	11,505	11,505	11,505	10,974	1.3	8.0	2000	4000	30,092
	447	21,771	18,939	16,727	15,311	13,983	11,328	1.4	8.0	2000	4000	30,092
	494	21,771	18,939	16,727	15,311	13,983	11,328	1.3	8.0	2000	4000	30,092
	558	21,771	18,939	16,727	15,311	13,983	11,328	1.1	8.0	2000	4000	30,092
	616	21,771	18,939	16,727	15,311	13,983	11,328	1.0	8.0	2000	4000	30,092
	755	21,771	18,939	16,727	15,311	13,983	11,328	0.84	8.0	2000	4000	30,092
	819	21,771	18,939	16,727	15,311	13,983	11,328	0.78	8.0	2000	4000	30,092
	942	21,771	18,939	16,727	15,311	13,983	11,328	0.67	8.0	2000	4000	30,092
	1022	21,771	18,939	16,727	15,311	13,983	11,328	0.62	8.0	2000	4000	30,092
	1108	15,222	12,921	11,505	11,505	11,505	10,974	0.49	8.0	2000	4000	30,092
	1275	21,771	18,939	16,727	15,311	13,983	11,328	0.50	8.0	2000	4000	30,092
	1383	15,222	12,921	11,505	11,505	11,505	10,974	0.39	8.0	2000	4000	30,092
	1591	17,700	17,700	16,196	15,311	13,983	11,328	0.40	8.0	2000	4000	30,092
	1725	15,222	12,921	11,505	11,505	11,505	10,974	0.31	8.0	2000	4000	30,092
	2153	15,222	12,921	11,505	11,505	11,505	10,974	0.25	8.0	2000	4000	30,092
2692	15,222	12,921	11,505	11,505	11,505	10,974	0.20	8.0	2000	4000	30,092	




C

303 L



258

26,270 lb-in

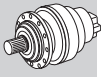
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
1:		10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	3.60	21,329	20,444	20,444	20,444	20,444	18,762	54	14.8	1800	3800	46,024
	4.25	26,285	24,869	24,869	23,453	22,745	18,497	54	14.8	1800	3800	46,024
	5.33	25,223	22,302	19,736	19,470	18,939	17,966	54	14.8	1800	3800	46,024
	6.20	21,594	18,408	16,284	16,107	16,107	16,107	54	14.8	1800	3800	46,024
	7.50	17,700	15,488	14,603	14,603	14,603	13,275	54	14.8	1800	3800	46,024
	9.67	9,293	7,965	7,611	7,611	7,611	7,611	23	14.8	1800	3800	46,024
L2	12.5	21,329	20,444	20,444	20,444	18,851	15,311	27	12.1	2000	4000	46,024
	15.3	21,329	20,444	20,444	20,444	18,585	15,045	27	12.1	2000	4000	46,024
	18.1	26,285	24,869	24,869	23,453	20,798	16,904	27	12.1	2000	4000	46,024
	20.8	21,329	19,559	19,559	19,559	17,966	14,603	27	12.1	2000	4000	46,024
	22.7	25,223	22,302	19,736	19,470	18,939	17,966	27	12.1	2000	4000	46,024
	24.5	24,515	23,895	23,453	23,187	20,178	16,373	27	12.1	2000	4000	46,024
	26.4	21,594	18,408	16,284	16,107	16,107	16,107	20	12.1	2000	4000	46,024
	30.8	25,223	22,302	19,736	19,470	18,939	17,966	21	12.1	2000	4000	46,024

303 L



258

26,270 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L2	35.8	21,594	18,408	16,284	16,107	16,107	16,107	15.0	12.1	2000	4000	46,024
	38.4	25,223	21,683	19,736	19,470	18,939	17,966	17.1	12.1	2000	4000	46,024
	44.6	21,594	18,408	16,284	16,107	16,107	16,107	12.3	12.1	2000	4000	46,024
	55.8	20,355	18,408	16,284	16,107	16,107	16,107	10.2	12.1	2000	4000	46,024
L3	53.4	21,329	20,444	20,444	20,444	18,585	15,045	12.5	10.1	2000	4000	46,024
	63.1	26,285	24,869	24,869	23,453	21,152	17,169	13.1	10.1	2000	4000	46,024
	72.3	21,329	20,444	20,444	20,444	18,851	15,311	9.3	10.1	2000	4000	46,024
	77.2	26,285	24,869	24,869	23,453	20,798	16,904	10.9	10.1	2000	4000	46,024
	90.2	21,329	20,444	20,444	20,444	18,851	15,311	7.6	10.1	2000	4000	46,024
	105	26,285	24,869	24,869	23,453	20,798	16,904	8.3	10.1	2000	4000	46,024
	113	21,594	18,408	16,284	16,107	16,107	16,107	5.9	10.1	2000	4000	46,024
	124	21,594	18,408	16,284	16,107	16,107	16,107	5.4	10.1	2000	4000	46,024
	141	24,515	23,895	23,453	23,187	20,178	16,373	6.0	10.1	2000	4000	46,024
	152	21,594	18,408	16,284	16,107	16,107	16,107	4.5	10.1	2000	4000	46,024
	164	25,223	22,302	19,736	19,470	18,939	17,966	5.2	10.1	2000	4000	46,024
	178	25,223	22,302	19,736	19,470	18,939	17,966	4.9	10.1	2000	4000	46,024
	190	21,594	18,408	16,284	16,107	16,107	16,107	3.7	10.1	2000	4000	46,024
	220	19,913	19,470	19,913	19,913	16,196	15,930	3.1	10.1	2000	4000	46,024
	258	21,594	18,408	16,284	16,107	16,107	16,107	2.7	10.1	2000	4000	46,024
	276	25,223	21,683	19,736	19,470	18,939	17,966	3.2	10.1	2000	4000	46,024
	321	21,594	18,408	16,284	16,107	16,107	16,107	2.2	10.1	2000	4000	46,024
	389	17,700	15,488	14,603	14,603	14,603	13,275	1.6	10.1	2000	4000	46,024
402	21,594	18,408	16,284	16,107	16,107	16,107	1.8	10.1	2000	4000	46,024	
L4	413	25,223	22,302	19,736	19,470	18,939	17,966	2.2	8.0	2000	4000	46,024
	446	26,285	24,869	24,869	23,453	20,798	16,904	2.1	8.0	2000	4000	46,024
	492	24,515	23,895	23,453	23,187	20,178	16,373	1.8	8.0	2000	4000	46,024
	556	26,285	24,869	24,869	23,453	20,798	16,904	1.7	8.0	2000	4000	46,024
	649	21,329	20,444	20,444	20,444	18,851	15,311	1.1	8.0	2000	4000	46,024
	718	21,594	18,408	16,284	16,107	16,107	16,107	1.0	8.0	2000	4000	46,024
	816	24,515	23,895	23,453	23,187	20,178	16,373	1.1	8.0	2000	4000	46,024
	896	21,594	18,408	16,284	16,107	16,107	16,107	0.81	8.0	2000	4000	46,024
	1018	24,515	23,895	23,453	23,187	20,178	16,373	0.86	8.0	2000	4000	46,024
	1098	21,594	18,408	16,284	16,107	16,107	16,107	0.66	8.0	2000	4000	46,024
	1278	25,223	22,302	19,736	19,470	18,939	17,966	0.71	8.0	2000	4000	46,024
	1370	21,594	18,408	16,284	16,107	16,107	16,107	0.53	8.0	2000	4000	46,024
	1586	19,913	19,913	19,913	19,913	16,196	15,930	0.45	8.0	2000	4000	46,024
	1854	21,594	18,408	16,284	16,107	16,107	16,107	0.39	8.0	2000	4000	46,024
	1991	25,223	21,683	19,736	19,470	18,939	17,966	0.45	8.0	2000	4000	46,024
	2243	17,700	15,488	14,603	14,603	14,603	13,275	0.28	8.0	2000	4000	46,024
2799	17,700	15,488	14,603	14,603	14,603	13,275	0.23	8.0	2000	4000	46,024	

304 L




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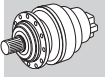
35,050 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	3.60	32,834	31,152	30,975	30,444	27,612	25,046	67	16.1	1800	3800	64,611
	4.25	35,046	33,188	32,657	31,329	30,356	24,603	67	16.1	1800	3800	64,611
	5.33	33,099	28,232	25,223	25,223	25,223	23,984	67	16.1	1800	3800	64,611
	6.57	26,550	22,656	21,152	21,152	21,152	21,152	67	16.1	1800	3800	64,611
L2	12.5	32,834	31,152	30,975	30,444	27,612	25,046	40	12.1	2000	4000	64,611
	15.3	32,834	31,152	30,975	30,444	27,612	25,046	40	12.1	2000	4000	64,611
	18.1	35,046	33,188	32,657	31,329	30,356	24,603	40	12.1	2000	4000	64,611
	20.8	32,834	31,152	30,975	30,444	27,612	25,046	40	12.1	2000	4000	64,611
	22.7	33,099	28,232	25,223	25,223	25,223	23,984	37	12.1	2000	4000	64,611
	24.5	35,046	33,188	32,657	31,329	30,356	24,603	40	12.1	2000	4000	64,611
	30.8	33,099	28,232	25,223	25,223	25,223	23,984	27	12.1	2000	4000	64,611
	38.4	33,099	28,232	25,223	25,223	25,223	23,984	22	12.1	2000	4000	64,611
	47.3	26,550	22,656	21,152	21,152	21,152	21,152	14.7	12.1	2000	4000	64,611
	59.1	26,550	22,656	21,152	21,152	21,152	21,152	11.9	12.1	2000	4000	64,611

304 L  276


35,050 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}	
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h						[hp]
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000						
L3	43.6	32,834	31,152	30,975	30,444	27,612	25,046	25	10.1	2000	4000	64,611	
	53.4	32,834	31,152	30,975	30,444	27,612	25,046	20	10.1	2000	4000	64,611	
	63.1	35,046	33,188	32,657	31,329	30,356	24,603	18.0	10.1	2000	4000	64,611	
	72.3	32,834	31,152	30,975	30,444	27,612	25,046	15.0	10.1	2000	4000	64,611	
	77.2	35,046	33,188	32,657	31,329	30,356	24,603	14.8	10.1	2000	4000	64,611	
	90.2	32,834	31,152	30,975	30,444	27,258	25,046	12.1	10.1	2000	4000	64,611	
	105	35,046	33,188	32,657	31,329	30,356	24,603	11.2	10.1	2000	4000	64,611	
	111	32,834	31,152	30,975	30,444	27,612	25,046	10.0	10.1	2000	4000	64,611	
	130	35,046	33,188	32,657	31,329	30,356	24,603	9.1	10.1	2000	4000	64,611	
	141	35,046	33,188	32,657	31,329	30,356	24,603	8.5	10.1	2000	4000	64,611	
	150	32,834	31,152	30,975	30,444	27,612	25,046	7.5	10.1	2000	4000	64,611	
	165	26,550	22,656	21,152	21,152	21,152	21,152	5.0	10.1	2000	4000	64,611	
	178	33,099	28,232	25,223	25,223	25,223	23,984	6.0	10.1	2000	4000	64,611	
	202	26,550	22,656	21,152	21,152	21,152	21,152	4.2	10.1	2000	4000	64,611	
	220	35,046	32,834	32,391	31,329	30,356	24,603	5.5	10.1	2000	4000	64,611	
	273	26,550	22,656	21,152	21,152	21,152	21,152	3.1	10.1	2000	4000	64,611	
	341	26,550	22,656	21,152	21,152	21,152	21,152	2.5	10.1	2000	4000	64,611	
	426	26,550	22,656	21,152	21,152	21,152	21,152	2.0	10.1	2000	4000	64,611	
	L4	413	33,099	28,232	25,223	25,223	25,223	23,984	2.7	8.0	2000	4000	64,611
		446	35,046	33,188	32,657	31,329	30,356	24,603	2.8	8.0	2000	4000	64,611
492		35,046	33,188	32,657	31,329	30,356	24,603	2.6	8.0	2000	4000	64,611	
556		35,046	33,188	32,657	31,329	30,356	24,603	2.3	8.0	2000	4000	64,611	
649		32,834	31,152	30,975	30,444	27,612	25,046	1.8	8.0	2000	4000	64,611	
702		26,550	22,656	21,152	21,152	21,152	21,152	1.2	8.0	2000	4000	64,611	
816		35,046	33,188	32,657	31,329	30,356	24,603	1.5	8.0	2000	4000	64,611	
1018		35,046	33,188	32,657	31,329	30,356	24,603	1.2	8.0	2000	4000	64,611	
1164		26,550	22,656	21,152	21,152	21,152	21,152	0.75	8.0	2000	4000	64,611	
1271		35,046	33,188	32,657	31,329	30,356	24,603	0.99	8.0	2000	4000	64,611	
1344		32,834	31,152	30,975	30,444	27,258	25,046	0.88	8.0	2000	4000	64,611	
1586		35,046	32,834	32,391	31,329	30,356	24,603	0.79	8.0	2000	4000	64,611	
1815		26,550	22,656	21,152	21,152	21,152	21,152	0.48	8.0	2000	4000	64,611	
1991		33,099	28,232	25,223	25,223	25,223	23,984	0.56	8.0	2000	4000	64,611	
2269		26,550	22,656	21,152	21,152	21,152	21,152	0.38	8.0	2000	4000	64,611	
2453		26,550	22,656	21,152	21,152	21,152	21,152	0.36	8.0	2000	4000	64,611	



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51,340 lb-in

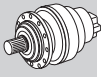
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	3.60	41,595	39,737	39,737	39,737	39,648	32,214	80	17.4	1800	3800	77,887
	4.25	51,330	48,675	48,498	46,905	39,029	31,683	80	17.4	1800	3800	77,887
	5.33	49,560	44,604	39,560	38,940	37,878	30,887	80	17.4	1800	3800	77,887
	6.20	41,507	35,400	31,860	31,860	31,418	30,621	80	17.4	1800	3800	77,887
	7.50	33,630	29,205	27,435	27,435	26,550	24,692	80	17.4	1800	3800	77,887
L2	12.5	41,595	39,737	39,737	39,737	33,630	27,347	40	12.1	2000	4000	77,887
	15.3	41,595	39,737	39,737	39,737	33,188	26,904	40	12.1	2000	4000	77,887
	18.1	51,330	48,675	48,498	46,905	37,259	30,267	40	12.1	2000	4000	77,887
	20.8	41,595	39,383	39,206	39,206	32,126	26,108	40	12.1	2000	4000	77,887
	22.7	49,560	44,604	39,560	38,940	37,878	30,887	40	12.1	2000	4000	77,887
	24.5	48,941	47,790	46,905	46,286	36,020	29,294	40	12.1	2000	4000	77,887
	26.4	41,507	35,400	31,860	31,860	31,418	30,621	40	12.1	2000	4000	77,887
	30.8	49,560	44,604	39,560	38,940	37,878	30,887	40	12.1	2000	4000	77,887
	35.8	41,507	35,400	31,860	31,860	31,418	30,621	30	12.1	2000	4000	77,887
	38.4	49,560	43,365	39,560	38,940	37,878	30,887	34	12.1	2000	4000	77,887
	44.6	41,507	35,400	31,860	31,860	31,418	30,621	25	12.1	2000	4000	77,887
	55.8	39,206	35,400	31,860	31,860	30,975	30,621	20	12.1	2000	4000	77,887
	L3	53.4	41,595	39,737	39,737	39,737	33,188	26,904	25	10.1	2000	4000
63.1		51,330	48,498	48,498	46,905	37,790	30,710	26	10.1	2000	4000	77,887
72.3		41,595	39,737	39,737	39,737	33,630	27,347	18.9	10.1	2000	4000	77,887
77.2		51,330	48,675	48,498	46,905	37,259	30,267	22	10.1	2000	4000	77,887

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51,340 lb-in



i	n ₂ ·h	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		10,000	25,000	50,000	100,000	500,000	1,000,000					
L3	90.2	41,595	39,737	39,737	39,737	33,630	27,347	15.3	10.1	2000	4000	77,887
	105	51,330	48,675	48,498	46,905	37,259	30,267	16.5	10.1	2000	4000	77,887
	113	41,507	35,400	31,860	31,860	31,418	30,621	11.6	10.1	2000	4000	77,887
	124	41,507	35,400	31,860	31,860	31,418	30,621	10.7	10.1	2000	4000	77,887
	141	48,941	47,348	46,905	46,286	36,020	29,294	11.9	10.1	2000	4000	77,887
	152	41,507	35,400	31,860	31,860	31,418	30,621	9.0	10.1	2000	4000	77,887
	164	49,560	44,604	39,560	38,940	37,878	30,887	10.3	10.1	2000	4000	77,887
	178	49,560	44,604	39,560	38,940	37,878	30,887	9.6	10.1	2000	4000	77,887
	190	41,507	35,400	31,860	31,860	31,418	30,621	7.4	10.1	2000	4000	77,887
	220	42,038	42,038	42,038	42,038	32,391	28,409	6.6	10.1	2000	4000	77,887
	258	41,507	35,400	31,860	31,860	31,418	30,621	5.5	10.1	2000	4000	77,887
	276	49,560	43,365	39,560	38,940	37,878	30,887	6.2	10.1	2000	4000	77,887
	321	41,507	35,400	31,860	31,860	31,418	30,621	4.4	10.1	2000	4000	77,887
	389	33,630	29,205	27,435	27,435	26,550	24,692	3.0	10.1	2000	4000	77,887
	402	41,507	35,400	31,860	31,860	31,418	30,621	3.5	8.0	2000	4000	77,887
L4	413	49,560	44,604	39,560	38,940	37,878	30,887	4.3	8.0	2000	4000	77,887
	446	51,330	48,675	48,498	46,905	37,259	30,267	4.1	8.0	2000	4000	77,887
	492	48,941	47,348	46,905	46,286	36,020	29,294	3.5	8.0	2000	4000	77,887
	556	51,330	48,675	48,498	46,905	37,259	30,267	3.3	8.0	2000	4000	77,887
	649	41,595	39,737	39,737	39,737	33,630	27,347	2.3	8.0	2000	4000	77,887
	718	41,507	35,400	31,860	31,860	31,418	30,621	2.0	8.0	2000	4000	77,887
	816	48,941	47,348	46,905	46,286	36,020	29,294	2.1	8.0	2000	4000	77,887
	896	41,507	35,400	31,860	31,860	31,418	30,621	1.6	8.0	2000	4000	77,887
	1018	48,941	47,348	46,905	46,286	36,020	29,294	1.7	8.0	2000	4000	77,887
	1098	41,507	35,400	31,860	31,860	31,418	30,621	1.3	8.0	2000	4000	77,887
	1278	49,560	44,604	39,560	38,940	37,878	30,887	1.4	8.0	2000	4000	77,887
	1370	41,507	35,400	31,860	31,860	31,418	30,621	1.1	8.0	2000	4000	77,887
	1586	42,038	42,038	42,038	42,038	32,391	28,409	0.95	8.0	2000	4000	77,887
	1854	41,507	35,400	31,860	31,860	31,418	30,621	0.79	8.0	2000	4000	77,887
	1991	49,560	43,365	39,560	38,940	37,878	30,887	0.89	8.0	2000	4000	77,887
	2243	33,630	29,205	27,435	27,435	26,550	24,692	0.54	8.0	2000	4000	77,887
	2799	33,630	29,205	27,435	27,435	26,550	24,692	0.43	8.0	2000	4000	77,887

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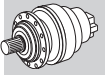
95,950 lb-in

i	n ₂ ·h	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	3.60	95,934	91,863	91,863	91,863	62,835	51,065	101	24	1600	3000	131,876
	4.25	92,217	87,173	87,173	84,960	61,862	50,268	101	24	1600	3000	131,876
	5.33	89,208	82,748	73,455	70,358	60,269	48,941	101	24	1600	3000	131,876
	6.20	76,376	65,225	57,791	57,525	57,171	48,498	101	24	1600	3000	131,876
	7.50	61,950	52,215	48,675	48,675	44,604	44,604	101	24	1600	3000	131,876
L2	13.0	70,977	70,977	70,977	70,977	54,959	44,604	54	17.4	1800	3800	131,876
	15.3	86,465	82,659	82,659	82,305	54,074	43,896	54	17.4	1800	3800	131,876
	18.1	92,217	87,173	87,173	84,960	60,711	49,295	54	17.4	1800	3800	131,876
	22.7	84,606	80,535	80,535	80,535	59,118	48,056	54	17.4	1800	3800	131,876
	26.4	69,827	67,172	67,172	67,172	58,587	47,613	54	17.4	1800	3800	131,876
	28.4	89,208	82,748	73,455	70,358	60,269	48,941	54	17.4	1800	3800	131,876
	33.1	84,429	82,748	73,455	70,358	60,269	48,941	54	17.4	1800	3800	131,876
	38.4	76,376	65,225	57,791	57,525	57,171	48,498	46	17.4	1800	3800	131,876
	46.5	75,225	65,225	57,791	57,525	57,171	48,498	39	17.4	1800	3800	131,876
	56.3	61,950	52,215	48,675	48,675	44,604	44,604	28	17.4	1800	3800	131,876
	72.5	56,640	52,215	48,675	48,675	44,604	44,604	22	17.4	1800	3800	131,876
L3	53.2	86,465	82,659	82,659	82,305	54,074	43,896	27	10.1	2000	4000	131,876
	65.2	86,465	82,659	82,659	82,305	54,074	43,896	27	10.1	2000	4000	131,876
	77.0	92,217	87,173	87,173	84,960	60,711	49,295	27	10.1	2000	4000	131,876
	81.9	73,632	68,145	68,145	66,641	52,658	42,746	27	10.1	2000	4000	131,876
	88.3	83,633	83,633	83,633	83,633	61,685	50,091	27	10.1	2000	4000	131,876
	104	92,217	87,173	87,173	84,960	60,711	49,295	27	10.1	2000	4000	131,876
	112	69,827	67,172	67,172	67,172	58,587	47,613	20	10.1	2000	4000	131,876

306 L  312


95,950 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L3	121	89,208	82,748	73,455	70,358	60,269	48,941	23	10.1	2000	4000	131,876
	141	84,429	82,748	73,455	70,358	60,269	48,941	19.8	10.1	2000	4000	131,876
	152	69,827	67,172	67,172	67,172	58,587	47,613	15.1	10.1	2000	4000	131,876
	190	76,376	65,225	57,791	57,525	57,171	48,498	13.7	10.1	2000	4000	131,876
	205	89,208	82,748	73,455	70,358	60,269	48,941	14.3	10.1	2000	4000	131,876
	222	76,376	65,225	57,791	57,525	57,171	48,498	11.8	10.1	2000	4000	131,876
	238	84,429	82,748	73,455	70,358	60,269	48,941	12.0	10.1	2000	4000	131,876
	268	61,950	52,215	48,675	48,675	44,604	44,604	8.0	10.1	2000	4000	131,876
	288	61,950	52,215	48,675	48,675	44,604	44,604	7.5	10.1	2000	4000	131,876
	325	61,950	52,215	48,675	48,675	44,604	44,604	6.6	10.1	2000	4000	131,876
	405	61,950	52,215	48,675	48,675	44,604	44,604	5.3	10.1	2000	4000	131,876
L4	391	76,376	65,225	57,791	57,525	57,171	48,498	6.9	8.0	2000	4000	131,876
	444	92,217	87,173	87,173	84,960	60,711	49,295	7.1	8.0	2000	4000	131,876
	509	83,633	83,633	83,633	83,633	61,685	50,091	5.5	8.0	2000	4000	131,876
	589	89,208	82,748	73,455	70,358	60,269	48,941	5.1	8.0	2000	4000	131,876
	636	83,633	83,633	83,633	83,633	61,685	50,091	4.4	8.0	2000	4000	131,876
	700	89,208	82,748	73,455	70,358	60,269	48,941	4.3	8.0	2000	4000	131,876
	809	69,827	67,172	67,172	67,172	58,587	47,613	2.9	8.0	2000	4000	131,876
	877	69,827	67,172	67,172	67,172	58,587	47,613	2.7	8.0	2000	4000	131,876
	1015	84,429	82,748	73,455	70,358	60,269	48,941	2.9	8.0	2000	4000	131,876
	1095	69,827	67,172	67,172	67,172	58,587	47,613	2.2	8.0	2000	4000	131,876
	1279	76,376	65,225	57,791	57,525	57,171	48,498	2.1	8.0	2000	4000	131,876
	1475	89,208	82,748	73,455	70,358	60,269	48,941	2.0	8.0	2000	4000	131,876
	1597	76,376	65,225	57,791	57,525	57,171	48,498	1.7	8.0	2000	4000	131,876
	1843	89,208	82,748	73,455	70,358	60,269	48,941	1.6	8.0	2000	4000	131,876
	2074	61,950	52,215	48,675	48,675	44,604	44,604	1.1	8.0	2000	4000	131,876
	2337	61,950	52,215	48,675	48,675	44,604	44,604	1.0	8.0	2000	4000	131,876
	2916	61,950	52,215	48,675	48,675	44,604	44,604	0.76	8.0	2000	4000	131,876



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138,780 lb-in

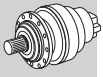
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	3.43	79,650	79,650	79,650	79,650	73,455	70,446	154	30	1500	2500	164,624
	4.09	138,768	131,777	131,777	119,564	84,606	68,765	154	30	1500	2500	185,866
	5.25	131,334	112,395	100,005	95,492	82,659	67,172	154	30	1500	2500	185,866
	6.23	97,350	84,960	76,995	76,995	72,924	66,287	154	30	1500	2500	185,866
L2	12.3	79,650	79,650	79,650	79,650	73,455	70,446	80	24	1800	3800	164,624
	14.7	138,768	131,777	131,777	119,564	84,606	68,765	80	24	1800	3800	185,866
	17.4	138,768	131,777	131,777	119,564	84,606	68,765	80	24	1800	3800	185,866
	21.8	138,768	131,777	131,777	119,564	84,606	68,765	80	24	1800	3800	185,866
	25.4	129,830	123,989	123,989	119,564	84,606	68,765	80	24	1800	3800	185,866
	28.0	131,334	112,395	100,005	95,492	82,659	67,172	80	24	1800	3800	185,866
	30.7	108,855	108,855	108,855	108,855	84,606	68,765	80	24	1800	3800	185,866
	32.6	131,334	112,395	100,005	95,492	82,659	67,172	80	24	1800	3800	185,866
	38.6	97,350	84,960	76,995	76,995	72,924	66,287	61	24	1800	3800	185,866
	46.7	97,350	84,960	76,995	76,995	72,924	66,287	52	24	1800	3800	185,866
	L3	51.3	138,768	131,777	131,777	119,564	84,606	68,765	40	14.8	2000	4000
60.5		138,768	131,777	131,777	119,564	84,606	68,765	40	14.8	2000	4000	185,866
74.1		138,768	131,777	131,777	119,564	84,606	68,765	40	14.8	2000	4000	185,866
80.6		131,334	112,395	100,005	95,492	82,659	67,172	40	14.8	2000	4000	185,866
93.0		138,768	131,777	131,777	119,564	84,606	68,765	40	14.8	2000	4000	185,866
100		138,768	131,777	131,777	119,564	84,606	68,765	40	14.8	2000	4000	185,866
113		131,334	112,395	100,005	95,492	82,659	67,172	35	14.8	2000	4000	185,866
126		138,768	131,777	131,777	119,564	84,606	68,765	36	14.8	2000	4000	185,866
139		131,334	112,395	100,005	95,492	82,659	67,172	30	14.8	2000	4000	185,866
146		132,750	123,989	123,989	119,564	84,606	68,765	31	14.8	2000	4000	185,866
162		131,334	112,395	100,005	95,492	82,659	67,172	26	14.8	2000	4000	185,866
177		108,855	108,855	108,855	108,855	84,606	68,765	21	14.8	2000	4000	185,866
202		131,334	112,395	100,005	95,492	82,659	67,172	21	14.8	2000	4000	185,866

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138,780 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}	
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h						[hp]
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000						
L3	221	132,750	122,130	114,165	110,625	84,606	68,765	21	14.8	2000	4000	185,866	
	239	97,350	84,960	76,995	76,995	72,924	66,287	14.1	14.8	2000	4000	185,866	
	284	126,821	112,395	100,005	95,492	82,659	67,172	15.2	14.8	2000	4000	185,866	
	336	97,350	84,960	76,995	76,995	72,924	66,287	10.1	14.8	2000	4000	185,866	
L4	349	138,768	131,777	131,777	119,564	84,606	68,765	13.6	10.1	2000	4000	185,866	
	406	131,334	112,395	100,005	95,492	82,659	67,172	11.0	10.1	2000	4000	185,866	
	465	131,334	112,395	100,005	95,492	82,659	67,172	9.6	10.1	2000	4000	185,866	
	509	132,750	123,989	123,989	119,564	84,606	68,765	9.3	10.1	2000	4000	185,866	
	579	138,768	131,777	131,777	119,564	84,606	68,765	8.2	10.1	2000	4000	185,866	
	654	131,334	112,395	100,005	95,492	82,659	67,172	6.8	10.1	2000	4000	185,866	
	722	138,768	131,777	131,777	119,564	84,606	68,765	6.6	10.1	2000	4000	185,866	
	801	131,334	112,395	100,005	95,492	82,659	67,172	5.5	10.1	2000	4000	185,866	
	906	138,768	131,777	131,777	119,564	84,606	68,765	5.3	10.1	2000	4000	185,866	
	999	131,334	112,395	100,005	95,492	82,659	67,172	4.4	10.1	2000	4000	185,866	
	1157	131,334	112,395	100,005	95,492	82,659	67,172	3.8	10.1	2000	4000	185,866	
	1274	108,855	108,855	108,855	108,855	108,855	84,606	68,765	3.1	10.1	2000	4000	185,866
	1408	138,768	131,777	131,777	119,564	84,606	68,765	68,765	3.4	10.1	2000	4000	185,866
	1591	132,750	122,130	114,165	110,625	84,606	68,765	68,765	3.0	10.1	2000	4000	185,866
	1767	138,768	131,777	131,777	119,564	84,606	68,765	68,765	2.7	10.1	2000	4000	185,866
	2041	126,821	112,395	100,005	95,492	82,659	67,172	67,172	2.2	10.1	2000	4000	185,866
	2423	97,350	84,960	76,995	76,995	72,924	66,287	66,287	1.4	10.1	2000	4000	185,866

309 L



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205,700 lb-in


	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	3.43	115,050	115,050	115,050	115,050	108,944	96,642	201	34	1500	2000	246,935
	4.09	205,674	195,320	195,320	179,301	116,112	94,341	201	34	1500	2000	256,672
	5.25	194,523	168,681	149,919	143,282	113,369	92,129	201	34	1500	2000	256,672
	6.23	150,450	127,440	115,050	115,050	109,475	90,978	201	34	1500	2000	256,672
L2	12.3	115,050	115,050	115,050	115,050	91,067	73,986	80	24	1800	3800	246,935
	14.7	156,911	156,911	156,911	156,911	103,103	83,721	80	24	1800	3800	256,672
	17.4	191,337	188,151	188,151	164,433	101,421	82,394	80	24	1800	3800	256,672
	21.8	163,814	154,875	154,875	151,689	98,766	80,270	80	24	1800	3800	256,672
	25.4	129,830	126,555	126,555	126,555	97,881	79,562	80	24	1800	3800	256,672
	28.0	194,523	168,681	149,919	143,282	113,369	92,129	80	24	1800	3800	256,672
	32.6	161,955	160,185	149,919	143,282	113,369	92,129	80	24	1800	3800	256,672
	38.6	150,450	127,440	115,050	115,050	109,475	90,978	80	24	1800	3800	256,672
	46.7	150,450	127,440	115,050	115,050	109,475	90,978	78	24	1800	3800	256,672
L3	51.3	156,911	156,911	156,911	156,911	103,103	83,721	40	14.8	2000	4000	256,672
	60.5	191,337	188,151	188,151	164,433	101,421	82,394	40	14.8	2000	4000	256,672
	74.1	191,337	188,151	188,151	164,433	101,421	82,394	40	14.8	2000	4000	256,672
	80.6	194,523	168,681	149,919	143,282	113,369	92,129	40	14.8	2000	4000	256,672
	93.0	163,814	154,875	154,875	151,689	98,766	80,270	40	14.8	2000	4000	256,672
	100	191,337	188,151	188,151	164,433	101,421	82,394	40	14.8	2000	4000	256,672
	113	161,955	160,185	149,919	143,282	113,369	92,129	40	14.8	2000	4000	256,672
	126	163,814	154,875	154,875	151,689	98,766	80,270	40	14.8	2000	4000	256,672
	139	161,955	160,185	149,919	143,282	113,369	92,129	40	14.8	2000	4000	256,672
	162	194,523	168,681	149,919	143,282	113,369	92,129	39	14.8	2000	4000	256,672
	183	129,830	126,555	126,555	126,555	97,881	79,562	24	14.8	2000	4000	256,672
	202	194,523	168,681	149,919	143,282	113,369	92,129	32	14.8	2000	4000	256,672
	223	150,450	127,440	115,050	115,050	109,475	90,978	23	14.8	2000	4000	256,672
	239	150,450	127,440	115,050	115,050	109,475	90,978	22	14.8	2000	4000	256,672
	284	139,830	139,830	139,830	132,750	113,369	92,129	17.1	14.8	2000	4000	256,672
336	150,450	127,440	115,050	115,050	109,475	90,978	15.5	14.8	2000	4000	256,672	
L4	349	191,337	188,151	188,151	164,433	101,421	82,394	19.4	10.1	2000	4000	256,672
	406	194,523	168,681	149,919	143,282	113,369	92,129	16.4	10.1	2000	4000	256,672
	465	194,523	168,681	149,919	143,282	113,369	92,129	14.3	10.1	2000	4000	256,672
	509	129,830	126,555	126,555	126,555	97,881	79,562	9.0	10.1	2000	4000	256,672
	579	191,337	188,151	188,151	164,433	101,421	82,394	11.7	10.1	2000	4000	256,672

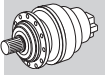
309 L



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205,700 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
1:		10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
L4	654	161,955	160,185	149,919	143,282	113,369	92,129	8.9	10.1	2000	4000	256,672
	722	191,337	188,151	188,151	164,433	101,421	82,394	9.4	10.1	2000	4000	256,672
	801	161,955	160,185	149,919	143,282	113,369	92,129	7.3	10.1	2000	4000	256,672
	906	163,814	154,875	154,875	151,689	98,766	80,270	6.3	10.1	2000	4000	256,672
	999	161,955	160,185	149,919	143,282	113,369	92,129	5.8	10.1	2000	4000	256,672
	1149	150,450	127,440	115,050	115,050	109,475	90,978	4.7	10.1	2000	4000	256,672
	1286	150,450	127,440	115,050	115,050	109,475	90,978	4.2	10.1	2000	4000	256,672
	1380	150,450	127,440	115,050	115,050	109,475	90,978	3.9	10.1	2000	4000	256,672
	1605	150,450	127,440	115,050	115,050	109,475	90,978	3.4	10.1	2000	4000	256,672
	1723	150,450	127,440	115,050	115,050	109,475	90,978	3.1	10.1	2000	4000	256,672
	2003	150,450	127,440	115,050	115,050	109,475	90,978	2.6	10.1	2000	4000	256,672
	2423	150,450	127,440	115,050	115,050	109,475	90,978	2.2	10.1	2000	4000	256,672




310 L



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301,990 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
1:		10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
L1	4.09	301,962	286,209	235,233	191,072	117,882	95,757	235	47	1500	1800	421,296
	5.25	270,810	232,224	206,648	186,735	115,227	93,545	235	47	1500	1800	421,296
	6.23	230,100	187,620	163,017	161,336	113,811	92,394	235	47	1500	1800	421,296
L2	14.7	301,962	286,209	235,233	191,072	117,882	95,757	101	30	1600	3000	421,296
	17.4	301,962	286,209	235,233	191,072	117,882	95,757	101	30	1600	3000	421,296
	21.8	301,962	282,581	235,233	191,072	117,882	95,757	101	30	1600	3000	421,296
	25.4	239,924	229,304	229,304	191,072	117,882	95,757	101	30	1600	3000	421,296
	28.0	270,810	232,224	206,648	186,735	115,227	93,545	101	30	1600	3000	421,296
	30.7	192,930	192,930	192,930	178,328	117,882	95,757	101	30	1600	3000	421,296
	32.6	270,810	232,224	206,648	186,735	115,227	93,545	101	30	1600	3000	421,296
	38.6	230,100	187,620	163,017	161,336	113,811	92,394	101	30	1600	3000	421,296
	46.7	230,100	187,620	163,017	161,336	113,811	92,394	101	30	1600	3000	421,296
	L3	53.0	301,962	286,209	235,233	191,072	117,882	95,757	54	24	1800	3800
62.6		301,962	286,209	235,233	191,072	117,882	95,757	54	24	1800	3800	421,296
73.9		301,962	286,209	235,233	191,072	117,882	95,757	54	24	1800	3800	421,296
80.3		270,810	232,224	206,648	186,735	115,227	93,545	54	24	1800	3800	421,296
91.3		301,962	286,209	235,233	191,072	117,882	95,757	54	24	1800	3800	421,296
101		270,810	232,224	206,648	186,735	115,227	93,545	54	24	1800	3800	421,296
110		301,962	286,209	235,233	191,072	117,882	95,757	54	24	1800	3800	421,296
119		270,810	232,224	206,648	186,735	115,227	93,545	54	24	1800	3800	421,296
130		301,962	286,209	235,233	191,072	117,882	95,757	54	24	1800	3800	421,296
142		270,810	232,224	206,648	186,735	115,227	93,545	54	24	1800	3800	421,296
164		301,962	282,581	235,233	191,072	117,882	95,757	51	24	1800	3800	421,296
177		230,100	187,620	163,017	161,336	113,811	92,394	41	24	1800	3800	421,296
202		270,810	232,224	206,648	186,735	115,227	93,545	40	24	1800	3800	421,296
230		192,930	192,930	192,930	178,328	117,882	95,757	26	24	1800	3800	421,296
249		230,100	187,620	163,017	161,336	113,811	92,394	29	24	1800	3800	421,296
295		247,800	229,038	206,648	186,735	115,227	93,545	26	24	1800	3800	421,296
350		230,100	187,620	163,017	161,336	113,811	92,394	21	24	1800	3800	421,296
L4	392	230,100	187,620	163,017	161,336	113,811	92,394	21	14.8	2000	4000	421,296
	451	301,962	286,209	235,233	191,072	117,882	95,757	21	14.8	2000	4000	421,296
	507	270,810	232,224	206,648	186,735	115,227	93,545	18.4	14.8	2000	4000	421,296
	556	301,962	286,209	235,233	191,072	117,882	95,757	15.4	14.8	2000	4000	421,296
	637	270,810	232,224	206,648	186,735	115,227	93,545	14.7	14.8	2000	4000	421,296
	726	270,810	232,224	206,648	186,735	115,227	93,545	12.9	14.8	2000	4000	421,296
	818	270,810	232,224	206,648	186,735	115,227	93,545	11.4	14.8	2000	4000	421,296
	939	301,962	286,209	235,233	191,072	117,882	95,757	9.1	14.8	2000	4000	421,296
	1021	270,810	232,224	206,648	186,735	115,227	93,545	9.1	14.8	2000	4000	421,296
	1164	270,810	232,224	206,648	186,735	115,227	93,545	8.0	14.8	2000	4000	421,296
	1259	247,800	229,038	206,648	186,735	115,227	93,545	7.1	14.8	2000	4000	421,296
	1438	230,100	187,620	163,017	161,336	113,811	92,394	5.7	14.8	2000	4000	421,296
	1672	230,100	187,620	163,017	161,336	113,811	92,394	4.9	14.8	2000	4000	421,296
	1794	230,100	187,620	163,017	161,336	113,811	92,394	4.6	14.8	2000	4000	421,296

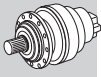
C

310 L



364

301,990 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L4	2022	230,100	187,620	163,017	161,336	113,811	92,394	4.1	14.8	2000	4000	421,296
	2523	230,100	187,620	163,017	161,336	113,811	92,394	3.3	14.8	2000	4000	421,296

311 L



382


427,760 lb-in

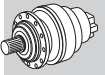
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	4.09	427,721	405,684	338,867	275,235	169,832	137,972	268	47	1500	1800	516,000
	5.25	400,109	350,018	311,697	283,200	174,345	141,600	268	47	1500	1800	516,000
	6.23	300,900	261,075	238,950	238,950	164,610	133,635	268	47	1500	1800	516,000
L2	14.0	315,945	315,945	315,945	275,235	169,832	137,972	154	35	1500	2500	516,000
	16.7	427,721	405,684	338,867	275,235	169,832	137,972	154	35	1500	2500	516,000
	18.0	380,550	350,018	311,697	283,200	174,345	141,600	154	35	1500	2500	516,000
	21.5	415,242	384,002	338,867	275,235	169,832	137,972	154	35	1500	2500	516,000
	25.5	311,520	305,325	305,325	275,235	169,832	137,972	154	35	1500	2500	516,000
	27.6	400,109	350,018	311,697	283,200	174,345	141,600	154	35	1500	2500	516,000
	32.7	380,550	350,018	311,697	283,200	174,345	141,600	154	35	1500	2500	516,000
	38.8	300,900	261,075	238,950	238,950	164,610	133,635	154	35	1500	2500	516,000
L3	50.5	315,945	315,945	315,945	275,235	169,832	137,972	80	24	1800	3800	516,000
	60.2	427,721	405,684	338,867	275,235	169,832	137,972	80	24	1800	3800	516,000
	71.1	427,721	405,684	338,867	275,235	169,832	137,972	80	24	1800	3800	516,000
	77.3	415,242	384,002	338,867	275,235	169,832	137,972	80	24	1800	3800	516,000
	89.3	427,721	405,684	338,867	275,235	169,832	137,972	80	24	1800	3800	516,000
	104	427,721	405,684	338,867	275,235	169,832	137,972	80	24	1800	3800	516,000
	115	415,242	384,002	338,867	275,235	169,832	137,972	80	24	1800	3800	516,000
	126	427,721	405,684	338,867	275,235	169,832	137,972	80	24	1800	3800	516,000
	133	415,242	384,002	338,867	275,235	169,832	137,972	80	24	1800	3800	516,000
	147	400,109	350,018	311,697	283,200	174,345	141,600	79	24	1800	3800	516,000
	161	415,242	384,002	338,867	275,235	169,832	137,972	75	24	1800	3800	516,000
	171	400,109	350,018	311,697	283,200	174,345	141,600	69	24	1800	3800	516,000
L4	191	311,520	305,325	305,325	275,235	169,832	137,972	51	24	1800	3800	516,000
	203	380,550	350,018	311,697	283,200	174,345	141,600	59	24	1800	3800	516,000
	245	380,550	350,018	311,697	283,200	174,345	141,600	49	24	1800	3800	516,000
	291	300,900	261,075	238,950	238,950	164,610	133,635	32	24	1800	3800	516,000
	348	427,721	405,684	338,867	275,235	169,832	137,972	40	14.8	2000	4000	516,000
	410	427,721	405,684	338,867	275,235	169,832	137,972	35	14.8	2000	4000	516,000
	512	427,721	405,684	338,867	275,235	169,832	137,972	28	14.8	2000	4000	516,000
	568	415,242	384,002	338,867	275,235	169,832	137,972	25	14.8	2000	4000	516,000
	627	400,109	350,018	311,697	283,200	174,345	141,600	22	14.8	2000	4000	516,000
	724	427,721	405,684	338,867	275,235	169,832	137,972	19.7	14.8	2000	4000	516,000
	825	415,242	384,002	338,867	275,235	169,832	137,972	17.0	14.8	2000	4000	516,000
	904	427,721	405,684	338,867	275,235	169,832	137,972	15.8	14.8	2000	4000	516,000
986	400,109	350,018	311,697	283,200	174,345	141,600	13.8	14.8	2000	4000	516,000	
1058	400,109	350,018	311,697	283,200	174,345	141,600	12.9	14.8	2000	4000	516,000	
1230	400,109	350,018	311,697	283,200	174,345	141,600	11.1	14.8	2000	4000	516,000	
1415	380,550	350,018	311,697	283,200	174,345	141,600	9.6	14.8	2000	4000	516,000	
1680	300,900	261,075	238,950	238,950	164,610	133,635	6.4	14.8	2000	4000	516,000	
1766	380,550	350,018	311,697	283,200	174,345	141,600	7.7	14.8	2000	4000	516,000	
2096	300,900	261,075	238,950	238,950	164,610	133,635	5.1	14.8	2000	4000	516,000	

C

313 L  400


513,100 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	4.14	490,379	486,750	486,750	407,100	251,340	203,550	335	60	900	1200	929,328
	5.40	513,035	440,111	398,250	398,250	246,030	200,010	335	60	900	1200	929,328
	6.50	433,650	375,240	345,150	345,150	246,030	199,125	335	60	900	1200	929,328
L2	14.2	460,200	460,200	460,200	407,100	251,340	203,550	201	40	1500	2000	929,328
	16.9	490,379	486,750	477,900	400,109	246,915	200,541	201	40	1500	2000	929,328
	18.5	513,035	440,111	398,250	398,250	246,030	200,010	201	40	1500	2000	929,328
	21.8	490,379	486,750	486,750	401,790	247,800	201,780	201	40	1500	2000	929,328
	25.8	469,050	460,200	460,200	400,109	246,915	200,541	201	40	1500	2000	929,328
	28.4	513,035	440,111	398,250	398,250	246,030	200,010	201	40	1500	2000	929,328
	33.6	513,035	440,111	398,250	398,250	246,030	200,010	201	40	1500	2000	929,328
	40.5	433,650	375,240	345,150	345,150	245,145	199,125	201	40	1500	2000	929,328
	L3	51.1	460,200	460,200	434,889	400,109	246,915	200,541	80	24	1800	3800
61.0		490,379	486,750	464,714	400,109	246,915	200,541	80	24	1800	3800	929,328
72.0		490,379	486,750	464,714	400,109	246,915	200,541	80	24	1800	3800	929,328
78.3		490,379	486,750	486,750	401,790	247,800	201,780	80	24	1800	3800	929,328
92.4		490,379	486,750	486,750	401,790	247,800	201,780	80	24	1800	3800	929,328
110		469,050	460,200	460,200	400,109	246,915	200,541	80	24	1800	3800	929,328
120		513,035	440,111	398,250	398,250	246,030	200,010	80	24	1800	3800	929,328
135		490,379	486,750	486,750	401,790	247,800	201,780	80	24	1800	3800	929,328
143		513,035	440,111	398,250	398,250	246,030	200,010	80	24	1800	3800	929,328
151		513,035	440,111	398,250	398,250	246,030	200,010	80	24	1800	3800	929,328
163		490,379	486,750	464,714	400,109	246,915	200,541	80	24	1800	3800	929,328
176		513,035	440,111	398,250	398,250	246,030	200,010	80	24	1800	3800	929,328
182		433,650	375,240	345,150	345,150	245,145	199,125	75	24	1800	3800	929,328
194		469,050	460,200	460,200	400,109	246,915	200,541	76	24	1800	3800	929,328
209		513,035	440,111	398,250	398,250	246,030	200,010	73	24	1800	3800	929,328
252		513,035	440,111	398,250	398,250	246,030	200,010	60	24	1800	3800	929,328
304		433,650	375,240	345,150	345,150	245,145	199,125	45	24	1800	3800	929,328
L4		352	490,379	464,714	464,714	400,109	246,915	200,541	40	14.8	2000	4000
	394	490,379	486,750	486,750	401,790	247,800	201,780	40	14.8	2000	4000	929,328
	452	490,379	486,750	464,714	400,109	246,915	200,541	39	14.8	2000	4000	929,328
	514	513,035	440,111	398,250	398,250	246,030	200,010	34	14.8	2000	4000	929,328
	564	490,379	486,750	464,714	400,109	246,915	200,541	31	14.8	2000	4000	929,328
	633	467,280	460,200	460,200	400,109	246,915	200,541	26	14.8	2000	4000	929,328
	695	513,035	440,111	398,250	398,250	246,030	200,010	25	14.8	2000	4000	929,328
	790	467,280	460,200	460,200	400,109	246,915	200,541	21	14.8	2000	4000	929,328
	889	513,035	440,111	398,250	398,250	246,030	200,010	19.6	14.8	2000	4000	929,328
	1014	513,035	440,111	398,250	398,250	246,030	200,010	17.2	14.8	2000	4000	929,328
	1117	467,280	460,200	460,200	400,109	246,915	200,541	15.0	14.8	2000	4000	929,328
	1266	513,035	440,111	398,250	398,250	246,030	200,010	13.8	14.8	2000	4000	929,328
	1394	467,280	460,200	460,200	400,109	246,915	200,541	12.0	14.8	2000	4000	929,328
	1502	513,035	440,111	398,250	398,250	246,030	200,010	11.6	14.8	2000	4000	929,328
	1817	513,035	440,111	398,250	398,250	246,030	200,010	9.6	14.8	2000	4000	929,328
2187	433,650	375,240	345,150	345,150	245,145	199,125	7.1	14.8	2000	4000	929,328	



314 L  418

743,470 lb-in

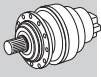
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	4.25	743,400	708,000	686,760	601,800	375,240	303,024	349	74	450	800	1,017,836
	5.33	700,920	615,960	579,356	552,240	346,920	281,076	349	74	450	800	1,017,836
	6.20	591,109	508,132	460,200	460,200	290,280	235,764	349	74	450	800	1,017,836
L2	17.4	743,400	708,000	686,760	559,320	344,796	280,368	235	54	1500	1800	1,017,836
	22.3	743,400	708,000	686,760	587,640	361,080	295,236	235	54	1500	1800	1,017,836
	26.5	743,400	708,000	686,760	552,240	342,672	278,952	235	54	1500	1800	1,017,836
	28.0	700,920	615,960	579,356	552,240	345,504	281,076	235	54	1500	1800	1,017,836
	33.2	700,920	615,960	579,356	552,240	345,504	281,076	235	54	1500	1800	1,017,836
	38.6	591,109	508,132	460,200	460,200	290,280	235,764	235	54	1500	1800	1,017,836
L3	62.6	743,400	708,000	686,760	559,320	344,796	280,368	101	34	1600	3000	1,017,836
	73.9	743,400	708,000	686,760	559,320	344,796	280,368	101	34	1600	3000	1,017,836

314 L



418

743,470 lb-in



	i 1:	T _{n2} [lb-in]						P ₁ [hp]	Pt [hp]	n ₁ [rpm]	n _{1max} [rpm]	T _{2max} [lb-in]
		n ₂ ·h 10,000	n ₂ ·h 25,000	n ₂ ·h 50,000	n ₂ ·h 100,000	n ₂ ·h 500,000	n ₂ ·h 1,000,000					
L3	92.7	743,400	708,000	686,760	559,320	344,796	280,368	101	34	1600	3000	1,017,836
	108	743,400	708,000	686,760	559,320	344,796	280,368	101	34	1600	3000	1,017,836
	138	743,400	708,000	686,760	587,640	361,080	295,236	101	34	1600	3000	1,017,836
	164	743,400	708,000	686,760	552,240	342,672	278,952	101	34	1600	3000	1,017,836
	174	700,920	615,960	579,356	552,240	345,504	281,076	101	34	1600	3000	1,017,836
	206	700,920	615,960	579,356	552,240	345,504	281,076	95	34	1600	3000	1,017,836
	240	591,109	508,132	460,200	460,200	290,280	235,764	66	34	1600	3000	1,017,836
L4	314	743,400	708,000	686,760	559,320	344,796	280,368	54	20	1800	3800	1,017,836
	388	743,400	708,000	686,760	559,320	344,796	280,368	54	20	1800	3800	1,017,836
	458	743,400	708,000	686,760	559,320	344,796	280,368	52	20	1800	3800	1,017,836
	495	743,400	708,000	686,760	559,320	344,796	280,368	48	20	1800	3800	1,017,836
	554	743,400	708,000	686,760	559,320	344,796	280,368	43	20	1800	3800	1,017,836
	588	743,400	708,000	686,760	587,640	361,080	295,236	41	20	1800	3800	1,017,836
	668	743,400	708,000	686,760	559,320	344,796	280,368	36	20	1800	3800	1,017,836
	738	743,400	708,000	686,760	587,640	361,080	295,236	33	20	1800	3800	1,017,836
	858	743,400	708,000	686,760	587,640	361,080	295,236	28	20	1800	3800	1,017,836
	926	700,920	615,960	579,356	552,240	345,504	281,076	24	20	1800	3800	1,017,836
	1038	743,400	708,000	686,760	587,640	361,080	295,236	23	20	1800	3800	1,017,836
	1099	700,920	615,960	579,356	552,240	345,504	281,076	21	20	1800	3800	1,017,836
	1277	700,920	615,960	579,356	552,240	345,504	281,076	17.7	20	1800	3800	1,017,836
	1485	591,109	508,132	460,200	460,200	290,280	235,764	12.3	20	1800	3800	1,017,836
	1796	591,109	508,132	460,200	460,200	290,280	235,764	10.2	20	1800	3800	1,017,836

315 L



434

930,000 lb-in

	i 1:	T _{n2} [lb-in]						P ₁ [hp]	Pt [hp]	n ₁ [rpm]	n _{1max} [rpm]	T _{2max} [lb-in]
		n ₂ ·h 10,000	n ₂ ·h 25,000	n ₂ ·h 50,000	n ₂ ·h 100,000	n ₂ ·h 500,000	n ₂ ·h 1,000,000					
L1	4.25	929,250	885,000	858,450	752,250	469,050	378,780	349	80	500	800	1,194,850
	5.33	876,150	769,950	724,196	690,300	433,650	351,345	349	80	500	800	1,194,850
	6.20	738,887	635,165	575,250	575,250	362,850	294,705	349	80	500	800	1,194,850
L2	17.4	929,250	885,000	858,450	699,150	430,995	350,460	268	60	1500	1800	1,194,850
	22.3	929,250	885,000	858,450	734,550	451,350	369,045	268	60	1500	1800	1,194,850
	26.5	929,250	885,000	858,450	690,300	428,340	348,690	268	60	1500	1800	1,194,850
	28.0	876,150	769,950	724,196	690,300	431,880	351,345	268	60	1500	1800	1,194,850
	33.2	876,150	769,950	724,196	690,300	431,880	351,345	268	60	1500	1800	1,194,850
	38.6	738,887	635,165	575,250	575,250	362,850	294,705	268	60	1500	1800	1,194,850
L3	59.6	929,250	885,000	858,450	699,150	430,995	350,460	154	40	1500	2500	1,194,850
	71.1	929,250	885,000	858,450	699,150	430,995	350,460	154	40	1500	2500	1,194,850
	91.3	929,250	885,000	858,450	699,150	430,995	350,460	154	40	1500	2500	1,194,850
	108	929,250	885,000	858,450	699,150	430,995	350,460	154	40	1500	2500	1,194,850
	139	929,250	885,000	858,450	734,550	451,350	369,045	154	40	1500	2500	1,194,850
	165	929,250	885,000	858,450	690,300	428,340	348,690	147	40	1500	2500	1,194,850
	174	876,150	769,950	724,196	690,300	431,880	351,345	131	40	1500	2500	1,194,850
	207	876,150	769,950	724,196	690,300	431,880	351,345	110	40	1500	2500	1,194,850
	241	738,887	635,165	575,250	575,250	362,850	294,705	77	40	1500	2500	1,194,850
	L4	302	929,250	885,000	858,450	699,150	430,995	350,460	80	24	1800	3800
370		929,250	885,000	858,450	699,150	430,995	350,460	80	24	1800	3800	1,194,850
441		929,250	885,000	858,450	699,150	430,995	350,460	68	24	1800	3800	1,194,850
487		929,250	885,000	858,450	699,150	430,995	350,460	62	24	1800	3800	1,194,850
533		929,250	885,000	858,450	699,150	430,995	350,460	56	24	1800	3800	1,194,850
591		929,250	885,000	858,450	734,550	451,350	369,045	51	24	1800	3800	1,194,850
672		929,250	885,000	858,450	699,150	430,995	350,460	45	24	1800	3800	1,194,850
741		929,250	885,000	858,450	734,550	451,350	369,045	40	24	1800	3800	1,194,850
862		929,250	885,000	858,450	734,550	451,350	369,045	35	24	1800	3800	1,194,850
930		876,150	769,950	724,196	690,300	431,880	351,345	30	24	1800	3800	1,194,850
1043		929,250	885,000	858,450	734,550	451,350	369,045	29	24	1800	3800	1,194,850
1104		876,150	769,950	724,196	690,300	431,880	351,345	26	24	1800	3800	1,194,850
1284		876,150	769,950	724,196	690,300	431,880	351,345	22	24	1800	3800	1,194,850
1492		738,887	635,165	575,250	575,250	362,850	294,705	15.3	24	1800	3800	1,194,850
1805		738,887	635,165	575,250	575,250	362,850	294,705	12.7	24	1800	3800	1,194,850

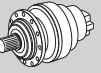
316 L



450

1,228,660 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}	
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h						[hp]
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000						
L1	4.25	1,228,557	1,154,217	1,000,050	885,000	584,100	477,900	375	91	350	500	1,699,343	
	L2	17.4	1,228,557	1,115,100	911,550	740,745	456,660	371,700	268	67	1500	1800	1,699,343
		22.3	1,228,557	1,115,100	946,950	754,905	471,705	377,895	268	67	1500	1800	1,699,343
		26.5	1,097,400	1,017,750	873,053	709,151	437,544	358,425	268	67	1500	1800	1,699,343
L3	59.6	1,228,557	1,115,100	911,550	740,745	456,660	371,700	154	47	1500	2500	1,699,343	
	71.1	1,228,557	1,115,100	911,550	740,745	456,660	371,700	154	47	1500	2500	1,699,343	
	76.5	1,228,557	1,115,100	946,950	754,905	471,705	377,895	154	47	1500	2500	1,699,343	
	91.3	1,228,557	1,115,100	911,550	740,745	456,660	371,700	154	47	1500	2500	1,699,343	
	108	1,228,557	1,114,392	911,550	740,745	456,660	371,700	154	47	1500	2500	1,699,343	
	117	1,228,557	1,115,100	946,950	754,905	471,705	377,895	154	47	1500	2500	1,699,343	
	139	1,228,557	1,088,373	911,550	740,745	456,660	371,700	154	47	1500	2500	1,699,343	
	165	1,097,400	1,017,750	873,053	709,151	437,544	358,425	154	47	1500	2500	1,699,343	
	L4	215	1,228,557	1,115,100	911,550	740,745	456,660	371,700	80	24	1800	3800	1,699,343
		256	1,228,557	1,115,100	911,550	740,745	456,660	371,700	80	24	1800	3800	1,699,343
302		1,228,557	1,115,100	911,550	740,745	456,660	371,700	80	24	1800	3800	1,699,343	
329		1,228,557	1,115,100	911,550	740,745	456,660	371,700	80	24	1800	3800	1,699,343	
370		1,228,557	1,115,100	911,550	740,745	456,660	371,700	80	24	1800	3800	1,699,343	
441		1,228,557	1,115,100	911,550	740,745	456,660	371,700	80	24	1800	3800	1,699,343	
487		1,228,557	1,115,100	911,550	740,745	456,660	371,700	79	24	1800	3800	1,699,343	
533		1,228,557	1,115,100	911,550	740,745	456,660	371,700	72	24	1800	3800	1,699,343	
566		1,228,557	1,115,100	911,550	740,745	456,660	371,700	68	24	1800	3800	1,699,343	
591		1,228,557	1,088,373	911,550	740,745	456,660	371,700	64	24	1800	3800	1,699,343	
625		1,228,557	1,115,100	946,950	754,905	471,705	377,895	62	24	1800	3800	1,699,343	
685		1,228,557	1,115,100	911,550	740,745	456,660	371,700	56	24	1800	3800	1,699,343	
726		1,228,557	1,115,100	946,950	754,905	471,705	377,895	53	24	1800	3800	1,699,343	
741		1,228,557	1,088,373	911,550	740,745	456,660	371,700	51	24	1800	3800	1,699,343	
812		1,228,557	1,114,392	911,550	740,745	456,660	371,700	46	24	1800	3800	1,699,343	
862		1,228,557	1,088,373	911,550	740,745	456,660	371,700	44	24	1800	3800	1,699,343	
1043	1,228,557	1,088,373	911,550	740,745	456,660	371,700	36	24	1800	3800	1,699,343		
1237	1,097,400	1,017,750	873,053	709,151	437,544	358,425	29	24	1800	3800	1,699,343		



C

317 L



462

1,841,930 lb-in

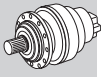
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	4.09	1,841,774	1,739,291	1,469,100	1,194,750	734,550	595,074	402	114	200	300	3,478,343
	5.25	1,662,561	1,525,740	1,363,343	1,159,616	715,523	581,180	402	114	200	300	3,478,343
	6.23	1,381,928	1,189,263	1,061,558	1,051,115	706,673	574,011	402	114	200	300	3,478,343
L2	16.9	1,832,658	1,593,000	1,300,950	1,062,000	654,900	531,000	335	74	900	1200	3,478,343
	22.1	1,631,144	1,566,450	1,274,400	1,035,450	637,200	522,150	335	74	900	1200	3,478,343
	26.6	1,371,750	1,371,750	1,274,400	1,035,450	637,200	522,150	335	74	900	1200	3,478,343
	28.4	1,662,561	1,525,740	1,363,343	1,159,616	715,523	581,180	335	74	900	1200	3,478,343
	34.1	1,504,500	1,451,046	1,363,343	1,159,616	715,523	581,180	335	74	900	1200	3,478,343
	40.5	1,381,928	1,189,263	1,061,558	1,051,115	706,673	574,011	335	74	900	1200	3,478,343
	L3	58.1	1,832,658	1,593,000	1,300,950	1,062,000	654,900	531,000	201	47	1500	2000
69.3		1,832,658	1,576,982	1,280,949	1,040,406	641,979	521,442	201	47	1500	2000	3,478,343
89.0		1,832,658	1,584,150	1,283,250	1,044,300	646,050	522,150	201	47	1500	2000	3,478,343
106		1,832,658	1,576,982	1,280,949	1,040,406	641,979	521,442	201	47	1500	2000	3,478,343
116		1,631,144	1,566,450	1,274,400	1,035,450	637,200	522,150	201	47	1500	2000	3,478,343
138		1,631,144	1,566,450	1,274,400	1,035,450	637,200	522,150	201	47	1500	2000	3,478,343
166		1,371,750	1,371,750	1,274,400	1,035,450	637,200	522,150	201	47	1500	2000	3,478,343
179		1,504,500	1,451,046	1,363,343	1,159,616	715,523	581,180	201	47	1500	2000	3,478,343
213		1,504,500	1,451,046	1,363,343	1,159,616	715,523	581,180	185	47	1500	2000	3,478,343
252		1,381,928	1,189,263	1,061,558	1,051,115	706,673	574,011	133	47	1500	2000	3,478,343
L4	310	1,832,658	1,576,982	1,280,949	1,040,406	641,979	521,442	80	24	1800	3800	3,478,343
	360	1,832,658	1,576,982	1,280,949	1,040,406	641,979	521,442	80	24	1800	3800	3,478,343
	449	1,832,658	1,576,982	1,280,949	1,040,406	641,979	521,442	80	24	1800	3800	3,478,343
	493	1,631,144	1,566,450	1,274,400	1,035,450	637,200	522,150	80	24	1800	3800	3,478,343
	552	1,832,658	1,584,150	1,283,250	1,044,300	646,050	522,150	80	24	1800	3800	3,478,343
	619	1,631,144	1,566,450	1,274,400	1,035,450	637,200	522,150	80	24	1800	3800	3,478,343

317 L



462

1,841,930 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L4	719	1,631,144	1,566,450	1,274,400	1,035,450	637,200	522,150	71	24	1800	3800	3,478,343
	792	1,832,658	1,576,982	1,280,949	1,040,406	641,979	521,442	65	24	1800	3800	3,478,343
	904	1,504,500	1,451,046	1,363,343	1,159,616	715,523	581,180	54	24	1800	3800	3,478,343
	1032	1,631,144	1,566,450	1,274,400	1,035,450	637,200	522,150	50	24	1800	3800	3,478,343
	1134	1,504,500	1,451,046	1,363,343	1,159,616	715,523	581,180	43	24	1800	3800	3,478,343
	1318	1,504,500	1,451,046	1,363,343	1,159,616	715,523	581,180	37	24	1800	3800	3,478,343
	1595	1,504,500	1,451,046	1,363,343	1,159,616	715,523	581,180	30	24	1800	3800	3,478,343
	1893	1,381,928	1,189,263	1,061,558	1,051,115	706,673	574,011	22	24	1800	3800	3,478,343

318 L



474

2,483,350 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}	
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h						[hp]
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000						
L1	4.40	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	456	127	200	300	4,425,373	
L2	18.7	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	349	84	500	800	4,425,373	
	23.5	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	349	84	500	800	4,425,373	
	27.3	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	349	84	500	800	4,425,373	
	76.5	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	268	54	1500	1800	4,425,373	
L3	98.2	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	268	54	1500	1800	4,425,373	
	117	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	268	54	1500	1800	4,425,373	
	123	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	268	54	1500	1800	4,425,373	
	146	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	268	54	1500	1800	4,425,373	
	170	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	268	54	1500	1800	4,425,373	
	L4	262	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	154	30	1500	2500	4,425,373
		313	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	154	30	1500	2500	4,425,373
		337	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	154	30	1500	2500	4,425,373
402		2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	148	30	1500	2500	4,425,373	
422		2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	141	30	1500	2500	4,425,373	
477		2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	125	30	1500	2500	4,425,373	
515		2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	115	30	1500	2500	4,425,373	
612		2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	97	30	1500	2500	4,425,373	
647		2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	92	30	1500	2500	4,425,373	
726		2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	82	30	1500	2500	4,425,373	
768		2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	77	30	1500	2500	4,425,373	
911	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	65	30	1500	2500	4,425,373		
1059	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	55	30	1500	2500	4,425,373		

319 L



486

4,216,590 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	4.26	4,026,750	3,462,740	2,813,238	2,284,628	1,409,451	1,144,217	510	154	200	300	6,018,507
	4.88	4,216,229	3,397,515	2,759,696	2,241,528	1,383,078	1,123,419	510	154	200	300	6,018,507
	5.77	3,253,083	2,810,318	2,515,790	2,205,774	1,361,042	1,105,454	510	154	200	300	6,018,507
	7.20	2,263,211	1,922,751	1,733,184	1,734,246	1,328,297	1,078,196	510	154	200	300	6,018,507
L2	20.7	3,572,922	3,079,800	2,725,800	2,212,500	1,362,900	1,106,250	349	94	500	800	6,018,507
	24.5	3,253,083	2,810,318	2,480,478	2,194,800	1,354,050	1,097,400	349	94	500	800	6,018,507
	26.0	3,450,704	3,079,800	2,531,100	2,062,050	1,274,400	1,035,450	349	94	500	800	6,018,507
	30.2	2,727,039	2,619,600	2,132,850	1,734,600	1,070,850	867,300	349	94	500	800	6,018,507
	35.8	3,183,168	2,810,318	2,368,349	1,947,000	1,203,600	973,500	349	94	500	800	6,018,507
L3	84.8	3,572,922	3,079,800	2,531,100	2,053,200	1,265,550	1,026,600	268	67	1500	1800	6,018,507
	109	3,572,922	3,079,800	2,663,850	2,168,250	1,336,350	1,088,550	268	67	1500	1800	6,018,507
	129	3,572,922	3,079,800	2,513,400	2,044,350	1,256,700	1,026,600	268	67	1500	1800	6,018,507
	137	3,450,704	3,079,800	2,531,100	2,062,050	1,274,400	1,035,450	268	67	1500	1800	6,018,507
	162	3,253,083	2,810,318	2,395,607	2,194,800	1,354,050	1,097,400	268	67	1500	1800	6,018,507
	188	2,727,039	2,619,600	2,132,850	1,734,600	1,070,850	867,300	268	67	1500	1800	6,018,507
	223	3,183,168	2,810,318	2,368,349	1,947,000	1,203,600	973,500	268	67	1500	1800	6,018,507

319 L



486

4,216,590 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
L4	347	3,572,922	3,079,800	2,531,100	2,053,200	1,265,550	1,026,600	154	40	1500	2500	6,018,507
	445	3,572,922	3,079,800	2,531,100	2,053,200	1,265,550	1,026,600	154	40	1500	2500	6,018,507
	528	3,572,922	3,079,800	2,531,100	2,053,200	1,265,550	1,026,600	154	40	1500	2500	6,018,507
	571	3,572,922	3,079,800	2,663,850	2,168,250	1,336,350	1,088,550	146	40	1500	2500	6,018,507
	678	3,572,922	3,079,800	2,663,850	2,168,250	1,336,350	1,088,550	123	40	1500	2500	6,018,507
	717	3,450,704	3,079,800	2,531,100	2,062,050	1,274,400	1,035,450	116	40	1500	2500	6,018,507
	850	3,450,704	3,079,800	2,531,100	2,062,050	1,274,400	1,035,450	98	40	1500	2500	6,018,507
	912	3,183,168	2,810,318	2,368,349	1,947,000	1,203,600	973,500	89	40	1500	2500	6,018,507
	1007	3,253,083	2,810,318	2,395,607	2,194,800	1,354,050	1,097,400	80	40	1500	2500	6,018,507
	1195	3,253,083	2,810,318	2,395,607	2,194,800	1,354,050	1,097,400	68	40	1500	2500	6,018,507
1389	3,183,168	2,810,318	2,368,349	1,947,000	1,203,600	973,500	58	40	1500	2500	6,018,507	



321 L



498

5,803,790 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
L1	4.44	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	724	154	200	300	8,266,597
L2	18.2	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	402	127	200	300	8,266,597
	23.3	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,522,200	402	127	200	300	8,266,597
	27.7	4,746,698	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	402	127	200	300	8,266,597
L3	75.3	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	335	80	1000	1200	8,266,597
	98.2	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	335	80	1000	1200	8,266,597
	118	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	335	80	1000	1200	8,266,597
	126	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,522,200	335	80	1000	1200	8,266,597
	152	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,522,200	335	80	1000	1200	8,266,597
	180	4,746,698	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	335	80	1000	1200	8,266,597
L4	258	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	201	47	1500	2000	8,266,597
	308	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	201	47	1500	2000	8,266,597
	395	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	201	47	1500	2000	8,266,597
	469	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	201	47	1500	2000	8,266,597
	515	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	201	47	1500	2000	8,266,597
	612	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	201	47	1500	2000	8,266,597
	736	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	174	47	1500	2000	8,266,597
	796	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,522,200	161	47	1500	2000	8,266,597
	945	5,803,299	4,578,017	3,718,505	3,020,417	1,863,633	1,522,200	136	47	1500	2000	8,266,597
	1122	4,746,698	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	106	47	1500	2000	8,266,597

C

323 L



510

7,879,900 lb-in

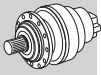
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
L1	4.60	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	1140	201	150	250	13,984,178
L2	19.6	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	510	174	200	300	13,984,178
	22.4	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	510	174	200	300	13,984,178
	26.5	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	510	174	200	300	13,984,178
	33.1	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	510	174	200	300	13,984,178
L3	83.3	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	349	121	500	800	13,984,178
	105	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	349	121	500	800	13,984,178
	113	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	349	121	500	800	13,984,178
	120	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	349	121	500	800	13,984,178
	142	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	349	121	500	800	13,984,178
	165	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	349	121	500	800	13,984,178
	205	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	281	121	500	800	13,984,178
L4	341	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	268	67	1500	1800	13,984,178
	390	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	268	67	1500	1800	13,984,178
	438	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	268	67	1500	1800	13,984,178
	500	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	268	67	1500	1800	13,984,178

323 L



510

7,879,900 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L4	569	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	268	67	1500	1800	13,984,178
	628	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	268	67	1500	1800	13,984,178
	703	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	264	67	1500	1800	13,984,178
	758	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	244	67	1500	1800	13,984,178
	882	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	210	67	1500	1800	13,984,178
	1025	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	181	67	1500	1800	13,984,178
	1101	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	168	67	1500	1800	13,984,178
	1279	7,879,244	7,344,969	6,567,143	5,334,249	3,291,404	2,673,408	145	67	1500	1800	13,984,178

325 L



514

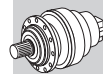
11,388,260 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
L1	4.60	11,387,295	10,327,508	8,388,561	6,813,615	4,204,193	3,414,861	1408	255	120	250	17,701,492
L2	19.6	11,386,410	9,770,843	7,936,326	6,451,650	3,977,633	3,230,781	510	215	200	300	17,701,492
	22.4	11,387,295	9,591,099	7,790,390	6,327,750	3,904,443	3,171,398	510	215	200	300	17,701,492
	26.5	11,387,295	9,437,906	7,665,959	6,226,683	3,842,051	3,120,776	510	215	200	300	17,701,492
	33.1	8,524,055	8,524,055	7,478,250	6,072,516	3,746,913	3,043,427	510	215	200	300	17,701,492
L3	83.3	11,386,410	9,770,843	7,936,326	6,446,340	3,977,633	3,230,781	349	154	500	800	17,701,492
	105	11,386,410	9,770,843	7,936,326	6,446,340	3,977,633	3,230,781	349	154	500	800	17,701,492
	113	11,387,295	9,437,906	7,665,959	6,226,683	3,842,051	3,120,776	349	154	500	800	17,701,492
	120	11,387,295	9,591,099	7,790,390	6,327,750	3,904,443	3,171,398	349	154	500	800	17,701,492
	142	11,387,295	9,437,906	7,665,959	6,226,683	3,842,051	3,120,776	349	154	500	800	17,701,492
	165	11,387,295	9,437,906	7,665,959	6,226,683	3,842,051	3,120,776	349	154	500	800	17,701,492
	205	8,524,055	8,524,055	7,478,250	6,072,516	3,746,913	3,043,427	303	154	500	800	17,701,492
L4	341	11,386,410	9,770,843	7,936,326	6,446,340	3,977,633	3,230,781	268	87	1500	1800	17,701,492
	390	11,387,295	9,591,099	7,790,390	6,327,750	3,904,443	3,171,398	268	87	1500	1800	17,701,492
	438	11,386,410	9,770,843	7,936,326	6,446,340	3,977,633	3,230,781	268	87	1500	1800	17,701,492
	500	11,387,295	9,591,099	7,790,390	6,327,750	3,904,443	3,171,398	268	87	1500	1800	17,701,492
	569	11,387,295	9,591,099	7,790,390	6,327,750	3,904,443	3,171,398	268	87	1500	1800	17,701,492
	628	11,387,295	9,591,099	7,790,390	6,327,750	3,904,443	3,171,398	268	87	1500	1800	17,701,492
	703	11,387,295	9,437,906	7,665,959	6,226,683	3,842,051	3,120,776	268	87	1500	1800	17,701,492
	758	11,386,410	9,770,843	7,936,326	6,446,340	3,977,633	3,230,781	268	87	1500	1800	17,701,492
	882	11,387,295	9,437,906	7,665,959	6,226,683	3,842,051	3,120,776	268	87	1500	1800	17,701,492
	1025	11,387,295	9,437,906	7,665,959	6,226,683	3,842,051	3,120,776	259	87	1500	1800	17,701,492
	1101	8,524,055	8,524,055	7,479,312	6,074,198	3,748,418	3,043,427	181	87	1500	1800	17,701,492
	1279	8,524,055	8,524,055	7,479,312	6,074,198	3,748,418	3,043,427	156	87	1500	1800	17,701,492

25.8 RATING CHARTS FOR RIGHT ANGLE UNITS 300 R

Reading the rating chart.



300 R		226						11,060 lb·in				
	i	T _{n2} [lb·in]						P ₁	P _t	n ₁	n _{1max}	T _{2max}
	1:	n ₂ ·h 10000	n ₂ ·h 25000	n ₂ ·h 50000	n ₂ ·h 100000	n ₂ ·h 500000	n ₂ ·h 1000000	[hp]	[hp]	[rpm]	[rpm]	[lb·in]
R2	7.13	6,726	6,461	6,461	6,461	6,461	6,461	20	16.1	2000	4000	17,701
	8.74	11,063	9,470	8,408	7,611	7,434	6,372	20	16.1	2000	4000	21,242
	11.8	7,611	6,461	5,753	5,753	5,753	5,576	16.4	16.1	2000	4000	21,242
	14.8	6,195	5,310	4,868	4,868	4,868	4,514	11.1	16.1	2000	4000	21,242
	18.5	4,071	3,452	3,275	3,275	3,275	3,275	6.0	16.1	2000	4000	21,242

- | | |
|---|--|
| <p>1 Reference torque</p> <hr/> <p>2 Number of reduction stages (right-angled gear unit)</p> <hr/> <p>3 Gear ratio</p> <hr/> <p>Gearbox rated output torque based on:</p> <p>4 - service factor $f_S=1$
- $n_2 \cdot h$ indicated</p> <hr/> <p>5 Maximum power transmitted to the input shaft</p> <hr/> <p>6 Gearbox thermal capacity</p> | <p>7 Input angular velocity</p> <hr/> <p>8 Maximum input angular velocity</p> <hr/> <p>9 Maximum output torque at gearbox</p> <hr/> <p>10 Page where dimensions can be sorted from</p> |
|---|--|

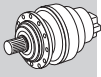


300 R



226

11,060 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
R2	7.13	6,726	6,461	6,461	6,461	6,461	6,461	20	16.1	2000	4000	17,701
	8.74	11,063	9,470	8,408	7,611	7,434	6,372	20	16.1	2000	4000	21,242
	11.8	7,611	6,461	5,753	5,753	5,753	5,576	16.4	16.1	2000	4000	21,242
	14.8	6,195	5,310	4,868	4,868	4,868	4,514	11.1	16.1	2000	4000	21,242
	18.5	4,071	3,452	3,275	3,275	3,275	3,275	6.0	16.1	2000	4000	21,242
R3	24.8	6,726	6,461	6,461	6,461	6,461	6,461	8.3	16.1	2000	4000	17,701
	30.4	11,063	9,470	8,408	7,611	7,434	6,372	8.9	16.1	2000	4000	21,242
	37.3	11,063	9,470	8,408	7,611	7,434	6,372	7.3	16.1	2000	4000	21,242
	41.2	7,611	6,461	5,753	5,753	5,753	5,576	4.9	16.1	2000	4000	21,242
	50.4	11,063	9,470	8,408	7,611	7,434	6,372	5.7	16.1	2000	4000	21,242
	62.9	11,063	9,470	8,408	7,611	7,434	6,372	4.7	16.1	2000	4000	21,242
	68.2	7,611	6,461	5,753	5,753	5,753	5,576	3.2	16.1	2000	4000	21,242
	78.7	11,063	9,470	8,408	7,611	7,434	6,372	3.9	16.1	2000	4000	21,242
	85.2	7,611	6,461	5,753	5,753	5,753	5,576	2.7	16.1	2000	4000	21,242
	106	7,611	6,461	5,753	5,753	5,753	5,576	2.3	16.1	2000	4000	21,242
	133	6,195	5,310	4,868	4,868	4,868	4,514	1.5	16.1	2000	4000	21,242
R4	106	11,063	9,470	8,408	7,611	7,434	6,372	3.0	13.4	2000	4000	21,242
	130	11,063	9,470	8,408	7,611	7,434	6,372	2.4	13.4	2000	4000	21,242
	143	7,611	6,461	5,753	5,753	5,753	5,576	1.8	13.4	2000	4000	21,242
	159	11,063	9,470	8,408	7,611	7,434	6,372	2.0	13.4	2000	4000	21,242
	175	11,063	9,470	8,408	7,611	7,434	6,372	1.8	13.4	2000	4000	21,242
	215	11,063	9,470	8,408	7,611	7,434	6,372	1.5	13.4	2000	4000	21,242
	237	7,611	6,461	5,753	5,753	5,753	5,576	1.1	13.4	2000	4000	21,242
	268	11,063	9,470	8,408	7,611	7,434	6,372	1.2	13.4	2000	4000	21,242
	291	11,063	9,470	8,408	7,611	7,434	6,372	1.1	13.4	2000	4000	21,242
	363	11,063	9,470	8,408	7,611	7,434	6,372	0.87	13.4	2000	4000	21,242
	394	7,611	6,461	5,753	5,753	5,753	5,576	0.69	13.4	2000	4000	21,242
	453	11,063	9,470	8,408	7,611	7,434	6,372	0.70	13.4	2000	4000	21,242
	491	7,611	6,461	5,753	5,753	5,753	5,576	0.56	13.4	2000	4000	21,242
	613	7,611	6,461	5,753	5,753	5,753	5,576	0.44	13.4	2000	4000	21,242
766	7,611	6,461	5,753	5,753	5,753	5,576	0.36	13.4	2000	4000	21,242	

C



301 R

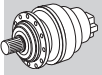




242

18,300 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
R2	7.13	13,187	12,656	12,656	12,656	12,656	11,505	20	16.1	2000	4000	30,092
	8.74	18,231	18,231	16,727	15,311	13,983	11,328	20	16.1	2000	4000	30,092
	11.8	15,222	12,921	11,505	11,505	11,505	10,974	20	16.1	2000	4000	30,092
	14.8	10,178	10,178	10,178	10,178	10,178	8,319	20	16.1	2000	4000	30,092
	18.5	8,142	6,903	6,549	6,549	6,549	6,549	10.7	16.1	2000	4000	30,092
R3	24.8	13,187	12,656	12,656	12,656	12,656	11,505	16.6	16.1	2000	4000	30,092
	30.4	21,771	18,939	16,815	15,311	13,983	11,328	17.5	16.1	2000	4000	30,092
	37.3	21,771	18,939	16,815	15,311	13,983	11,328	14.4	16.1	2000	4000	30,092
	41.2	15,222	12,921	11,505	11,505	11,505	10,974	9.8	16.1	2000	4000	30,092
	50.4	21,771	18,939	16,815	15,311	13,983	11,328	11.3	16.1	2000	4000	30,092
	62.9	17,700	17,700	16,196	15,311	13,983	11,328	9.4	16.1	2000	4000	30,092
	68.2	15,222	12,921	11,505	11,505	11,505	10,974	6.4	16.1	2000	4000	30,092
	78.7	14,160	14,160	14,160	14,160	13,541	11,328	7.8	16.1	2000	4000	30,092
	85.2	15,222	12,921	11,505	11,505	11,505	10,974	5.3	16.1	2000	4000	30,092
	106	15,222	12,921	11,505	11,505	11,505	10,974	4.5	16.1	2000	4000	30,092
	133	10,178	10,178	10,178	10,178	10,178	8,319	2.7	16.1	2000	4000	30,092
R4	106	21,771	18,939	16,815	15,311	13,983	11,328	6.0	13.4	2000	4000	30,092
	130	21,771	18,939	16,815	15,311	13,983	11,328	4.9	13.4	2000	4000	30,092
	143	15,222	12,921	11,505	11,505	11,505	10,974	3.6	13.4	2000	4000	30,092
	159	21,771	18,939	16,815	15,311	13,983	11,328	4.0	13.4	2000	4000	30,092
	175	21,771	18,939	16,815	15,311	13,983	11,328	3.6	13.4	2000	4000	30,092
	215	21,771	18,939	16,815	15,311	13,983	11,328	3.0	13.4	2000	4000	30,092
	237	15,222	12,921	11,505	11,505	11,505	10,974	2.3	13.4	2000	4000	30,092
	268	21,771	18,939	16,815	15,311	13,983	11,328	2.4	13.4	2000	4000	30,092

301 R		 242						18,300 lb-in				
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
	1:	n ₂ ·h 10,000	n ₂ ·h 25,000	n ₂ ·h 50,000	n ₂ ·h 100,000	n ₂ ·h 500,000	n ₂ ·h 1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
R4	291	21,771	18,939	16,815	15,311	13,983	11,328	2.2	13.4	2000	4000	30,092
	363	21,771	18,939	16,815	15,311	13,983	11,328	1.7	13.4	2000	4000	30,092
	394	15,222	12,921	11,505	11,505	11,505	10,974	1.4	13.4	2000	4000	30,092
	453	17,700	17,700	16,196	15,311	13,983	11,328	1.4	13.4	2000	4000	30,092
	491	15,222	12,921	11,505	11,505	11,505	10,974	1.1	13.4	2000	4000	30,092
	613	15,222	12,921	11,505	11,505	11,505	10,974	0.88	13.4	2000	4000	30,092
	766	15,222	12,921	11,505	11,505	11,505	10,974	0.70	13.4	2000	4000	30,092



303 R		 258						26,270 lb-in				
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
	1:	n ₂ ·h 10,000	n ₂ ·h 25,000	n ₂ ·h 50,000	n ₂ ·h 100,000	n ₂ ·h 500,000	n ₂ ·h 1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
R2	9.23	21,329	20,444	20,444	20,444	20,444	17,169	47	24	1800	3800	46,024
	10.9	26,285	24,869	24,869	23,453	22,745	18,497	47	24	1800	3800	46,024
	13.7	25,223	22,302	19,736	19,470	18,939	17,966	43	24	1800	3800	46,024
	15.9	21,594	18,408	16,284	16,107	16,107	16,107	30	24	1800	3800	46,024
	19.2	17,700	15,488	14,603	14,603	14,603	13,275	23	24	1800	3800	46,024
	24.8	9,293	7,965	7,611	7,611	7,611	7,611	9.3	24	1800	3800	46,024
R3	25.7	21,329	20,444	20,444	20,444	18,851	15,311	20	18.8	2,000	4,000	46,024
	31.5	21,329	20,444	20,444	20,444	18,585	15,045	20	18.8	2,000	4,000	46,024
	37.1	26,285	24,869	24,869	23,453	20,798	16,904	20	18.8	2,000	4,000	46,024
	42.6	21,329	19,559	19,559	19,559	17,966	14,603	15.6	18.8	2,000	4,000	46,024
	46.6	25,223	22,302	19,736	19,470	18,939	17,966	15.0	18.8	2,000	4,000	46,024
	50.3	24,515	23,895	23,453	23,187	20,178	16,373	16.3	18.8	2,000	4,000	46,024
	54.2	21,594	18,408	16,284	16,107	16,107	16,107	10.8	18.8	2,000	4,000	46,024
	63.1	25,223	22,302	19,736	19,470	18,939	17,966	11.6	18.8	2,000	4,000	46,024
	73.3	21,594	18,408	16,284	16,107	16,107	16,107	8.3	18.8	2,000	4,000	46,024
	78.7	25,223	21,683	19,736	19,470	18,939	17,966	9.6	18.8	2,000	4,000	46,024
	91.5	21,594	18,408	16,284	16,107	16,107	16,107	6.9	18.8	2,000	4,000	46,024
	114	20,355	18,408	16,284	16,107	16,107	16,107	5.8	18.8	2,000	4,000	46,024
	R4	129	26,285	24,869	24,869	23,453	21,152	17,169	6.9	16.1	2,000	4,000
148		21,329	20,444	20,444	20,444	18,851	15,311	4.9	16.1	2,000	4,000	46,024
158		26,285	24,869	24,869	23,453	20,798	16,904	5.8	16.1	2,000	4,000	46,024
185		21,329	20,444	20,444	20,444	18,851	15,311	3.9	16.1	2,000	4,000	46,024
214		26,285	24,869	24,869	23,453	20,798	16,904	4.3	16.1	2,000	4,000	46,024
231		21,594	18,408	16,284	16,107	16,107	16,107	3.2	16.1	2,000	4,000	46,024
255		21,594	18,408	16,284	16,107	16,107	16,107	2.9	16.1	2,000	4,000	46,024
290		24,515	23,895	23,453	23,187	20,178	16,373	3.0	16.1	2,000	4,000	46,024
313		21,594	18,408	16,284	16,107	16,107	16,107	2.3	16.1	2,000	4,000	46,024
336		25,223	22,302	19,736	19,470	18,939	17,966	2.7	16.1	2,000	4,000	46,024
364		25,223	22,302	19,736	19,470	18,939	17,966	2.5	16.1	2,000	4,000	46,024
390		21,594	18,408	16,284	16,107	16,107	16,107	1.9	16.1	2,000	4,000	46,024
452		19,913	19,913	19,913	19,913	16,196	15,930	1.6	16.1	2,000	4,000	46,024
528		21,594	18,408	16,284	16,107	16,107	16,107	1.4	16.1	2,000	4,000	46,024
567		25,223	21,683	19,736	19,470	18,939	17,966	1.6	16.1	2,000	4,000	46,024
659		21,594	18,408	16,284	16,107	16,107	16,107	1.1	16.1	2,000	4,000	46,024
797	17,700	15,488	14,603	14,603	14,603	13,275	0.80	16.1	2,000	4,000	46,024	
824	21,594	18,408	16,284	16,107	16,107	16,107	0.89	16.1	2,000	4,000	46,024	

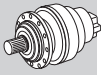


304 R



276

35,050 lb-in



	i 1:	T _{n2} [lb-in]						P ₁ [hp]	Pt [hp]	n ₁ [rpm]	n _{1max} [rpm]	T _{2max} [lb-in]
		n ₂ ·h 10,000	n ₂ ·h 25,000	n ₂ ·h 50,000	n ₂ ·h 100,000	n ₂ ·h 500,000	n ₂ ·h 1,000,000					
R2	9.23	32,834	31,152	30,975	28,497	21,152	17,169	47	24	1800	3800	58,415
	10.9	35,046	33,188	32,657	31,329	23,718	19,293	47	24	1800	3800	58,415
	13.7	33,099	28,232	25,223	25,223	25,223	22,656	47	24	1800	3800	58,415
	16.8	26,550	22,656	21,152	21,152	21,152	21,152	37	24	1800	3800	58,415
R3	25.7	32,834	31,152	30,975	30,444	27,258	25,046	20	18.8	2000	4000	64,610
	31.5	32,834	31,152	30,975	30,444	27,258	25,046	20	18.8	2000	4000	64,610
	37.1	35,046	33,188	32,657	31,329	30,356	24,603	20	18.8	2000	4000	64,610
	42.6	32,834	31,152	30,975	30,444	27,612	25,046	20	18.8	2000	4000	64,610
	46.6	33,099	28,232	25,223	25,223	25,223	23,984	19.0	18.8	2000	4000	64,610
	50.3	35,046	33,188	32,657	31,329	30,356	24,603	20	18.8	2000	4000	64,610
	63.1	33,099	28,232	25,223	25,223	25,223	23,984	14.7	18.8	2000	4000	64,610
	78.7	33,099	28,232	25,223	25,223	25,223	23,984	12.0	18.8	2000	4000	64,610
	97.0	26,639	22,656	21,152	21,152	21,152	21,152	7.9	18.8	2000	4000	64,610
	121	26,639	22,656	21,152	21,152	21,152	21,152	6.6	18.8	2000	4000	64,610
R4	89.4	32,834	31,152	30,975	30,444	27,612	25,046	12.6	16.1	2000	4000	64,610
	109	32,834	31,152	30,975	30,444	27,612	25,046	10.4	16.1	2000	4000	64,610
	129	35,046	33,188	32,657	31,329	30,356	24,603	9.5	16.1	2000	4000	64,610
	148	32,834	31,152	30,975	30,444	27,612	25,046	7.8	16.1	2000	4000	64,610
	158	35,046	33,188	32,657	31,329	30,356	24,603	7.8	16.1	2000	4000	64,610
	185	32,834	31,152	30,975	30,444	27,258	25,046	6.3	16.1	2000	4000	64,610
	214	35,046	33,188	32,657	31,329	30,356	24,603	5.9	16.1	2000	4000	64,610
	227	32,834	31,152	30,975	30,444	27,612	25,046	5.2	16.1	2000	4000	64,610
	267	35,046	33,188	32,657	31,329	30,356	24,603	4.7	16.1	2000	4000	64,610
	290	35,046	33,188	32,657	31,329	30,356	24,603	4.3	16.1	2000	4000	64,610
	307	32,834	31,152	30,975	30,444	27,612	25,046	3.8	16.1	2000	4000	64,610
	338	26,639	22,656	21,152	21,152	21,152	21,152	2.6	16.1	2000	4000	64,610
	364	33,099	28,232	25,223	25,223	25,223	23,984	3.1	16.1	2000	4000	64,610
	414	26,639	22,656	21,152	21,152	21,152	21,152	2.1	16.1	2000	4000	64,610
	452	35,046	32,834	32,391	31,329	30,356	24,603	2.8	16.1	2000	4000	64,610
	560	26,639	22,656	21,152	21,152	21,152	21,152	1.6	16.1	2000	4000	64,610
	699	26,639	22,656	21,152	21,152	21,152	21,152	1.2	16.1	2000	4000	64,610

C

305 R



294

49,600 lb-in


	i 1:	T _{n2} [lb-in]						P ₁ [hp]	Pt [hp]	n ₁ [rpm]	n _{1max} [rpm]	T _{2max} [lb-in]
		n ₂ ·h 10,000	n ₂ ·h 25,000	n ₂ ·h 50,000	n ₂ ·h 100,000	n ₂ ·h 500,000	n ₂ ·h 1,000,000					
R2	9.23	41,153	35,843	35,400	34,250	21,152	17,169	47	24	1800	3800	68,150
	10.9	46,905	41,772	41,772	38,498	23,718	19,293	47	24	1800	3800	68,150
	13.7	49,560	44,604	39,560	37,878	27,878	22,656	47	24	1800	3800	68,150
	15.9	41,507	35,400	31,860	31,860	30,975	25,134	47	24	1800	3800	68,150
	19.2	33,630	29,205	27,435	27,435	26,550	24,692	43	24	1800	3800	68,150
R3	25.7	41,418	39,737	39,737	39,737	33,630	27,347	20	18.8	2000	4000	77,887
	31.5	41,595	39,737	39,737	39,737	33,188	26,904	20	18.8	2000	4000	77,887
	37.1	51,330	48,675	48,498	46,905	37,259	30,267	20	18.8	2000	4000	77,887
	42.6	41,595	39,383	39,206	39,206	32,126	26,108	20	18.8	2000	4000	77,887
	46.6	49,560	44,604	39,560	38,940	37,878	30,887	20	18.8	2000	4000	77,887
	50.3	48,941	47,348	46,905	46,286	36,020	29,294	20	18.8	2000	4000	77,887
	54.2	41,507	35,400	31,860	31,860	31,418	30,621	20	18.8	2000	4000	77,887
	63.1	49,560	44,604	39,560	38,940	37,878	30,887	20	18.8	2000	4000	77,887
	73.3	41,507	35,400	31,860	31,860	31,418	30,621	16.4	18.8	2000	4000	77,887
	78.7	49,560	43,365	39,560	38,940	37,878	30,887	19.1	18.8	2000	4000	77,887
	91.5	41,507	35,400	31,860	31,860	31,418	30,621	13.7	18.8	2000	4000	77,887
114	39,206	35,400	31,860	31,860	30,975	30,621	11.5	18.8	2000	4000	77,887	
R4	129	51,330	48,498	48,498	46,905	37,790	30,710	13.9	16.1	2000	4000	77,887
	148	41,595	39,737	39,737	39,737	33,630	27,347	9.9	16.1	2000	4000	77,887
	158	51,330	48,675	48,498	46,905	37,259	30,267	11.5	16.1	2000	4000	77,887
	185	41,595	39,737	39,737	39,737	33,630	27,347	8.0	16.1	2000	4000	77,887
	214	51,330	48,675	48,498	46,905	37,259	30,267	8.6	16.1	2000	4000	77,887
	231	41,507	35,400	31,860	31,860	31,418	30,621	6.3	16.1	2000	4000	77,887
	255	41,507	35,400	31,860	31,860	31,418	30,621	5.7	16.1	2000	4000	77,887

305 R



294

49,600 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
R4	290	48,941	47,790	46,905	46,286	36,020	29,294	6.0	16.1	2000	4000	77,887
	313	41,507	35,400	31,860	31,860	31,418	30,621	4.7	16.1	2000	4000	77,887
	336	49,560	44,604	39,560	38,940	37,878	30,887	5.3	16.1	2000	4000	77,887
	364	49,560	44,604	39,560	38,940	37,878	30,887	4.9	16.1	2000	4000	77,887
	390	41,507	35,400	31,860	31,860	31,418	30,621	3.7	16.1	2000	4000	77,887
	452	42,038	42,038	42,038	42,038	32,391	28,409	3.3	16.1	2000	4000	77,887
	528	41,507	35,400	31,860	31,860	31,418	30,621	2.8	16.1	2000	4000	77,887
	567	49,560	43,365	39,560	38,940	37,878	30,887	3.1	16.1	2000	4000	77,887
	659	41,507	35,400	31,860	31,860	31,418	30,621	2.2	16.1	2000	4000	77,887
	797	33,630	29,205	27,435	27,435	26,550	24,692	1.5	16.1	2000	4000	77,887
824	41,507	35,400	31,860	31,860	31,418	30,621	1.8	16.1	2000	4000	77,887	




306 R



312

64,610 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
R2	9.23	41,153	35,843	35,400	34,250	21,152	17,169	47	24	1800	3800	106,209
	10.9	46,905	41,772	41,772	38,498	23,718	19,293	47	24	1800	3800	106,209
	13.7	57,525	52,392	52,392	45,135	27,878	22,656	47	24	1800	3800	106,209
	15.9	64,605	60,977	57,791	50,180	30,975	25,134	47	24	1800	3800	106,209
	19.2	61,950	52,215	48,675	47,790	35,312	28,674	47	24	1800	3800	106,209
R3	33.2	70,977	70,977	70,977	70,977	50,268	40,887	47	18.8	2000	4000	131,876
	39.2	86,465	82,659	82,659	82,305	54,074	43,896	47	18.8	2000	4000	131,876
	46.3	92,217	87,173	87,173	84,960	60,711	49,295	47	18.8	2000	4000	131,876
	58.1	84,606	80,535	80,535	80,535	59,118	48,056	47	18.8	2000	4000	131,876
	67.5	69,827	67,172	67,172	67,172	58,587	47,613	34	18.8	2000	4000	131,876
	72.9	89,208	82,748	73,455	70,358	60,269	48,941	36	18.8	2000	4000	131,876
	84.7	84,429	82,748	73,455	70,358	60,269	48,941	31	18.8	2000	4000	131,876
	98.5	76,376	65,225	57,791	57,525	57,171	48,498	24	18.8	2000	4000	131,876
	119	75,225	65,225	57,791	57,525	57,171	48,498	20	18.8	2000	4000	131,876
	144	61,950	52,215	48,675	48,675	44,604	44,604	14.3	18.8	2000	4000	131,876
R4	158	92,217	87,173	87,173	84,960	60,711	49,295	20	16.1	2000	4000	131,876
	168	73,632	68,145	68,145	66,641	52,658	42,746	15.2	16.1	2000	4000	131,876
	181	83,633	83,633	83,633	83,633	61,685	50,091	15.6	16.1	2000	4000	131,876
	214	92,217	87,173	87,173	84,960	60,711	49,295	14.8	16.1	2000	4000	131,876
	230	69,827	67,172	67,172	67,172	58,587	47,613	10.3	16.1	2000	4000	131,876
	249	89,208	82,748	73,455	70,358	60,269	48,941	12.1	16.1	2000	4000	131,876
	289	84,429	82,748	73,455	70,358	60,269	48,941	10.2	16.1	2000	4000	131,876
	312	69,827	67,172	67,172	67,172	58,587	47,613	7.6	16.1	2000	4000	131,876
	389	75,225	67,172	67,172	67,172	58,587	47,613	6.9	16.1	2000	4000	131,876
	420	89,208	82,748	73,455	70,358	60,269	48,941	7.2	16.1	2000	4000	131,876
	455	76,376	65,225	57,791	57,525	57,171	48,498	5.9	16.1	2000	4000	131,876
	488	84,429	82,748	73,455	70,358	60,269	48,941	6.0	16.1	2000	4000	131,876
	550	75,225	65,225	57,791	57,525	57,171	48,498	4.9	16.1	2000	4000	131,876
	590	84,075	75,225	69,030	69,030	60,269	48,941	5.1	16.1	2000	4000	131,876
	665	61,950	52,215	48,675	48,675	44,604	44,604	3.3	16.1	2000	4000	131,876
	830	61,950	52,215	48,675	48,675	44,604	44,604	2.7	16.1	2000	4000	131,876

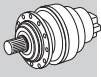
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307 R



330

123,900 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ -h	n ₂ -h	n ₂ -h	n ₂ -h	n ₂ -h	n ₂ -h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
R2	13.0	79,650	75,225	73,190	70,446	58,145	47,259	114	47	1800	3800	164,624
	15.5	100,890	94,607	85,226	84,252	65,844	53,454	114	47	1800	3800	185,866
	19.8	123,900	112,395	100,005	95,492	78,323	63,632	114	47	1800	3800	185,866
	23.5	97,350	84,960	76,995	76,995	72,924	66,287	99	47	1800	3800	185,866
R3	31.6	79,650	79,650	79,650	73,455	48,587	39,471	47	30	2000	4000	164,624
	37.7	138,768	131,777	109,740	89,120	54,959	44,693	47	30	2000	4000	185,866
	44.6	138,768	131,777	123,281	100,094	61,773	50,180	47	30	2000	4000	185,866
	55.9	138,768	131,777	131,777	117,351	72,393	58,853	47	30	2000	4000	185,866
	65.0	129,830	123,989	123,989	119,564	80,447	65,313	47	30	2000	4000	185,866
	71.8	131,334	112,395	100,005	95,492	82,659	67,172	47	30	2000	4000	185,866
	78.6	108,855	108,855	108,855	108,855	84,606	68,765	47	30	2000	4000	185,866
	83.4	131,334	112,395	100,005	95,492	82,659	67,172	45	30	2000	4000	185,866
	99.0	97,350	84,960	76,995	76,995	72,924	66,287	31	30	2000	4000	185,866
	120	97,350	84,960	76,995	76,995	72,924	66,287	27	30	2000	4000	185,866
R4	152	138,768	131,777	131,777	119,564	84,606	68,765	20	20	2000	4000	185,866
	165	131,334	112,395	100,005	95,492	82,659	67,172	20	20	2000	4000	185,866
	191	138,768	131,777	131,777	119,564	84,606	68,765	20	20	2000	4000	185,866
	206	138,768	131,777	131,777	119,564	84,606	68,765	20	20	2000	4000	185,866
	232	131,334	112,395	100,005	95,492	82,659	67,172	19.1	20	2000	4000	185,866
	258	138,768	131,777	131,777	119,564	84,606	68,765	18.4	20	2000	4000	185,866
	284	131,334	112,395	100,005	95,492	82,659	67,172	15.6	20	2000	4000	185,866
	300	132,750	123,989	123,989	119,564	84,606	68,765	15.9	20	2000	4000	185,866
	331	131,334	112,395	100,005	95,492	82,659	67,172	13.4	20	2000	4000	185,866
	363	108,855	108,855	108,855	108,855	84,606	68,765	10.8	20	2000	4000	185,866
	413	131,334	112,395	100,005	95,492	82,659	67,172	10.7	20	2000	4000	185,866
	453	132,750	122,130	114,165	110,625	84,606	68,765	10.5	20	2000	4000	185,866
	490	97,350	84,960	76,995	76,995	72,924	66,287	7.1	20	2000	4000	185,866
	581	126,821	112,484	100,005	95,492	82,659	67,172	7.6	20	2000	4000	185,866
	690	97,350	84,960	76,995	76,995	72,924	66,287	5.1	20	2000	4000	185,866

309 R



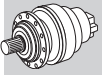
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145,700 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ -h	n ₂ -h	n ₂ -h	n ₂ -h	n ₂ -h	n ₂ -h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
R2	13.0	86,730	80,712	73,190	70,446	58,145	47,259	114	47	1800	3800	242,510
	15.5	100,890	94,607	85,226	84,252	65,844	53,454	114	47	1800	3800	242,510
	19.8	123,900	117,440	108,590	108,590	78,323	63,632	114	47	1800	3800	242,510
	23.5	145,671	124,520	110,625	109,475	88,323	71,774	114	47	1800	3800	242,510
R3	31.6	113,280	108,944	96,996	78,765	48,587	39,471	47	30	2000	4000	246,936
	37.7	140,096	135,051	109,740	89,120	54,959	44,693	47	30	2000	4000	256,672
	44.6	165,230	151,778	123,281	100,094	61,773	50,180	47	30	2000	4000	256,672
	55.9	163,814	151,689	144,521	117,351	72,393	58,853	47	30	2000	4000	256,672
	65.0	129,830	126,555	126,555	123,989	80,447	65,313	47	30	2000	4000	256,672
	71.8	194,523	168,681	149,919	139,742	86,199	70,004	47	30	2000	4000	256,672
	83.4	161,955	160,185	149,919	143,282	95,846	77,792	47	30	2000	4000	256,672
	99.0	150,450	127,440	115,050	115,050	108,059	87,704	47	30	2000	4000	256,672
	120	150,450	127,440	115,050	115,050	109,475	90,978	41	30	2000	4000	256,672
	R4	152	191,337	188,151	188,151	164,433	101,421	82,394	20	20	2000	4000
165		194,523	168,681	149,919	143,282	113,369	92,129	20	20	2000	4000	256,672
191		163,814	154,875	154,875	151,689	98,766	80,270	20	20	2000	4000	256,672
206		191,337	188,151	188,151	164,433	101,421	82,394	20	20	2000	4000	256,672
232		161,955	160,185	149,919	143,282	113,369	92,129	20	20	2000	4000	256,672
258		163,814	154,875	154,875	151,689	98,766	80,270	20	20	2000	4000	256,672
284		161,955	160,185	149,919	143,282	113,369	92,129	20	20	2000	4000	256,672
331		194,523	168,681	149,919	143,282	113,369	92,129	20	20	2000	4000	256,672
374		129,830	126,555	126,555	123,989	97,881	79,562	12.3	20	2000	4000	256,672
413		194,523	168,681	149,919	143,282	113,369	92,129	16.1	20	2000	4000	256,672
457		150,450	127,440	115,050	115,050	109,475	90,978	11.8	20	2000	4000	256,672
490		150,450	127,440	115,050	115,050	109,475	90,978	11.0	20	2000	4000	256,672
581		139,830	139,830	139,830	132,750	113,369	92,129	8.6	20	2000	4000	256,672
690		150,450	127,440	115,050	115,050	109,475	90,978	7.8	20	2000	4000	256,672

310 R		364	301,990 lb-in
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	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
R2	12.0	249,570	246,030	221,250	191,072	117,882	95,757	174	74	1500	2500	421,296
	15.4	270,810	232,224	206,648	186,735	115,227	93,545	174	74	1500	2500	421,296
	18.3	230,100	187,620	163,017	161,336	113,811	92,394	174	74	1500	2500	421,296
	16.6	301,962	286,209	235,233	191,072	117,882	95,757	174	74	1500	2500	421,296
	21.3	270,810	232,224	206,648	186,735	115,227	93,545	174	74	1500	2500	421,296
	25.3	230,100	187,620	163,017	161,336	113,811	92,394	159	74	1500	2500	421,296
R3	37.7	140,096	135,051	109,740	89,120	54,959	44,693	47	30	1800	3800	421,296
	44.6	165,230	151,778	123,281	100,094	61,773	50,180	47	30	1800	3800	421,296
	55.9	207,179	177,885	144,432	117,351	72,393	58,853	47	30	1800	3800	421,296
	65.0	239,924	197,621	160,539	130,361	80,447	65,313	47	30	1800	3800	421,296
	71.8	265,412	211,781	172,044	139,742	86,199	70,004	47	30	1800	3800	421,296
	78.6	192,930	186,735	178,328	149,034	91,952	74,694	47	30	1800	3800	421,296
	83.4	270,810	232,224	191,160	155,318	95,846	77,792	47	30	1800	3800	421,296
	99.0	230,100	187,620	163,017	161,336	108,059	87,704	47	30	1800	3800	421,296
	120	230,100	187,620	163,017	161,336	113,811	92,394	47	30	1800	3800	421,296
	R4	136	301,962	286,209	235,233	191,072	117,882	95,757	47	20	2000	4000
160		301,962	286,209	235,233	191,072	117,882	95,757	47	20	2000	4000	421,296
189		301,962	286,209	235,233	191,072	117,882	95,757	47	20	2000	4000	421,296
206		270,810	232,224	206,648	186,735	115,227	93,545	45	20	2000	4000	421,296
234		301,962	286,209	235,233	191,072	117,882	95,757	34	20	2000	4000	421,296
258		270,810	232,224	206,648	186,735	115,227	93,545	36	20	2000	4000	421,296
283		301,962	286,209	235,233	191,072	117,882	95,757	26	20	2000	4000	421,296
305		270,810	232,224	206,648	186,735	115,227	93,545	31	20	2000	4000	421,296
334		301,962	286,209	235,233	191,072	117,882	95,757	26	20	2000	4000	421,296
363		270,810	232,224	206,648	186,735	115,227	93,545	26	20	2000	4000	421,296
419		301,962	282,581	235,233	191,072	117,882	95,757	23	20	2000	4000	421,296
454		230,100	187,620	163,017	161,336	113,811	92,394	18.2	20	2000	4000	421,296
517		270,810	232,224	206,648	186,735	115,227	93,545	18.1	20	2000	4000	421,296
590		192,930	192,930	192,930	178,328	117,882	95,757	11.7	20	2000	4000	421,296
639		230,100	187,620	163,017	161,336	113,811	92,394	12.9	20	2000	4000	421,296
757		247,800	229,038	206,648	186,735	115,227	93,545	11.7	20	2000	4000	421,296
898		230,100	187,620	163,017	161,336	113,811	92,394	9.2	20	2000	4000	421,296



311 R		382	427,760 lb-in
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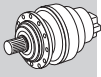
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
R2	12.0	249,570	246,030	221,250	220,454	140,715	112,395	201	101	1500	2500	516,000
	15.4	315,060	297,360	282,846	270,810	166,380	135,405	201	101	1500	2500	516,000
	18.3	300,900	261,075	238,950	238,950	164,610	133,635	201	101	1500	2500	516,000
	16.6	427,809	373,028	302,847	246,030	151,778	123,369	201	121	1500	2500	516,000
	21.3	400,109	350,106	311,697	268,863	165,849	134,786	201	121	1500	2500	516,000
	25.3	300,900	261,075	238,950	230,100	163,814	133,104	201	121	1500	2500	516,000
R3	53.0	287,625	287,006	287,094	245,057	151,247	122,838	114	54	2000	4000	516,000
	63.2	358,779	344,088	338,867	275,235	169,832	137,972	114	54	2000	4000	516,000
	68.0	370,815	350,106	311,697	268,863	165,849	134,786	114	54	2000	4000	516,000
	81.1	415,331	384,002	338,867	275,235	169,832	137,972	114	54	2000	4000	516,000
	96.3	311,520	305,325	305,325	275,235	169,832	137,972	111	54	2000	4000	516,000
	104	400,109	350,106	311,697	283,200	174,345	141,600	114	54	2000	4000	516,000
	124	380,550	350,106	311,697	283,200	174,345	141,600	100	54	2000	4000	516,000
	147	300,900	261,075	238,950	238,950	164,610	133,635	69	54	2000	4000	516,000
	R4	154	427,809	351,345	285,324	231,782	143,016	116,201	47	30	2000	4000
182		427,809	394,622	320,459	260,367	160,628	130,449	47	30	2000	4000	516,000
198		415,331	384,002	338,867	275,235	169,832	137,972	47	30	2000	4000	516,000
229		427,809	405,684	338,867	275,235	169,832	137,972	47	30	2000	4000	516,000
266		427,809	405,684	338,867	275,235	169,832	137,972	47	30	2000	4000	516,000
294		415,331	384,002	338,867	275,235	169,832	137,972	47	30	2000	4000	516,000
322		427,809	405,684	338,867	275,235	169,832	137,972	44	30	2000	4000	516,000
341		415,331	384,002	338,867	275,235	169,832	137,972	41	30	2000	4000	516,000

311 R



382

427,760 lb-in



	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
R4	413	415,331	384,002	338,867	275,235	169,832	137,972	34	30	2000	4000	516,000
	438	400,109	350,106	311,697	283,200	174,345	141,600	31	30	2000	4000	516,000
	490	311,520	305,325	305,325	275,235	169,832	137,972	23	30	2000	4000	516,000
	520	380,550	350,106	311,697	283,200	174,345	141,600	26	30	2000	4000	516,000
	629	380,550	350,106	311,697	283,200	174,345	141,600	22	30	2000	4000	516,000
	746	300,900	261,075	238,950	238,950	164,610	133,635	14.5	30	2000	4000	516,000

313 R



400

513,100 lb-in

C

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
R2	12.2	252,225	248,685	223,905	222,401	142,485	114,165	201	101	1500	2500	763,820
	15.9	324,795	315,060	290,900	277,890	167,265	137,175	201	101	1500	2500	763,820
	19.1	390,285	362,850	334,530	318,600	195,585	156,645	201	101	1500	2500	763,820
	16.8	472,059	376,302	305,591	248,243	153,194	124,431	201	121	1500	2500	929,328
	22.0	513,035	440,111	367,983	298,776	184,346	149,742	201	121	1500	2500	929,328
	26.4	433,650	362,850	292,935	280,811	210,011	170,540	201	121	1500	2500	929,328
R3	53.7	310,812	290,811	290,811	247,269	152,574	123,900	114	54	1800	3800	929,328
	64.0	362,762	348,513	344,442	279,837	172,664	140,273	114	54	1800	3800	929,328
	69.9	391,878	381,612	366,479	297,626	183,638	149,211	114	54	1800	3800	929,328
	82.2	451,350	450,377	410,198	333,203	205,586	167,000	114	54	1800	3800	929,328
	97.5	464,006	444,978	444,978	375,594	231,782	188,240	114	54	1800	3800	929,328
	107	513,035	440,111	394,710	376,922	240,720	195,497	114	54	1800	3800	929,328
	127	513,035	440,111	398,250	376,922	240,720	195,497	114	54	1800	3800	929,328
	153	433,650	375,240	345,150	345,150	245,145	199,125	87	54	1800	3800	929,328
R4	185	490,379	398,073	323,379	262,668	162,044	131,600	47	30	2000	4000	929,328
	201	490,379	422,057	342,761	278,421	171,779	139,565	47	30	2000	4000	929,328
	237	490,379	464,714	385,064	312,759	193,019	156,734	47	30	2000	4000	929,328
	281	469,050	444,978	434,093	352,584	217,533	176,735	47	30	2000	4000	929,328
	309	513,035	440,111	391,967	376,568	232,313	188,682	47	30	2000	4000	929,328
	346	490,379	486,750	464,714	400,109	246,915	200,541	47	30	2000	4000	929,328
	387	513,035	440,111	398,250	376,922	240,720	195,497	45	30	2000	4000	929,328
	450	513,035	440,111	398,250	398,250	246,030	200,010	39	30	2000	4000	929,328
	496	469,050	460,200	461,970	400,109	246,915	200,541	34	30	2000	4000	929,328
	535	513,035	440,111	398,250	398,250	246,030	200,010	33	30	2000	4000	929,328
	647	513,035	440,111	398,250	398,250	246,030	200,010	27	30	2000	4000	929,328
	778	433,650	375,240	345,150	345,150	245,145	199,125	20	30	2000	4000	929,328

314 R



418

743,470 lb-in


	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
R3	51.1	724,284	691,645	584,808	470,891	290,563	236,118	174	74	1500	2500	1,017,836
	65.5	743,400	708,000	686,760	572,064	343,380	271,872	174	74	1500	2500	1,017,836
	77.8	743,400	708,000	686,760	552,240	345,504	278,952	174	74	1500	2500	1,017,836
	82.3	700,920	615,960	579,356	552,240	345,504	281,076	174	74	1500	2500	1,017,836
	97.6	700,920	615,960	579,356	552,240	345,504	281,076	174	74	1500	2500	1,017,836
	113	591,109	508,132	460,200	460,200	290,280	235,764	127	74	1500	2500	1,017,836
	70.7	736,108	691,574	599,888	487,246	300,617	244,189	174	74	1500	2500	1,017,836
	90.7	743,400	691,574	599,888	487,246	300,617	244,189	174	74	1500	2500	1,017,836
	108	743,400	708,000	599,888	487,246	300,617	244,189	135	74	1500	2500	1,017,836
	114	700,920	615,960	579,356	495,600	312,228	257,004	156	74	1500	2500	1,017,836
	135	700,920	615,960	579,356	552,240	345,504	281,076	131	74	1500	2500	1,017,836
	157	591,109	508,132	460,200	460,200	290,280	235,764	94	74	1500	2500	1,017,836
	R4	160	736,108	691,574	599,888	487,246	300,617	244,189	47	30	1800	3800

314 R



418

743,470 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
R4	189	743,400	700,920	599,888	487,246	300,617	244,189	47	30	1800	3800	1,017,836
	238	743,400	708,000	672,600	552,240	339,132	275,412	47	30	1800	3800	1,017,836
	276	743,400	708,000	686,760	559,320	344,796	280,368	47	30	1800	3800	1,017,836
	354	743,400	708,000	686,760	587,640	361,080	295,236	47	30	1800	3800	1,017,836
	421	743,400	708,000	686,760	552,240	342,672	278,244	47	30	1800	3800	1,017,836
	445	700,920	615,960	579,356	552,240	345,504	281,076	47	30	1800	3800	1,017,836
	528	700,920	615,960	579,356	552,240	345,504	281,076	43	30	1800	3800	1,017,836
	614	591,109	508,132	460,200	460,200	290,280	235,764	30	30	1800	3800	1,017,836




315 R



434

930,000 lb-in

	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
R3	51.1	905,355	864,557	731,010	588,614	363,204	295,148	201	101	1500	2500	1,194,850
	65.5	929,250	885,000	858,450	715,080	429,225	339,840	201	101	1500	2500	1,194,850
	77.8	929,250	885,000	858,450	690,300	431,880	348,690	201	101	1500	2500	1,194,850
	82.3	876,150	769,950	724,196	690,300	431,880	351,345	201	101	1500	2500	1,194,850
	97.6	876,150	769,950	724,196	690,300	431,880	351,345	201	101	1500	2500	1,194,850
	113	738,887	635,165	575,250	575,250	362,850	294,705	158	101	1500	2500	1,194,850
	70.7	920,135	864,468	749,861	609,057	375,771	305,237	201	121	1500	2500	1,194,850
	90.7	929,250	864,468	749,861	609,057	375,771	305,237	201	121	1500	2500	1,194,850
	108	929,250	885,000	749,861	609,057	375,771	305,237	201	121	1500	2500	1,194,850
	114	876,150	769,950	724,196	619,500	390,285	321,255	196	121	1500	2500	1,194,850
	135	876,150	769,950	724,196	690,300	431,880	351,345	168	121	1500	2500	1,194,850
	157	738,887	635,165	575,250	575,250	362,850	294,705	118	121	1500	2500	1,194,850
	R4	225	920,135	864,468	749,861	609,057	375,771	305,237	121	54	1800	3800
269		929,250	876,150	749,861	609,057	375,771	305,237	112	54	1800	3800	1,194,850
345		929,250	885,000	840,750	690,300	423,915	344,265	87	54	1800	3800	1,194,850
409		929,250	885,000	858,450	699,150	430,995	350,460	73	54	1800	3800	1,194,850
525		929,250	885,000	858,450	734,550	451,350	369,045	57	54	1800	3800	1,194,850
623		929,250	885,000	858,450	690,300	428,340	347,805	48	54	1800	3800	1,194,850
659		876,150	769,950	724,196	690,300	431,880	351,345	43	54	1800	3800	1,194,850
782		876,150	769,950	724,196	690,300	431,880	351,345	36	54	1800	3800	1,194,850
909		738,887	635,165	575,250	575,250	362,850	294,705	25	54	1800	3800	1,194,850




316 R



450

1,228,660 lb-in

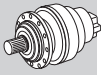
	i	T _{n2} [lb-in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000	[hp]	[hp]	[rpm]	[rpm]	[lb-in]
R3	51.1	955,800	893,850	771,720	622,155	374,355	300,015	201	101	1500	2500	1,699,343
	65.5	1,185,900	1,115,100	920,400	731,010	442,500	355,770	201	101	1500	2500	1,699,343
	77.8	1,097,400	1,017,750	873,053	709,151	437,544	358,425	201	101	1500	2500	1,699,343
	70.7	1,228,469	996,422	808,979	657,113	405,507	329,397	201	121	1500	2500	1,699,343
	90.7	1,228,557	1,088,373	884,027	718,001	443,031	359,841	201	121	1500	2500	1,699,343
	108	1,097,400	955,800	873,053	709,151	437,544	355,416	201	121	1500	2500	1,699,343
R4	225	1,228,469	1,115,100	911,550	740,745	456,660	371,700	114	60	1800	3800	1,699,343
	269	1,228,557	1,115,100	911,550	740,745	456,660	371,700	114	60	1800	3800	1,699,343
	289	1,228,557	1,115,100	946,950	754,905	471,705	377,895	114	60	1800	3800	1,699,343
	345	1,228,557	1,115,100	911,550	740,745	456,660	371,700	112	60	1800	3800	1,699,343
	409	1,228,557	1,114,392	911,550	740,745	456,660	371,700	92	60	1800	3800	1,699,343
	443	1,228,557	1,115,100	946,950	754,905	471,705	377,895	87	60	1800	3800	1,699,343
	525	1,228,557	1,088,373	911,550	740,745	456,660	371,700	72	60	1800	3800	1,699,343
	623	1,097,400	1,017,750	873,053	709,151	437,544	358,425	57	60	1800	3800	1,699,343

317 R



462

1,662,700 lb·in



	i	T _{n2} [lb·in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
R3	49.8	958,455	876,947	711,717	578,171	356,744	289,926	201	121	1500	2000	3,478,343
	64.9	1,192,980	1,055,717	856,857	696,053	429,491	349,044	201	121	1500	2000	3,478,343
	78.1	1,339,005	1,228,380	1,018,635	819,510	489,051	398,250	201	121	1500	2000	3,478,343
	83.3	1,467,950	1,309,800	1,062,000	849,600	519,495	415,596	201	121	1500	2000	3,478,343
	100	1,504,500	1,431,665	1,192,980	966,420	582,419	473,298	201	121	1500	2000	3,478,343
	119	1,381,928	1,189,263	1,061,558	1,051,026	657,555	533,567	201	121	1500	2000	3,478,343
	68.9	1,288,472	978,279	794,642	645,519	398,339	323,645	201	134	1500	2000	3,478,343
	89.8	1,551,140	1,177,758	956,685	777,119	479,493	389,577	201	134	1500	2000	3,478,343
	108	1,217,760	1,128,464	1,089,789	884,823	545,957	443,562	201	134	1500	2000	3,478,343
	115	1,662,561	1,403,256	1,139,261	925,356	571,002	463,917	201	134	1500	2000	3,478,343
	139	1,477,950	1,451,046	1,297,764	1,053,681	650,210	528,257	201	134	1500	2000	3,478,343
	165	1,381,928	1,189,263	1,061,558	1,051,026	706,673	574,011	190	134	1500	2000	3,478,343
R4	220	1,203,866	974,562	791,633	642,953	396,746	322,229	121	67	1800	3800	3,478,343
	262	1,444,940	1,102,799	895,797	727,559	448,961	364,620	121	67	1800	3800	3,478,343
	336	1,728,671	1,313,252	1,066,691	866,415	534,629	434,181	121	67	1800	3800	3,478,343
	399	1,832,570	1,480,428	1,202,538	976,775	602,685	489,494	121	67	1800	3800	3,478,343
	438	1,631,144	1,518,837	1,248,824	1,014,387	625,872	508,344	117	67	1800	3800	3,478,343
	520	1,631,144	1,518,837	1,248,824	1,014,387	625,872	508,344	98	67	1800	3800	3,478,343
	626	1,371,750	1,371,750	1,274,400	1,035,450	637,200	522,150	71	67	1800	3800	3,478,343
	677	1,504,500	1,451,046	1,363,343	1,159,616	715,523	581,180	72	67	1800	3800	3,478,343
	803	1,504,500	1,451,046	1,363,343	1,159,616	715,523	581,180	60	67	1800	3800	3,478,343
	953	1,381,928	1,189,263	1,061,558	1,051,026	706,673	574,011	43	67	1800	3800	3,478,343

C

318 R



474

2,483,350 lb·in

	i	T _{n2} [lb·in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
R4	225	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	201	121	1500	2500	4,425,373
	288	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	201	121	1500	2500	4,425,373
	342	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	174	121	1500	2500	4,425,373
	362	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	164	121	1500	2500	4,425,373
	430	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	138	121	1500	2500	4,425,373
	499	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	116	121	1500	2500	4,425,373
	311	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	191	148	1500	2500	4,425,373
	399	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	149	148	1500	2500	4,425,373
	474	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	126	148	1500	2500	4,425,373
	501	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	119	148	1500	2500	4,425,373
	595	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	100	148	1500	2500	4,425,373
	691	2,483,133	2,327,462	1,932,044	1,569,282	968,279	786,500	84	148	1500	2500	4,425,373

319 R



486


3,573,230 lb·in

	i	T _{n2} [lb·in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
	1:	10,000	25,000	50,000	100,000	500,000	1,000,000					
R4	249	3,457,518	2,622,875	2,130,726	1,730,972	1,068,284	868,185	201	127	1500	2500	6,018,507
	320	3,572,922	3,053,250	2,512,515	2,004,525	1,209,795	998,280	201	127	1500	2500	6,018,507
	379	3,572,922	3,079,800	2,513,400	2,044,350	1,256,700	1,026,600	201	127	1500	2500	6,018,507
	401	3,450,704	3,079,800	2,531,100	2,062,050	1,274,400	1,035,450	201	127	1500	2500	6,018,507
	475	3,253,083	2,810,583	2,395,607	2,194,800	1,354,050	1,097,400	170	127	1500	2500	6,018,507
	563	3,253,083	2,810,583	2,395,607	2,194,800	1,354,050	1,097,400	144	127	1500	2500	6,018,507
	655	3,183,257	2,810,406	2,368,349	1,947,000	1,203,600	973,500	124	127	1500	2500	6,018,507
	345	3,572,922	2,714,207	2,204,624	1,790,709	1,104,923	897,479	201	154	1500	2500	6,018,507
	442	3,572,922	2,714,207	2,204,624	1,790,709	1,104,923	897,479	188	154	1500	2500	6,018,507
	525	3,572,922	2,714,207	2,204,624	1,790,709	1,104,923	897,479	159	154	1500	2500	6,018,507
	555	3,450,704	2,770,050	2,281,530	1,846,995	1,140,765	934,560	150	154	1500	2500	6,018,507
	657	3,253,083	2,810,583	2,395,607	2,054,970	1,284,135	1,053,150	123	154	1500	2500	6,018,507

319 R

486


3,573,230 lb·in

	i	T _{n2} [lb·in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
R4	780	3,253,083	2,810,583	2,395,607	2,194,800	1,354,050	1,097,400	104	154	1500	2500	6,018,507
	906	3,183,257	2,810,406	2,368,349	1,947,000	1,203,600	973,500	89	154	1500	2500	6,018,507

**321 R**

498

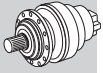
5,803,790 lb·in

	i	T _{n2} [lb·in]						P ₁	Pt	n ₁	n _{1max}	T _{2max}
		n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h	n ₂ ·h					
R4	221	3,309,900	2,489,505	2,003,640	1,608,930	983,501	799,332	201	141	1500	2000	8,266,597
	288	3,960,375	3,009,885	2,376,225	1,918,680	1,184,042	962,349	201	141	1500	2000	8,266,597
	347	4,480,755	3,337,335	2,716,950	2,193,030	1,348,209	1,096,515	201	141	1500	2000	8,266,597
	370	4,677,225	3,558,585	2,812,530	2,338,170	1,410,071	1,146,075	201	141	1500	2000	8,266,597
	446	5,197,694	3,941,967	3,243,525	2,601,635	1,605,656	1,305,021	201	141	1500	2000	8,266,597
	529	4,746,698	4,451,904	3,630,270	2,933,156	1,810,268	1,471,401	201	141	1500	2000	8,266,597
	306	3,551,859	2,696,241	2,190,198	1,779,116	1,097,843	891,992	201	168	1500	2000	8,266,597
	399	4,276,143	3,245,915	2,636,681	2,141,877	1,321,748	1,073,948	201	168	1500	2000	8,266,597
	481	4,869,005	3,695,760	3,002,186	2,438,706	1,504,943	1,222,805	178	168	1500	2000	8,266,597
	512	5,092,379	3,865,326	3,139,892	2,550,570	1,573,973	1,278,914	168	168	1500	2000	8,266,597
	617	5,798,520	4,401,017	3,575,046	2,904,128	1,792,125	1,456,179	160	168	1500	2000	8,266,597
	732	4,746,786	4,578,017	3,718,505	3,020,417	1,863,633	1,513,793	151	168	1500	2000	8,266,597

C

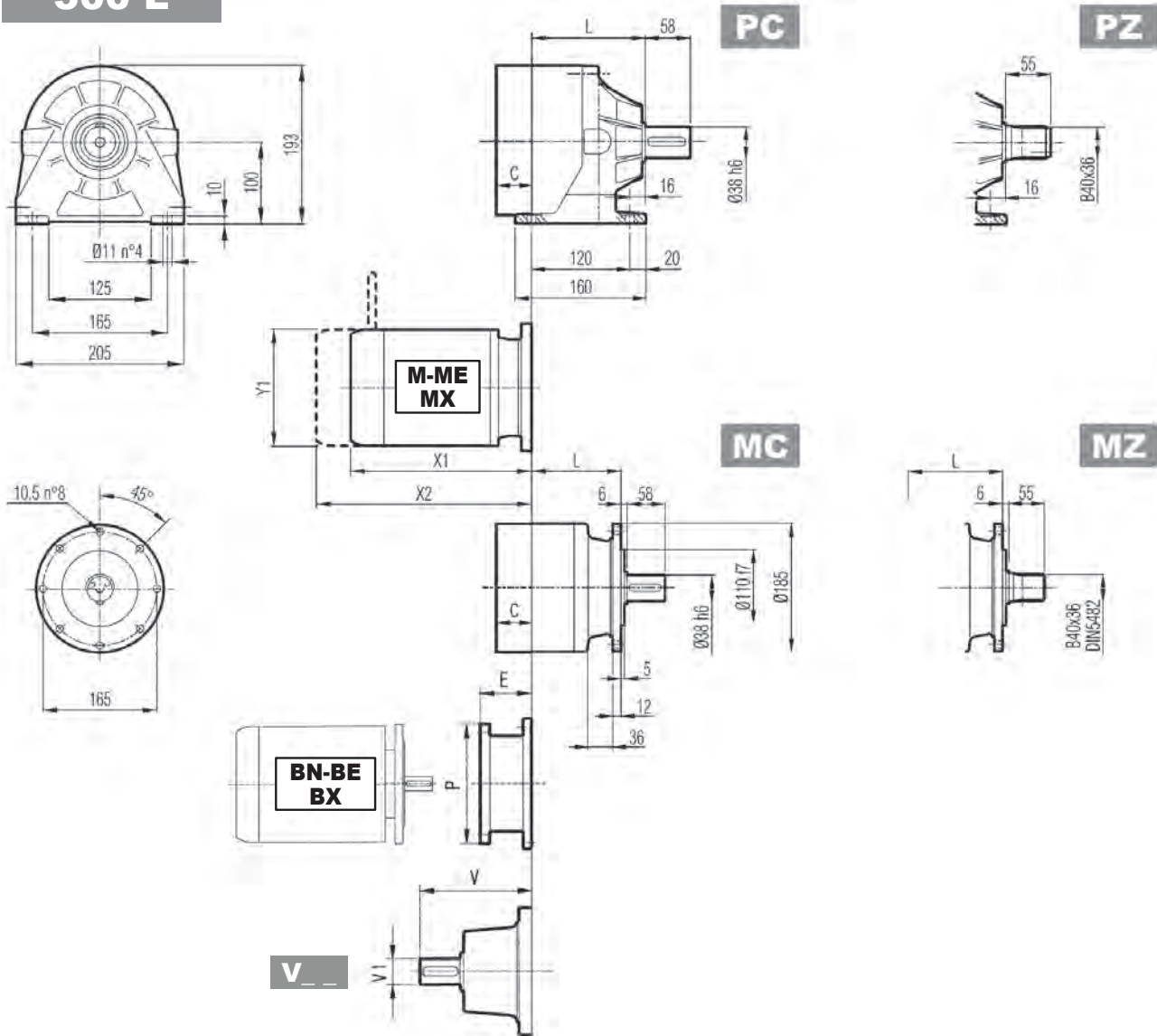
26 DIMENSIONS

Metric output versions are available also in combination with NEMA motor adaptor or inches solid input and viceversa.



Metric

300 L

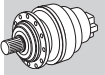


Dimensions are in mm

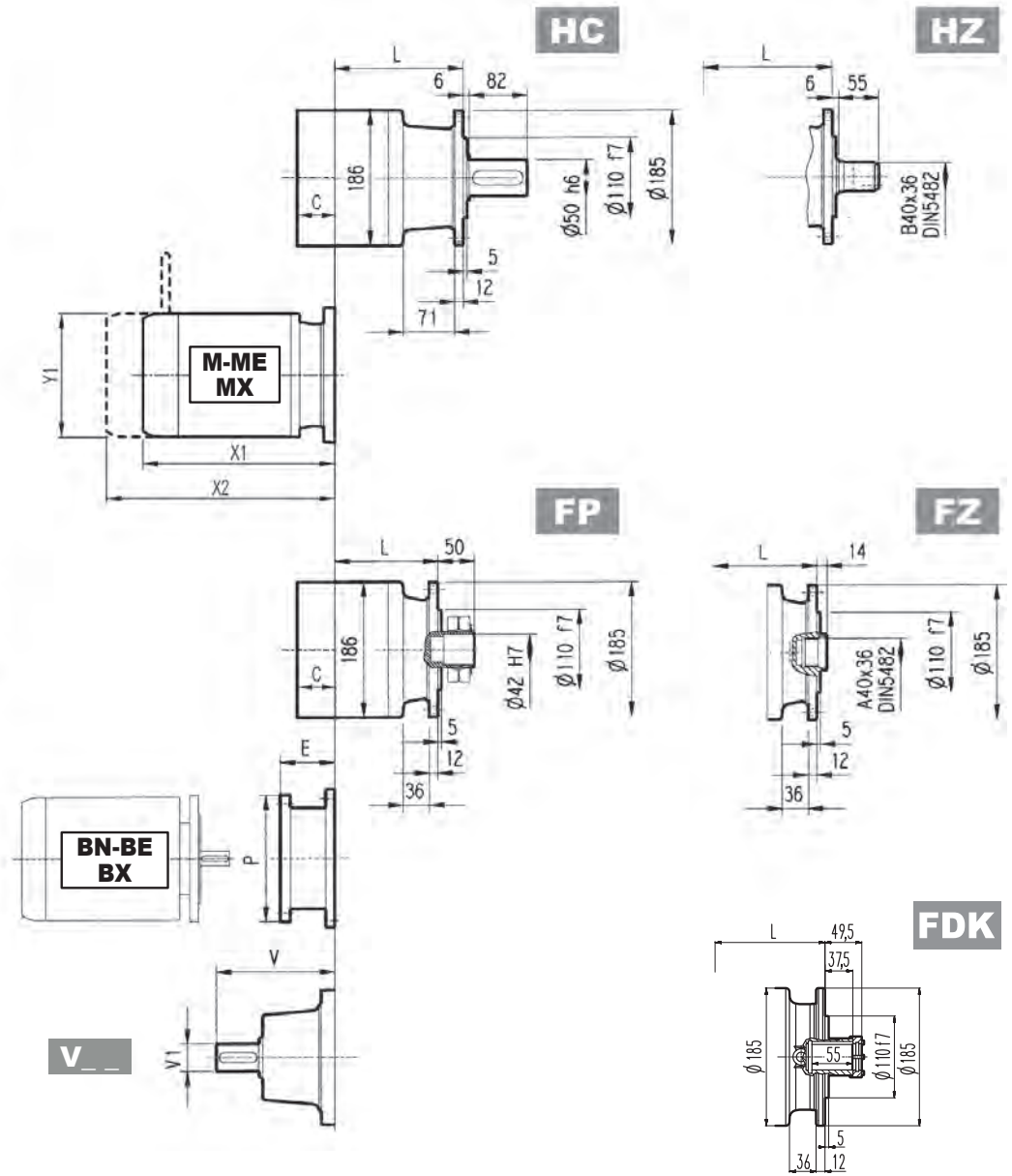
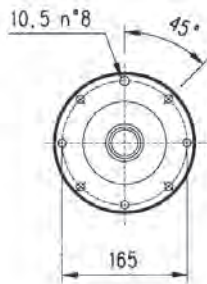
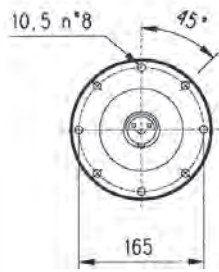
	L				Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
300 L1	80	86	115	80	18	23	20	16
300 L2	133	139	168	133	22	27	24	20
300 L3	186	192	221	186	26	31	28	24
300 L4	239	245	274	239	30	35	32	28

	Kg			Kg			C	Input
	V	V1	V	V1	V	V1		
300 L1	137.5	24	6	158	38	7	37	A
300 L2	137.5	24	6	158	38	7	37	A
300 L3	137.5	24	6	158	38	7	37	A
300 L4	137.5	24	6	158	38	7	37	A

300 L



Metric



FP

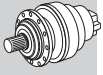
$T_{2max} = 11,500 \text{ lb}\cdot\text{in}$

Dimensions are in mm

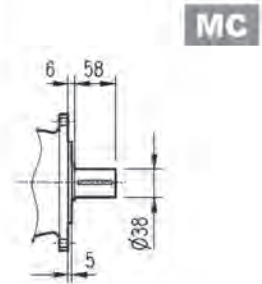
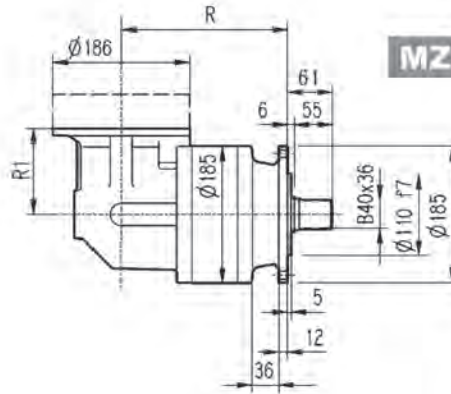
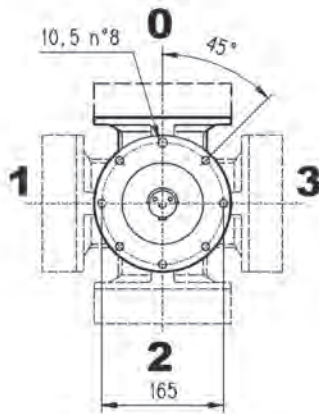
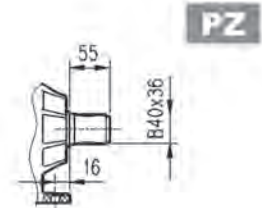
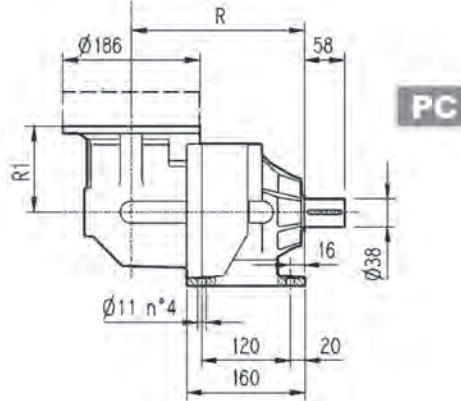
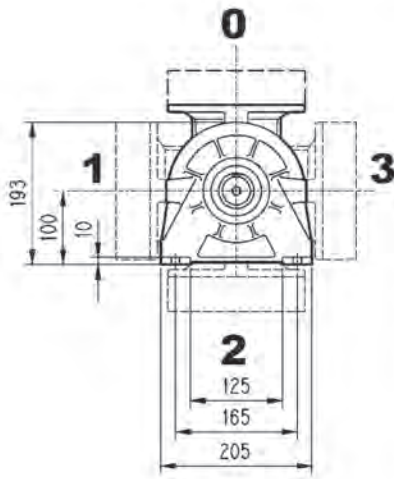
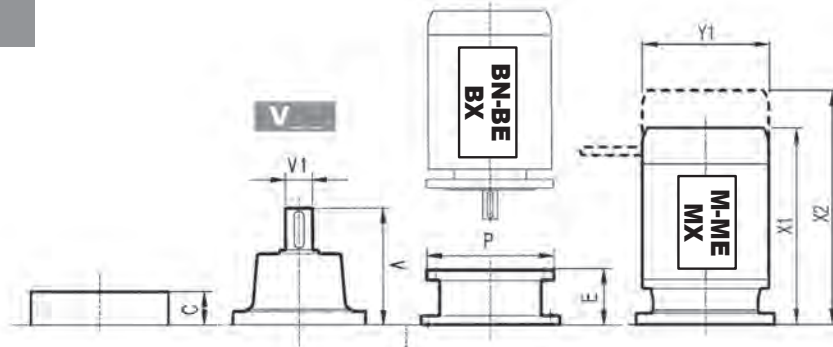
	P71		P80		P90		P100		P112		P132	
	E	P	E	P	E	P	E	P	E	P	E	P
300 L1	65	160	84	200	84	200	94	250	94	250	114	300
300 L2	65	160	84	200	84	200	94	250	94	250	114	300
300 L3	65	160	84	200	84	200	94	250	94	250	114	300
300 L4	65	160	84	200	84	200	94	250	94	250	114	300

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
300 L1	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258
300 L2	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258
300 L3	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258
300 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258

300 R



Metric

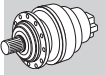


Dimensions are in mm

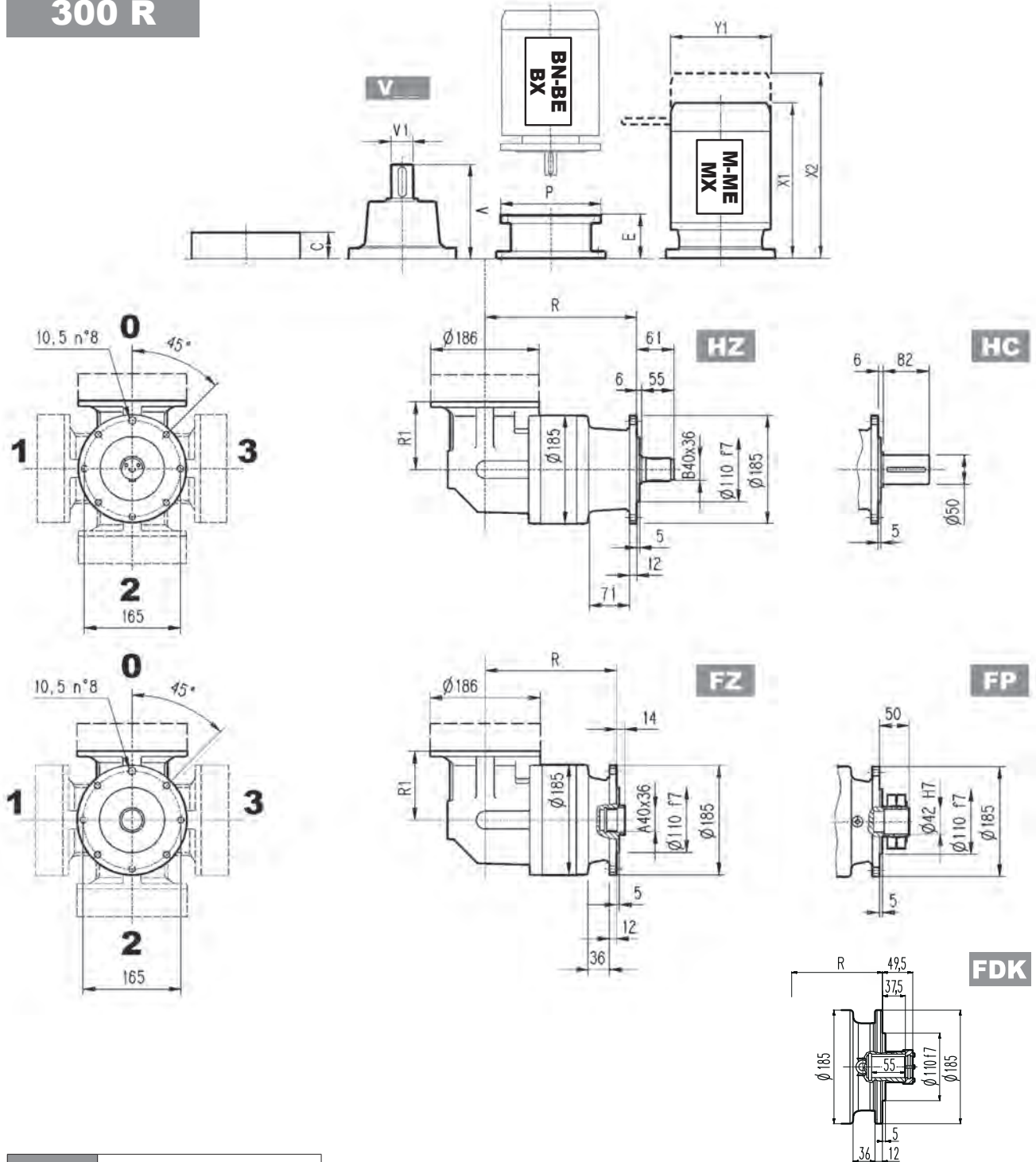
	R				R1	Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK		MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
300 R2	172	178	207	172	122	32	37	34	30
300 R3	225	231	260	225	122	36	41	38	34
300 R4	278	284	313	278	122	40	45	42	38

	Kg						C	Input
	V	V1	Kg	V	V1	Kg		
300 R2	137.5	24	6	158	38	7	37	A
300 R3	137.5	24	6	158	38	7	37	A
300 R4	137.5	24	6	158	38	7	37	A

300 R



Metric



FP

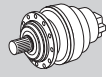
$T_{2max} = 11,500 \text{ lb-in}$

Dimensions are in mm

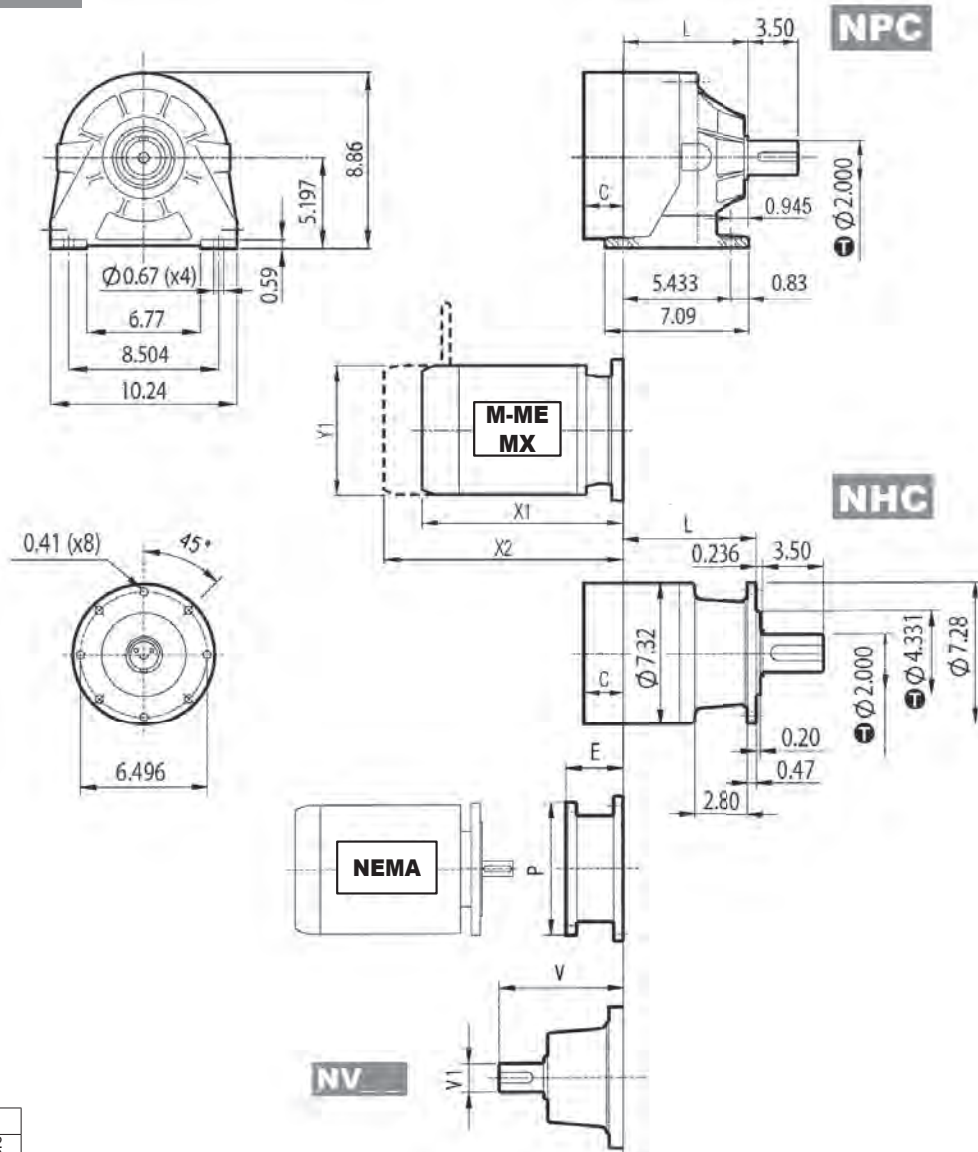
	P71		P80		P90		P100		P112		P132	
	E	P	E	P	E	P	E	P	E	P	E	P
300 R2	65	160	84	200	84	200	94	250	94	250	114	300
300 R3	65	160	84	200	84	200	94	250	94	250	114	300
300 R4	65	160	84	200	84	200	94	250	94	250	114	300

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
300 R2	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258
300 R3	253	314	138	328	—	156	373	—	195	405	—	195	—	—	—
300 R4	253	314	138	328	—	156	373	—	195	—	—	—	—	—	—

300 L



Imperial



inch	Ⓜ
4.331	-0.00142 -0.00280
2.000	0 -0.00075

Dimensions are in Inch except when shown in *italic [mm]*

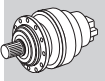
	L		lbs	
	NPC	NHC	NPC	NHC
300 L1	4.77	4.53	50.7	44.1
300 L2	6.85	6.61	59.5	52.9
300 L3	8.94	8.70	68.4	61.7
300 L4	11.03	10.79	77.2	70.6

	V		lbs		V		lbs		C	Input
	V	V1	lbs	V	V1	lbs				
300 L1	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A		
300 L2	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A		
300 L3	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A		
300 L4	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A		

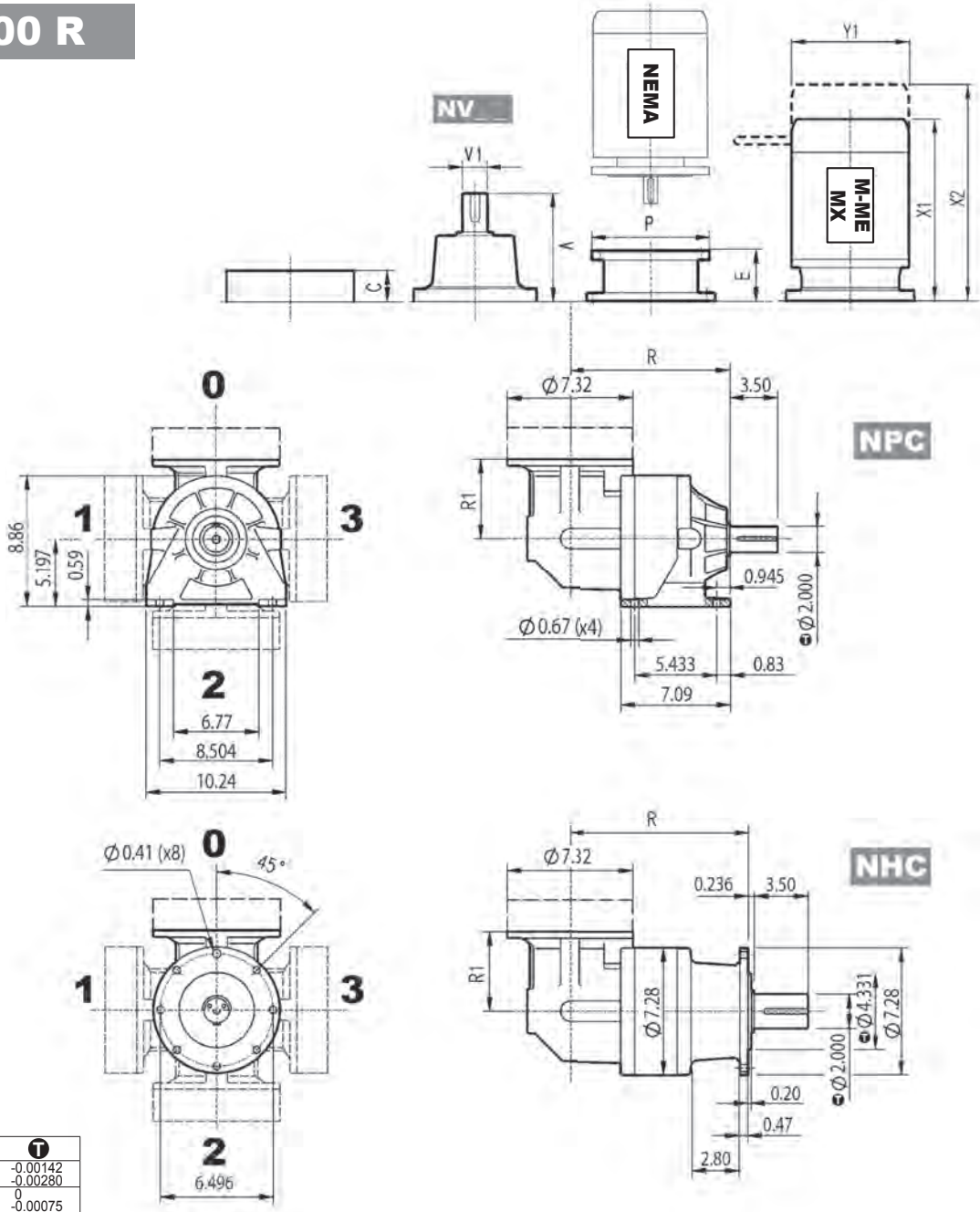
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
300 L1	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
300 L2	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
300 L3	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
300 L4	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
300 L1	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.67	14.06	—	7.67	18.11	—	10.15
300 L2	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.67	14.06	—	7.67	18.11	—	10.15
300 L3	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.67	14.06	—	7.67	18.11	—	10.15
300 L4	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.67	14.06	—	7.67	18.11	—	10.15

300 R



Imperial



inch	Ⓜ
4.331	-0.00142 -0.00280
2.000	0 -0.00075

Dimensions are in Inch except when shown in *italic* [mm]

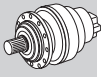
	R		R1	lbs	
	NPC	NHC		NPC	NHC
300 R2	7.00	8.15	4.80	81.6	75.0
300 R3	9.09	10.24	4.80	90.4	83.8
300 R4	11.18	12.32	4.80	99.2	92.6

	V	V1	lbs	V	V1	lbs	C	Input
300 R3	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A
300 R4	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A

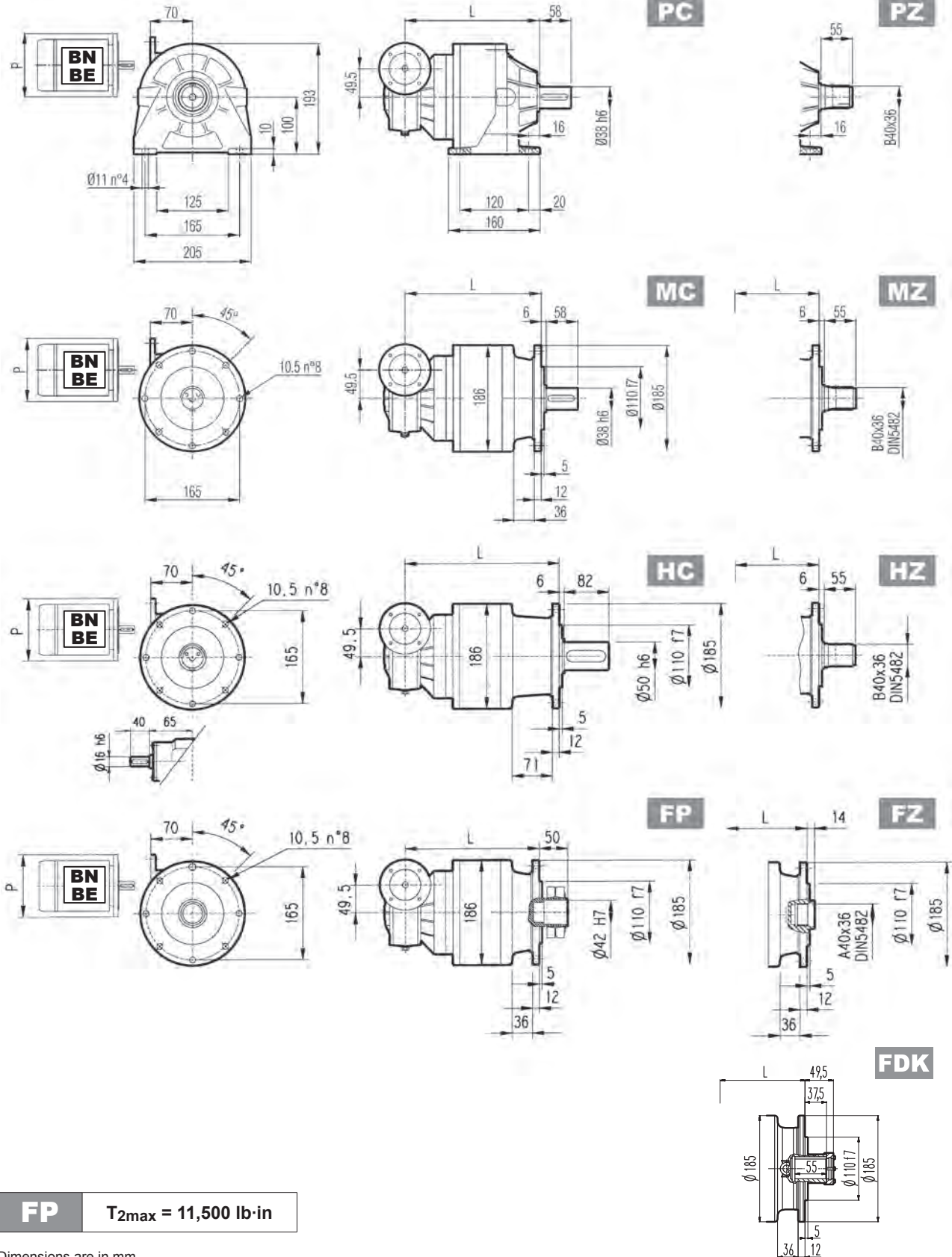
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
300 R2	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
300 R3	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
300 R4	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
300 R2	9.96	12.36	5.43	12.91	—	6.14	14.69	—	7.67	15.94	—	7.67	20	—	10.15
300 R3	9.96	12.36	5.43	12.91	—	6.14	14.69	—	7.67	15.94	—	7.67	—	—	—
300 R4	9.96	12.36	5.43	12.91	—	6.14	14.69	—	7.67	—	—	—	—	—	—

3/V 00 L3



Metric

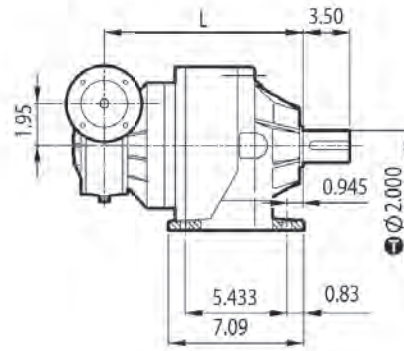
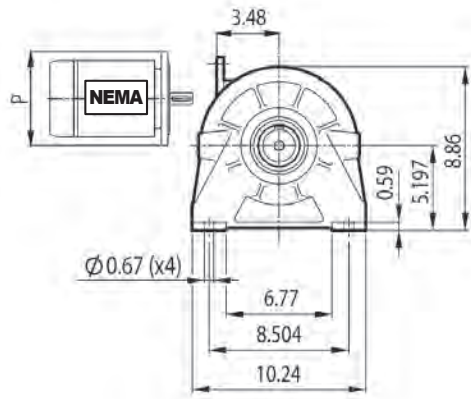


FP $T_{2\max} = 11,500 \text{ lb}\cdot\text{in}$

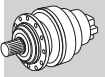
Dimensions are in mm

	L				Kg	P63	P71	P80			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK					P	P	P
3/V 00 L3	255	261	290	255	25	30	27	23	140	160	200

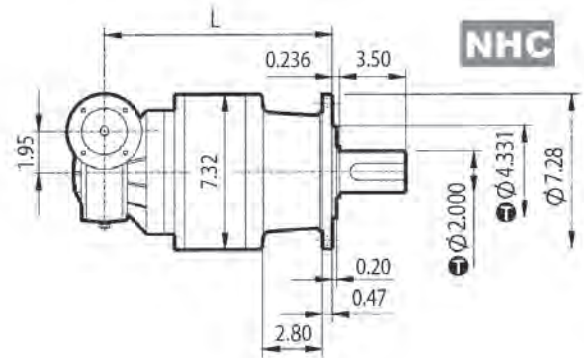
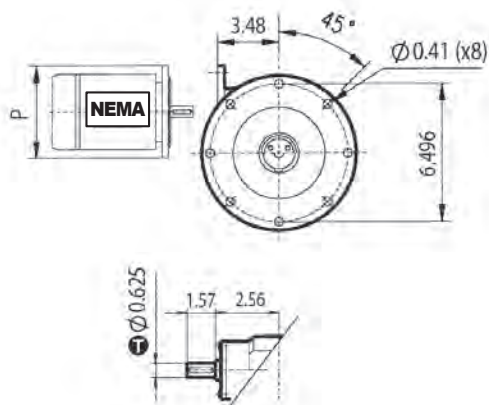
3/V 00 L3



NPC



Imperial



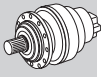
NHC

inch	\pm
4.331	-0.00142 -0.00280
2.000	0 -0.00075
0.625	0 -0.00043

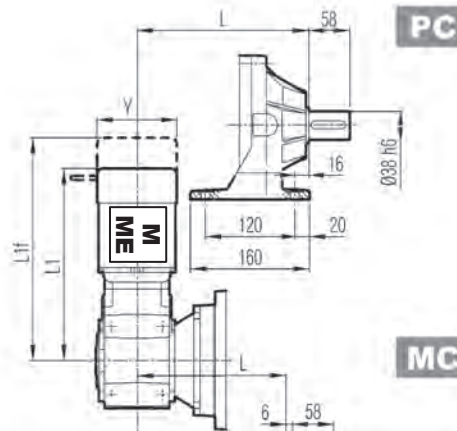
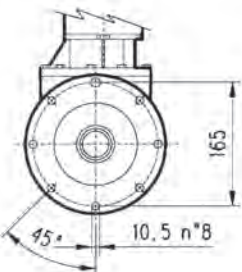
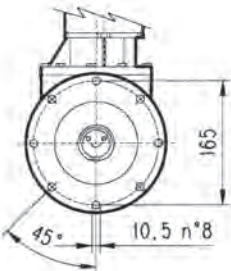
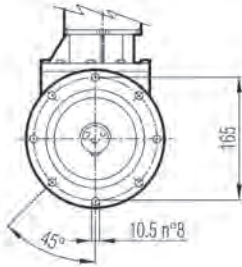
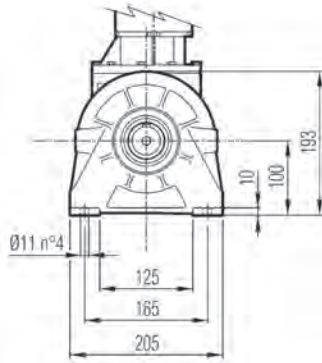
Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs		N56C
	NPC - PZ	NHC - HZ	NPC	NHC	P
3/V 00 L3	10.27	11.42	66.2	59.5	6.54

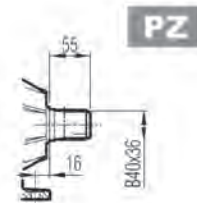
3/A 00 L2



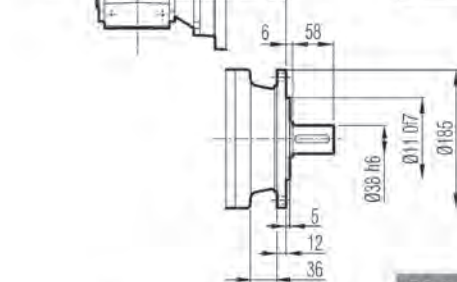
Metric



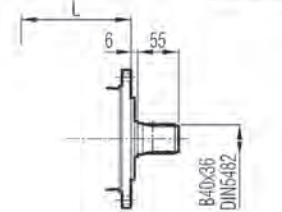
PC



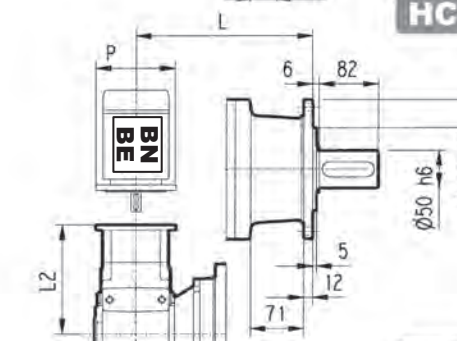
PZ



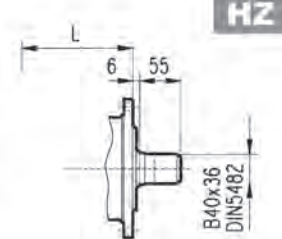
MC



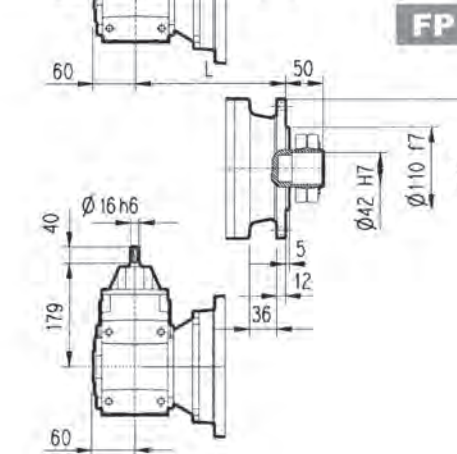
MZ



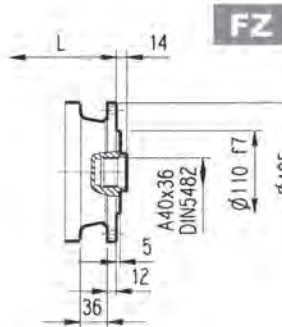
HC



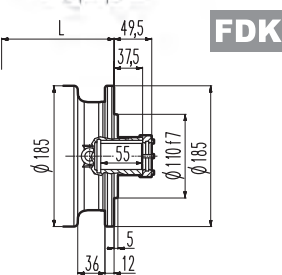
HZ



FP



FZ



FDK

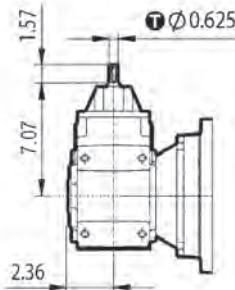
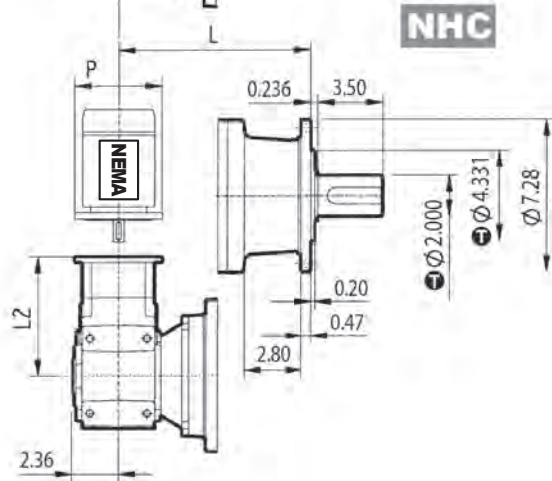
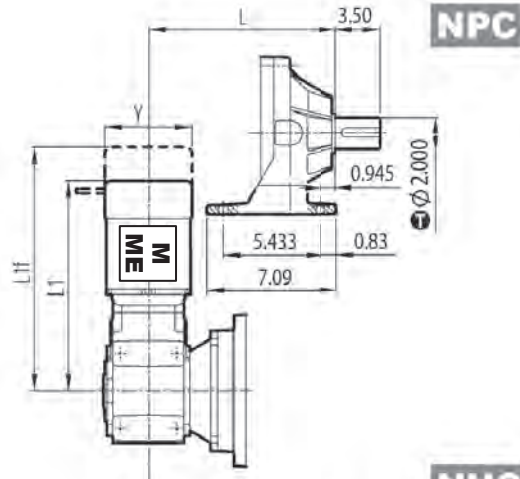
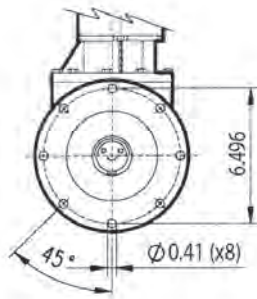
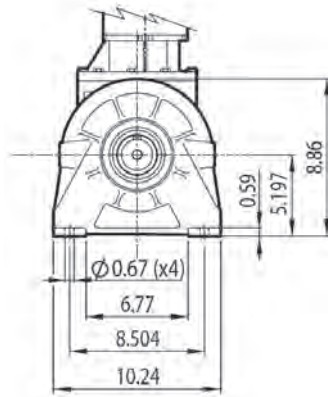
FP

$T_{2max} = 11,500 \text{ lb}\cdot\text{in}$

Dimensions are in mm

3/A 00 L2	L								Kg													
	MC - MZ		PC - PZ		HC - HZ		FP - FZ - FDK		MC - MZ		PC - PZ		HC - HZ		FP - FZ - FDK							
	P63	P71	P80	P90	P100	S1 + M1	S2 + ME2S	S3 + ME3S	S3 + ME3L	L2	P	L2	P	L2	P	L1	L1f	Y	L1	L1f	Y	
3/A 00 L2	212.5	140	212.5	160	232	200	232	200	242	250	368	428	138	394	—	156	439	—	195	470	—	195

3/A 00 L2



inch	Ⓜ
4.331	-0.00142 -0.00280
2.000	0 -0.00075
0.625	0 -0.00043

Dimensions are in Inch except when shown in *italic [mm]*

	L		lbs	
	NPC	NHC	NPC	NHC
3/A 00 L2	7.83	8.98	94.8	88.2

	N56C		N140TC		N180TC		S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L2	P	L2	P	L2	P	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/A 00 L2	9.15	6.50	9.15	6.50	9.90	9.00	14.49	16.85	5.43	15.51	—	6.14	17.28	—	7.68	18.50	—	7.68

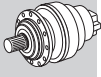


300 L

300 R

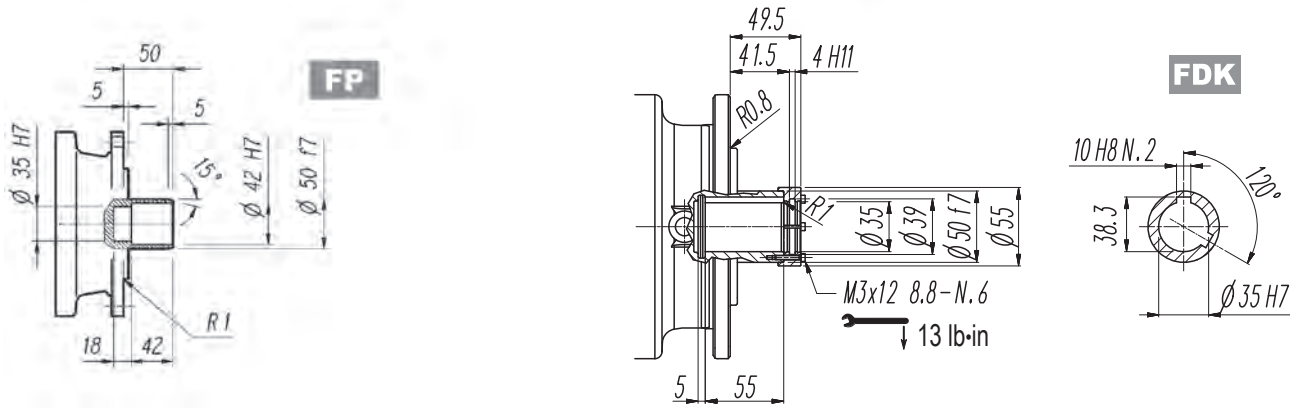
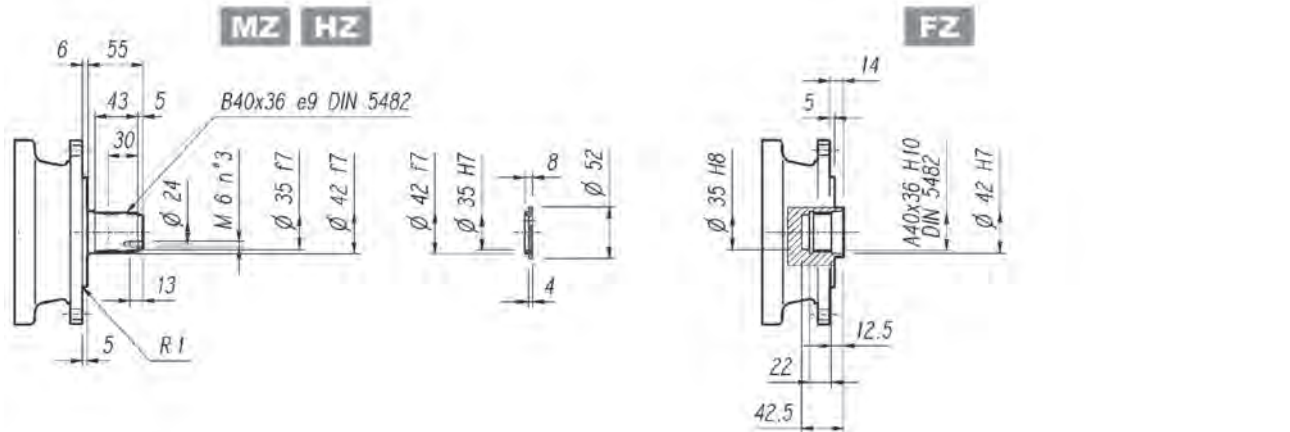
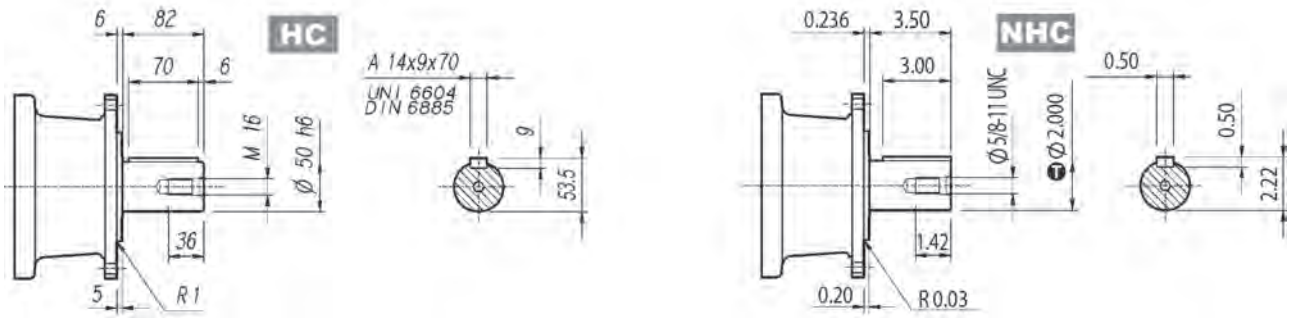
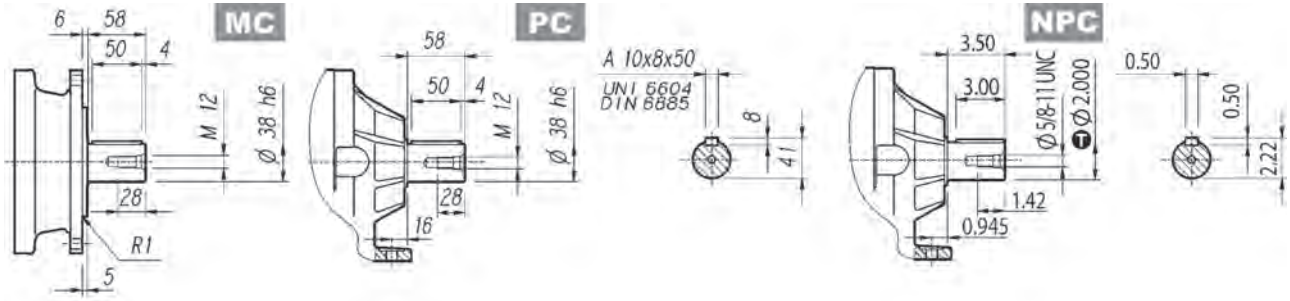
3/V 00 L3

3/A 00 L2



Metric

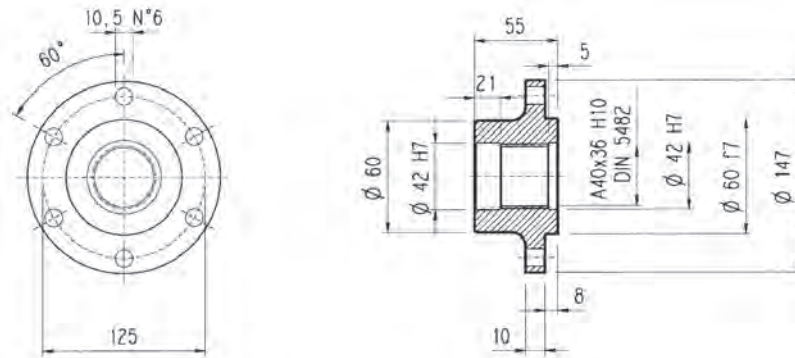
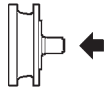
Imperial



FP $T_{2max} = 11,500 \text{ lb}\cdot\text{in}$

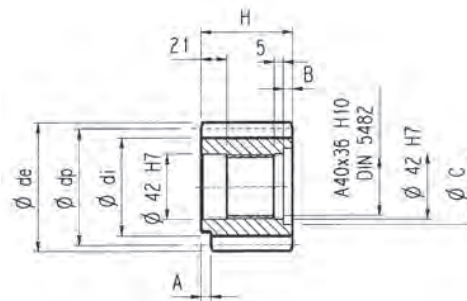
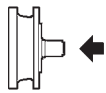
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	\pm
2.000	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

300 L**300 R****3/V 00 L3****3/A 00 L2****Flange****W0A****Metric**

Material: Steel C40

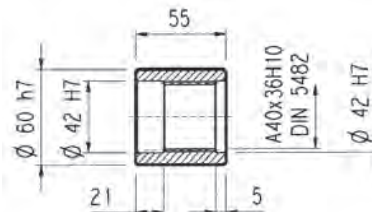
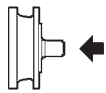
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

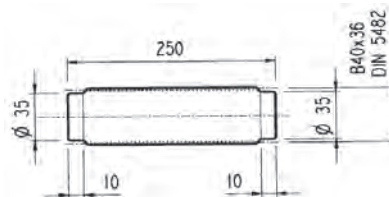
α = 20°

	m	z	x	dp	di	de	H	A	B	C	Material
PBE	4.5	14	0.507	63	56	75.5	55	—	—	—	Steel 39NiCrMo3 hardened and tempered
PCE	5	14	0.500	70	62.5	84.8	65	—	10	53	
PDC	6	12	0.250	72	61	84.8	59	14	4	54	
PDE	6	14	0.500	84	73	99.6	65	—	10	54	

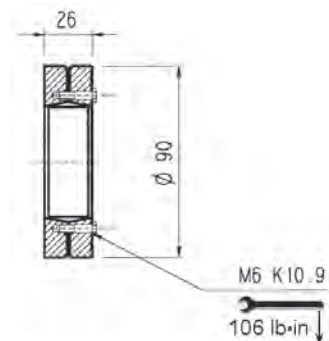
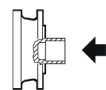
Sleeve coupling**M0A**

Material: Steel 16CrNi4

Dimensions are in mm

Splined bars**B0A**

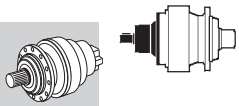
Material: Case hardening steel 18NiCrMo5 UNI 5331 must be case hardened 50-55 HRC

Shrink disc**G0A**

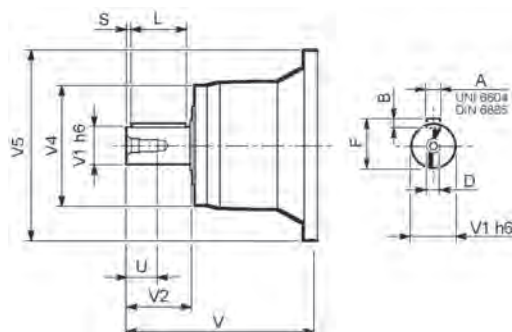
Dimensions are in mm

300 L

300 R



Metric

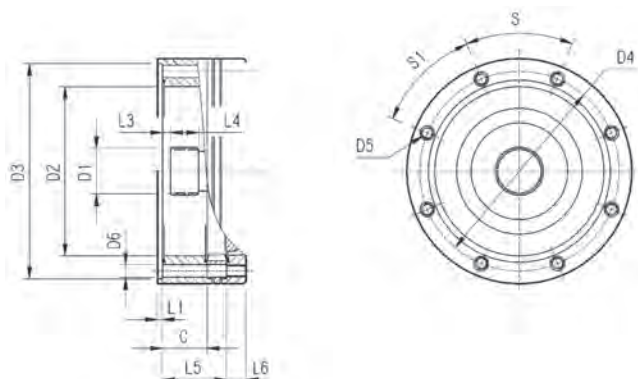


Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
300 L1	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
300 L2	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
300 L3	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
300 L4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
300 R2-R3-R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

300 L

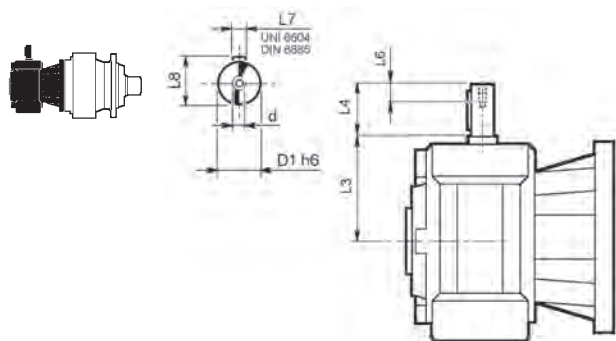
300 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
300 L1	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	53	18	45°	45°	A
300 L2	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	106	18	45°	45°	A
300 L3	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	159	18	45°	45°	A
300 L4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	212	18	45°	45°	A
300 R2-R3-R4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

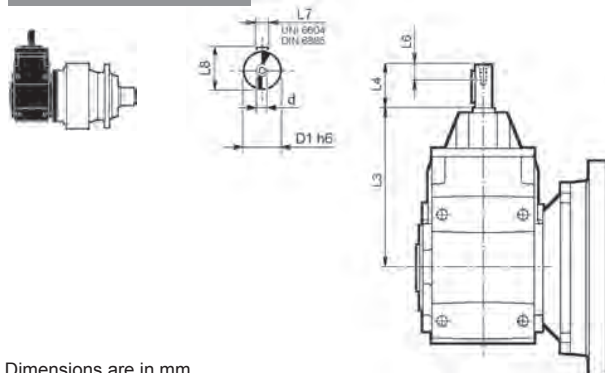
3/V 00 L3



Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/V 00 L3_HS	16	65	40	16	5	18	M6

3/A 00 L2

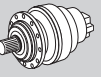
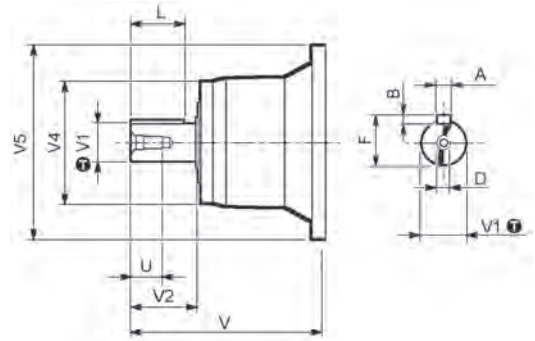


Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/A 00 L2_HS	16	179	40	16	5	18	M6

300 L

300 R



Imperial

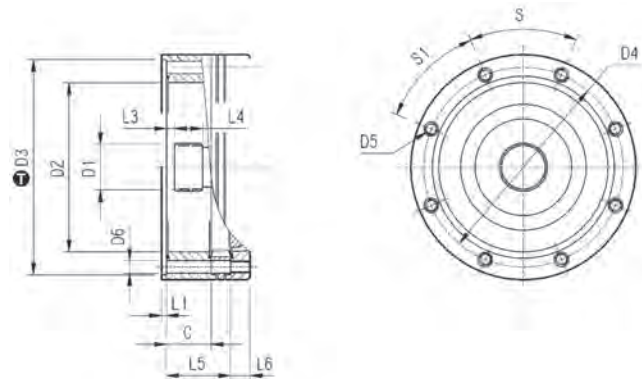
inch	Ⓜ
1.125	$0_{-0.00051}$
1.625	$0_{-0.00053}$

Dimensions are in Inch except when shown in *italic [mm]*

		V	V1	V2	V4	V5	A	B	F	L	D	U
300 L1	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
300 L2	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
300 L3	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
300 L4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
300 R2-R3-R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

300 L

300 R

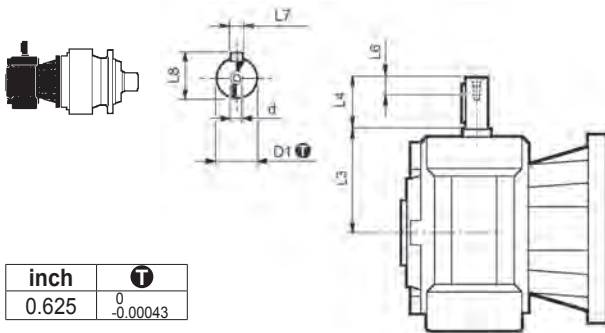


inch	Ⓜ
7.01	$+0.00157_0$

Dimensions are in Inch except when shown in *italic [mm]*

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
300 L1	V9AA	1.46	40x36 DIN5482	5.51	7.01	5.51	M10 n°8	0.43	0.16	—	0.35	0.71	2.09	0.71	45°	45°	A
300 L2	V9AA	1.46	40x36 DIN5482	5.51	7.01	5.51	M10 n°8	0.43	0.16	—	0.35	0.71	4.17	0.71	45°	45°	A
300 L3	V9AA	1.46	40x36 DIN5482	5.51	7.01	5.51	M10 n°8	0.43	0.16	—	0.35	0.71	6.26	0.71	45°	45°	A
300 L4	V9AA	1.46	40x36 DIN5482	5.51	7.01	5.51	M10 n°8	0.43	0.16	—	0.35	0.71	8.35	0.71	45°	45°	A
300 R2-R3-R4	V9AA	1.46	40x36 DIN5482	5.51	7.01	5.51	M10 n°8	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 00 L3

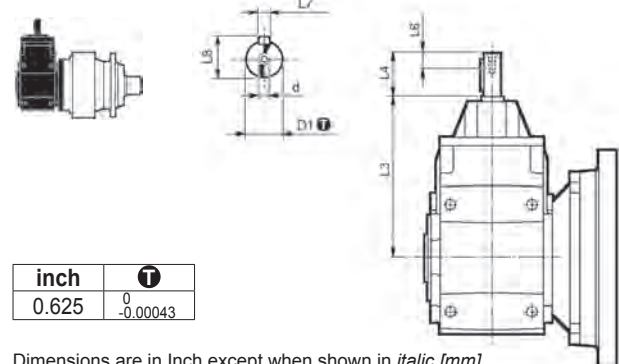


inch	Ⓜ
0.625	$0_{-0.00043}$

Dimensions are in Inch except when shown in *italic [mm]*

	D1	L3	L4	L6	L7	L8	d
3/V 00 L3_NHS	0.625	2.57	1.575	0.63	0.188	0.705	1/4-20UNC

3/A 00 L2



inch	Ⓜ
0.625	$0_{-0.00043}$

Dimensions are in Inch except when shown in *italic [mm]*

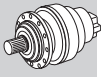
	D1	L3	L4	L6	L7	L8	d
3/A 00 L2_NHS	0.625	7.07	1.575	0.63	0.188	0.705	1/4-20UNC

300 L

300 R

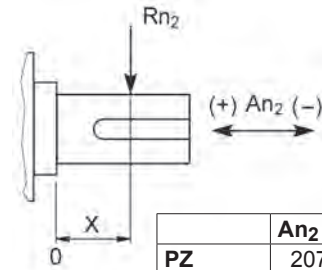
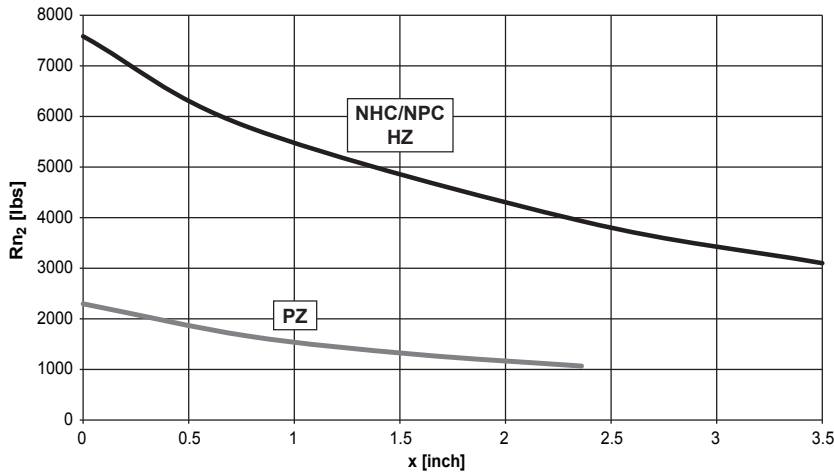
3/V 00 L3

3/A 00 L2

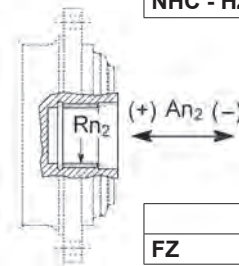


Imperial

Permissible radial and axial loads on output shaft with $F_{h2} : n_2 \cdot h = 100000$



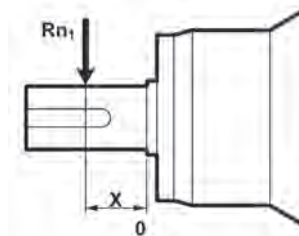
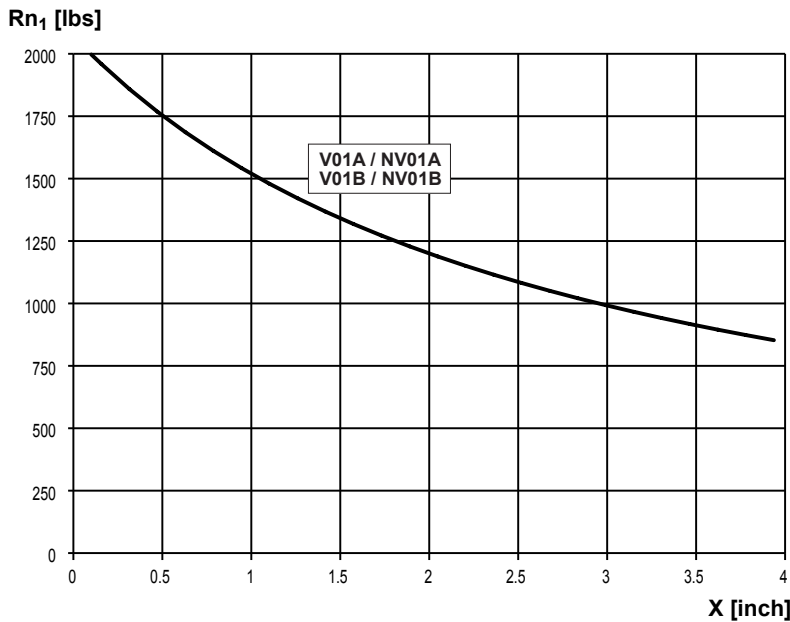
	$An_2 (+)$	$An_2 (-)$
PZ	2072	1554
NPC NHC - HZ	4504	4504



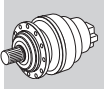
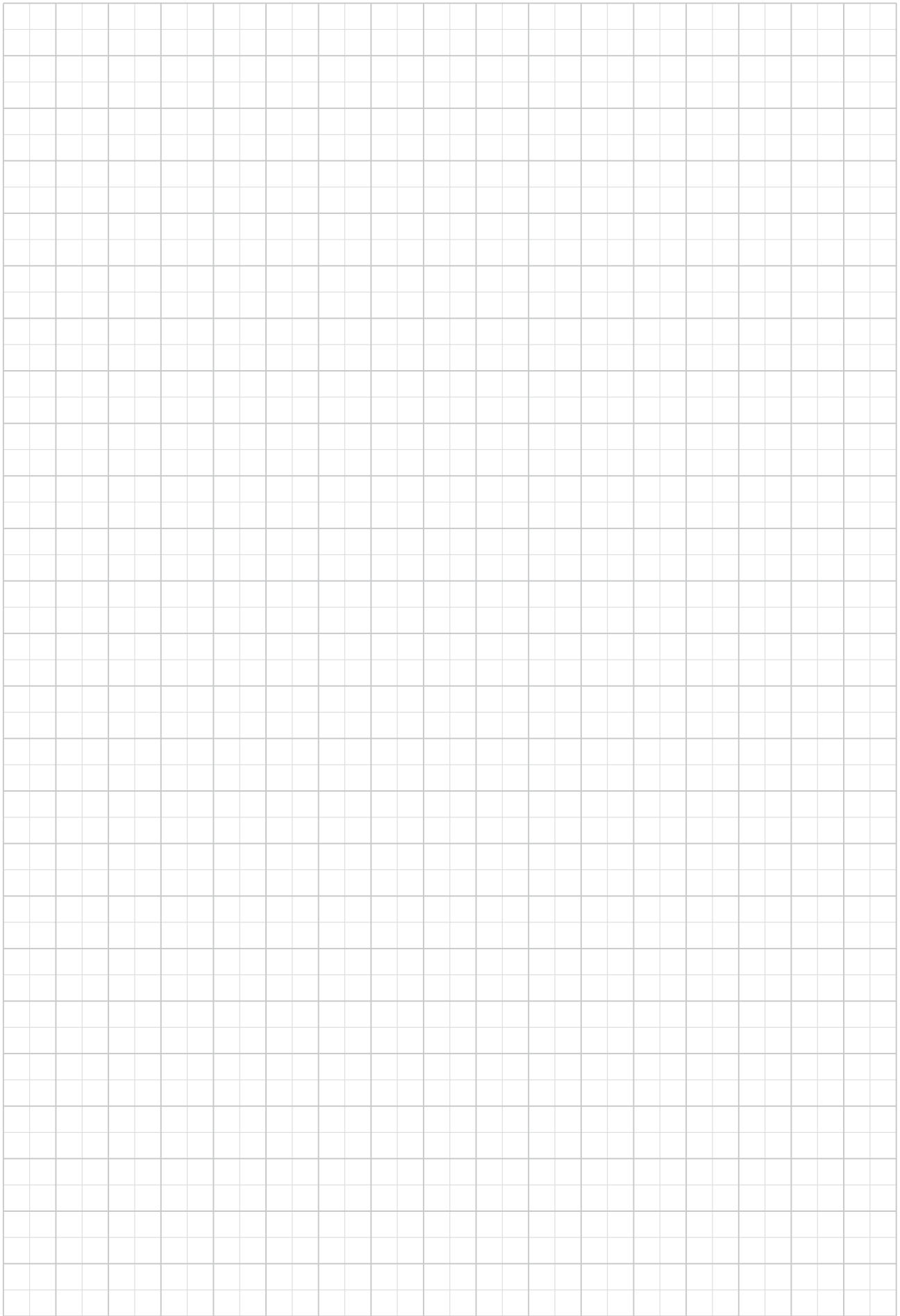
	R_{n2}	$An_2 (+/-)$
FZ	836	836

Load corrective factor fh_2 on shafts	$F_{h2} = n_2 \cdot h$		10000	25000	50000	100000	500000	1000000	
	fh_2	FZ		2.15	1.59	1.26	1.00	0.58	0.46
		PZ		2.15	1.59	1.26	1.00	0.58	0.46
NHC - NPC - HZ		1.27	1.27	1.26	1.00	0.62	0.50		

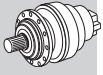
Permissible radial loads on input shaft with $F_{h1} : n_1 \cdot h = 250000$



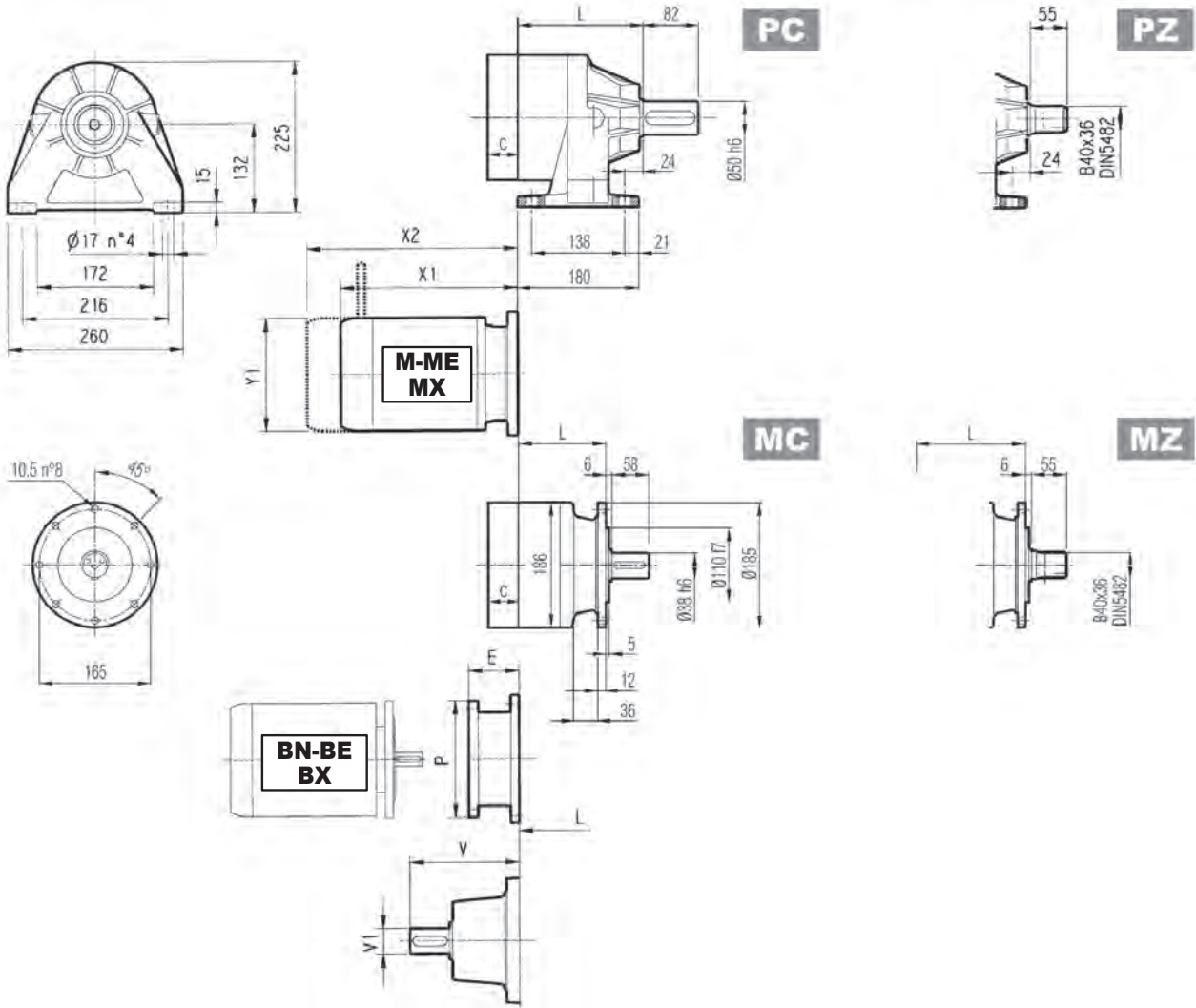
Load corrective factor fh_1 on shafts	$F_{h1} = n_1 \cdot h$		250000	500000	1000000	2000000	5000000	10000000
	fh_1			1	0.79	0.63	0.50	0.37



301 L



Metric

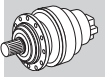
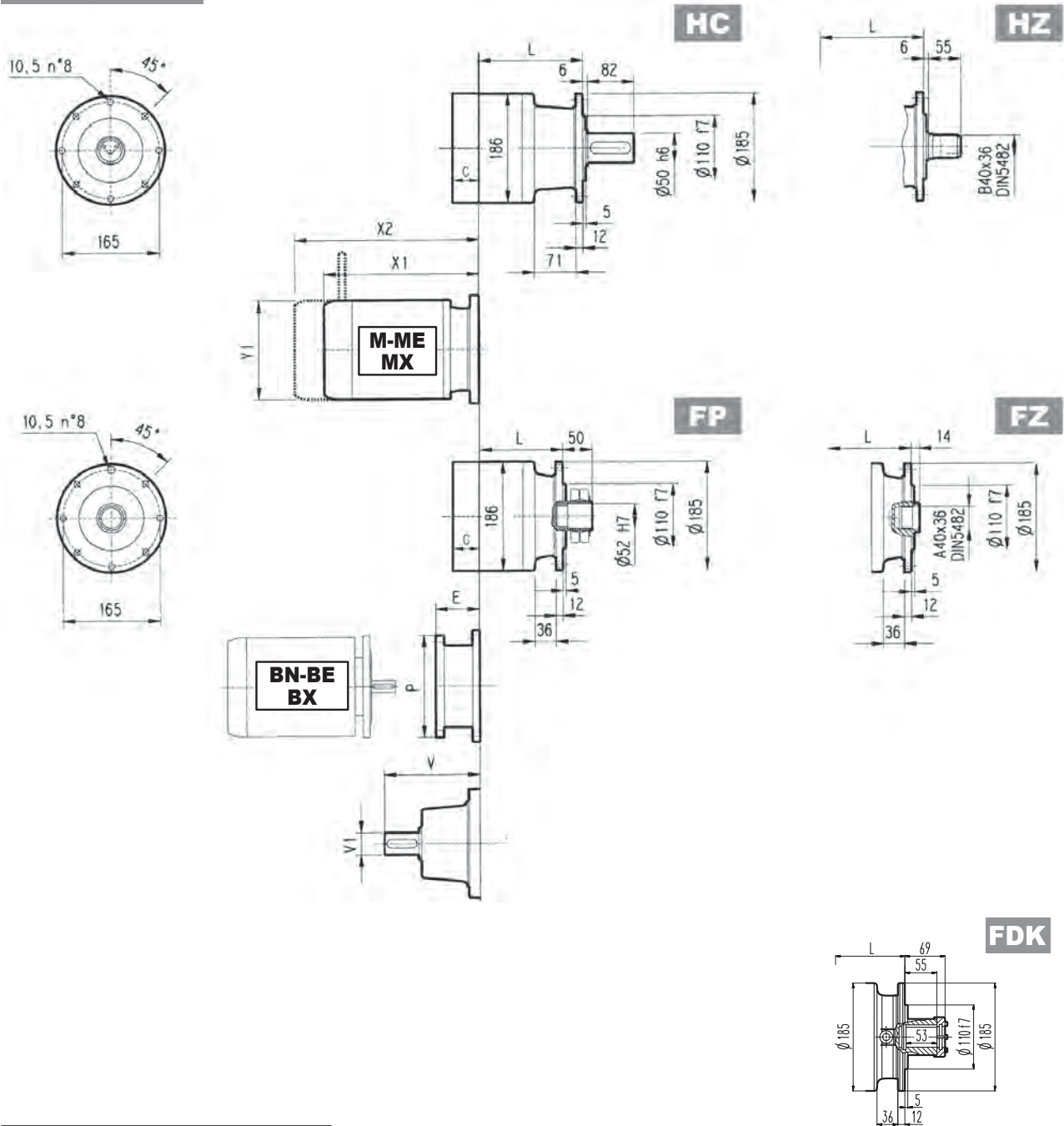


Dimensions are in mm

	L				Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
301 L1	92	132	126	92	21	26	23	19
301 L2	145	185	176	145	25	30	27	23
301 L3	198	238	232	198	29	34	31	27
301 L4	251	291	285	251	33	38	35	31

	Kg						C	Input
	V	V1	Kg	V	V1	Kg		
301 L1	137.5	24	6	158	38	7	37	A
301 L2	137.5	24	6	158	38	7	37	A
301 L3	137.5	24	6	158	38	7	37	A
301 L4	137.5	24	6	158	38	7	37	A

301 L



Metric

FP

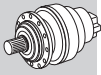
$T_{2max} = 21,240 \text{ lb-in}$

Dimensions are in mm

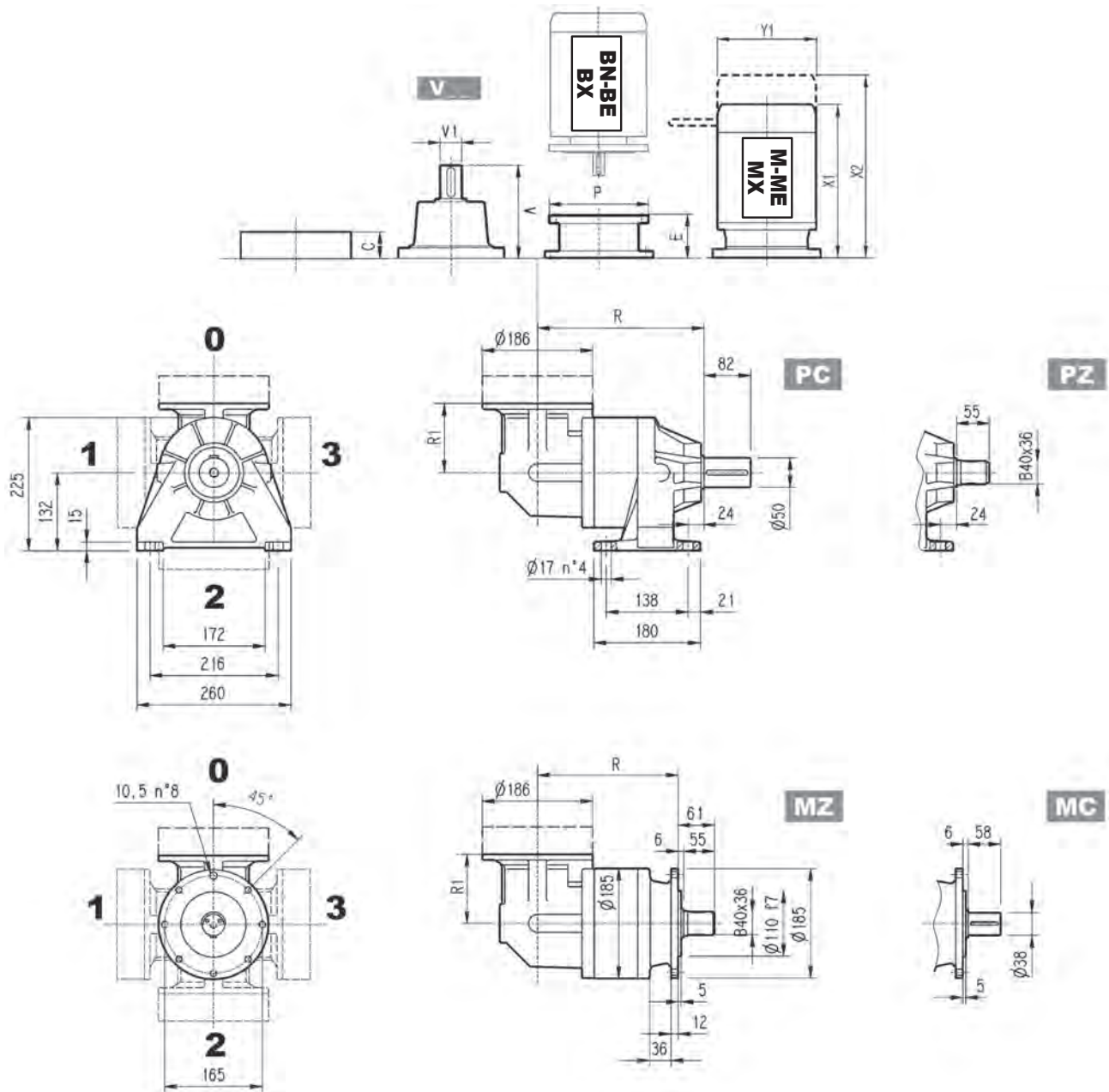
	P71		P80		P90		P100		P112		P132	
	E	P	E	P	E	P	E	P	E	P	E	P
301 L1	65	160	84	200	84	200	94	250	94	250	114	300
301 L2	65	160	84	200	84	200	94	250	94	250	114	300
301 L3	65	160	84	200	84	200	94	250	94	250	114	300
301 L4	65	160	84	200	84	200	94	250	94	250	114	300

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
301 L1	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258
301 L2	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258
301 L3	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258
301 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258

301 R



Metric



Dimensions are in mm

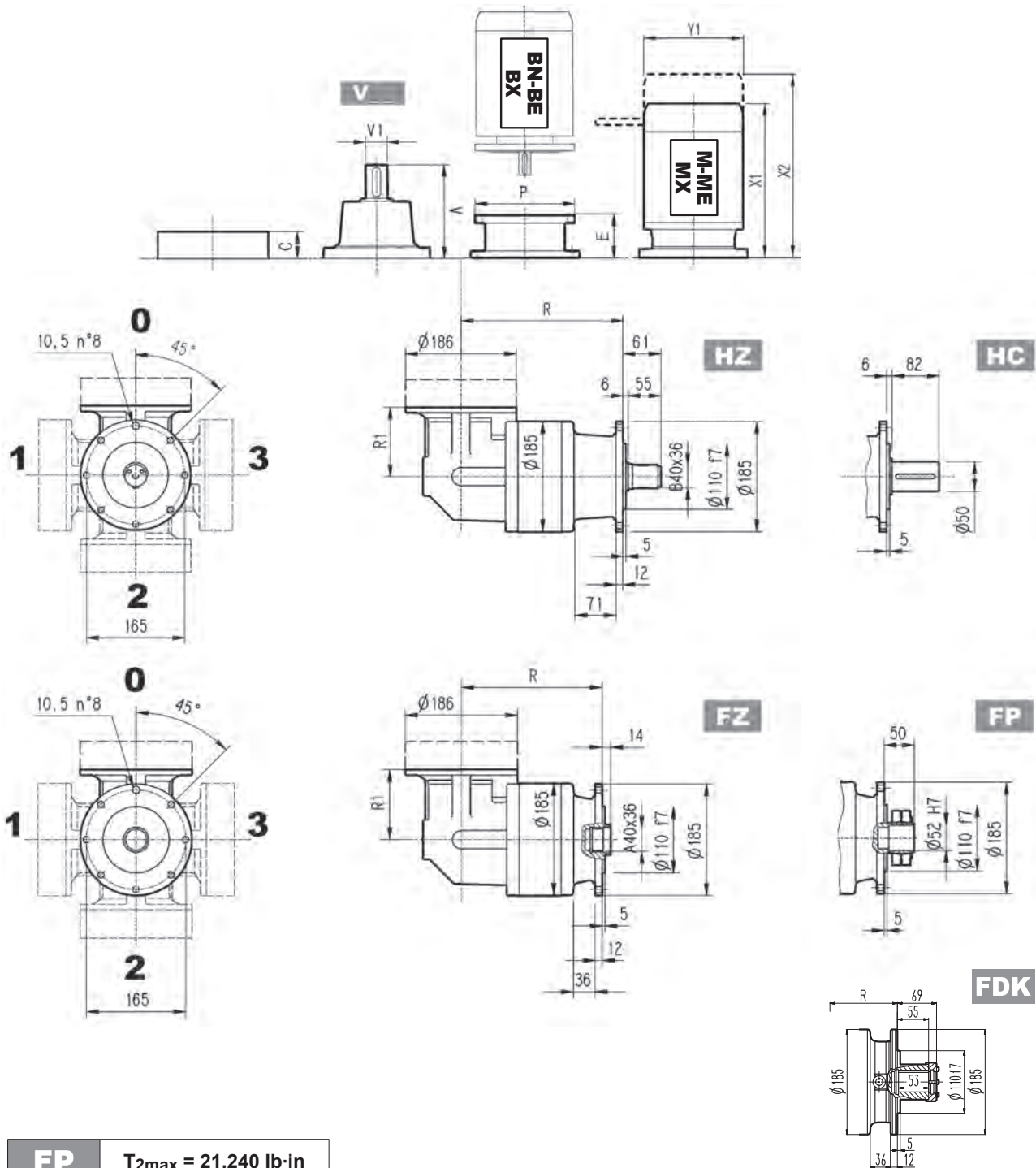
	R				R1	Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK		MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
301 R2	184	225	219	184	122	35	42	37	33
301 R3	237	278	272	237	122	39	46	41	37
301 R4	290	331	325	290	122	43	50	45	41

	Kg						C	Input
	V	V1	Kg	V	V1	Kg		
301 R2	137.5	24	6	158	38	7	37	A
301 R3	137.5	24	6	158	38	7	37	A
301 R4	137.5	24	6	158	38	7	37	A

301 R



Metric



FP

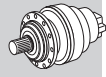
$T_{2max} = 21,240 \text{ lb-in}$

Dimensions are in mm

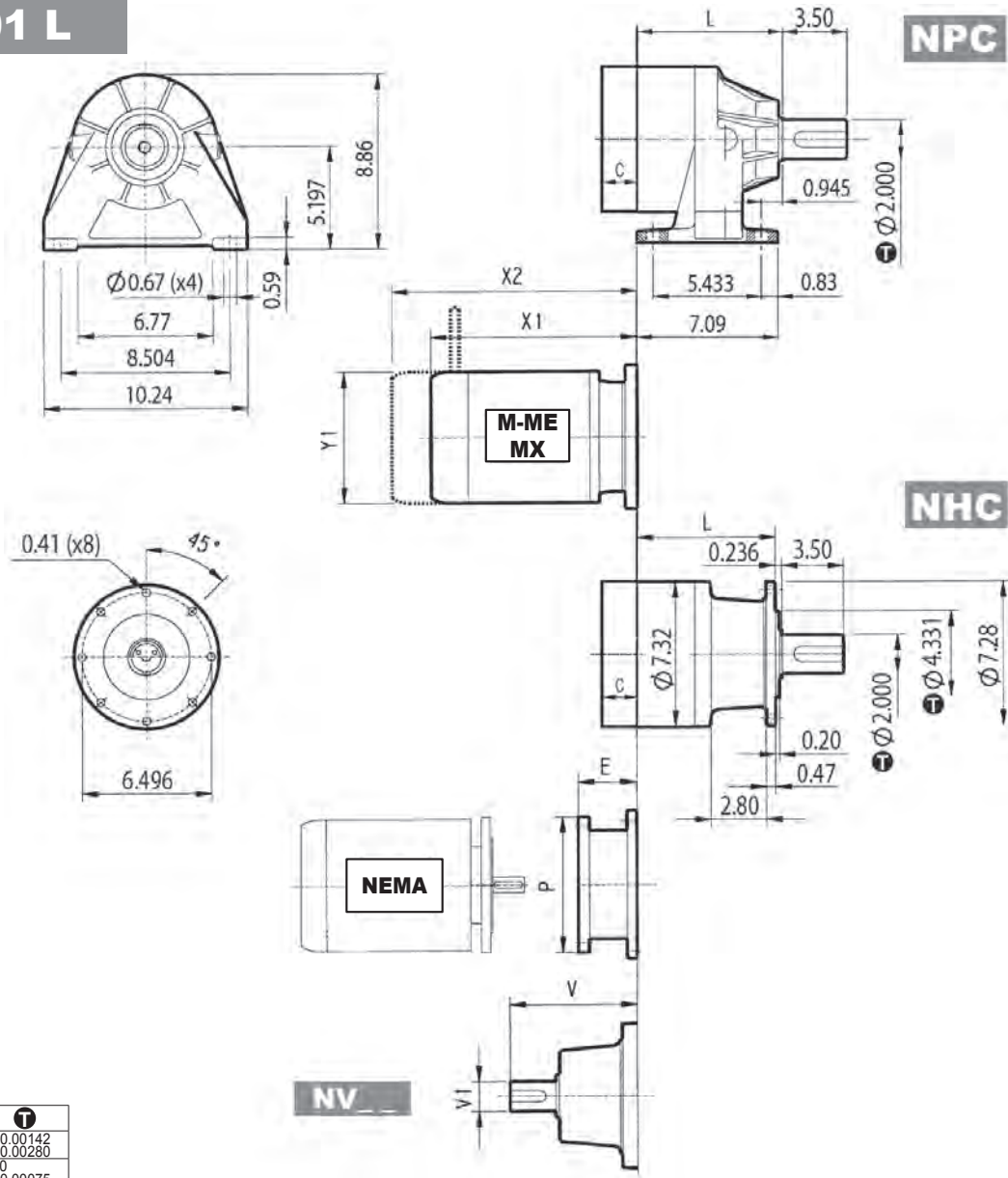
	P71		P80		P90		P100		P112		P132	
	E	P	E	P	E	P	E	P	E	P	E	P
301 R2	65	160	84	200	84	200	94	250	94	250	114	300
301 R3	65	160	84	200	84	200	94	250	94	250	114	300
301 R4	65	160	84	200	84	200	94	250	94	250	114	300

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
301 R2	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258
301 R3	253	314	138	328	—	156	373	—	195	405	—	195	—	—	—
301 R4	253	314	138	328	—	156	373	—	195	—	—	—	—	—	—

301 L



Imperial



inch	\pm
4.331	-0.00142 -0.00280
2.000	0 -0.00075

Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs	
	NPC	NHC	NPC	NHC
301 L1	5.20	4.96	57.3	50.7
301 L2	7.28	6.93	66.2	59.5
301 L3	9.37	9.13	75.0	68.4
301 L4	11.46	11.22	83.8	77.2

	V	V1	lbs	V	V1	lbs	C	Input
301 L2	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A
301 L3	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A
301 L4	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A

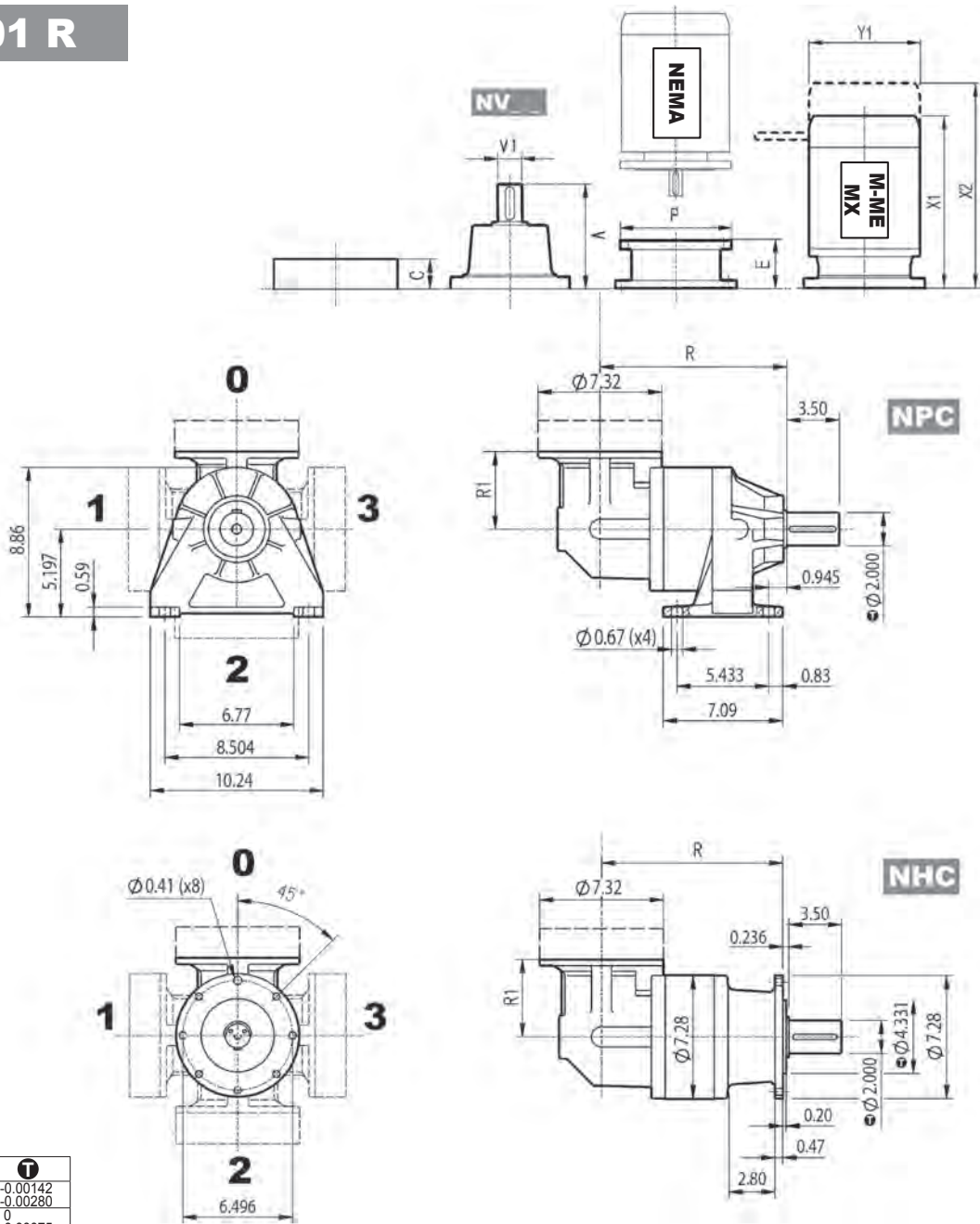
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
301 L1	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
301 L2	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
301 L3	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
301 L4	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
301 L1	9.96	12.36	5.43	11.02	—	6.14	12.8	—	7.67	14.06	—	7.67	18.11	—	10.15
301 L2	9.96	12.36	5.43	11.02	—	6.14	12.8	—	7.67	14.06	—	7.67	18.11	—	10.15
301 L3	9.96	12.36	5.43	11.02	—	6.14	12.8	—	7.67	14.06	—	7.67	18.11	—	10.15
301 L4	9.96	12.36	5.43	11.02	—	6.14	12.8	—	7.67	14.06	—	7.67	18.11	—	10.15

301 R



Imperial



inch	Ⓜ
4.331	-0.00142 -0.00280
2.000	0 -0.00075

Dimensions are in Inch except when shown in *italics* [mm]

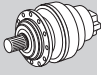
	R		R1	lbs	
	NPC	NHC		NPC	NHC
301 R2	8.86	8.62	4.80	92.6	81.6
301 R3	10.94	10.71	4.80	101.4	90.4
301 R4	13.03	12.80	4.80	110.3	99.2

	V	V1	lbs	V	V1	lbs	C	Input
301 R3	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A
301 R4	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A

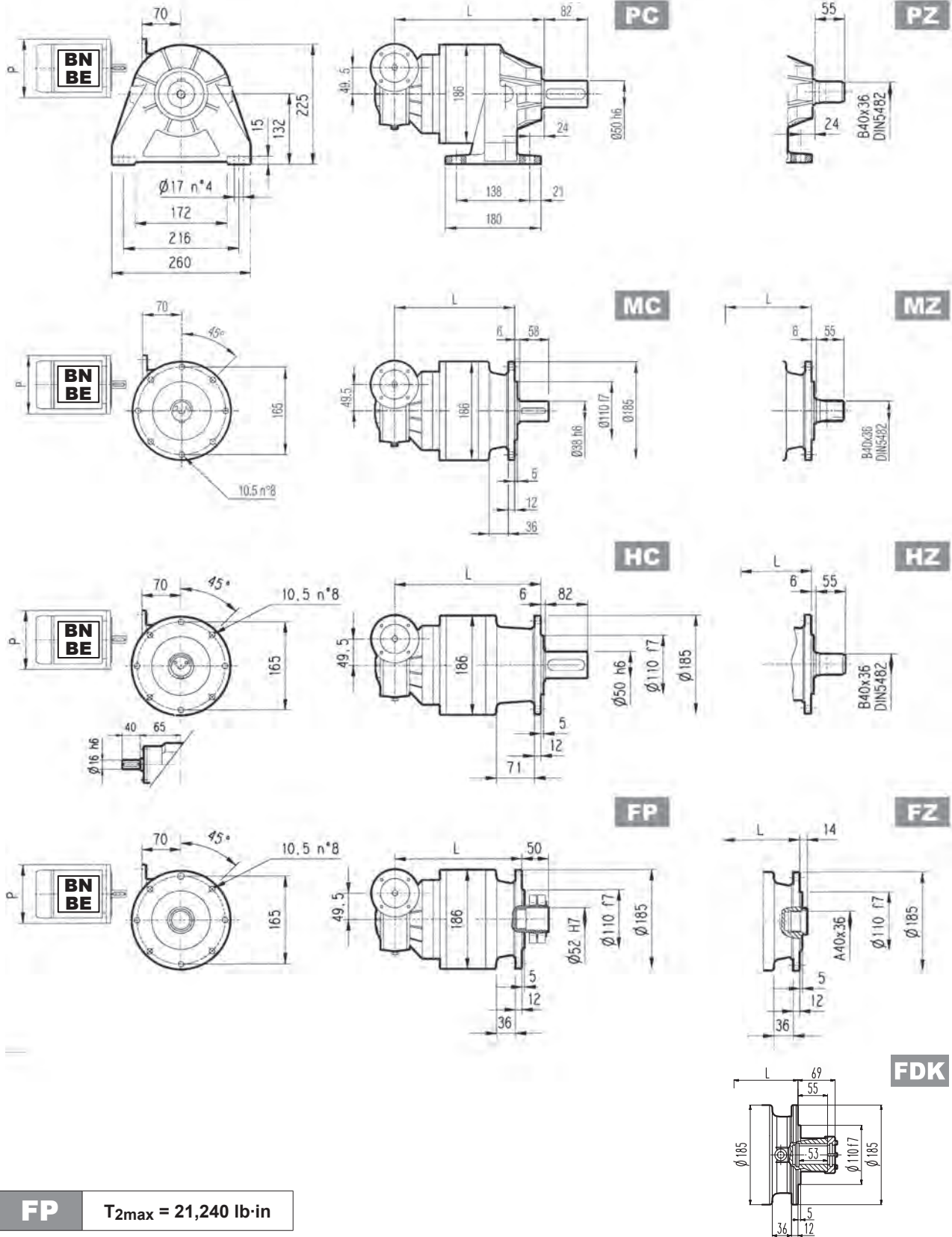
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
301 R2	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
301 R3	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
301 R4	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
301 R2	9.96	12.36	5.43	12.91	—	6.14	14.69	—	7.67	15.94	—	7.67	20	—	10.15
301 R3	9.96	12.36	5.43	12.91	—	6.14	14.69	—	7.67	15.94	—	7.67	—	—	—
301 R4	9.96	12.36	5.43	12.91	—	6.14	14.69	—	7.67	—	—	—	—	—	—

3/V 01 L3



Metric

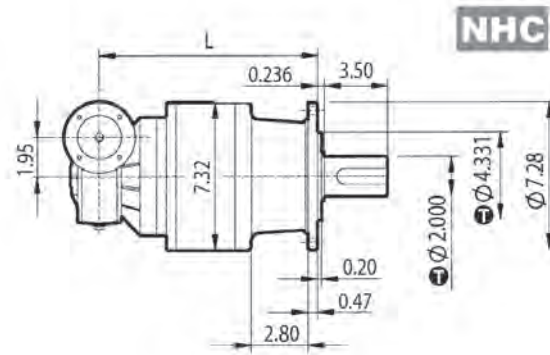
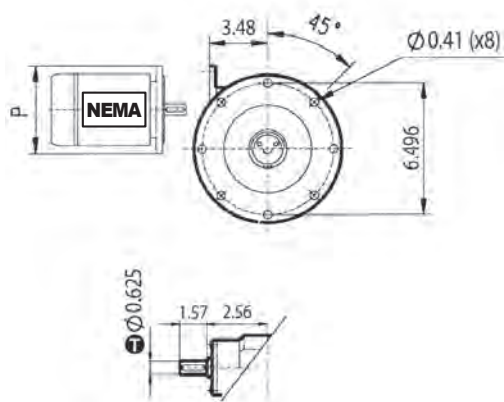
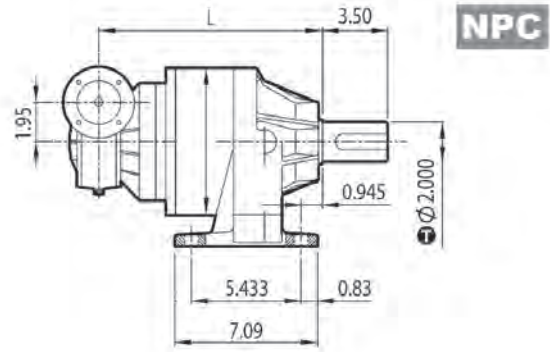
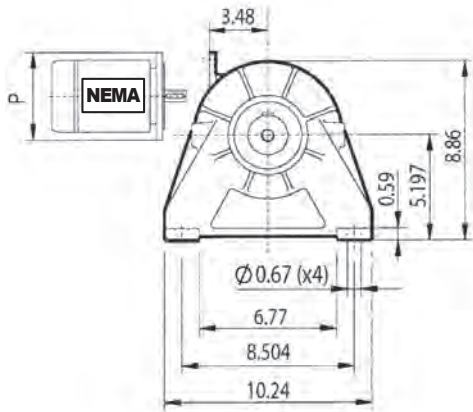


FP $T_{2max} = 21,240 \text{ lb}\cdot\text{in}$

Dimensions are in mm

	L				Kg				P63	P71	P80
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	P	P	P
3/V 01 L3	267	308	302	267	28	35	30	26	140	160	200

3/V 01 L3



inch	\pm
4.331	-0.00142 -0.00280
2.000	0 -0.00075
0.625	0 -0.00043

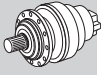
Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs		N56C
	NPC	NHC	NPC	NHC	P
3/V 01 L3	12.12	11.89	77.16	66.14	6.54

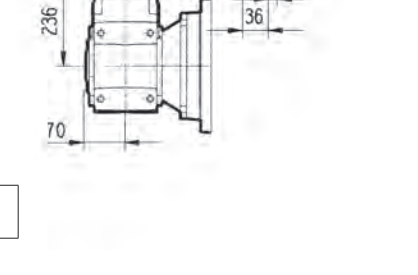
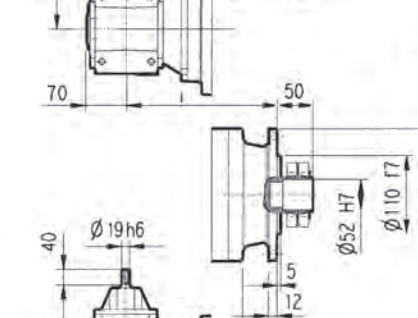
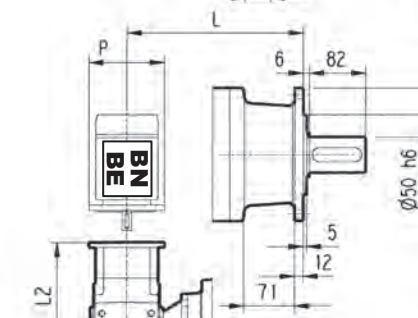
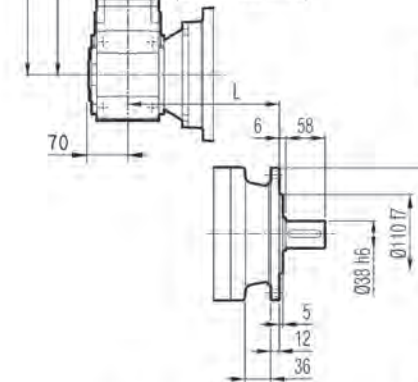
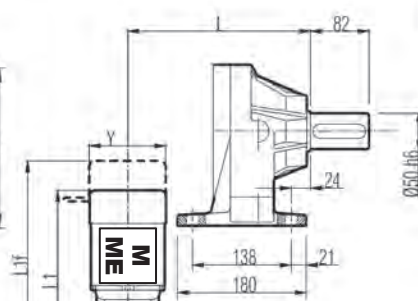
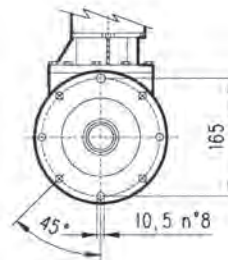
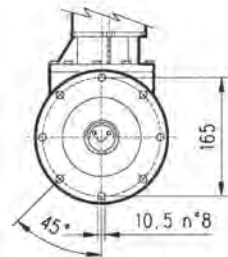
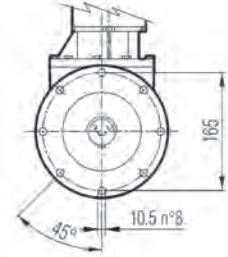
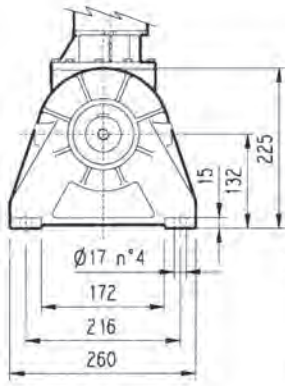


Imperial

3/A 01 L2



Metric

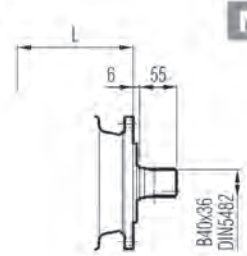


PC



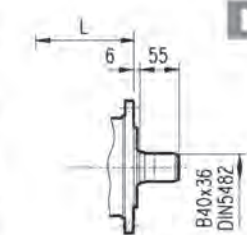
PZ

MC



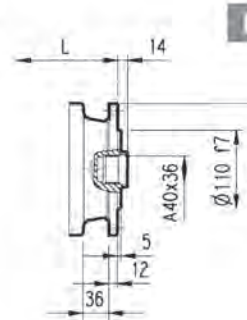
MZ

HC



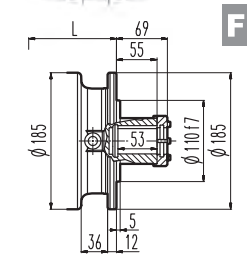
HZ

FP



FZ

FDK



FP

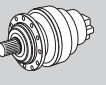
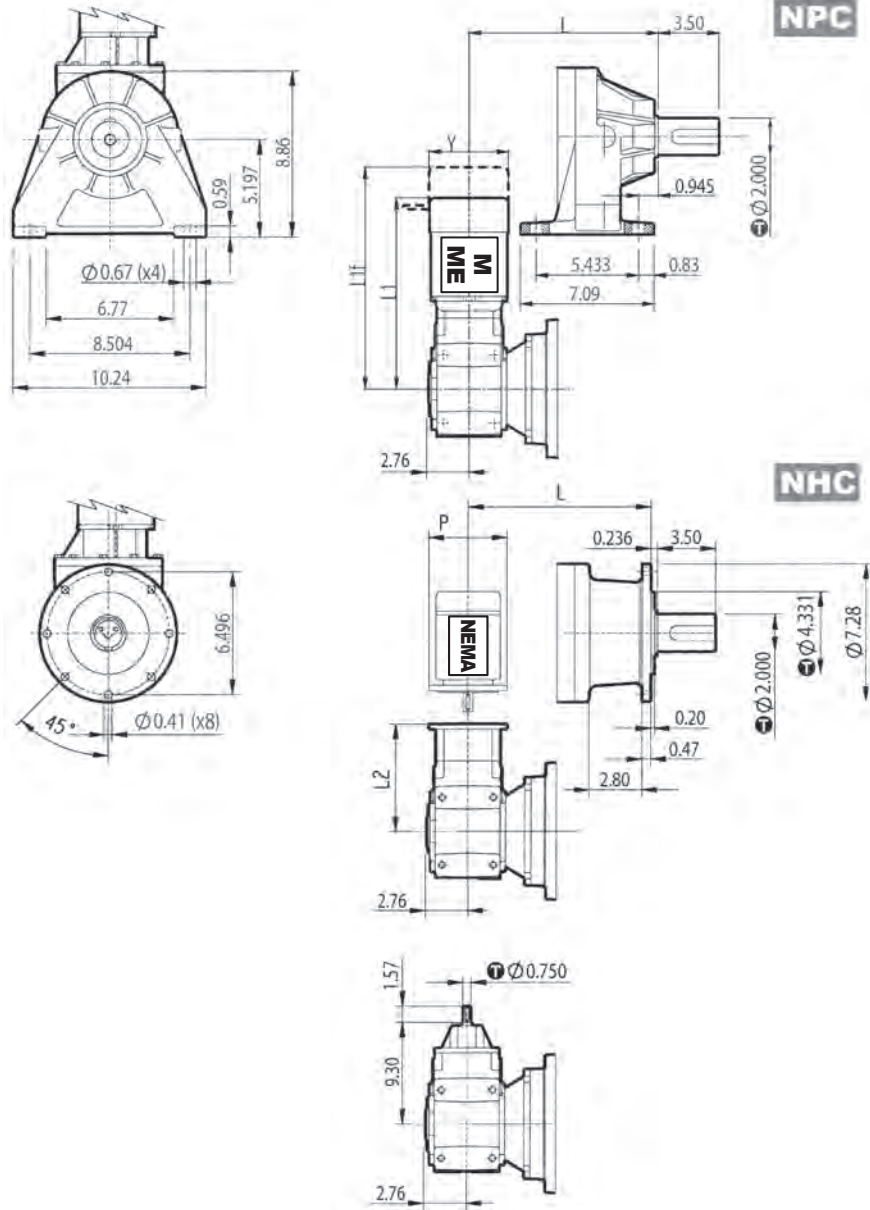
T_{2max} = 21,240 lb·in

Dimensions are in mm

	L								Kg
	MC - MZ		PC - PZ		HC - HZ		FP - FZ - FDK		
3/A 01 L2	202	208	237	202	40	46	43	40	

	P63		P71		P80		P90		P100		S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L2	P	L2	P	L2	P	L2	P	L2	P	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/A 01 L2	226	140	226	160	245.5	200	245.5	200	255.5	250	382	442	138	408	—	156	453	—	195	484	—	195

3/A 01 L2



Imperial

inch	Ⓜ
4.331	-0.00142 -0.00280
2.000	0 -0.00075
0.750	0 -0.00051

Dimensions are in Inch except when shown in *italic [mm]*

	L		lbs	
	NPC	NHC	NPC	NHC
3/A 01 L2	8.19	9.33	101.4	94.8

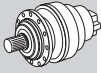
	N56C		N140TC		N180TC		S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L2	P	L2	P	L2	P	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/A 01 L2	9.69	6.50	9.69	6.50	10.43	9.00	15.04	17.40	5.43	16.06	-	6.14	17.83	-	7.68	19.05	-	7.68

301 L

301 R

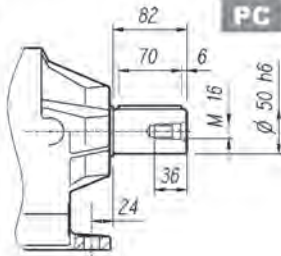
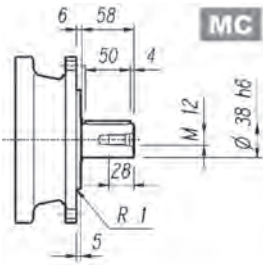
3/V 01 L3

3/A 01 L2

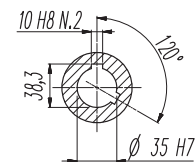
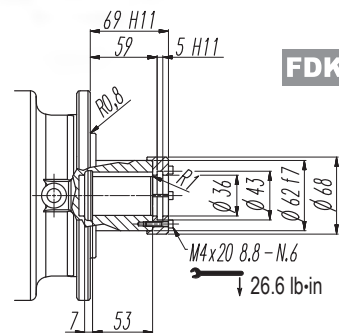
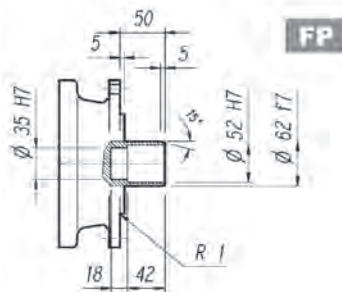
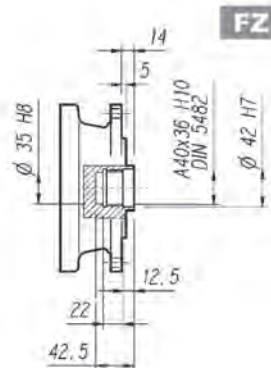
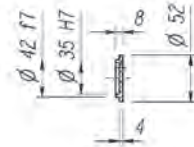
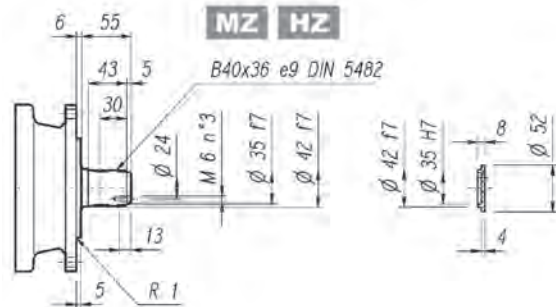
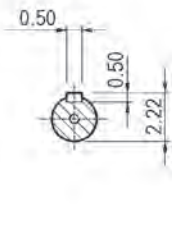
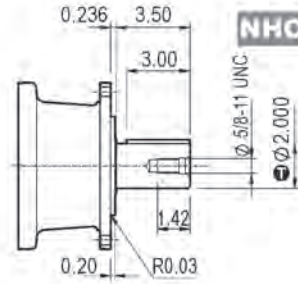
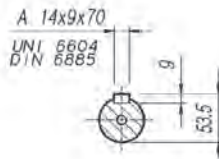
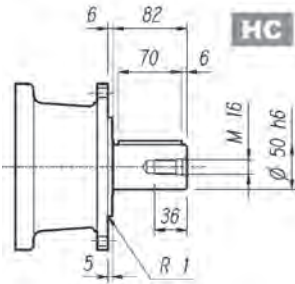
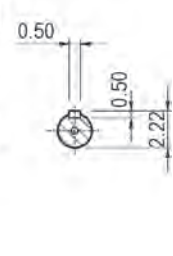
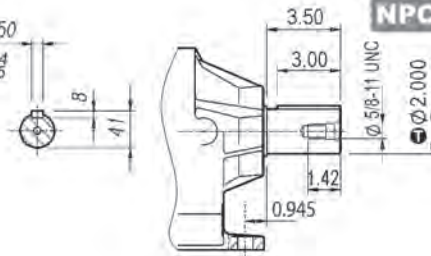


Metric

Imperial



A 10x8x50
UNI 6604
DIN 6885

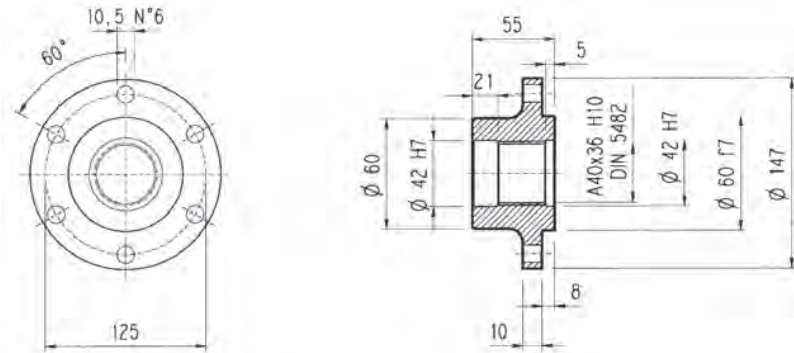
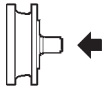


FP

T_{2max} = 21,240 lb·in

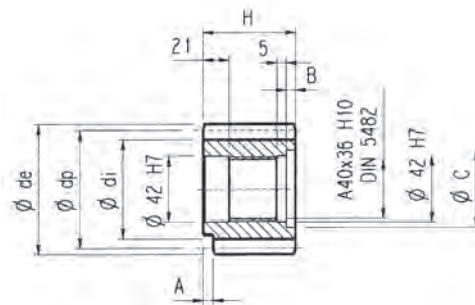
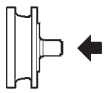
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	\pm
2.000	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

301 L**301 R****3/V 01 L3****3/A 01 L2****Flange****W0A****Metric**

Material: Steel C40

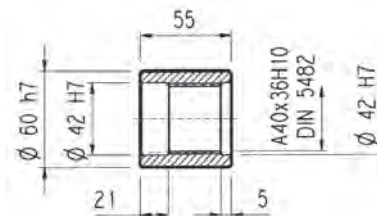
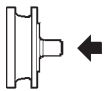
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

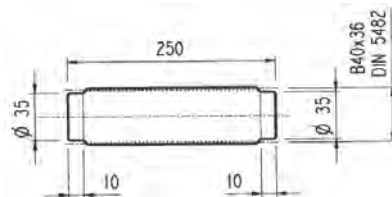
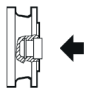
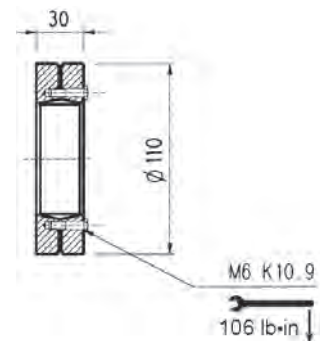
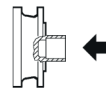
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PBE	4.5	14	0.507	63	56	75.5	55	—	—	—	Steel 39NiCrMo3 hardened and tempered
PCE	5	14	0.500	70	62.5	84.8	65	—	10	53	
PDC	6	12	0.250	72	61	84.8	59	14	4	54	
PDE	6	14	0.500	84	73	99.6	65	—	10	54	

Sleeve coupling**M0A**

Material: Steel 16CrNi4

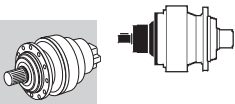
Dimensions are in mm

Splined bars**B0A****Shrink disc****G0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC

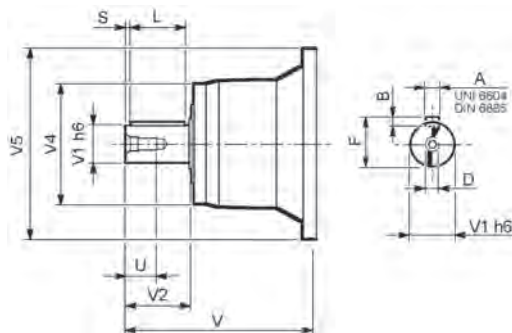
Dimensions are in mm

301 L

301 R



Metric

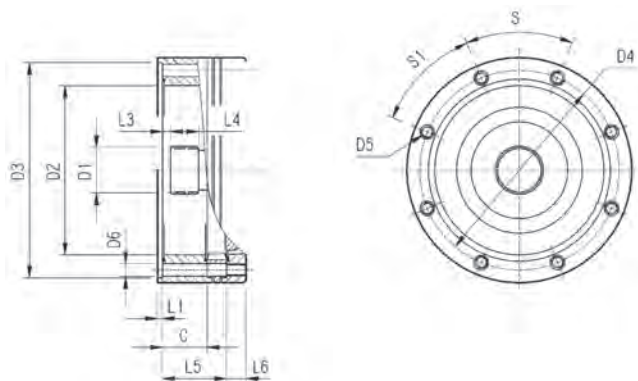


Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
301 L1	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
301 L2	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
301 L3	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
301 L4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
301 R2-R3-R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

301 L

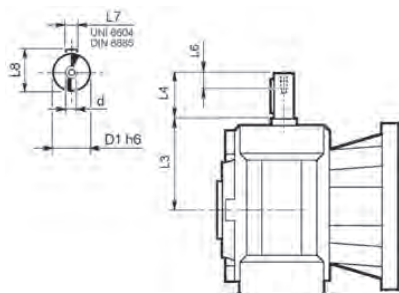
301 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
301 L1	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	65	18	45°	45°	A
301 L2	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	118	18	45°	45°	A
301 L3	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	171	18	45°	45°	A
301 L4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	224	18	45°	45°	A
301 R2-R3-R4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

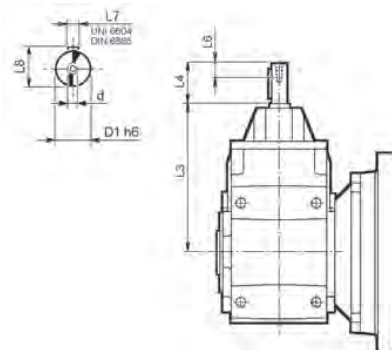
3/V 01 L3



Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/V 01 L3_HS	16	65	40	16	5	18	M6

3/A 01 L2

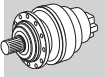
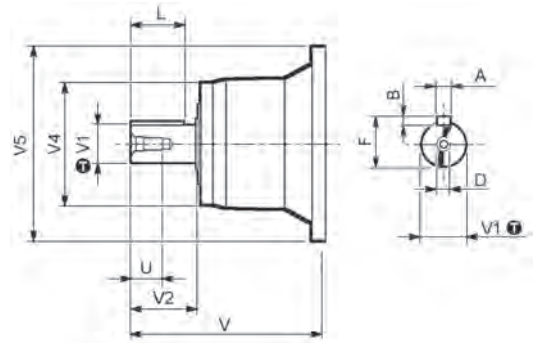


Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/A 01 L2_HS	19	235.5	40	16	6	21.5	M6

301 L

301 R



Imperial

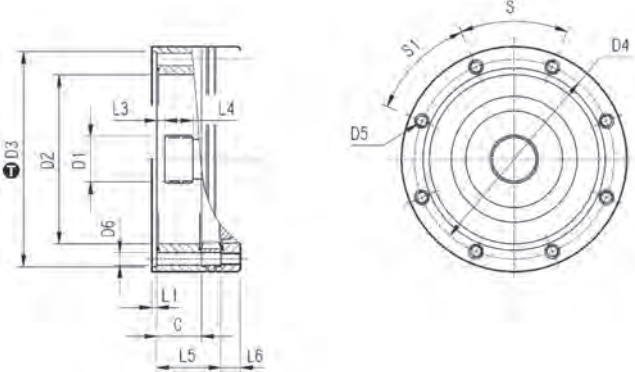
inch	T
1.125	$0_{-0.00051}$
1.625	$0_{-0.00053}$

Dimensions are in Inch except when shown in *italic* [mm]

		V	V1	V2	V4	V5	A	B	F	L	D	U
301 L1	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
301 L2	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
301 L3	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
301 L4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
301 R2-R3-R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

301 L

301 R

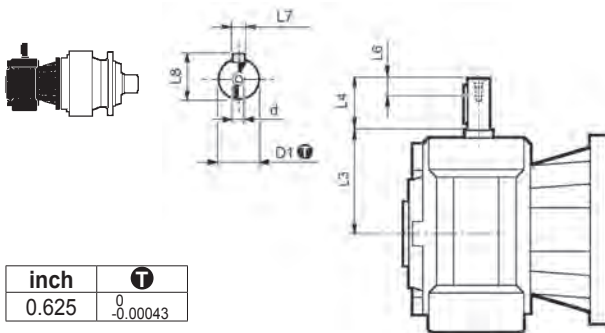


inch	T
7.01	$+0.00157_0$

Dimensions are in Inch except when shown in *italic* [mm]

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
301 L1	V9AA	1.46	<i>40x36 DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	2.56	0.71	45°	45°	A
301 L2	V9AA	1.46	<i>40x36 DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	4.65	0.71	45°	45°	A
301 L3	V9AA	1.46	<i>40x36 DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	6.73	0.71	45°	45°	A
301 L4	V9AA	1.46	<i>40x36 DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	8.82	0.71	45°	45°	A
301 R2-R3-R4	V9AA	1.46	<i>40x36 DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 01 L3

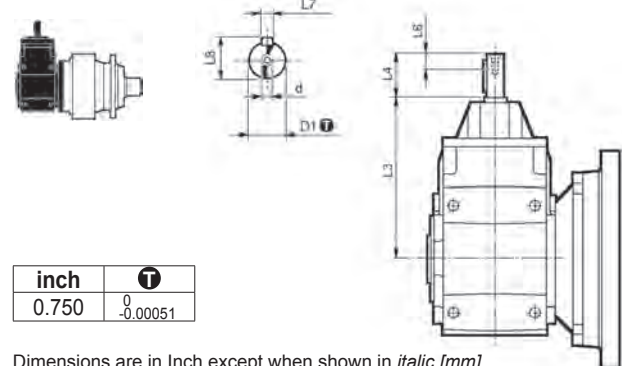


inch	T
0.625	$0_{-0.00043}$

Dimensions are in Inch except when shown in *italic* [mm]

	D1	L3	L4	L6	L7	L8	d
3/V 01 L3_NHS	0.625	2.57	1.575	0.63	0.188	0.705	1/4-20UNC

3/A 01 L2



inch	T
0.750	$0_{-0.00051}$

Dimensions are in Inch except when shown in *italic* [mm]

	D1	L3	L4	L6	L7	L8	d
3/A 01 L2_NHS	0.750	9.30	1.575	0.63	0.188	0.832	1/4-20UNC

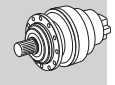
301 L

301 R

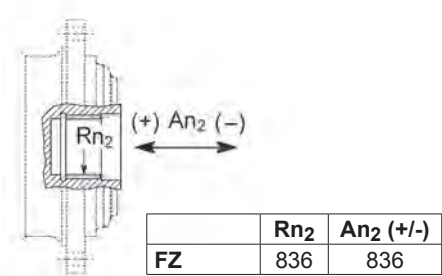
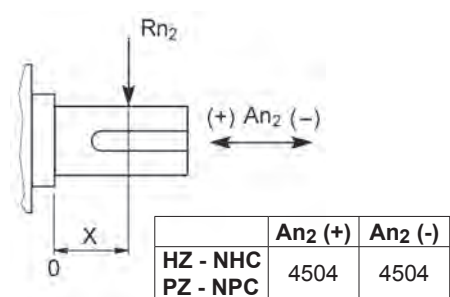
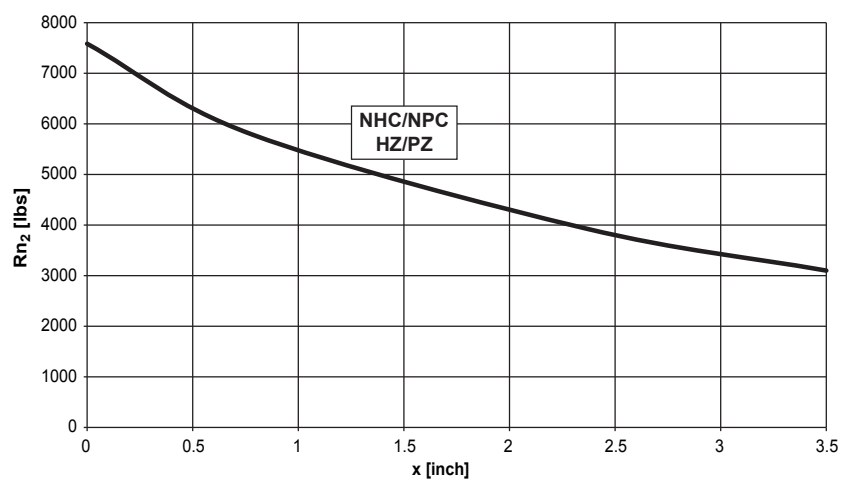
3/V 01 L3

3/A 01 L2

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$

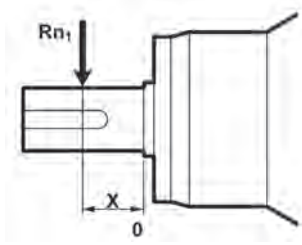
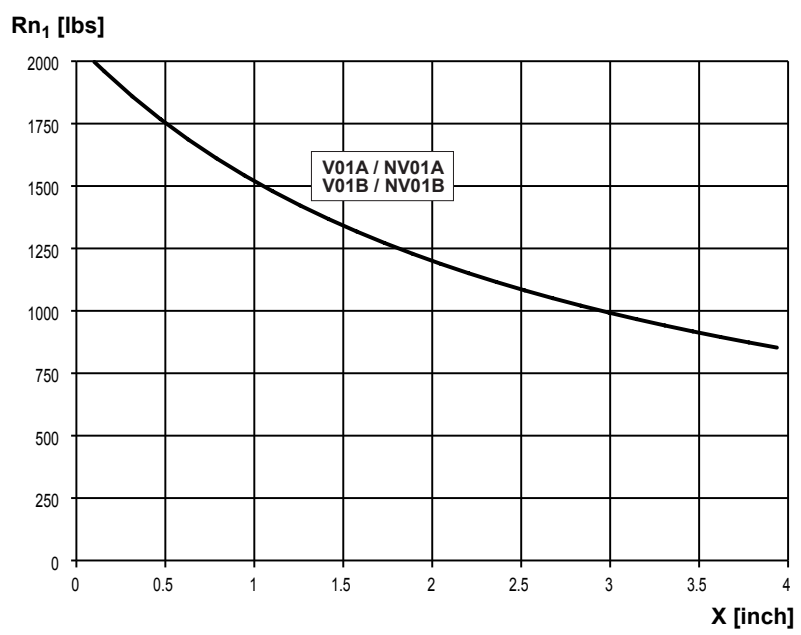


Imperial

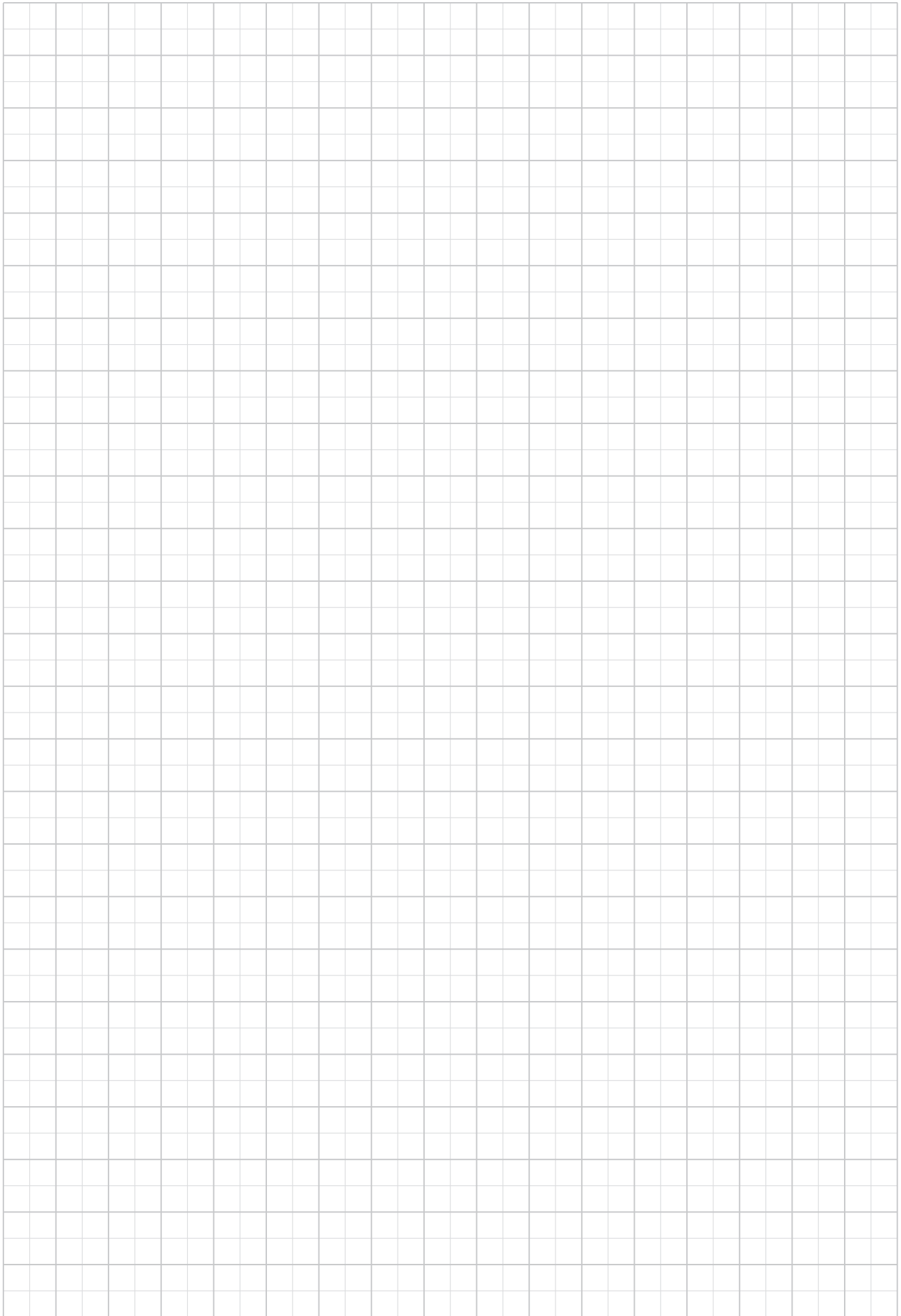


Load corrective factor fh2 on shafts	Fh2 = n2 · h		10000	25000	50000	100000	500000	1000000
	fh2	FZ	2.15	1.59	1.26	1.00	0.58	0.46
		NHC - NPC - HZ - PZ	1.27	1.27	1.26	1.00	0.62	0.50

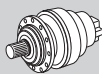
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



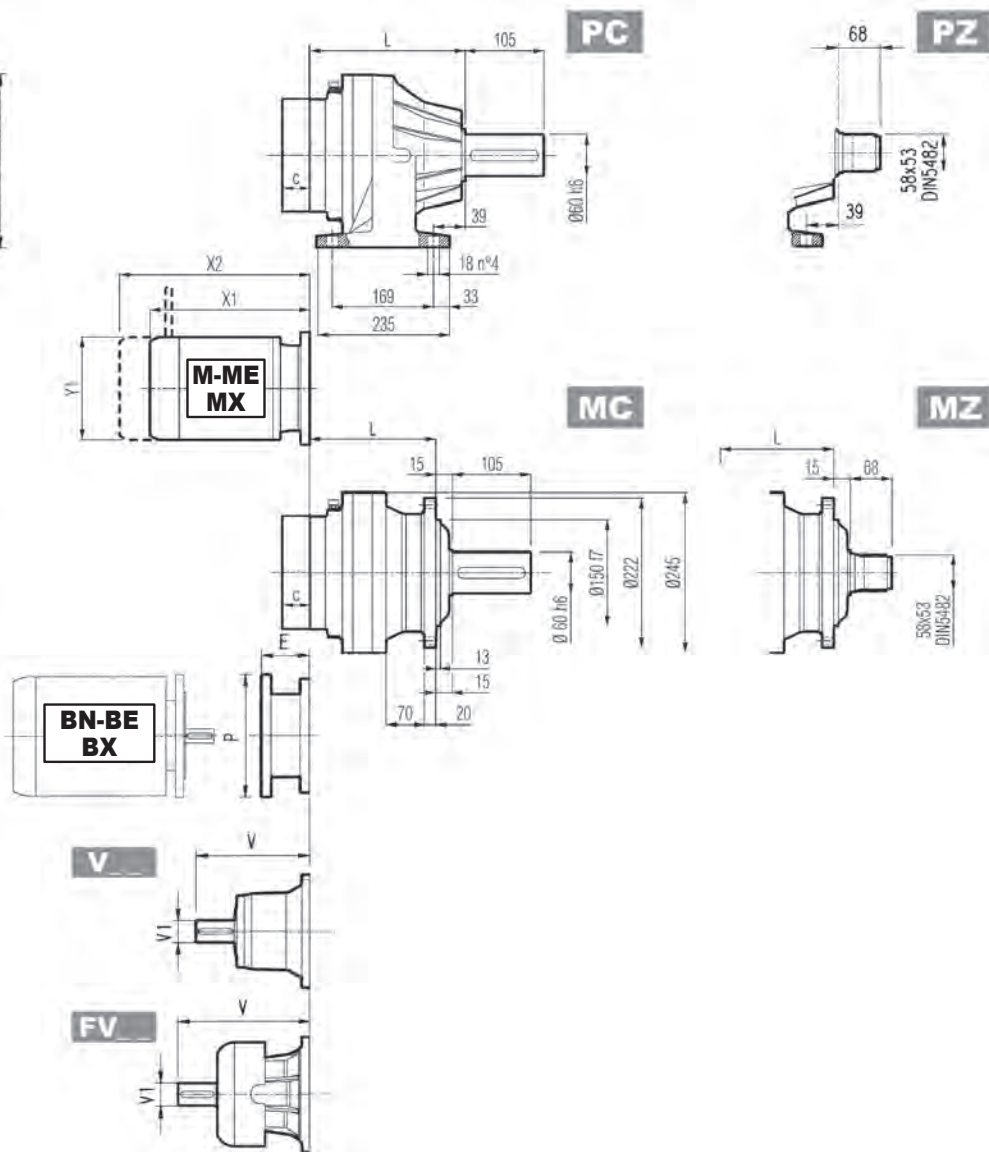
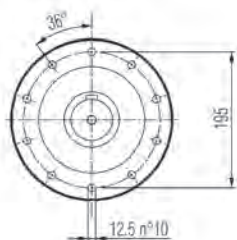
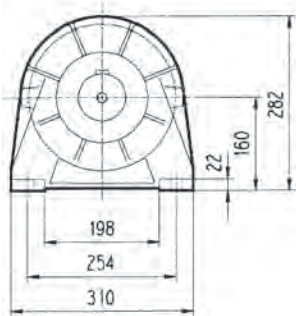
Load corrective factor fh1 on shafts	Fh1 = n1 · h	250000	500000	1000000	2000000	5000000	10000000
	fh1	1	0.79	0.63	0.50	0.37	0.29



303 L



Metric

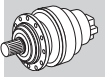
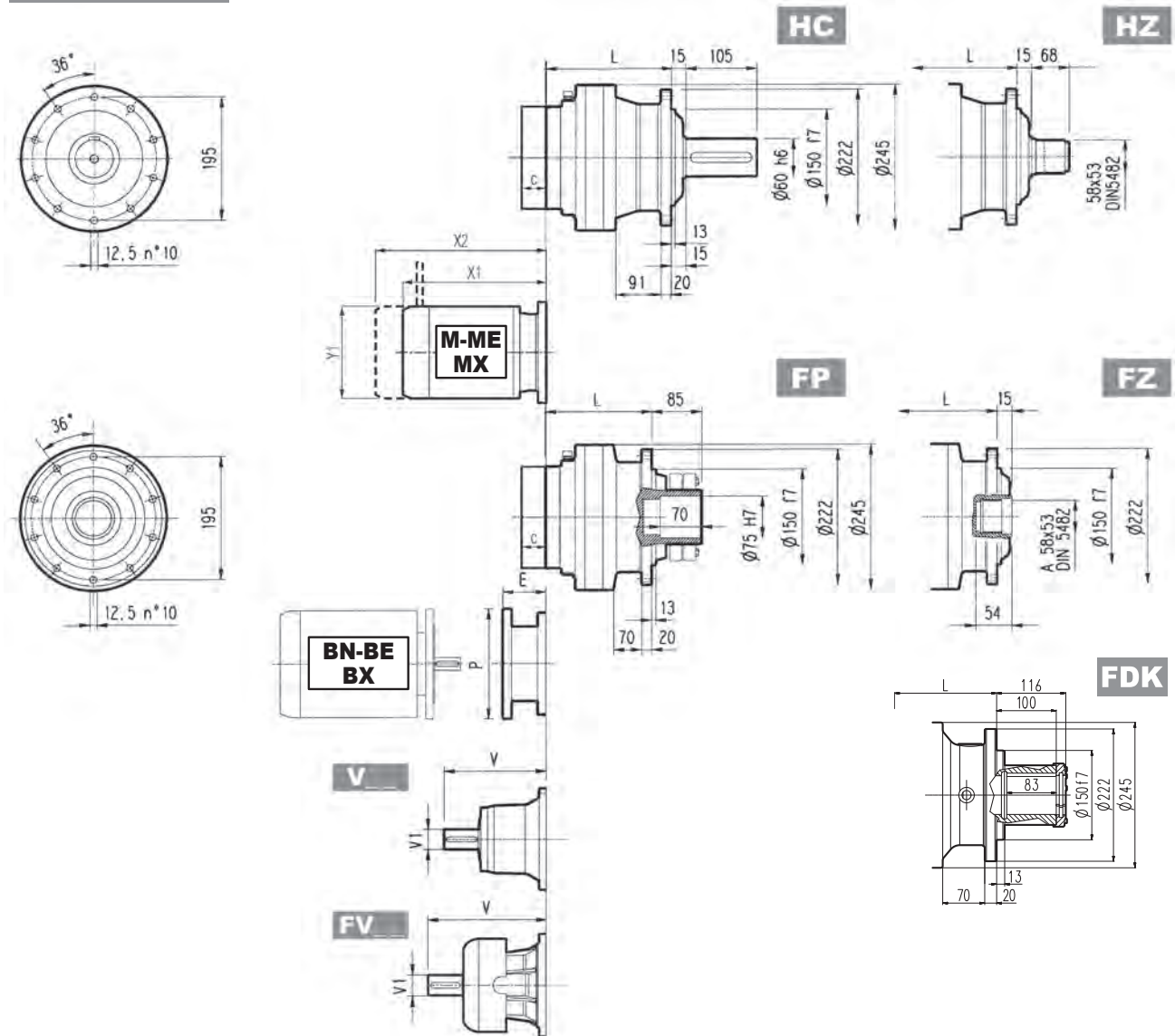


Dimensions are in mm

	L				Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
303 L1	125	165	150	125	31	40	35	31
303 L2	178	218	203	178	35	44	39	35
303 L3	231	271	256	231	39	48	43	39
303 L4	284	324	309	284	43	52	47	43

	V			V1			C			Input	
	V	V1	Kg	V	V1	Kg	V	V1	Kg		
303 L1	239	48	15	—	—	—	276	48	17	37	A
303 L2	137.5	24	6	158	38	7	—	—	—	37	A
303 L3	137.5	24	6	158	38	7	—	—	—	37	A
303 L4	137.5	24	6	158	38	7	—	—	—	37	A

303 L



Metric

FP

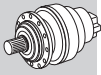
$T_{2max} = 46,020 \text{ lb}\cdot\text{in}$

Dimensions are in mm

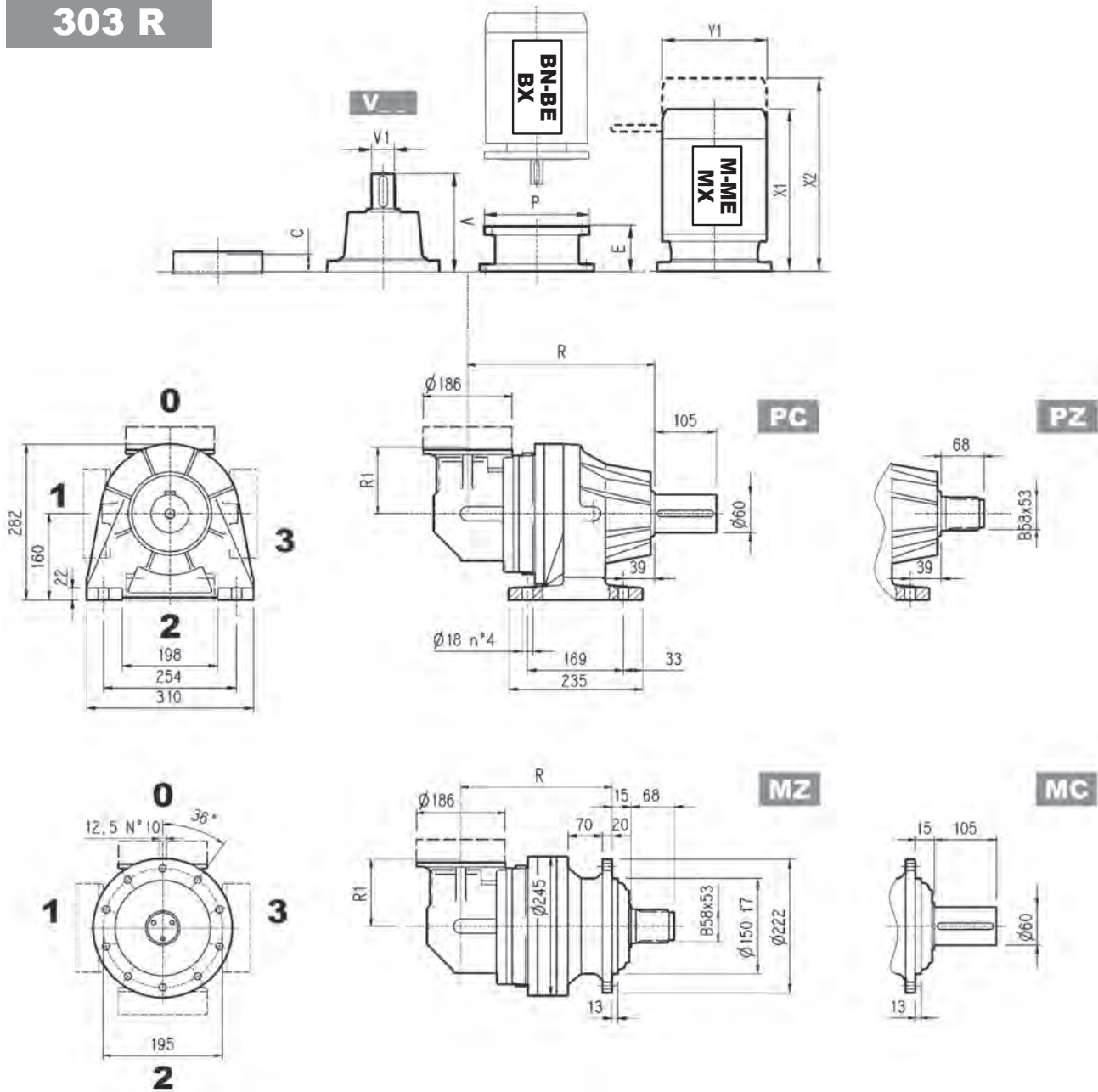
	P71		P80		P90		P100		P112		P132		P160		P180		P200	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
303 L1	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400
303 L2	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—
303 L3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—
303 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L			
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	
303 L1	—	—	—	—	—	—	—	—	—	—	—	—	460	258	552	—	—	310	596	—	—	310
303 L2	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—
303 L3	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—
303 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—

303 R



Metric

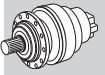


Dimensions are in mm

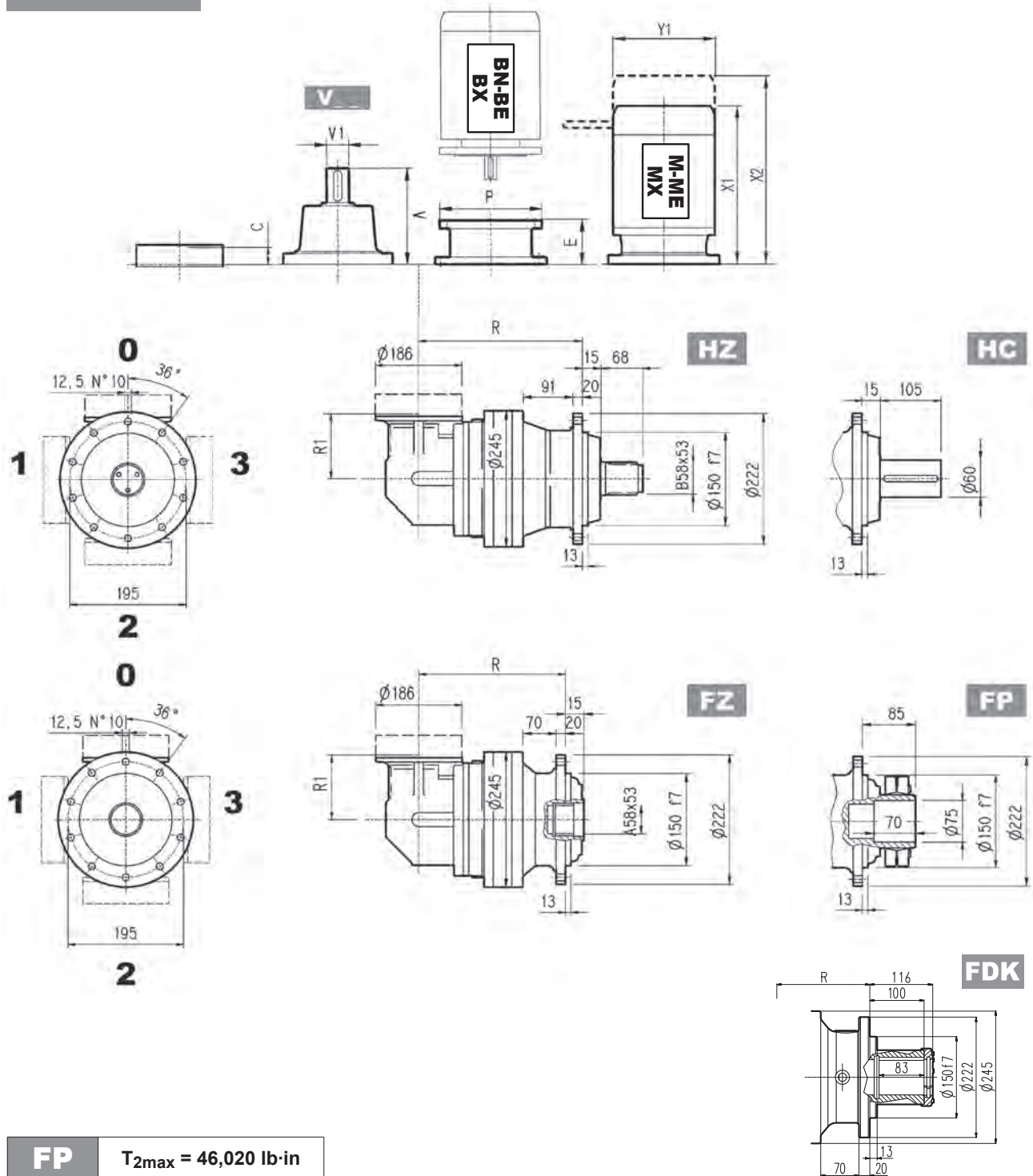
	R				R1	Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK		MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
303 R2	217	257	242	217	140	51	60	55	51
303 R3	270	310	295	270	122	49	58	53	49
303 R4	323	363	348	323	122	53	62	57	53

	V						C	Input
	V	V1	Kg	V	V1	Kg		
303 R2	137.5	24	6	158	38	7	37	A
303 R3	137.5	24	6	158	38	7	37	A
303 R4	137.5	24	6	158	38	7	37	A

303 R



Metric



FP

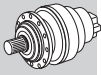
$T_{2max} = 46,020 \text{ lb-in}$

Dimensions are in mm

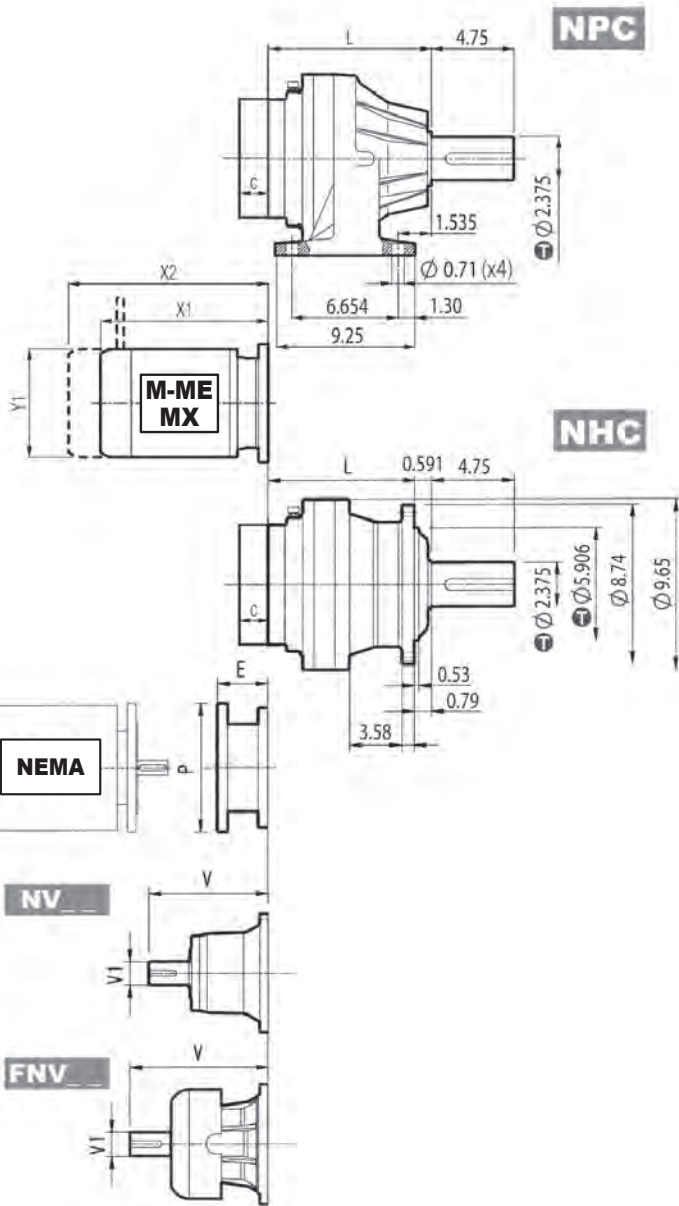
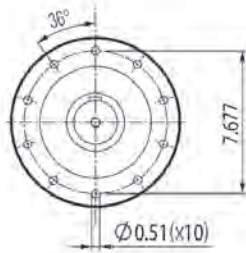
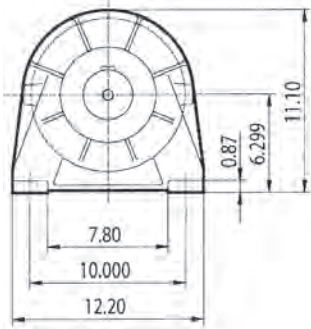
	P71		P80		P90		P100		P112		P132	
	E	P	E	P	E	P	E	P	E	P	E	P
303 R2	65	160	84	200	84	200	94	250	94	250	114	300
303 R3	65	160	84	200	84	200	94	250	94	250	114	300
303 R4	65	160	84	200	84	200	94	250	94	250	114	300

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
303 R2	—	—	—	328	—	156	373	—	195	405	—	195	508	—	258
303 R3	253	314	138	328	—	156	373	—	195	405	—	195	—	—	—
303 R4	253	314	138	328	—	156	373	—	195	405	—	195	—	—	—

303 L



Imperial



inch	①
5.906	-0.00169 -0.00327
2.375	0 -0.00075

Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs										C	Input	
	NPC	NHC	NPC	NHC	V	V1	lbs	V	V1	lbs	V	V1			
303 L1	6.50	5.91	88.2	77.2	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	1.457	A
303 L2	8.58	7.99	97.0	86.0	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A
303 L3	10.67	10.08	105.8	94.8	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A
303 L4	12.76	12.17	114.7	103.6	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A

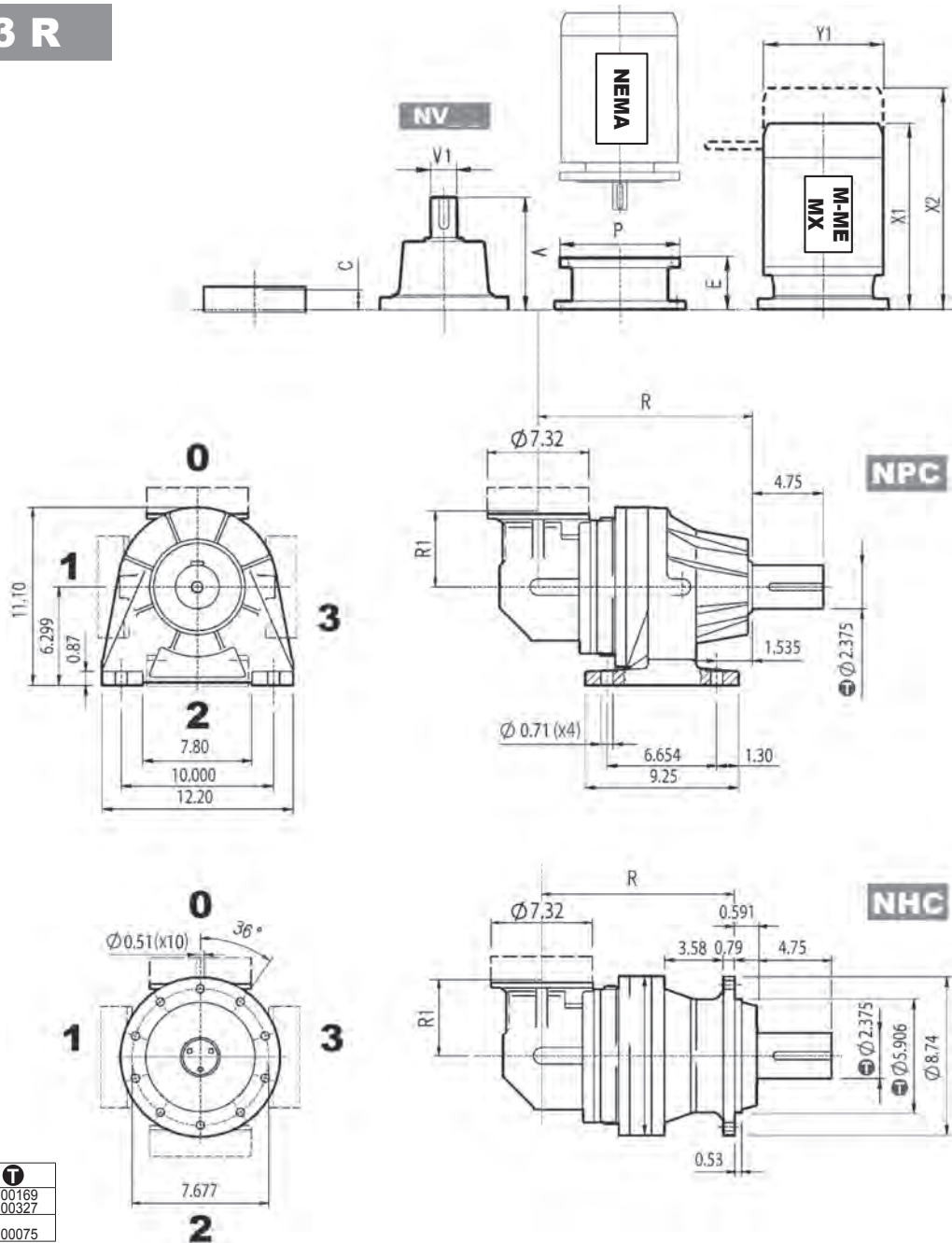
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
303 L1	—	—	—	—	—	—	—	—	5.22	11.81	6.22	13.78
303 L2	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
303 L3	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
303 L4	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L			
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	
303 L1	—	—	—	—	—	—	—	—	—	—	—	—	18.11	—	10.16	21.73	—	—	12.20	23.46	—	12.20
303 L2	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—	—
303 L3	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—	—
303 L4	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—	—

303 R



Imperial



inch	Ⓜ
5.906	-0.00169 -0.00327
2.375	0 -0.00075

Dimensions are in Inch except when shown in *italic* [mm]

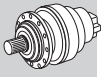
	R		R1	lbs	
	NPC	NHC		NPC	NHC
303 R2	10.12	9.53	5.51	132.3	121.3
303 R3	12.20	11.61	4.80	127.9	116.9
303 R4	14.29	13.70	4.80	136.7	125.7

	lbs						C	Input
	V	V1	lbs	V	V1	lbs		
303 R2	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A
303 R3	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A
303 R4	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A

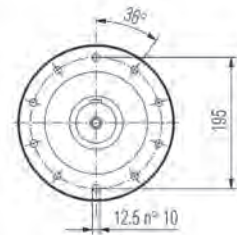
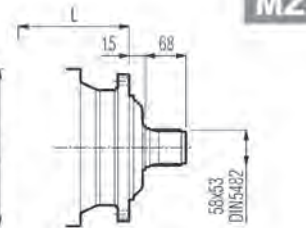
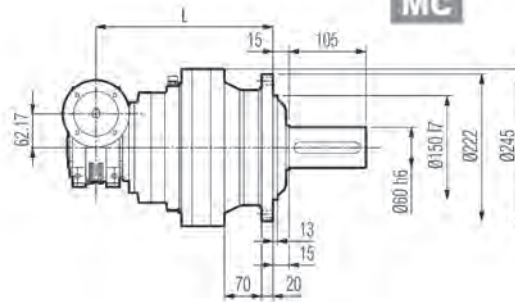
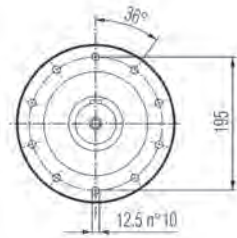
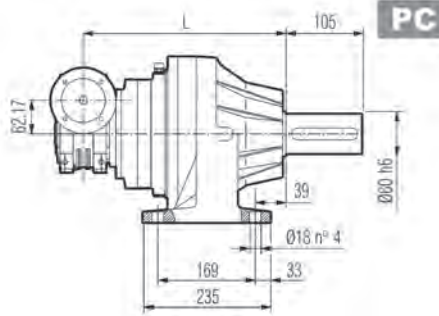
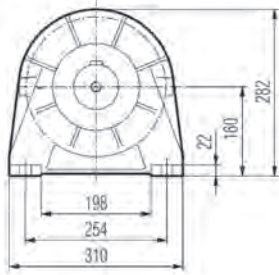
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
303 R2	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
303 R3	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
303 R4	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
303 R2	—	—	—	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	20	—	10.16
303 R3	9.96	12.36	5.43	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	—	—	—
303 R4	9.96	12.36	5.43	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	—	—	—

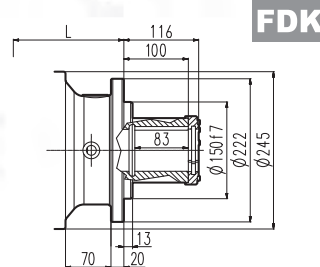
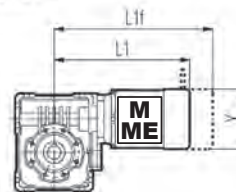
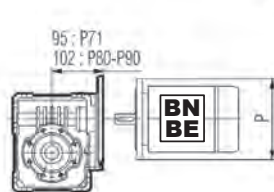
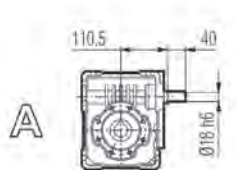
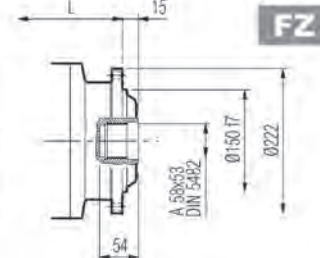
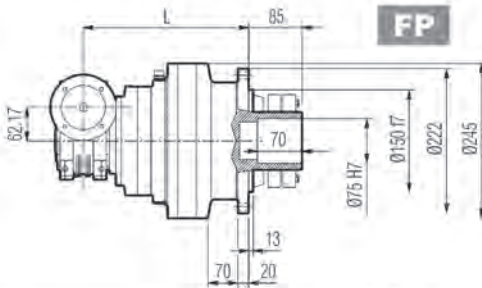
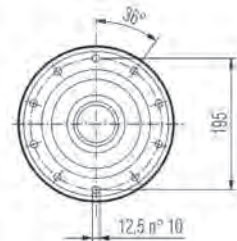
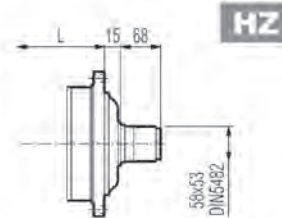
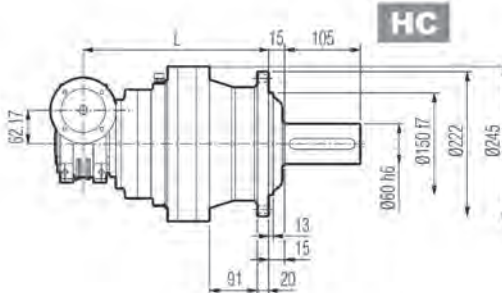
3/V 03 L3



Metric



A →



FP

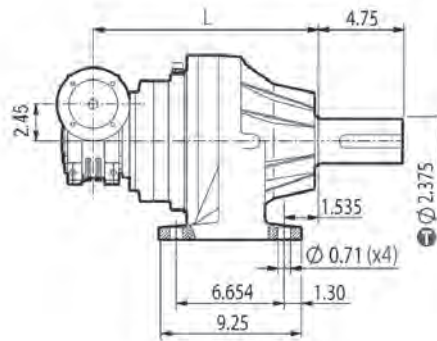
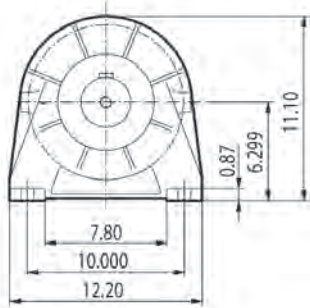
T_{2max} = 46,020 lb-in

Dimensions are in mm

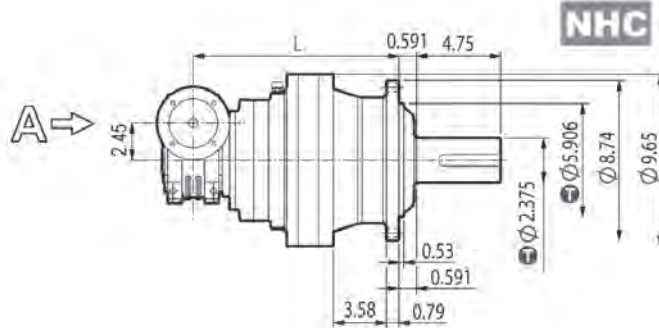
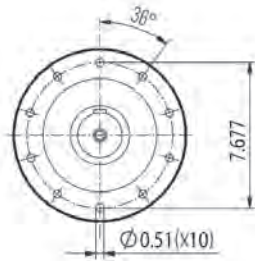
	L				Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
3/V 03 L3	270	330	315	270	43	51	45	41

	P71	P80	P90	S1 + M1			S2 + ME2S		
	P	P	P	L1	L1f	Y	L1	L1f	Y
3/V 03 L3	160	200	200	289	350	138	317	—	156

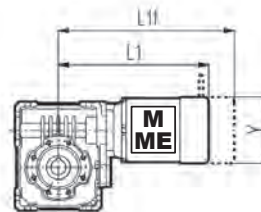
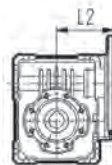
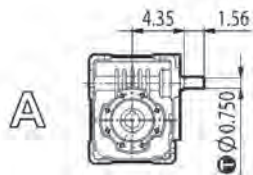
3/V 03 L3



NPC



NHC



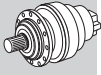
inch	Ⓜ
5.906	-0.00169 -0.00327
2.375	0 -0.00075
0.750	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

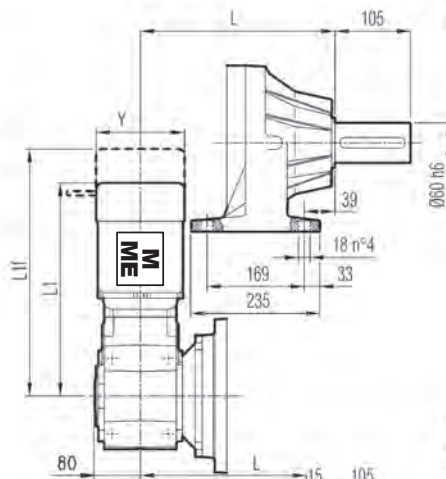
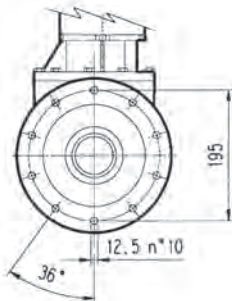
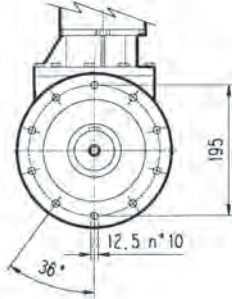
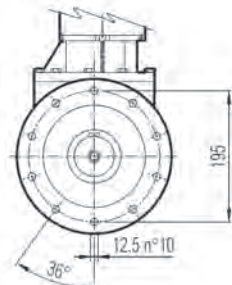
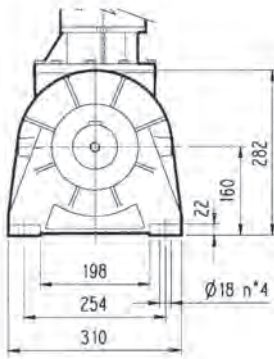
	L		lbs		N56C	N140TC	S1 + M1			S2 + ME2S		
	NPC	NHC	NPC	NHC	P	P	L1	L1f	Y	L1	L1f	Y
3/V 03 L3	12.99	12.40	112.5	99.2	6.54	6.54	11.38	13.78	5.43	12.48	—	6.14



3/A 03 L2



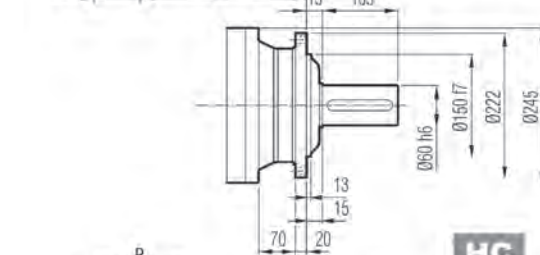
Metric



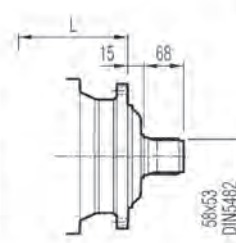
PC



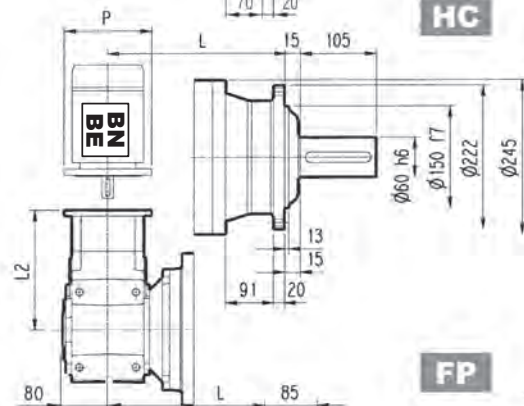
PZ



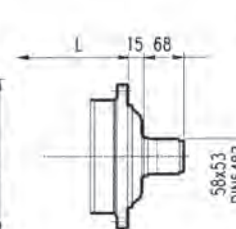
MC



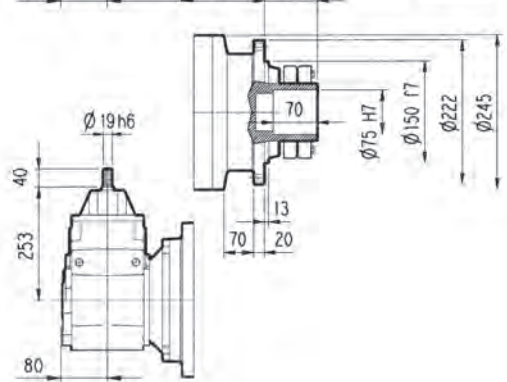
MZ



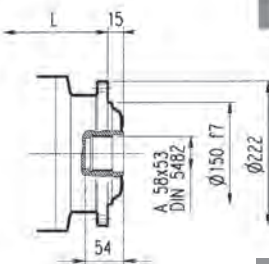
HC



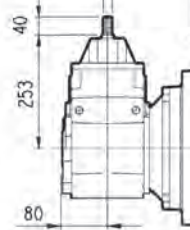
HZ



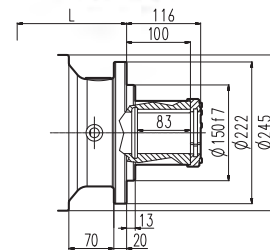
FP



FZ



FDK



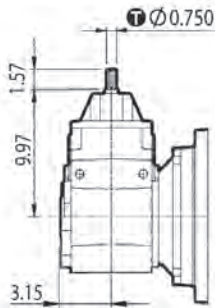
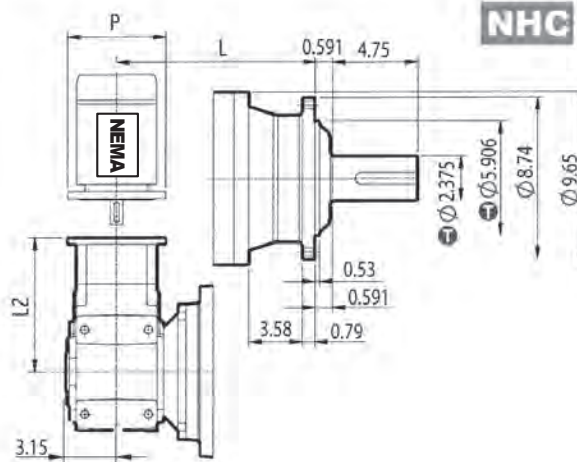
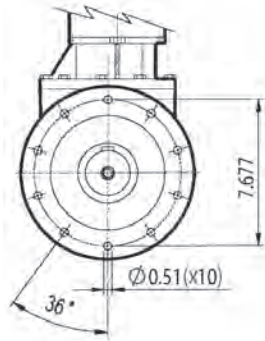
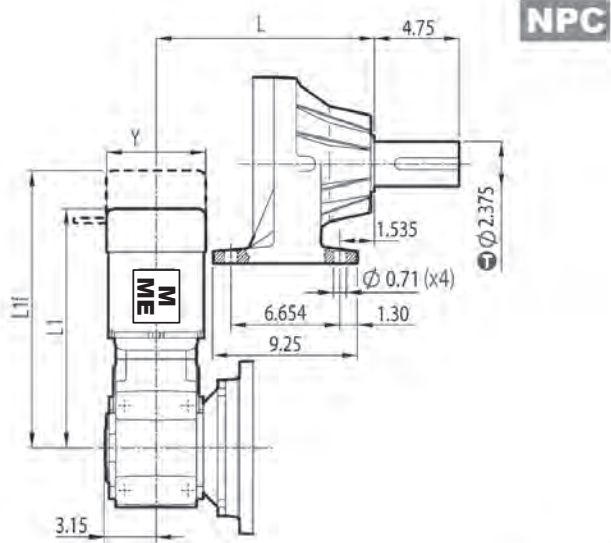
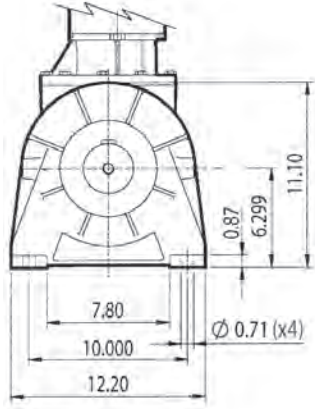
FP

T_{2max} = 46,020 lb·in

Dimensions are in mm

	L												Kg											
	MC - MZ		PC - PZ		HC - HZ		FP - FZ - FDK		MC - MZ		PC - PZ		HC - HZ		FP - FZ - FDK									
3/A 03 L2	225	285	270	225	63	71	65	60																
	P63	P71	P80	P90	P100	P112	S1 + M1	S2 + ME2S	S3 + ME3S	S3 + ME3L														
	L2	P	L2	P	L2	P	L2	P	L2	P	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y					
3/A 03 L2	243	140	243	160	262	200	262	200	272	250	399	416	138	425	—	156	470	—	195	501	—	195		

3/A 03 L2

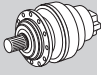


inch	Ⓜ
5.906	-0.00169 -0.00327
2.375	0 -0.00075
0.750	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

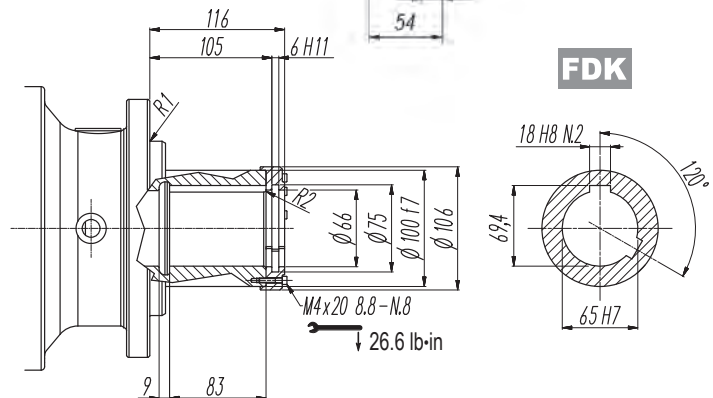
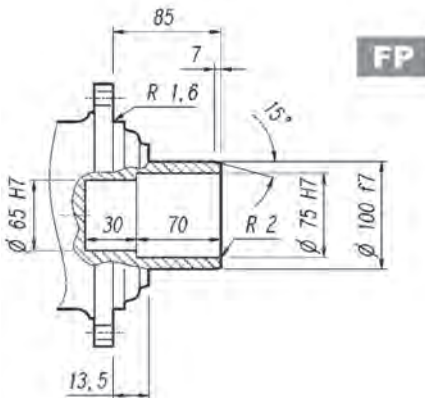
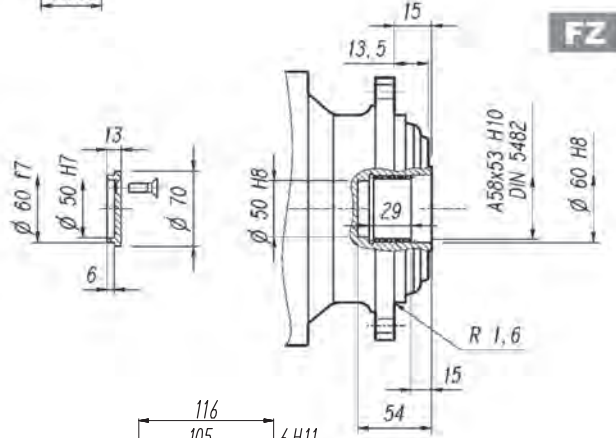
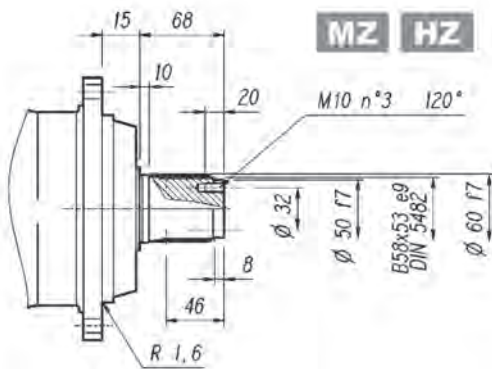
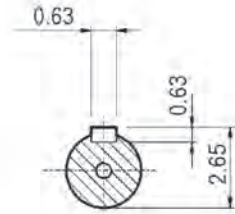
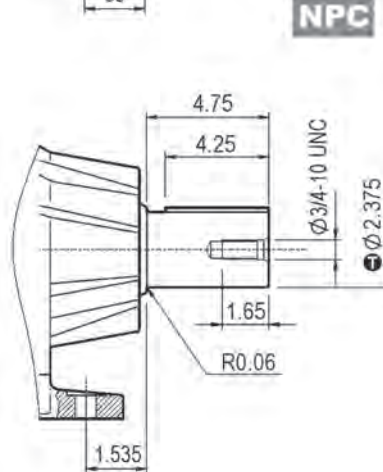
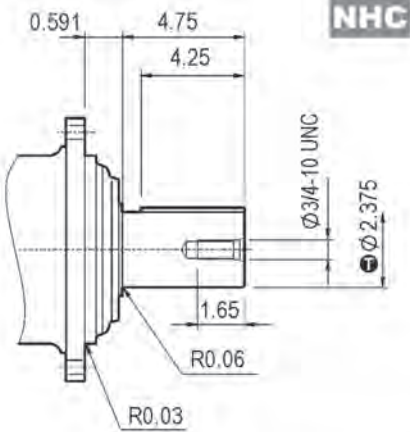
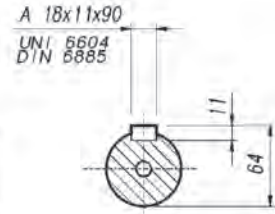
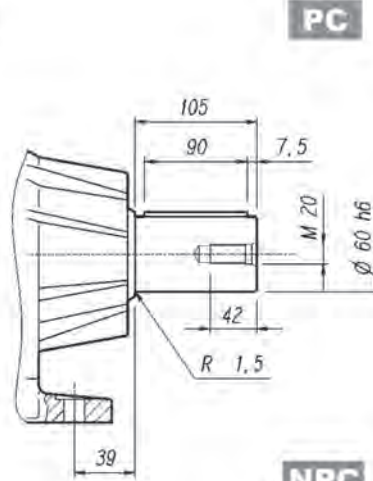
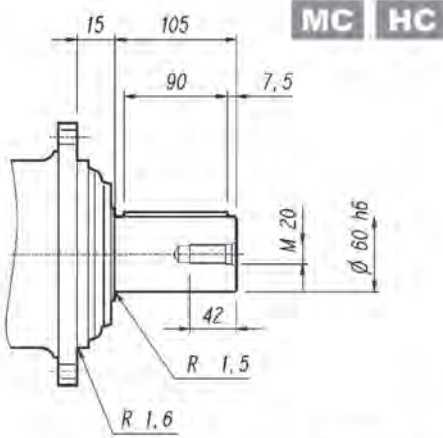
	L		lbs	
	NPC	NHC	NPC	NHC
3/A 03 L2	11.22	10.63	156.5	143.3

	N56C		N140TC		N180TC		S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L2	P	L2	P	L2	P	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/A 03 L2	10.35	6.50	10.35	6.50	11.10	8.98	15.70	16.38	5.43	16.73	—	6.14	18.50	—	7.68	19.72	—	7.68

303 L**303 R****3/V 03 L3****3/A 03 L2**

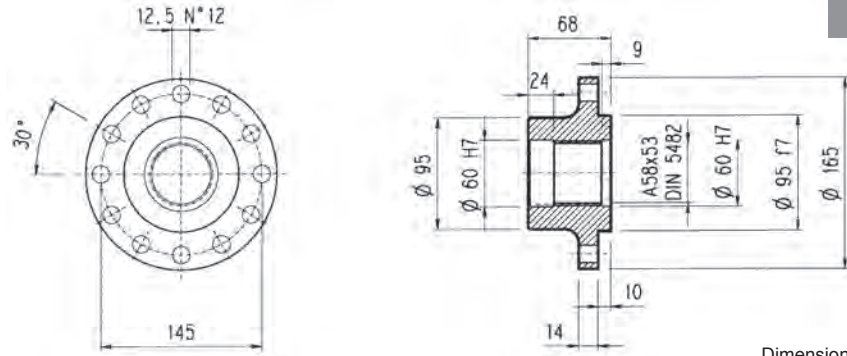
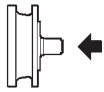
Metric

Imperial

**FP****T_{2max} = 46,020 lb-in**

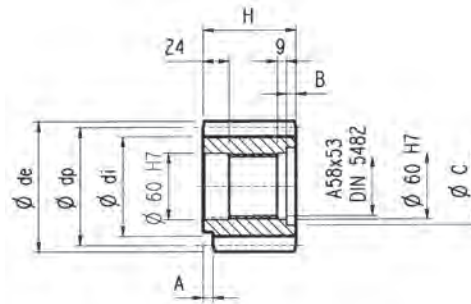
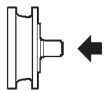
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	T
2.375	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

303 L**303 R****3/V 03 L3****3/A 03 L2****Flange****W0A****Metric**

Material: Steel C40

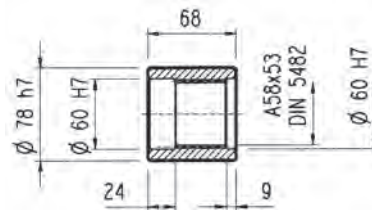
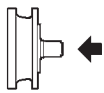
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

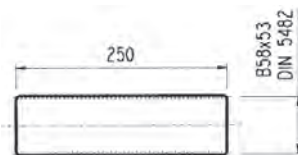
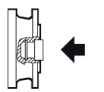
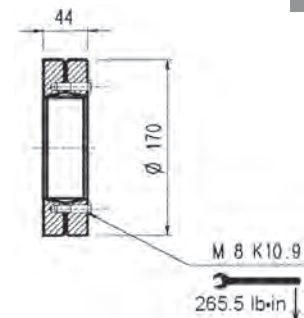
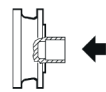
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PCL1	5	19	—	95	82	104	77	12	9	72	Steel 39NiCrMo3 hardened and tempered
PCL2	5	19	—	95	82	104	68	—	—	—	
PCM	5	20	—	100	87.5	110	68	18	—	—	Steel 18NiCrMo5 case hardened
PCP	5	22	—	110	97.5	120	68	18	—	—	
PDE	6	14	0.500	84	75	99.6	68	—	—	—	Steel 39NiCrMo3 hardened and tempered
PDI	6	18	0.500	108	99	123.6	68	—	—	—	
PDM	6	20	0.833	120	115	140	68	—	—	—	
PFD	8	13	0.675	104	95	127.6	68	—	—	—	Steel 18NiCrMo5 case hardened
PFE1	8	14	—	112	92	126	68	—	—	—	
PFE2	8	14	—	112	92	126	80	—	12	72	
PFF	8	15	—	120	100	136	68	—	—	—	Steel 39NiCrMo3 hardened and tempered
PFP	8	22	—	176	156	190	77	12	10	71	
PHG	10	16	0.500	160	145	188	75	—	7	72	

Sleeve coupling**M0A**

Material: Steel 16CrNi4

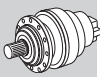
Dimensions are in mm

Splined bars**B0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC**Shrink disc****G0A**

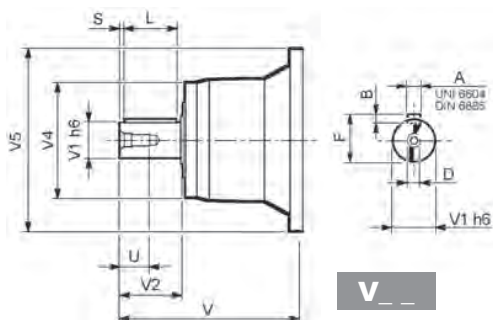
Dimensions are in mm

303 L

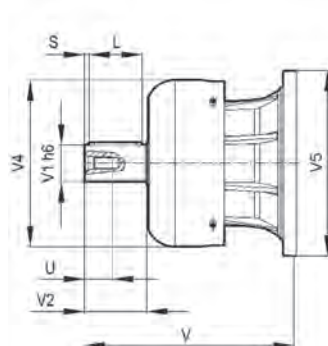
303 R



Metric



V __



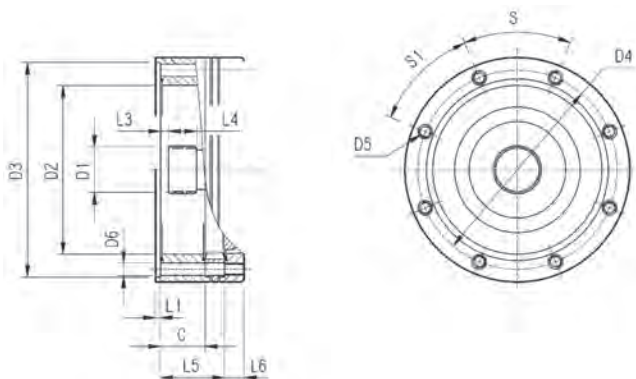
FV __

Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
303 L1	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
303 L2	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
303 L3	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
303 L4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
303 R2-R3-R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

303 L

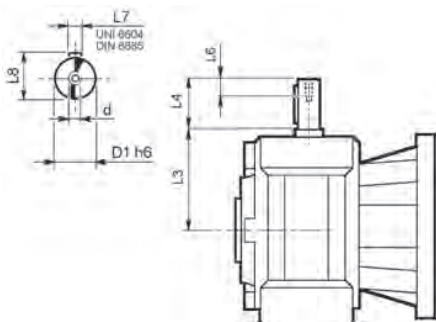
303 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
303 L1	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	—	18	45°	45°	A
303 L2	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	53	18	45°	45°	A
303 L3	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	106	18	45°	45°	A
303 L4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	159	18	45°	45°	A
303 R2-R3-R4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

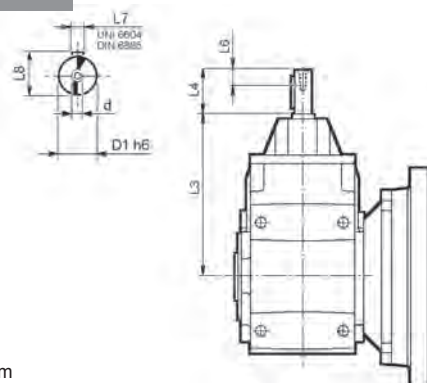
3/V 03 L3



Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/V 03 L3_HS	18	110.5	40	16	6	20.5	M6

3/A 03 L2

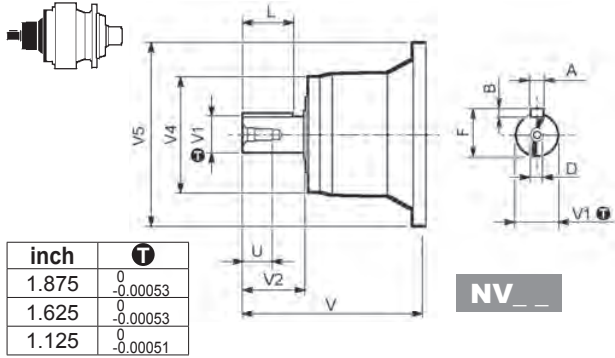


Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/A 03 L2_HS	19	252.5	40	16	6	21.5	M6

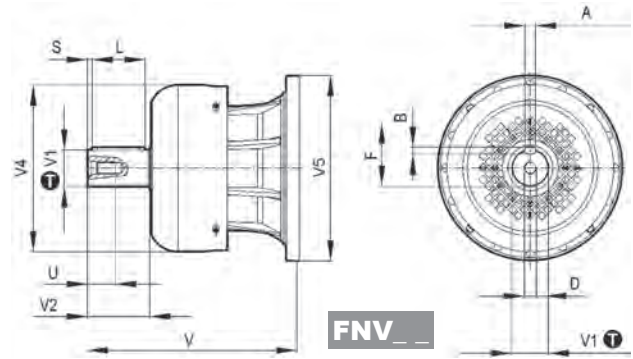
303 L

303 R

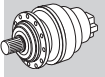


inch	T
1.875	0 -0.00053
1.625	0 -0.00053
1.125	0 -0.00051

NV _



FNV _



Imperial

Dimensions are in Inch except when shown in *italic* [mm]

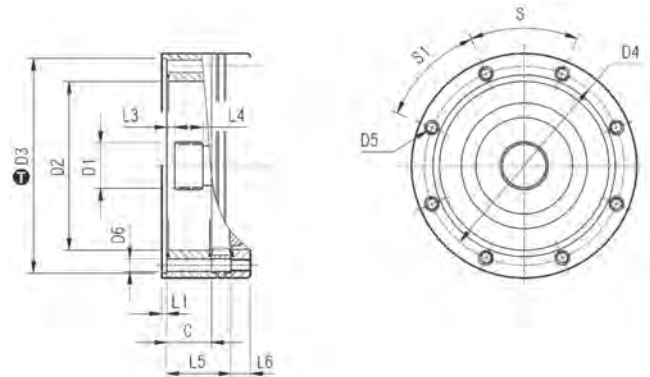
		V	V1	V2	V4	V5	A	B	F	L	D	U
303 L1	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
303 L2	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
303 L3	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
303 L4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
303 R2-R3-R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

303 L

303 R



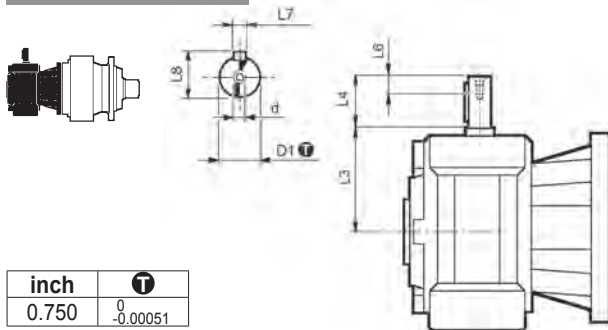
inch	T
7.01	$+0.00157$ 0



Dimensions are in Inch except when shown in *italic* [mm]

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
303 L1	V9AA	1.46	40x36 <i>DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	—	0.71	45°	45°	A
303 L2	V9AA	1.46	40x36 <i>DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	2.09	0.71	45°	45°	A
303 L3	V9AA	1.46	40x36 <i>DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	4.17	0.71	45°	45°	A
303 L4	V9AA	1.46	40x36 <i>DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	6.26	0.71	45°	45°	A
303 R2-R3-R4	V9AA	1.46	40x36 <i>DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 03 L3

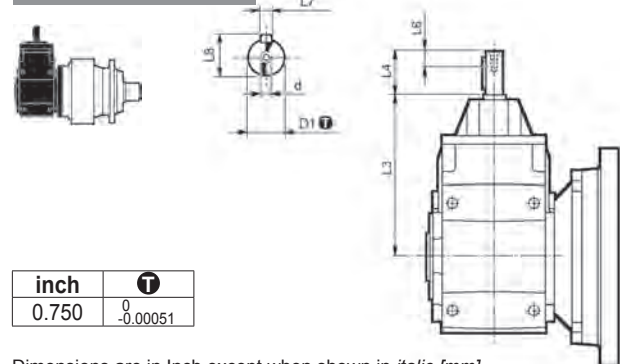


inch	T
0.750	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

	D1	L3	L4	L6	L7	L8	d
3/V 03 L3_NHS	0.750	4.35	1.575	0.63	0.188	0.832	1/4-20UNC

3/A 03 L2



inch	T
0.750	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

	D1	L3	L4	L6	L7	L8	d
3/A 03 L2_NHS	0.750	9.97	1.575	0.63	0.188	0.832	1/4-20UNC

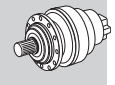
303 L

303 R

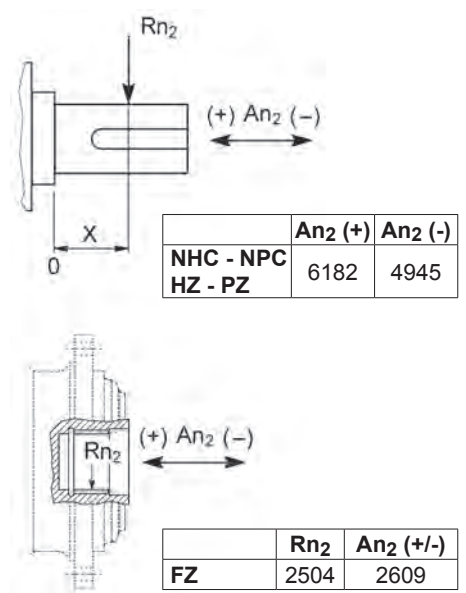
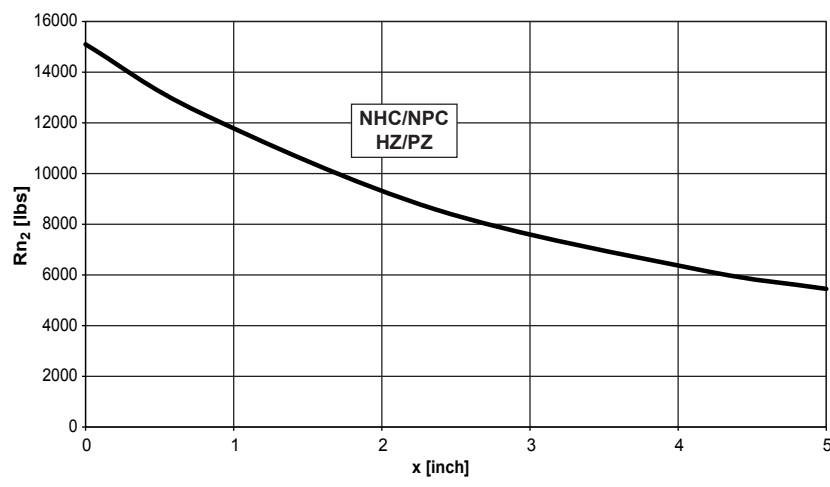
3/V 03 L3

3/A 03 L2

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$

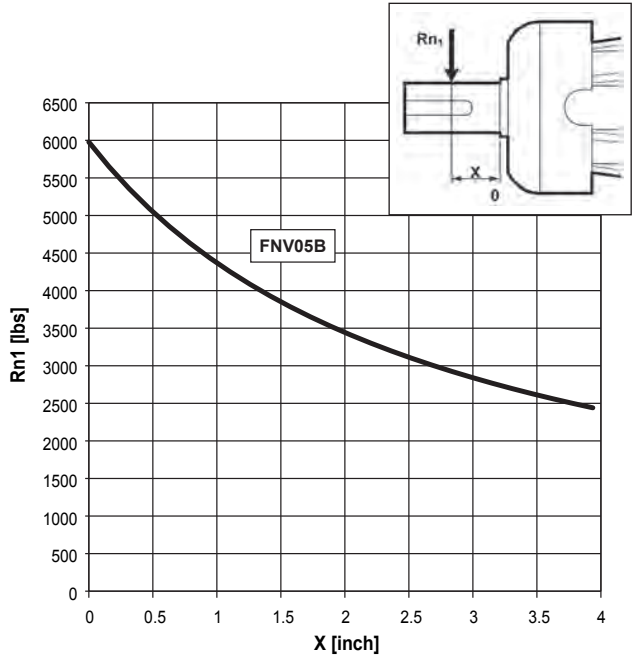
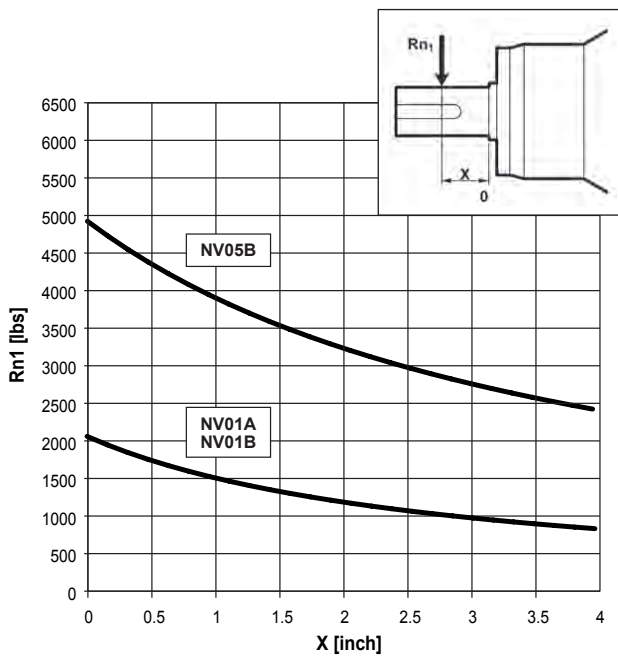


Imperial

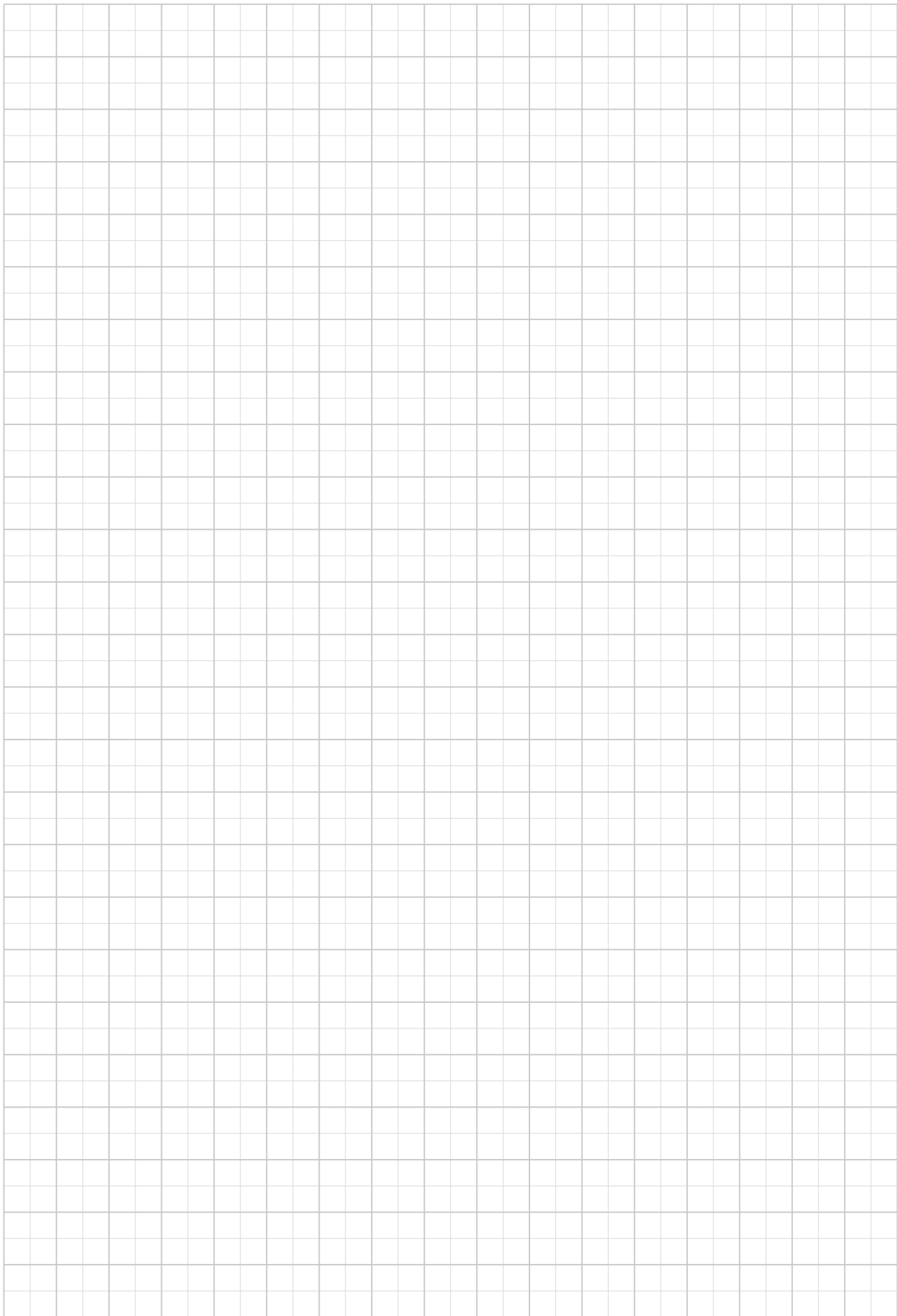


Load corrective factor fh_2 on shafts	$Fh_2 = n_2 \cdot h$						
	fh_2	10000	25000	50000	100000	500000	1000000
	FZ	2.15	1.59	1.26	1.00	0.58	0.46
	NHC - NPC - HZ - PZ	1.48	1.48	1.23	1.00	0.62	0.50

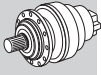
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



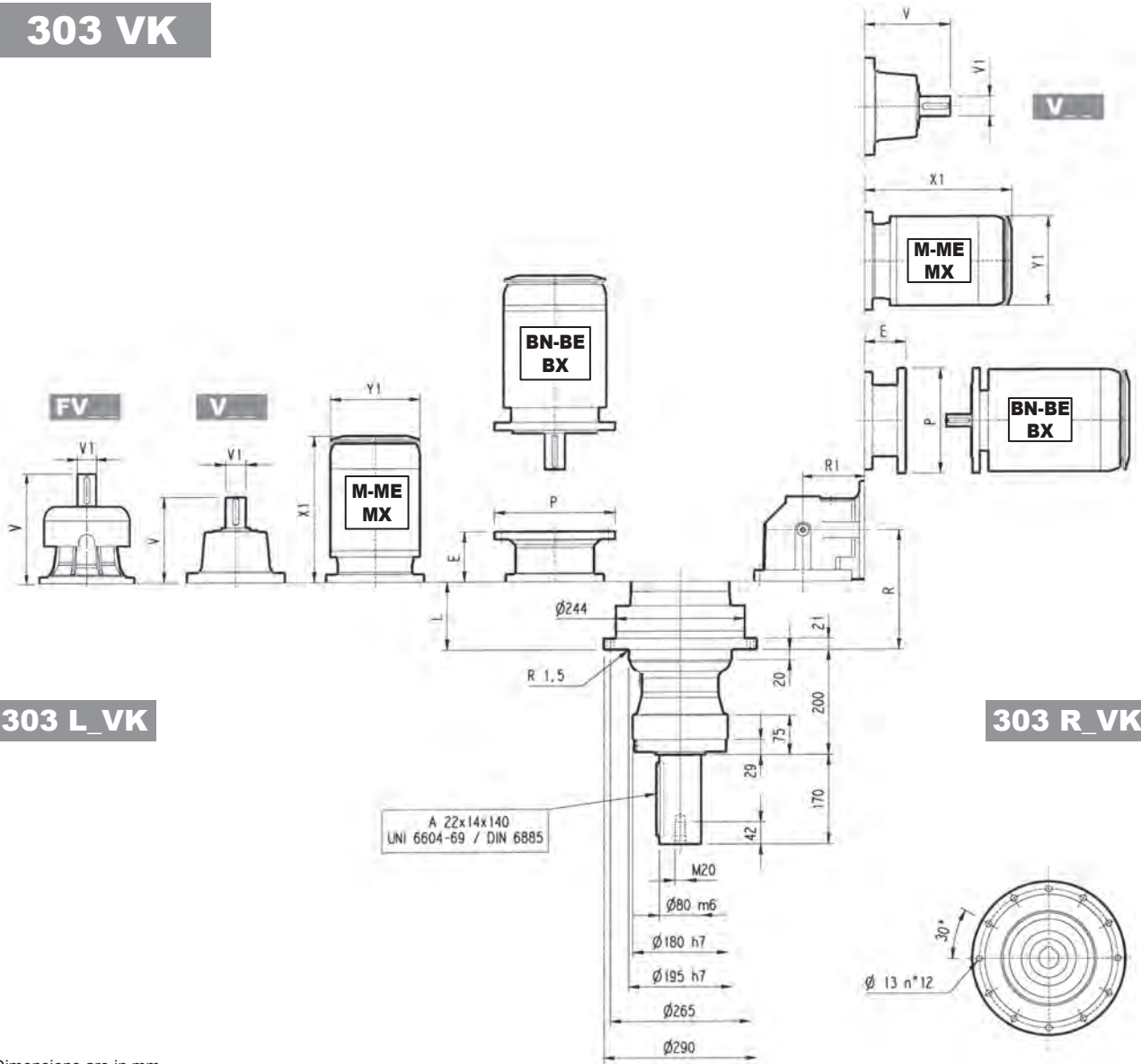
Load corrective factor fh_1 on shafts	$Fh_1 = n_1 \cdot h$						
	fh_1	250000	500000	1000000	2000000	5000000	10000000
		1	0.79	0.63	0.50	0.37	0.29



303 VK



Metric



303 L_VK

303 R_VK

Dimensions are in mm

	L		V		V1		V		V1		V		V1		P71		P80		P90		P100		P112		P132		P160		P180		P200	
	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P		
303 L1	51	65	239	48	15	—	—	—	—	276	48	17	—	—	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400
303 L2	104	70	137.5	24	6	158	38	7	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	
303 L3	157	73	137.5	24	6	158	38	7	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	
303 L4	210	77	137.5	24	6	158	38	7	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L				
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1		
303 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	460	—	258	552	—	310	596	—	310
303 L2	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—	—
303 L3	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—	—
303 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—	—

	R	R1	kg	V		V1		V		V1		P71		P80		P90		P100		P112		P132	
				kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg
303 R2	143	140	85	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300	144	350
303 R3	196	122	83	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300	144	350
303 R4	249	122	87	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300	144	350

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
303 R2	—	—	—	328	—	156	373	—	195	405	—	195	508	—	258
303 R3	253	314	138	328	—	156	373	—	195	405	—	195	—	—	—
303 R4	253	314	138	328	—	156	373	—	195	405	—	195	—	—	—

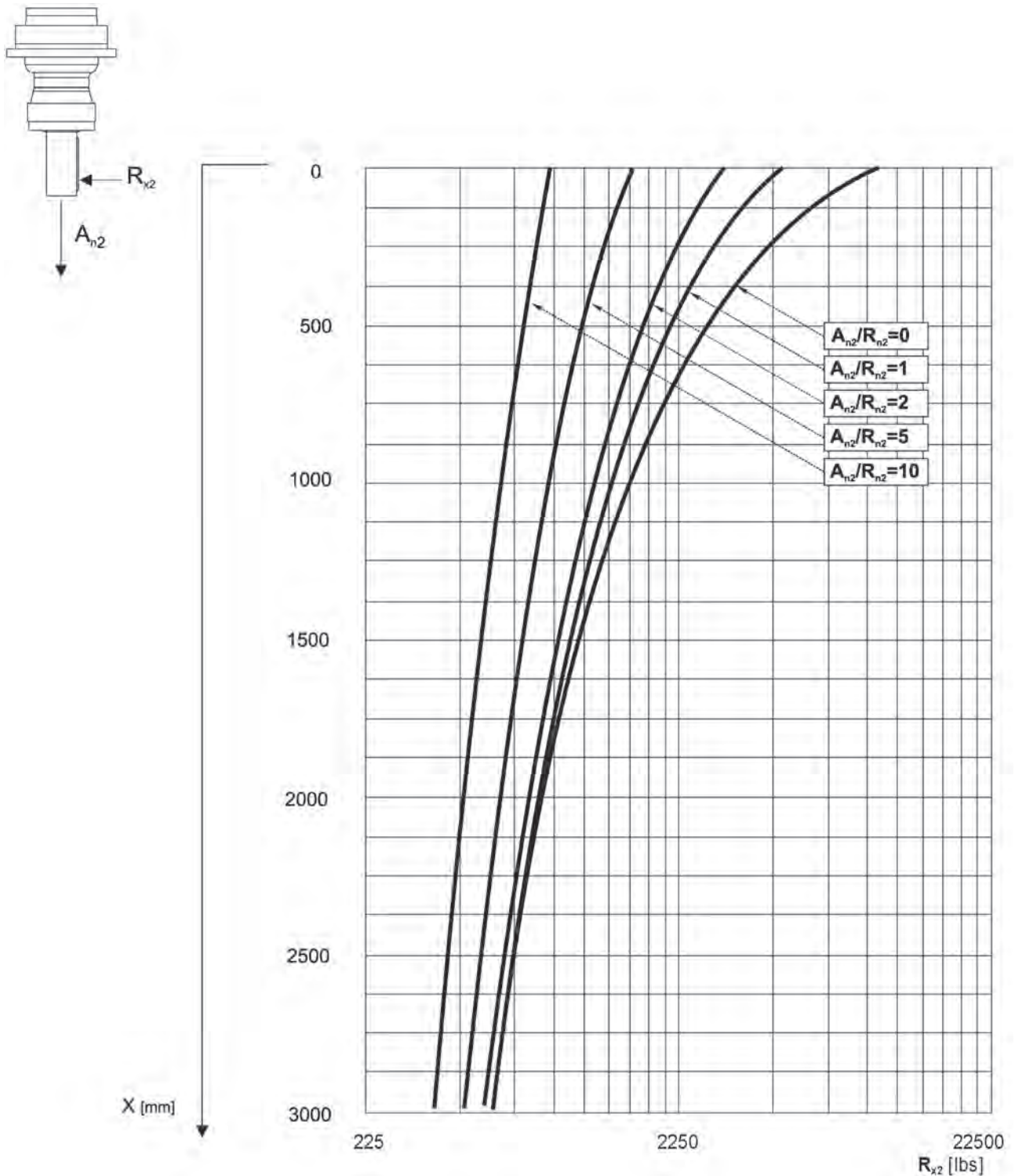
303 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

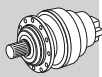
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



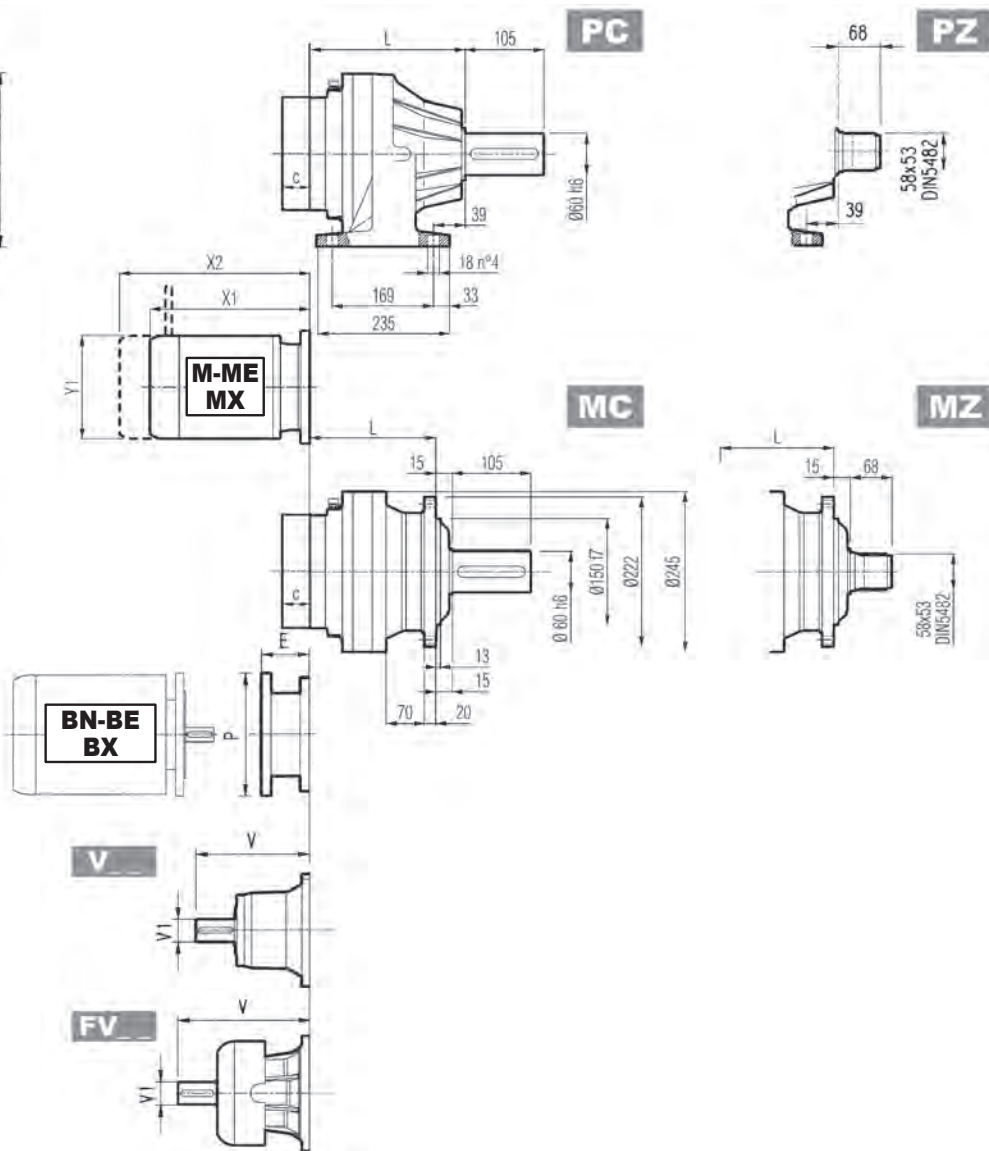
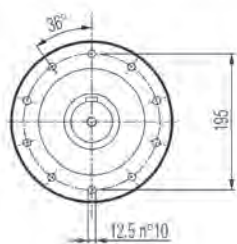
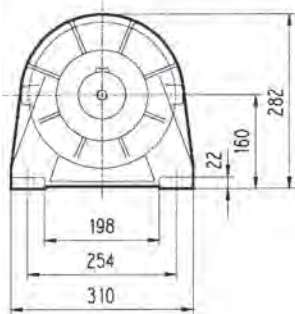
Metric



304 L



Metric

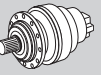
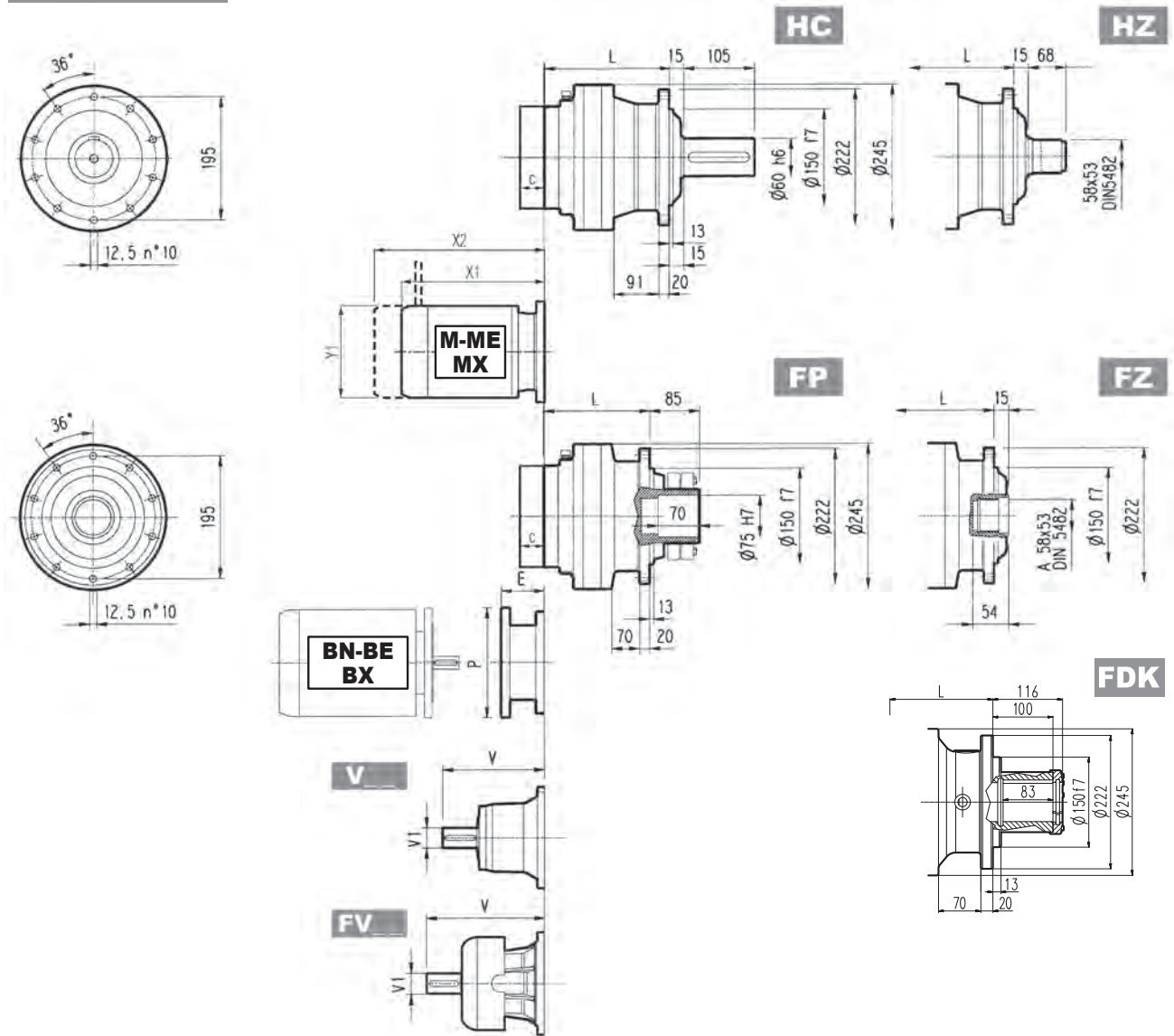


Dimensions are in mm

	L				Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
304 L1	125	165	150	125	31	40	35	31
304 L2	190	230	215	190	38	47	42	38
304 L3	243	283	268	243	42	51	46	42
304 L4	296	336	321	296	46	55	50	46

	V			V1			C			Input	
	V	V1	Kg	V	V1	Kg	V	V1	Kg		
304 L1	239	48	15	—	—	—	276	48	17	37	A
304 L2	137.5	24	6	158	38	7	—	—	—	37	A
304 L3	137.5	24	6	158	38	7	—	—	—	37	A
304 L4	137.5	24	6	158	38	7	—	—	—	37	A

304 L



Metric

FP

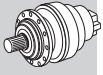
$T_{2max} = 64,600 \text{ lb-in}$

Dimensions are in mm

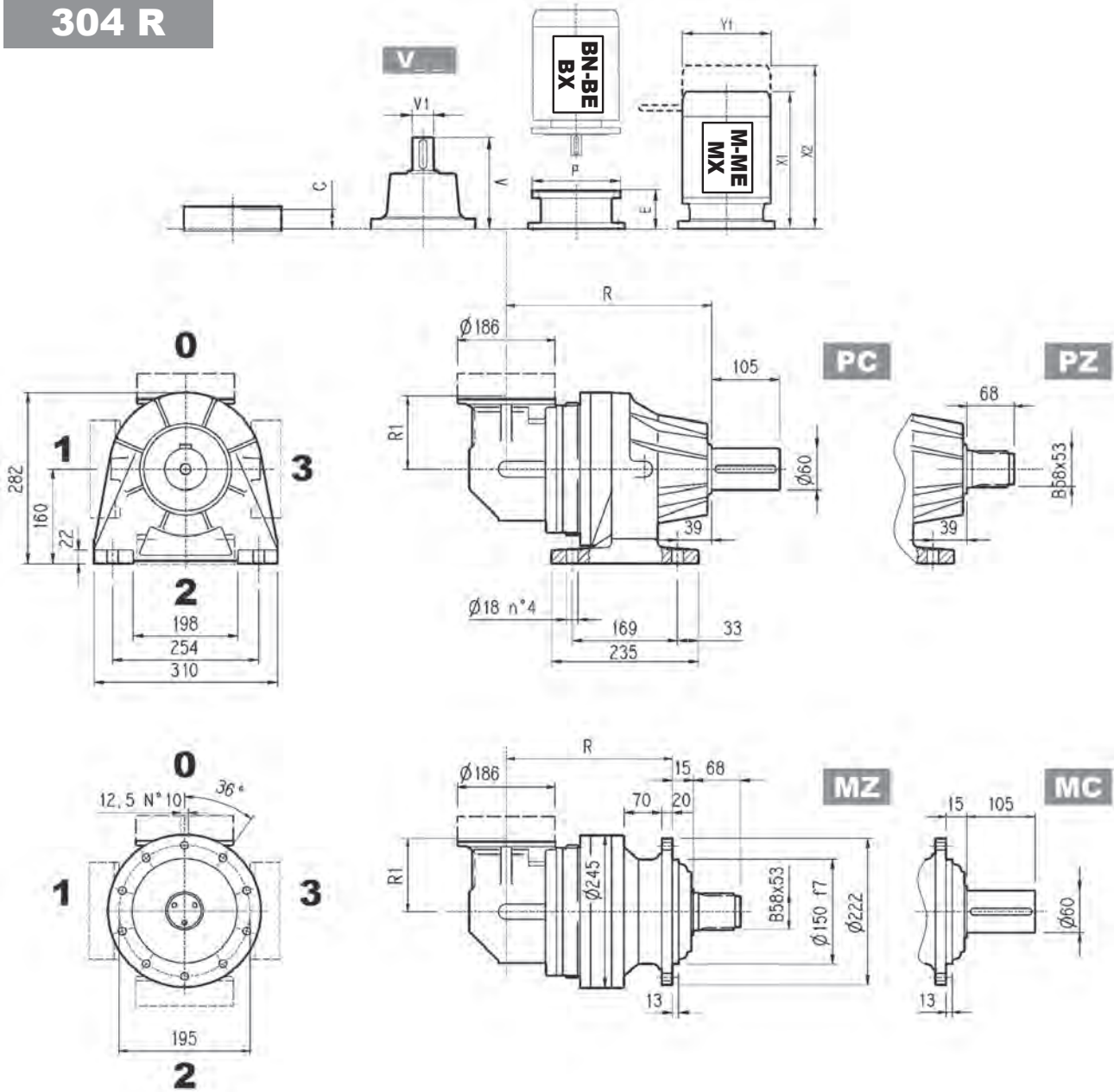
	P71		P80		P90		P100		P112		P132		P160		P180		P200	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
304 L1	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400
304 L2	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—
304 L3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—
304 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
304 L1	—	—	—	—	—	—	—	—	—	—	—	—	460	—	258	552	—	310	596	—	310
304 L2	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—
304 L3	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—
304 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—

304 R



Metric

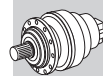


Dimensions are in mm

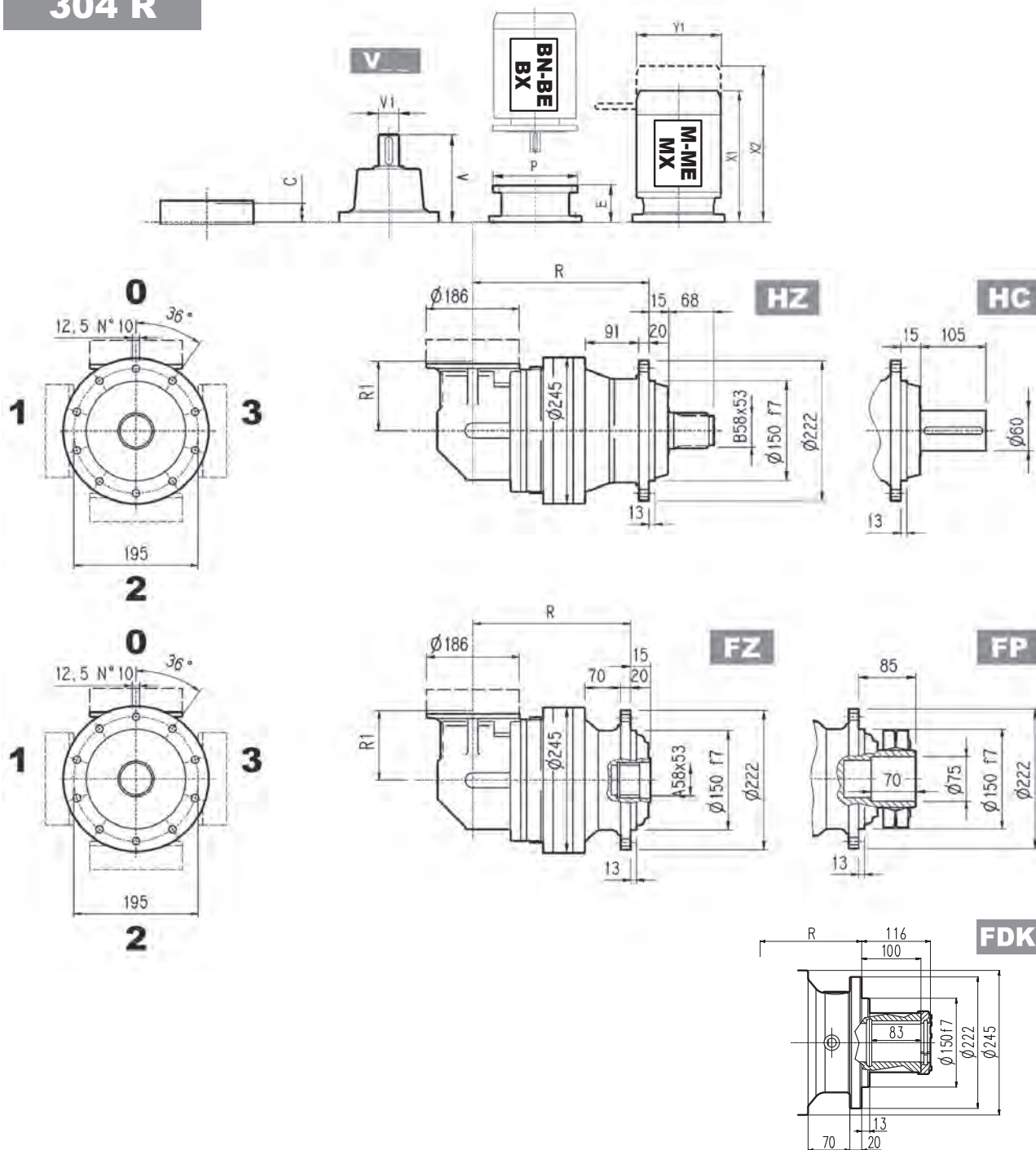
	R				R1	Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK		MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
304 R2	217	257	242	217	140	51	60	55	51
304 R3	282	322	307	282	122	52	61	56	52
304 R4	335	375	360	335	122	56	65	60	56

	Kg						C	Input
	V	V1	Kg	V	V1	Kg		
304 R2	137.5	24	6	158	38	7	37	A
304 R3	137.5	24	6	158	38	7	37	A
304 R4	137.5	24	6	158	38	7	37	A

304 R



Metric



FP

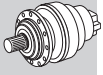
$T_{2max} = 64,600 \text{ lb-in}$

Dimensions are in mm

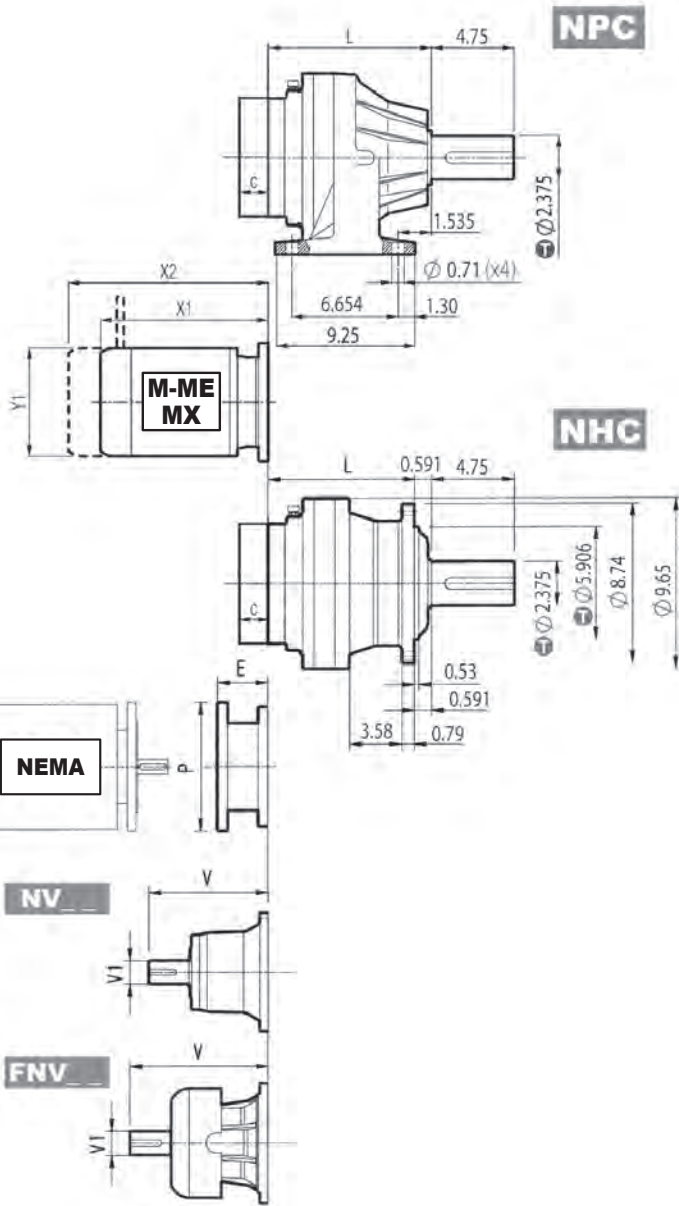
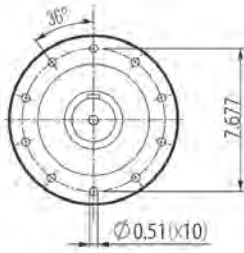
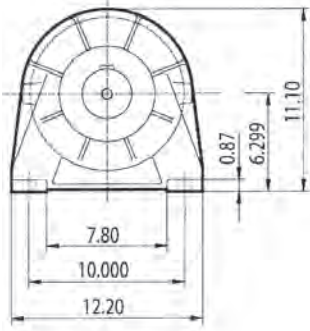
	P71		P80		P90		P100		P112		P132	
	E	P	E	P	E	P	E	P	E	P	E	P
304 R2	65	160	84	200	84	200	94	250	94	250	114	300
304 R3	65	160	84	200	84	200	94	250	94	250	114	300
304 R4	65	160	84	200	84	200	94	250	94	250	114	300

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
304 R2	-	-	-	328	—	156	373	—	195	405	—	195	508	—	258
304 R3	253	314	138	328	—	156	373	—	195	405	—	195	—	—	—
304 R4	253	314	138	328	—	156	373	—	195	405	—	195	—	—	—

304 L



Imperial



inch	①
5.906	-0.00169 -0.00327
2.375	0 -0.00075

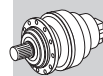
Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs		V	V1	lbs	V	V1	lbs	V	V1	lbs	C	Input
	NPC	NHC	NPC	NHC											
304 L1	6.50	5.91	88.2	77.2	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	1.457	A
304 L2	9.05	8.46	103.6	92.6	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A
304 L3	11.14	10.55	112.4	101.4	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A
304 L4	13.23	12.64	121.3	110.2	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A

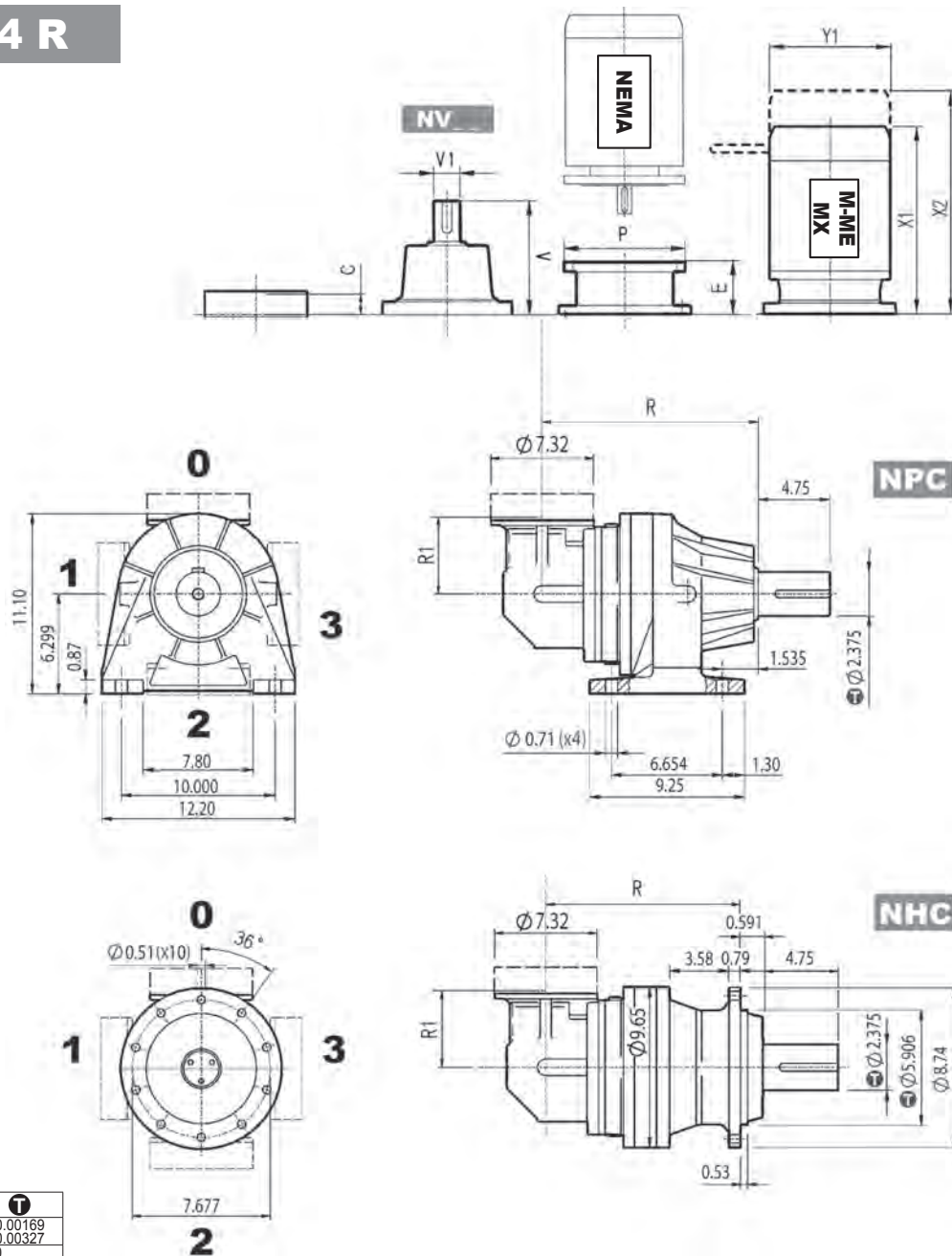
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
304 L1	—	—	—	—	—	—	—	—	5.22	11.81	6.22	13.78
304 L2	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
304 L3	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
304 L4	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L			
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	
304 L1	—	—	—	—	—	—	—	—	—	—	—	—	18.11	—	10.16	21.73	—	—	12.20	23.46	—	12.20
304 L2	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—	—
304 L3	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—	—
304 L4	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—	—

304 R



Imperial



inch	Ⓜ
5.906	-0.00169 -0.00327
2.375	0 -0.00075

Dimensions are in Inch except when shown in *italic* [mm]

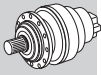
	R		R1	lbs	
	NPC	NHC		NPC	NHC
304 R2	10.12	9.53	5.51	132.3	121.3
304 R3	12.68	12.09	4.80	134.5	123.5
304 R4	14.76	14.17	4.80	143.3	132.3

	V		lbs	V		lbs	C	Input
	V	V1		V	V1			
304 R2	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A
304 R3	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A
304 R4	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A

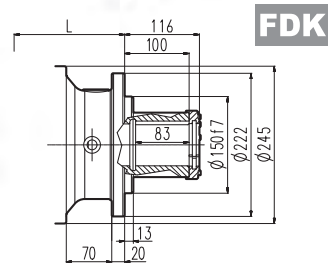
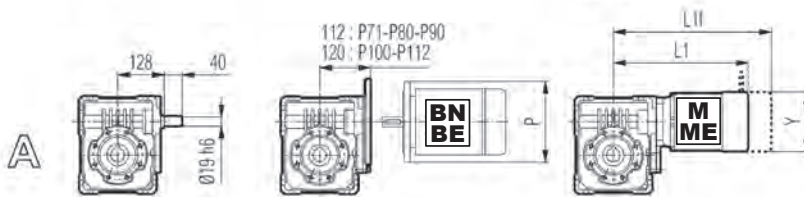
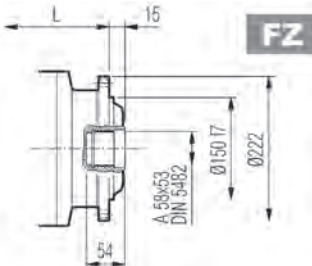
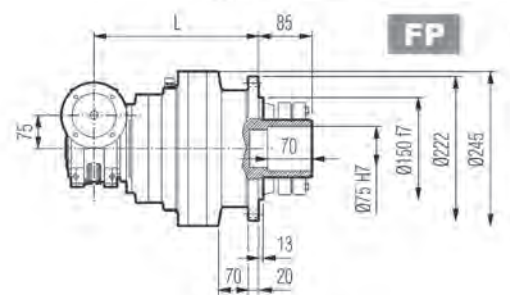
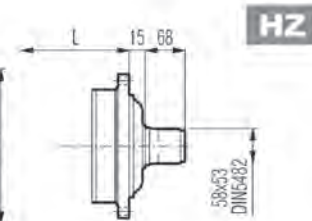
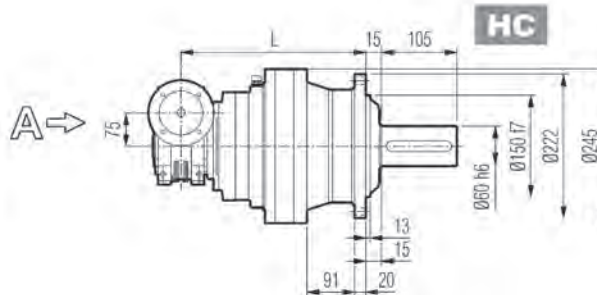
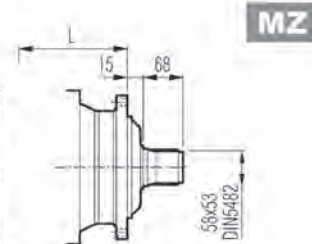
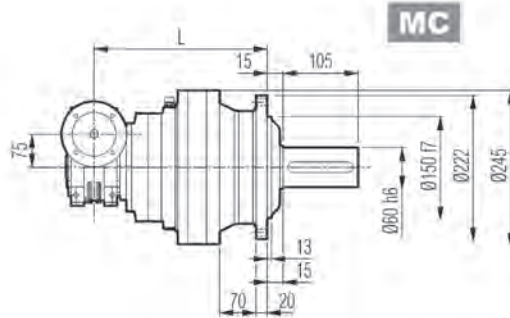
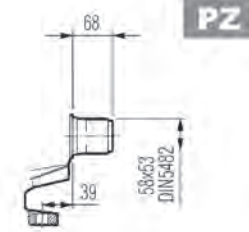
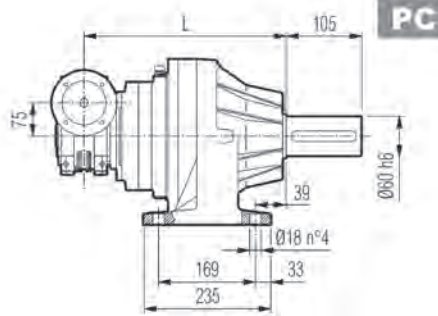
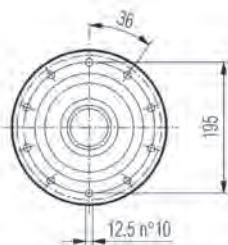
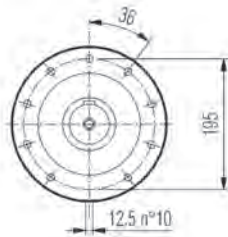
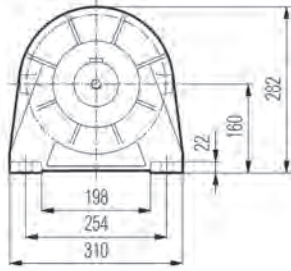
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
304 R2	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
304 R3	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
304 R4	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
304 R2	—	—	—	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	20	—	10.16
304 R3	9.96	12.36	5.43	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	—	—	—
304 R4	9.96	12.36	5.43	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	—	—	—

3/V 04 L3



Metric



FP

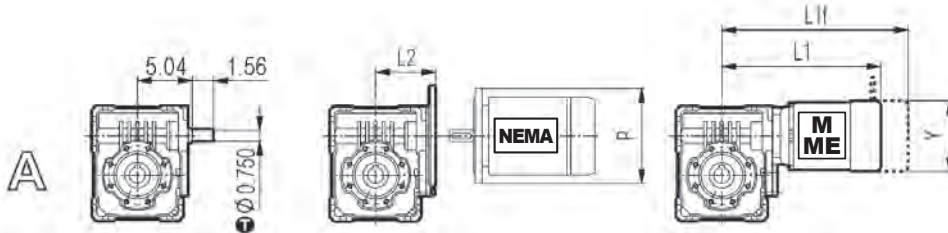
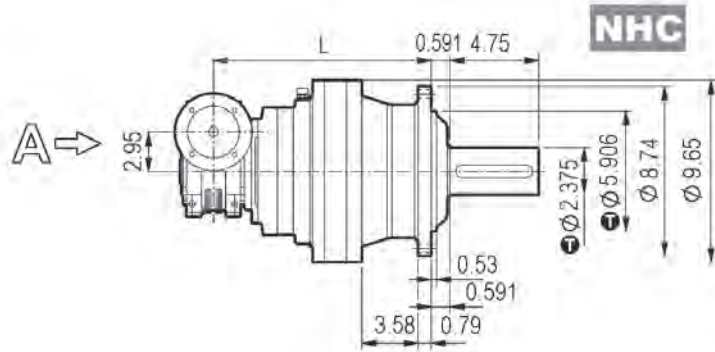
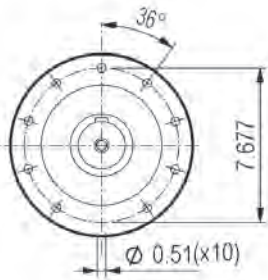
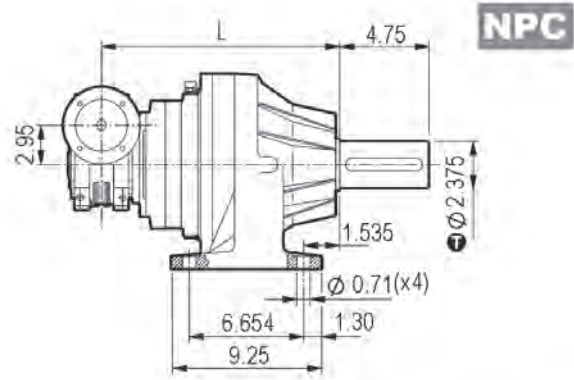
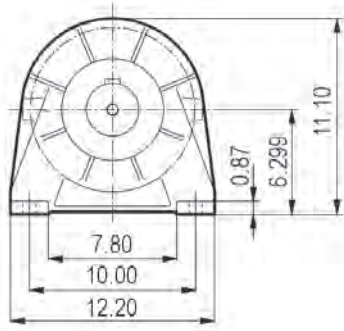
T_{2max} = 64,600 lb·in

Dimensions are in mm

	L				Kg	P71	P80	P90	P100	P112			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK							MC - MZ	PC - PZ	HC - HZ
3/V 04 L3	305	345	330	305	47	56	51	47	160	200	200	250	250

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 04 L3	308	369	138	333	—	156	376	—	193	408	—	193

3/V 04 L3



inch	Ⓣ
5.906	-0.00169 -0.00327
2.375	0 -0.00075
0.750	0 -0.00051

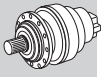
Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs		N56C	N140TC	N180TC
	NPC	NHC	NPC	NHC	P	P	P
3/V 04 L3	13.58	12.99	123.5	112.4	6.54	6.54	9.02

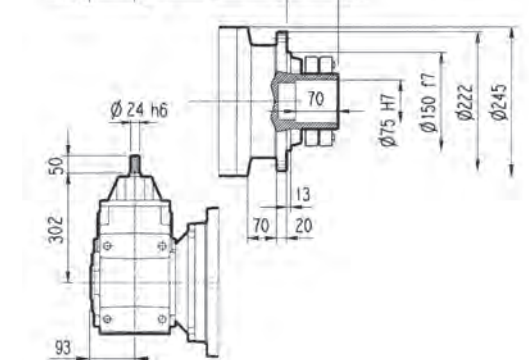
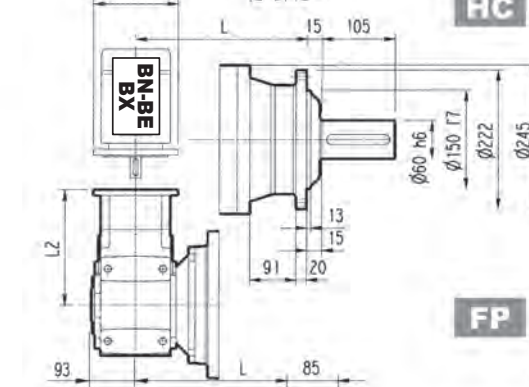
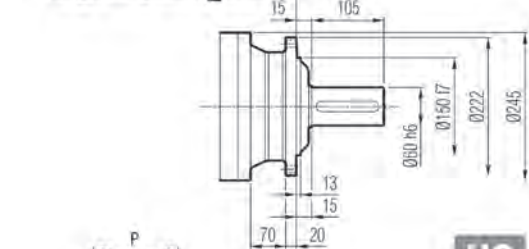
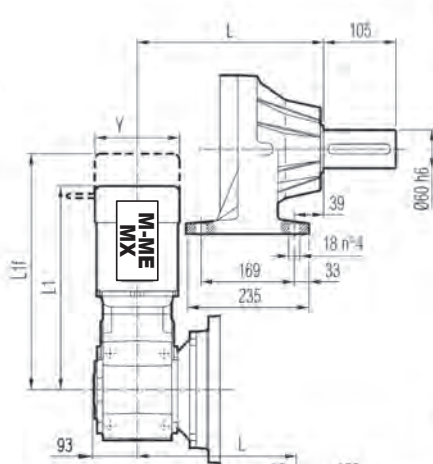
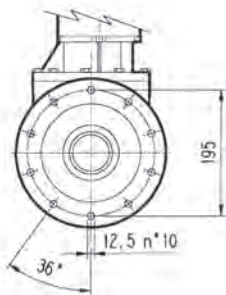
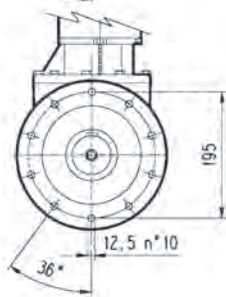
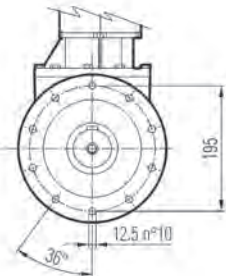
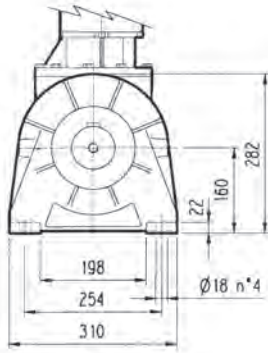
	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 04 L3	12.12	14.53	5.43	13.11	—	6.14	14.80	—	7.60	16.06	—	7.60



3/A 04 L2

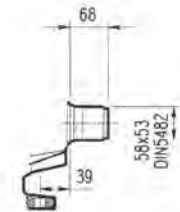


Metric



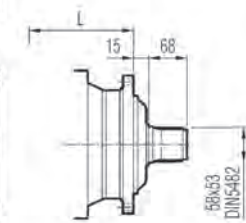
PC

PZ



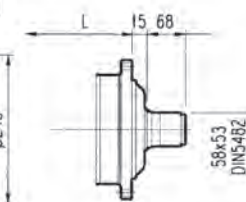
MC

MZ



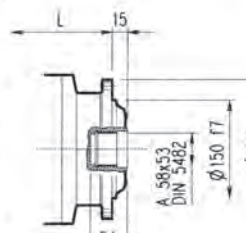
HC

HZ

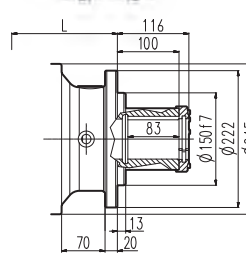


FP

FZ



FDK

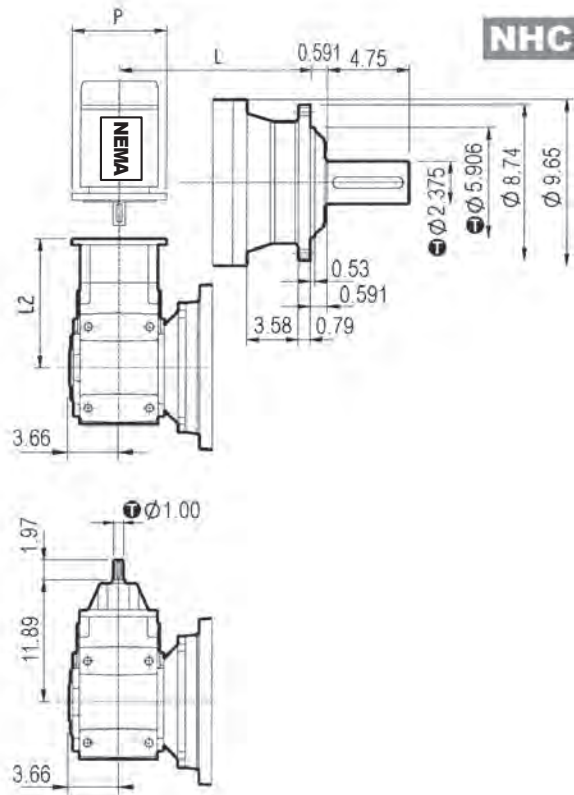
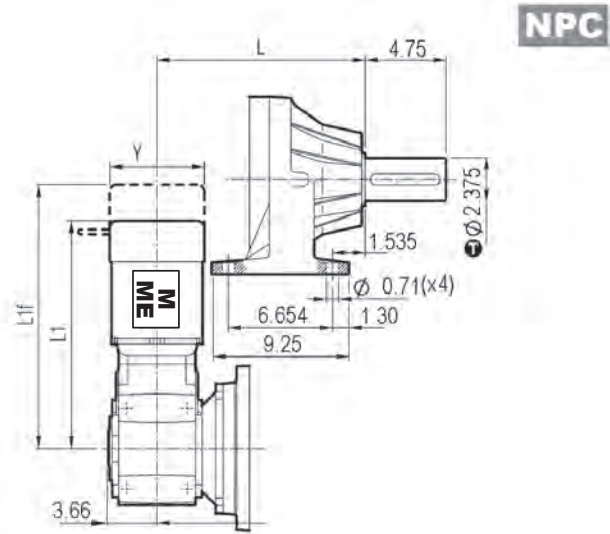
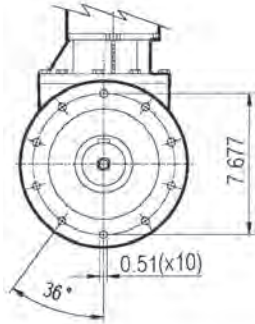
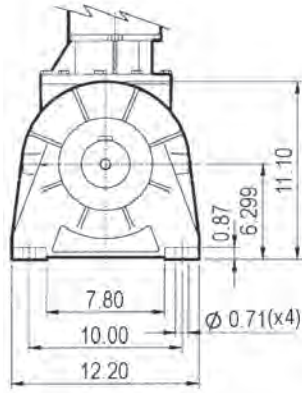


FP T_{2max} = 64,600 lb·in

Dimensions are in mm

3/A 04 L2	L								Kg							
	MC - MZ		PC - PZ		HC - HZ		FP - FZ - FDK		MC - MZ		PC - PZ		HC - HZ		FP - FZ - FDK	
	258		298		283		258		80		95		90		80	
3/A 04 L2	P63		P71		P80		P90		P100		P112		P132			
	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P		
	263	140	263	160	282.5	200	282.5	200	292.5	250	292.5	250	329	457		
3/A 04 L2	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	
	418	439	138	447	—	156	490	—	195	522	—	195	630	—	258	

3/A 04 L2

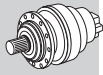


inch	Ⓣ
5.906	-0.00169 -0.00327
2.375	0 -0.00075
1.000	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

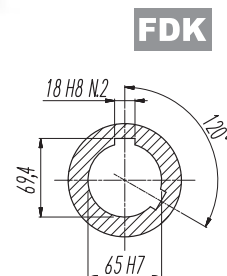
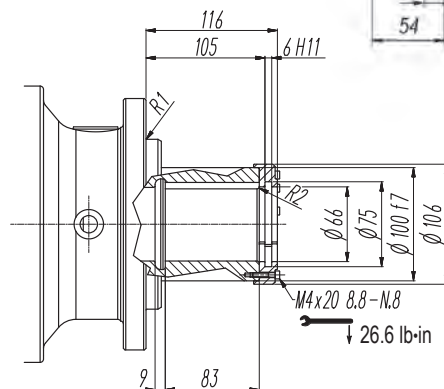
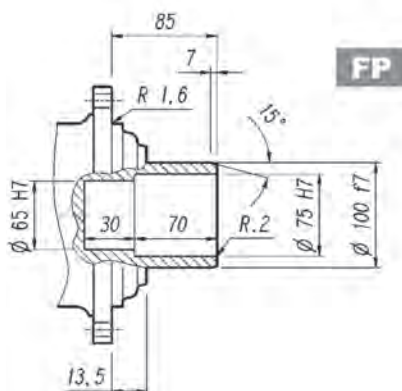
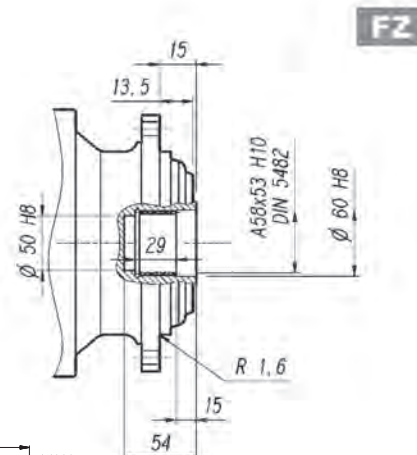
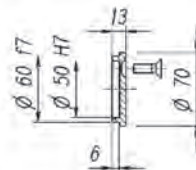
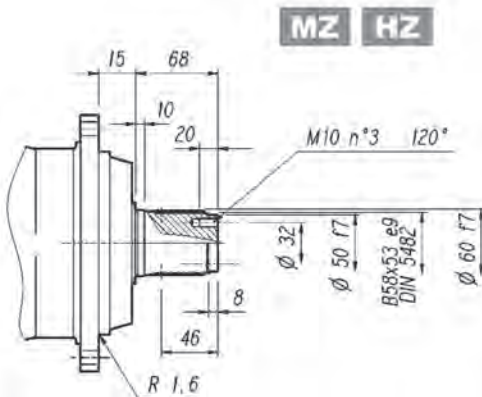
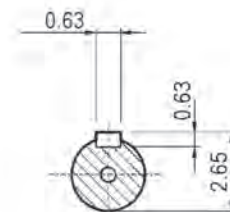
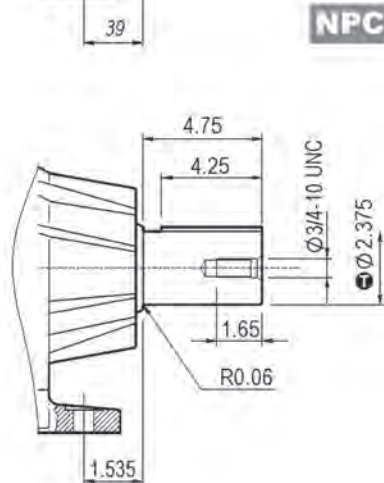
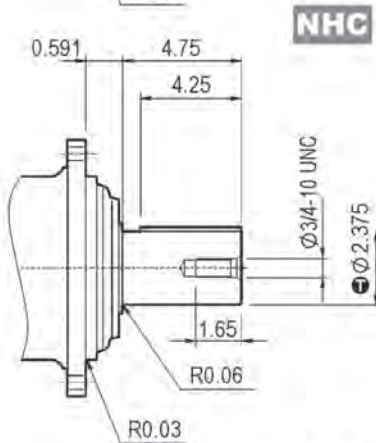
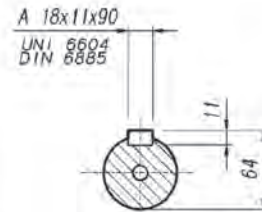
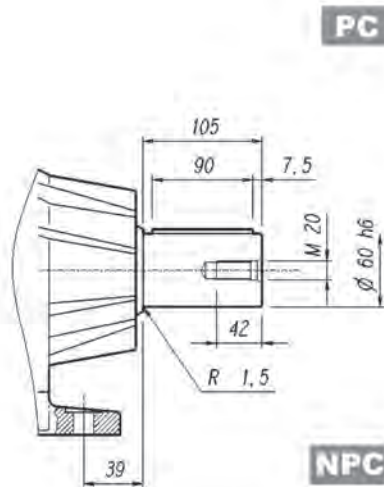
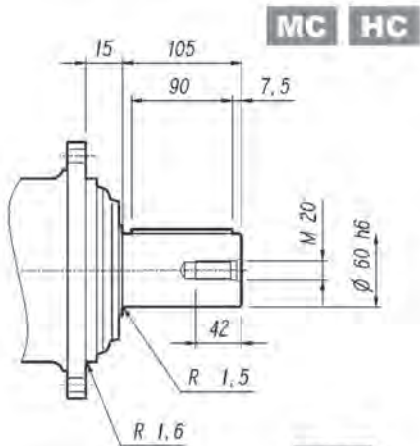
	L		lbs		N56C		N140TC		N180TC	
	NPC	NHC	NPC	NHC	L2	P	L2	P	L2	P
3/A 04 L2	11.73	11.14	210	200	10.35	6.50	10.35	6.50	11.10	6.50

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/A 04 L2	16.46	17.28	5.43	17.60	—	6.14	19.29	—	7.68	20.55	—	7.68	24.80	—	10.16

304 L**304 R****3/V 04 L3****3/A 04 L2**

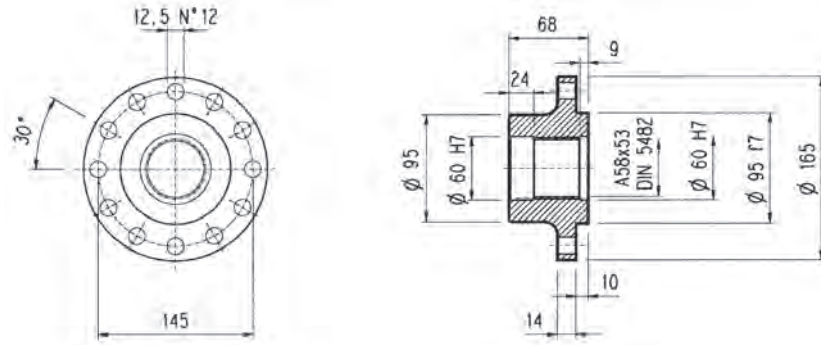
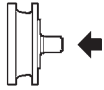
Metric

Imperial

**FP****T_{2max} = 64,600 lb-in**

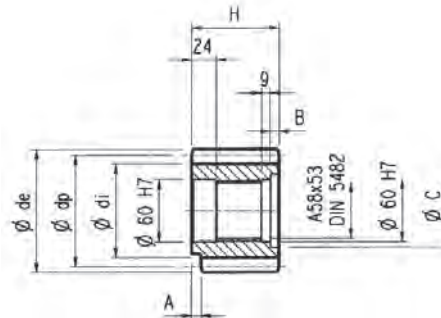
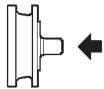
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	T
2.375	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

304 L**304 R****3/V 04 L3****3/A 04 L2****Flange****W0A****Metric**

Material: Steel C40

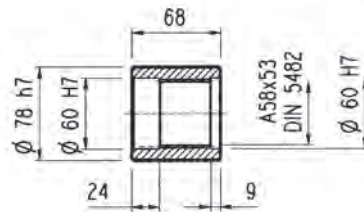
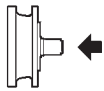
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

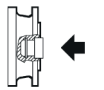
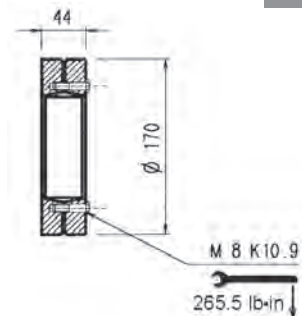
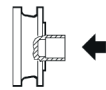
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PCL1	5	19	—	95	82	104	77	12	9	72	Steel 39NiCrMo3 hardened and tempered
PCL2	5	19	—	95	82	104	68	—	—	—	
PCM	5	20	—	100	87.5	110	68	18	—	—	Steel 18NiCrMo5 case hardened
PCP	5	22	—	110	97.5	120	68	18	—	—	
PDE	6	14	0.500	84	75	99.6	68	—	—	—	Steel 39NiCrMo3 hardened and tempered
PDI	6	18	0.500	108	99	123.6	68	—	—	—	
PDM	6	20	0.833	120	115	140	68	—	—	—	
PFD	8	13	0.675	104	95	127.6	68	—	—	—	Steel 18NiCrMo5 case hardened
PFE1	8	14	—	112	92	126	68	—	—	—	
PFE2	8	14	—	112	92	126	80	—	12	72	
PFF	8	15	—	120	100	136	68	—	—	—	Steel 39NiCrMo3 hardened and tempered
PFP	8	22	—	176	156	190	77	12	10	71	
PHG	10	16	0.500	160	145	188	75	—	7	72	

Sleeve coupling**M0A**

Material: Steel 16CrNi4

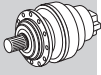
Dimensions are in mm

Splined bars**B0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC**Shrink disc****G0A**

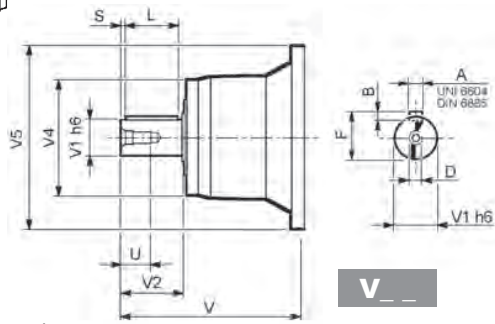
Dimensions are in mm

304 L

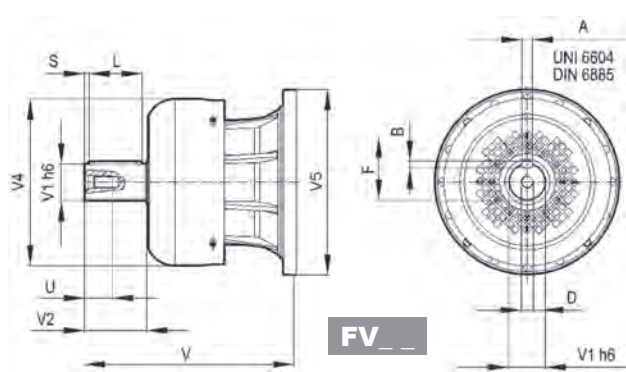
304 R



Metric



V __



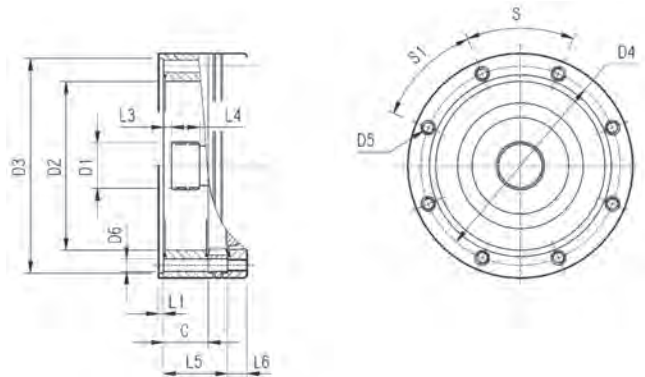
FV __

Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
304 L1	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
304 L2	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
304 L3	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
304 L4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
304 R2-R3-R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

304 L

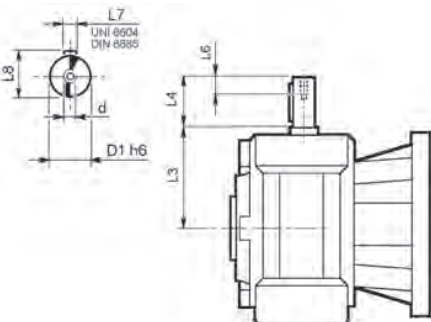
304 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
304 L1	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	—	18	45°	45°	A
304 L2	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	65	18	45°	45°	A
304 L3	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	118	18	45°	45°	A
304 L4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	171	18	45°	45°	A
304 R2-R3-R4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

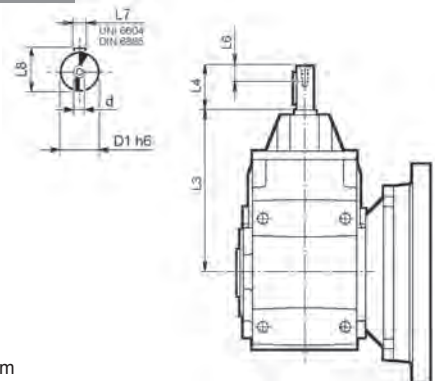
3/V 04 L3



Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/V 04 L3_HS	19	128	40	16	6	21.5	M6

3/A 04 L2

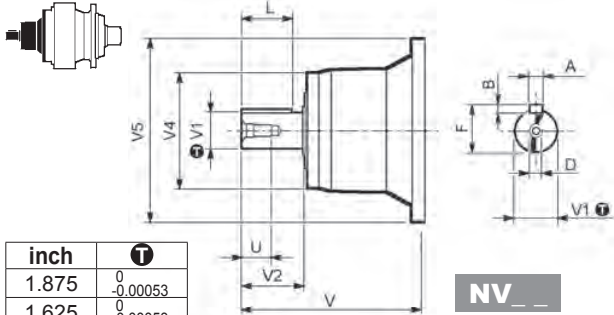


Dimensions are in mm

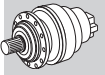
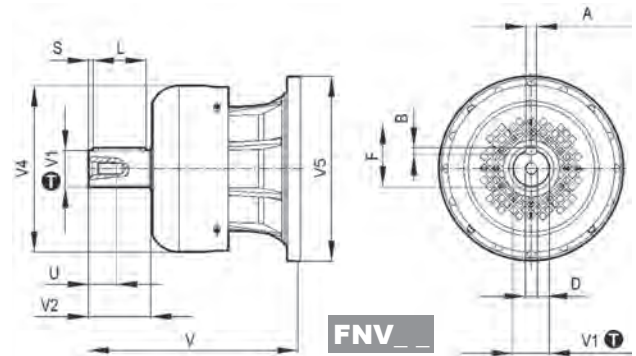
	D1 h6	L3	L4	L6	L7	L8	d
3/A 04 L2_HS	24	302	50	19	8	27	M8

304 L

304 R



inch	T
1.875	0 -0.00053
1.625	0 -0.00053
1.125	0 -0.00051



Imperial

Dimensions are in Inch except when shown in *italic [mm]*

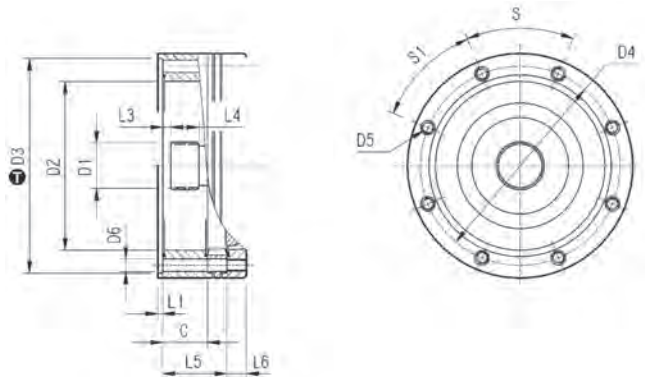
		V	V1	V2	V4	V5	A	B	F	L	D	U
304 L1	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
304 L2	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
304 L3	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
304 L4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
304 R2-R3-R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

304 L

304 R



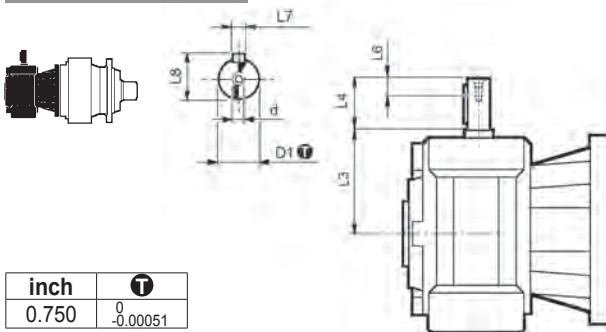
inch	T
7.01	$+0.00157$ 0



Dimensions are in Inch except when shown in *italic [mm]*

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
304 L1	V9AA	1.46	<i>40x36 DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	—	0.71	45°	45°	A
304 L2	V9AA	1.46	<i>40x36 DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	2.56	0.71	45°	45°	A
304 L3	V9AA	1.46	<i>40x36 DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	4.65	0.71	45°	45°	A
304 L4	V9AA	1.46	<i>40x36 DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	6.73	0.71	45°	45°	A
304 R2-R3-R4	V9AA	1.46	<i>40x36 DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 04 L3

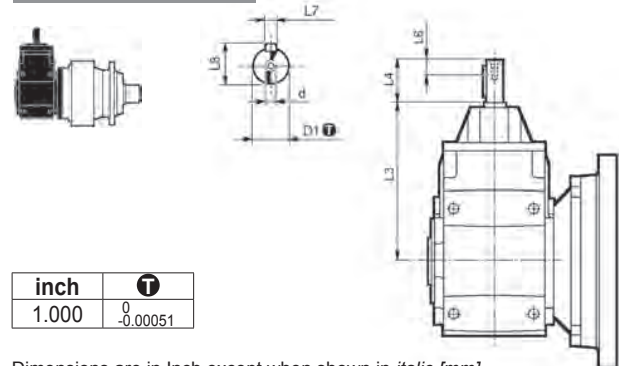


inch	T
0.750	0 -0.00051

Dimensions are in Inch except when shown in *italic [mm]*

	D1	L3	L4	L6	L7	L8	d
3/V 04 L3_NHS	0.750	5.04	1.575	0.63	0.188	0.832	1/4-20UNC

3/A 04 L2



inch	T
1.000	0 -0.00051

Dimensions are in Inch except when shown in *italic [mm]*

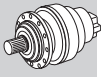
	D1	L3	L4	L6	L7	L8	d
3/A 04 L2_NHS	1.000	11.89	1.969	0.75	0.250	1.109	3/8-16UNC

304 L

304 R

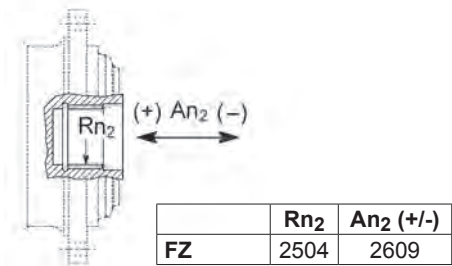
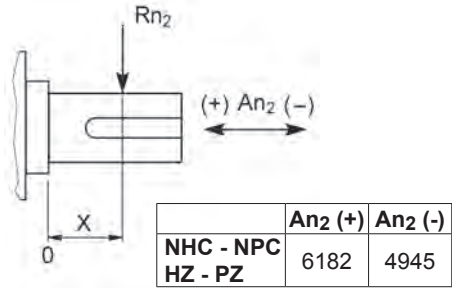
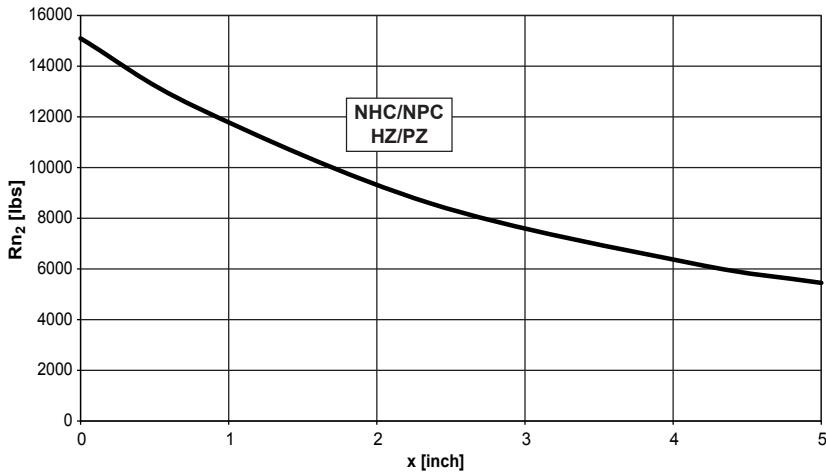
3/V 04 L3

3/A 04 L2



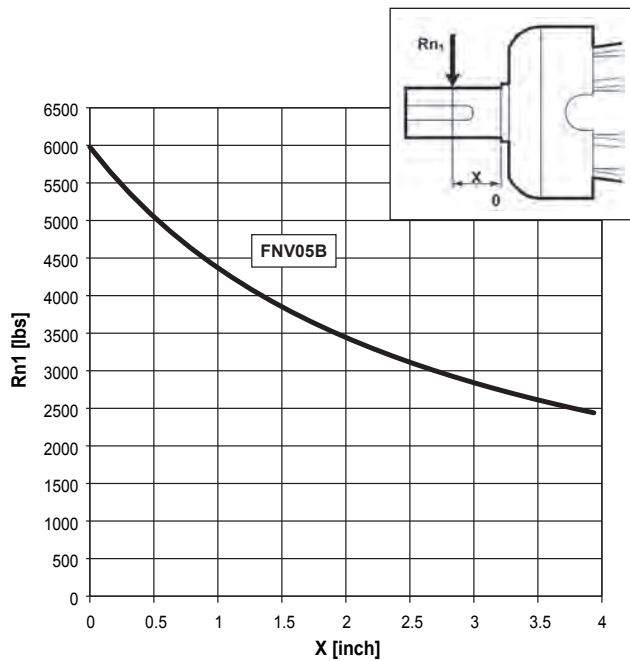
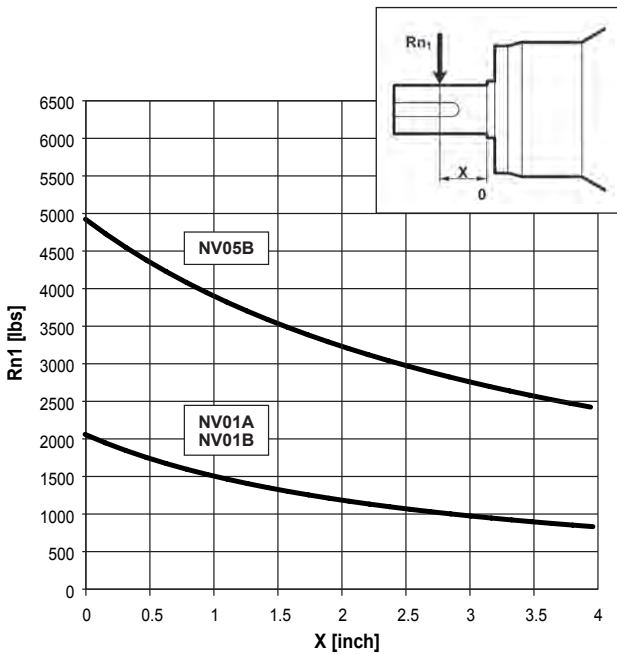
Imperial

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$

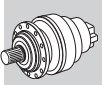
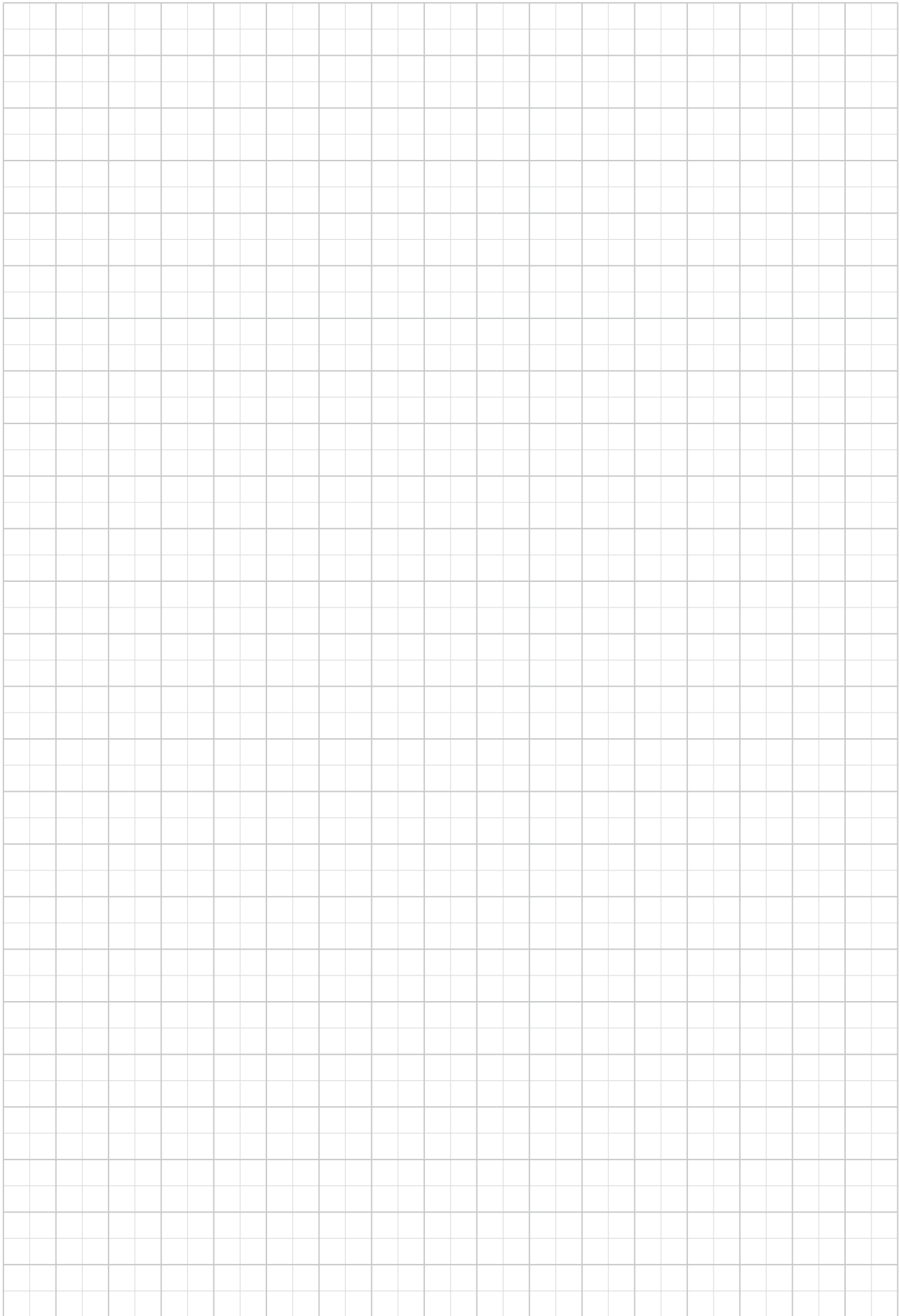


Load corrective factor fh2 on shafts	Fh2 = n2 · h						
	fh2	10000	25000	50000	100000	500000	1000000
		FZ	2.15	1.59	1.26	1.00	0.58
	NHC - NPC - HZ - PZ	1.48	1.48	1.23	1.00	0.62	0.50

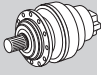
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



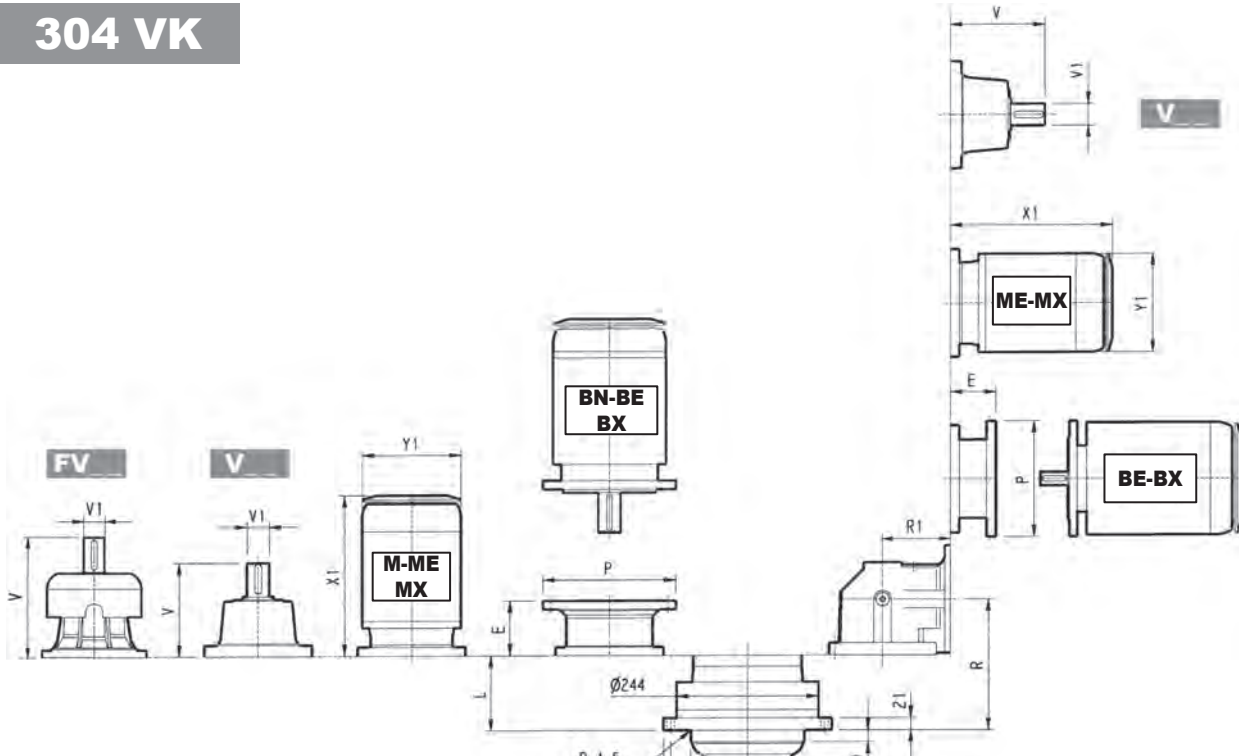
Load corrective factor fh1 on shafts	Fh1 = n1 · h						
	fh1	250000	500000	1000000	2000000	5000000	10000000
		1	0.79	0.63	0.50	0.37	0.29



304 VK



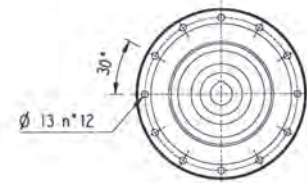
Metric



304 L_VK

304 R_VK

A 22x14x140
UNI 6604-69 / DIN 6885



Dimensions are in mm

	L		V						V1						P71		P80		P90		P100		P112		P132		P160		P180		P200	
	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
304 L1	51	65	239	48	15	—	—	—	—	276	48	17	—	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	
304 L2	116	73	137.5	24	6	158	38	7	—	—	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—
304 L3	169	76	137.5	24	6	158	38	7	—	—	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—
304 L4	222	80	137.5	24	6	158	38	7	—	—	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L					
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1			
304 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	460	—	258	552	—	310	596	—	310
304 L2	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—	—	—
304 L3	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—	—	—
304 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—	—	—

	R	R1	kg	V						P71		P80		P90		P100		P112		P132	
				kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg
304 R2	143	140	85	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300
304 R3	208	122	86	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300
304 R4	261	122	90	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300

	S1 + ME1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
304 R2	—	—	—	328	—	156	373	—	195	405	—	195	508	—	258
304 R3	253	314	138	328	—	156	373	—	195	405	—	195	—	—	—
304 R4	253	314	138	328	—	156	373	—	195	405	—	195	—	—	—

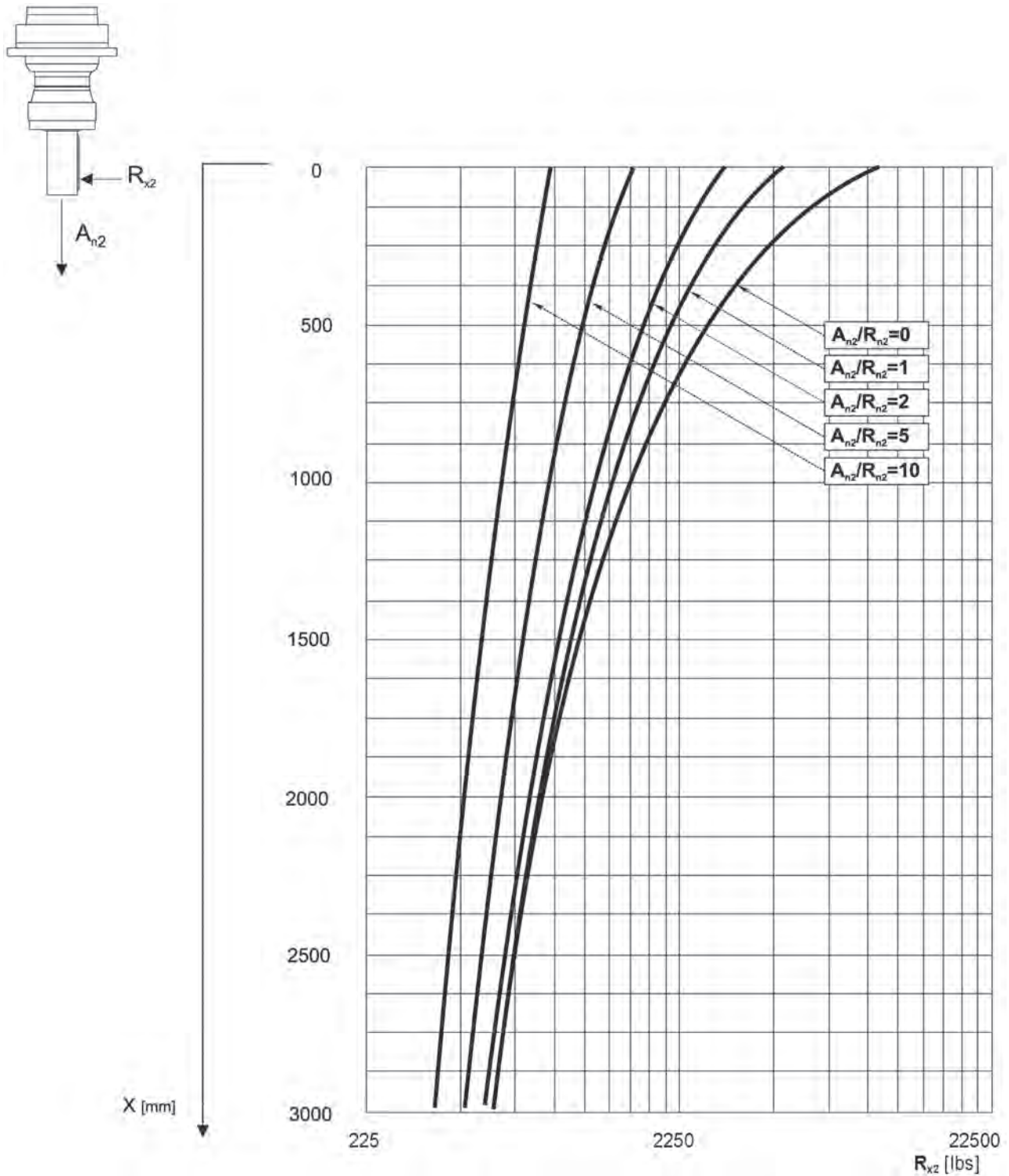
304 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

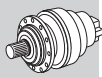
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



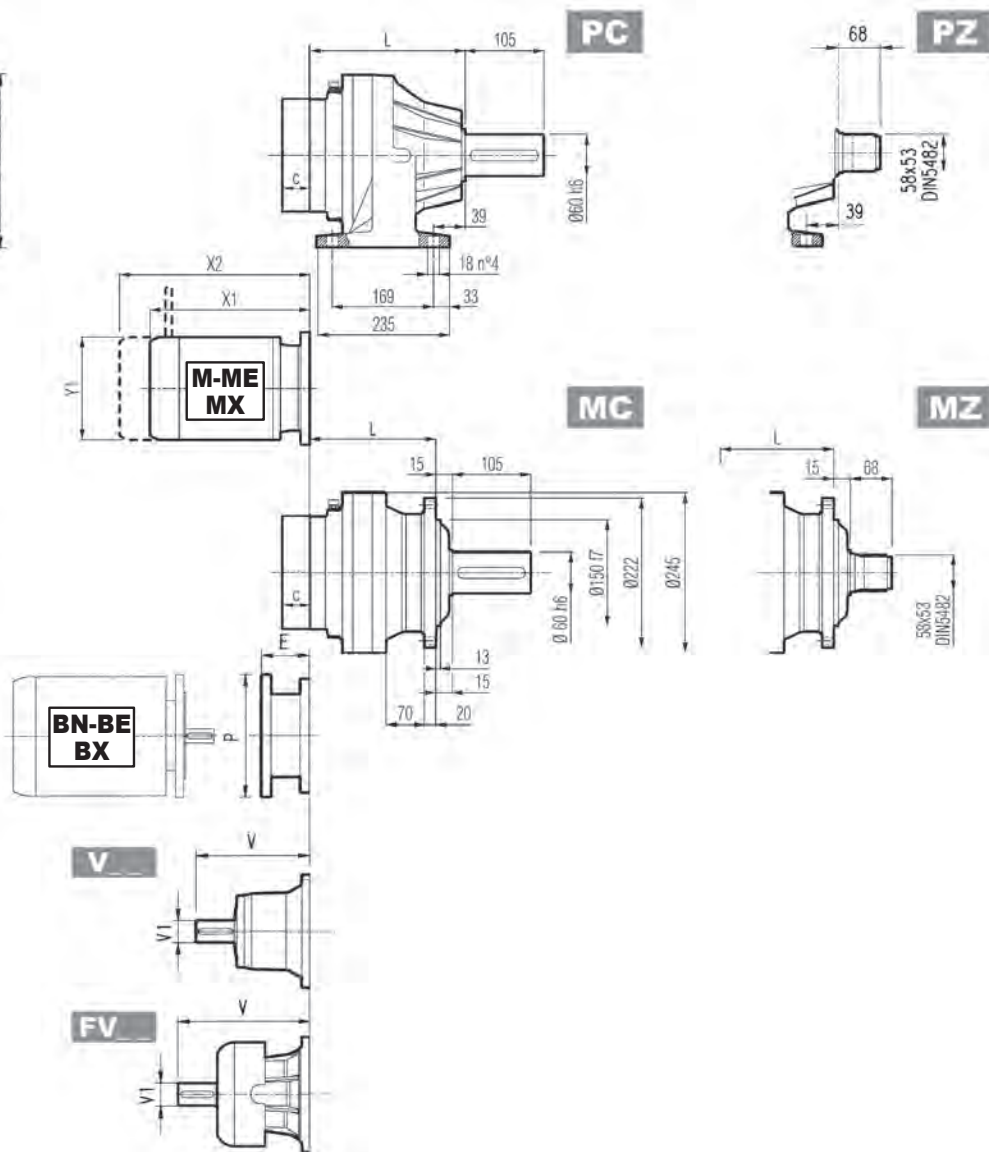
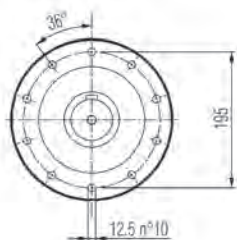
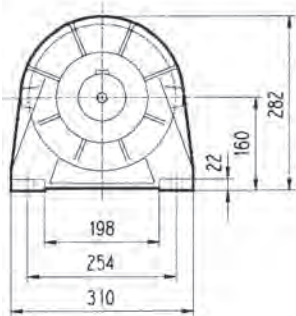
Metric



305 L



Metric

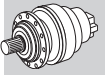
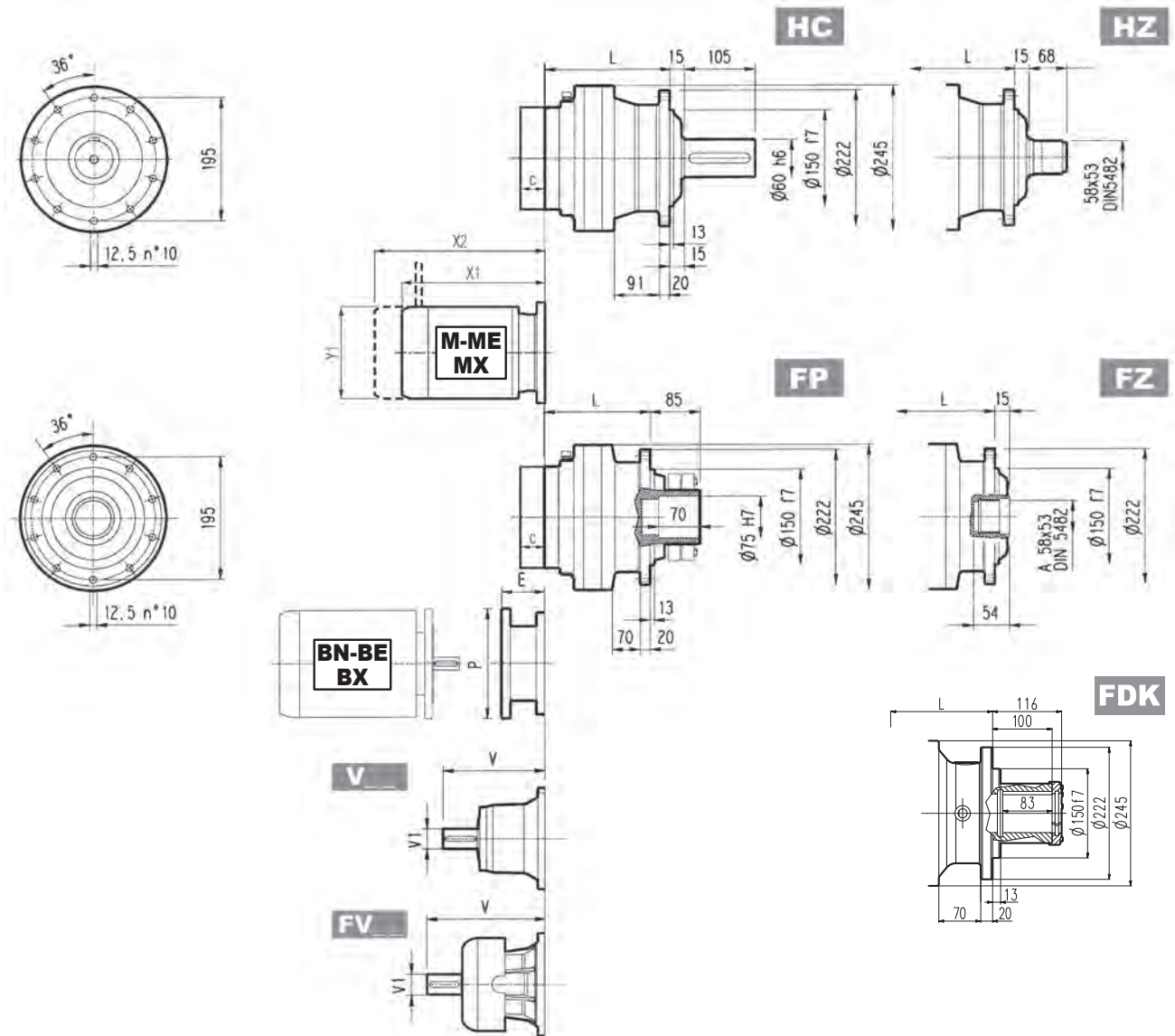


Dimensions are in mm

	L				Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
305 L1	143	183	168	143	36	45	40	36
305 L2	208	248	233	208	43	52	47	43
305 L3	261	301	286	261	47	56	51	47
305 L4	314	354	339	314	51	60	55	51

	V			V			V			C	Input
	V	V1	Kg	V	V1	Kg	V	V1	Kg		
305 L1	239	48	15	—	—	—	276	48	17	37	A
305 L2	137.5	24	6	158	38	7	—	—	—	37	A
305 L3	137.5	24	6	158	38	7	—	—	—	37	A
305 L4	137.5	24	6	158	38	7	—	—	—	37	A

305 L



Metric

FP

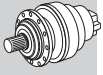
$T_{2max} = 66,380 \text{ lb}\cdot\text{in}$

Dimensions are in mm

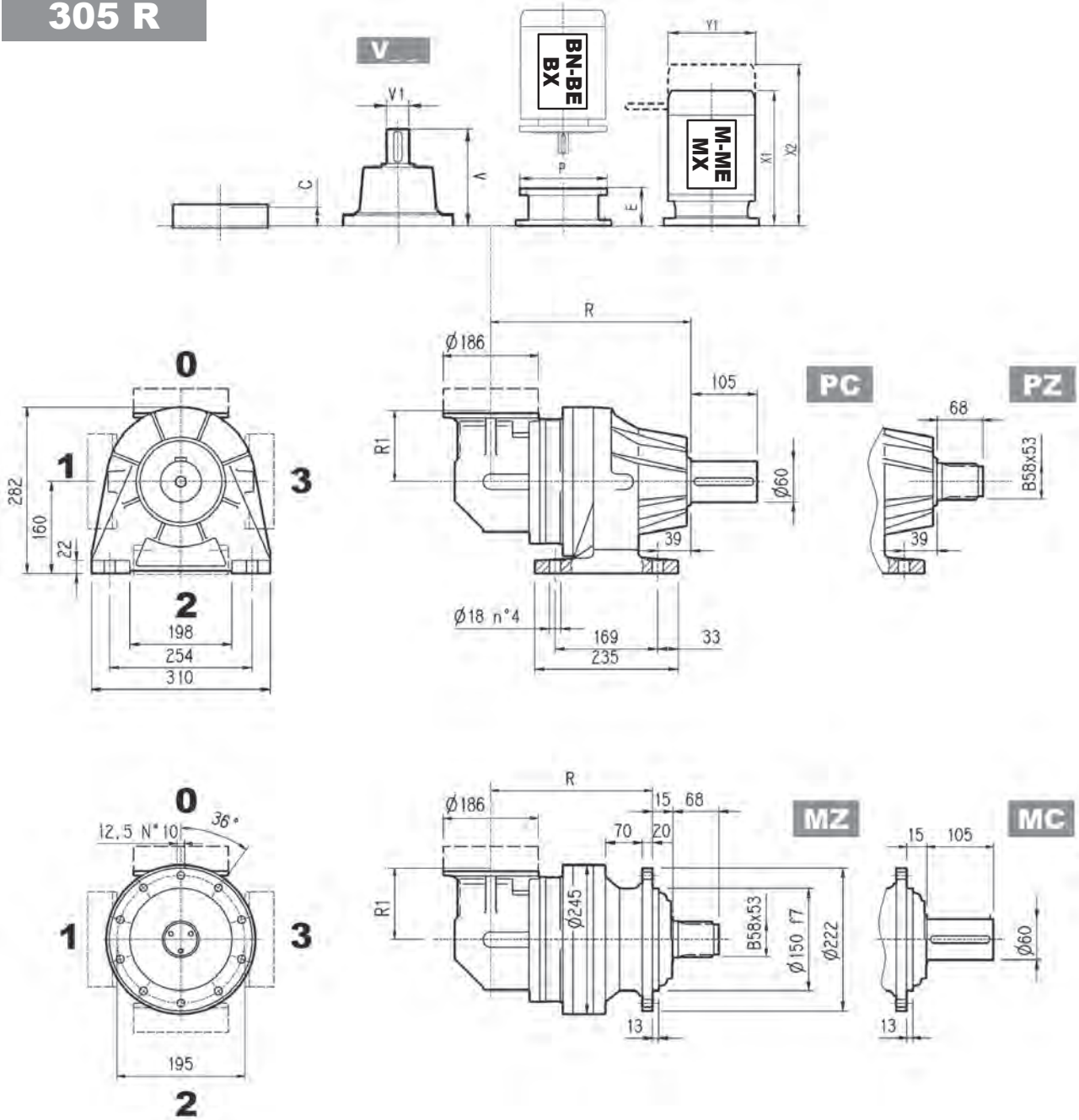
	P71		P80		P90		P100		P112		P132		P160		P180		P200	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
305 L1	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400
305 L2	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—
305 L3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—
305 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
305 L1	—	—	—	—	—	—	—	—	—	—	—	—	460	—	258	574	—	310	552	—	310
305 L2	—	—	—	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—
305 L3	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—
305 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—

305 R



Metric



Dimensions are in mm

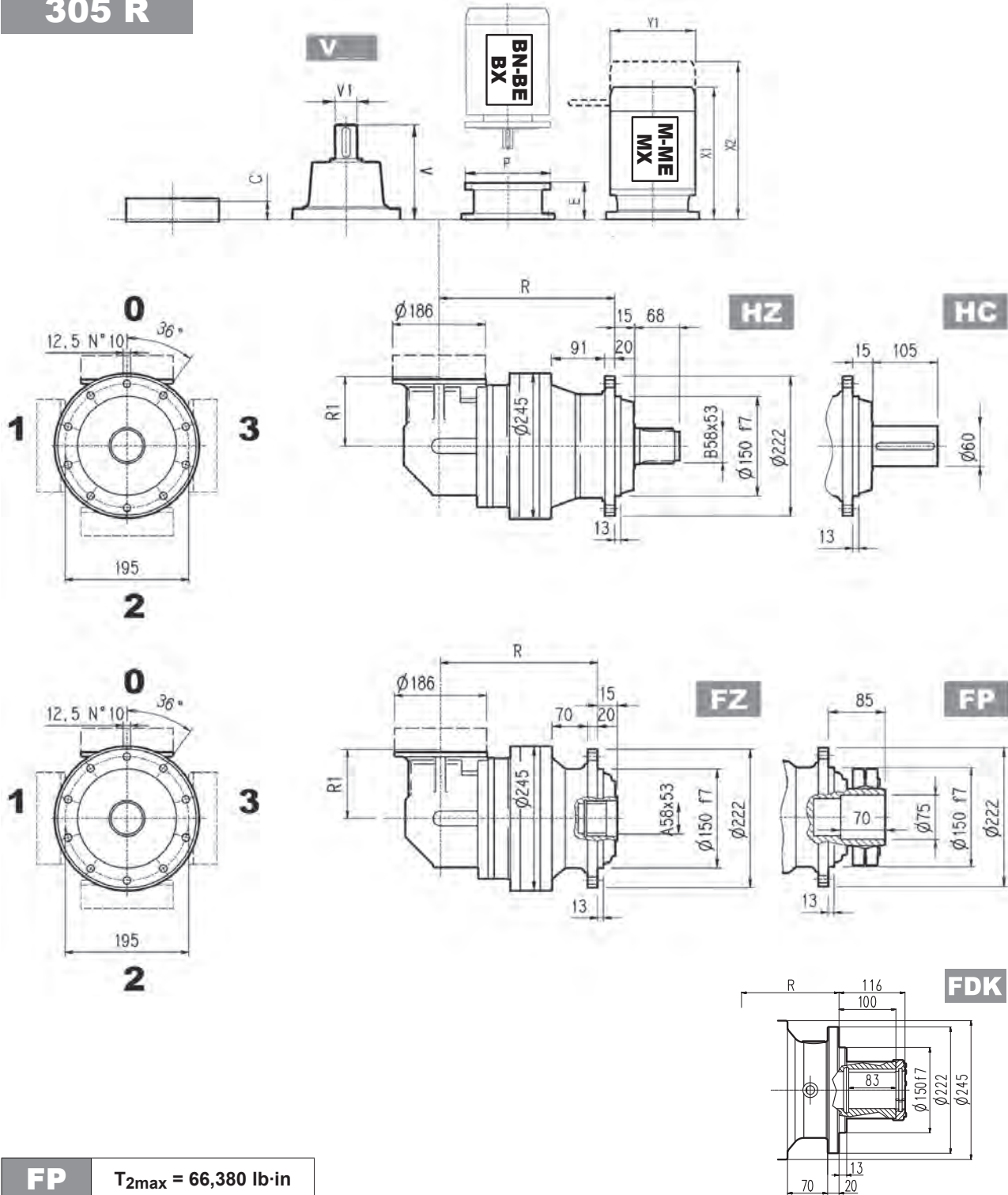
	R				R1	Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK		MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
305 R2	235	375	260	235	140	56	65	60	56
305 R3	300	340	325	300	122	57	66	61	57
305 R4	353	393	378	353	122	61	70	65	61

	Kg						C	Input
	V	V1	Kg	V	V1	Kg		
305 R2	137.5	24	6	158	38	7	37	A
305 R3	137.5	24	6	158	38	7	37	A
305 R4	137.5	24	6	158	38	7	37	A

305 R



Metric



FP

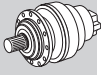
$T_{2max} = 66,380 \text{ lb}\cdot\text{in}$

Dimensions are in mm

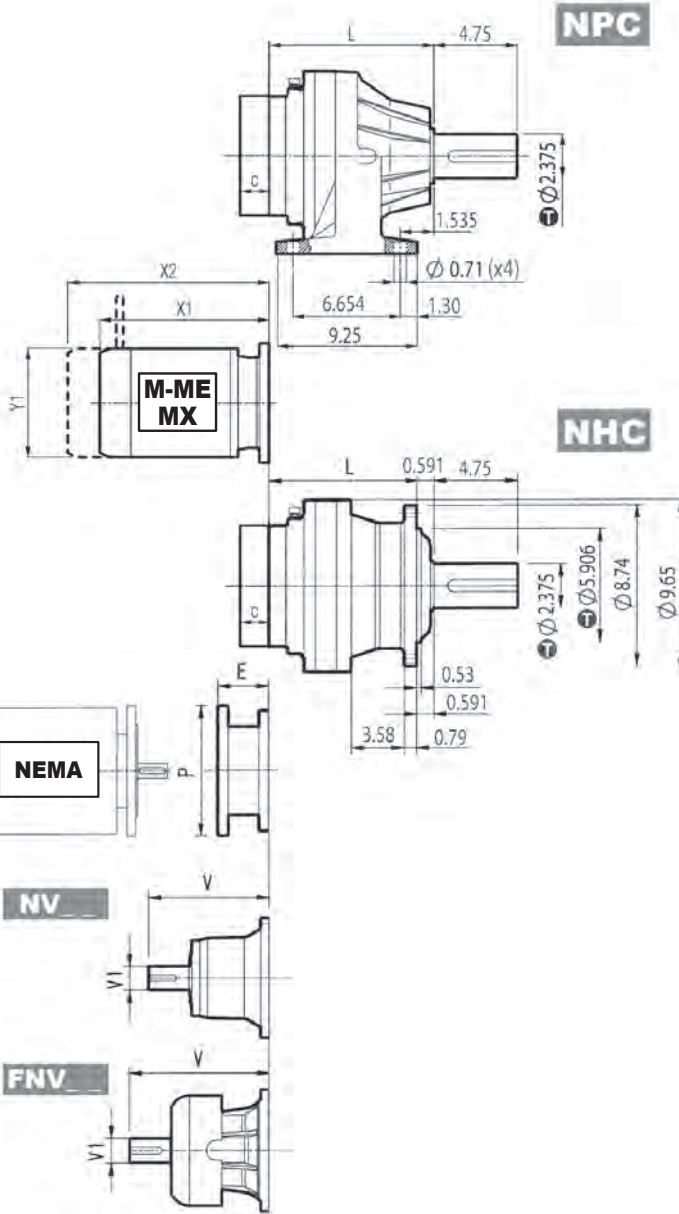
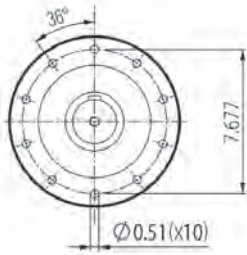
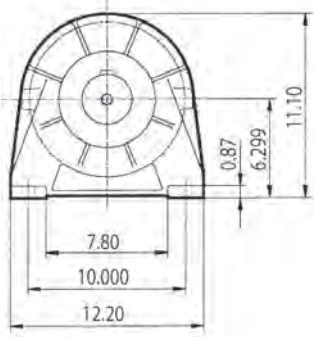
	P71		P80		P90		P100		P112		P132	
	E	P	E	P	E	P	E	P	E	P	E	P
305 R2	65	160	84	200	84	200	94	250	94	250	114	300
305 R3	65	160	84	200	84	200	94	250	94	250	114	300
305 R4	65	160	84	200	84	200	94	250	94	250	114	300

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
305 R2	—	—	—	328	—	156	373	—	195	405	—	195	508	—	258
305 R3	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258
305 R4	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258

305 L



Imperial



inch	Ⓜ
5.906	-0.00169 -0.00327
2.375	0 -0.00075

Dimensions are in Inch except when shown in *italic* [mm]

	L														
	NPC	NHC	NPC	NHC	V	V1	lbs	V	V1	lbs	V	V1	lbs	C	Input
305 L1	7.20	6.61	99.2	88.2	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	1.457	A
305 L2	9.76	9.17	114.7	103.6	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A
305 L3	11.85	11.26	123.5	112.5	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A
305 L4	13.94	13.35	132.3	121.3	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A

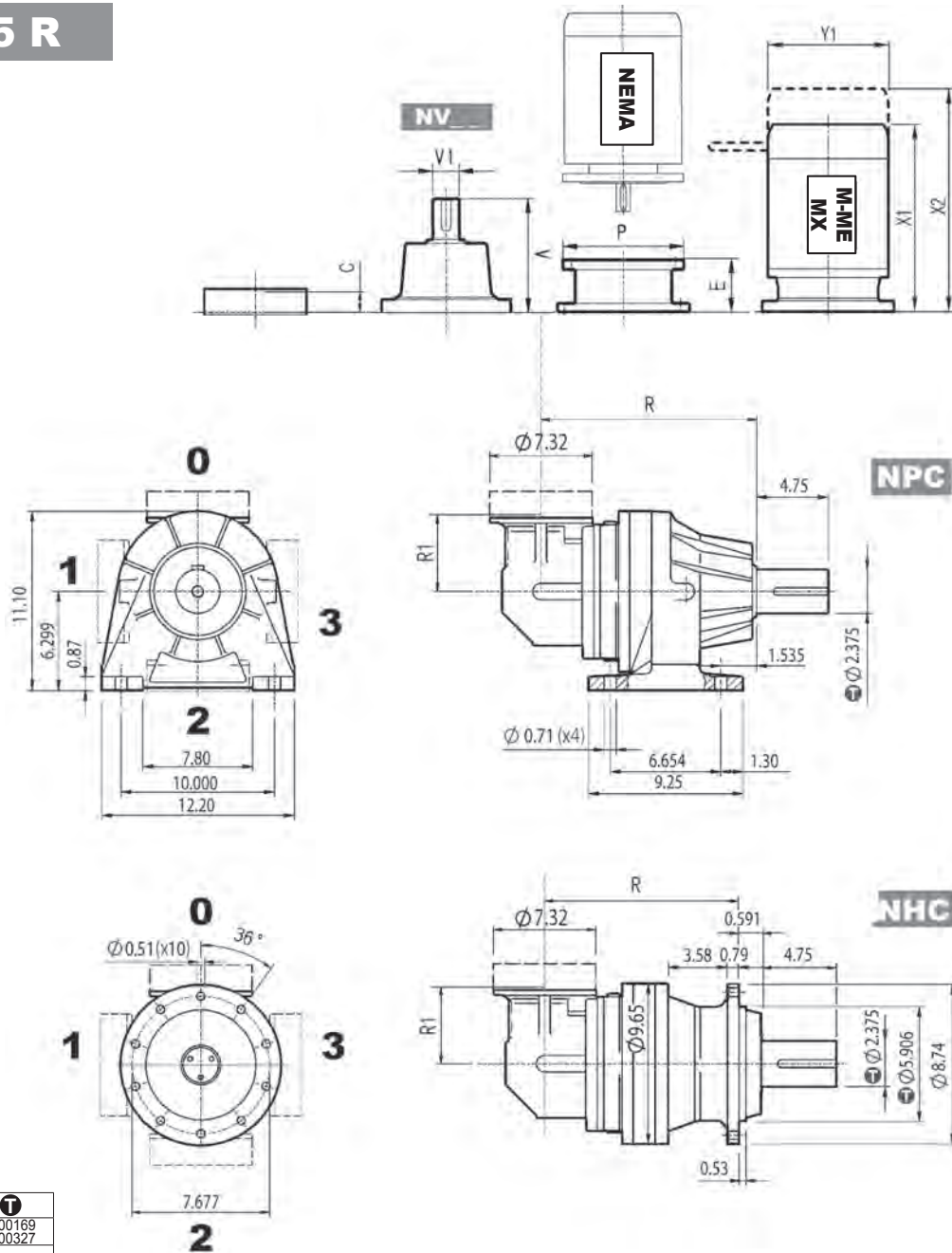
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
305 L1	—	—	—	—	—	—	—	—	5.22	11.81	6.22	13.78
305 L2	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
305 L3	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
305 L4	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L			
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	
305 L1	—	—	—	—	—	—	—	—	—	—	—	—	18.11	—	10.16	22.60	—	—	—	—	—	—
305 L2	—	—	—	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—	—
305 L3	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—	—
305 L4	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—	—

305 R



Imperial



inch	Ⓜ
5.906	-0.00169 -0.00327
2.375	0 -0.00075

Dimensions are in Inch except when shown in *italic* [mm]

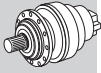
	R		R1	lbs	
	NPC	NHC		NPC	NHC
305 R2	14.76	10.24	5.51	143.3	132.3
305 R3	13.39	12.80	4.80	145.5	134.5
305 R4	15.47	14.88	4.80	154.4	143.3

	Ⓜ							
	V	V1	lbs	V	V1	lbs	C	Input
305 R2	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A
305 R3	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A
305 R4	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A

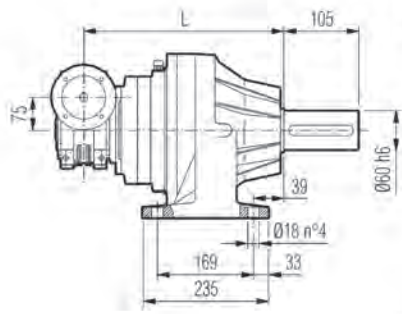
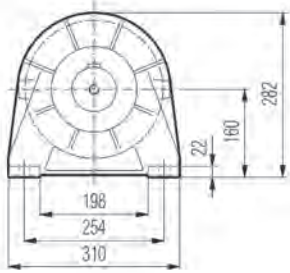
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
305 R2	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
305 R3	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
305 R4	4.51	6.70	4.51	6.70	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
305 R2	—	—	—	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	20	—	10.16
305 R3	9.96	12.36	5.43	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	20	—	10.16
305 R4	9.96	12.36	5.43	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	20	—	10.16

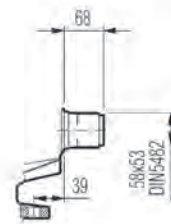
3/V 05 L3



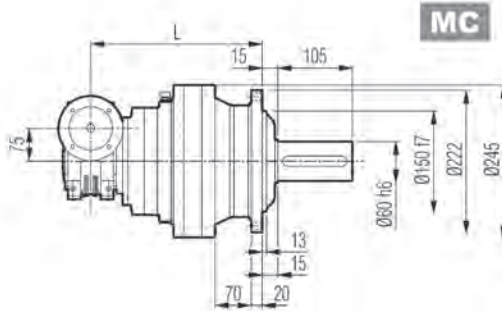
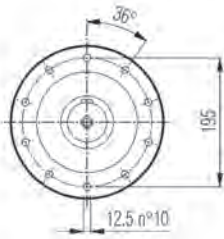
Metric



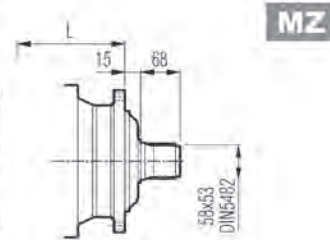
PC



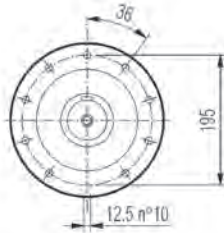
PZ



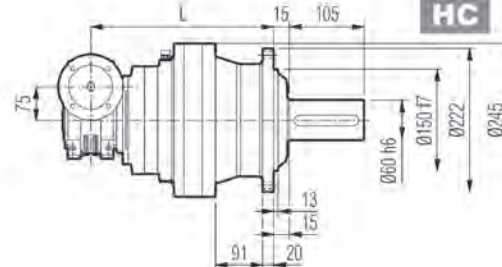
MC



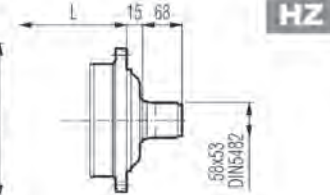
MZ



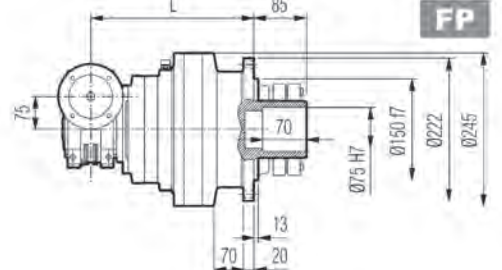
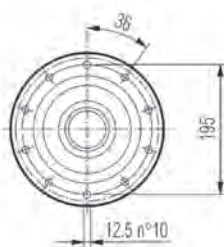
A →



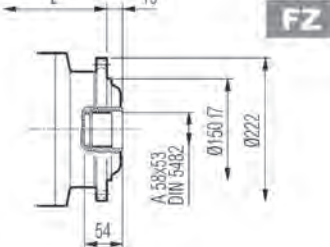
HC



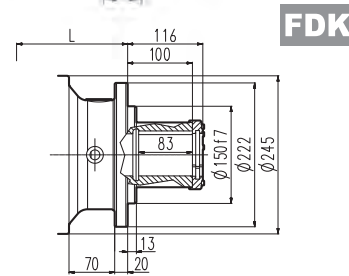
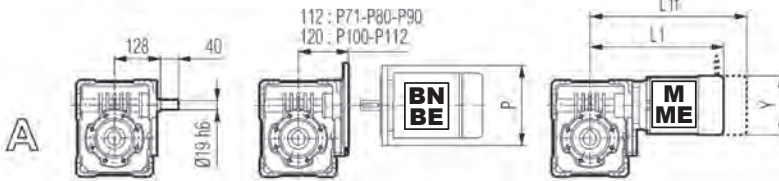
HZ



FP



FZ



FDK

FP

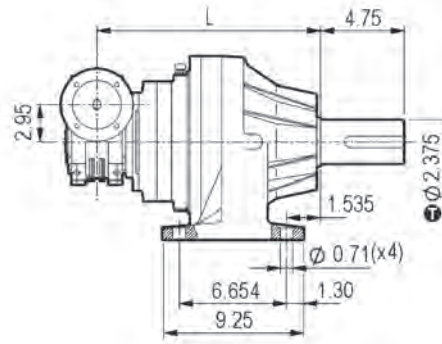
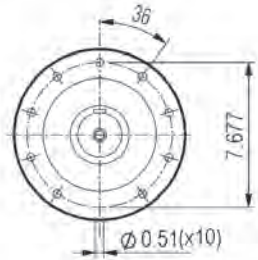
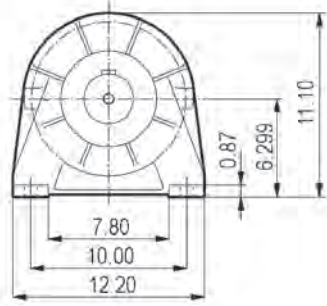
T_{2max} = 66,380 lb·in

Dimensions are in mm

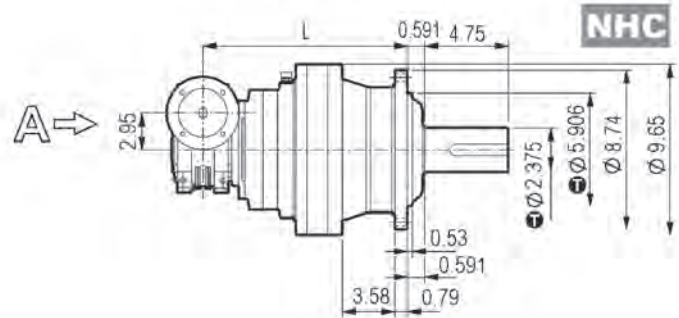
	L				Kg				P71	P80	P90	P100
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	P	P	P	P
3/V 05 L3	323	363	348	323	51	60	55	51	160	200	200	250

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 05 L3	308	369	138	333	—	156	376	—	193	408	—	193

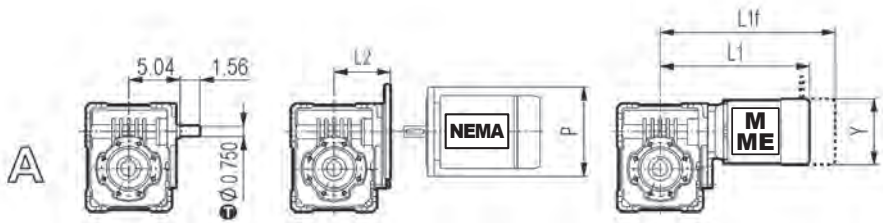
3/V 05 L3



NPC



NHC

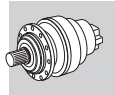


inch	Ⓣ
5.906	-0.00169 -0.00327
2.375	0 -0.00075
1.000	0 -0.00051

Dimensions are in Inch except when shown in *italics* [mm]

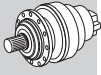
	L		lbs		N56 C	N140TC	N180TC
	NPC	NHC	NPC	NHC	P	P	P
3/V 05 L3	14.29	13.70	132.3	121.3	6.54	6.54	9.02

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 05 L3	12.12	14.53	5.43	13.11	—	6.14	14.80	—	7.60	16.06	—	7.60

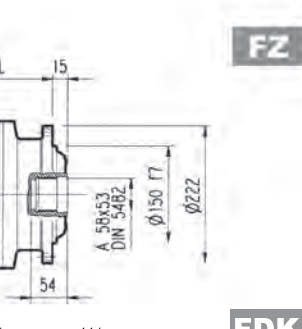
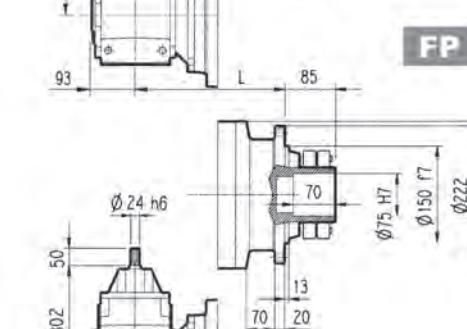
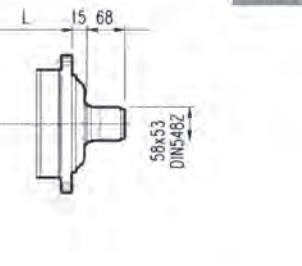
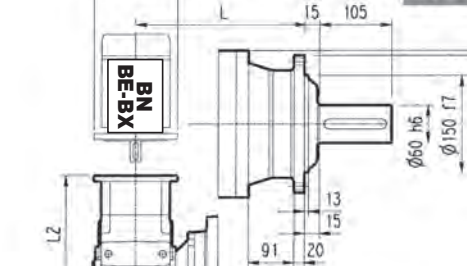
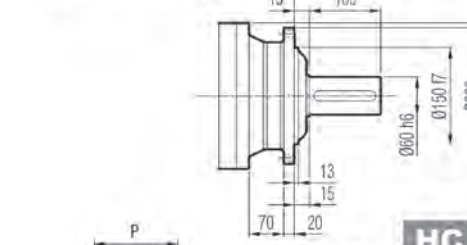
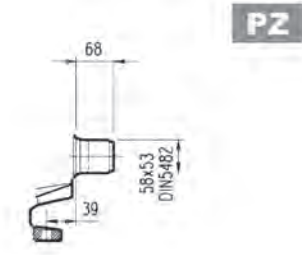
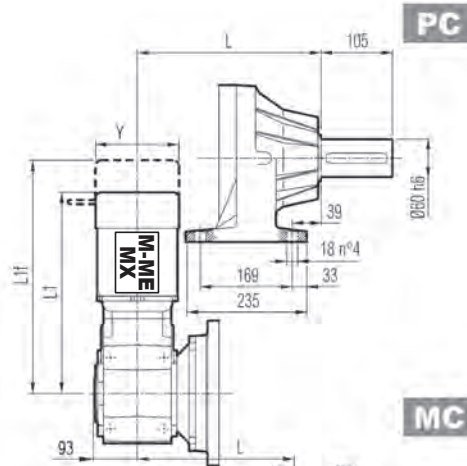
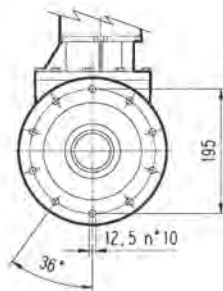
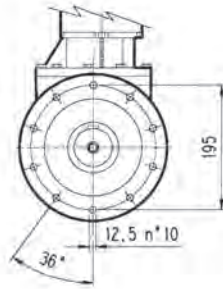
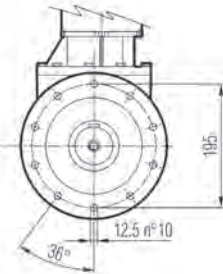
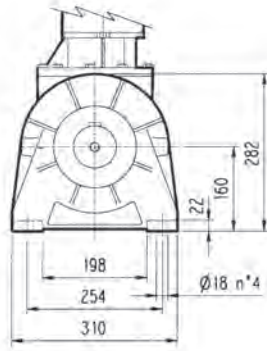


Imperial

3/A 05 L2



Metric

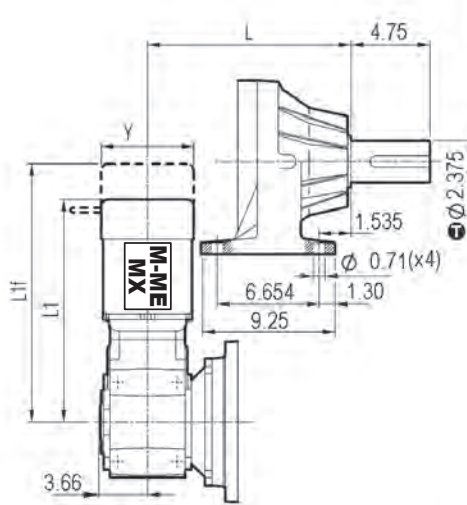
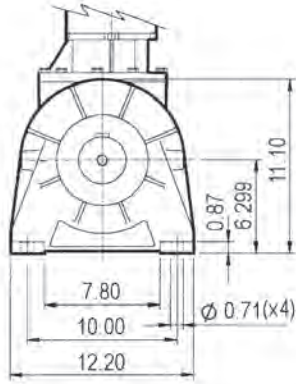


FP T_{2max} = 66,380 lb·in

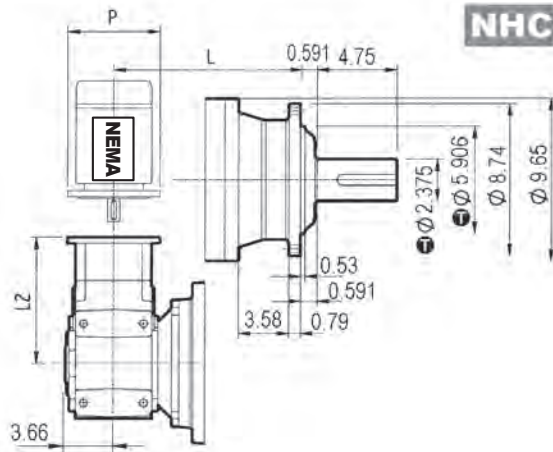
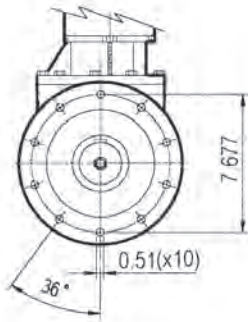
Dimensions are in mm

3/A 05 L2	L								Kg						
	MC - MZ		PC - PZ		HC - HZ		FP - FZ - FDK			MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK		
	276		316		301		276		90	105	100	90			
	P63		P71		P80		P90		P100		P112		P132		
	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P	
3/A 05 L2	263	140	263	160	282.5	200	282.5	200	292.5	250	292.5	250	329	457	
	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/A 05 L2	418	439	138	447	—	156	490	—	195	522	—	195	630	—	258

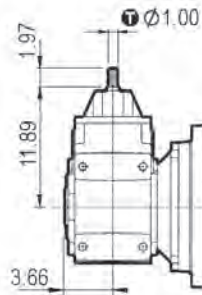
3/A 05 L2



NPC



NHC



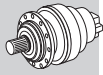
inch	Ⓜ
5.906	-0.00169 -0.00327
2.375	0 -0.00075
1.000	0 -0.00051

Dimensions are in Inch except when shown in *italic [mm]*

3/A 05 L2	L		lbs		N56C		N140TC		N180TC		N210TC	
	NPC	NHC	NPC	NHC	L2	P	L2	P	L2	P	L2	P
	12.44	11.85	231.5	220.5	11.14	6.50	11.14	6.50	11.89	9.00	13.13	9.00

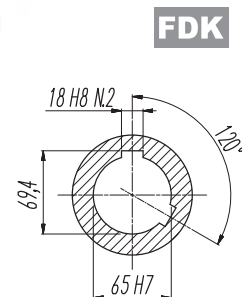
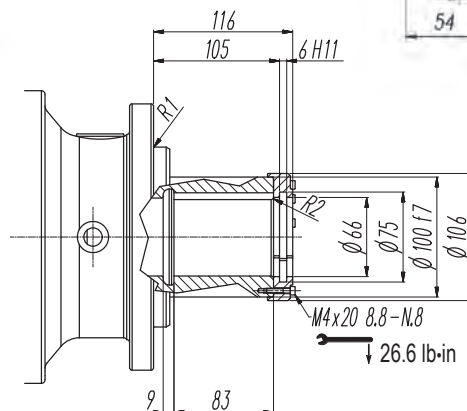
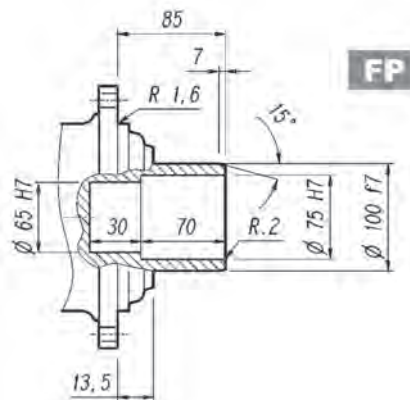
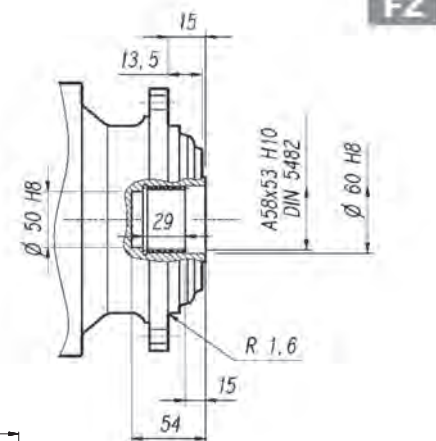
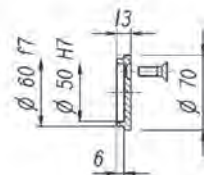
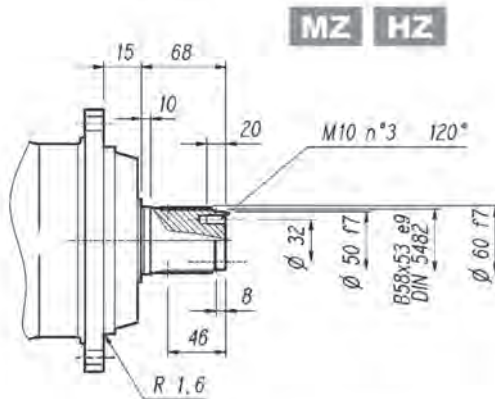
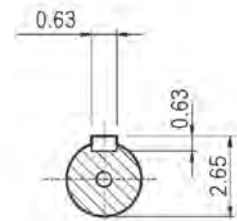
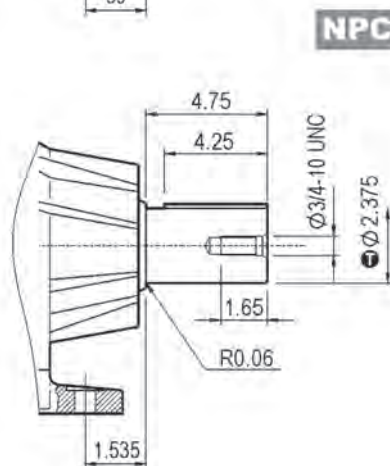
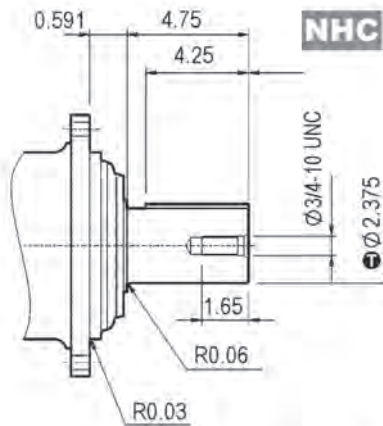
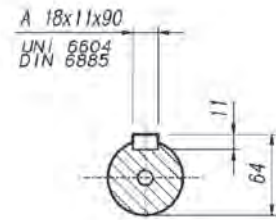
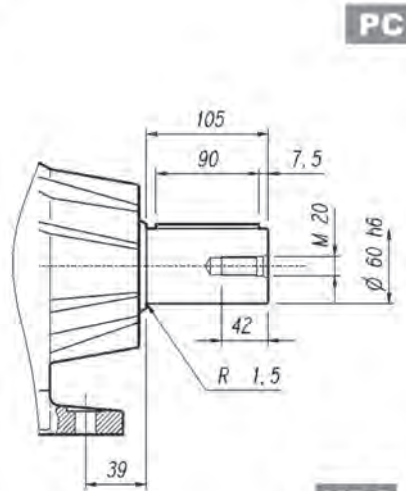
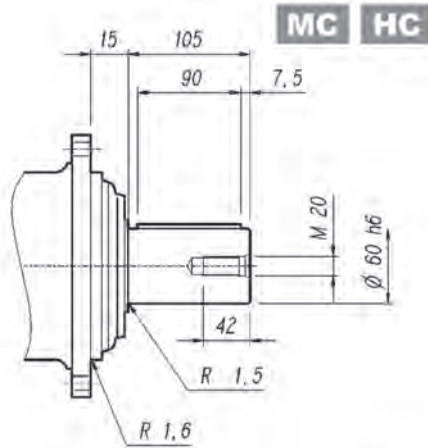
3/A 05 L2	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
	16.46	17.28	5.43	17.60	—	6.14	19.29	—	7.68	20.55	—	7.68	24.80	—	10.16



305 L**305 R****3/V 05 L3****3/A 05 L2**

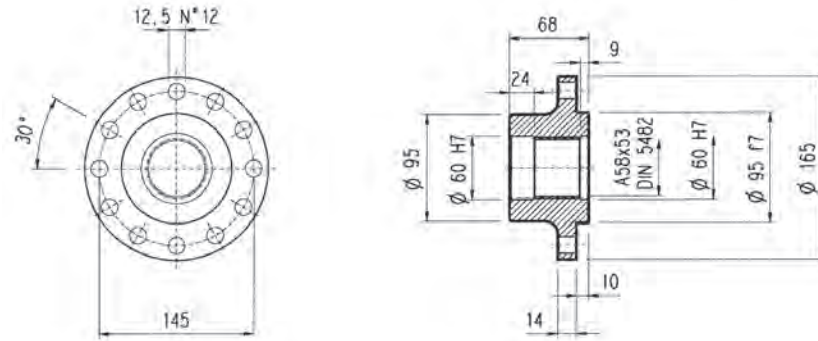
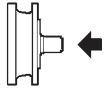
Metric

Imperial

**FP****T_{2max} = 66,380 lb-in**

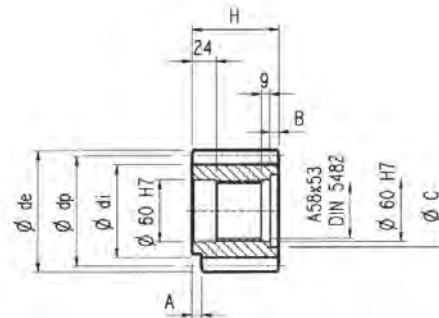
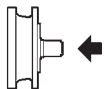
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	\pm
2.375	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

305 L**305 R****3/V 05 L3****3/A 05 L2****Flange****W0A****Metric**

Material: Steel C40

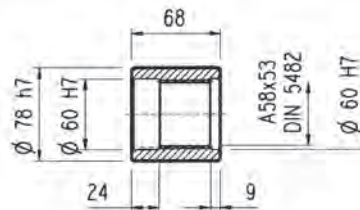
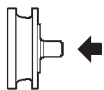
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

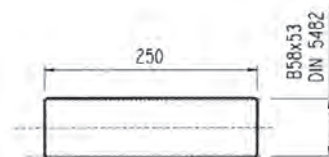
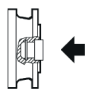
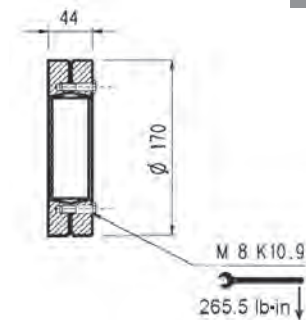
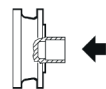
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PCL1	5	19	—	95	82	104	77	12	9	72	Steel 39NiCrMo3 hardened and tempered
PCL2	5	19	—	95	82	104	68	—	—	—	—
PCM	5	20	—	100	87.5	110	68	18	—	—	Steel 18NiCrMo5 case hardened
PCP	5	22	—	110	97.5	120	68	18	—	—	—
PDE	6	14	0.500	84	75	99.6	68	—	—	—	—
PDI	6	18	0.500	108	99	123.6	68	—	—	—	Steel 39NiCrMo3 hardened and tempered
PDM	6	20	0.833	120	115	140	68	—	—	—	—
PFD	8	13	0.675	104	95	127.6	68	—	—	—	—
PFE1	8	14	—	112	92	126	68	—	—	—	Steel 18NiCrMo5 case hardened
PFE2	8	14	—	112	92	126	80	—	12	72	—
PFF	8	15	—	120	100	136	68	—	—	—	—
PFF	8	22	—	176	156	190	77	12	10	71	Steel 39NiCrMo3 hardened and tempered
PHG	10	16	0.500	160	145	188	75	—	7	72	—

Sleeve coupling**M0A**

Material: Steel 16CrNi4

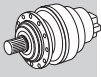
Dimensions are in mm

Splined bars**B0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC**Shrink disc****G0A**

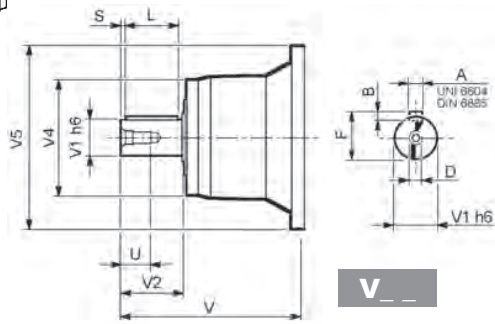
Dimensions are in mm

305 L

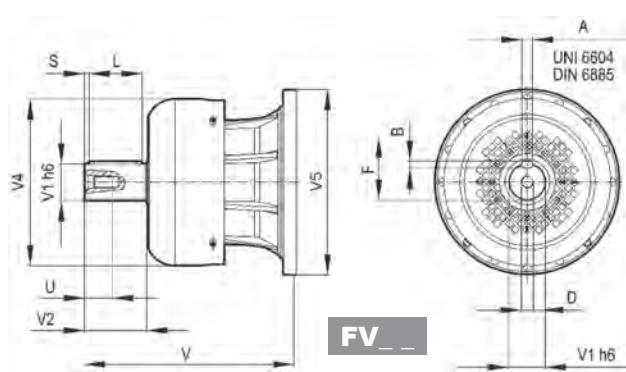
305 R



Metric



V__



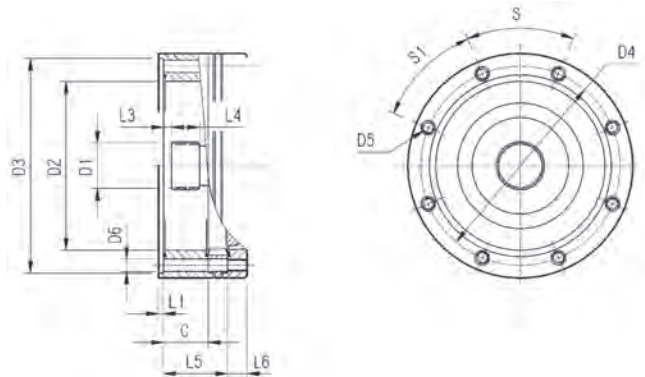
FV__

Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
305 L1	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
305 L2	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
305 L3	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
305 L4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
305 R2-R3-R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

305 L

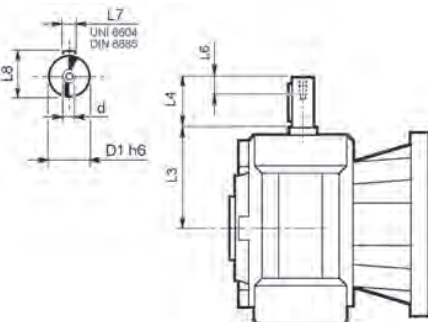
305 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
305 L1	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	—	18	45°	45°	A
305 L2	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	65	18	45°	45°	A
305 L3	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	118	18	45°	45°	A
305 L4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	171	18	45°	45°	A
305 R2-R3-R4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

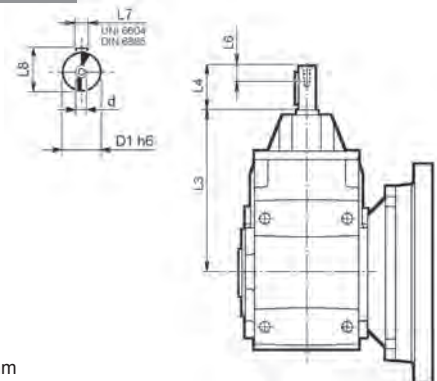
3/V 05 L3



Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/V 05 L3_HS	19	128	40	16	6	21.5	M6

3/A 05 L2

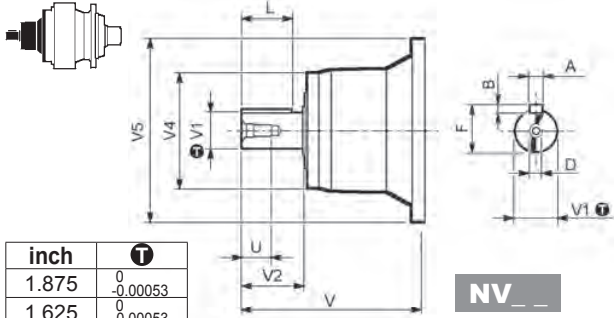


Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/A 05 L2_HS	24	302	50	19	8	27	M8

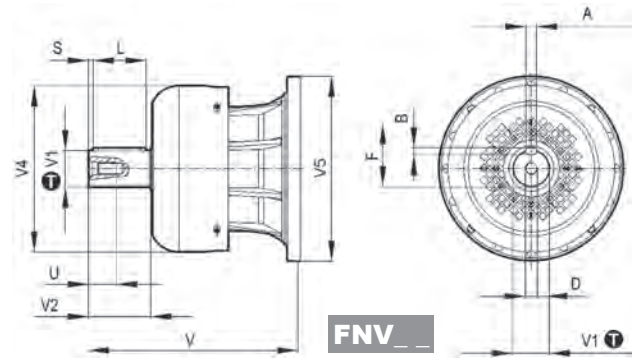
305 L

305 R

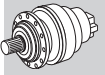


inch	T
1.875	$0 \begin{smallmatrix} - \\ -0.00053 \end{smallmatrix}$
1.625	$0 \begin{smallmatrix} - \\ -0.00053 \end{smallmatrix}$
1.125	$0 \begin{smallmatrix} - \\ -0.00051 \end{smallmatrix}$

NV _ _



FNV _ _



Imperial

Dimensions are in Inch except when shown in *italic* [mm]

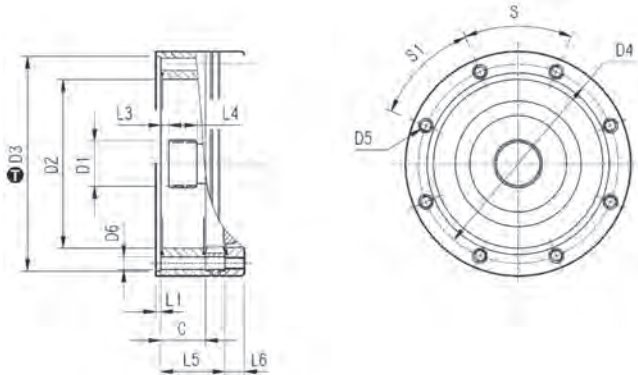
		V	V1	V2	V4	V5	A	B	F	L	D	U
305 L1	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
305 L2	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
305 L3	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
305 L4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
305 R2-R3-R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

305 L

305 R



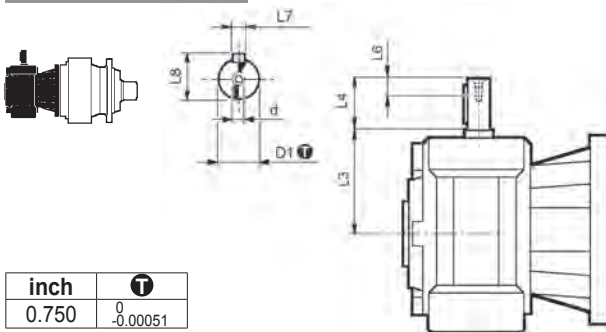
inch	T
7.01	$+0.00157 \begin{smallmatrix} 0 \\ 0 \end{smallmatrix}$



Dimensions are in Inch except when shown in *italic* [mm]

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
305 L1	V9AA	1.46	40x36 <i>DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	—	0.71	45°	45°	A
305 L2	V9AA	1.46	40x36 <i>DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	2.56	0.71	45°	45°	A
305 L3	V9AA	1.46	40x36 <i>DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	4.65	0.71	45°	45°	A
305 L4	V9AA	1.46	40x36 <i>DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	6.73	0.71	45°	45°	A
305 R2-R3-R4	V9AA	1.46	40x36 <i>DIN5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 05 L3

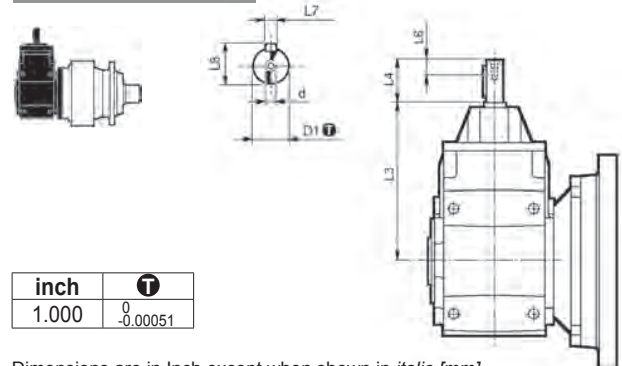


inch	T
0.750	$0 \begin{smallmatrix} - \\ -0.00051 \end{smallmatrix}$

Dimensions are in Inch except when shown in *italic* [mm]

	D1	L3	L4	L6	L7	L8	d
3/V 05 L3_NHS	0.750	5.04	1.575	0.63	0.188	0.832	1/4-20UNC

3/A 05 L2



inch	T
1.000	$0 \begin{smallmatrix} - \\ -0.00051 \end{smallmatrix}$

Dimensions are in Inch except when shown in *italic* [mm]

	D1	L3	L4	L6	L7	L8	d
3/A 05 L2_NHS	1.000	11.89	1.969	0.75	0.250	1.109	3/8-16UNC

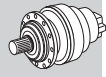
305 L

305 R

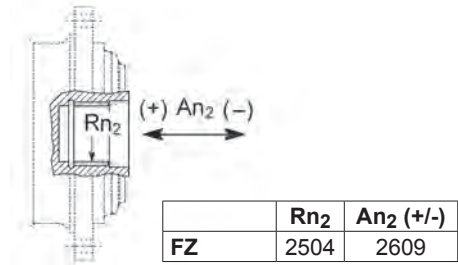
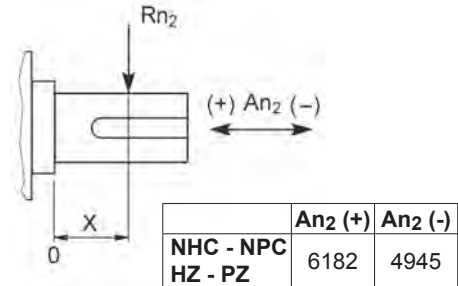
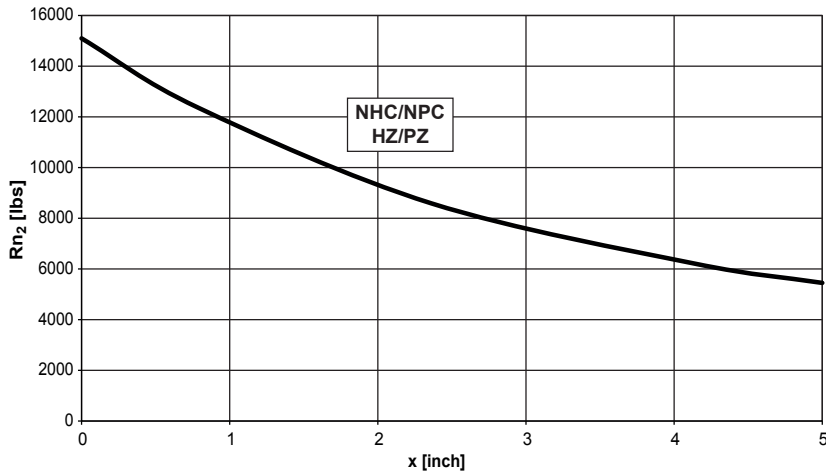
3/V 05 L3

3/A 05 L2

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$

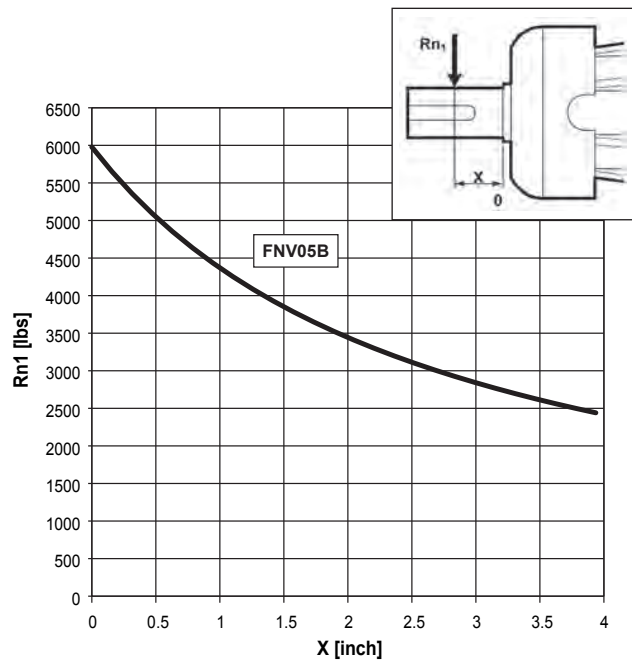
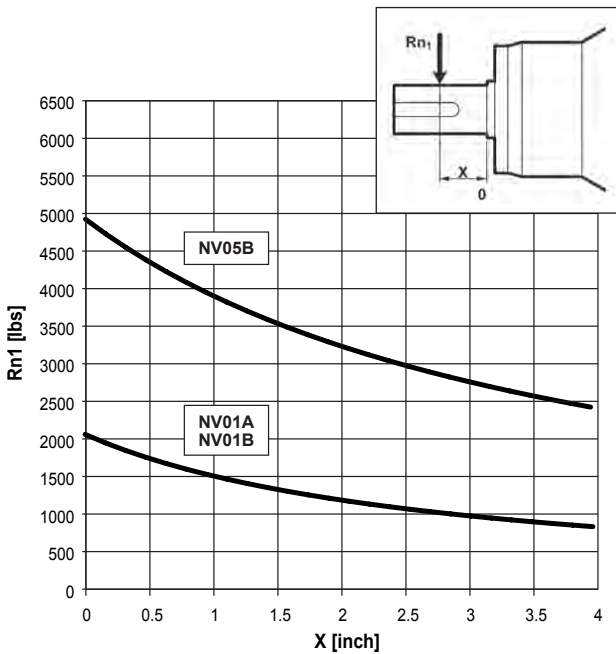


Imperial

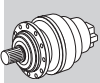
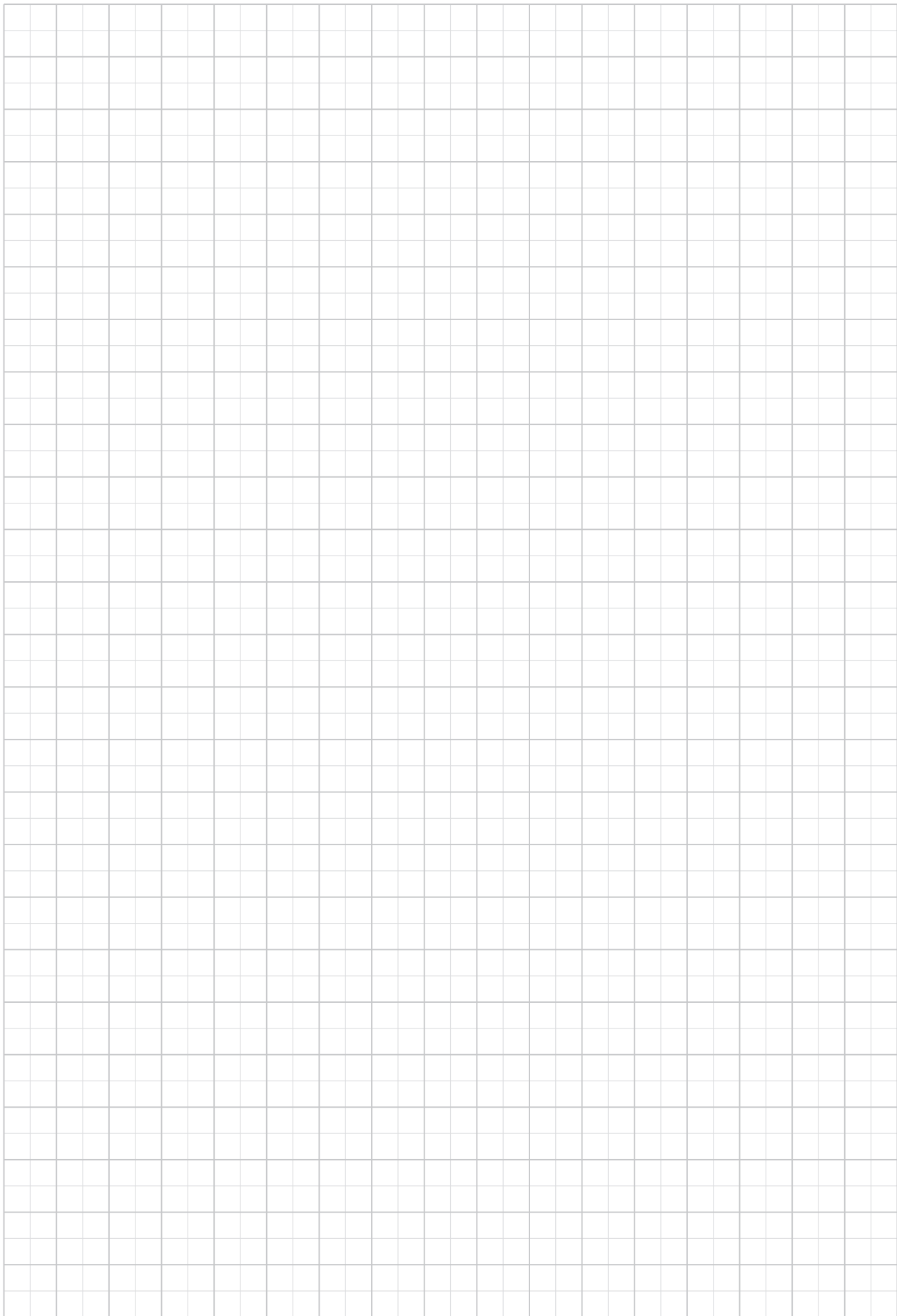


Load corrective factor fh2 on shafts	Fh2 = n2 · h		10000	25000	50000	100000	500000	1000000
	fh2	FZ	2.15	1.59	1.26	1.00	0.58	0.46
		NHC - NPC - HZ - PZ	1.48	1.48	1.23	1.00	0.62	0.50

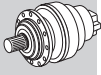
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



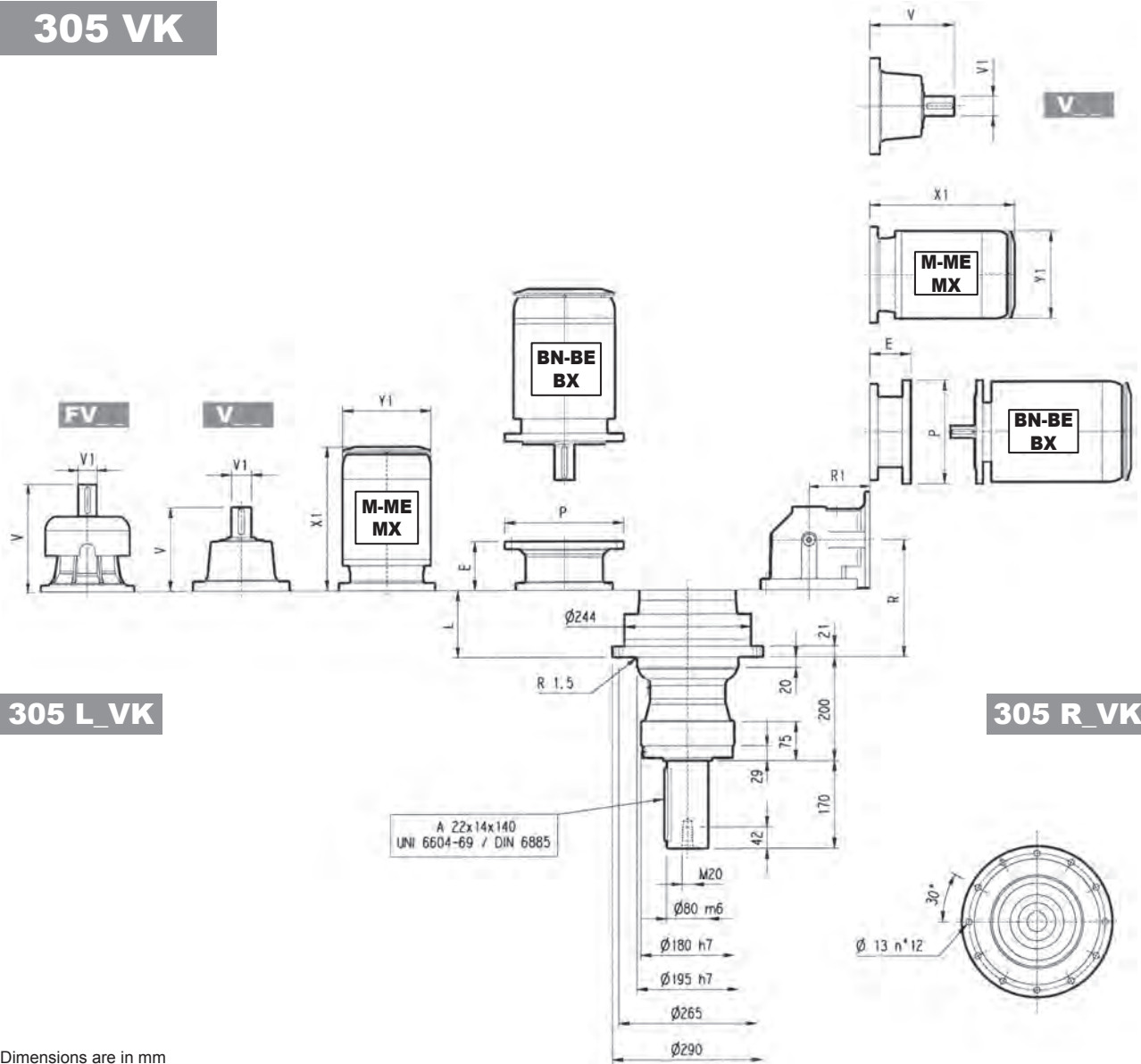
Load corrective factor fh1 on shafts	Fh1 = n1 · h	250000	500000	1000000	2000000	5000000	10000000
	fh1	1	0.79	0.63	0.50	0.37	0.29



305 VK



Metric



305 L_VK

305 R_VK

Dimensions are in mm

	L		V						P						P71		P80		P90		P100		P112		P132		P160		P180		P200	
	kg	kg	V	V1	kg	V	V1	kg	V	V1	kg	V	V1	kg	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P		
305 L1	69	70	239	48	15	—	—	—	276	48	17	—	—	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	
305 L2	134	77	137.5	24	6	158	38	7	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	
305 L3	187	81	137.5	24	6	158	38	7	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	
305 L4	240	85	137.5	24	6	158	38	7	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L					
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1			
305 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	460	—	258	552	—	310	596	—	310
305 L2	—	—	—	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—	—	—
305 L3	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—	—	—
305 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—	—	—

	R	R1	kg	V						P71		P80		P90		P100		P112		P132	
				V	V1	kg	V	V1	kg	E	P	E	P	E	P	E	P	E	P	E	P
305 R2	161	140	90	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300
305 R3	226	122	92	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300
305 R4	279	122	95	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
305 R2	—	—	—	328	—	156	373	—	195	405	—	195	508	—	258
305 R3	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258
305 R4	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258

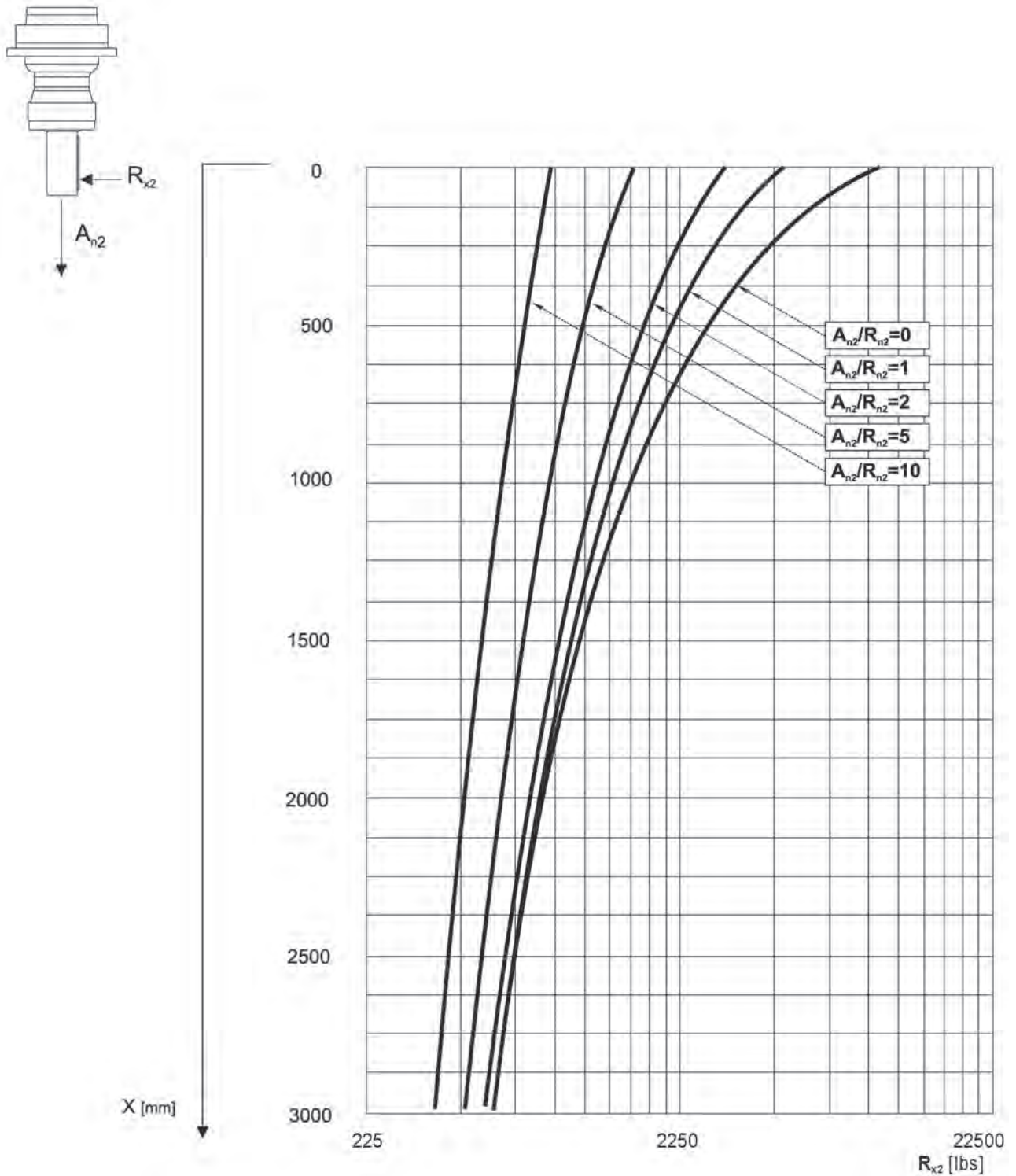
305 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

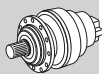
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



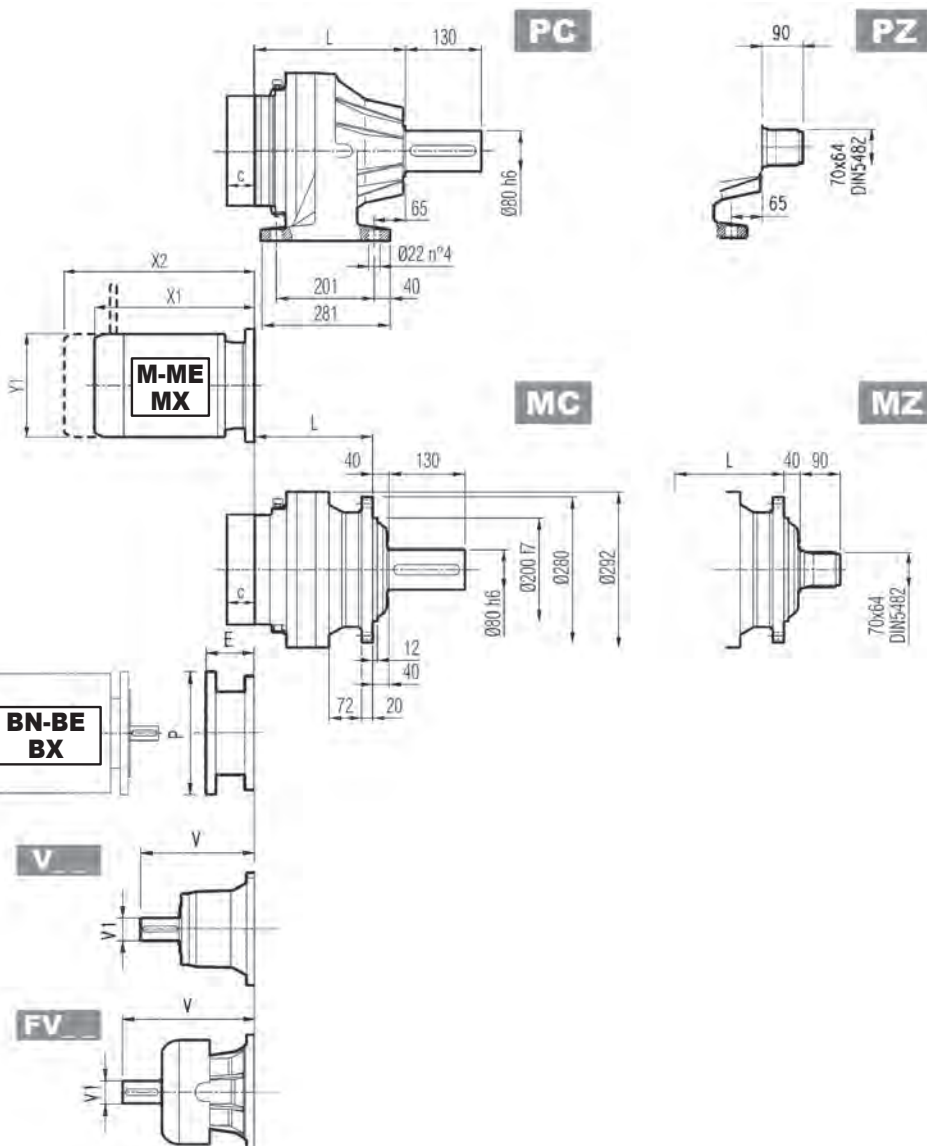
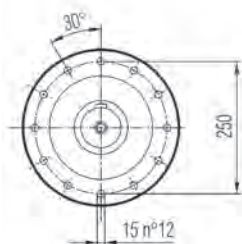
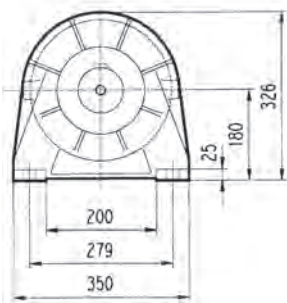
Metric



306 L



Metric

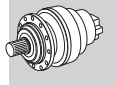
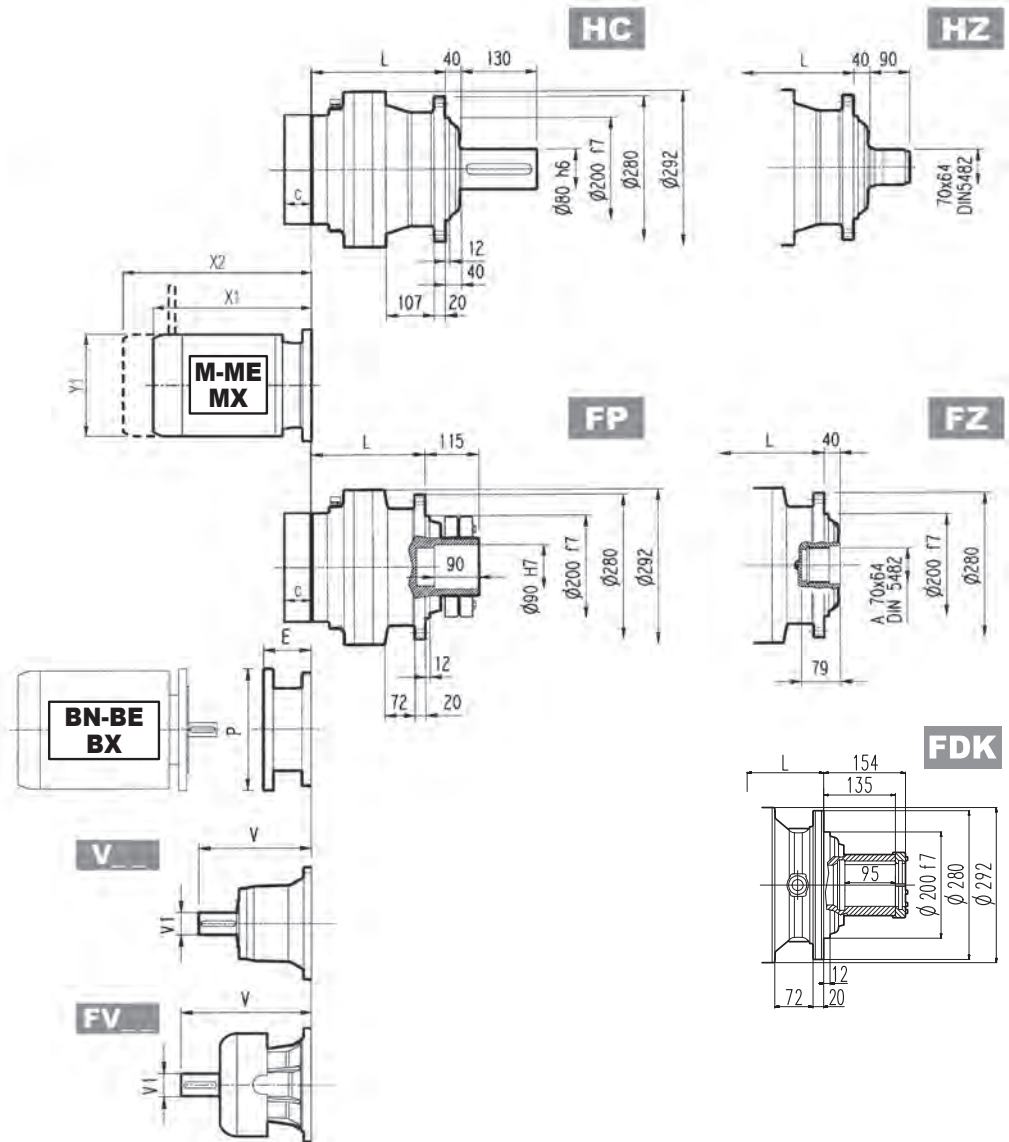
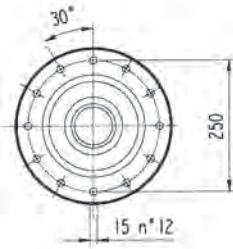
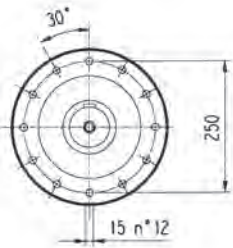


Dimensions are in mm

	L				Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
306 L1	160	235	195	160	65	85	70	65
306 L2	225	300	260	225	74	95	79	74
306 L3	278	353	313	278	78	98	83	78
306 L4	331	406	366	331	82	103	87	82

	V			V1			C			Input	
	V	V1	Kg	V	V1	Kg	V	V1	Kg		
306 L1	307	60	23	—	—	—	357	60	28	45	B
306 L2	239	48	15	—	—	—	276	48	17	37	A
306 L3	137.5	24	6	158	38	7	—	—	—	37	A
306 L4	137.5	24	6	158	38	7	—	—	—	37	A

306 L



Metric

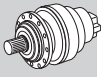
FP $T_{2max} = 106,210 \text{ lb}\cdot\text{in}$

Dimensions are in mm

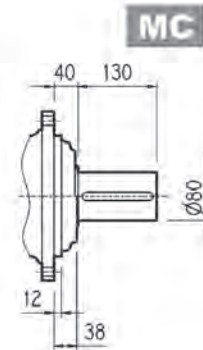
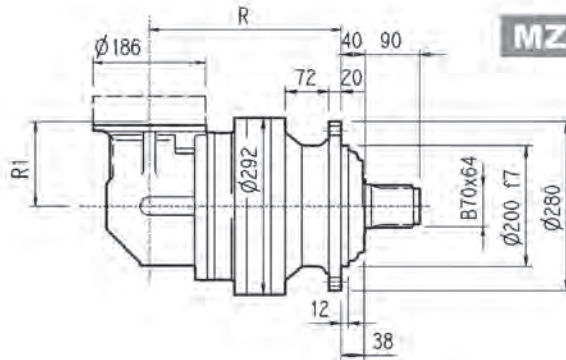
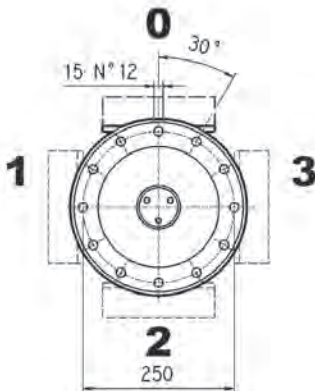
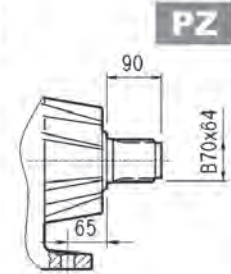
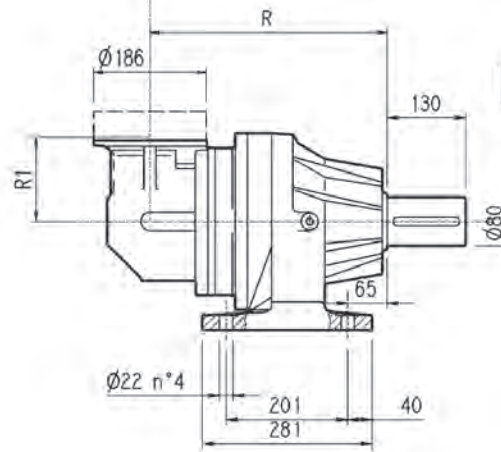
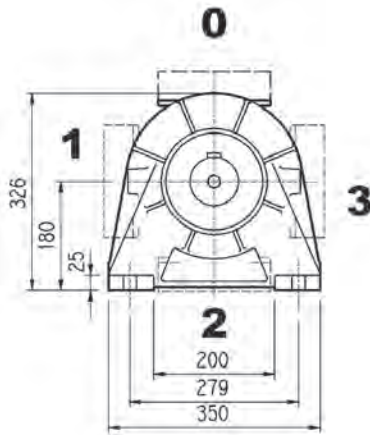
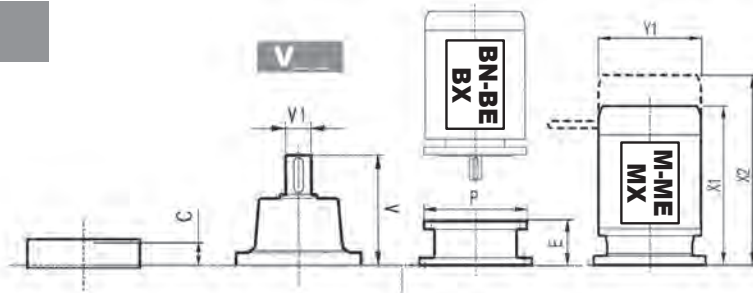
	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
306 L1	—	—	—	—	—	—	—	—	—	—	—	—	144	350	153	350	183	400	212	450	193	550
306 L2	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—
306 L3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—
306 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L			
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	
306 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
306 L2	—	—	—	—	—	—	—	—	—	—	—	—	—	460	—	258	552	—	310	596	—	310
306 L3	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	
306 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	

306 R



Metric



Dimensions are in mm

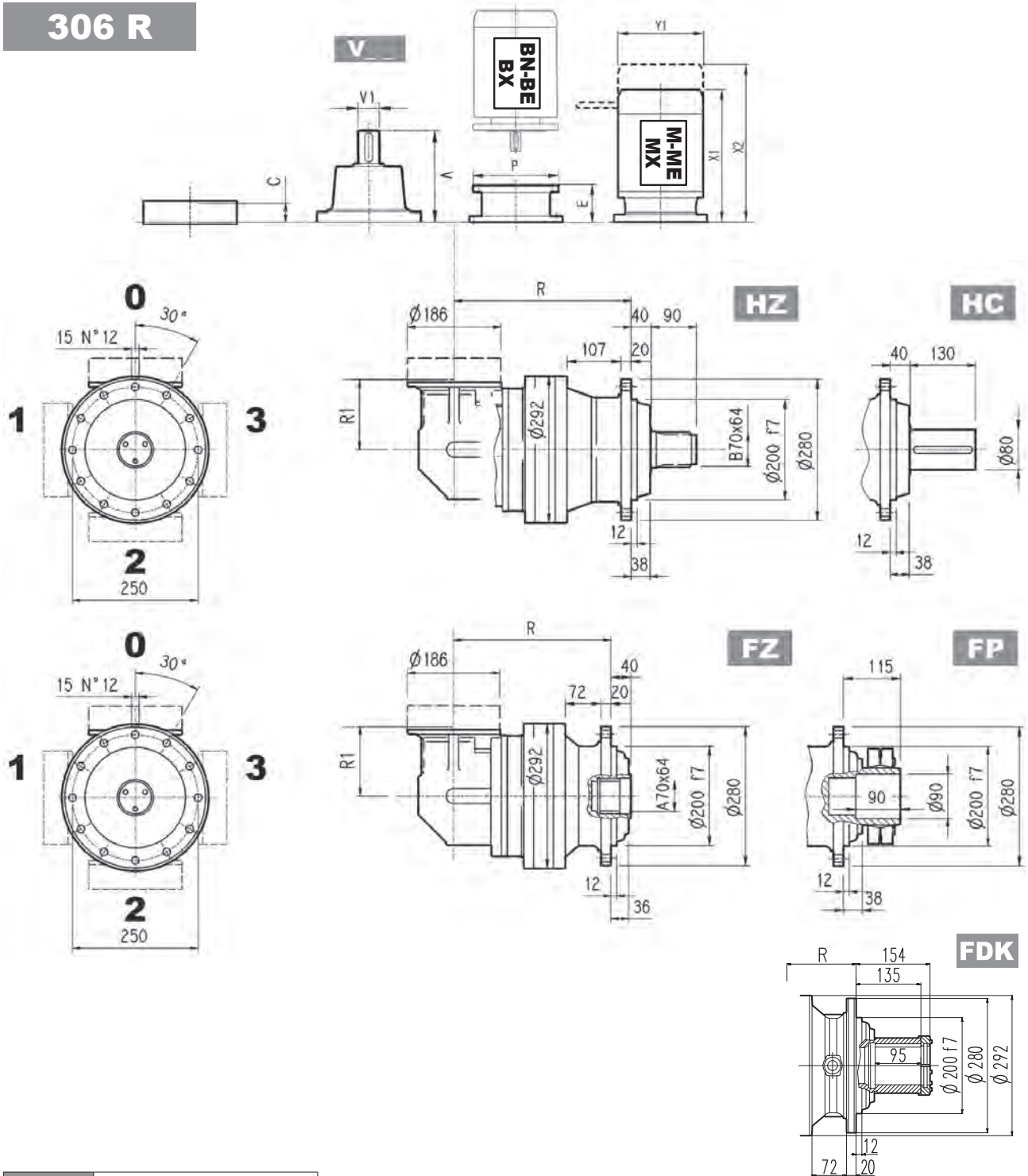
	R				R1	Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK		MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
306 R2	297	372	332	297	140	89	105	94	89
306 R3	317	392	352	317	140	85	100	90	85
306 R4	370	445	405	370	122	79	95	84	79

	Kg						C	Input
	V	V1	V	V1	V	V1		
306 R2	137.5	24	6	158	38	7	37	A
306 R3	137.5	24	6	158	38	7	37	A
306 R4	137.5	24	6	158	38	7	37	A

306 R



Metric



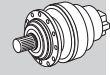
FP $T_{2max} = 106,210 \text{ lb}\cdot\text{in}$

Dimensions are in mm

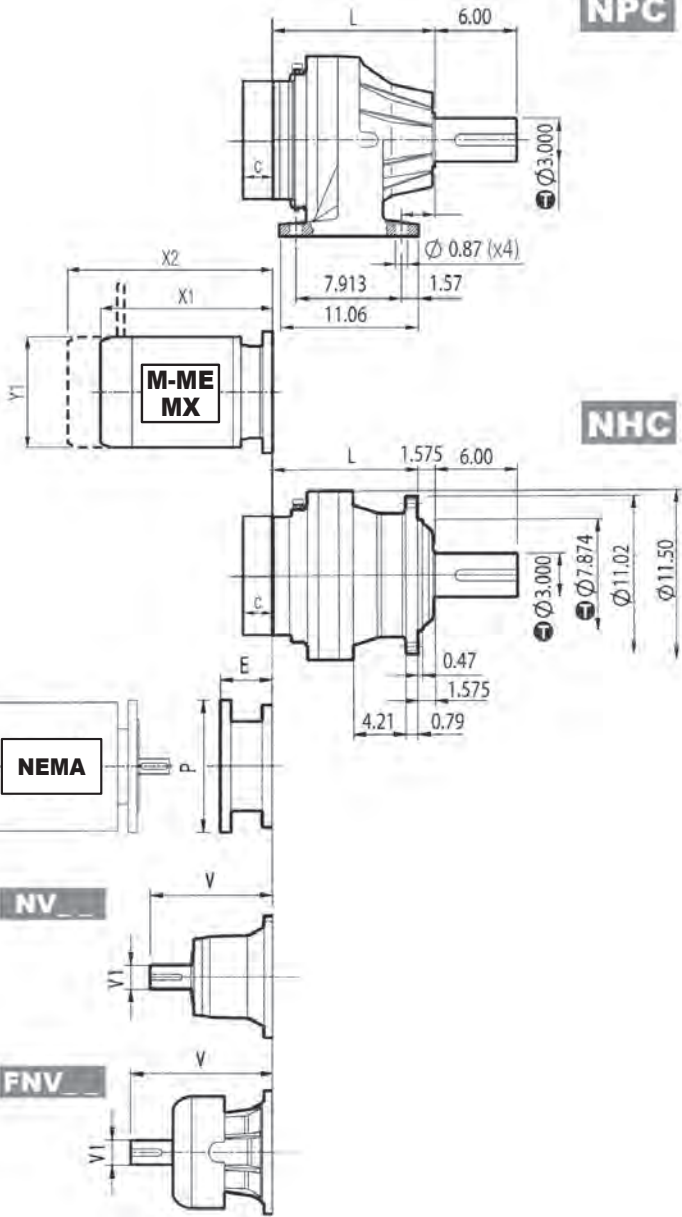
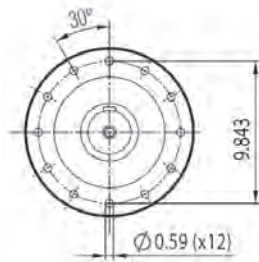
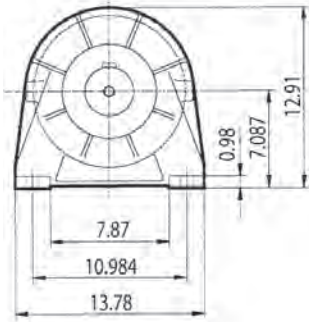
	P71		P80		P90		P100		P112		P132		P160	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P
306 R2	65	160	84	200	84	200	94	250	94	250	114	300	144	350
306 R3	65	160	84	200	84	200	94	250	94	250	114	300	144	350
306 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
306 R2	—	—	—	328	—	156	373	—	195	405	—	195	508	—	258
306 R3	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258
306 R4	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258

306 L



Imperial



inch	Ⓜ
7.874	-0.00197 -0.00378
3.000	0 -0.00075

Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs		V		V1		lbs		V		V1		lbs		C	Input
	NPC	NHC	NPC	NHC	V	V1	lbs	V	V1	lbs	V	V1	lbs					
306 L1	9.25	7.68	187.4	154.4	—	—	—	—	—	—	14.652	2.375	58.0	1.772	B			
306 L2	11.81	10.24	209.5	174.2	—	—	—	—	—	—	11.138	1.875	38.0	1.457	A			
306 L3	13.90	12.32	216.1	183.0	6.437	1.625	15.4	—	—	—	—	—	—	1.457	A			
306 L4	15.98	14.41	227.1	191.8	6.437	1.625	15.4	—	—	—	—	—	—	1.457	A			

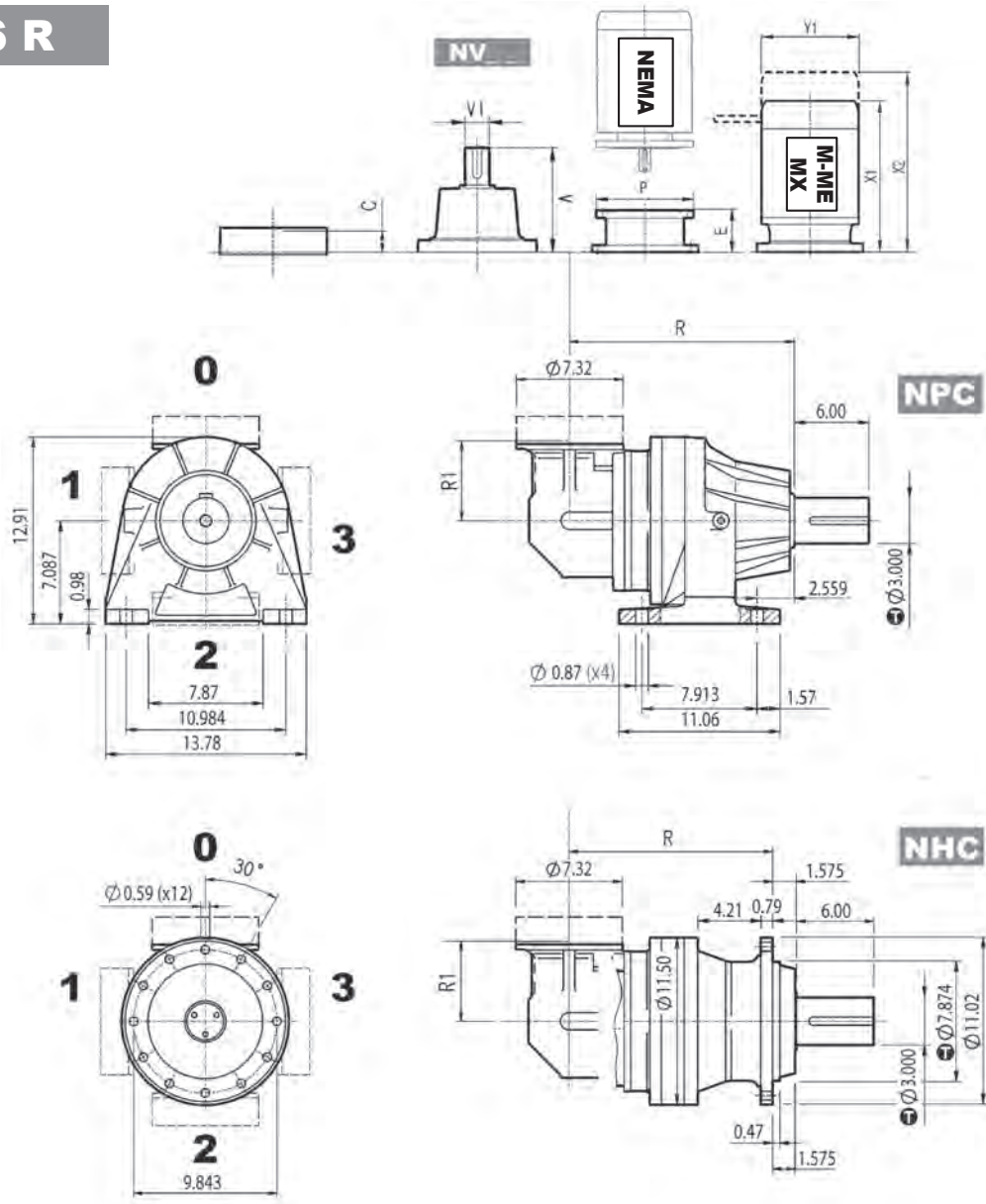
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
306 L1	—	—	—	—	—	—	—	—	—	—	—	—	7.78	13.78	7.78	13.78
306 L2	—	—	—	—	—	—	—	—	5.22	11.81	6.22	13.78	—	—	—	—
306 L3	4.67	6.69	4.67	6.69	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81	—	—	—	—
306 L4	4.67	6.69	4.67	6.69	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81	—	—	—	—

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
306 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
306 L2	—	—	—	—	—	—	—	—	—	—	—	—	18.11	—	10.16	21.73	—	12.20	23.46	—	12.20
306 L3	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—
306 L4	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—

306 R



Imperial



inch	Ⓢ
7.874	-0.00197 -0.00378
3.000	0 -0.00075

Dimensions are in Inch except when shown in *italic* [mm]

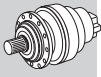
	R		R1	lbs	
	NPC	NHC		NPC	NHC
306 R2	14.65	13.07	5.51	231.5	207.3
306 R3	15.43	13.86	5.51	220.5	198.5
306 R4	17.52	15.94	4.80	209.5	185.2

	lbs								C	Input
	V	V1	lbs	V	V1	lbs	C	Input		
306 R2	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A		
306 R3	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A		
306 R4	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A		

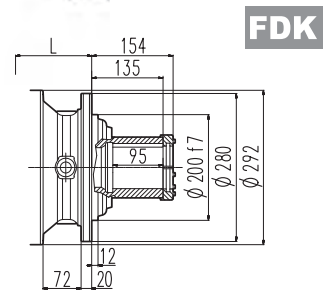
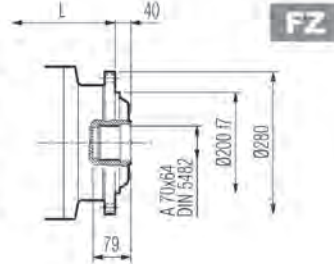
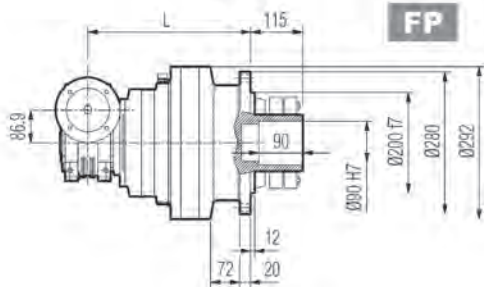
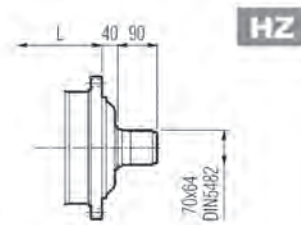
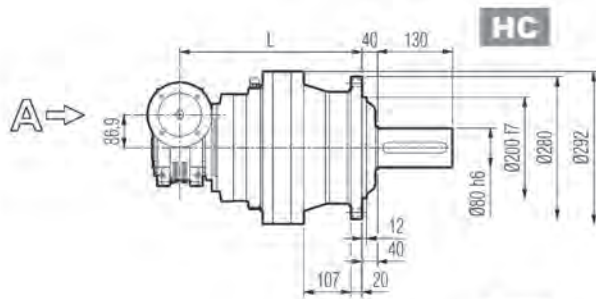
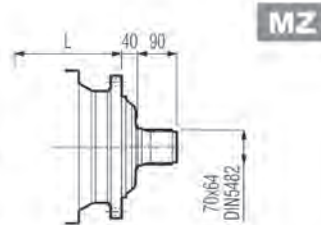
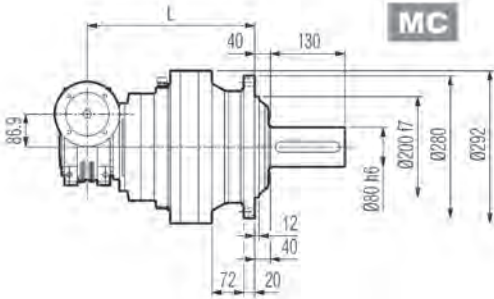
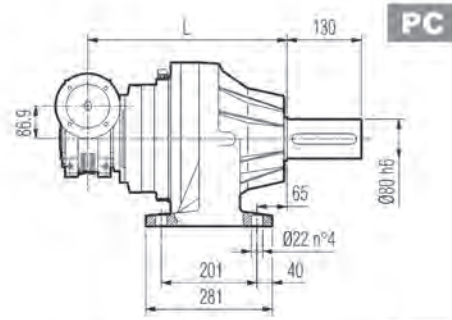
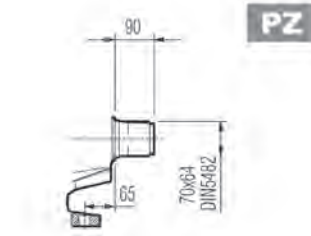
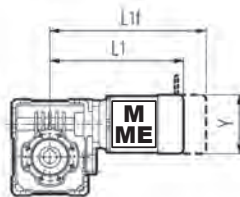
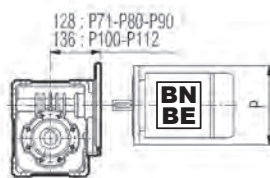
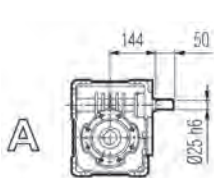
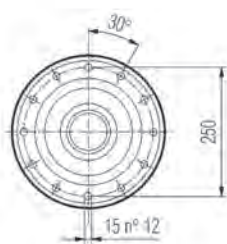
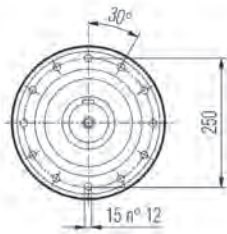
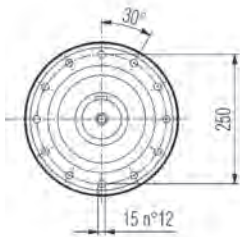
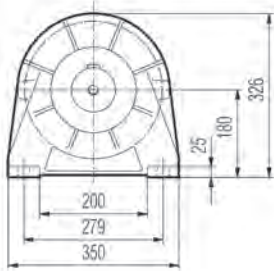
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
306 R2	4.67	6.69	4.67	6.69	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
306 R3	4.67	6.69	4.67	6.69	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
306 R4	4.67	6.69	4.67	6.69	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
306 R2	—	—	—	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	20	—	10.16
306 R3	9.96	12.36	5.43	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	20	—	10.16
306 R4	9.96	12.36	5.43	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	20	—	10.16

3/V 06 L3



Metric



FP

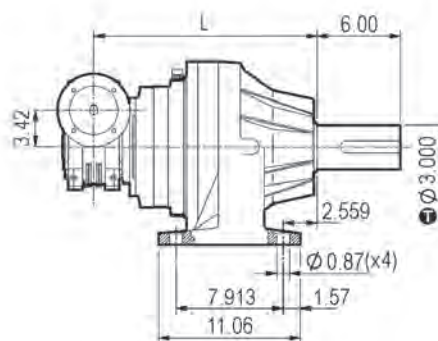
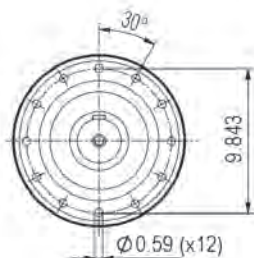
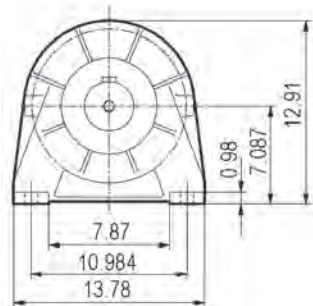
$T_{2max} = 106,210 \text{ lb}\cdot\text{in}$

Dimensions are in mm

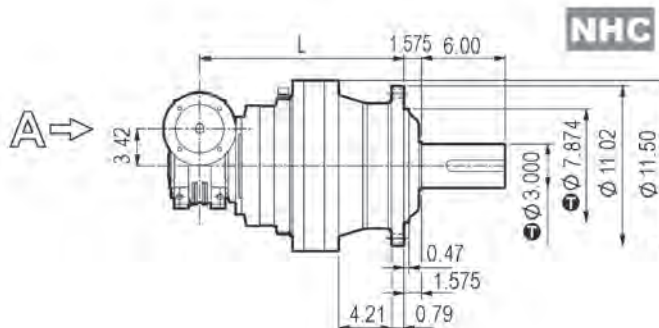
	L			Kg	P71	P80	P90	P100	P112				
	MC - MZ	PC - PZ	HC - HZ							FP - FZ - FDK	P	P	P
3/V 06 L3	370	445	405	370	80	111	95	80	160	200	200	250	250

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 06 L3	324	385	138	349	—	156	392	—	193	424	—	193

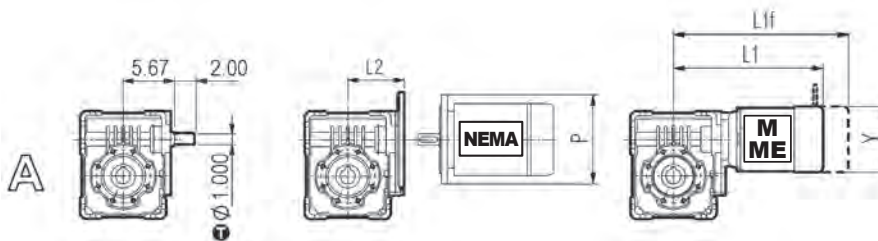
3/V 06 L3



NPC



NHC

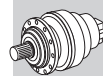


inch	Ⓜ
7.874	-0.00197 -0.00378
3.000	0 -0.00075
1.000	0 -0.00051

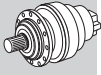
Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs		N56 C		N140TC		N180TC		N210TC	
	NPC	NHC	NPC	NHC	P	L2	P	L2	P	L2	P	L2
3/V 06 L3	17.52	15.94	244.8	209.5	6.54	5.37	6.54	5.37	9.02	5.37	9.02	6.08

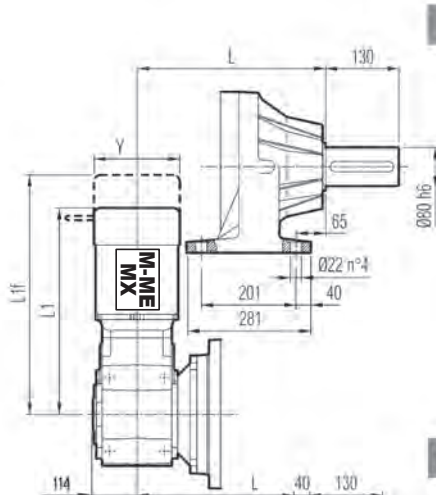
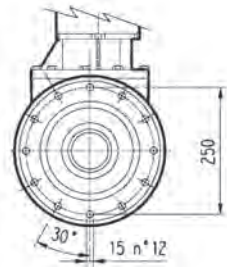
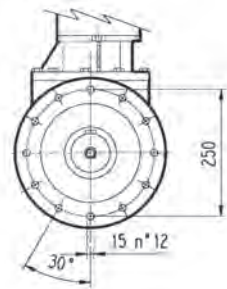
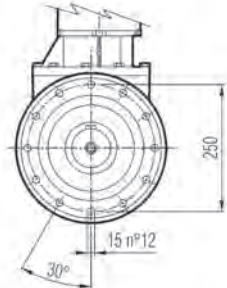
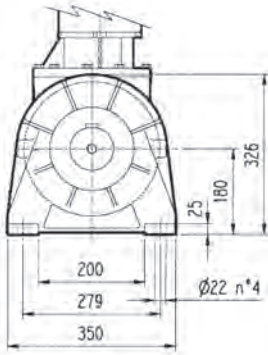
	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 06 L3	12.76	15.16	5.43	13.74	—	6.14	15.43	—	7.60	16.69	—	7.60



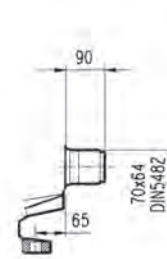
3/A 06 L2



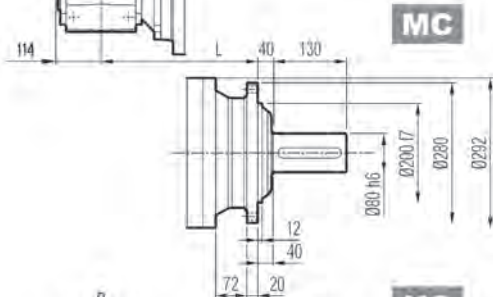
Metric



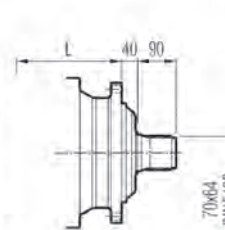
PC



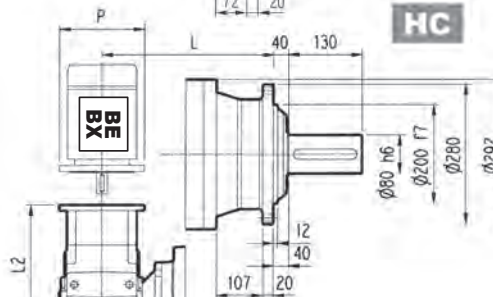
PZ



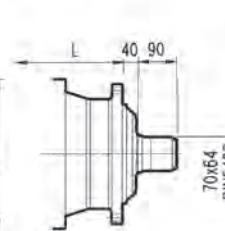
MC



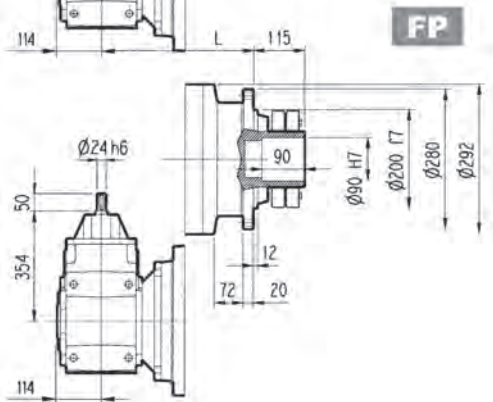
MZ



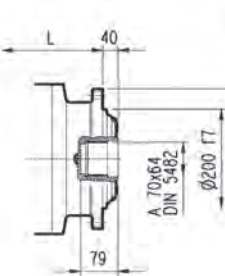
HC



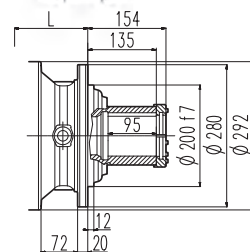
HZ



FP



FZ



FDK

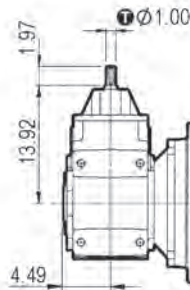
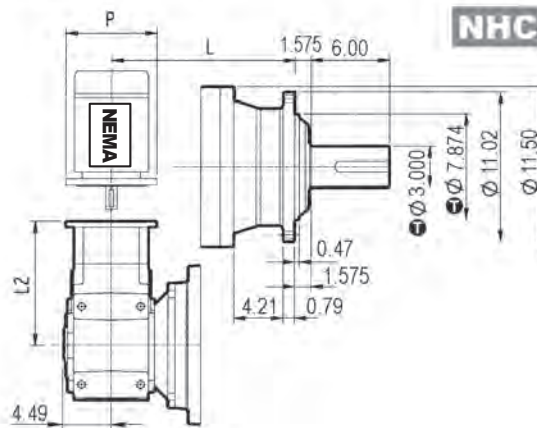
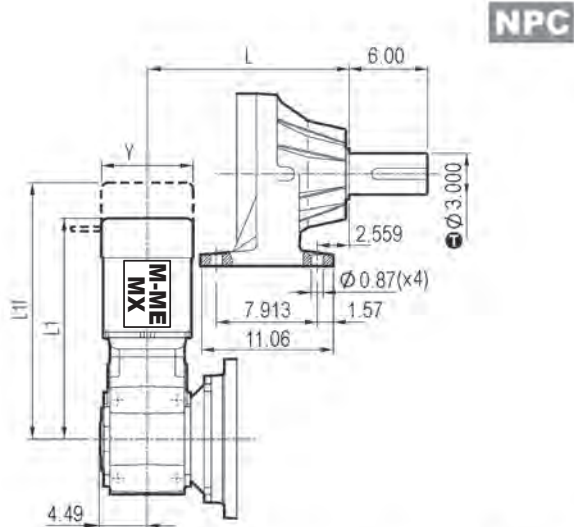
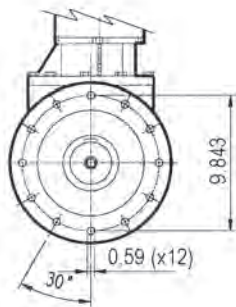
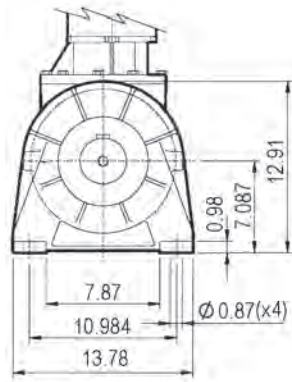
FP

T_{2max} = 106,210 lb·in

Dimensions are in mm

3/A 06 L2	L								Kg									
	MC - MZ		PC - PZ		HC - HZ		FP - FZ - FDK		MC - MZ		PC - PZ		HC - HZ		FP - FZ - FDK			
	340		415		375		340		140		170		150		140			
	P63		P71		P80		P90		P100		P112		P132		P160		P180	
	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P
3/A 06 L2	314.5	140	314.5	160	334	200	334	200	344	250	344	250	380.5	300	431	350	431	350
	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4					
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/A 06 L2	445	508	138	568	—	156	541	—	195	572	—	195	678	—	258	—	—	—

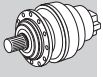
3/A 06 L2



inch	Ⓣ
7.874	-0.00197 -0.00378
3.000	0 -0.00075
1.000	0 -0.00051

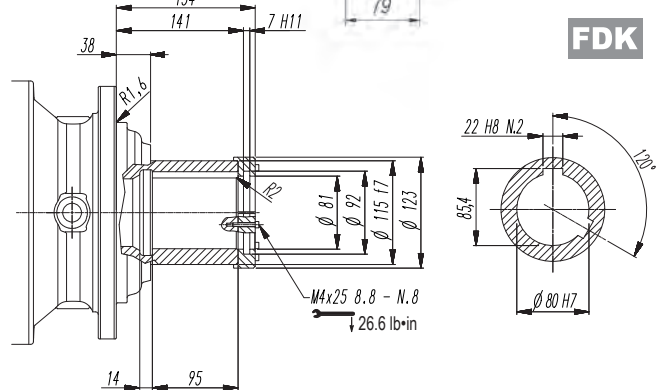
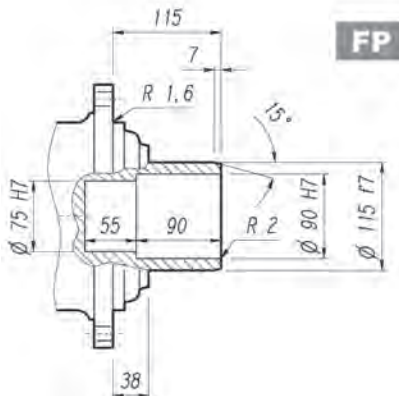
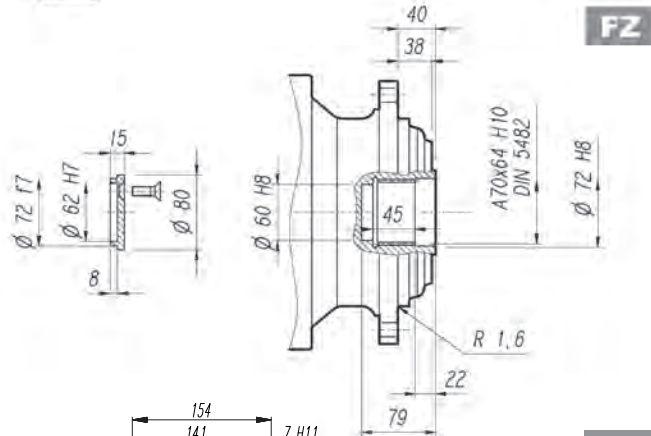
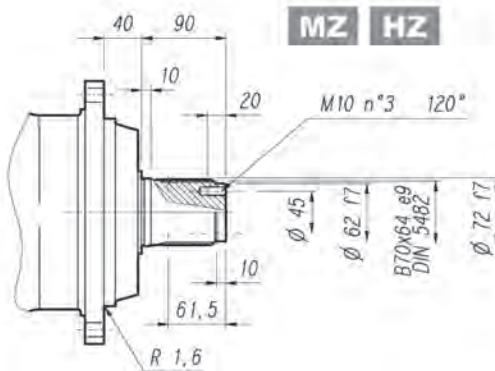
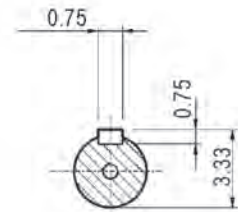
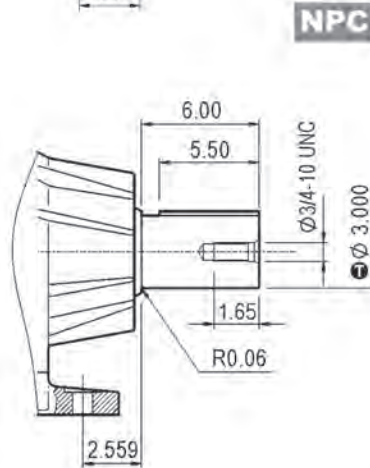
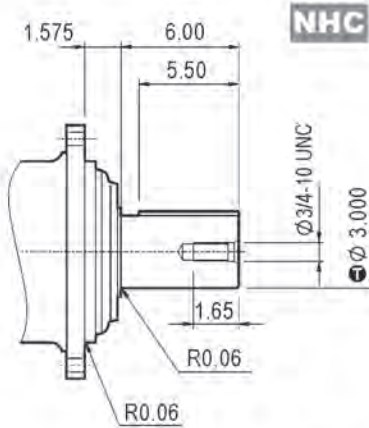
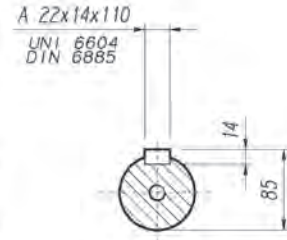
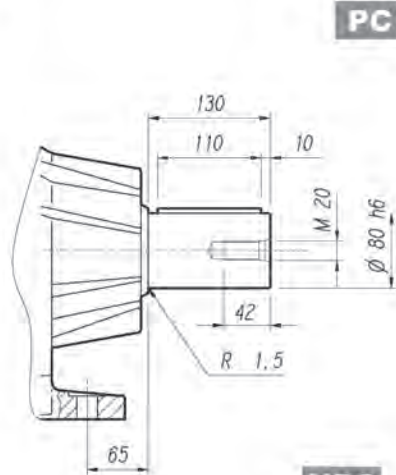
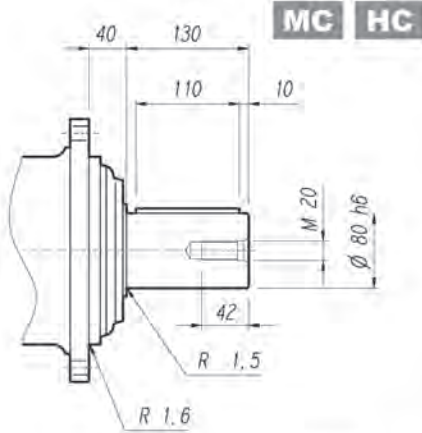
Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs		N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	NPC	NHC	NPC	NHC	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P
3/A 06 L2	16.34	14.76	374.9	330.8	13.17	6.50	13.17	6.50	13.92	9.00	15.16	9.00	17.95	13.78	18.15	13.78
	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	
3/A 06 L2	17.52	20	5.43	22.36	—	6.14	21.30	—	7.68	22.52	—	7.68	26.69	—	10.16	

306 L**306 R****3/V 06 L3****3/A 06 L2**

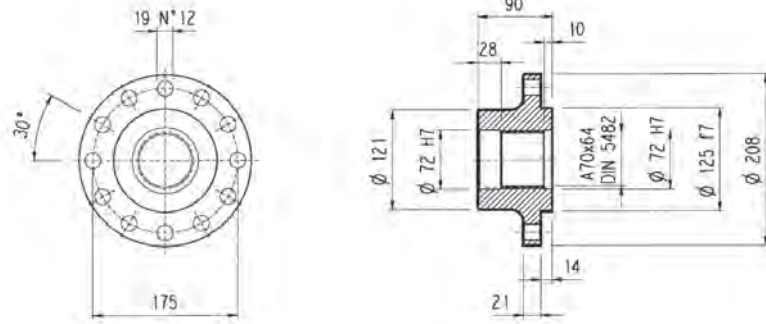
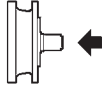
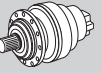
Metric

Imperial

**FP****T_{2max} = 106,210 lb·in**

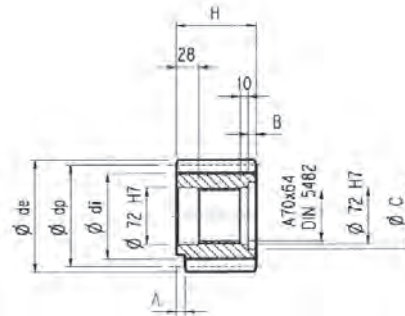
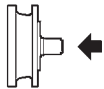
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	T
3.000	0 -0.00075

306 L**306 R****3/V 06 L3****3/A 06 L2****Flange****W0A****Metric**

Material: Steel C40

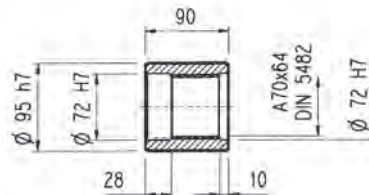
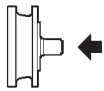
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

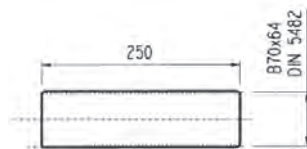
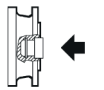
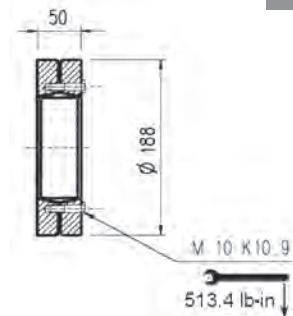
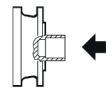
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PFF1	8	15	—	120	100	134	90	—	—	—	Steel 39NiCrMo3 hardened and tempered
PFF2	8	15	0.500	120	108	141	90	—	—	—	
PHB	10	11	0.500	110	95	136	90	10	—	—	
PHC1	10	12	0.450	120	104	145	90	—	—	—	
PHC2	10	12	0.320	120	100	144.2	90	—	—	—	
PHC3	10	12	0.350	120	101	144	90	—	—	—	
PHD1	10	13	0.950	130	124	165	90	—	—	—	
PHD2	10	13	0.500	130	115	159	90	—	—	—	
PHE1	10	14	—	140	115	160	90	—	—	—	Steel 18NiCrMo5 case hardened
PHE2	10	14	0.500	140	125	166	90	—	—	—	
PHF	10	15	—	150	127	167	90	24	—	—	Steel 39NiCrMo3 hardened and tempered
PHH	10	17	0.480	170	154	197.5	90	10	—	—	
PHM	10	20	—	200	175	220	90	10	—	—	Steel 18NiCrMo5 case hardened

Sleeve coupling**M0A**

Material: Steel 16CrNi4

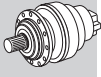
Dimensions are in mm

Splined bars**B0A****Shrink disc****G0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC

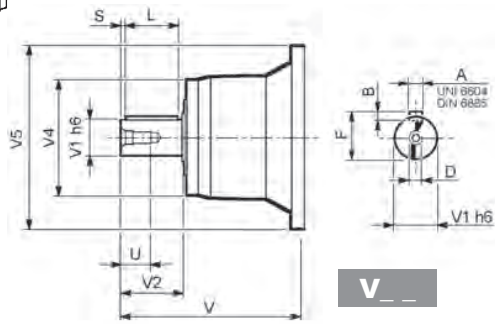
Dimensions are in mm

306 L

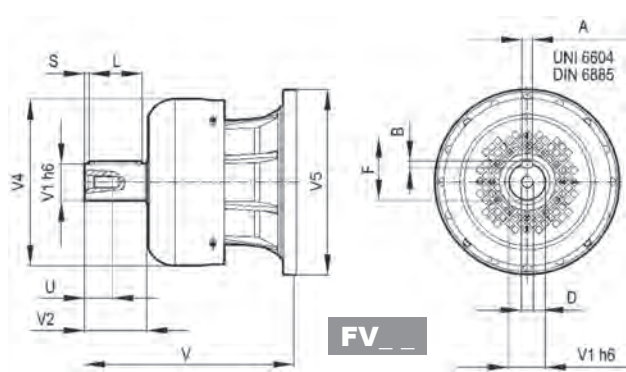
306 R



Metric



V __



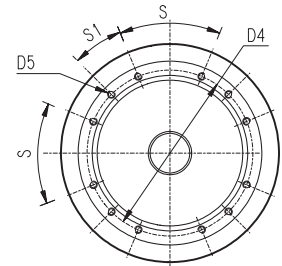
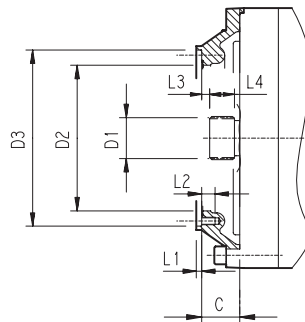
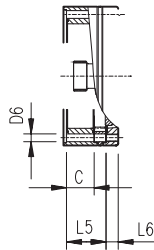
FV __

Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
306 L1	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36
306 L2	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
306 L3	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
306 L4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
306 R2-R3-R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

306 L

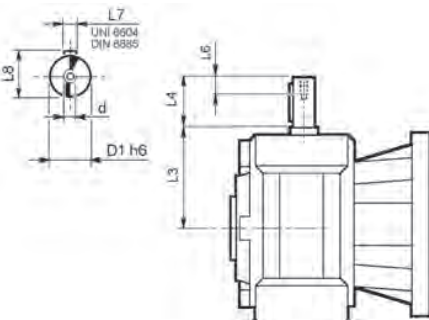
306 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
306 L1	V9AB	45	58x53 DIN5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
306 L2	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	—	4	18	9	18	—	—	45°	45°	A
306 L3	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	53	18	45°	45°	A
306 L4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	106	18	45°	45°	A
306 R2-R3-R4	V9AA	37	40x36 DIN5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

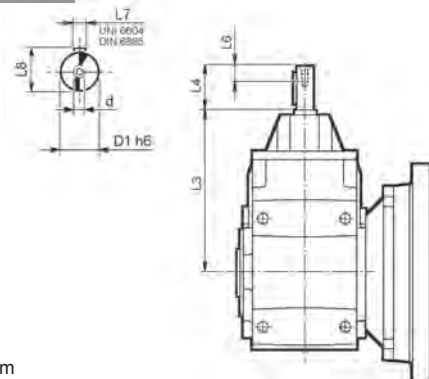
3/V 06 L3



Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/V 06 L3_HS	25	144	50	19	8	28	M8

3/A 06 L2

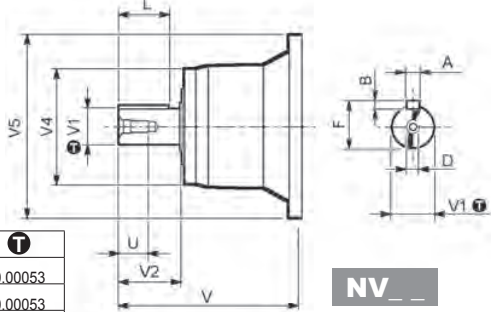


Dimensions are in mm

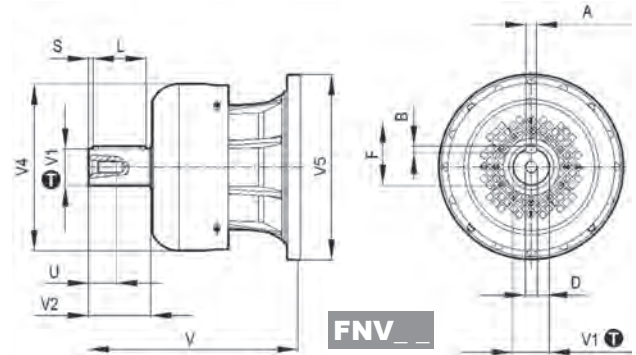
	D1 h6	L3	L4	L6	L7	L8	d
3/A 06 L2_HS	24	354	50	19	8	27	M8

306 L

306 R



NV



FNV

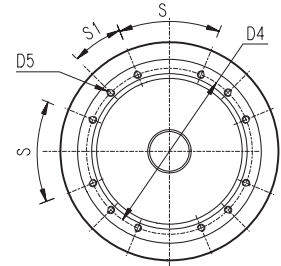
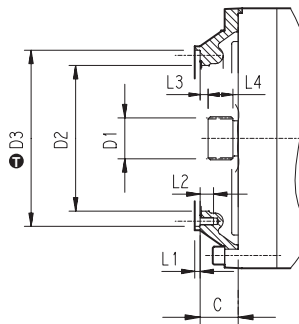
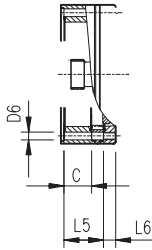
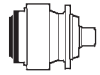
inch	T
2.375	0 -0.00053
1.875	0 -0.00053
1.625	0 -0.00053
1.125	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

		V	V1	V2	V4	V5	A	B	F	L	D	U
306 L1	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4 -10 UNC	1.654
	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4 -10 UNC	1.654
306 L2	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
306 L3	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
306 L4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
306 R2-R3-R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

306 L

306 R

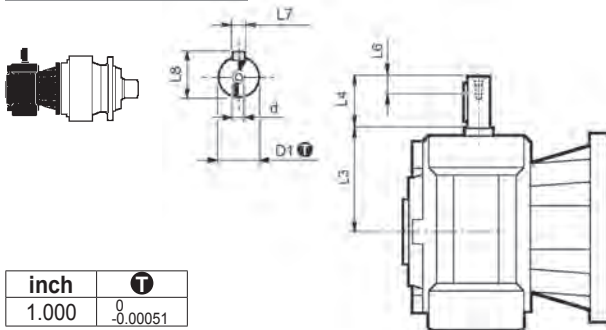


inch	T
9.29	+0.00181 0
7.01	+0.00157 0

Dimensions are in Inch except when shown in *italic* [mm]

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
306 L1	V9AB	1.77	58x53 DIN5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
306 L2	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
306 L3	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	4.65	0.71	45°	45°	A
306 L4	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	6.73	0.71	45°	45°	A
306 R2-R3-R4	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 06 L3

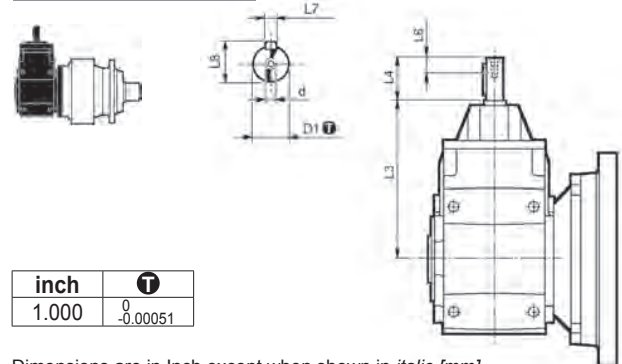


inch	T
1.000	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

	D1	L3	L4	L6	L7	L8	d
3/V 06 L3_NHS	1.000	5.67	1.969	0.75	0.250	1.109	3/8-16UNC

3/A 06 L2



inch	T
1.000	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

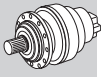
	D1	L3	L4	L6	L7	L8	d
3/A 06 L2_NHS	1.000	13.92	1.969	0.75	0.250	1.109	3/8-16UNC

306 L

306 R

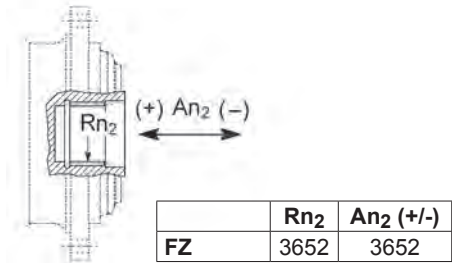
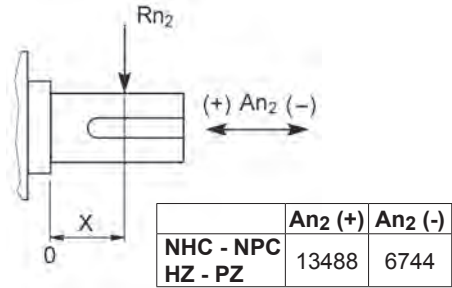
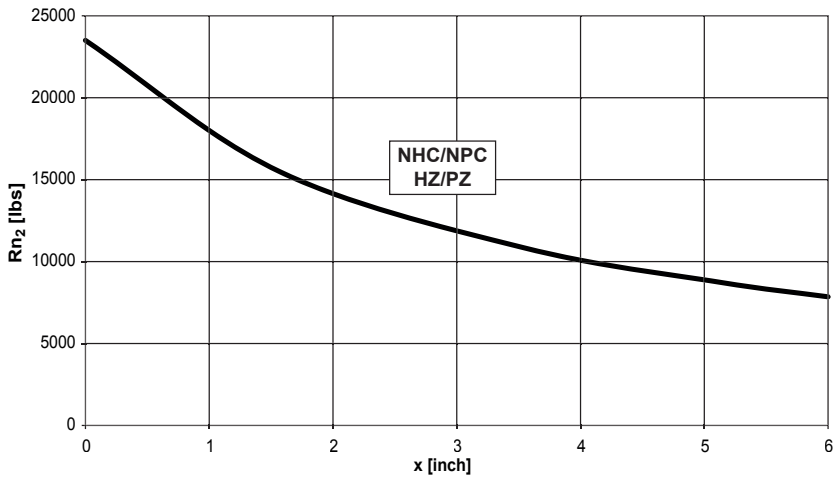
3/V 06 L3

3/A 06 L2



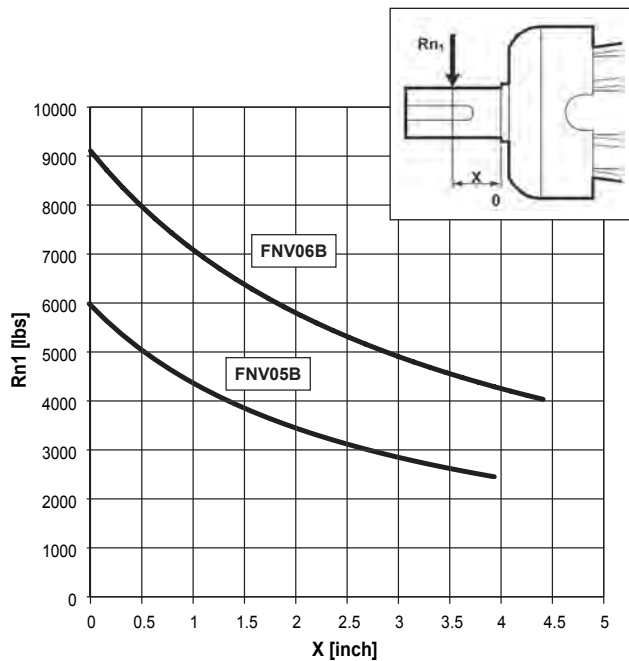
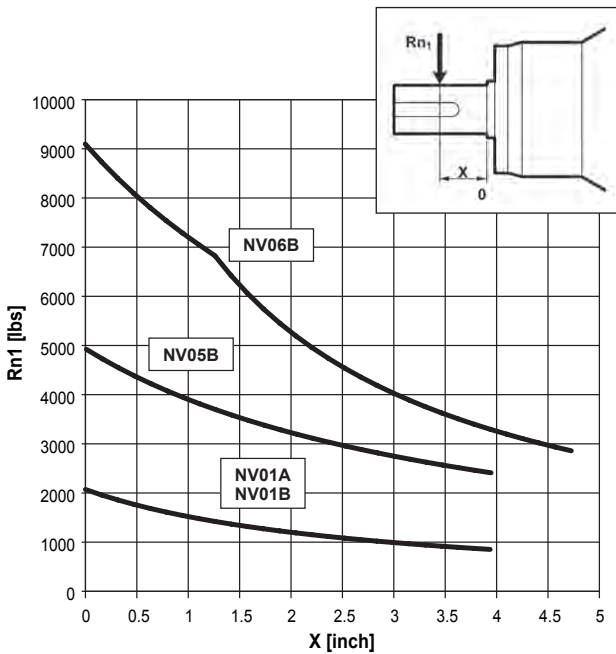
Imperial

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$

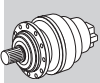
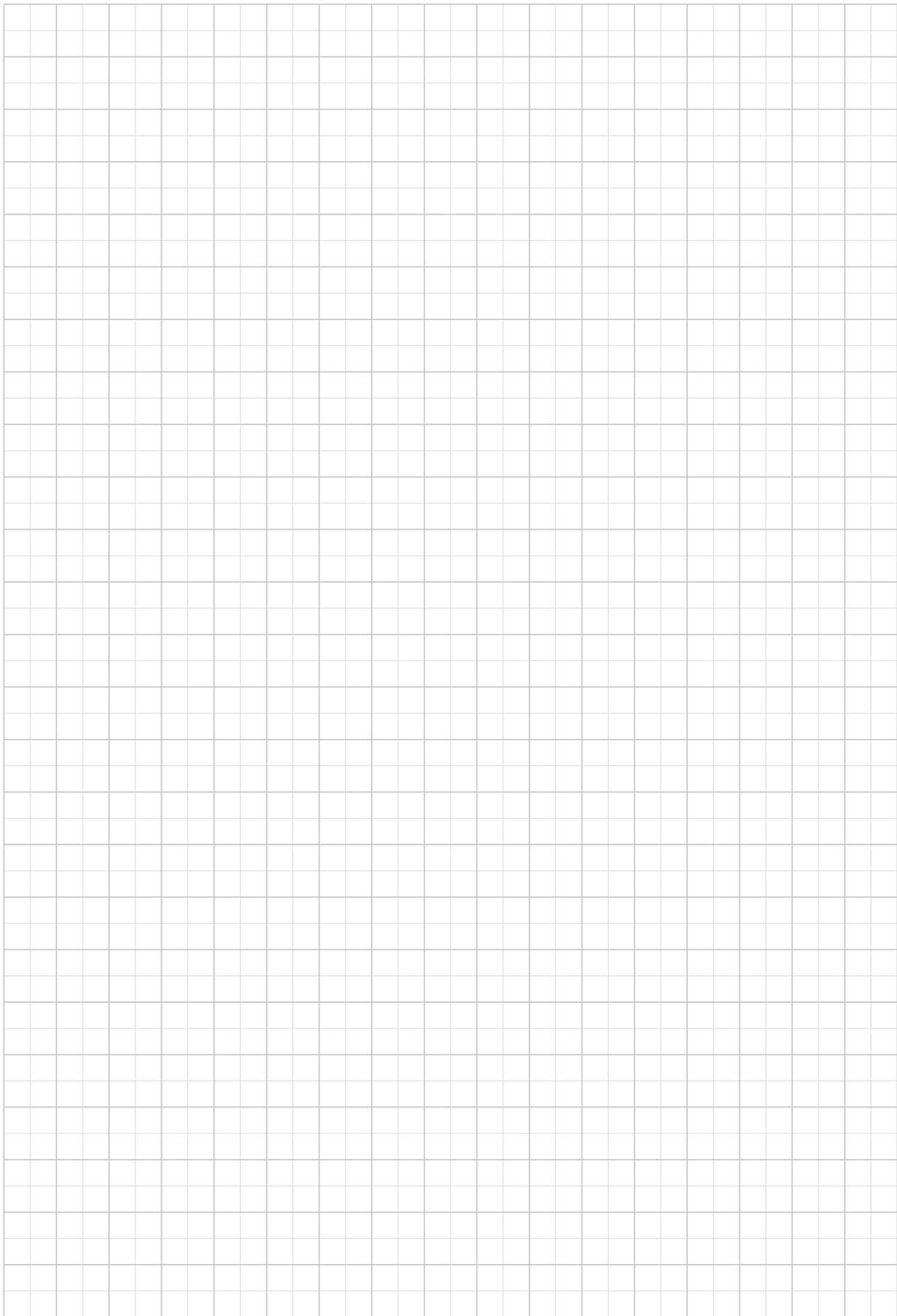


Load corrective factor fh_2 on shafts	$Fh_2 = n_2 \cdot h$						
	fh_2	10000	25000	50000	100000	500000	1000000
	FZ	2.15	1.59	1.26	1.00	0.58	0.46
	NHC - NPC - HZ - PZ	1.34	1.34	1.23	1.00	0.62	0.50

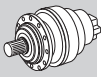
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



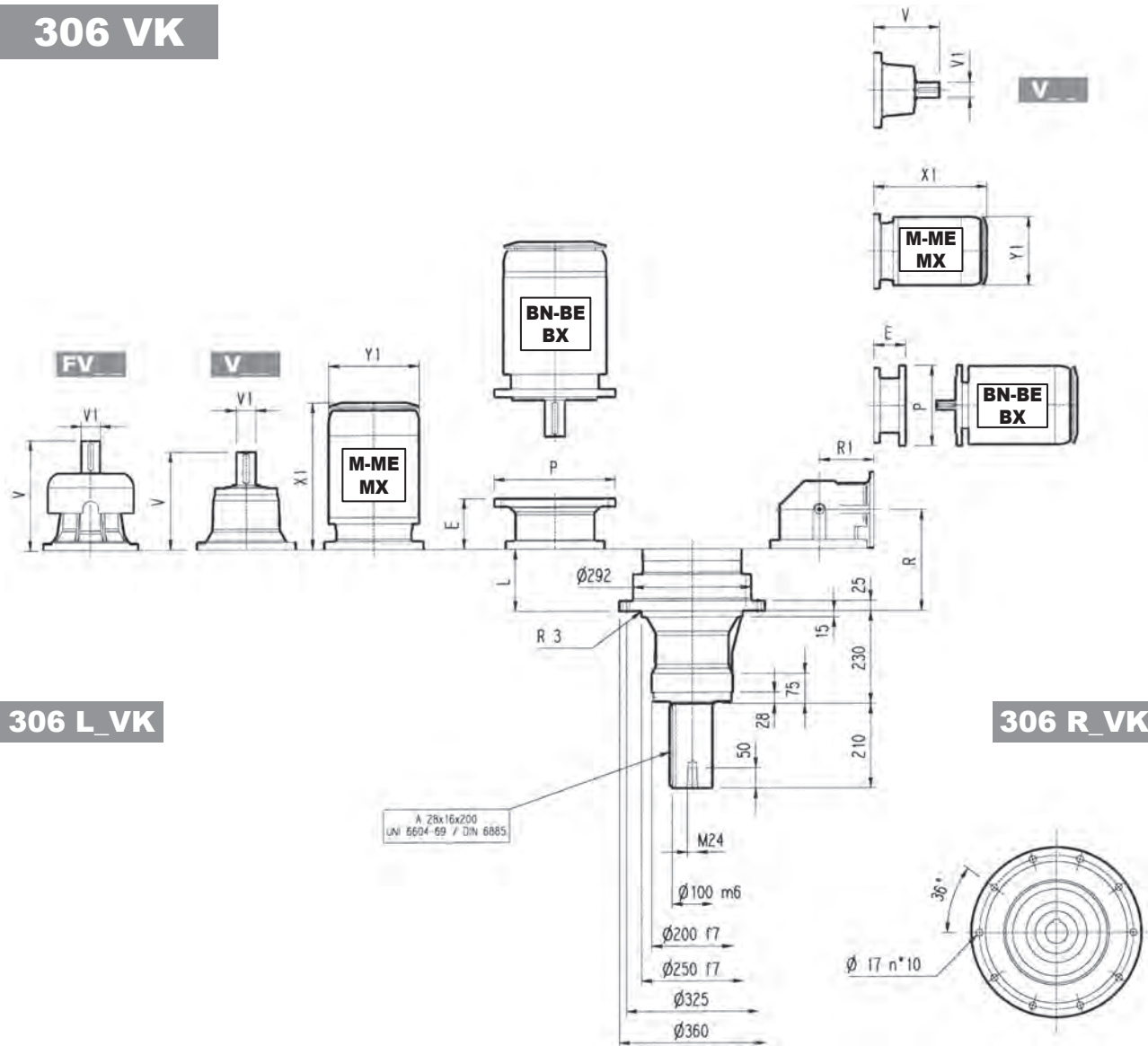
Load corrective factor fh_1 on shafts	$Fh_1 = n_1 \cdot h$						
	fh_1	250000	500000	1000000	2000000	5000000	10000000
		1	0.79	0.63	0.50	0.37	0.29



306 VK



Metric



306 L_VK

306 R_VK

A 28x16x200
UNI 6604-69 / DIN 6885

Dimensions are in mm

	L		V		V1		Kg		V		V1		Kg		P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	mm	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
306 L1	75	110	307	60	23	—	—	—	357	60	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
306 L2	140	120	239	48	15	—	—	—	276	48	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
306 L3	193	125	137.5	24	6	158	38	7	—	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	
306 L4	246	130	137.5	24	6	158	38	7	—	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
306 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
306 L2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
306 L3	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	552	—	310	596	—	310
306 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—

	R		Kg	V		V1		Kg		P71		P80		P90		P100		P112		P132		P160	
	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
306 R2	212	140	90	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300	144	350
306 R3	232	140	92	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300	144	350
306 R4	285	122	95	137.5	24	6	158	38	7	65	160	84	200	84	200	94	250	94	250	114	300	144	350

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
306 R2	—	—	—	328	—	156	373	—	195	405	—	195	508	—	258
306 R3	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258
306 R4	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258

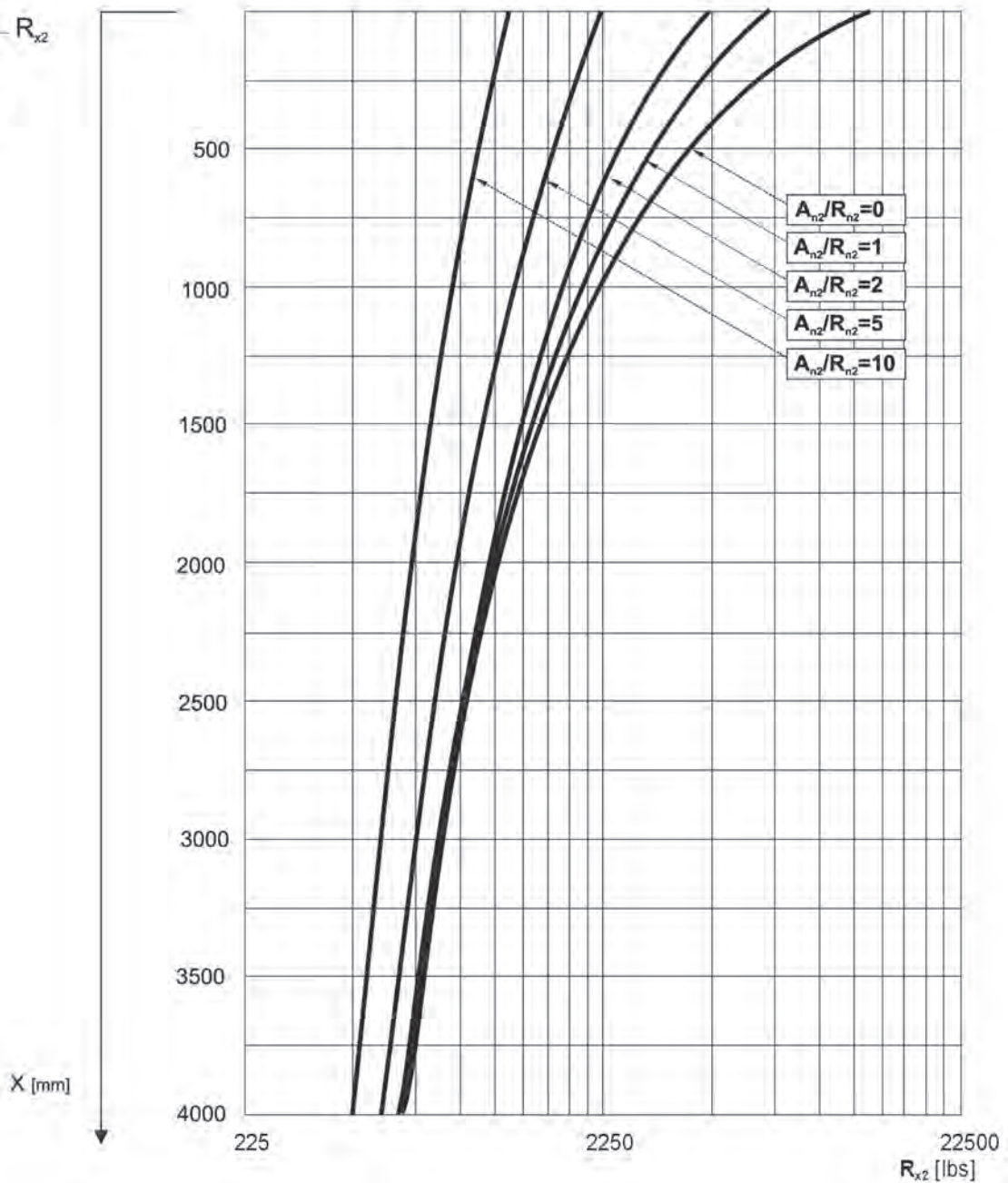
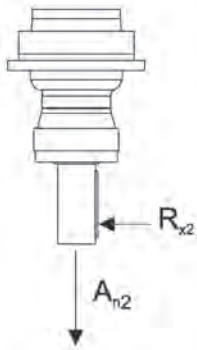
306 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

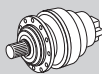
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



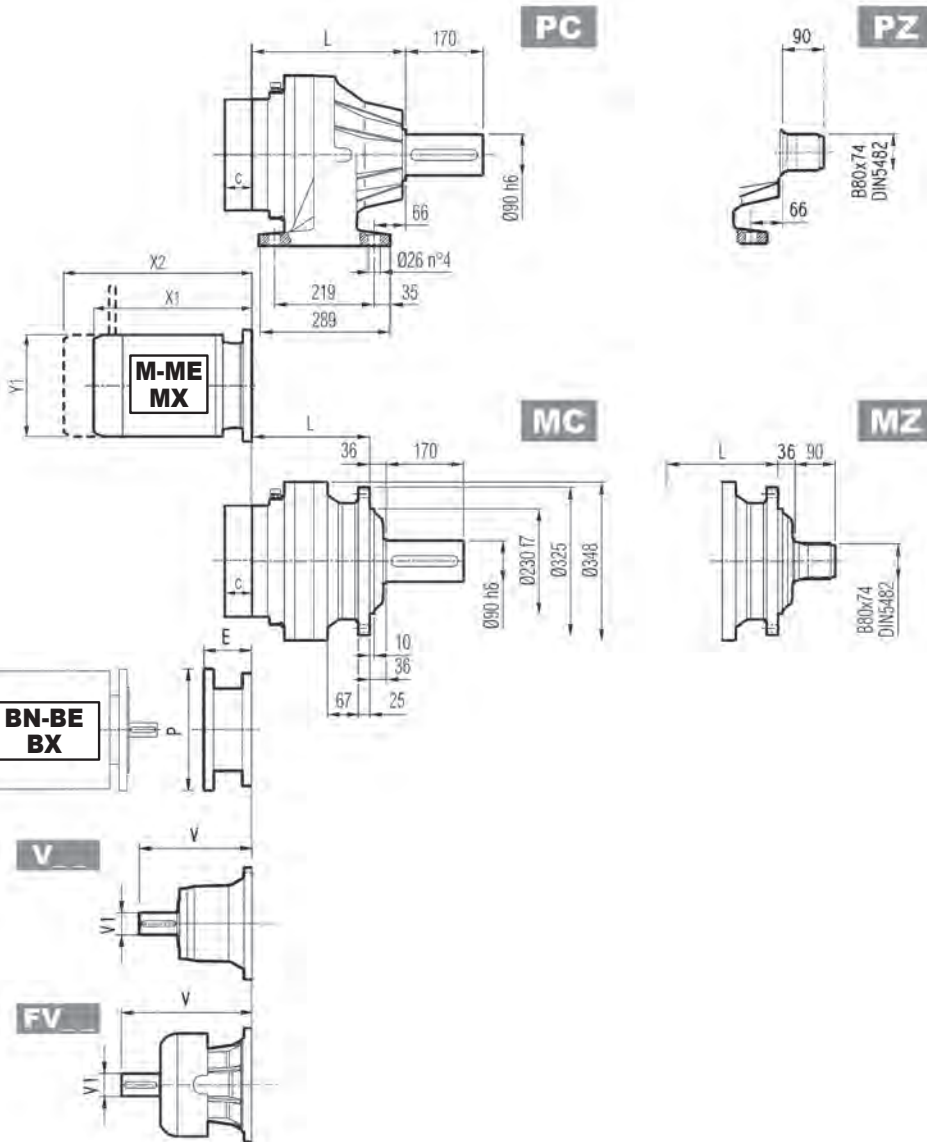
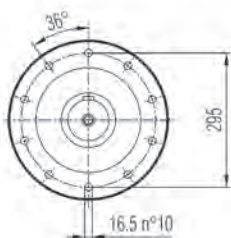
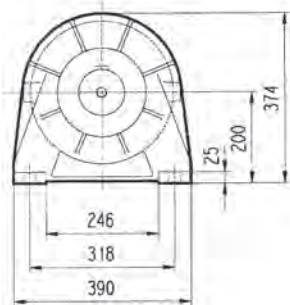
Metric



307 L



Metric

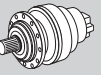
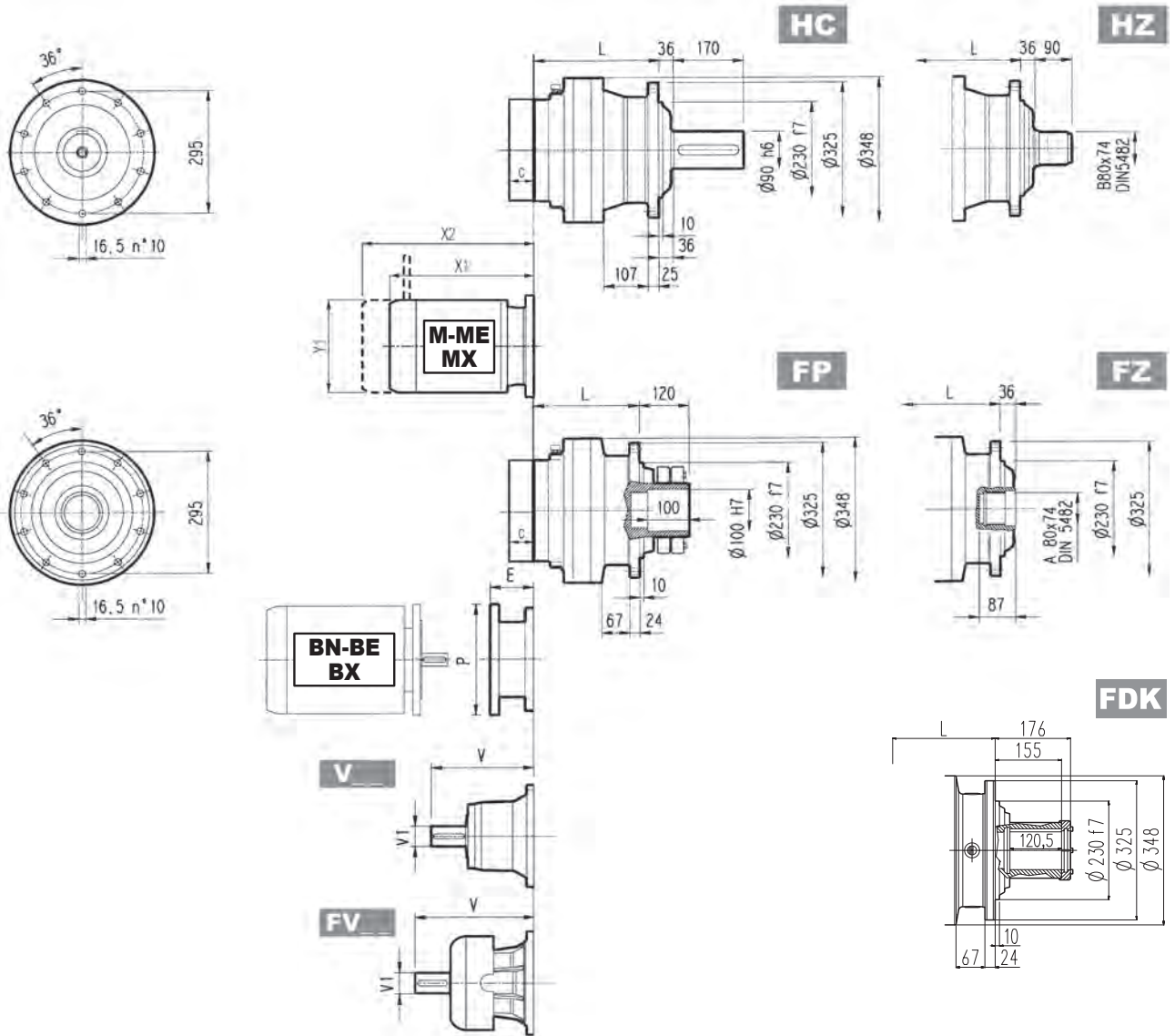


Dimensions are in mm

	L				Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
307 L1	165	246	210	165	85	120	105	85
307 L2	254	335	299	254	97	132	117	97
307 L3	319	400	364	319	104	139	124	104
307 L4	372	453	417	372	108	143	128	108

													C	Input
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg		
307 L1	315	80	35	313	60	28	375	80	48	363	60	34	51	B
307 L2	239	48	15	—	—	—	276	48	17	—	—	—	37	A
307 L3	137.5	24	6	158	38	7	—	—	—	—	—	—	37	A
307 L4	137.5	24	6	158	38	7	—	—	—	—	—	—	37	A

307 L



Metric

FP

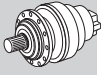
T_{2max} = 161,080 lb·in

Dimensions are in mm

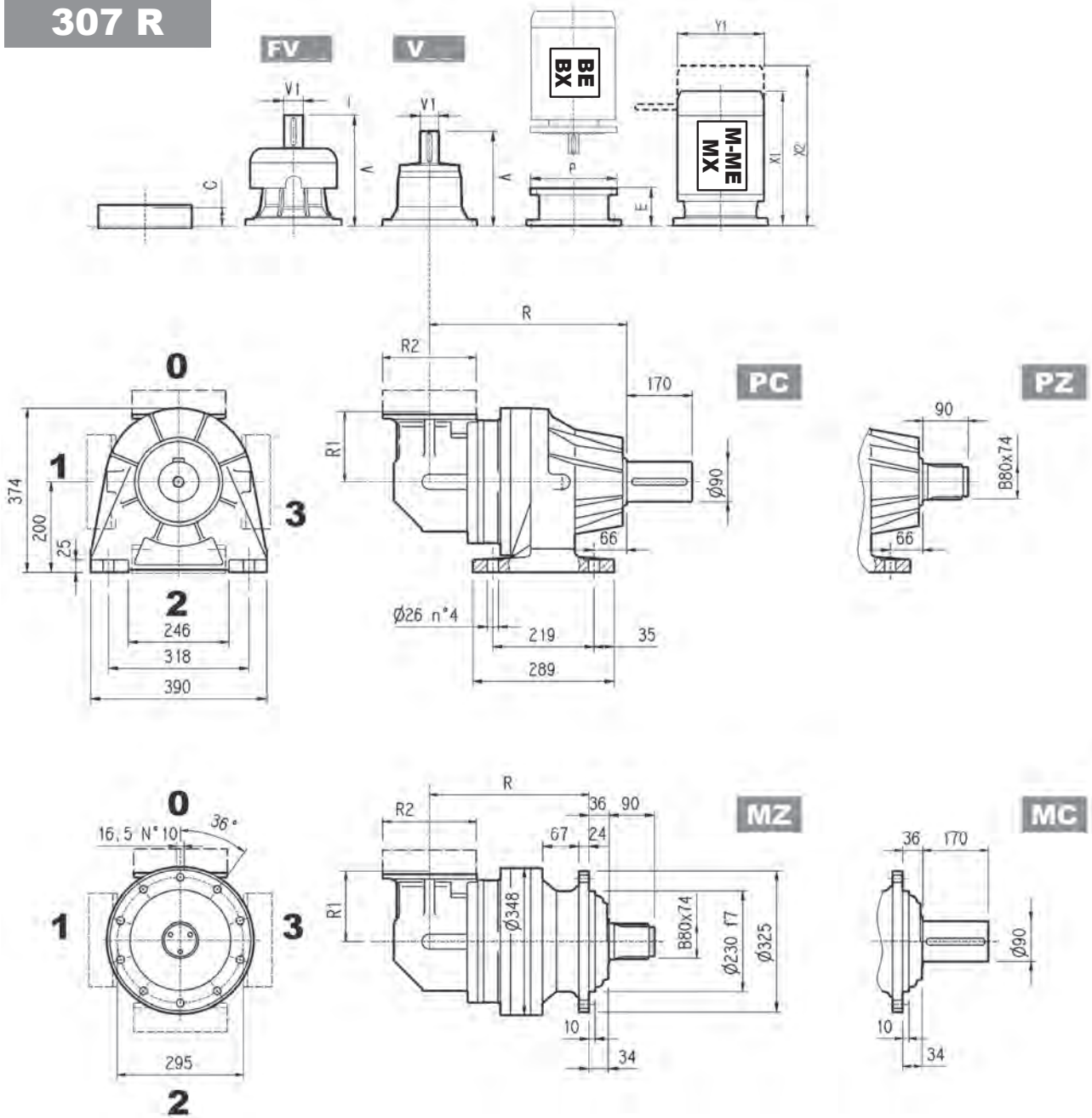
	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
307 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	195	350	186	400	216	450	215	550
307 L2	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—
307 L3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—
307 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L			
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	
307 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
307 L2	—	—	—	—	—	—	—	—	—	—	—	—	—	460	—	258	552	—	310	596	—	310
307 L3	—	—	—	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—
307 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—	—

307 R



Metric

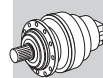
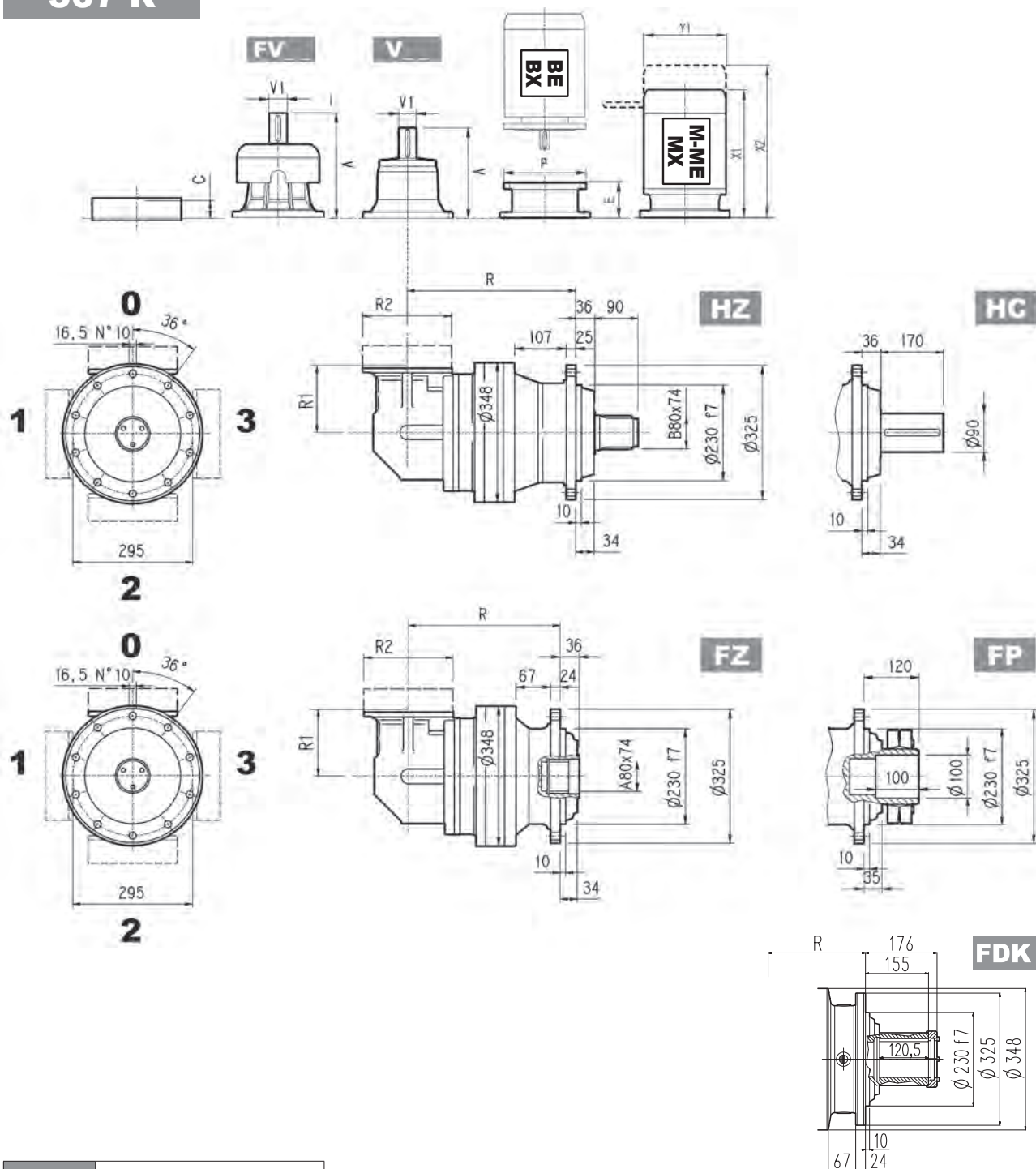


Dimensions are in mm

	R				R1	R2	Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK			MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
307 R2	284	365	329	284	225	245	135	170	155	135
307 R3	346	427	391	346	140	186	117	152	137	117
307 R4	411	492	456	411	122	186	118	153	138	118

	V			V1			V			V1			C	Input
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg		
307 R2	239	48	15	—	—	—	276	48	17	37	A			
307 R3	137.5	24	6	158	38	7	—	—	—	37	A			
307 R4	137.5	24	6	158	38	7	—	—	—	37	A			

307 R



Metric

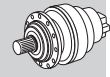
FP $T_{2max} = 161,080 \text{ lb}\cdot\text{in}$

Dimensions are in mm

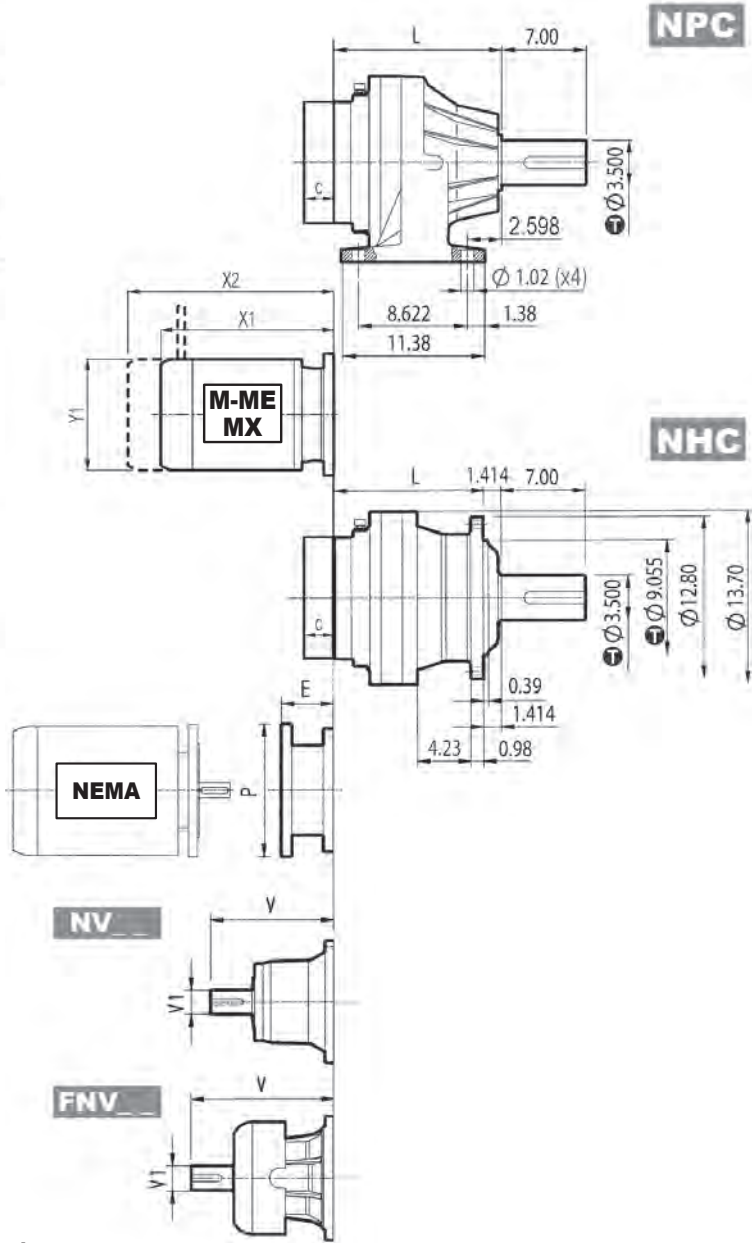
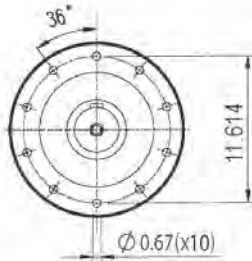
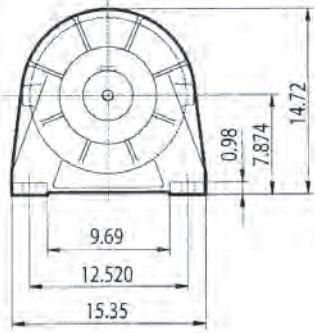
	P71		P80		P90		P100		P112		P132		P160		P180		P200	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
307 R2	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400
307 R3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—
307 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
307 R2	—	—	—	—	—	—	—	—	—	—	—	—	508	—	258	552	—	310	596	—	310
307 R3	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258	—	—	—	—	—	—
307 R4	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258	—	—	—	—	—	—

307 L



Imperial



inch	Ⓜ
9.055	-0.00197 -0.00378
3.500	0 -0.00087

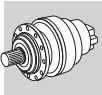
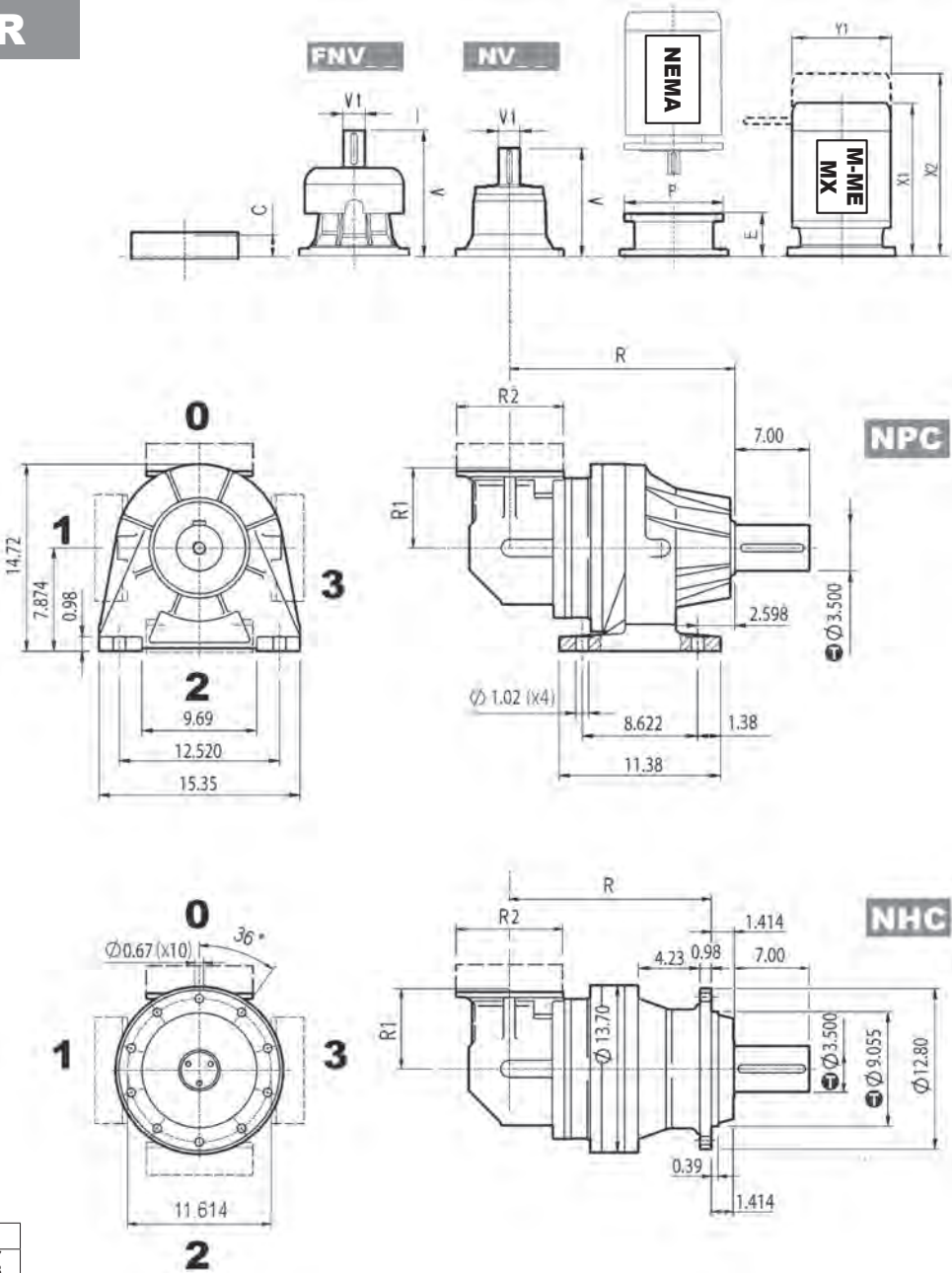
Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs		V		V1		lbs		V		V1		lbs		C	Input
	NPC	NHC	NPC	NHC	V	V1	V	V1	V	V1	V	V1	V	V1				
307 L1	9.67	8.27	264.6	231.5	12.283	3.000	77.2	13.130	2.375	29.8	14.646	3.000	90.0	15.104	2.375	38.0	1.772	B
307 L2	13.19	11.77	291.1	258.0	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	—	—	—	1.457	A
307 L3	15.75	14.33	306.5	273.4	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	—	—	—	1.457	A
307 L4	17.83	16.42	315.3	282.2	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	—	—	—	1.457	A

	N56C		N140TC		N180TC		N210TC		N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
307 L1	—	—	—	—	—	—	—	—	—	—	—	—	7.78	13.78	7.78	13.78
307 L2	—	—	—	—	—	—	—	—	5.22	11.81	6.22	13.78	—	—	—	—
307 L3	4.67	6.69	4.67	6.69	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81	—	—	—	—
307 L4	4.67	6.69	4.67	6.69	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81	—	—	—	—

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
307 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
307 L2	—	—	—	—	—	—	—	—	—	—	—	—	18.11	—	10.16	21.73	—	12.20	23.46	—	12.20
307 L3	—	—	—	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—
307 L4	9.96	12.36	5.43	11.02	—	6.14	12.80	—	7.68	14.06	—	7.68	18.11	—	10.16	—	—	—	—	—	—

307 R



Imperial

inch	Ⓜ
9.055	-0.00197 -0.00378
3.500	0 -0.00087

Dimensions are in Inch except when shown in *italic* [mm]

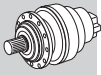
	R		R1	R2	lbs	
	NPC	NHC			NPC	NHC
307 R2	14.37	12.95	8.86	9.65	374.9	341.8
307 R3	16.81	15.39	5.51	7.32	335.2	302.1
307 R4	19.37	17.95	4.80	7.32	337.4	304.3

	Ⓜ						Ⓜ			Ⓜ	
	V	V1	lbs	V	V1	lbs	V	V1	lbs	C	Input
307 R2	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	1.457	A
307 R3	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A
307 R4	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A

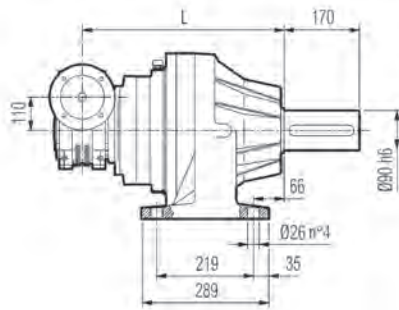
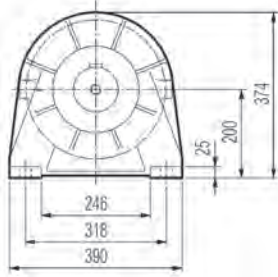
	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
307 R2	4.67	6.69	4.67	6.69	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
307 R3	4.67	6.69	4.67	6.69	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81
307 R4	4.67	6.69	4.67	6.69	5.22	8.82	5.22	8.82	5.22	8.82	6.12	11.81

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
307 R2	—	—	—	—	—	—	—	—	—	—	—	—	20	20	10.16	21.73	—	12.20	23.46	—	12.20
307 R3	9.96	12.36	5.43	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	20	—	10.16	—	—	—	—	—	—
307 R4	9.96	12.36	5.43	12.91	—	6.14	14.68	—	7.68	15.94	—	7.68	20	—	10.16	—	—	—	—	—	—

3/V 07 L3



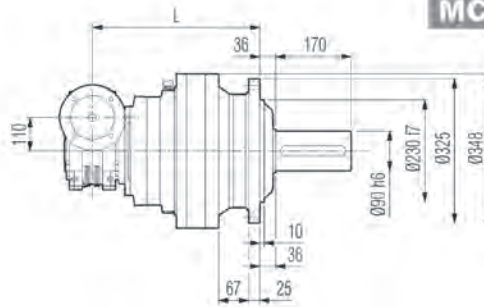
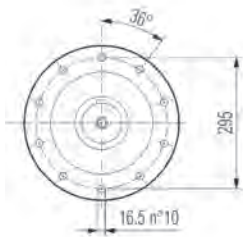
Metric



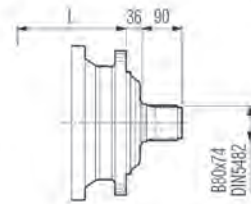
PC



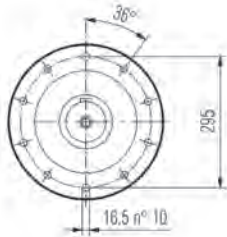
PZ



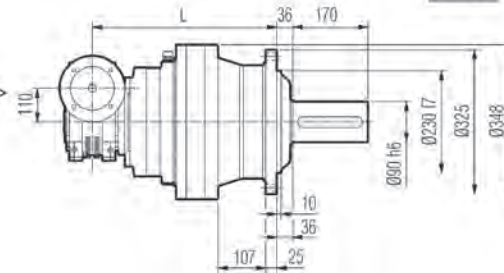
MC



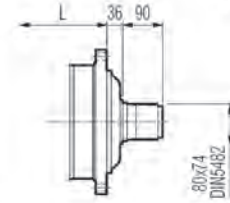
MZ



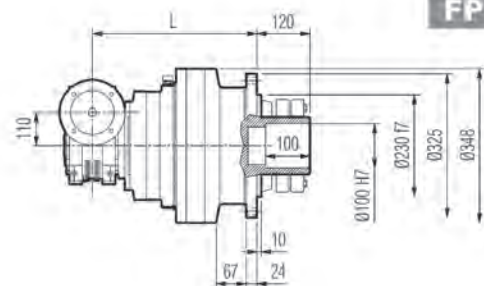
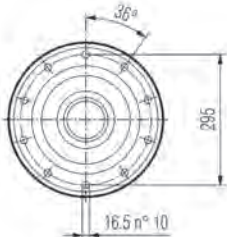
A →



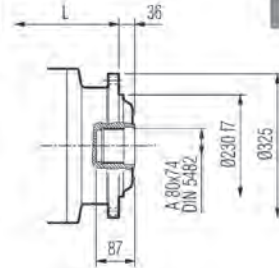
HC



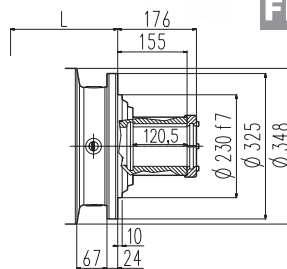
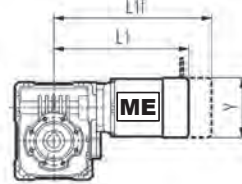
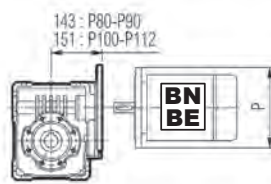
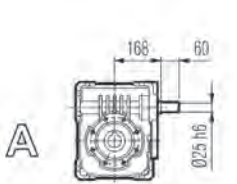
HZ



FP



FZ



FDK

FP

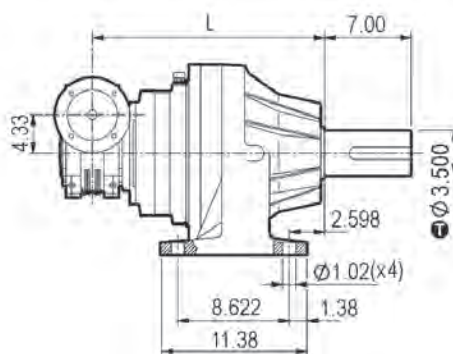
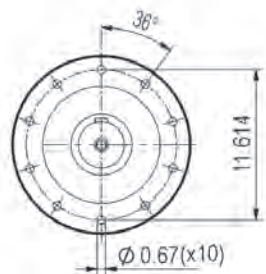
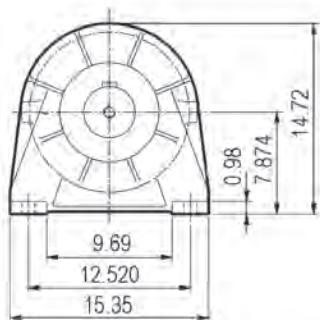
$T_{2max} = 161,080 \text{ lb}\cdot\text{in}$

Dimensions are in mm

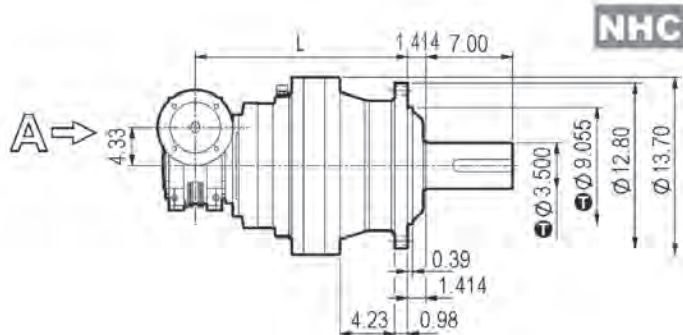
	L				Kg	P80	P90	P100	P112
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK					
3/V 07 L3	414	495	459	414	130	200	200	250	250

	S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 07 L3	364	—	156	407	—	193	439	—	193

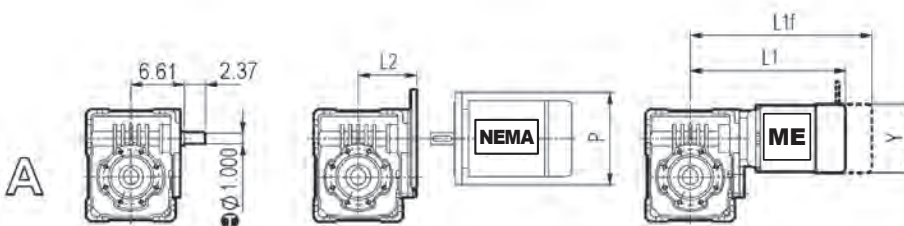
3/V 07 L3



NPC



NHC

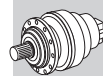


inch	Ⓜ
9.055	-0.00197 -0.00378
3.500	0 -0.00087
1.000	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

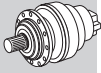
	L		lbs		N140TC		N180TC		N210TC	
	NPC	NHC	NPC	NHC	P	L2	P	L2	P	L2
3/V 07 L3	19.49	18.07	363.8	330.8	6.54	5.96	9.02	6.67	9.02	9.17

	S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 07 L3	14.33	—	6.14	16.024	—	7.59	17.28	—	7.59

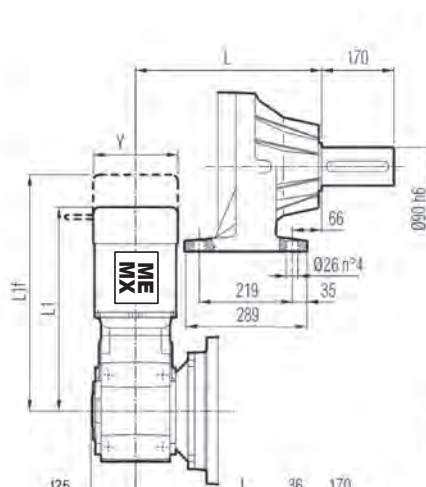
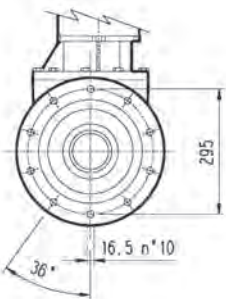
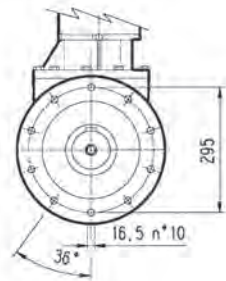
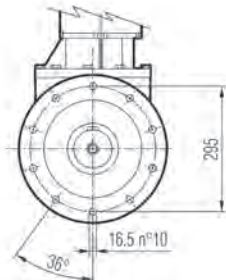
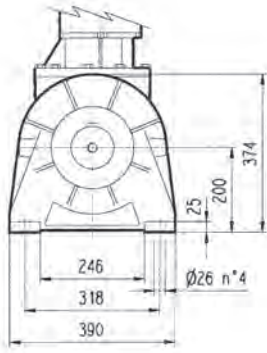


Imperial

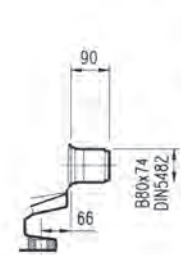
3/A 07 L2



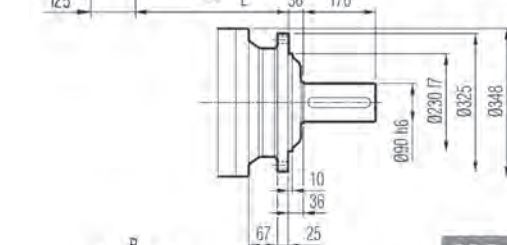
Metric



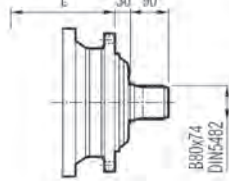
PC



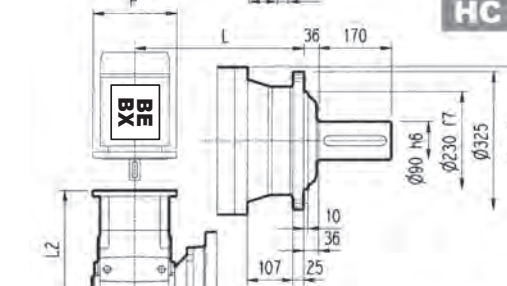
PZ



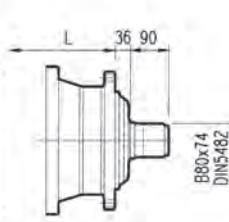
MC



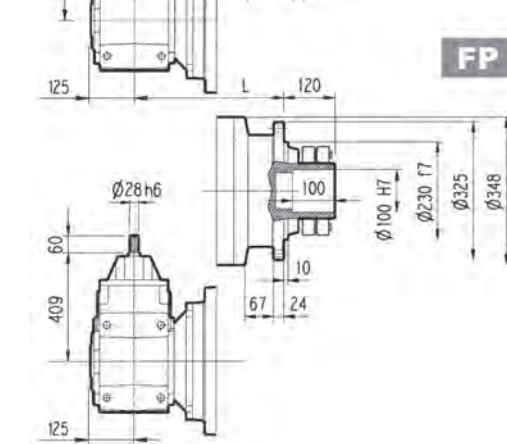
MZ



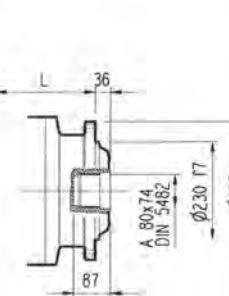
HC



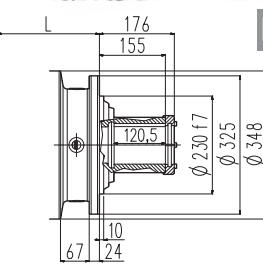
HZ



FP



FZ



FDK

FP T_{2max} = 161,080 lb·in

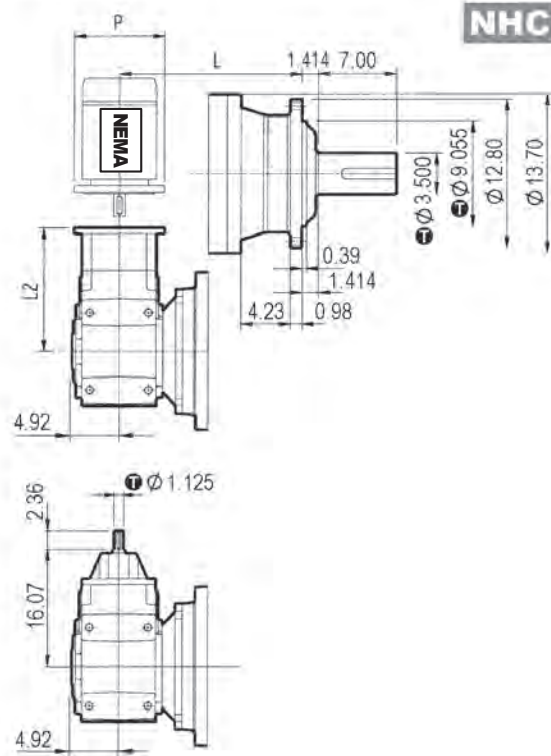
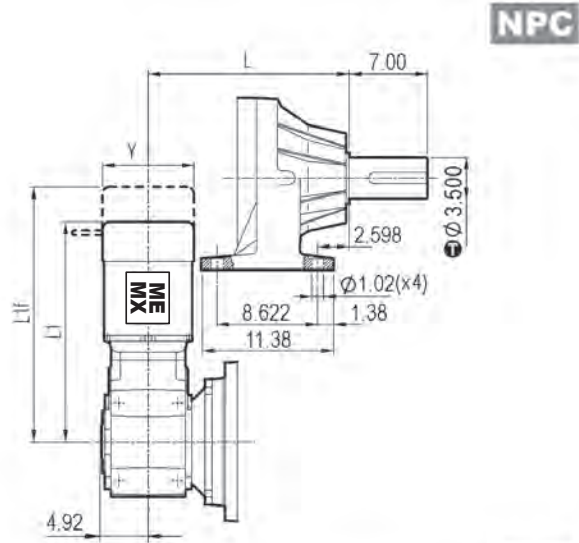
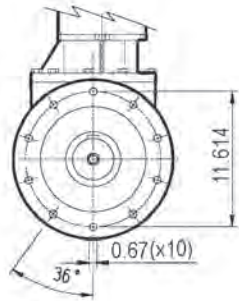
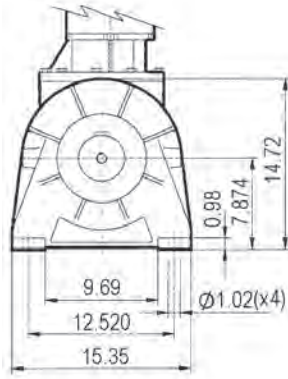
Dimensions are in mm

	L				Kg			
	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK	MC - MZ	PC - PZ	HC - HZ	FP - FZ - FDK
3/A 07 L2	336	417	381	336	200	230	210	200

	P80		P90		P100		P112		P132		P160		P180	
	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P
3/A 07 L2	371	200	371	200	381	250	381	250	416.5	300	468	350	468	350

	S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/A 07 L2	535	—	156	578.5	—	195	610.5	—	195	718.5	—	258	970	—	—	1014	—	—

3/A 07 L2

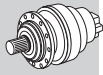


inch	Ⓜ
9.055	-0.00197 -0.00378
3.500	0 -0.00087
1.125	0 -0.00051

Dimensions are in Inch except when shown in *italic [mm]*

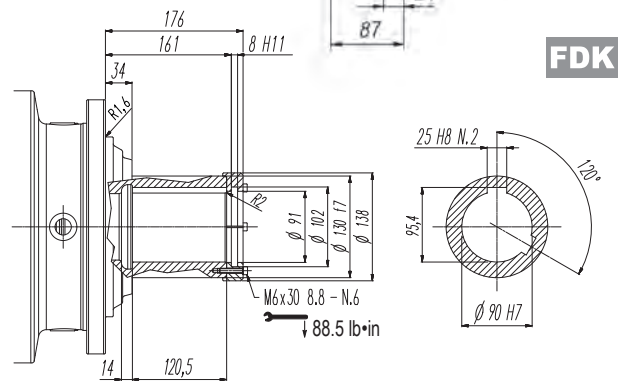
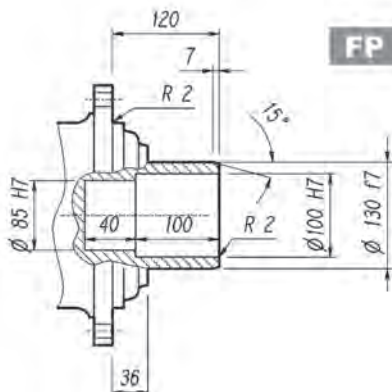
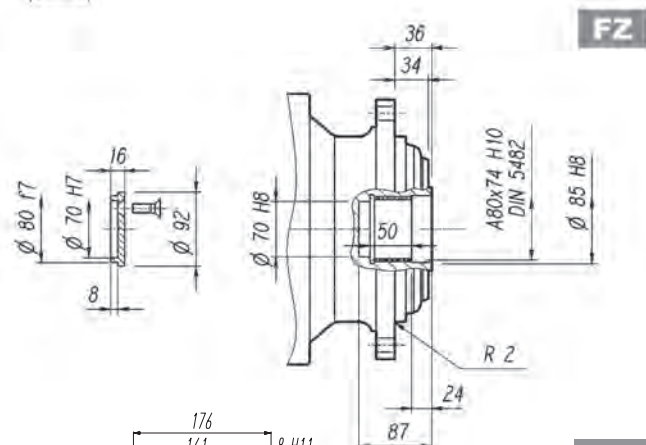
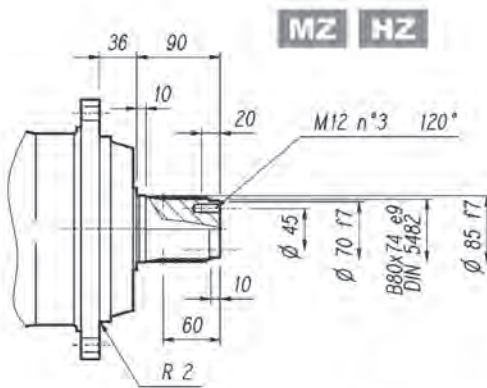
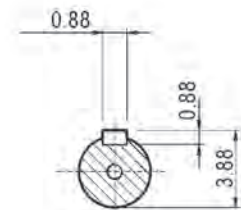
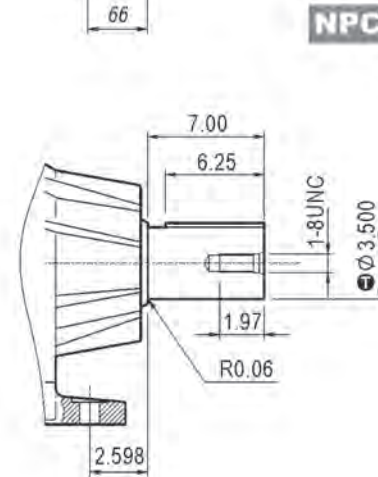
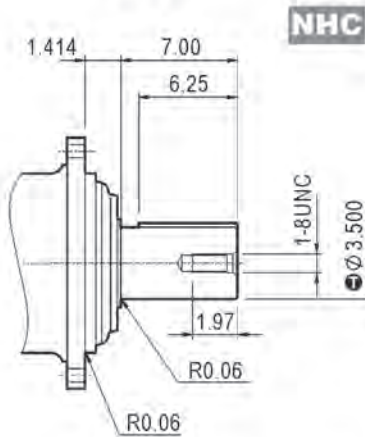
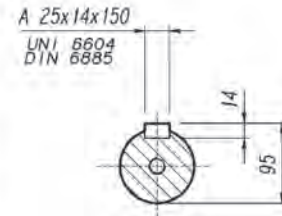
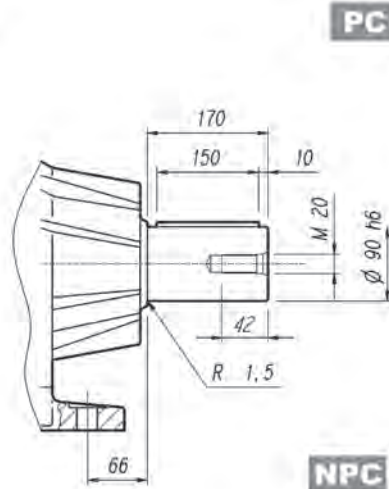
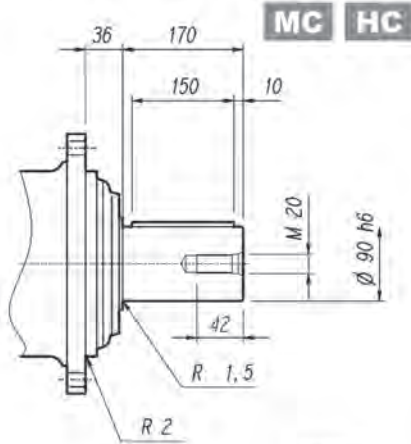
	L		lbs		N140TC		N180TC		N210TC		N250TC		N280TC	
	NPC	NHC	NPC	NHC	L2	P	L2	P	L2	P	L2	P	L2	P
3/A 07 L2	16.42	15.00	507.2	463.1	14.63	6.50	15.37	9.00	16.61	9.00	19.41	13.78	19.61	13.78

	S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/A 07 L2	21.06	—	6.14	22.78	—	7.68	24.04	—	7.68	28.29	—	10.16	38.19	—	—	39.92	—	—

307 L**307 R****3/V 07 L3****3/A 07 L2**

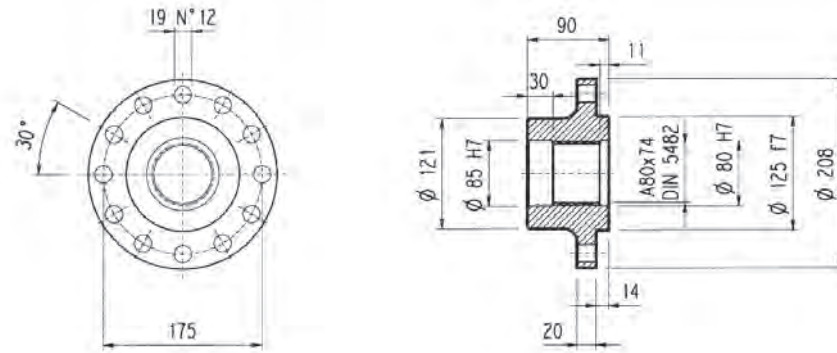
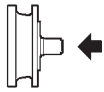
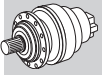
Metric

Imperial

**FP****T_{2max} = 161,080 lb·in**

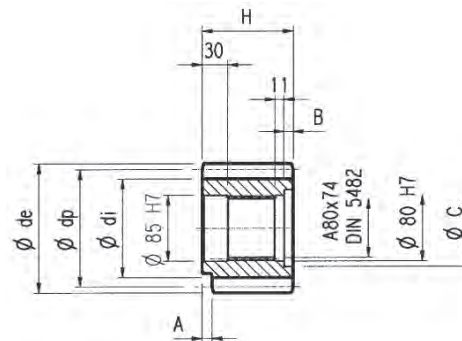
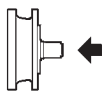
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	T
3.500	$\begin{matrix} 0 \\ -0.00087 \end{matrix}$

307 L**307 R****3/V 07 L3****3/A 07 L2****Flange****W0A****Metric**

Material: Steel C40

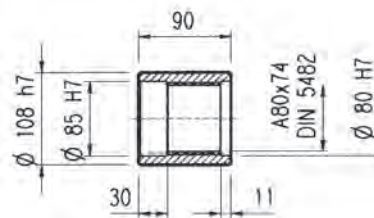
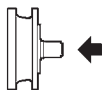
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

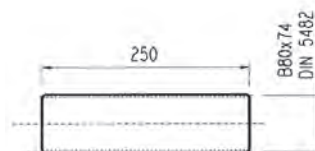
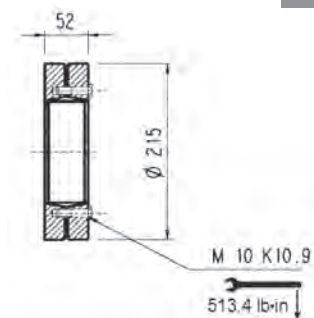
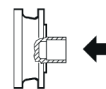
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PFG	8	16	0.500	128	117	149.5	90	—	—	—	Steel 39NiCrMo3 hardened and tempered
PHC	10	12	0.450	120	104	145	90	—	—	—	
PHE	10	14	0.320	140	121	165	116	13	26	95	
PHF	10	15	0.150	150	130	171.5	107	20	17	100	Steel 18NiCrMo5 case hardened
PHG	10	16	0.500	160	145	186	90	—	—	—	
PHH1	10	17	—	170	145	189	90	—	—	—	
PHH2	10	17	0.500	170	154	198	90	—	—	—	Steel 39NiCrMo3 hardened and tempered
PLD	12	13	0.500	156	138	192	102	—	12	95	
PLE	12	14	0.500	168	150	199.2	90	—	—	—	
PLI	12	18	0.500	216	198	249.6	107	7	17	95	Steel 18NiCrMo5 case hardened
PLT	12	26	—	312	282	336	90	10	—	—	

Sleeve coupling**MOA**

Material: Steel 16CrNi4

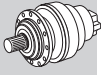
Dimensions are in mm

Splined bars**B0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC**Shrink disc****G0A**

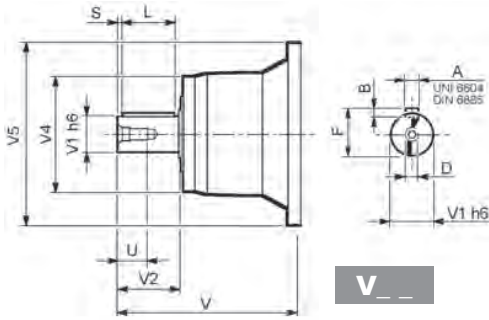
Dimensions are in mm

307 L

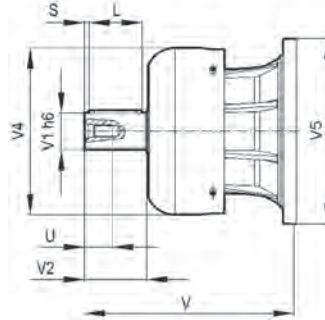
307 R



Metric



V__



FV__

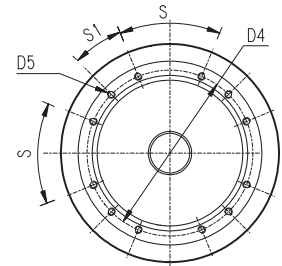
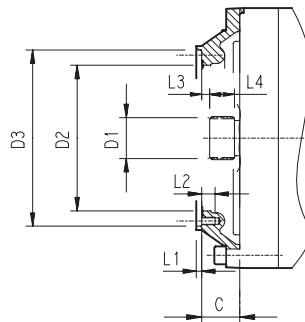
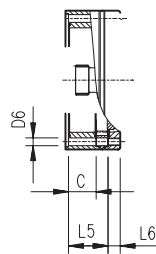


Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
307 L1	V07B	315	80	130	200	345	22	14	85	110	10	M16	36
	FV07B	375	80	130	347.5	348	22	14	85	110	10	M16	36
	V07A	313	60	105	155	345	18	11	64	90	7.5	M16	36
	FV07A	363	60	105	309	348	18	11	64	90	7.5	M16	36
307 L2	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
307 L3	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
307 L4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
307 R2	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
307 R3-R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

307 L

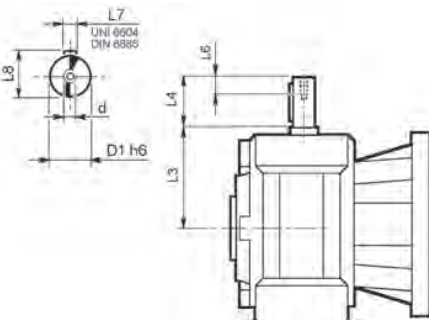
307 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
307 L1	V9AB	51	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
307 L2	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	—	4	18	9	18	—	—	45°	45°	A
307 L3	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	65	18	45°	45°	A
307 L4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	118	18	45°	45°	A
307 R2	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	18	9	18	—	—	45°	45°	A
307 R3-R4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

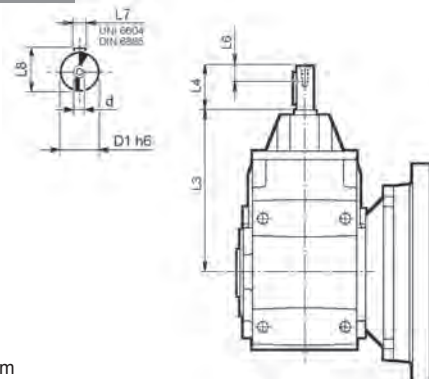
3/V 07 L3



Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/V 07 L3_HS	25	168	60	19	8	28	M8

3/A 07 L2

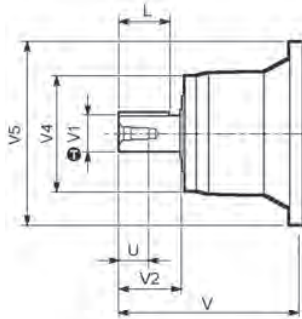


Dimensions are in mm

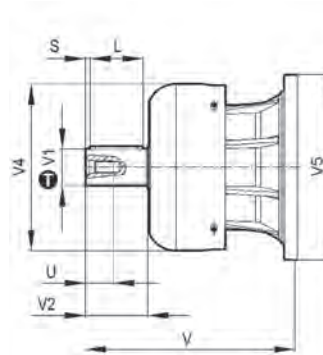
	D1 h6	L3	L4	L6	L7	L8	d
3/A 07 L2_HS	28	409	60	22	8	31	M10

307 L

307 R

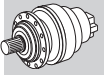


NV



FNV

inch	T
3.000	0 -0.00075
2.375	0 -0.00053
1.875	0 -0.00053
1.625	0 -0.00053
1.125	0 -0.00051



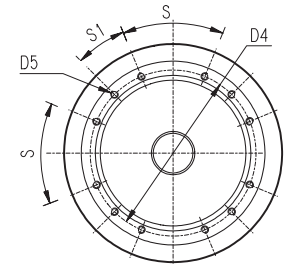
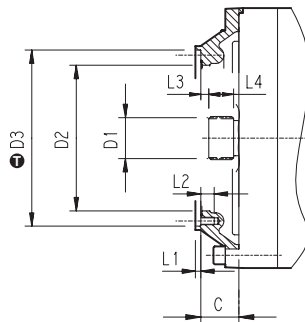
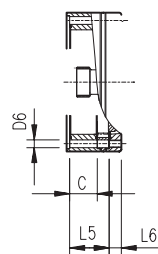
Imperial

Dimensions are in Inch except when shown in *italic* [mm]

		V	V1	V2	V4	V5	A	B	F	L	D	U
307 L1	NV07B	12.283	3.000	5.000	7.165	13.699	0.750	0.750	3.328	4.374	3/4 -10 UNC	1.654
	FNV07B	14.646	3.000	5.000	13.677	13.699	0.750	0.750	3.328	4.374	3/4 -10 UNC	1.654
	NV07A	13.130	2.375	4.750	6.024	13.700	0.625	0.625	2.645	4.250	3/4 -10 UNC	1.654
	FNV07A	15.104	2.375	4.750	6.811	13.700	0.625	0.625	2.645	4.250	3/4 -10 UNC	1.654
307 L2	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
307 L3	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
307 L4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
307 R2	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
307 R3-R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

307 L

307 R

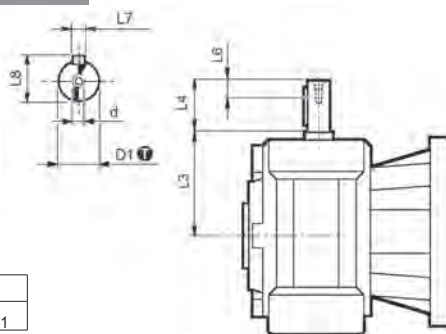
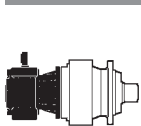


inch	T
9.29	+0.00181 0
7.01	+0.00157 0

Dimensions are in Inch except when shown in *italic* [mm]

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
307 L1	V9AB	1.77	58x53 DIN5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
307 L2	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
307 L3	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	4.65	0.71	45°	45°	A
307 L4	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	6.73	0.71	45°	45°	A
307 R2	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
307 R3-R4	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 07 L3

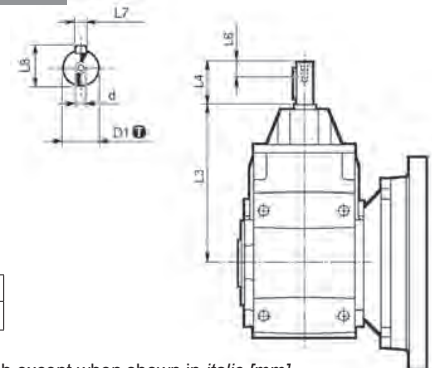


inch	T
1.000	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

	D1	L3	L4	L6	L7	L8	d
3/V 07 L3_NHS	1.000	6.61	1.969	0.75	0.250	1.109	3/8-16UNC

3/A 07 L2



inch	T
1.125	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

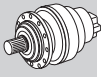
	D1	L3	L4	L6	L7	L8	d
3/A 07 L2_NHS	1.125	16.07	2.362	0.866	0.250	1.236	3/8-16UNC

307 L

307 R

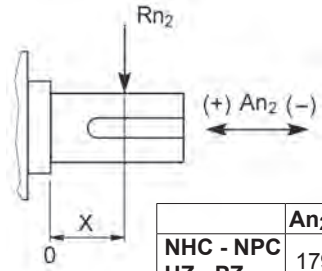
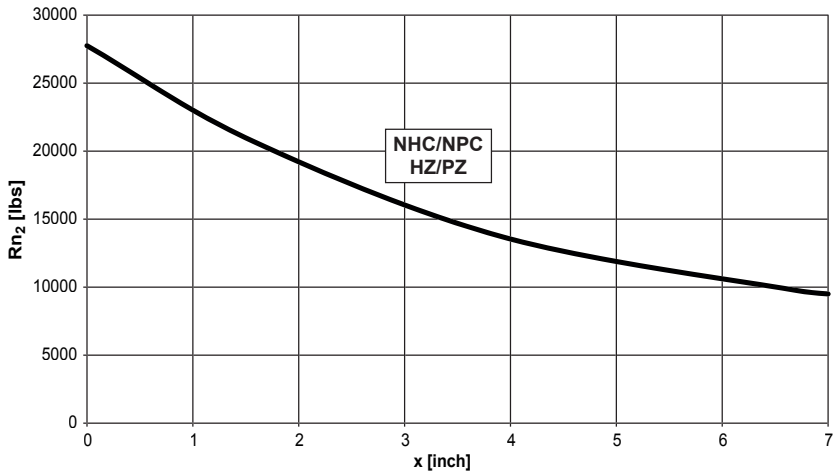
3/V 07 L3

3/A 07 L2

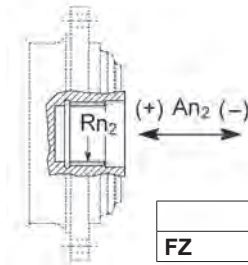


Imperial

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$



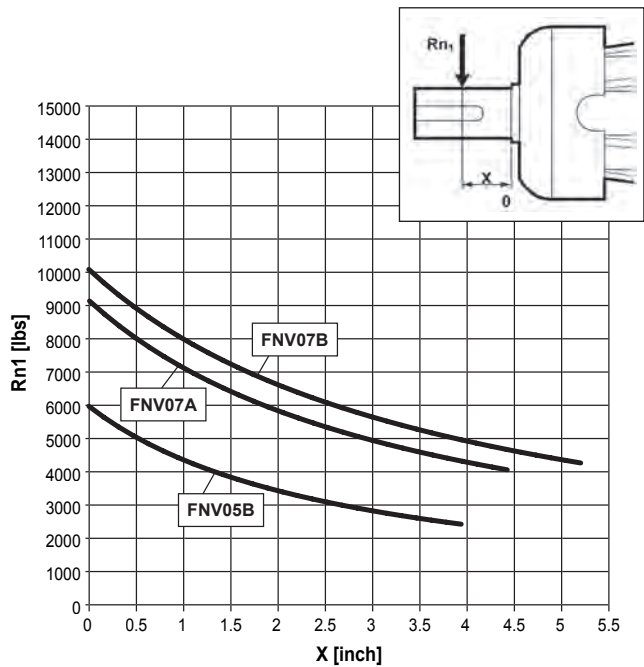
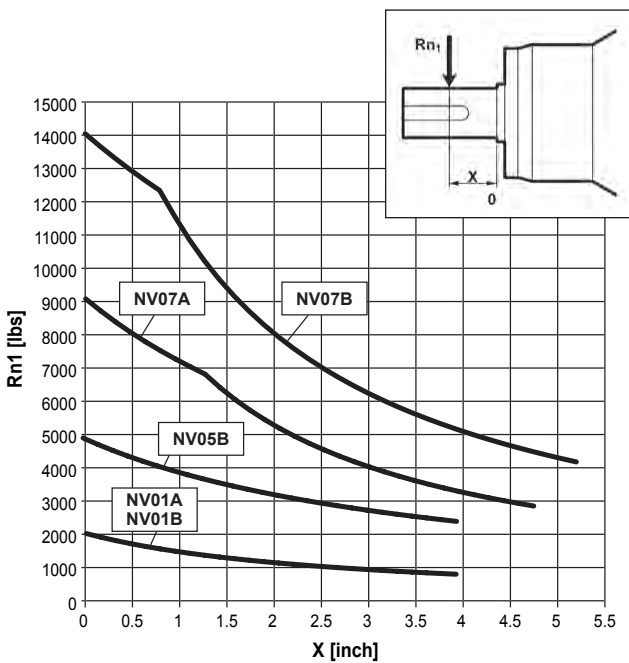
	An2 (+)	An2 (-)
NHC - NPC HZ - PZ	17984	8992



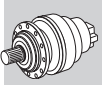
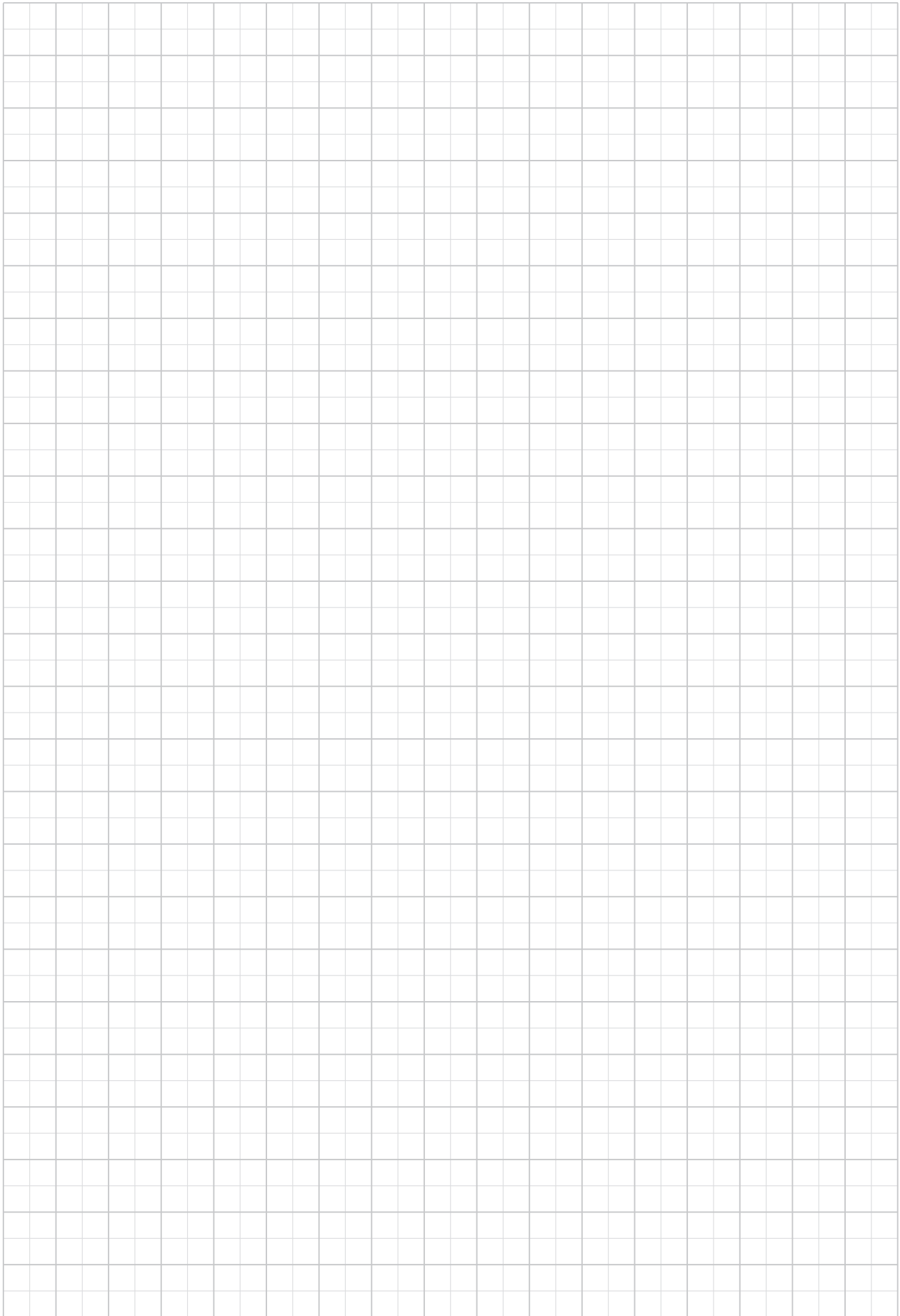
	Rn2	An2 (+/-)
FZ	4695	4695

Load corrective factor fh2 on shafts	Fh2 = n2 · h						
	10000	25000	50000	100000	500000	1000000	
fh2	FZ	2.15	1.59	1.26	1.00	0.58	0.46
	NHC - NPC - HZ - PZ	1.49	1.49	1.23	1.00	0.62	0.50

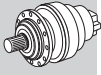
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



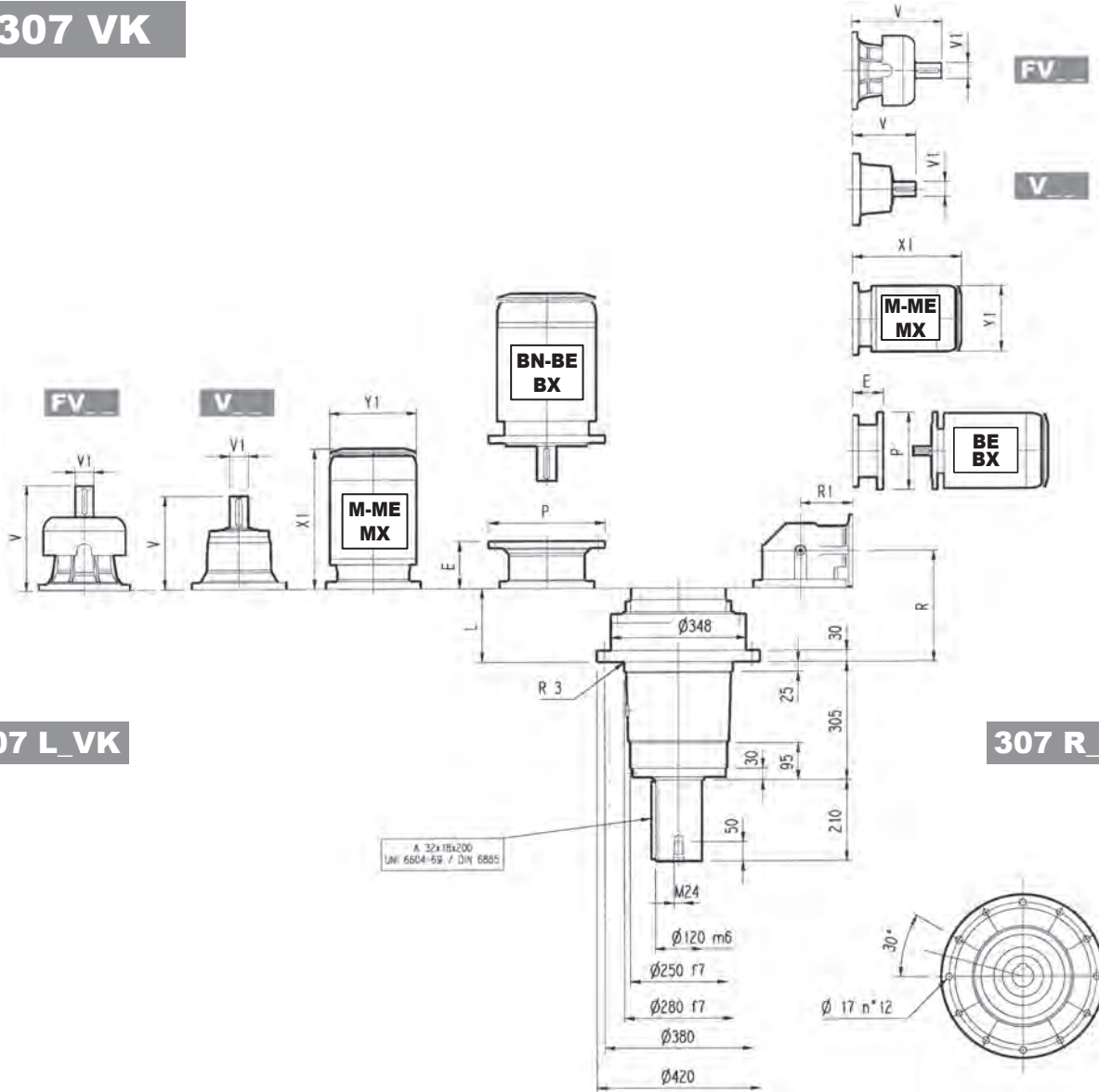
Load corrective factor fh1 on shafts	Fh1 = n1 · h						
	250000	500000	1000000	2000000	5000000	10000000	
fh1	1	0.79	0.63	0.50	0.37	0.29	



307 VK



Metric



307 L_VK

307 R_VK

Dimensions are in mm

	L	Kg				Kg				Kg				P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
		V	V1	V	V1	V	V1	V	V1	V	V1	V	V1	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P				
307 L1	80	145	315	80	35	313	60	28	375	80	48	363	60	34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
307 L2	169	160	239	48	15	—	—	—	276	48	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
307 L3	234	170	137.5	24	6	158	38	7	—	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	
307 L4	287	175	137.5	24	6	158	38	7	—	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
307 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
307 L2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
307 L3	—	—	—	280	—	156	325	—	195	357	—	195	460	—	258	552	—	310	596	—	310
307 L4	253	314	138	280	—	156	325	—	195	357	—	195	460	—	258	—	—	—	—	—	—

	R	R1	Kg				Kg				P71		P80		P90		P100		P112		P132		P160		P180		P200					
			V	V1	V	V1	V	V1	V	V1	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P				
307 R2	199	225	180	239	48	15	—	—	—	276	48	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
307 R3	261	140	170	137.5	24	6	158	38	7	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—
307 R4	326	122	175	137.5	24	6	158	38	7	—	—	—	—	—	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L			S4 + ME4/MX4			S5 + ME5S/MX5S			S5 + ME5L/MX5L		
	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1	X1	X2	Y1
307 R2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
307 R3	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258	552	—	310	596	—	310
307 R4	253	314	138	328	—	156	373	—	195	405	—	195	508	—	258	—	—	—	—	—	—

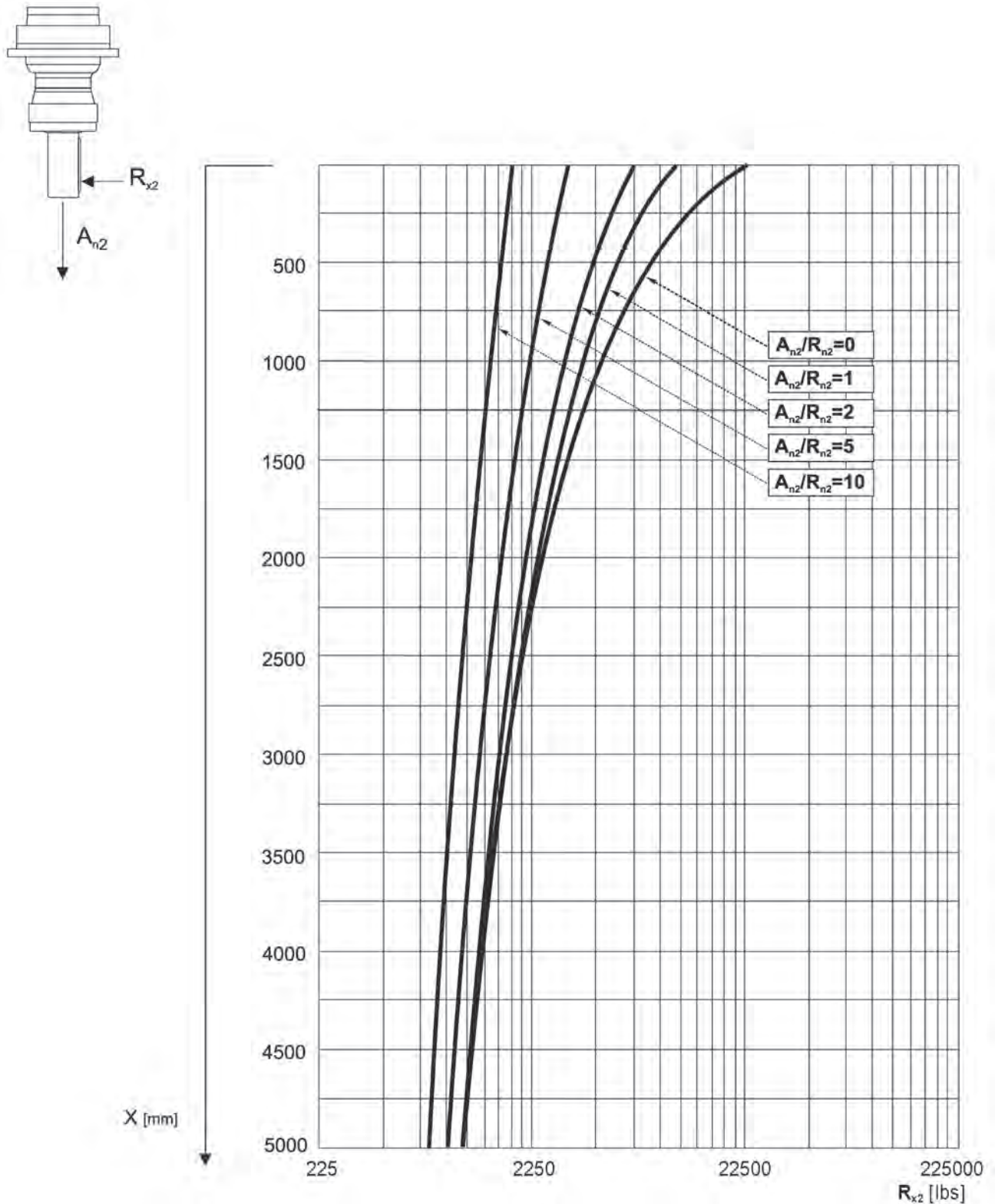
307 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

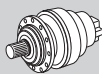
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



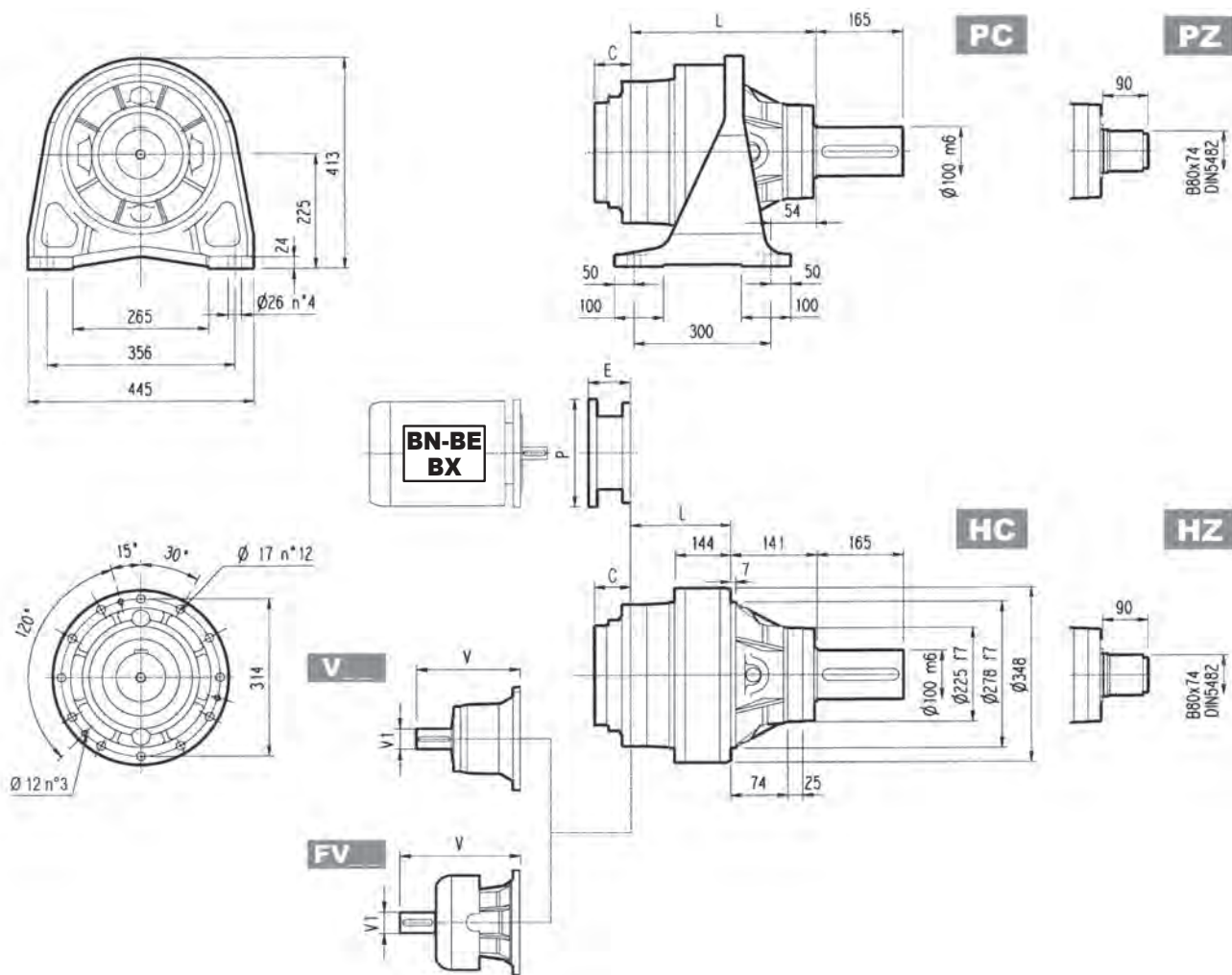
Metric



309 L



Metric

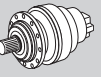
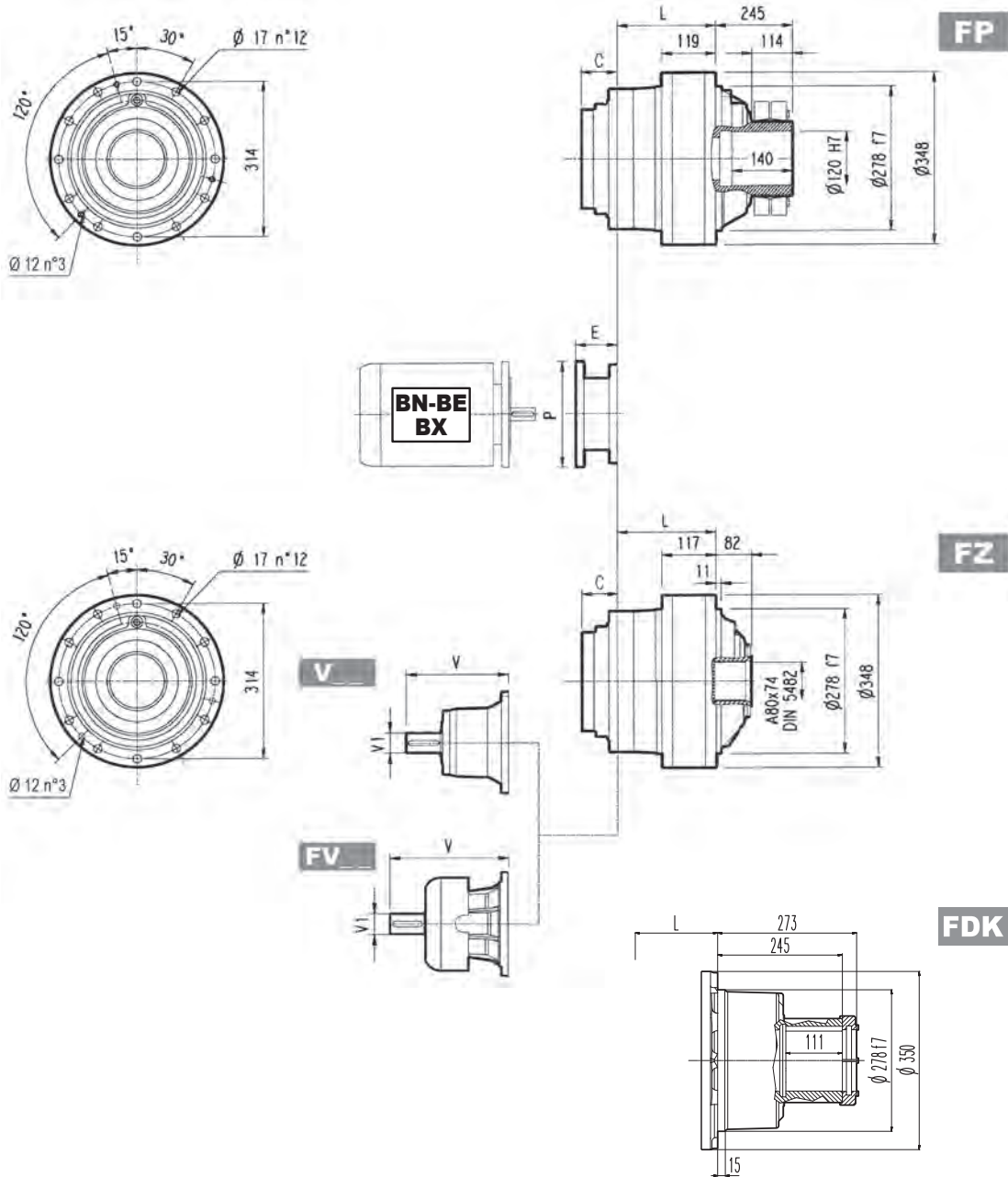


Dimensions are in mm

	L				Kg			
	PC - PZ	HC - HZ	FZ	FP - FDK	PC - PZ	HC - HZ	FZ	FP - FDK
309 L1	267	126	99	101	130	115	95	100
309 L2	356	215	188	190	142	127	107	112
309 L3	421	280	253	255	149	134	114	119
309 L4	474	333	306	308	153	138	118	123

	V						V1						C	Input
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg		
309 L1	315	80	35	313	60	28	375	80	48	363	60	34	51	B
309 L2	239	48	15	—	—	—	276	48	17	—	—	—	37	A
309 L3	137.5	24	6	158	38	7	—	—	—	—	—	—	37	A
309 L4	137.5	24	6	158	38	7	—	—	—	—	—	—	37	A

309 L



Metric

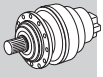
FP

$T_{2max} = 256,670 \text{ lb}\cdot\text{in}$

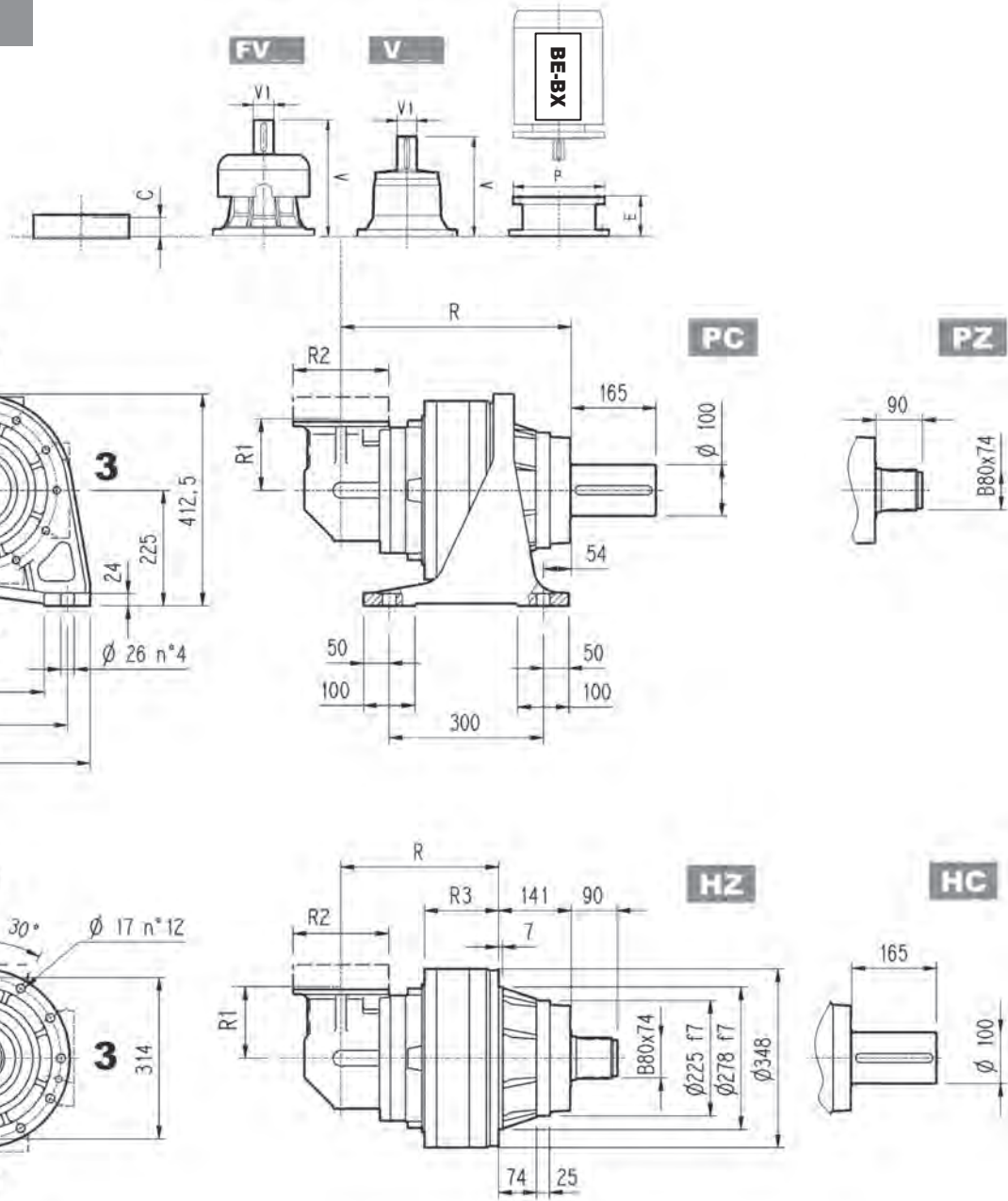
Dimensions are in mm

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
309 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	195	350	186	400	216	450	216	550
309 L2	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—	—
309 L3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—
309 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

309 R



Metric

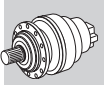


Dimensions are in mm

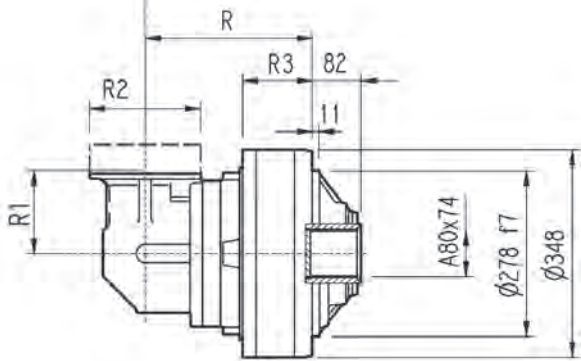
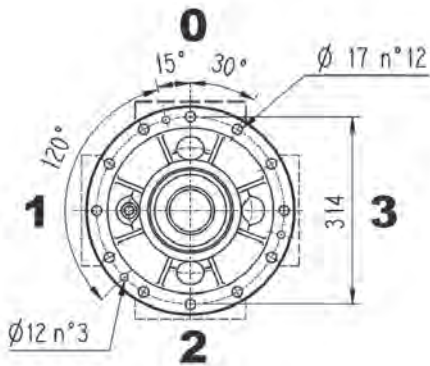
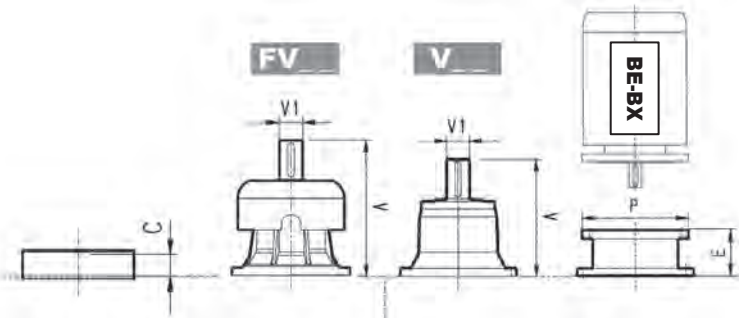
	R				R1	R2	R3			Kg			
	PC-PZ	HC-HZ	FZ	FP - FDK			HC-HZ	FZ	FP	PC-PZ	HC-HZ	FZ	FP - FDK
309 R2	386	245	218	220	225	245	168	141	143	180	165	145	150
309 R3	448	307	280	282	140	186	144	117	119	162	147	127	132
309 R4	513	372	345	347	122	186	144	117	119	163	148	128	133

	V	V1	Kg	V	V1	Kg	V	V1	Kg	C	Input
309 R2	239	48	15	—	—	—	276	48	17	37	A
309 R3	137.5	24	6	158	38	7	—	—	—	37	A
309 R4	137.5	24	6	158	38	7	—	—	—	37	A

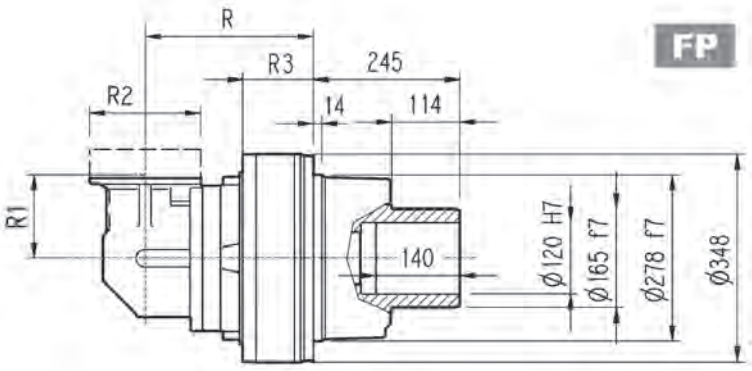
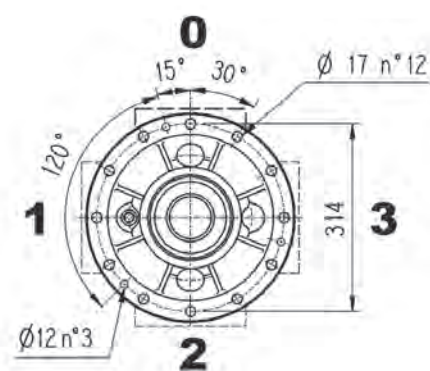
309 R



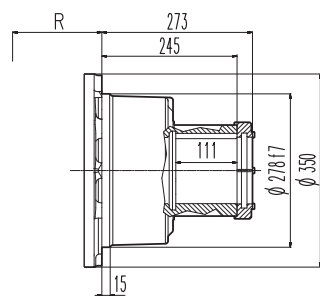
Metric



FZ



FP



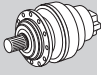
FDK

FP $T_{2max} = 256,670 \text{ lb}\cdot\text{in}$

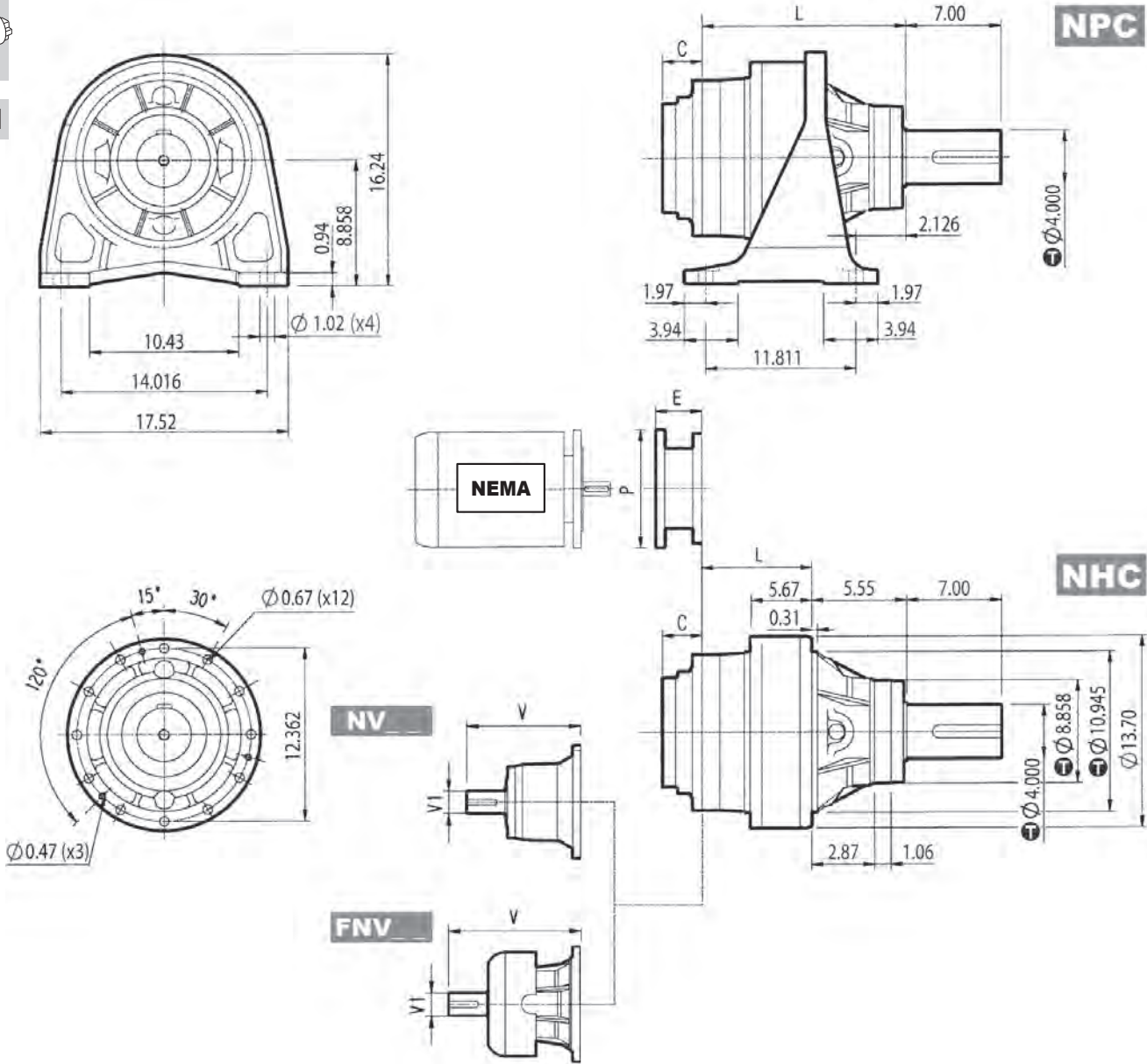
Dimensions are in mm

	P71		P80		P90		P100		P112		P132		P160		P180		P200	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
309 R2	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400
309 R3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—
309 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—

309 L



Imperial



inch	Ⓜ
10.945	-0.00220 -0.00425
8.858	-0.00197 -0.00378
4.000	+0.00138 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

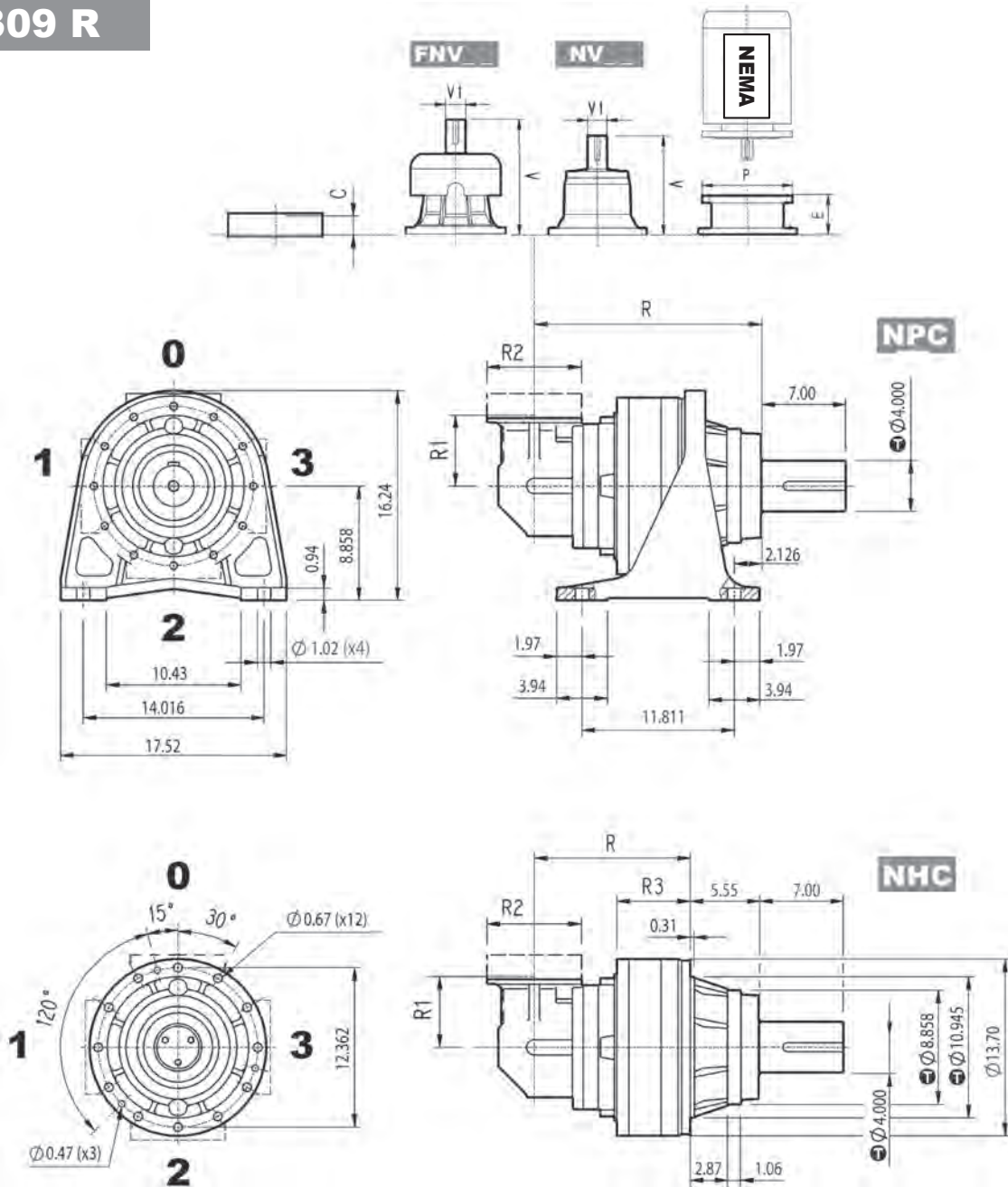
	L		lbs		V		V1		lbs		V		V1		lbs		C	Input
	NPC	NHC	NPC	NHC	V	V1	V	V1	V	V1	V	V1	V	V1				
309 L1	10.51	4.96	286.7	253.6	12.283	3.000	77.2	13.130	2.375	29.8	14.646	3.000	90.0	15.104	2.375	38.0	1.772	B
309 L2	14.02	8.46	313.1	280.0	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	—	—	—	1.457	A
309 L3	16.57	11.02	328.5	295.5	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	—	—	—	1.457	A
309 L4	18.66	13.11	337.4	304.3	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	—	—	—	1.457	A

	N56C		N140TC		N180TC		N210TC		N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
309 L1	—	—	—	—	—	—	—	—	—	—	—	—	8.64	15.75	8.64	15.75
309 L2	—	—	—	—	—	—	—	—	5.41	11.81	6.42	13.78	—	—	—	—
309 L3	4.51	6.70	4.51	6.70	5.37	8.82	5.37	8.82	5.37	8.82	6.32	11.81	—	—	—	—
309 L4	4.51	6.70	4.51	6.70	5.37	8.82	5.37	8.82	5.37	8.82	6.32	11.81	—	—	—	—

309 R



Imperial



inch	Ⓢ
10.945	-0.00220 -0.00425
8.858	-0.00197 -0.00378
4.000	+0.00138 -0.00051

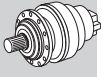
Dimensions are in Inch except when shown in *italic [mm]*

	R		R1	R2	R3	lbs	
	NPC	NHC				NPC	NHC
309 R2	15.20	9.65	8.86	9.65	6.61	396.9	363.8
309 R3	17.64	12.09	5.51	7.32	5.57	357.2	324.1
309 R4	20.20	14.65	4.80	7.32	5.57	359.4	326.3

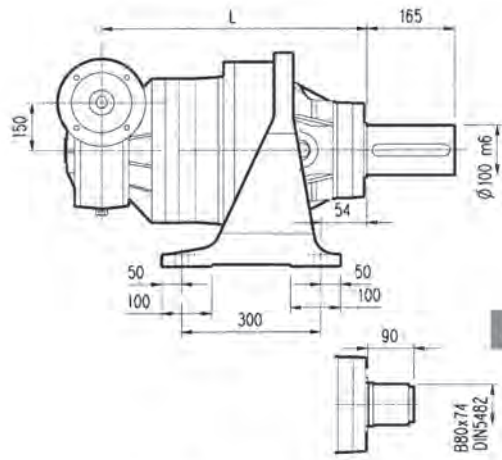
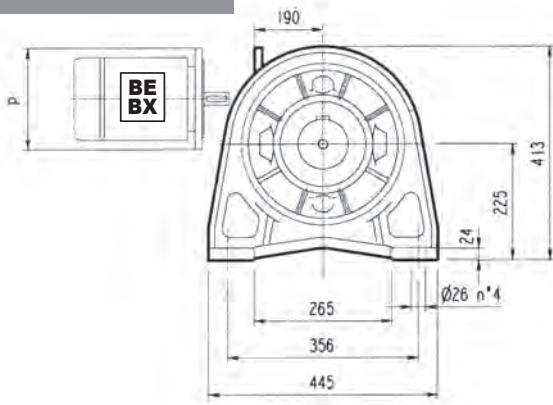
	V		V1		lbs		V		V1		lbs		C	Input
	V	V1	lbs	V	V1	lbs	V	V1	lbs	C	Input			
309 R2	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	1.457	A			
309 R3	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A			
309 R4	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A			

	N56C		N140TC		N180TC		N210TC		N250TC		N280TC	
	E	P	E	P	E	P	E	P	E	P	E	P
309 R2	—	—	—	—	—	—	—	—	—	—	—	—
309 R3	—	—	—	—	—	—	—	—	5.41	11.81	6.42	13.78
309 R4	4.51	6.70	4.51	6.70	5.37	8.82	5.37	8.82	5.37	8.82	6.32	11.81

3/V 09 L3

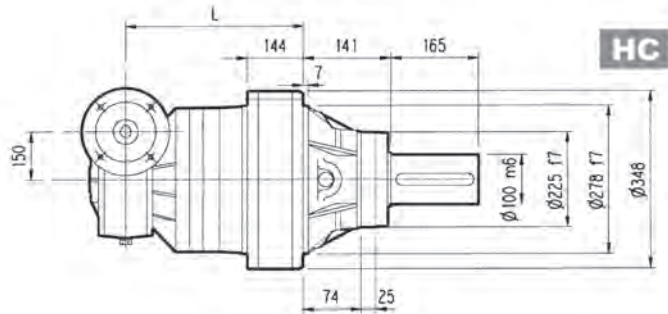
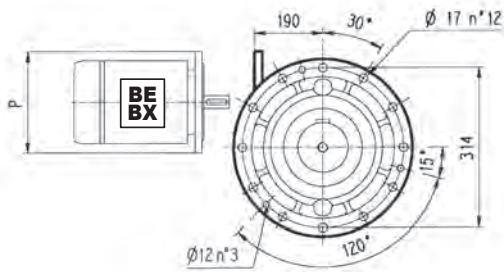


Metric

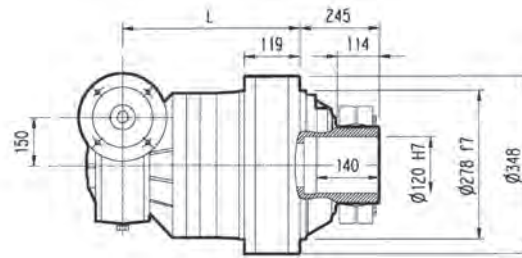
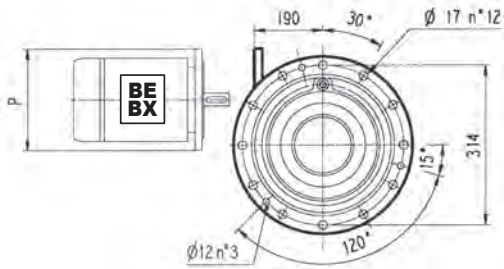
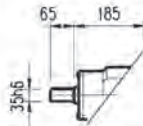


PC

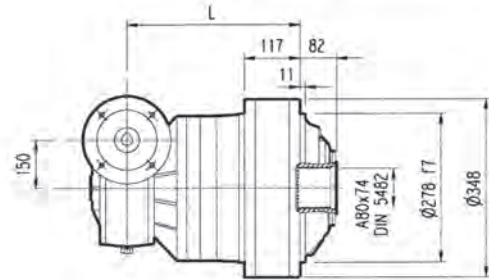
HZ PZ



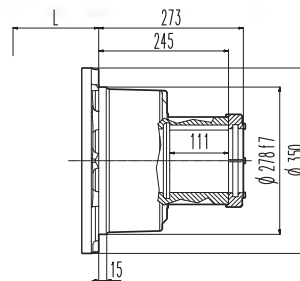
HC



FP



FZ



FDK

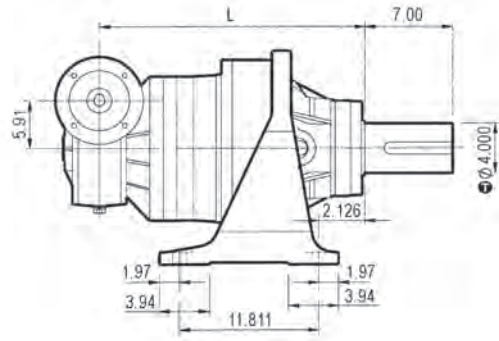
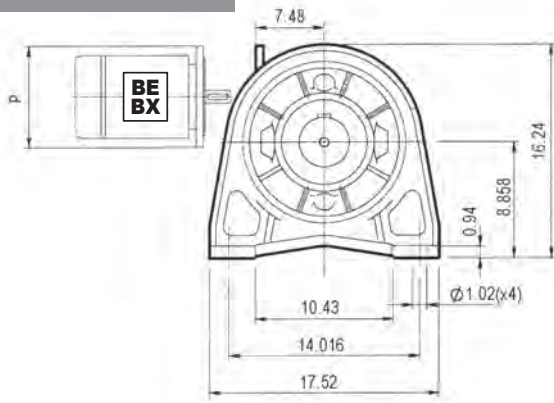
FP

T_{2max} = 256,670 lb·in

Dimensions are in mm

	L				Kg				P100	P112	P132	P160
	PC - PZ	HC - HZ	FZ	FP - FDK	PC - PZ	HC - HZ	FZ	FP - FDK	P	P	P	P
3/V 09 L3	530	389	362	364	202	187	167	172	250	250	300	350

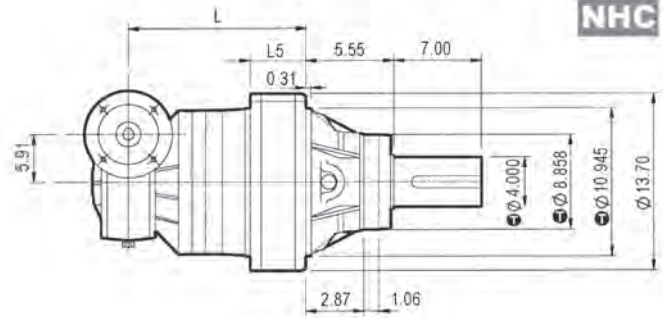
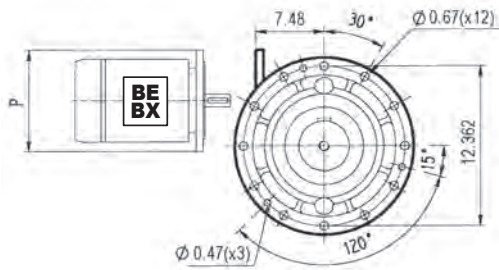
3/V 09 L3



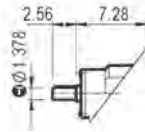
NPC



Imperial



NHC



inch	①
10.945	-0.00220 -0.00425
8.858	-0.00197 -0.00378
4.000	+0.00138 -0.00051
1.378	0 -0.00063

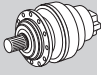
Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs		P100	P112	P132	P160
	NPC	NHC	NPC	NHC	P	P	P	P
3/V 09 L3	20.87	15.31	445.4	412.3	9.84	9.84	11.81	13.78

309 L

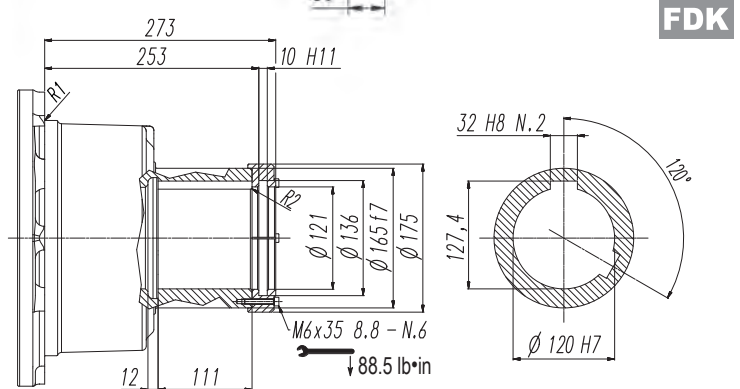
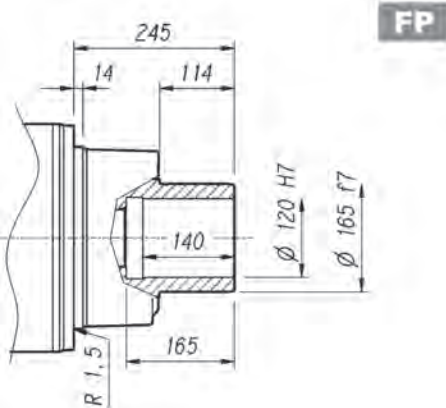
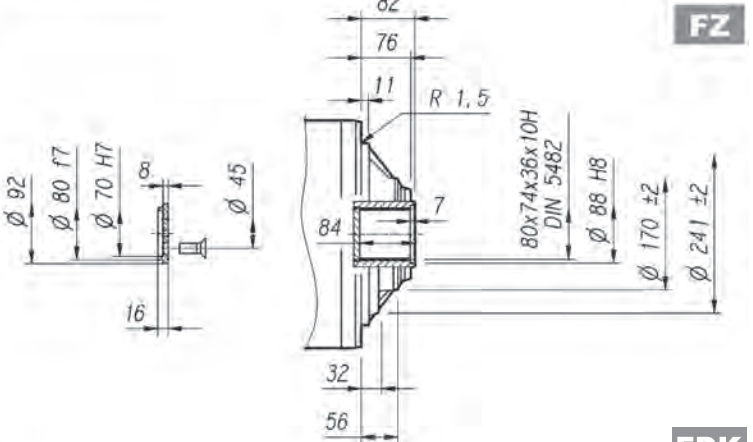
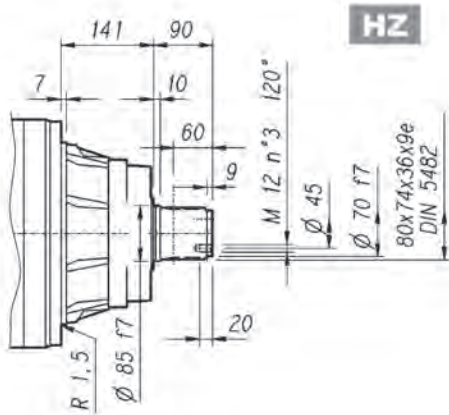
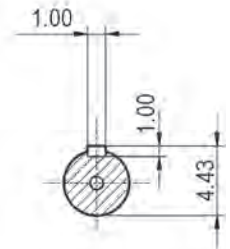
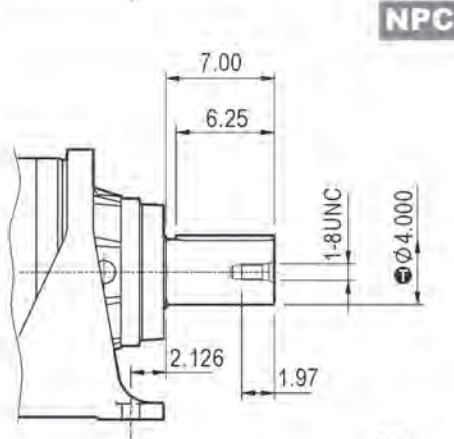
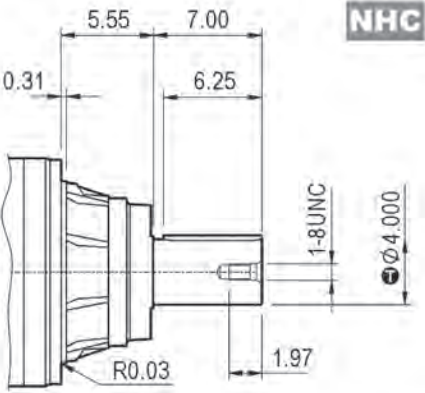
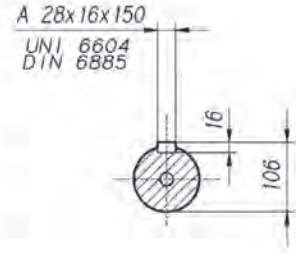
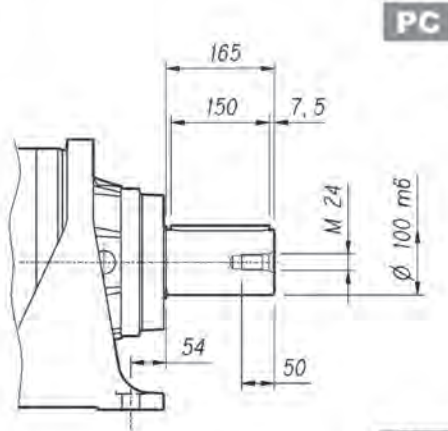
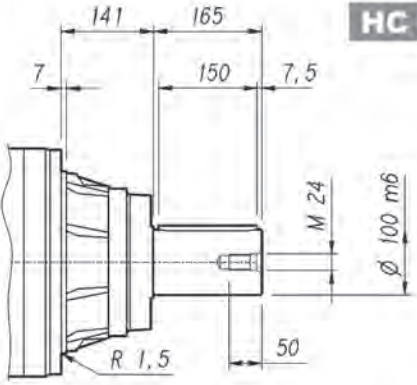
309 R

3/V 09 L3



Metric

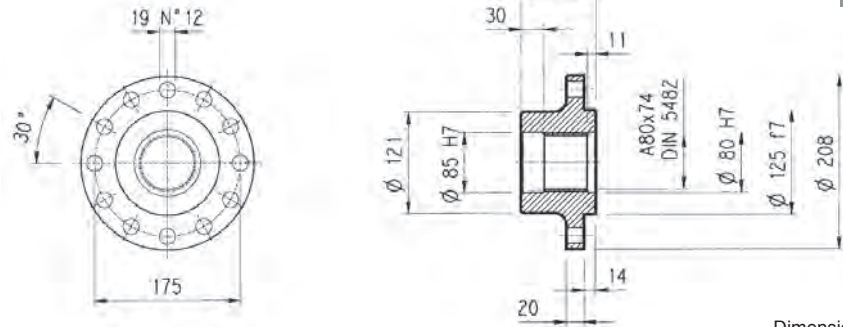
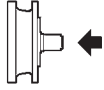
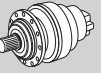
Imperial



FP T_{2max} = 256,670 lb·in

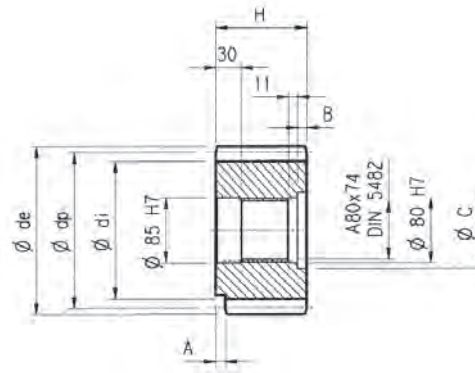
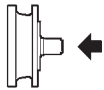
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	\pm
4.000	+0.00138 -0.00051

309 L**309 R****3/V 09 L3****Flange****W0A****Metric**

Material: Steel C40

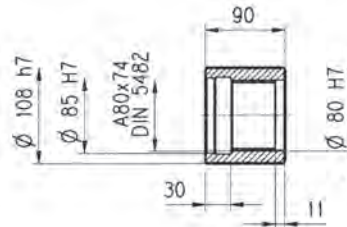
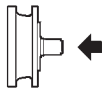
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

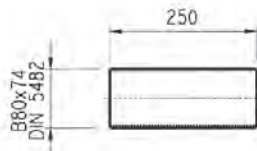
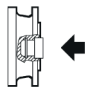
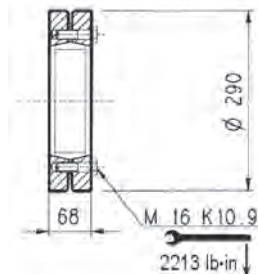
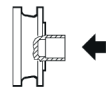
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PFG	8	16	0.500	128	117	149.5	90	—	—	—	Steel 39NiCrMo3 hardened and tempered
PHC	10	12	0.450	120	104	145	90	—	—	—	
PHE	10	14	0.320	140	121	165	116	13	26	95	
PHF	10	15	0.150	150	130	171.5	107	20	17	100	
PHG	10	16	0.500	160	145	186	90	—	—	—	Steel 18NiCrMo5 case hardened
PHH1	10	17	—	170	145	189	90	—	—	—	
PHH2	10	17	0.500	170	154	198	90	—	—	—	Steel 39NiCrMo3 hardened and tempered
PLD	12	13	0.500	156	138	192	102	—	12	95	
PLE	12	14	0.500	168	150	199.2	90	—	—	—	
PLI	12	18	0.500	216	198	249.6	107	7	17	95	Steel 18NiCrMo5 case hardened
PLT	12	26	—	312	282	336	90	10	—	—	

Sleeve coupling**M0A**

Material: Steel 16CrNi4

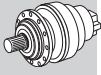
Dimensions are in mm

Splined bars**B0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC**Shrink disc****G0A**

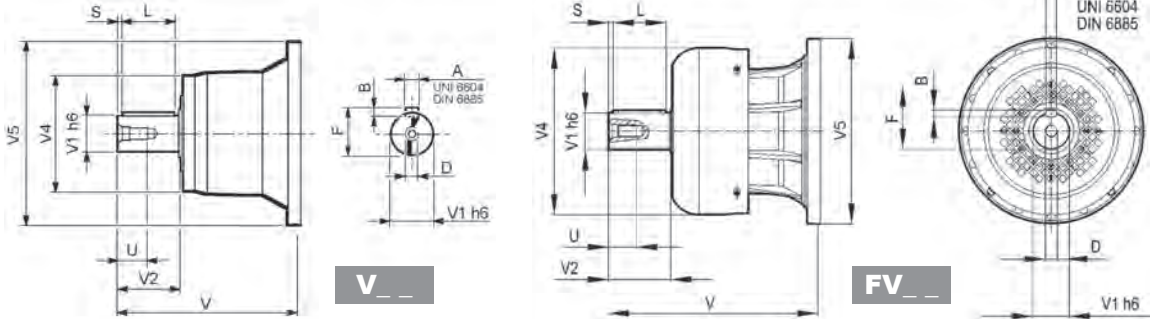
Dimensions are in mm

309 L

309 R



Metric

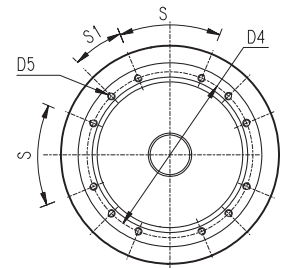
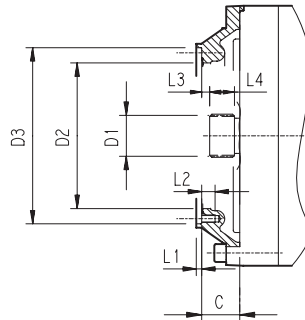
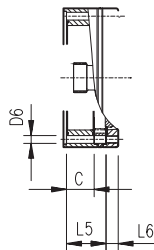


Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
309 L1	V07B	315	80	130	200	345	22	14	85	110	10	M16	36
	FV07B	375	80	130	347.5	348	22	14	85	110	10	M16	36
	V07A	313	60	105	155	345	18	11	64	90	7.5	M16	36
	FV07A	363	60	105	309	348	18	11	64	90	7.5	M16	36
309 L2	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
309 L3	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
309 L4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
309 R2	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
309 R3-R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

309 L

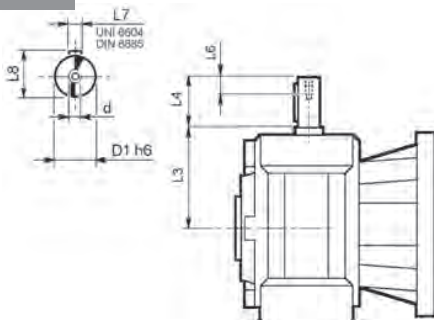
309 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
309 L1	V9AB	51	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
309 L2	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	—	4	18	9	18	—	—	45°	45°	A
309 L3	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	65	18	45°	45°	A
309 L4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	118	18	45°	45°	A
309 R2	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	18	9	18	—	—	45°	45°	A
309 R3-R4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

3/V 09 L3



Dimensions are in mm

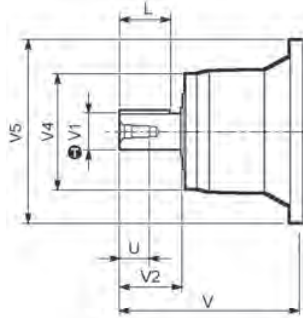
	D1 h6	L3	L4	L6	L7	L8	d
3/V 09 L3_HS	35	185	65	20	10	38	M8

309 L

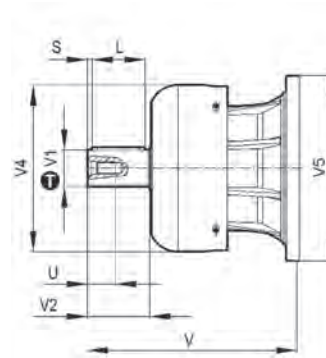
309 R



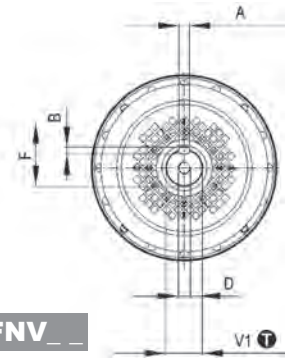
inch	Ⓣ
3.000	0 -0.00075
2.375	0 -0.00053
1.875	0 -0.00053
1.625	0 -0.00053
1.125	0 -0.00051



NV



FNV



Metric

Dimensions are in Inch except when shown in *italic* [mm]

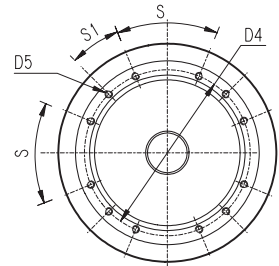
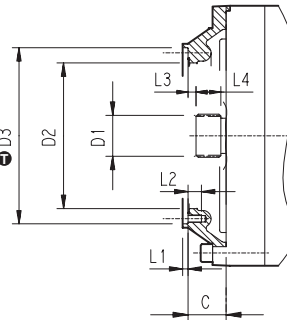
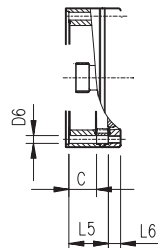
		V	V1	V2	V4	V5	A	B	F	L	D	U
309 L1	NV07B	12.283	3.000	5.000	7.165	13.699	0.750	0.750	3.328	4.374	3/4 -10 UNC	1.654
	FNV07B	14.646	3.000	5.000	13.677	13.699	0.750	0.750	3.328	4.374	3/4 -10 UNC	1.654
	NV07A	13.130	2.375	4.750	6.024	13.700	0.625	0.625	2.645	4.250	3/4 -10 UNC	1.654
309 L2	NV07A	15.104	2.375	4.750	6.811	13.700	0.625	0.625	2.645	4.250	3/4 -10 UNC	1.654
	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
309 L3	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
309 L4	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
309 R2	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
309 R3-R4	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

309 L

309 R



inch	Ⓣ
9.29	+0.00181 0
7.01	+0.00157 0



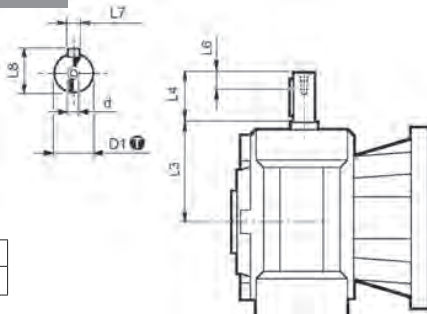
Dimensions are in Inch except when shown in *italic* [mm]

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
309 L1	V9AB	1.77	58x53 DIN5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
309 L2	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
309 L3	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	4.65	0.71	45°	45°	A
309 L4	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	6.73	0.71	45°	45°	A
309 R2	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
309 R3-R4	V9AA	1.46	40x36 DIN5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 09 L3



inch	Ⓣ
1.378	0 -0.00063



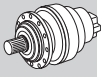
Dimensions are in Inch except when shown in *italic* [mm]

	D1	L3	L4	L6	L7	L8	d
3/V 09 L3_HS	1.378	7.28	2.56	0.787	0.394	1.496	M8

309 L

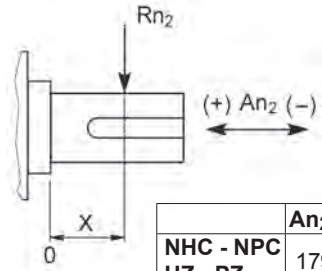
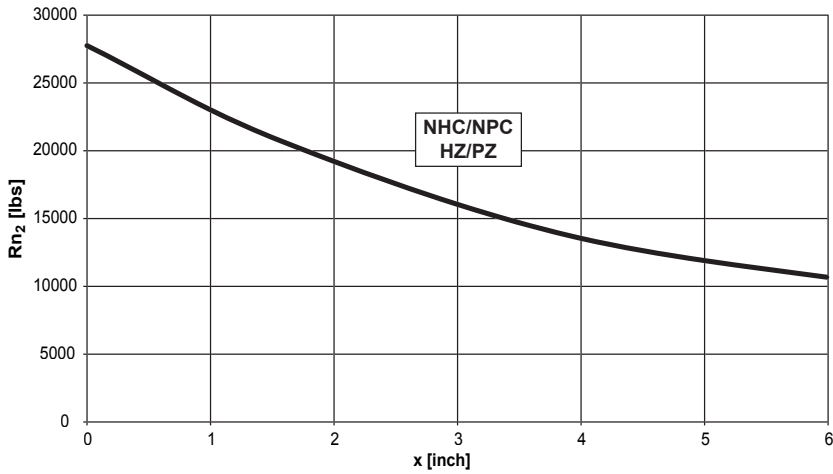
309 R

3/V 09 L3

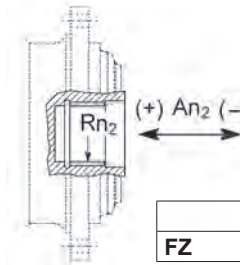


Imperial

Permissible radial and axial loads on output shaft with $F_{h2} : n_2 \cdot h = 100000$



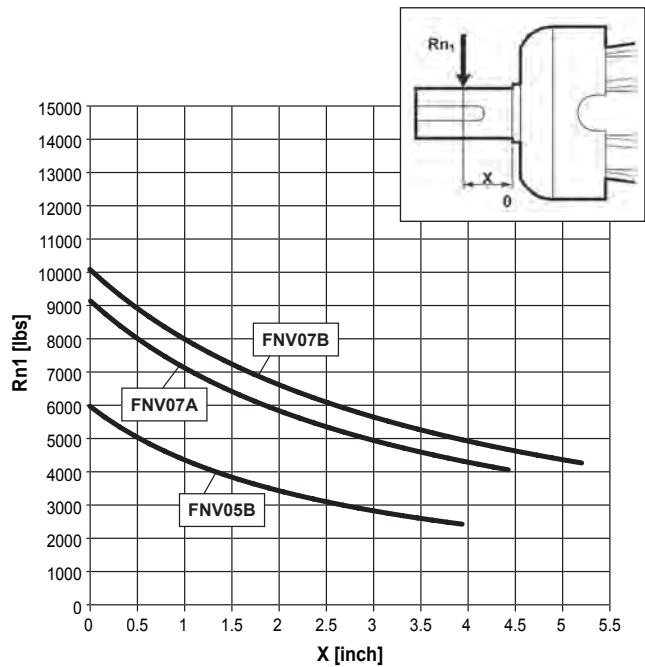
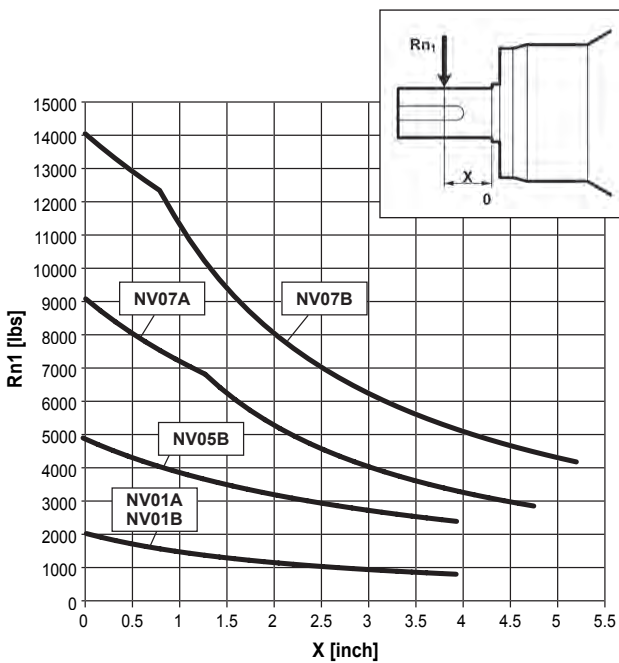
	An2 (+)	An2 (-)
NHC - NPC HZ - PZ	17984	8992



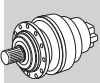
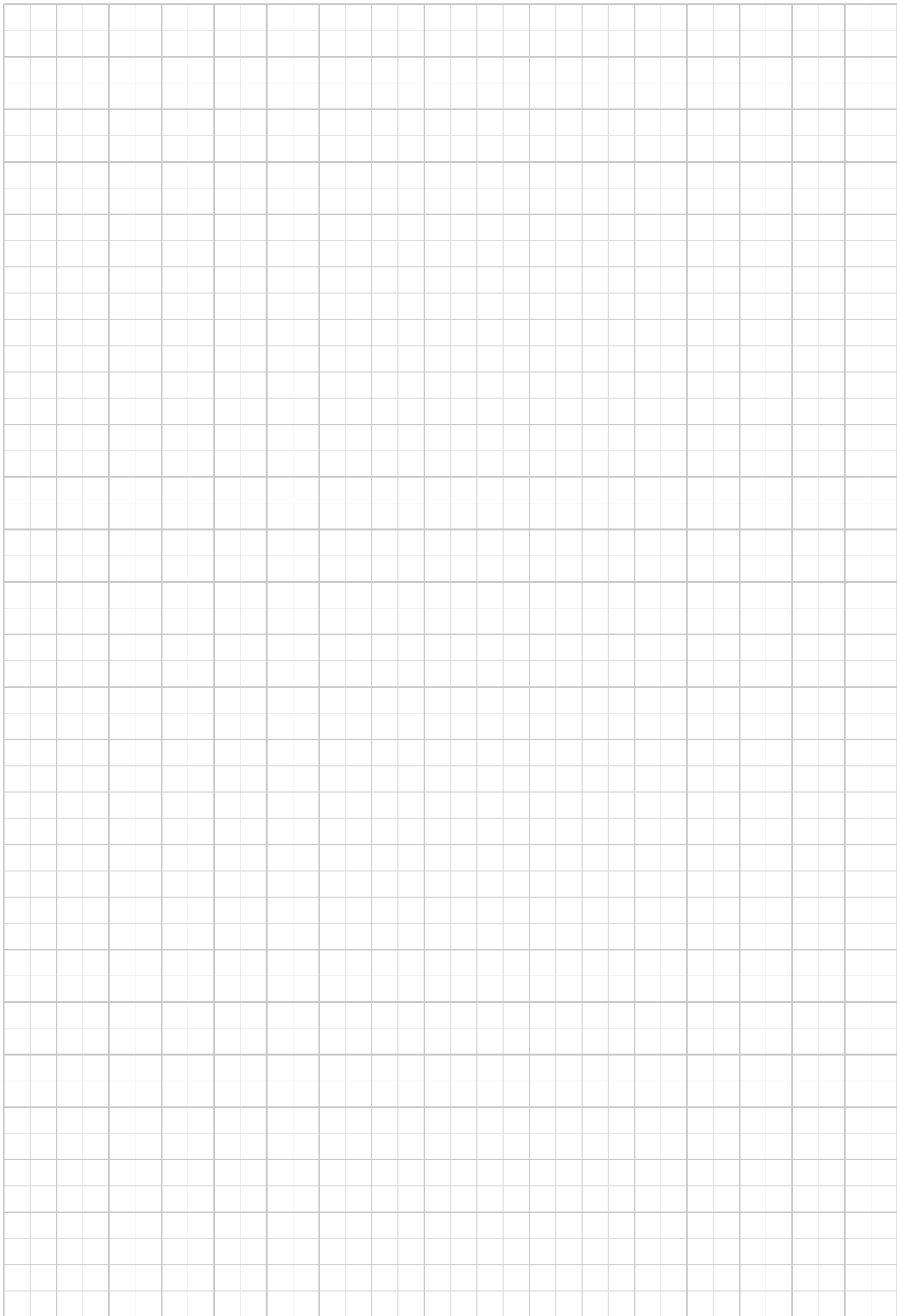
	Rn2	An2 (+/-)
FZ	3756	3861

Load corrective factor fh2 on shafts	Fh2 = n2 · h						
	10000						
	25000						
fh2	50000						
	100000						
fh2	500000						
	1000000						
	FZ	2.15	1.59	1.26	1.00	0.58	0.46
	NHC - NPC - HZ - PZ	1.49	1.49	1.23	1.00	0.62	0.50

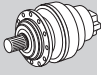
Permissible radial loads on input shaft with $F_{h1} : n_1 \cdot h = 250000$



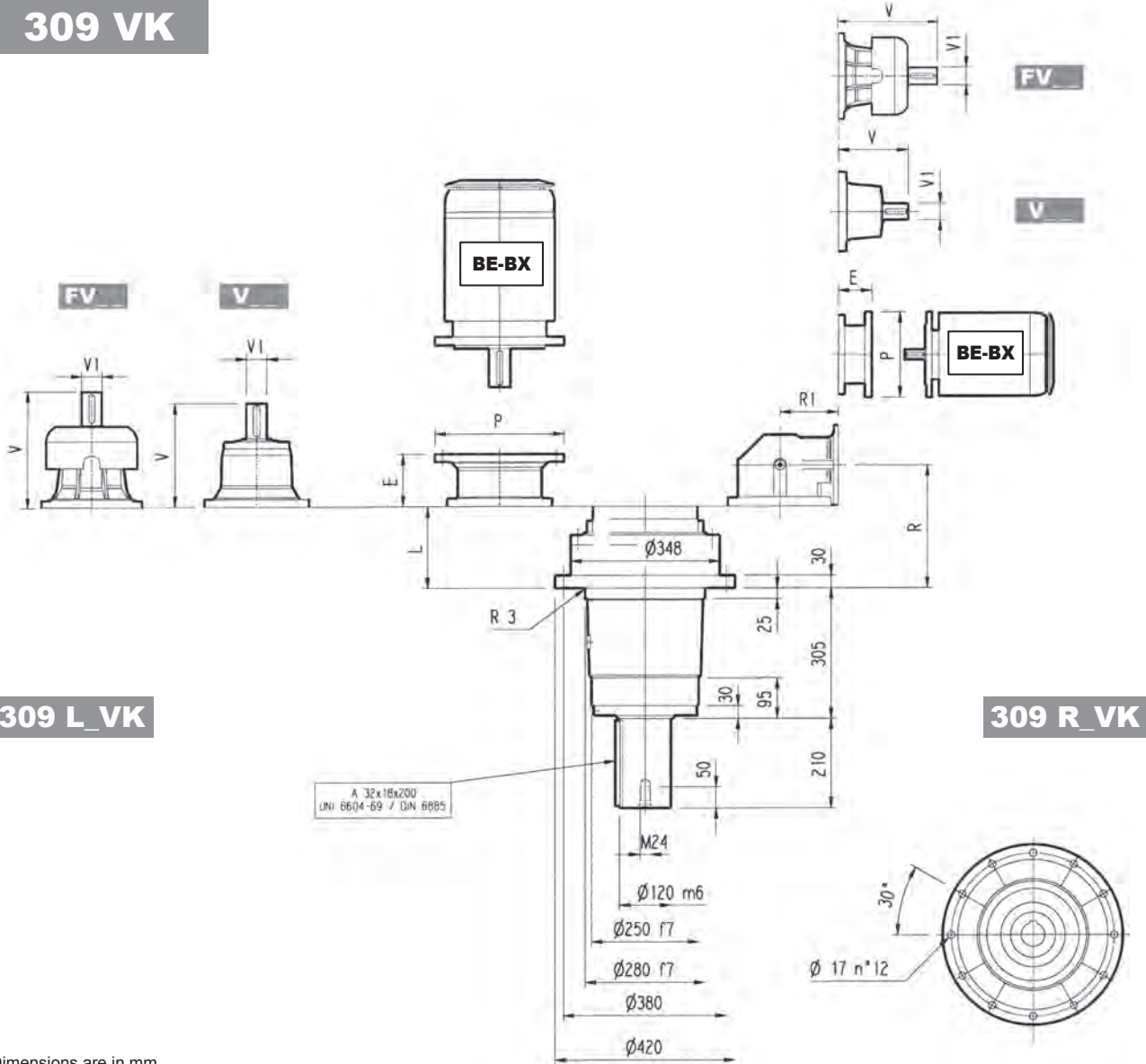
Load corrective factor fh1 on shafts	Fh1 = n1 · h						
	250000						
fh1	500000						
	1000000						
fh1	2000000						
	5000000						
		1	0.79	0.63	0.50	0.37	0.29



309 VK



Metric



309 L_VK

309 R_VK

Dimensions are in mm

	L			FV						V					
	L	kg		V	V1	kg	V	V1	kg	V	V1	kg	V	V1	kg
309 L1	102	165		315	80	35	313	60	28	375	80	48	363	60	34
309 L2	191	180		239	48	15	—	—	—	276	48	17	—	—	—
309 L3	256	190		137.5	24	6	158	38	7	—	—	—	—	—	—
309 L4	309	195		137.5	24	6	158	38	7	—	—	—	—	—	—

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
309 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	195	350	186	400	216	450	216	450
309 L2	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—
309 L3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—
309 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

	R		FV			V									
	R	R1	kg	V	V1	kg	V	V1	kg	V	V1	kg	V	V1	kg
309 R2	221	225	200	239	48	15	—	—	—	276	48	17	—	—	—
309 R3	283	140	190	137.5	24	6	158	38	7	—	—	—	—	—	—
309 R4	348	122	195	137.5	24	6	158	38	7	—	—	—	—	—	—

	P71		P80		P90		P100		P112		P132		P160		P180		P200	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
309 R2	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400
309 R3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—
309 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—

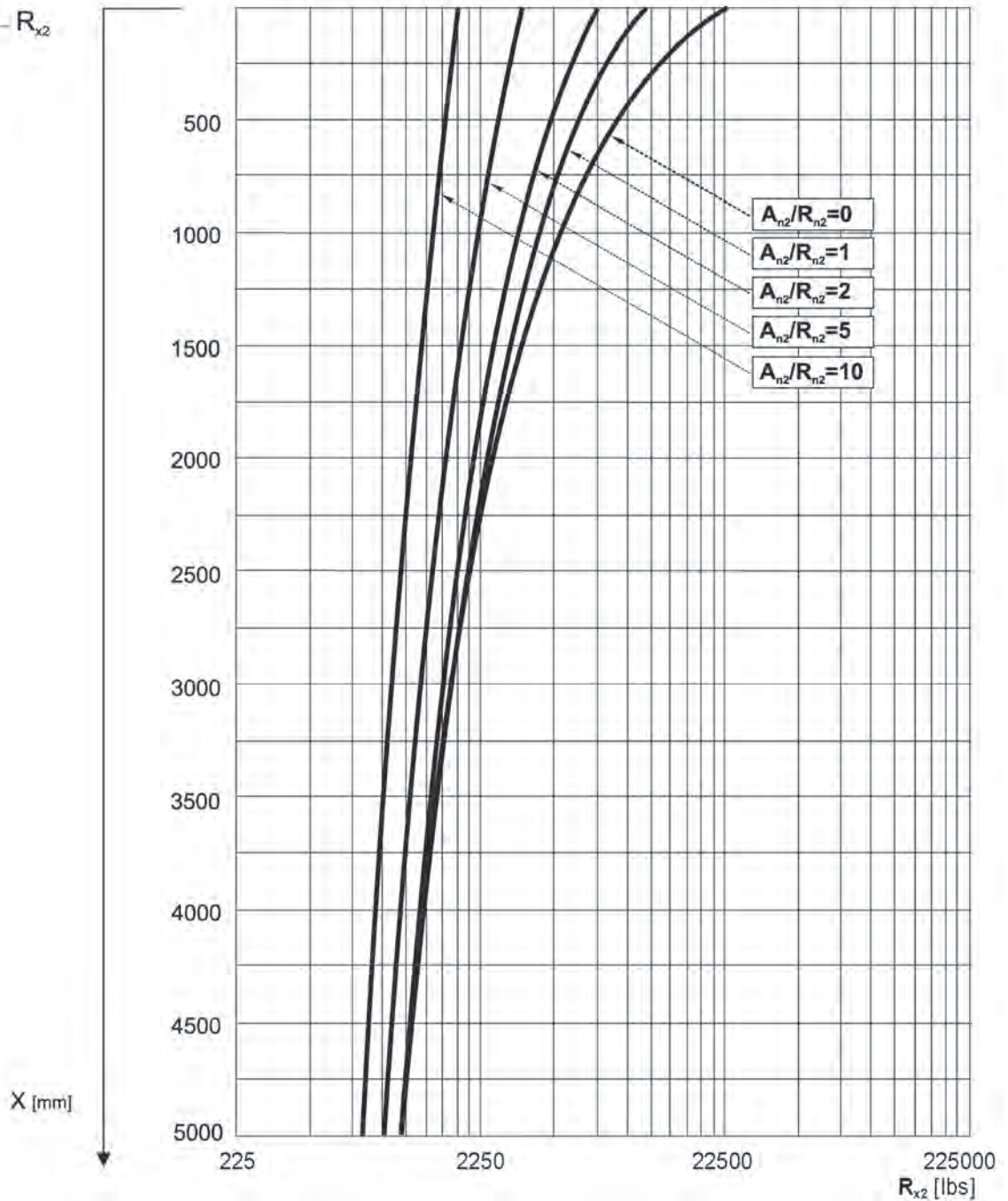
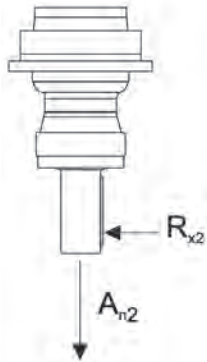
309 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

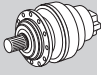
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



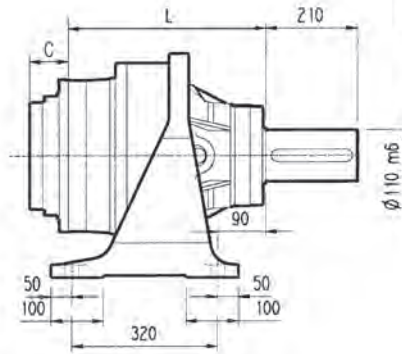
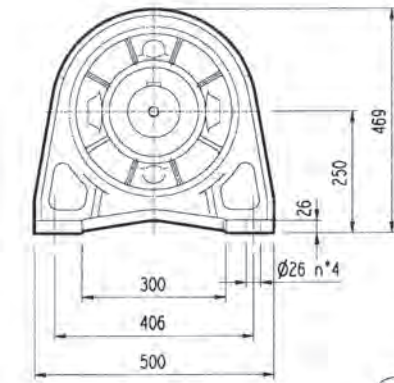
Metric



310 L

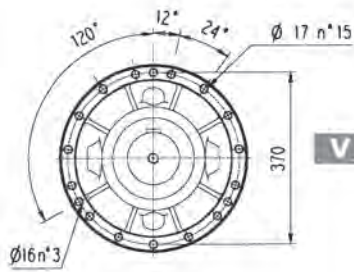
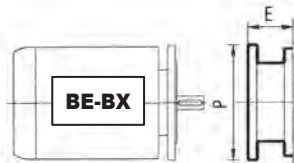
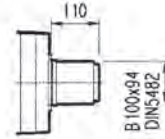


Metric

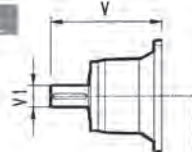


PC

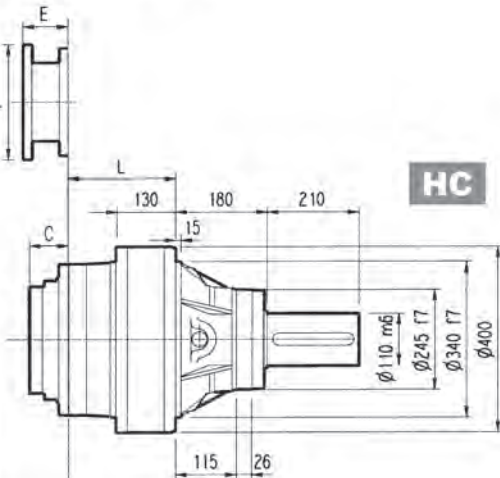
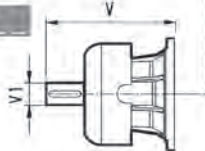
PZ



V

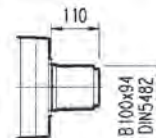


FV



HC

HZ

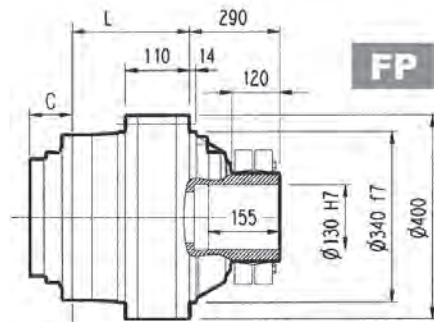
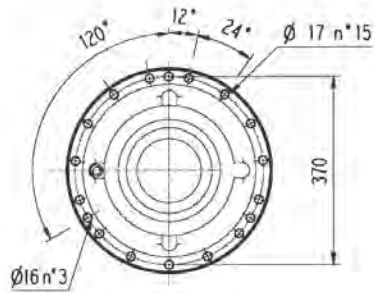


Dimensions are in mm

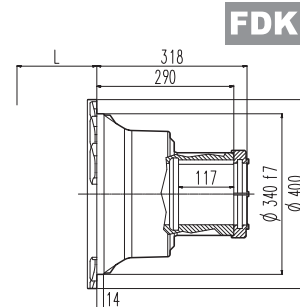
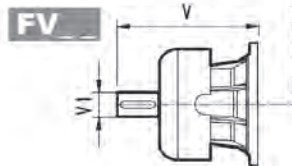
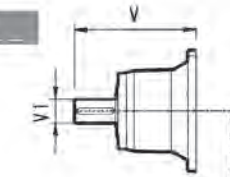
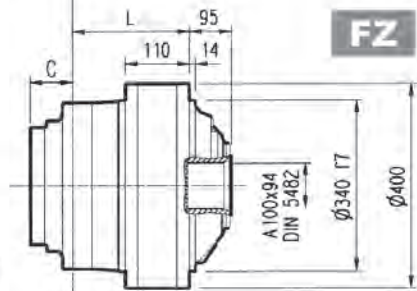
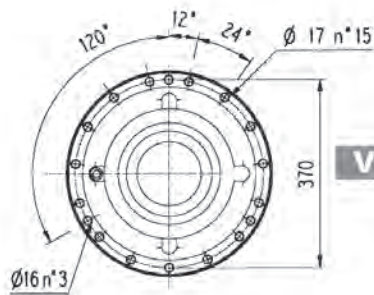
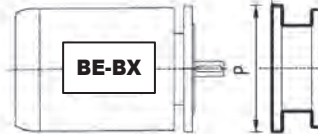
	L				Kg			
	PC - PZ	HC - HZ	FZ	FP - FDK	PC - PZ	HC - HZ	FZ	FP - FDK
310 L1	288	108	88	88	155	135	110	115
310 L2	424	244	224	224	185	165	140	145
310 L3	489	309	289	289	194	174	149	154
310 L4	542	362	342	342	198	178	153	158

	V			V1			Kg			C	Input
	V	V1	Kg	V	V1	Kg	V	V1	Kg		
310 L1	377	80	50	—	—	—	457	80	63	88	C
310 L2	307	60	23	—	—	—	357	60	28	45	B
310 L3	239	48	15	—	—	—	276	48	17	37	A
310 L4	137.5	24	6	158	38	7	—	—	—	37	A

310 L



Metric



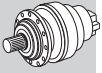
FP

$T_{2max} = 389,430 \text{ lb}\cdot\text{in}$

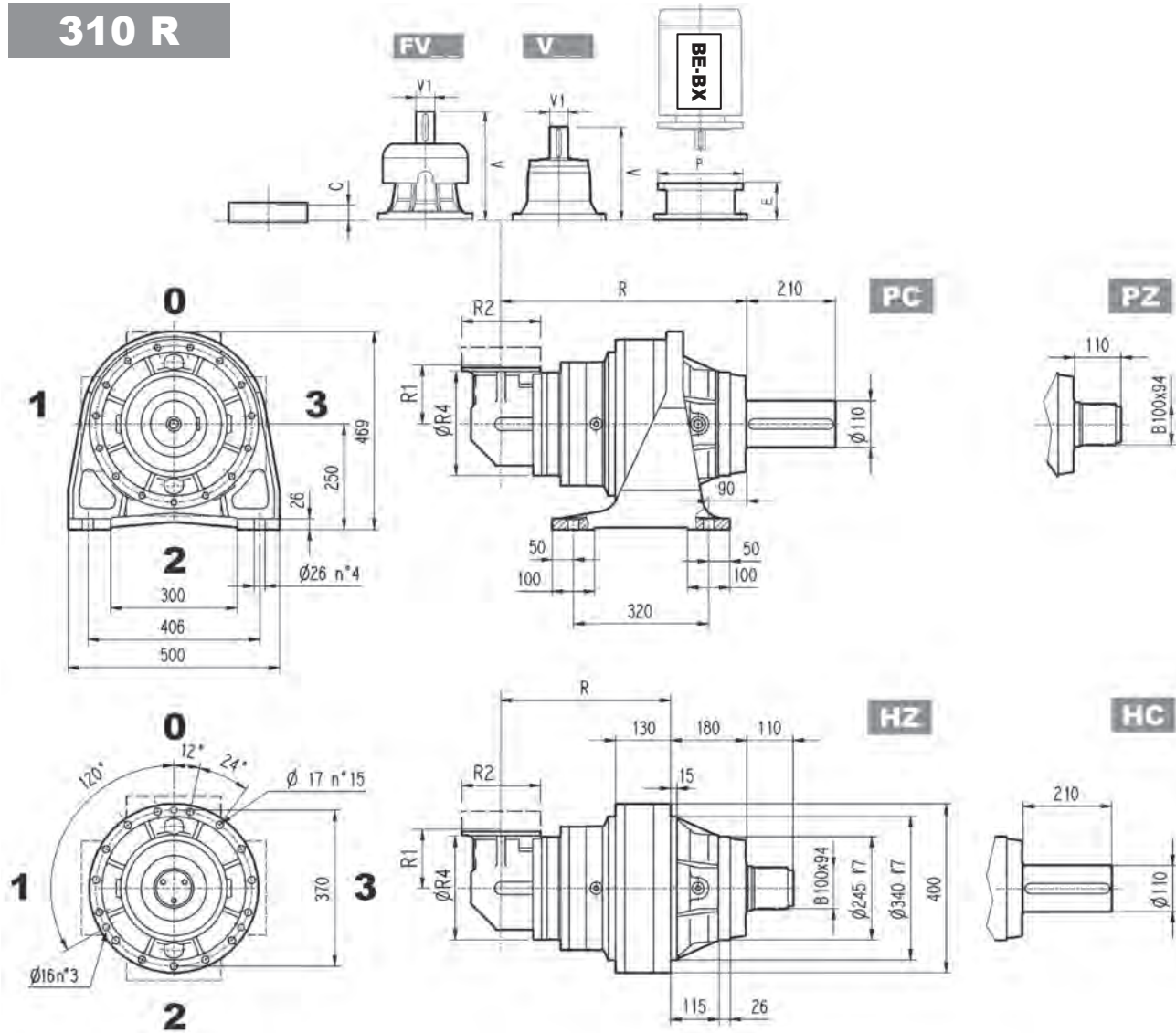
Dimensions are in mm

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
310 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	271	400	301	450	281	550
310 L2	—	—	—	—	—	—	—	—	—	—	—	—	152	350	153	350	183	400	212	450	193	550
310 L3	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—	—
310 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

310 R



Metric



Dimensions are in mm

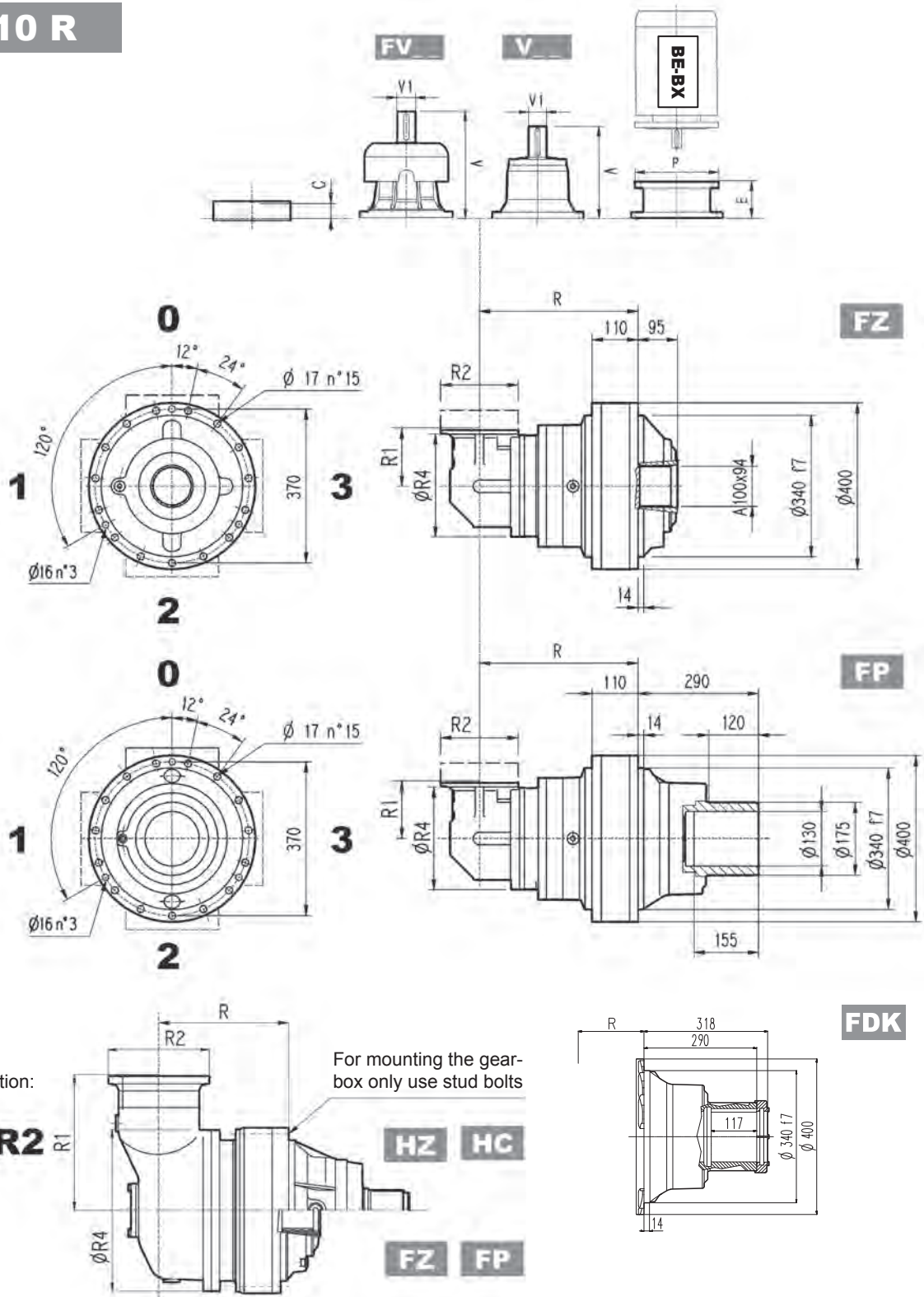
	R				R1	R2	R4	Kg			
	PC-PZ	HC-HZ	FZ	FP - FDK				PC-PZ	HC-HZ	FZ	FP - FDK
310 R2 (B)	495	315	295	295	345	292	400	280	260	240	250
310 R2 (C)	513	333	313	313	390	292	480	300	280	260	270
310 R3	561	381	361	361	140	186	244	209	189	164	169
310 R4	581	401	381	381	140	186	244	214	194	169	174

	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg	C	Input
310 R2 (B)	307	60	23	—	—	—	357	60	28	—	—	—	45	B
310 R2 (C)	307	60	23	—	—	—	357	60	28	—	—	—	45	B
310 R3	137.5	24	6	158	38	7	—	—	—	—	—	—	37	A
310 R4	137.5	24	6	158	38	7	—	—	—	—	—	—	37	A

310 R



Metric



Only for configuration:

For mounting the gear-box only use stud bolts

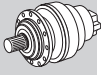
FP

$T_{2max} = 389,430 \text{ lb}\cdot\text{in}$

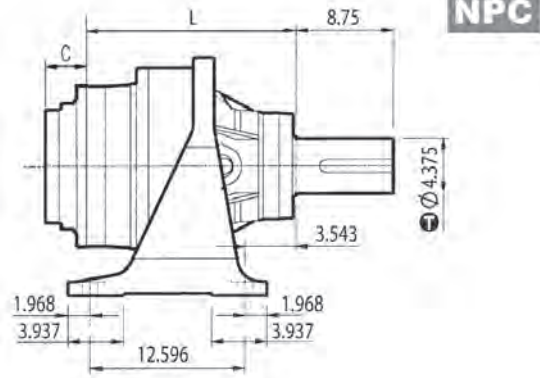
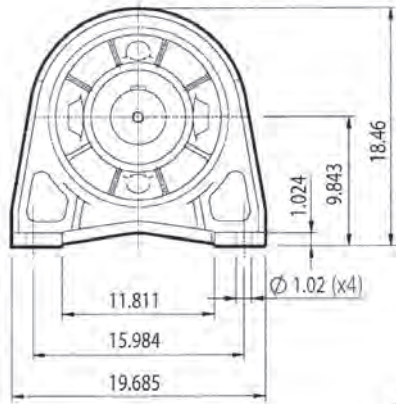
Dimensions are in mm

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
310 R2 (B)	—	—	—	—	—	—	—	—	—	—	—	—	152	350	152	350	182	400	212	450
310 R2 (C)	—	—	—	—	—	—	—	—	—	—	—	—	152	350	152	350	182	400	212	450
310 R3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—
310 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—

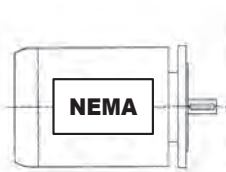
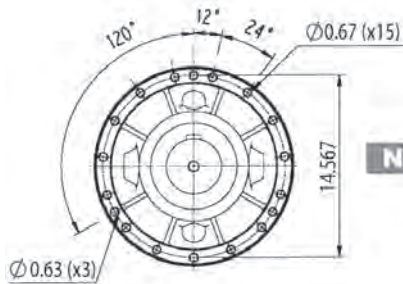
310 L



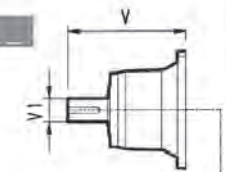
Imperial



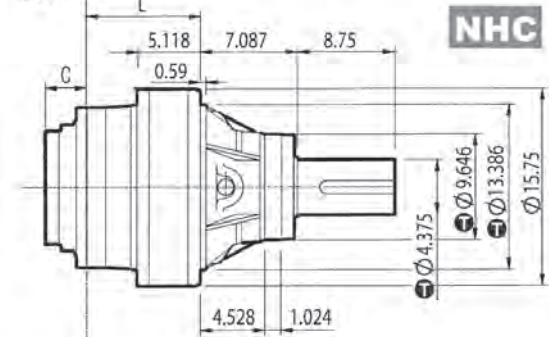
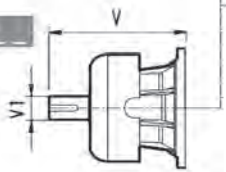
NPC



NV



FNV



NHC

inch	Ⓜ
13.386	-0.00244 -0.00469
9.646	-0.00197 -0.00378
4.375	-0.00142 -0.00280

Dimensions are in Inch except when shown in *italic* [mm]

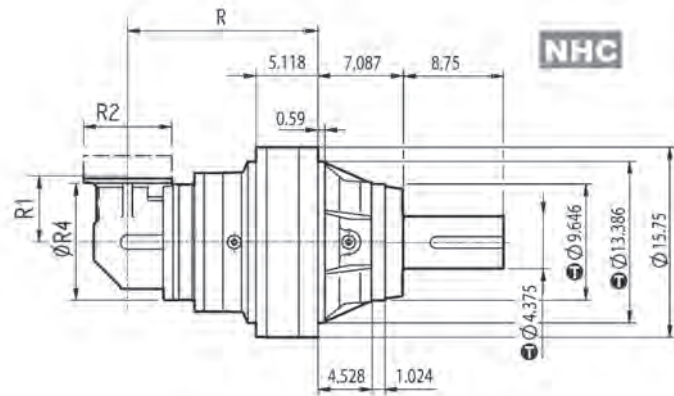
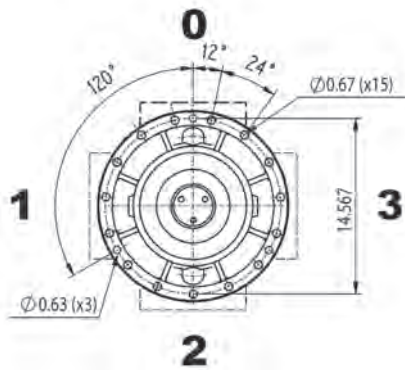
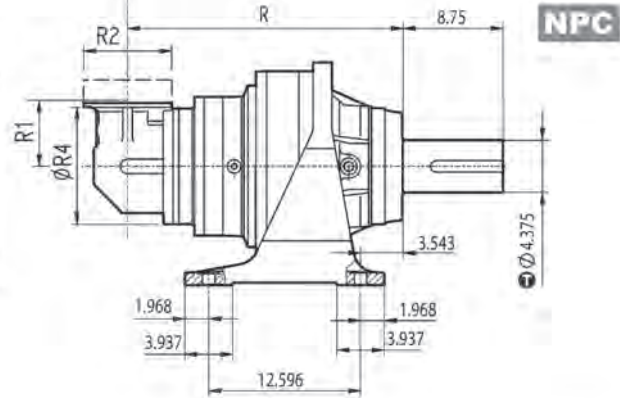
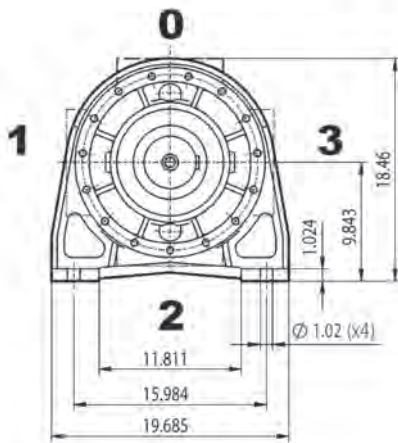
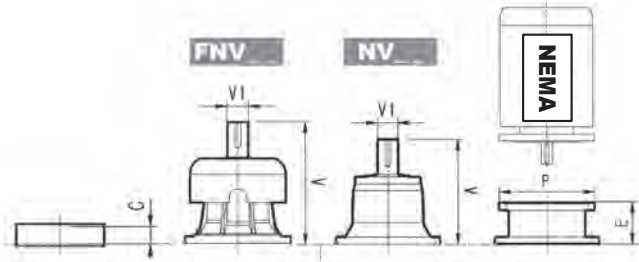
	L		lbs												
	NPC	NHC	NPC	NHC	V	V1	lbs	V	V1	lbs	V	V1	lbs	C	Input
310 L1	11.339	4.252	341.8	297.7	14.724	3.000	110.3	—	—	—	17.874	3.000	130.0	3.465	C
310 L2	16.693	9.606	407.9	363.8	12.703	2.375	50.7	—	—	—	14.652	2.375	58.0	1.772	B
310 L3	19.252	12.165	427.8	383.7	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	1.457	A
310 L4	21.339	14.252	436.6	392.5	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A

	N56C		N140TC		N180TC		N210TC		N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
310 L1	—	—	—	—	—	—	—	—	—	—	—	—	7.776	13.779	7.776	13.779
310 L2	—	—	—	—	—	—	—	—	—	—	—	—	7.776	13.779	7.776	13.779
310 L3	—	—	—	—	—	—	—	—	5.216	11.811	6.221	13.780	—	—	—	—
310 L4	4.508	6.693	4.508	6.693	5.216	8.819	5.216	8.819	5.216	8.819	6.122	11.811	—	—	—	—

310 R

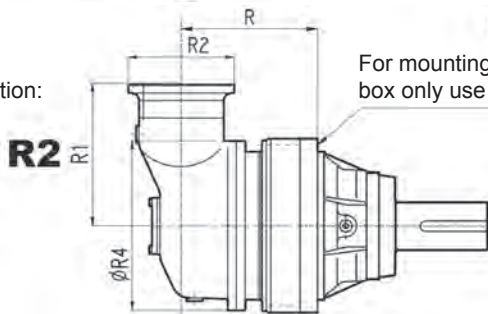


Imperial



Only for configuration:

For mounting the gear-box only use stud bolts



inch	Ⓣ
13.386	-0.00244 -0.00469
9.646	-0.00197 -0.00378
4.375	-0.00142 -0.00280

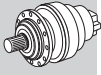
Dimensions are in Inch except when shown in *italic* [mm]

	R		R1	R2	R4	lbs	
	NPC	NHC				NPC	NHC
310 R2 (B)	19.488	12.402	13.583	11.496	15.748	680.0	573.3
310 R2 (C)	20.197	13.110	15.354	11.496	18.898	617.4	680.0
310 R3	22.087	15.000	5.512	7.323	9.606	460.8	416.7
310 R4	22.087	15.787	5.512	7.323	9.606	471.9	427.8

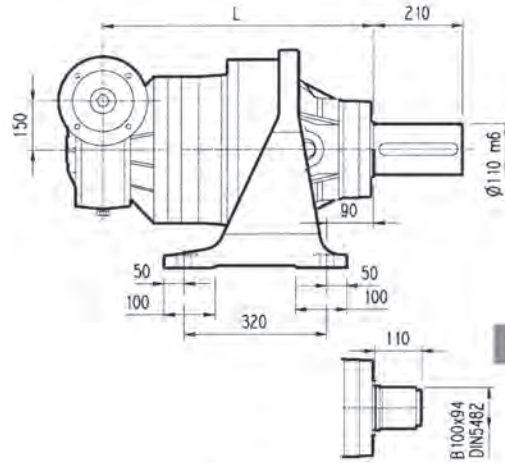
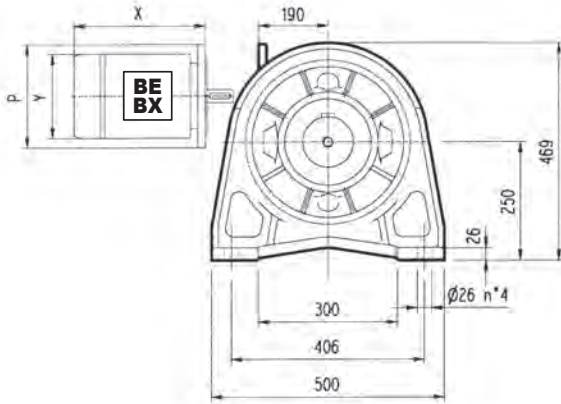
	V		V1		lbs		V		V1		lbs		C	Input
	V	V1	lbs	V	V1	lbs	V	V1	lbs	lbs				
310 R2 (B)	12.703	2.375	50.7	—	—	—	14.652	2.375	58.0	1.772	—	B		
310 R2 (C)	12.703	2.375	50.7	—	—	—	14.652	2.375	58.0	1.772	—	B		
310 R3	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	—	A		
310 R4	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	—	A		

	N56C		N140TC		N180TC		N210TC		N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
310 R2 (B)	—	—	—	—	—	—	—	—	—	—	—	—	7.776	13.779	7.776	13.779
310 R2 (C)	—	—	—	—	—	—	—	—	—	—	—	—	7.776	13.779	7.776	13.779
310 R3	4.508	6.693	4.508	6.693	5.216	8.819	5.216	8.819	5.216	8.819	6.122	11.811	—	—	—	—
310 R4	4.508	6.693	4.508	6.693	5.216	8.819	5.216	8.819	5.216	8.819	6.122	11.811	—	—	—	—

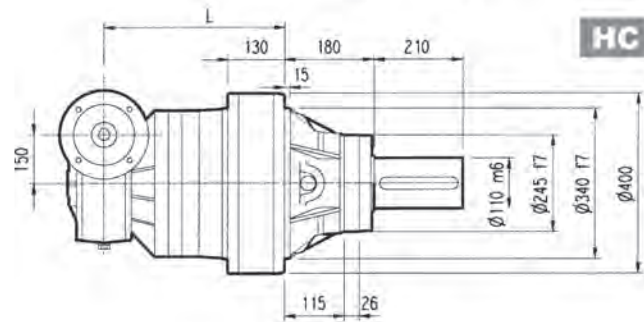
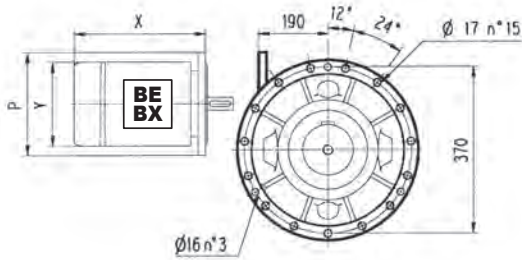
3/V 10 L3



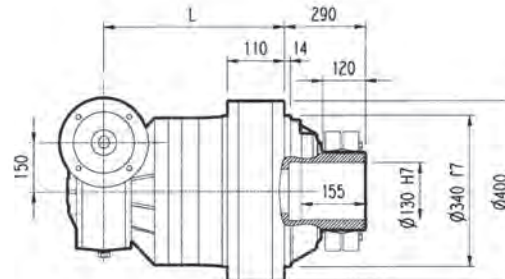
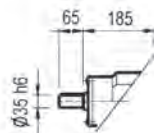
Metric



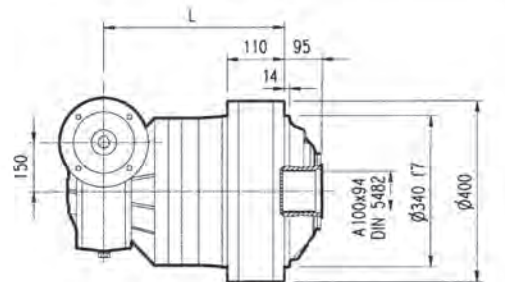
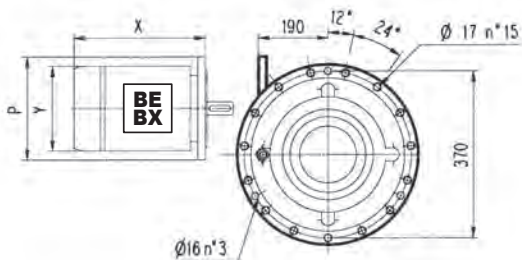
HZ PZ



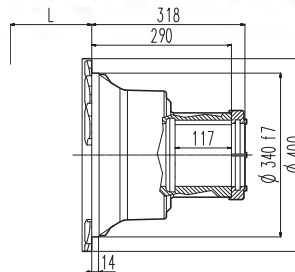
HC



FP



FZ



FDK

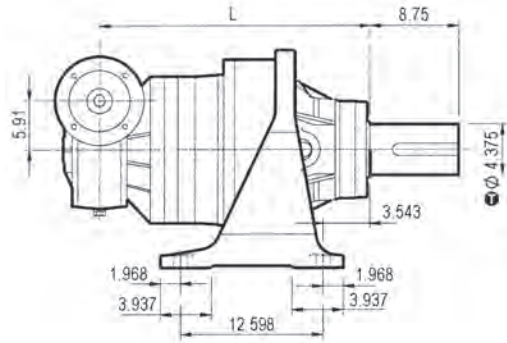
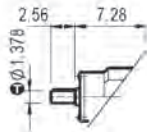
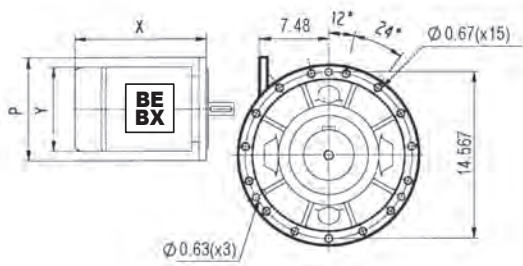
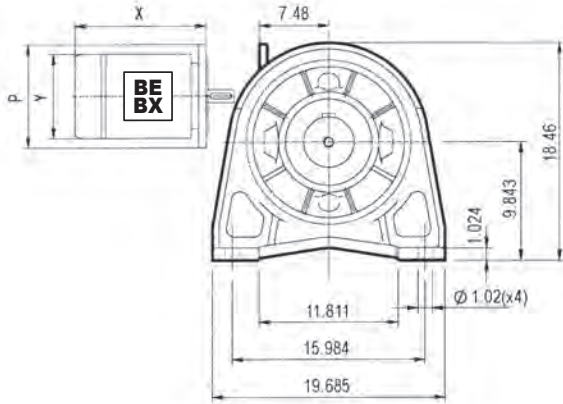
FP

$T_{2max} = 389,430 \text{ lb}\cdot\text{in}$

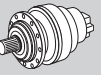
Dimensions are in mm

	L				Kg				P100	P112	P132	P160
	PC - PZ	HC - HZ	FZ	FP - FDK	PC - PZ	HC - HZ	FZ	FP - FDK	P	P	P	P
3/V 10 L3	608	428	408	408	245	225	200	205	250	250	300	300

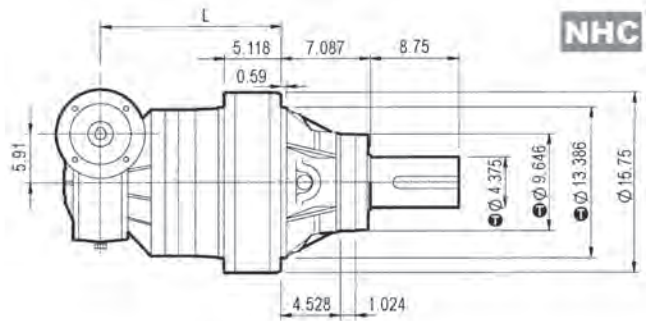
3/V 10 L3



NPC



Imperial



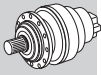
NHC

inch	T
13.386	-0.00244 -0.00469
9.646	-0.00197 -0.00378
4.375	-0.00142 -0.00280

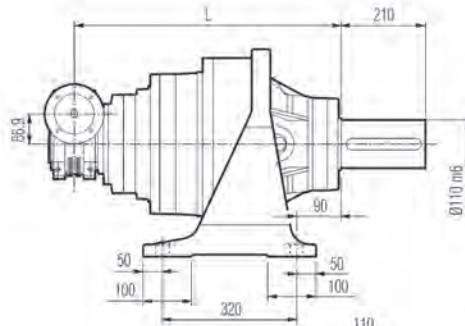
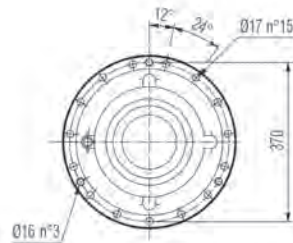
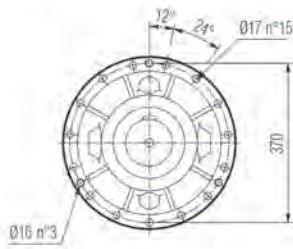
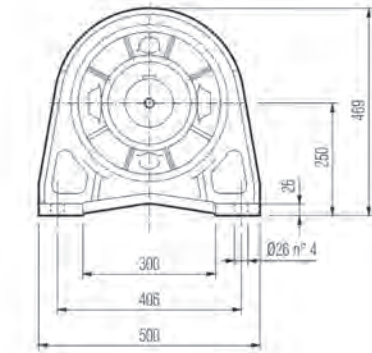
Dimensions are in Inch except when shown in *italic [mm]*

	L		lbs		P100 P	P112 P	P132 P	P160 P
	NPC	NHC	NPC	NHC				
3/V 10 L3	23.94	16.85	540.2	496.1	9.84	9.84	11.81	11.81

3/V 10 L4

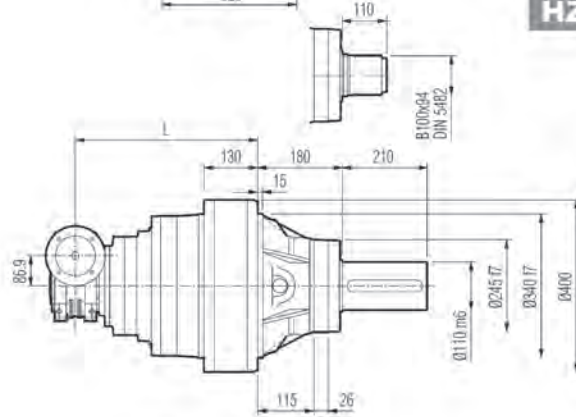


Metric

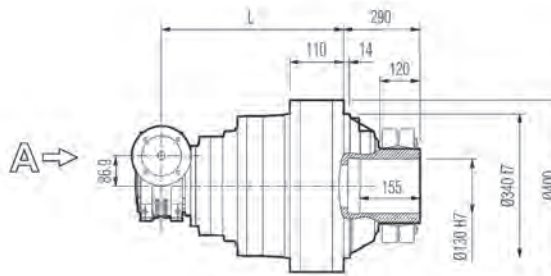


PC

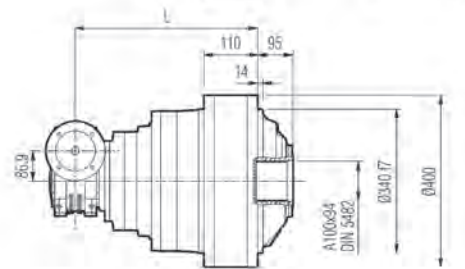
HZ PZ



HC

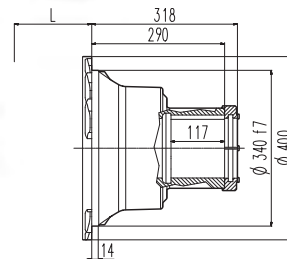
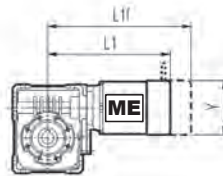
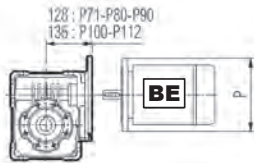
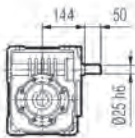


FP



FZ

A



FDK

FP

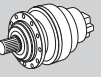
T_{2max} = 389,430 lb·in

Dimensions are in mm

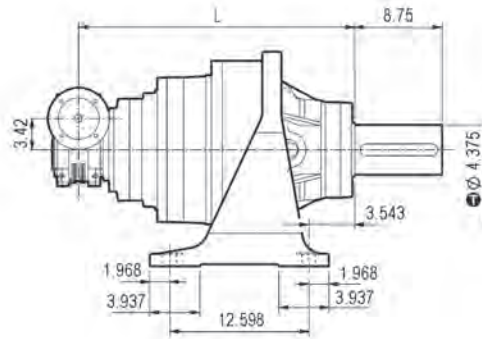
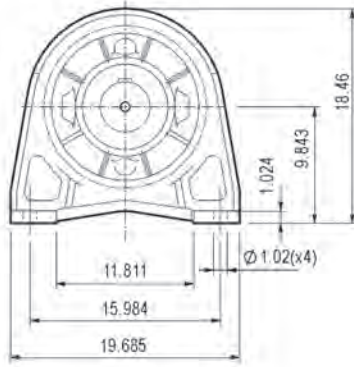
	L								Kg								
	PC - PZ		HC - HZ		FZ	FP	PC - PZ		HC - HZ		FZ	FP - FDK					
3/V 10 L4	634	454	434	434	210	190	165	170									
	P71	P80	P90	P100	P112	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	P	P	P	P	P	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 10 L4	160	200	200	250	250	324	385	138	349	—	156	392	—	193	424	—	193

3/V 10 L4

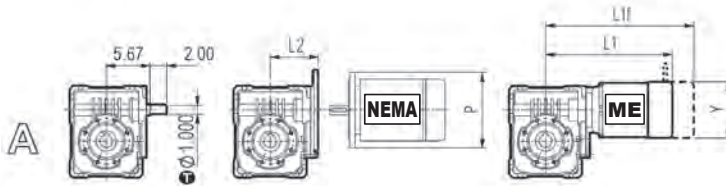
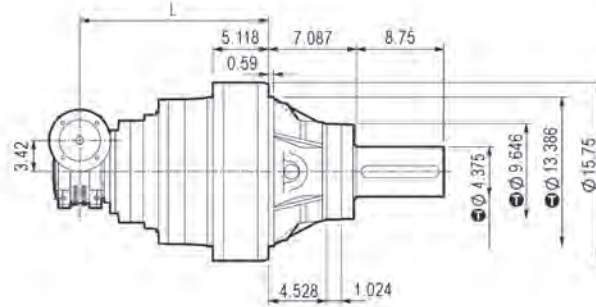
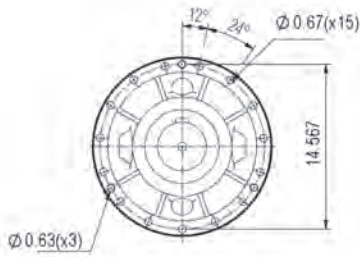
NPC



Imperial



NHC



inch	Ⓜ
13.386	-0.00244 -0.00469
9.646	-0.00197 -0.00378
4.375	-0.00142 -0.00280

Dimensions are in Inch except when shown in *italic* [mm]

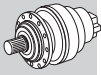
	L		lbs		N56C		N140TC		N180TC	
	NPC	NHC	NPC	NHC	L2	P	L2	P	L2	P
3/V 10 L4	24.96	17.87	463.1	419	4.74	6.54	4.74	6.54	5.45	9.02

	S1 + M1			S2 + ME2S			S3 + ME3S			S3 + ME3L		
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 10 L4	12.756	15.157	5.433	13.740	—	6.142	15.433	—	7.598	16.693	—	7.598

310 L

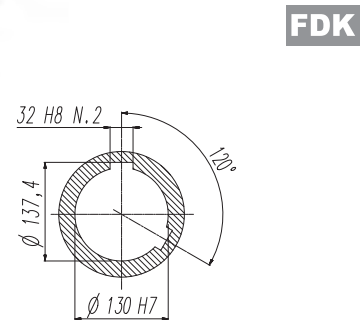
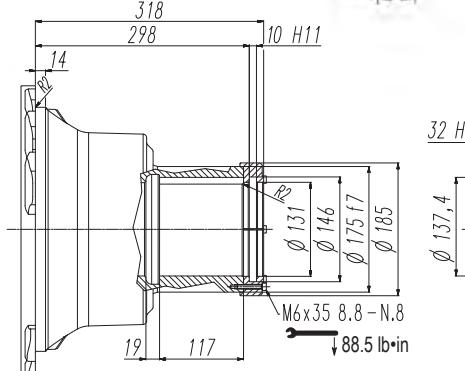
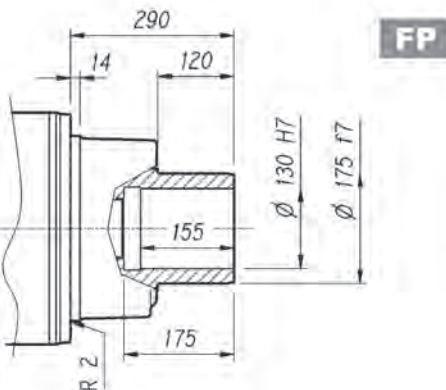
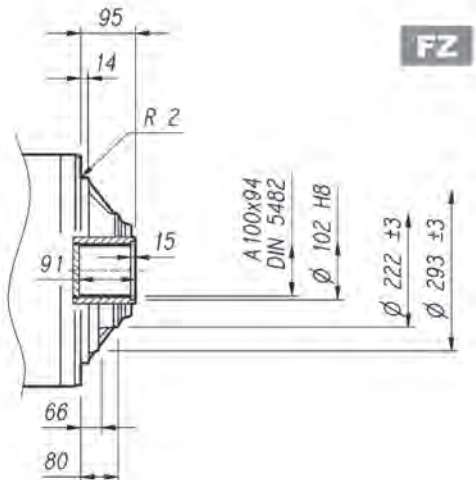
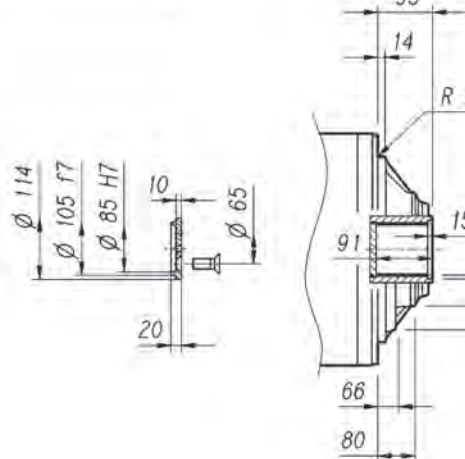
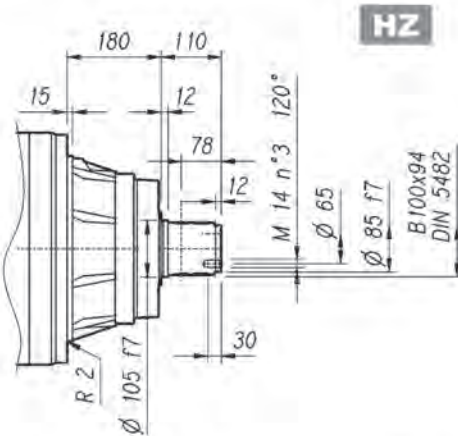
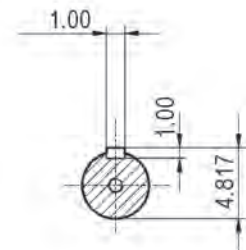
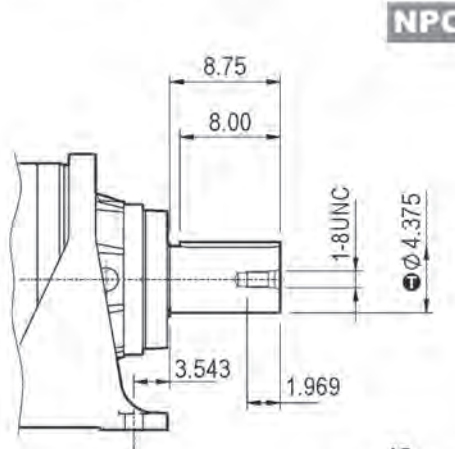
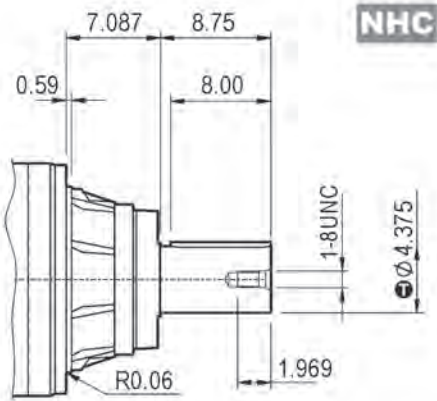
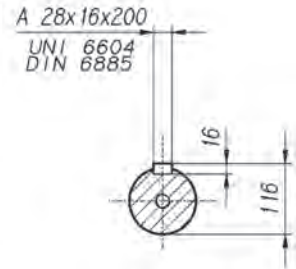
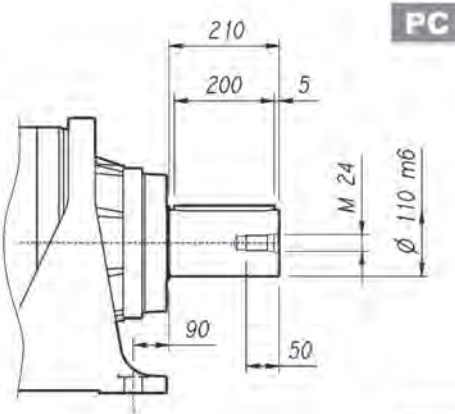
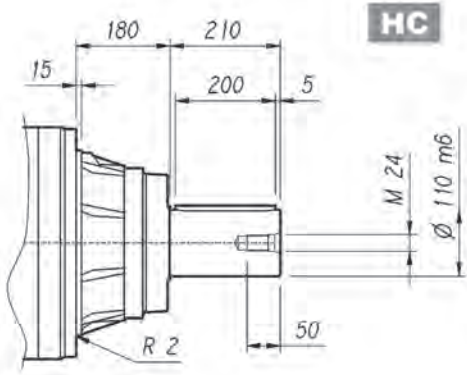
310 R

3/V 10 L



Metric

Imperial



FP

T_{2max} = 389,430 lb·in

Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	
4.375	-0.00142 -0.00280

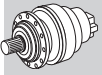
310 L

310 R

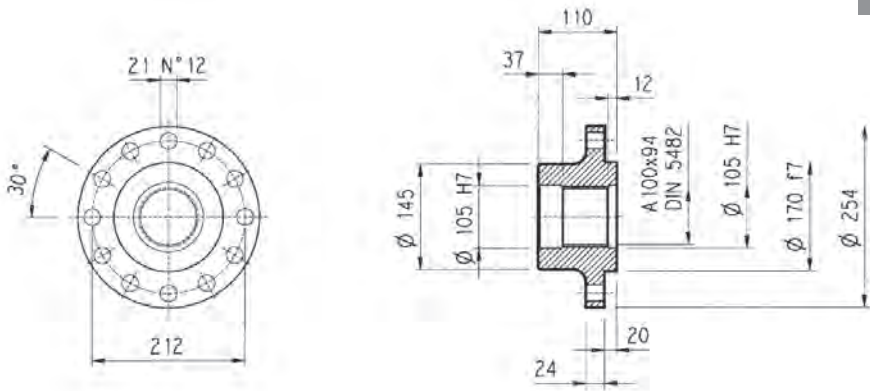
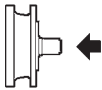
3/V 10 L

Flange

W0A



Metric

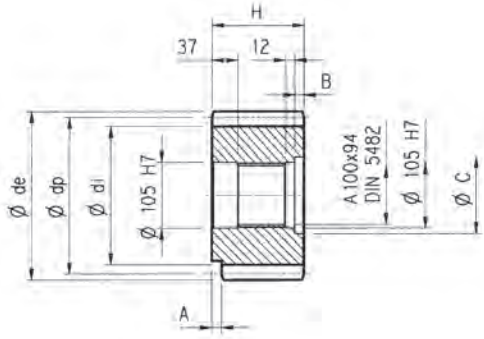
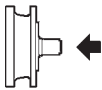


Material: Steel C40

Dimensions are in mm

Pinions

P...



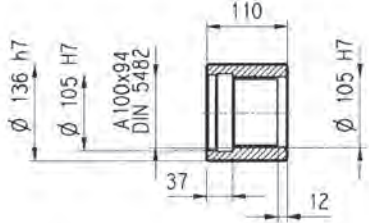
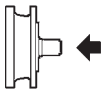
Dimensions are in mm

$\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PLQ	12	23	—	276	246	300	110	—	—	—	Steel 18NiCrMo5 case hardened
PPD	16	13	0.500	208	184	252.5	145	—	35	116	Steel 39NiCrMo3 hardened and tempered
PPF	16	15	0.450	240	215	280	125	—	15	120	

Sleeve coupling

M0A

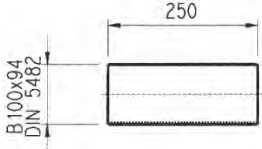
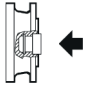


Material: Steel 16CrNi4

Dimensions are in mm

Splined bars

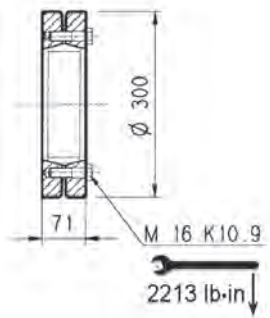
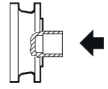
B0A



Material: Case hardening steel 18NiCrMo5 UNI 5331 must be case hardened 50-55 HRC

Shrink disc

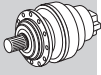
G0A



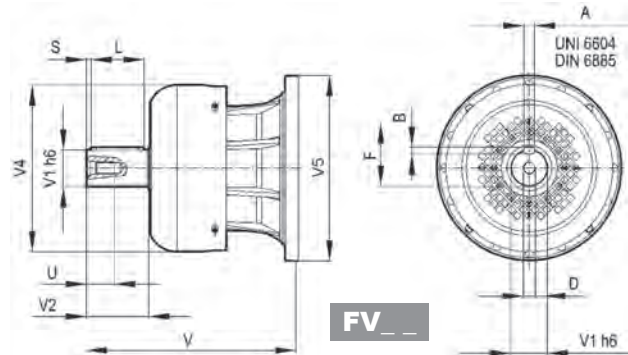
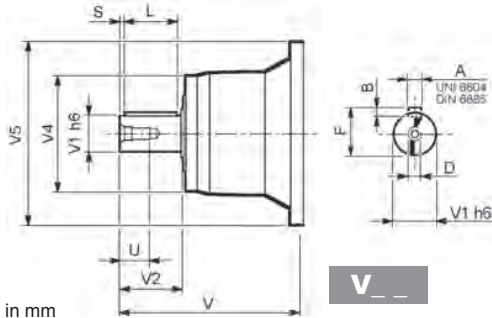
Dimensions are in mm

310 L

310 R



Metric

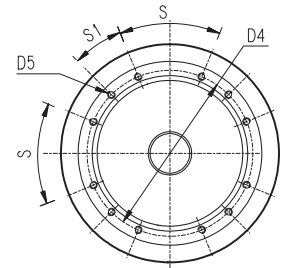
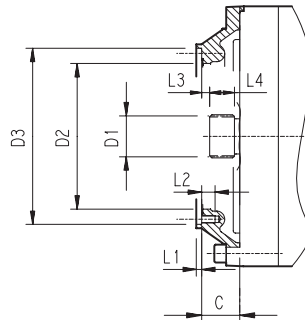
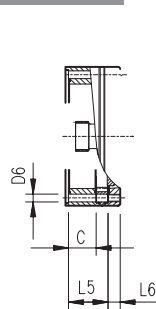


Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
310 L1	V10B	377	80	130	200	400	22	14	85	110	10	M16	36
	FV10B	457	80	130	347.5	400	22	14	85	110	10	M16	36
310 L2	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36
310 L3	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
310 L4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
310 R2 (B) (C)	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36
310 R3-R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

310 L

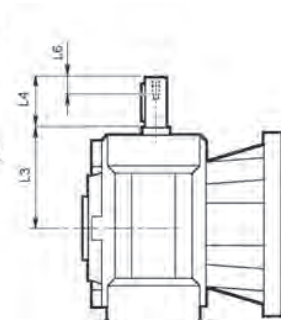
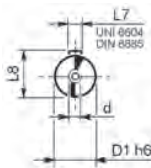
310 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
310 L1	V9AC	88	70x64 DIN 5482	200	282 H7	266	M12 n°12	—	4	22	11	32	—	—	45°	45°	C
310 L2	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
310 L3	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	—	4	18	9	18	—	—	45°	45°	A
310 L4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	53	18	45°	45°	A
310 R2 (B) (C)	V9AA	45	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
310 R3-R4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

3/V 10 L

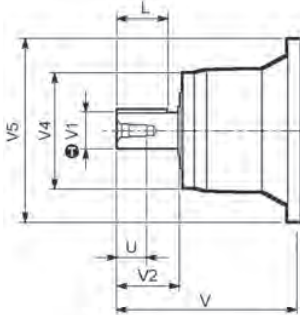


Dimensions are in mm

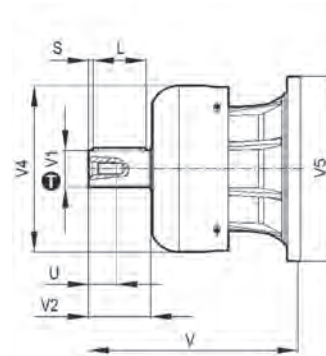
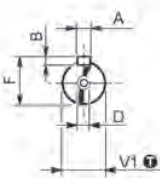
	D1 h6	L3	L4	L6	L7	L8	d
3/V 10 L3_HS	35	185	65	20	10	38	M8
3/V 10 L4_HS	25	144	50	19	8	28	M8

310 L

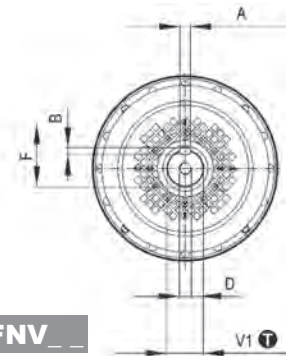
310 R



NV__



FNV__



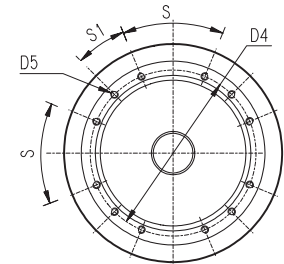
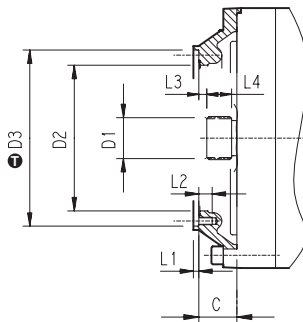
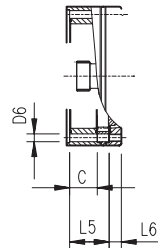
inch	T
3.000	0 -0.00075
2.375	0 -0.00053
1.875	0 -0.00053
1.625	0 -0.00053
1.125	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

		V	V1	V2	V4	V5	A	B	F	L	D	U
310 L1	NV10B	14.724	3.000	5.000	7.165	15.748	0.750	0.750	3.328	4.374	3/4 -10 UNC	1.654
	FNV10B	17.874	3.000	5.000	13.677	15.748	0.750	0.750	3.328	4.374	3/4 -10 UNC	1.654
310 L2	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4 -10 UNC	1.654
	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4 -10 UNC	1.654
310 L3	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
310 L4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
310 R2 (B) (C)	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4 -10 UNC	1.654
	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4 -10 UNC	1.654
310 R3-R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

310 L

310 R

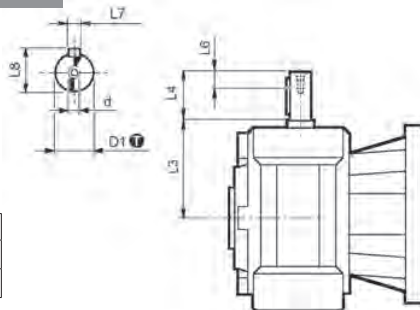


inch	T
11.10	0 +0.00204
9.29	0 +0.00181
7.01	0 +0.00157

Dimensions are in Inch except when shown in *italic* [mm]

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
310 L1	V9AC	3.46	<i>70x64 DIN 5482</i>	7.87	11.10	10.47	<i>M12 n°12</i>	—	0.16	0.87	0.43	1.26	—	—	45°	45°	C
310 L2	V9AB	1.77	<i>58x53 DIN 5482</i>	7.68	9.29	8.74	<i>M10 n°12</i>	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
310 L3	V9AA	1.46	<i>40x36 DIN 5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
310 L4	V9AA	1.46	<i>40x36 DIN 5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	2.09	0.71	45°	45°	A
310 R2 (B) (C)	V9AA	1.77	<i>58x53 DIN 5482</i>	7.68	9.29	8.74	<i>M10 n°12</i>	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
310 R3-R4	V9AA	1.46	<i>40x36 DIN 5482</i>	5.51	7.01	6.50	<i>M10 n°8</i>	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 10 L



inch	T
1.378	0 -0.00063
1.000	0 -0.00051

Dimensions are in Inch except when shown in *italic* [mm]

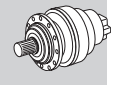
	D1	L3	L4	L6	L7	L8	d
3/V 10 L3_HS	1.378	7.28	2.56	0.787	0.394	1.496	<i>M8</i>
3/V 10 L4_NHS	1.000	11.89	1.969	0.75	0.250	1.109	3/8-16UNC

310 L

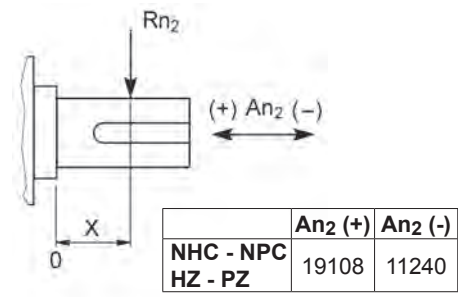
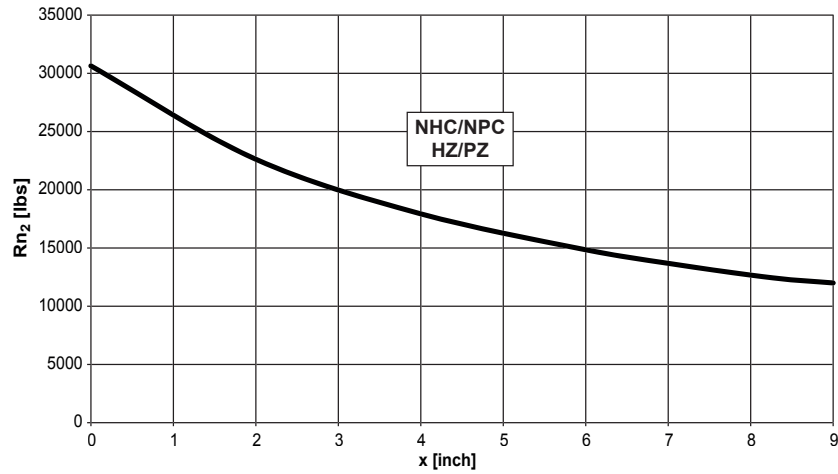
310 R

3/V 10 L

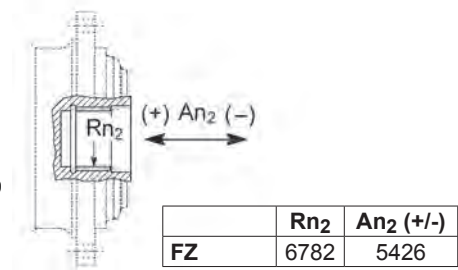
Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$



Imperial



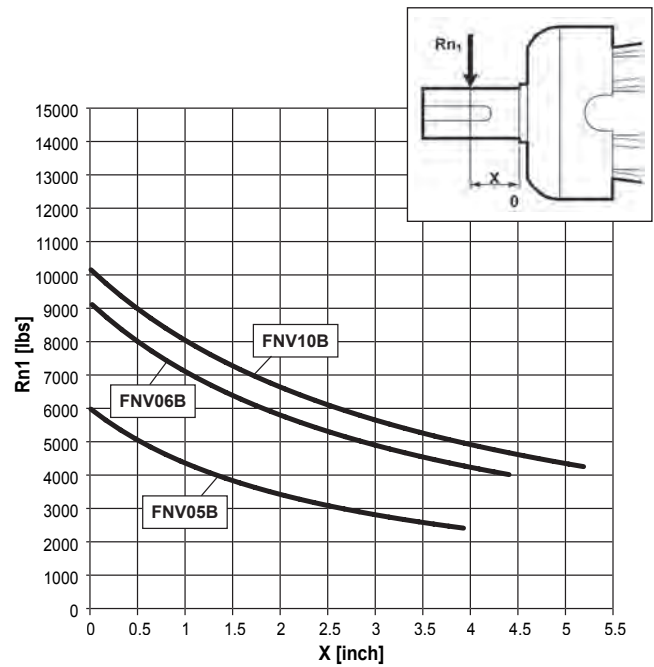
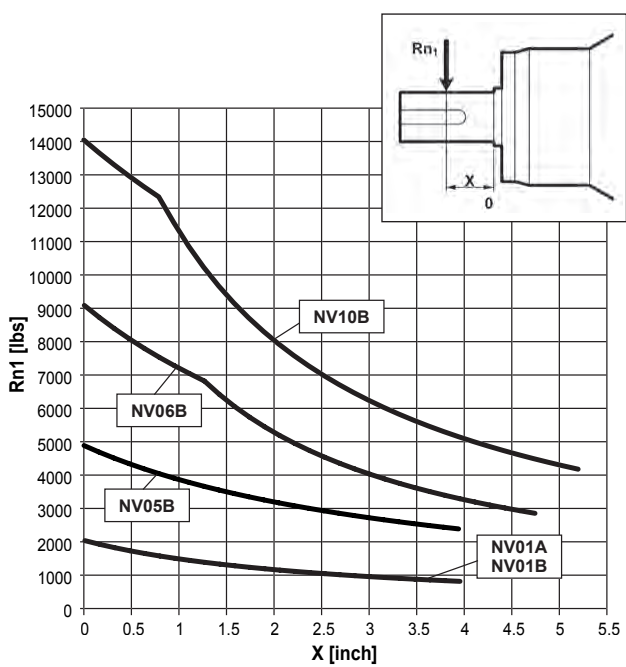
	An2 (+)	An2 (-)
NHC - NPC HZ - PZ	19108	11240



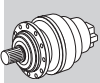
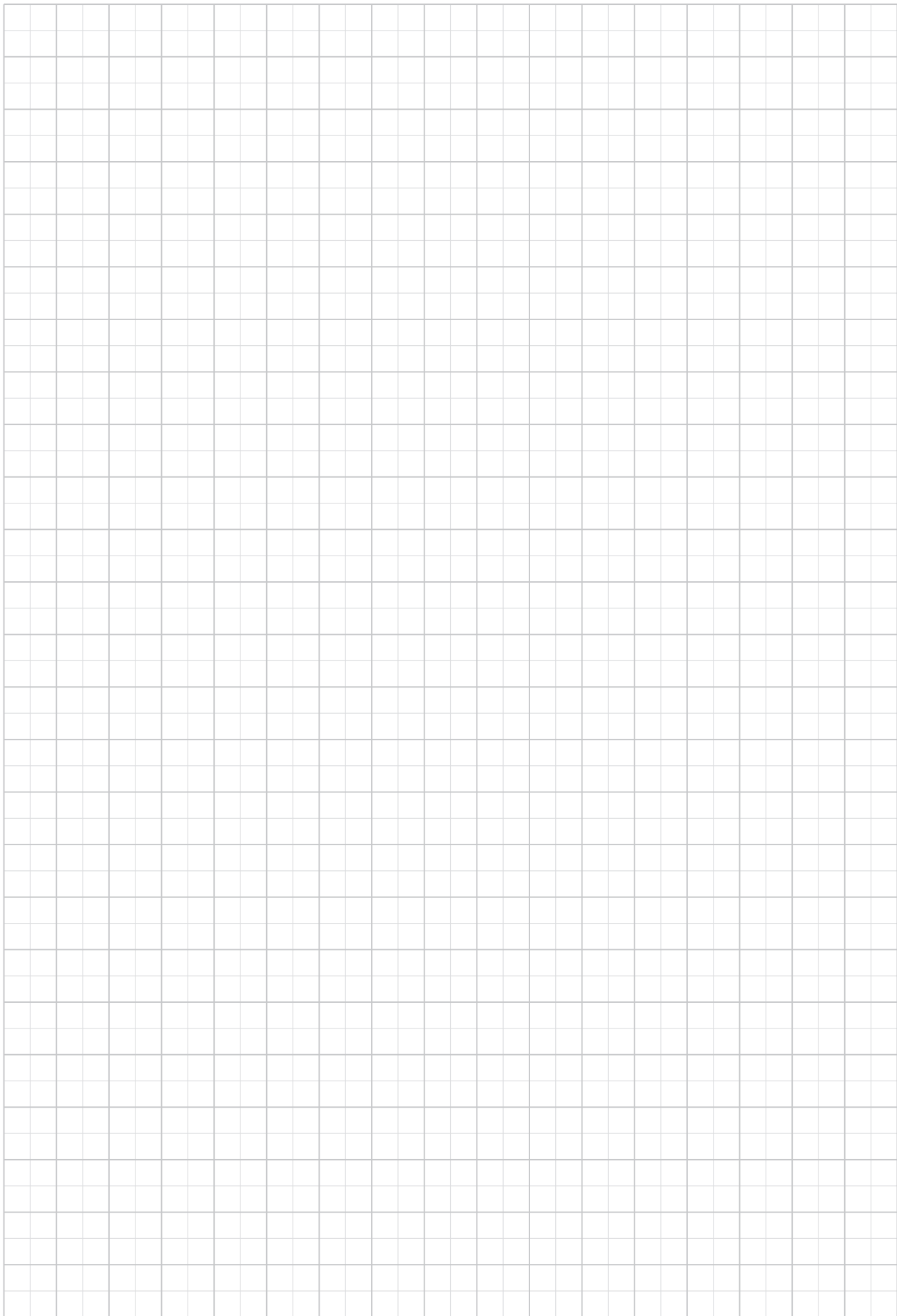
	Rn2	An2 (+/-)
FZ	6782	5426

Load corrective factor fh2 on shafts	Fh2 = n2 · h						
	fh2	10000	25000	50000	100000	500000	1000000
		FZ	2.15	1.59	1.26	1.00	0.58
	NHC - NPC - HZ - PZ	1.27	1.27	1.23	1.00	0.62	0.50

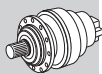
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



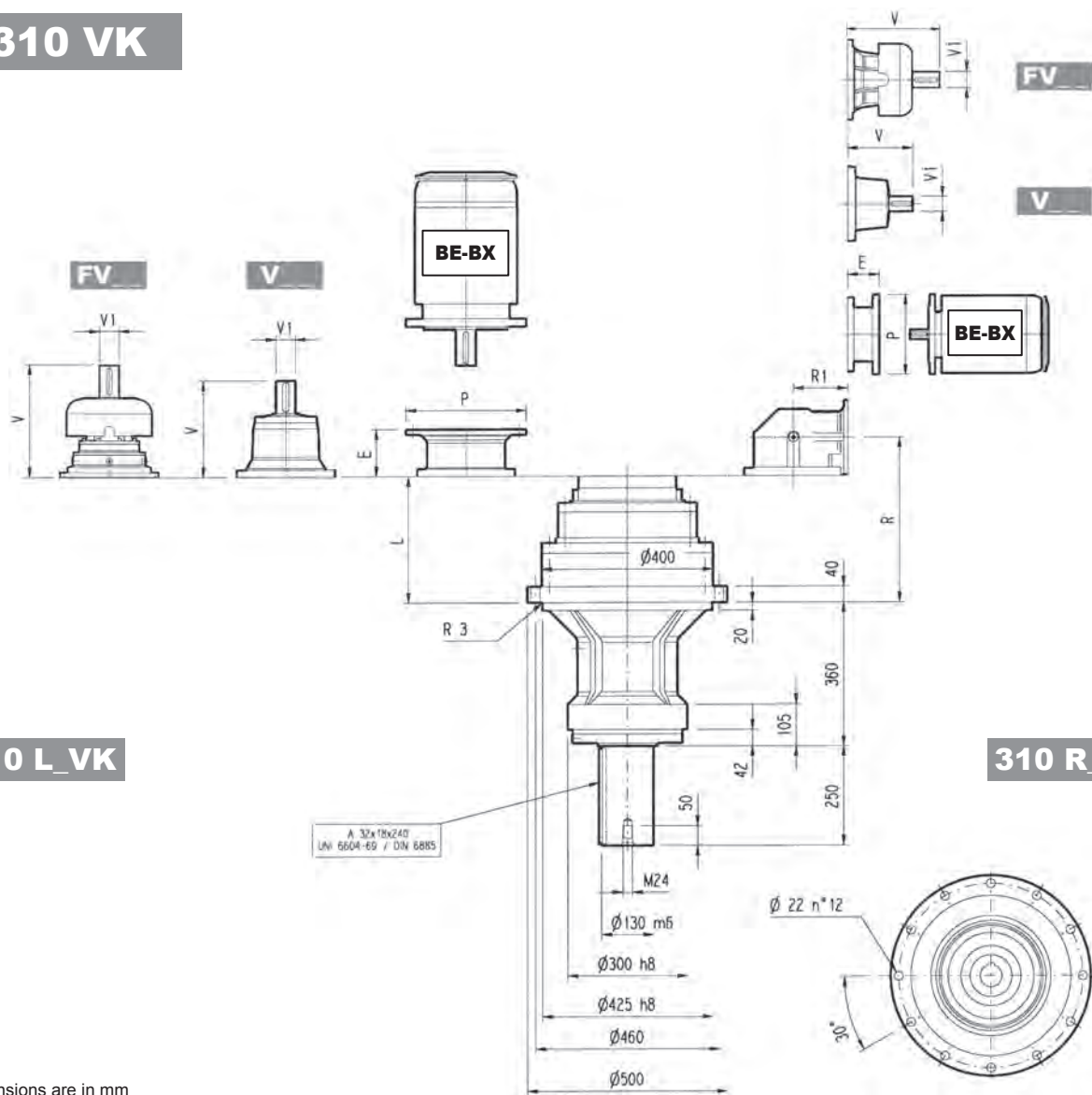
Load corrective factor fh1 on shafts	Fh1 = n1 · h						
	fh1	250000	500000	1000000	2000000	5000000	10000000
	1	0.79	0.63	0.50	0.37	0.29	



310 VK



Metric



310 L_VK

310 R_VK

Dimensions are in mm

	L			V						V1					
	L	kg		V	V1	kg	V	V1	kg	V	V1	kg	V	V1	kg
310 L1	107	200		377	80	50	—	—	—	457	80	63	—	—	—
310 L2	243	230		307	60	23	—	—	—	357	60	28	—	—	—
310 L3	308	240		239	48	15	—	—	—	276	48	17	—	—	—
310 L4	361	245		137.5	24	6	158	38	7	—	—	—	—	—	—

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
310 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	271	400	301	450	281	550
310 L2	—	—	—	—	—	—	—	—	—	—	—	—	152	350	153	350	183	400	212	450	193	550
310 L3	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—
310 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

	R		R1		V						V1					
	R	R1	kg		V	V1	kg	V	V1	kg	V	V1	kg	V	V1	kg
310 R2 (B)	315	345	320		307	60	23	—	—	—	357	60	28	—	—	—
310 R2 (C)	333	390	340		307	60	23	—	—	—	357	60	28	—	—	—
310 R3	380	140	250		137.5	24	6	158	38	7	—	—	—	—	—	—
310 R4	400	140	260		137.5	24	6	158	38	7	—	—	—	—	—	—

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
310 R2 (B)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450
310 R2 (C)	—	—	—	—	—	—	—	—	—	—	114	300	152	350	152	350	182	400	212	450
310 R3	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—
310 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—

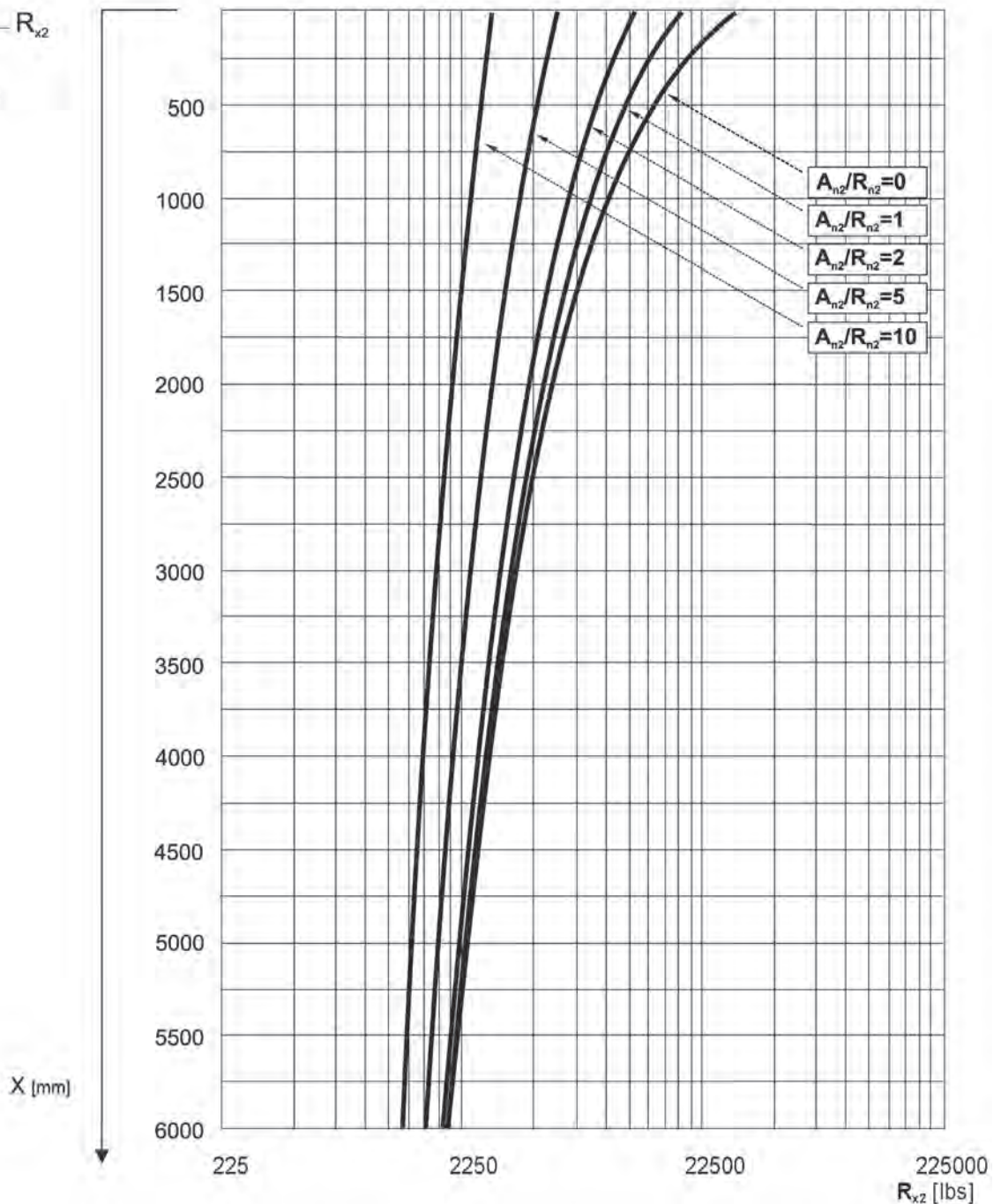
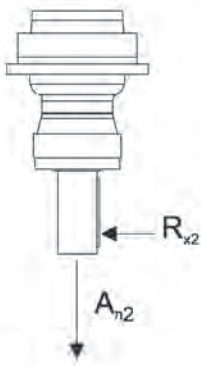
310 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

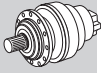
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



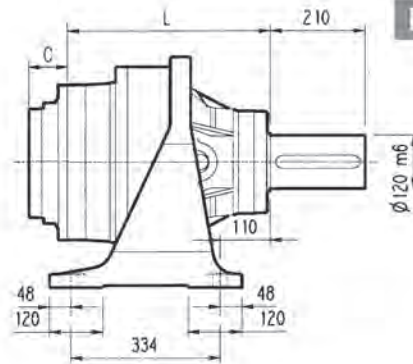
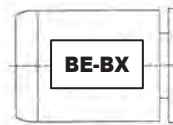
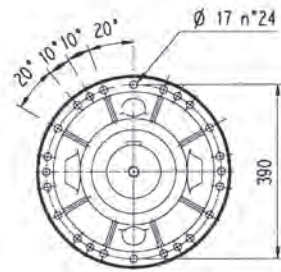
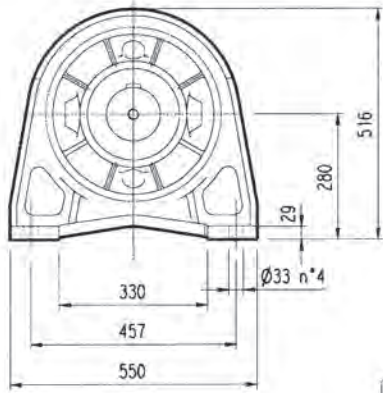
Metric



311 L

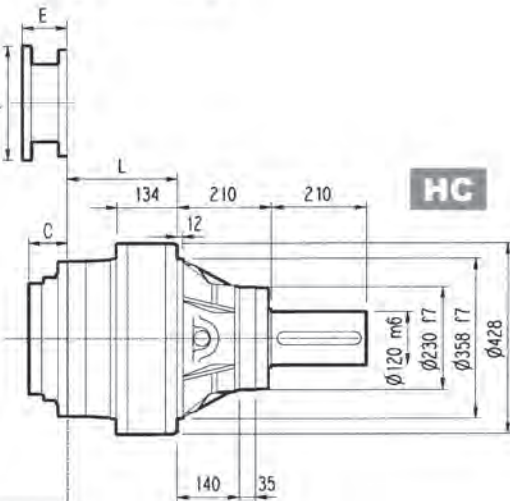
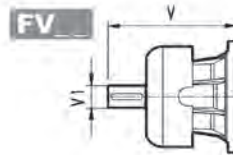
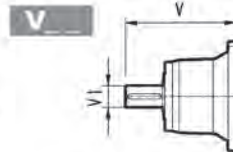
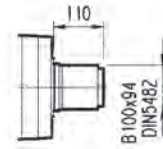


Metric



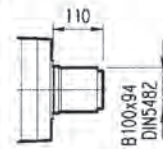
PC

PZ



HC

HZ

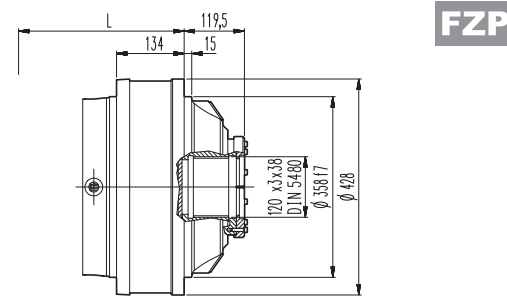
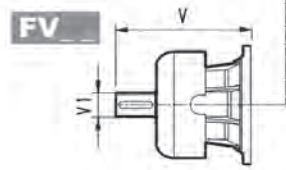
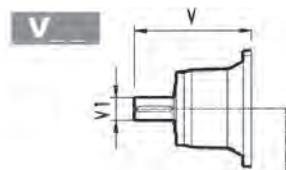
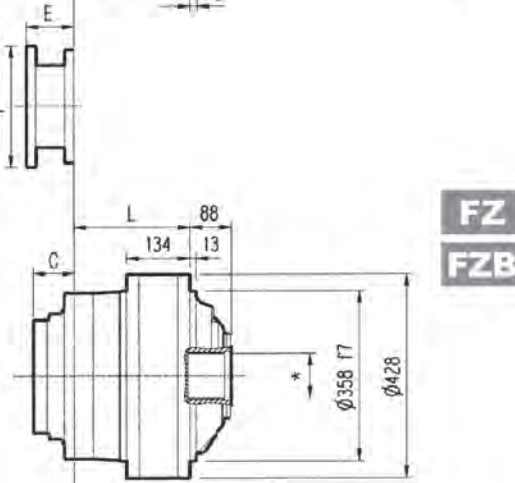
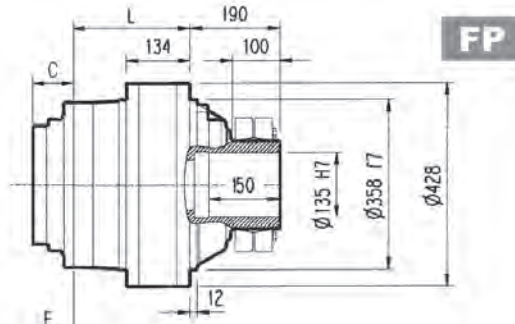
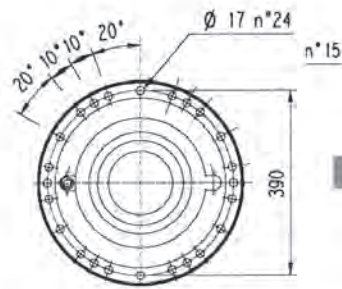
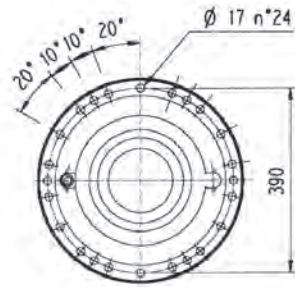


Dimensions are in mm

	L				Kg			
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP
311 L1	325	115	115	115	250	180	160	170
311 L2	458	248	248	248	295	225	205	215
311 L3	547	337	337	337	307	237	217	227
311 L4	612	402	402	402	314	244	224	234

	V						V1						C	Input
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg		
311 L1	348	80	55	—	—	—	456	80	85	—	—	—	81	D
311 L2	315	80	35	313	60	28	375	80	48	363	60	34	51	B
311 L3	239	48	15	—	—	—	276	48	17	—	—	—	37	A
311 L4	137.5	24	6	158	38	7	—	—	—	—	—	—	37	A

311 L



FZB $T_{2max} = 592,110 \text{ lb}\cdot\text{in}$

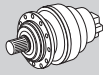
FP $T_{2max} = 486,790 \text{ lb}\cdot\text{in}$

Dimensions are in mm

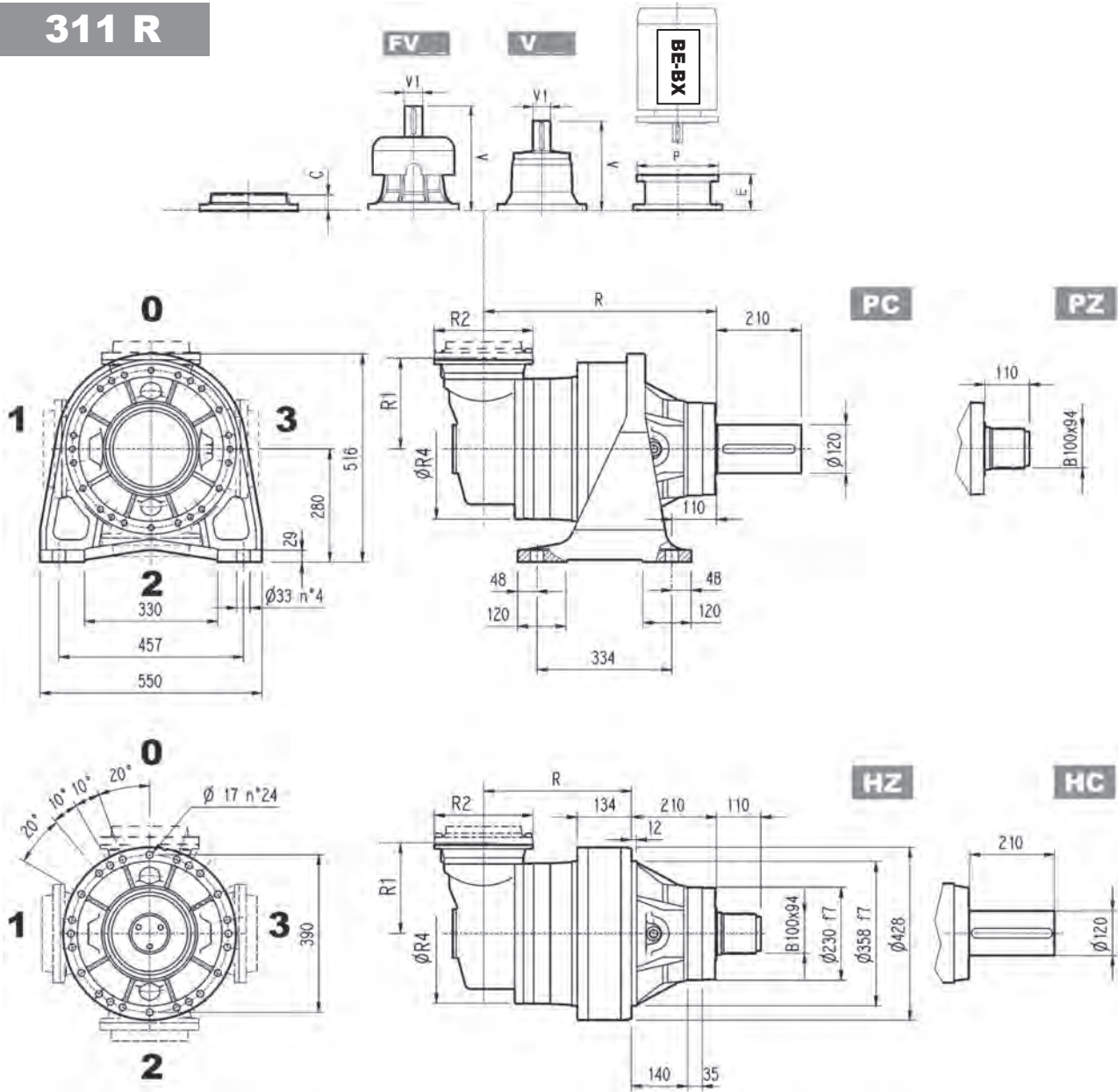
* For dimensions refer to page 392

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
311 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	267	400	297	450	297	550
311 L2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	195	350	186	400	216	450	216	550
311 L3	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—	—
311 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

311 R



Metric

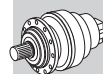


Dimensions are in mm

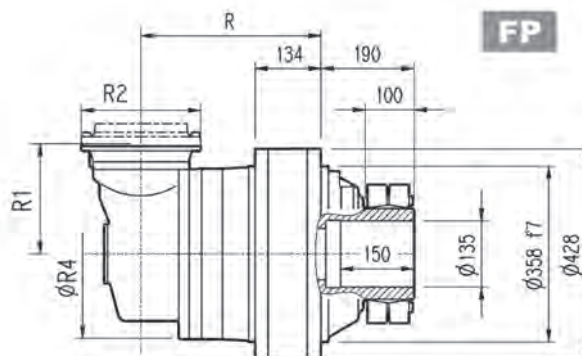
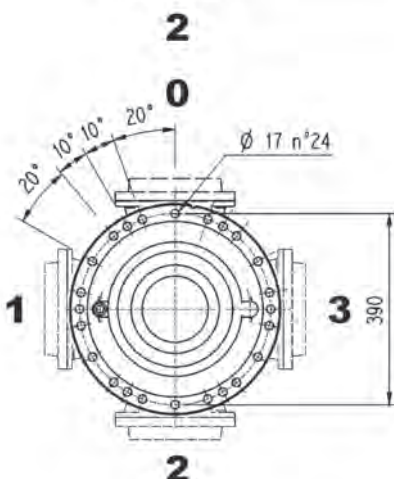
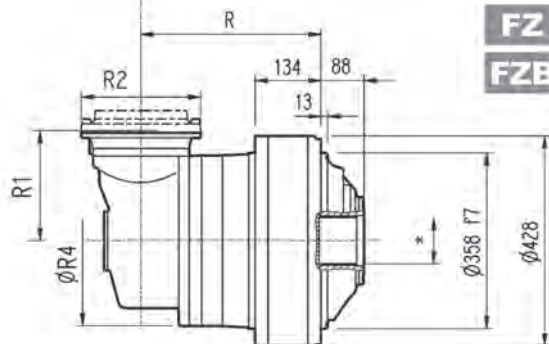
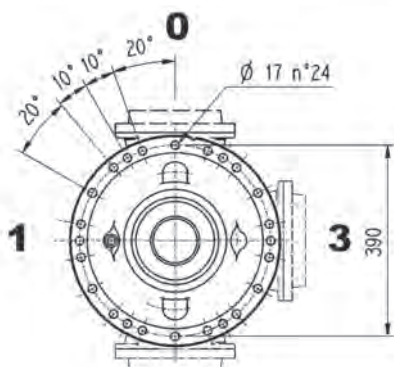
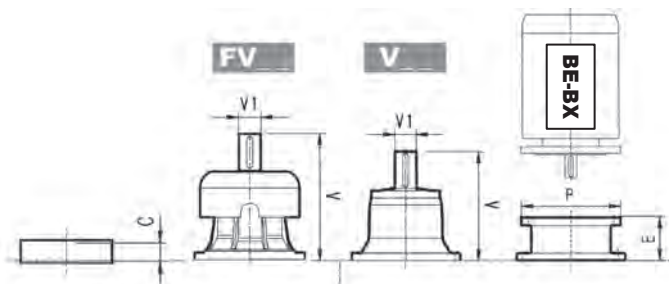
	R				R1	R2	R4				
	PC-PZ	HC-HZ	FZ - FZP	FP				PC-PZ	HC-HZ	FZ - FZP	FP
311 R2 (B)	550	340	340	340	345	292	400	380	310	290	300
311 R2 (C)	550	340	340	340	390	292	480	390	320	300	310
311 R3	577	367	367	367	225	245	375	345	275	255	265
311 R4	639	429	429	429	140	186	244	327	257	237	247

													C	Input
	V	V1		V	V1		V	V1		V	V1			
311 R2 (B)	307	60	23	—	—	—	357	60	28	—	—	—	45	B
311 R2 (C)	307	60	23	—	—	—	357	60	28	—	—	—	45	B
311 R3	239	48	15	—	—	—	276	48	17	—	—	—	37	A
311 R4	137.5	24	6	158	38	7	—	—	—	—	—	—	37	A

311 R

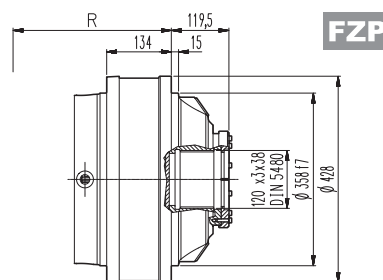
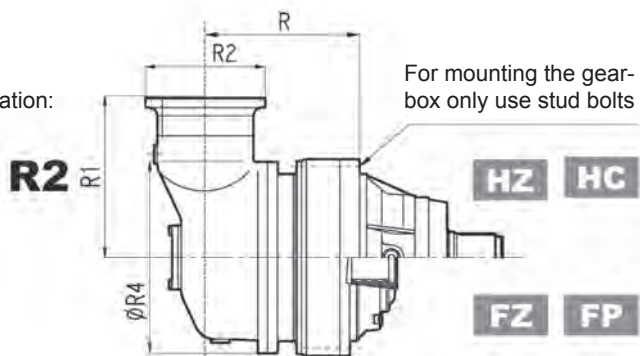


Metric



Only for configuration:

For mounting the gear-box only use stud bolts



FZB T_{2max} = 592,110 lb·in

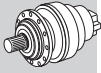
FP T_{2max} = 486,790 lb·in

Dimensions are in mm

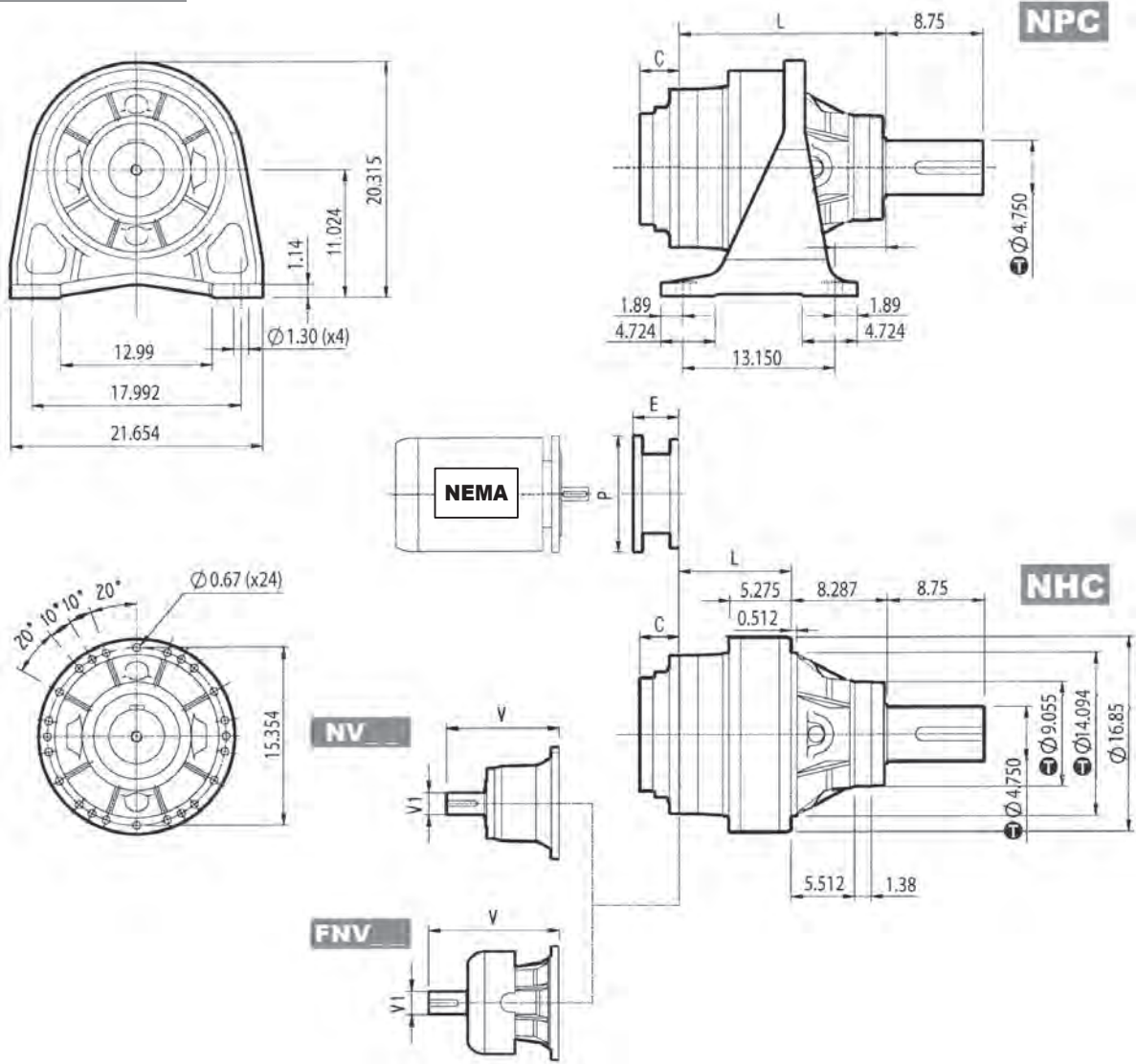
* For dimensions refer to page 392

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
311 R2 (B)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550
311 R2 (C)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550
311 R3	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—	—
311 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

311 L



Imperial



inch	Ⓜ
14.094	-0.00244 -0.00469
9.055	-0.00197 -0.00378
4.750	+0.00157 +0.00059

Dimensions are in Inch except when shown in *italic* [mm]

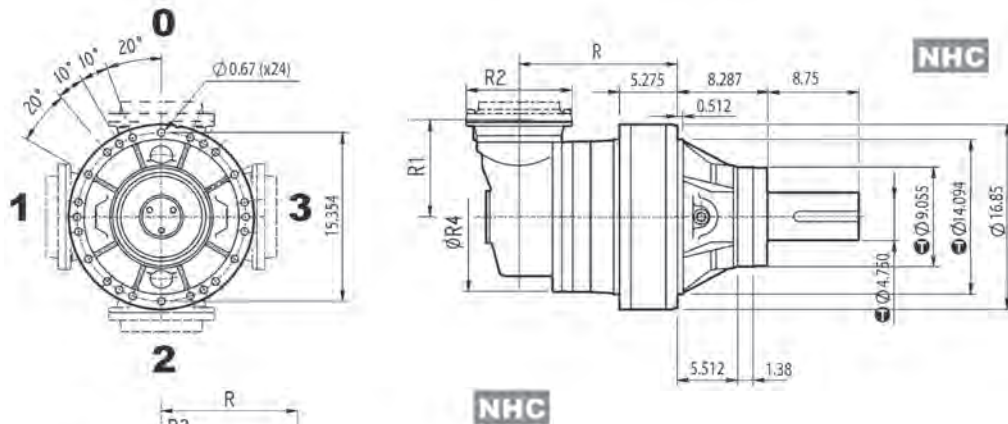
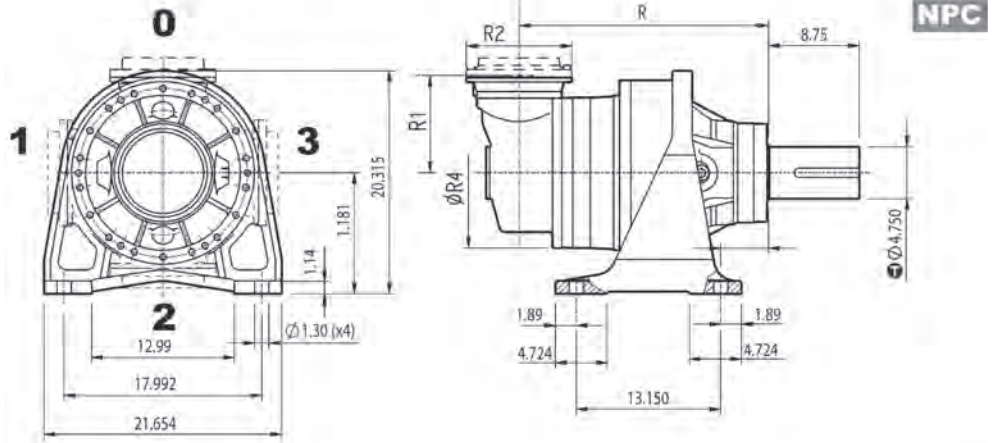
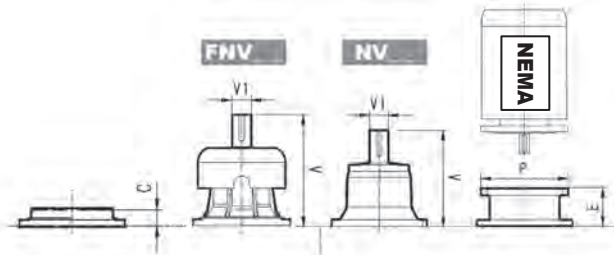
	L		lbs												C	Input		
	NPC	NHC	NPC	NHC	V	V1	lbs	V	V1	lbs	V	V1	lbs					
311 L1	12.795	4.528	551.3	396.9	13.563	3.000	121.3	—	—	—	—	—	—	17.835	3.000	140.0	3.189	D
311 L2	18.031	9.764	650.5	496.1	13.130	2.375	29.8	12.283	3.000	77.2	14.646	3.000	90.0	15.104	2.375	38.0	2.008	B
311 L3	21.535	13.268	676.9	522.6	9.681	1.875	33.1	—	—	—	—	—	—	11.138	1.875	38.0	1.457	A
311 L4	24.094	15.827	692.4	538.0	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	—	—	—	1.457	A

	N56C		N140TC		N180TC		N210TC		N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
311 L2	—	—	—	—	—	—	—	—	—	—	—	—	7.776	15.748	7.776	15.748
311 L3	—	—	—	—	—	—	—	—	5.216	11.811	6.221	13.780	—	—	—	—
311 L4	4.508	6.693	4.508	6.693	5.216	8.819	5.216	8.819	5.216	8.819	6.122	11.811	—	—	—	—

311 R

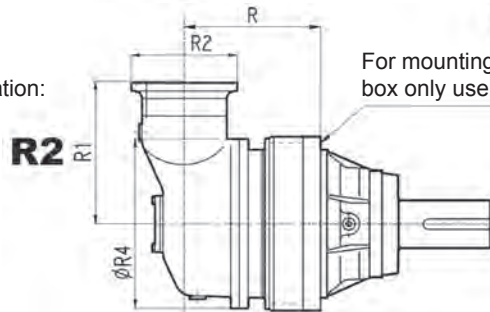


Imperial



Only for configuration:

For mounting the gear-box only use stud bolts



inch	Ⓢ
14.094	-0.00244 -0.00469
9.055	-0.00197 -0.00378
4.750	+0.00157 +0.00059

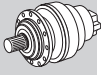
Dimensions are in Inch except when shown in *italics* [mm]

	R		R1	R2	R4	lbs	
	NPC	NHC				NPC	NHC
311 R2 (B)	21.654	13.386	13.583	11.496	15.748	837.9	705.6
311 R2 (C)	21.654	13.386	15.354	11.496	18.898	860.0	606.4
311 R3	22.717	14.449	8.858	9.646	14.764	760.7	606.4
311 R4	25.157	16.890	5.512	7.323	9.606	721.0	566.7

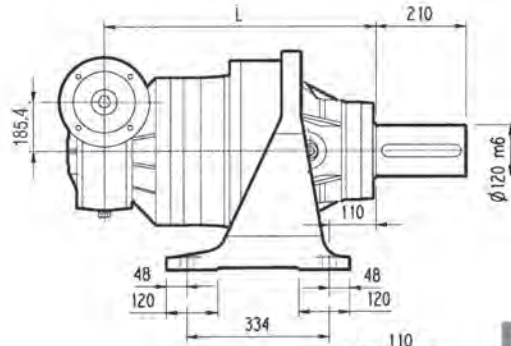
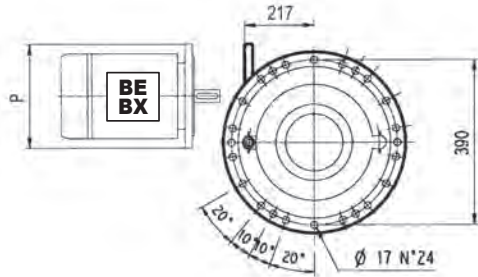
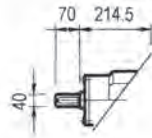
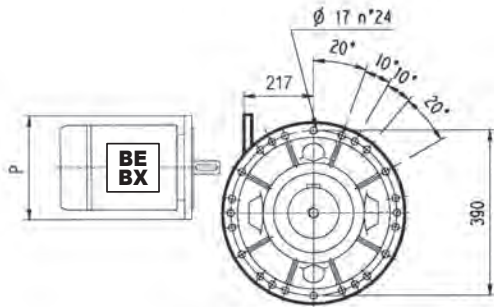
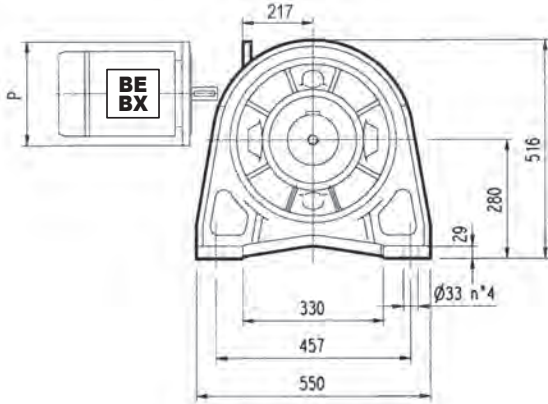
	V			V1			C	Input
	lbs	lbs	lbs	lbs	lbs	lbs		
311 R2 (B)	12.703	2.375	50.7	—	—	—	1.772	B
311 R2 (C)	12.703	2.375	50.7	—	—	—	1.772	B
311 R3	9.681	1.875	33.1	—	—	—	1.457	A
311 R4	5.996	1.125	13.2	6.437	1.625	15.4	1.457	A

	N56C		N140TC		N180TC		N210TC		N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
311 R2 (B)	—	—	—	—	—	—	—	—	—	—	—	—	7.776	13.780	7.776	13.780
311 R2 (C)	—	—	—	—	—	—	—	—	—	—	—	—	7.776	13.780	7.776	13.780
311 R3	—	—	—	—	—	—	—	—	5.216	11.811	6.221	13.780	—	—	—	—
311 R4	4.508	6.693	4.508	6.693	5.216	8.819	5.216	8.819	5.216	8.819	6.122	11.811	—	—	—	—

3/V 11 L3

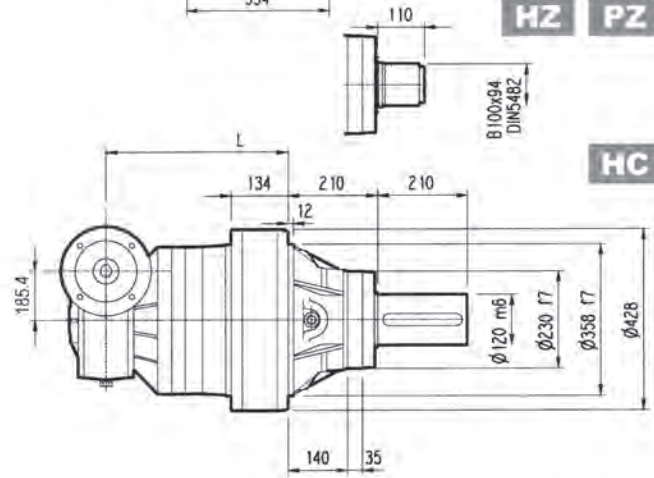


Metric

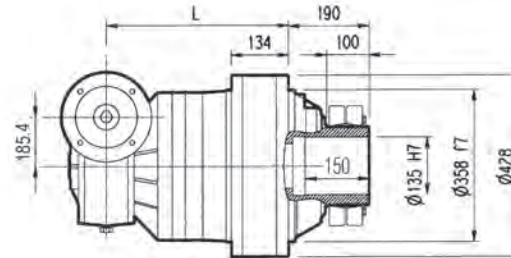


PC

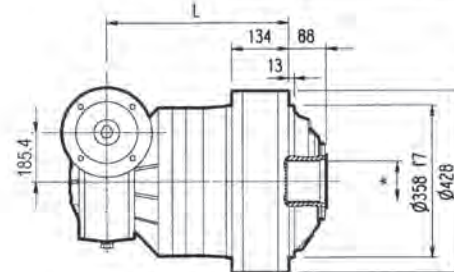
HZ PZ



HC

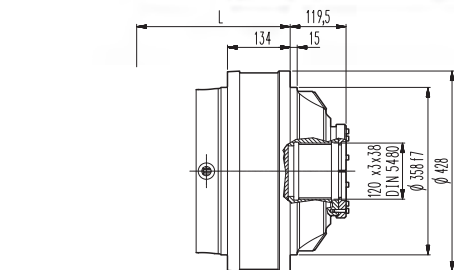


FP



FZ

FZB



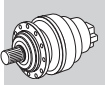
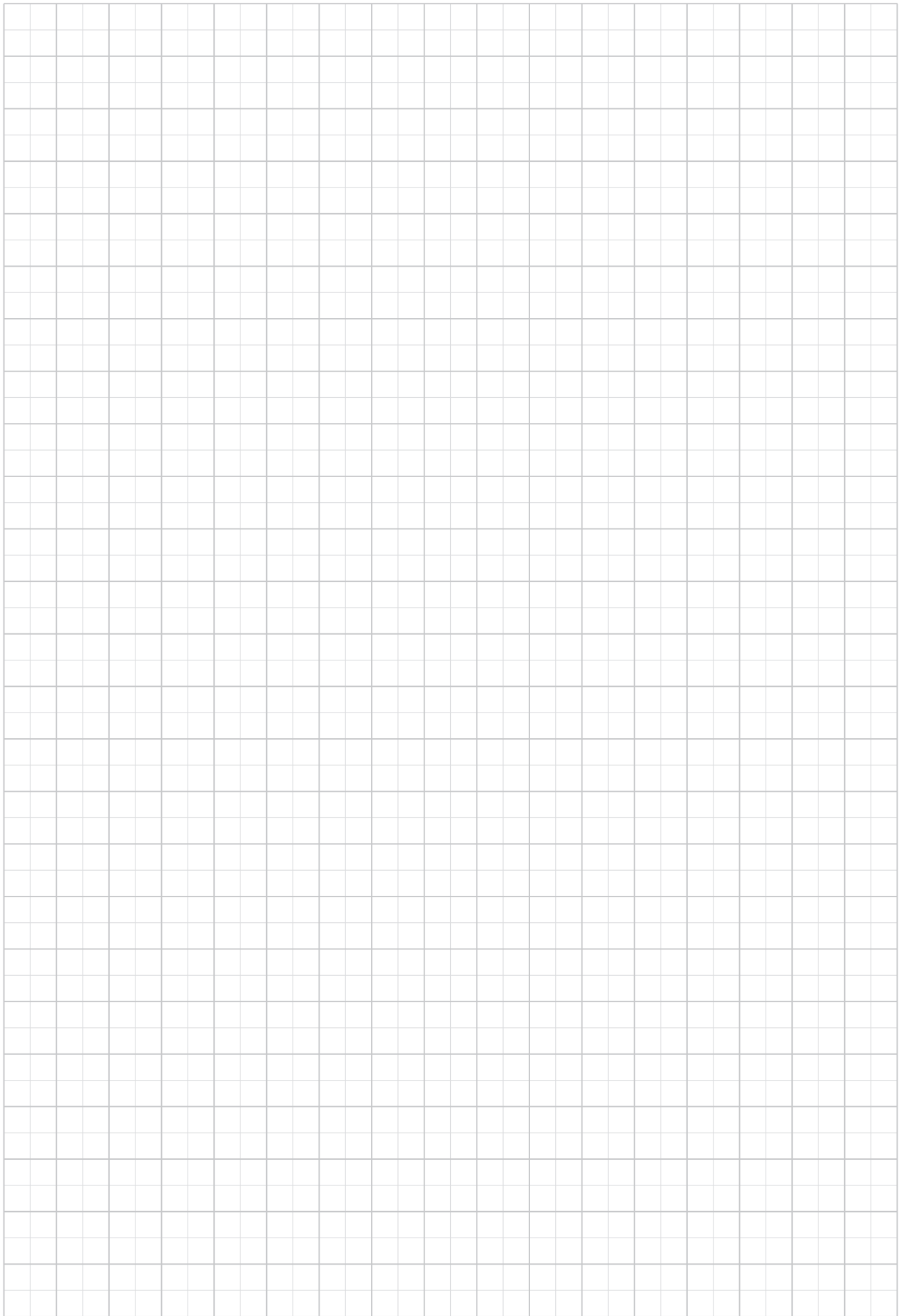
FZP

FZB	$T_{2max} = 592,110 \text{ lb}\cdot\text{in}$
FP	$T_{2max} = 486,790 \text{ lb}\cdot\text{in}$

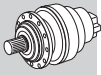
Dimensions are in mm

* For dimensions refer to page 392

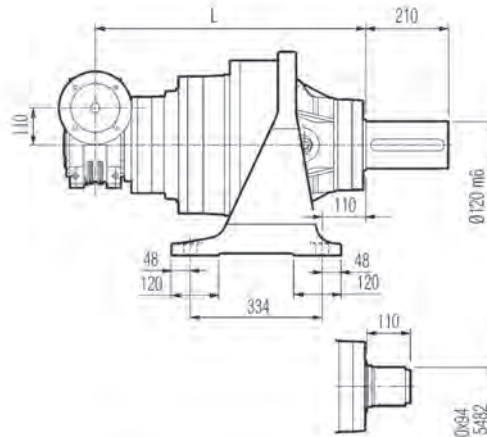
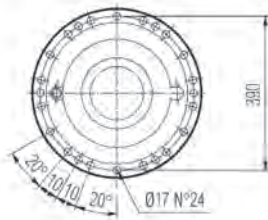
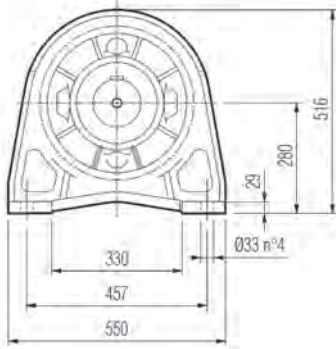
	L				Kg										
	PC - PZ	HC - HZ	FZ - FZP	FP		PC - PZ	HC - HZ	FZ - FZP	FP	P80	P90	P100	P112	P132	P160
	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3/V 11 L3	659	449	449	449	390	320	300	310	—	—	250	250	300	350	350



3/V 11 L4

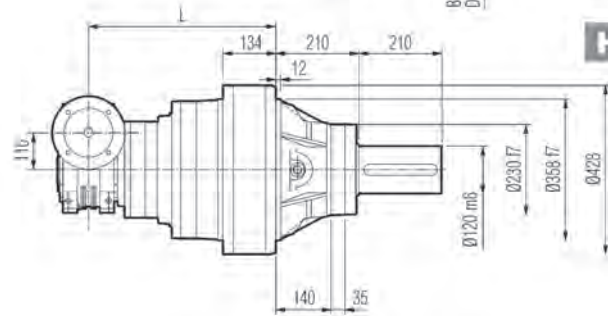


Metric



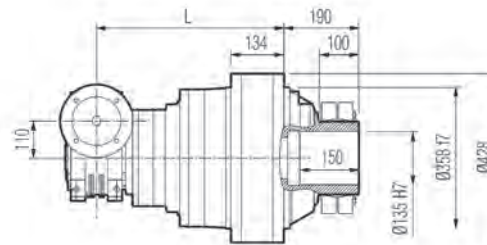
PC

HZ PZ

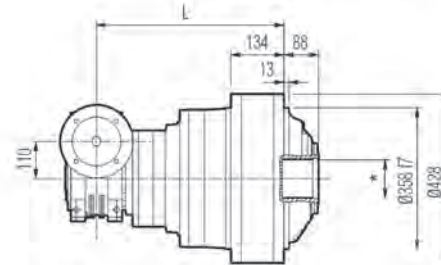


HC

A →

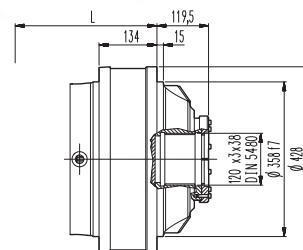
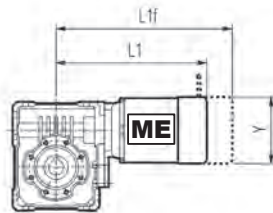
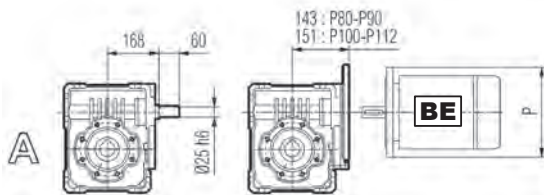


FP



FZ

FZB



FZP

FZB T_{2max} = 592,110 lb-in

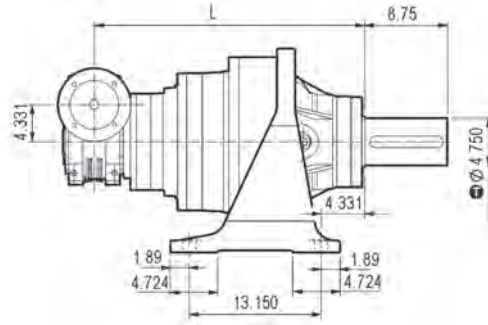
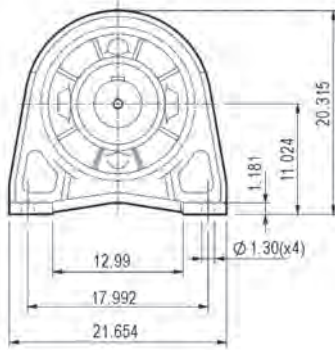
FP T_{2max} = 486,790 lb-in

Dimensions are in mm

* For dimensions refer to page 392

	L				Kg								
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP					
3/V 11 L4	707	497	497	497	340	270	250	260					
	P80	P90	P100	P112	S2 + ME2S			S3 + ME3S			S3 + ME3L		
	P	P	P	P	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 11 L4	200	200	250	250	364	—	156	407	—	193	439	—	193

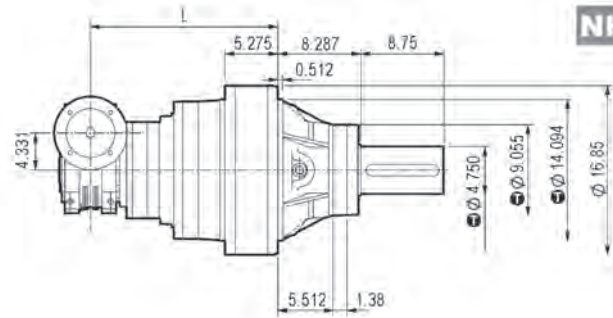
3/V 11 L4



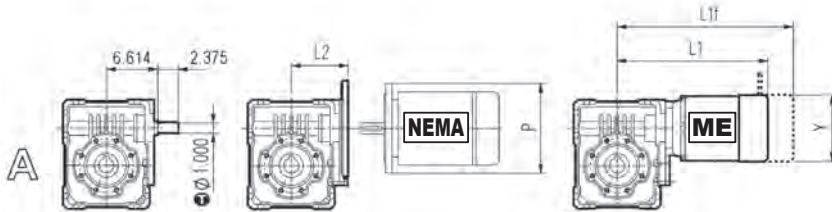
NPC



Imperial



NHC



inch	①
14.094	-0.00244 -0.00469
9.055	-0.00197 -0.00378
4.750	+0.00157 +0.00059

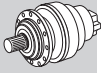
Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs		N140TC		N180TC		N210TC	
	NPC	NHC	NPC	NHC	L2	P	L2	P	L2	P
3/V 11 L4	27.835	19.567	749.7	595.4	5.866	6.535	6.280	9.016	8.780	9.016
	S2 + ME2S			S3 + ME3S			S3 + ME3L			
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	
3/V 11 L4	14.331	—	6.142	16.024	—	7.598	17.283	—	7.598	

311 L

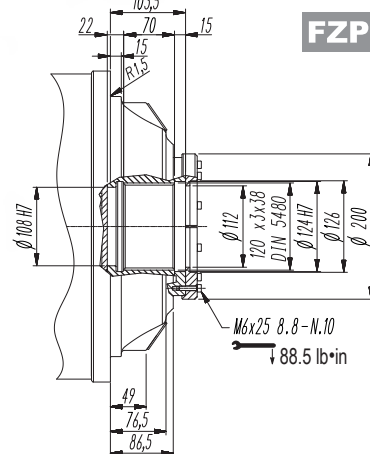
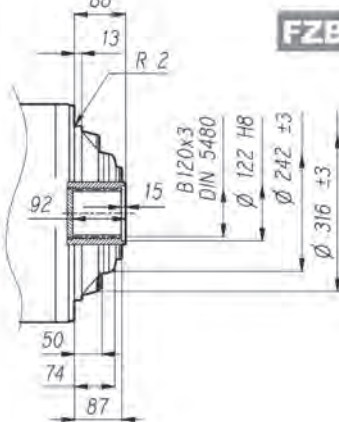
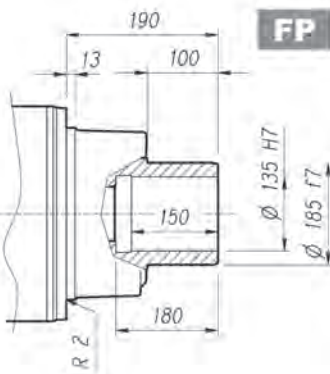
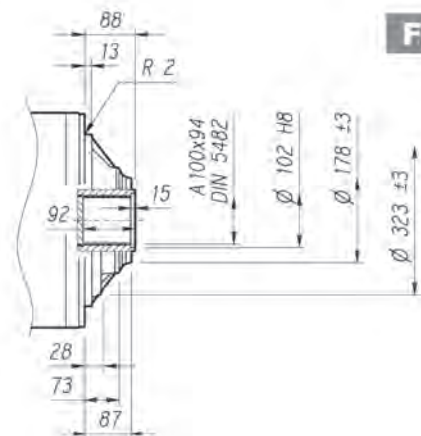
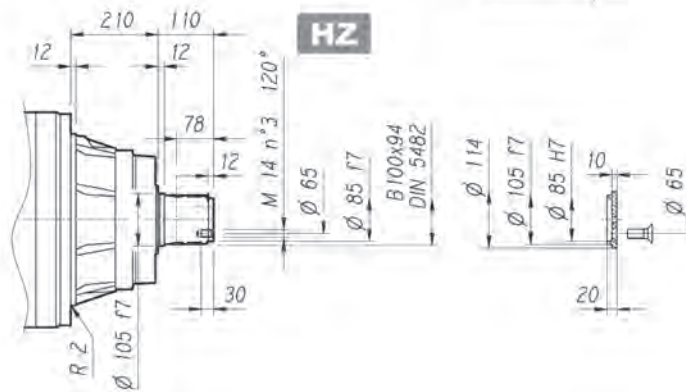
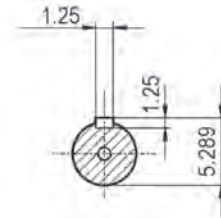
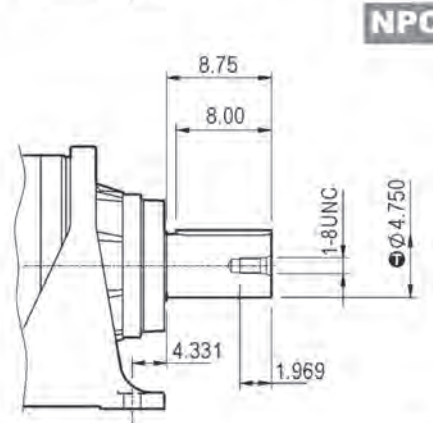
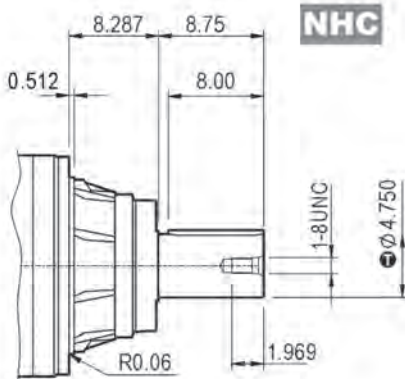
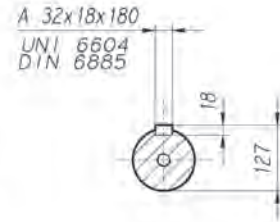
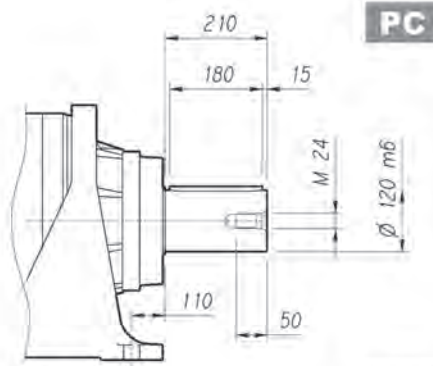
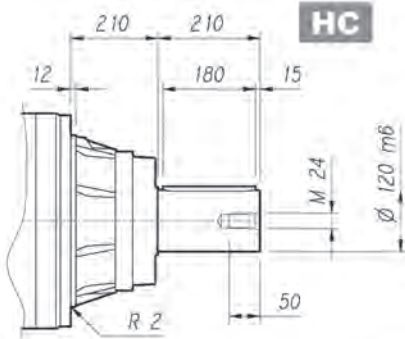
311 R

3/V 11 L



Metric

Imperial

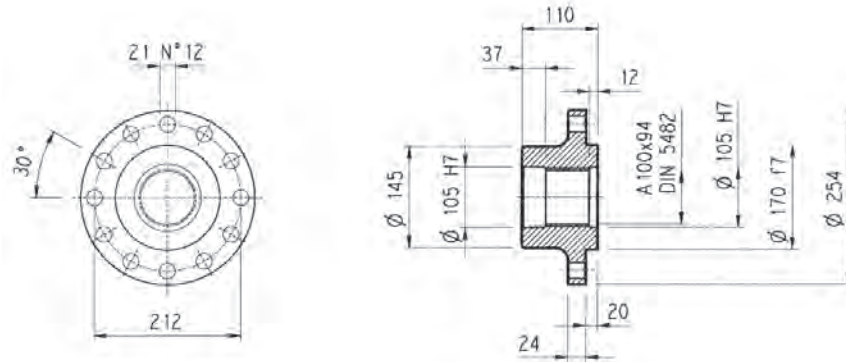
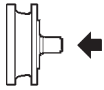


FZB $T_{2max} = 592,110 \text{ lb}\cdot\text{in}$

FP $T_{2max} = 486,790 \text{ lb}\cdot\text{in}$

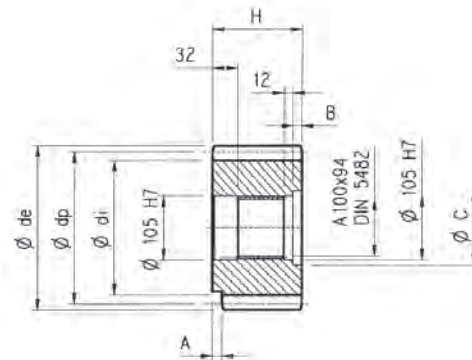
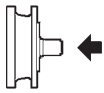
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	
4.750	+0.00157 +0.00059

311 L**311 R****3/V 11 L****Flange****WOA****Metric**

Material: Steel C40

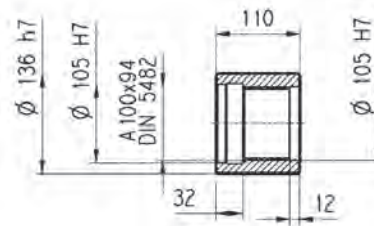
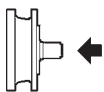
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

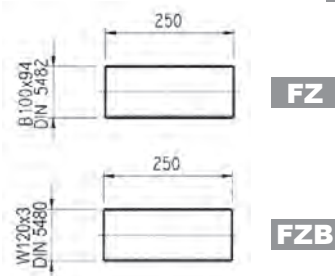
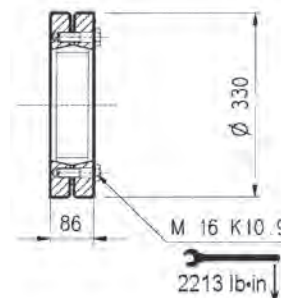
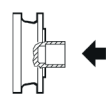
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PLQ	12	23	—	276	246	300	110	—	—	—	Steel 18NiCrMo5 case hardened
PPD	16	13	0.500	208	184	252.5	145	—	35	116	Steel 39NiCrMo3 hardened and tempered
PPF	16	15	0.450	240	215	280	125	—	15	120	

Sleeve coupling**MOA**

Material: Steel 16CrNi4

Dimensions are in mm

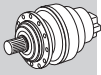
Splined bars**B0A****Shrink disc****G0A**

Material: Case hardening steel 18NiCrMo5 UNI 5331 must be case hardened 50-55 HRC

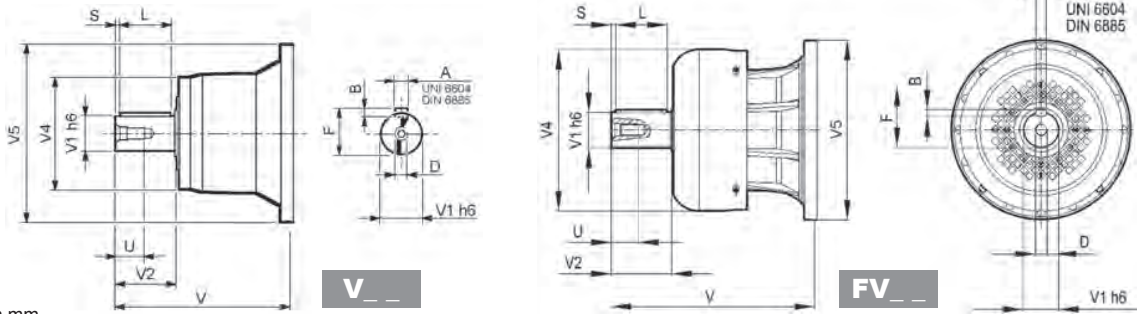
Dimensions are in mm

311 L

311 R



Metric

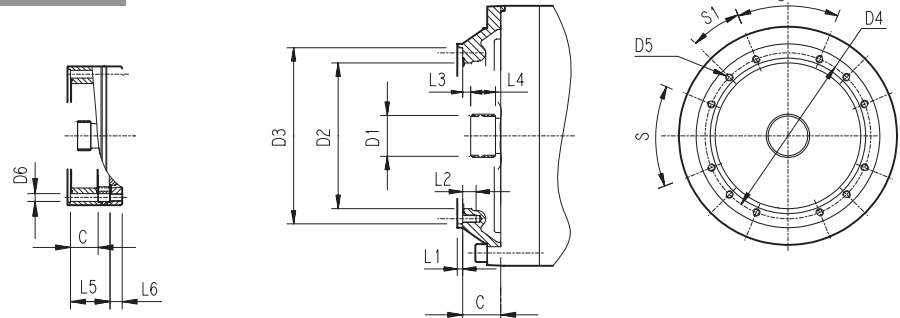


Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
311 L1	V11B	348	80	130	200	428	22	14	85	110	10	M16	36
	FV11B	456	80	130	347.5	428	22	14	85	110	10	M16	36
311 L2	V07B	315	80	130	200	345	22	14	85	110	10	M16	36
	FV07B	375	80	130	347.5	348	22	14	85	110	10	M16	36
	V07A	313	60	105	155	345	18	11	64	90	7.5	M16	36
	FV07A	363	60	105	309	348	18	11	64	90	7.5	M16	36
311 L3	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
311 L4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
311 R2 (B)(C)	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36
311 R3	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
311 R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

311 L

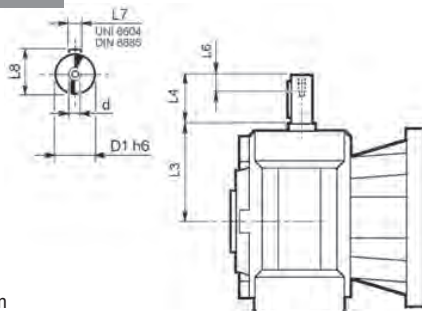
311 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
311 L1	V9AD	81	80x74 DIN 5482	270	335 H7	314	M16 n°8	—	5	30	8.5	40	—	—	60°	30°	D
311 L2	V9AB	51	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
311 L3	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	—	4	18	9	18	—	—	45°	45°	A
311 L4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	65	18	45°	45°	A
311 R3	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	18	9	18	—	—	45°	45°	A
311 R2 (B) (C)	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
311 R4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

3/V 11 L



Dimensions are in mm

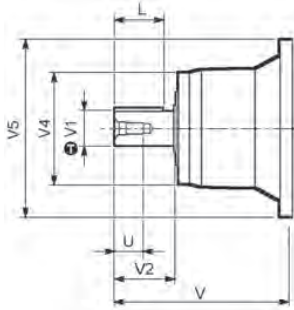
	D1 h6	L3	L4	L6	L7	L8	d
3/V 11 L3_HS	40	214.5	70	20	12	43	M8
3/V 11 L4_HS	25	168	60	19	8	28	M8

311 L

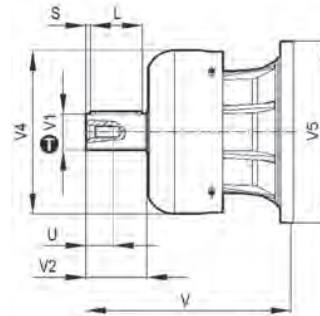
311 R



inch	Ⓜ
3.000	0 -0.00075
2.375	0 -0.00053
1.875	0 -0.00053
1.625	0 -0.00053
1.125	0 -0.00051



NV _ _



FNV _ _



Imperial

Dimensions are in Inch except when shown in *italic* [mm]

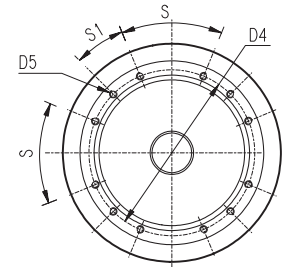
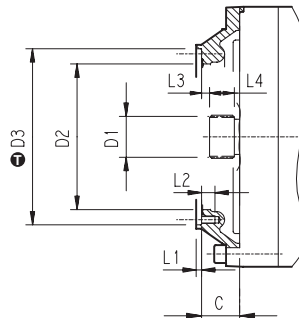
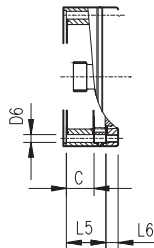
		V	V1	V2	V4	V5	A	B	F	L	D	U
311 L1	NV11B	13.563	3.000	5.000	8.160	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV11B	17.835	3.000	5.000	13.678	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
311 L2	NV07A	13.130	2.375	4.750	6.024	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
	FNV07A	15.104	2.375	4.750	6.811	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
	NV07B	12.283	3.000	5.000	7.165	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
311 L3	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
311 L4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
311 R2 (B)(C)	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
311 R3	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
311 R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

311 L

311 R



inch	Ⓜ
13.19	+0.00224 0
9.29	+0.00181 0
7.01	+0.00157 0



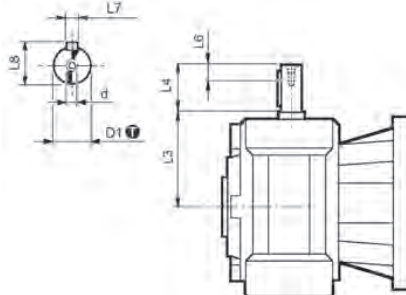
Dimensions are in Inch except when shown in *italic* [mm]

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
311 L1	V9AD	3.19	80x74 DIN 5482	10.63	13.19	12.36	M16 n°8	—	0.20	1.18	0.33	1.57	—	—	60°	30°	D
311 L2	V9AB	2.01	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
311 L3	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
311 L4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	2.56	0.71	45°	45°	A
311 R3	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	0.71	0.35	0.71	—	—	45°	45°	A
311 R2 (B) (C)	V9AB	1.77	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
311 R4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 11 L



inch	Ⓜ
1.000	0 -0.00051



Dimensions are in Inch except when shown in *italic* [mm]

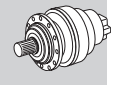
	D1	L3	L4	L6	L7	L8	d
3/V 11 L4_NHS	1.000	11.89	1.969	0.75	0.250	1.109	3/8-16UNC

311 L

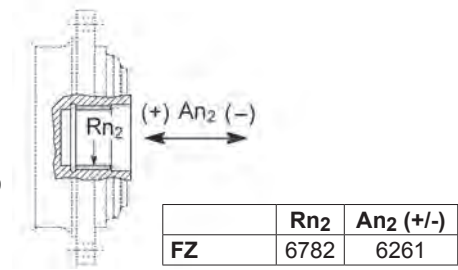
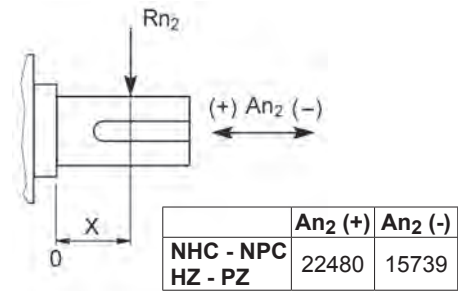
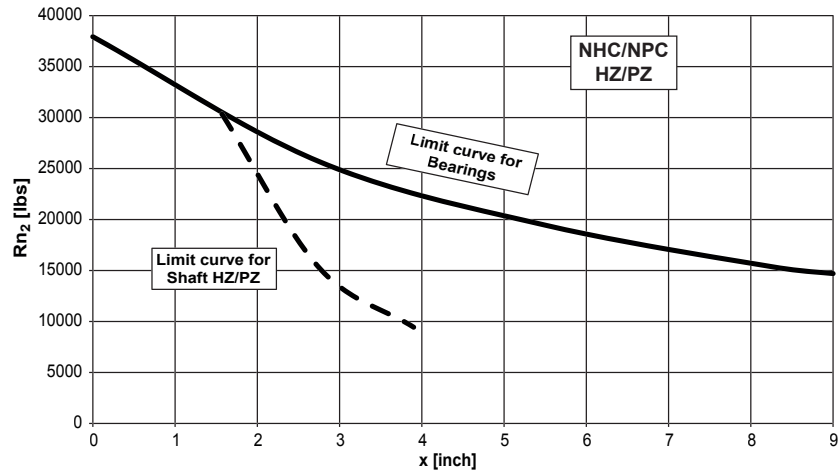
311 R

3/V 11 L

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$

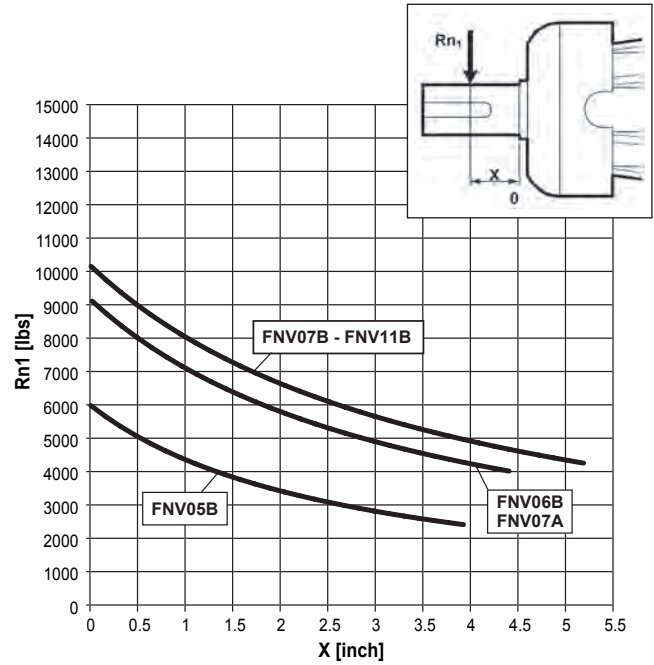
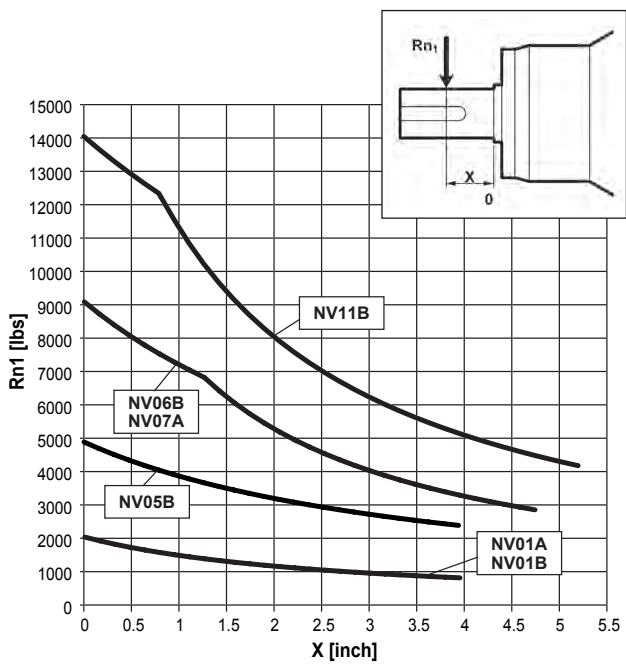


Imperial

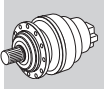
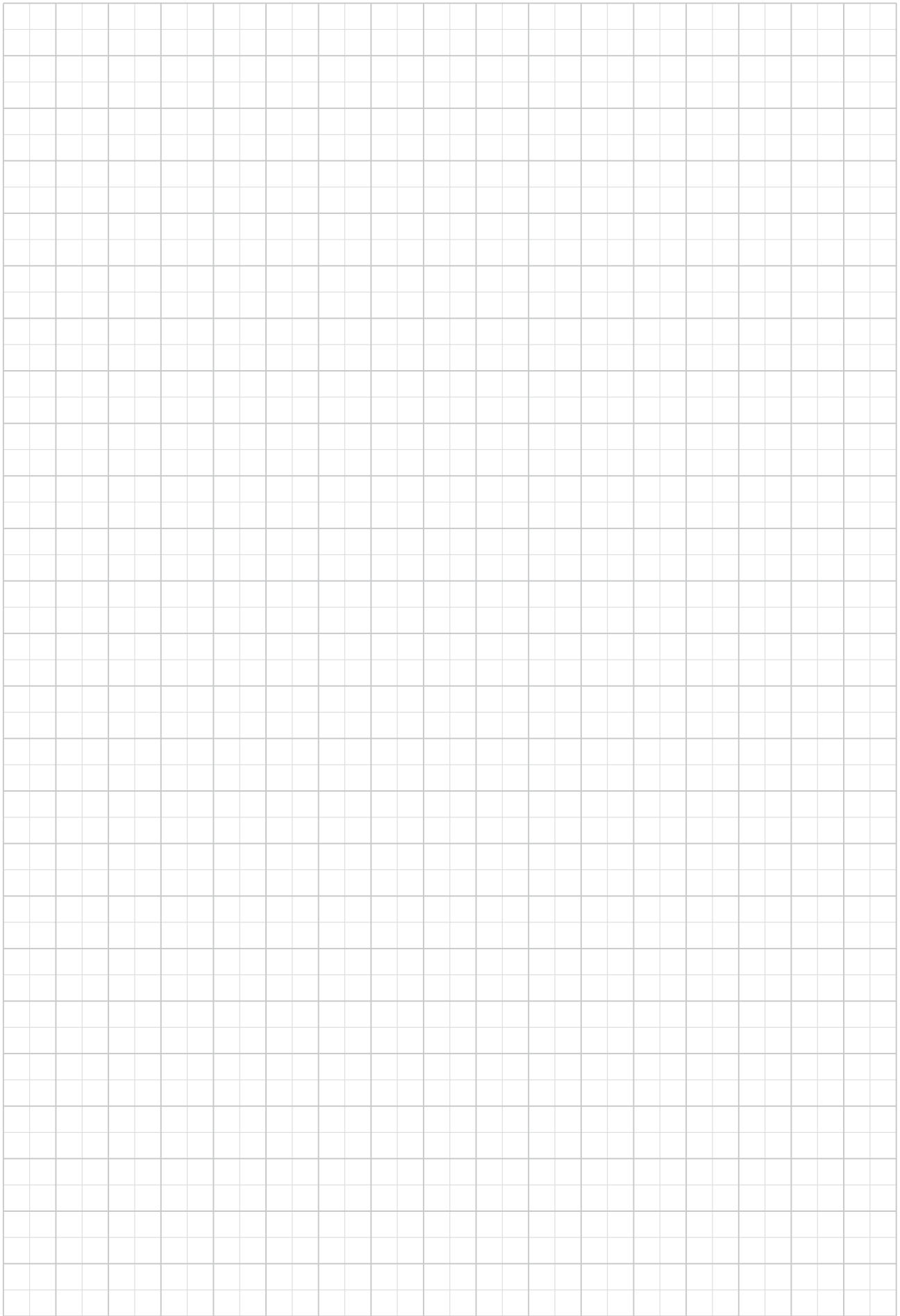


Load corrective factor fh_2 on shafts	$Fh_2 = n_2 \cdot h$						
	fh_2	10000	25000	50000	100000	500000	1000000
		FZ	2.15	1.59	1.26	1.00	0.58
	NHC - NPC	1.93	1.52	1.23	1.00	0.62	0.50
	HZ - PZ	1.24	1.00	1.00	1.00	0.62	0.50

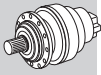
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



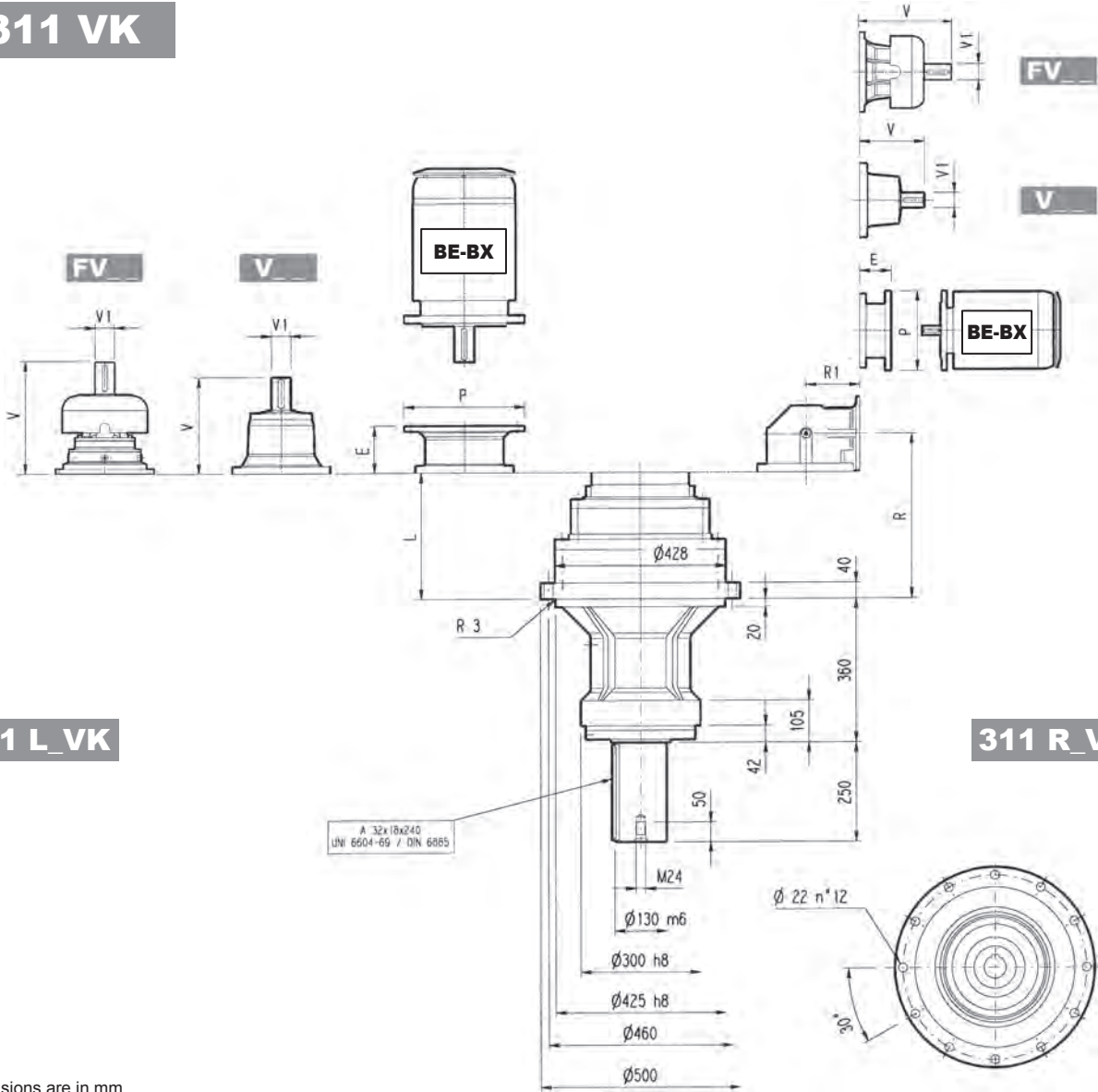
Load corrective factor fh_1 on shafts	$Fh_1 = n_1 \cdot h$						
	fh_1	250000	500000	1000000	2000000	5000000	10000000
		1	0.79	0.63	0.50	0.37	0.29



311 VK



Metric



311 L_VK

311 R_VK

Dimensions are in mm

	L			V						V1					
	E	P	Kg	E	P	Kg	E	P	Kg	E	P	Kg	E	P	Kg
311 L1	129	295	295	348	80	55	—	—	—	456	80	85	—	—	—
311 L2	262	340	340	315	80	35	313	60	28	375	80	48	363	60	34
311 L3	351	350	350	239	48	15	—	—	—	276	48	17	—	—	—
311 L4	416	360	360	137.5	24	6	158	38	7	—	—	—	—	—	—

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
311 L2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	195	350	186	400	216	450	216	450
311 L3	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—
311 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

	R		R1		V						V1										
	E	P	E	P	E	P	Kg	E	P	Kg	E	P	Kg	E	P	Kg	E	P	Kg		
311 R2 (B)	354	345	420	307	60	23	—	—	—	—	357	60	28	—	—	—	—	—	—	—	—
311 R2 (C)	354	390	430	307	60	23	—	—	—	—	357	60	28	—	—	—	—	—	—	—	—
311 R3	381	225	385	239	48	15	—	—	—	—	276	48	17	—	—	—	—	—	—	—	—
311 R4	443	140	360	137.5	24	6	158	38	7	—	—	—	—	—	—	—	—	—	—	—	—

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
311 R2 (B)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550
311 R2 (C)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550
311 R3	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—
311 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

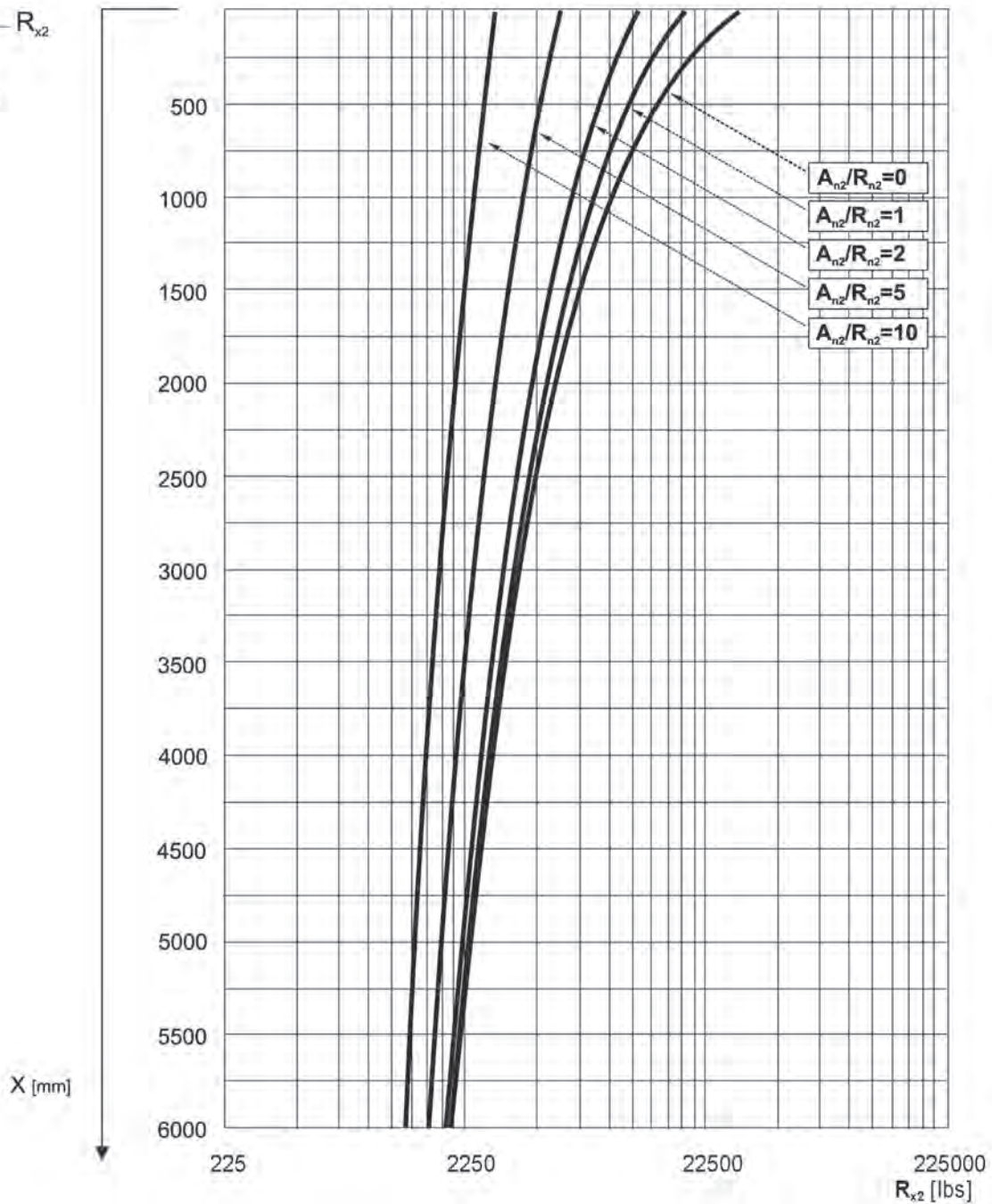
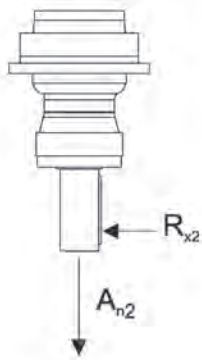
311 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

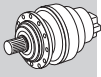
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



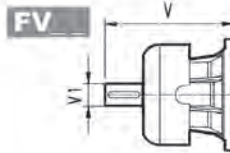
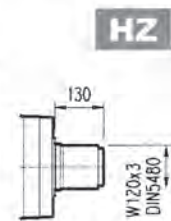
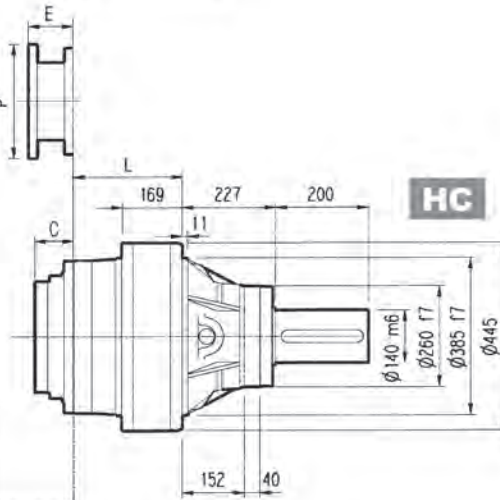
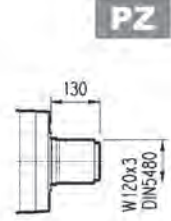
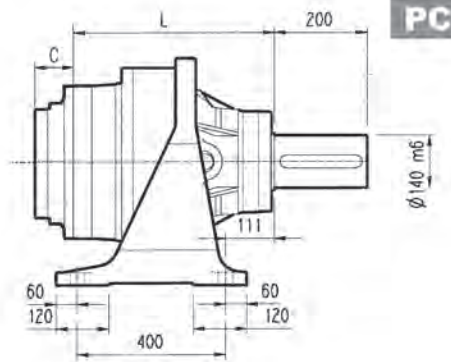
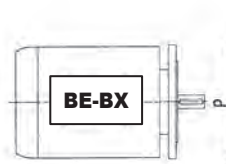
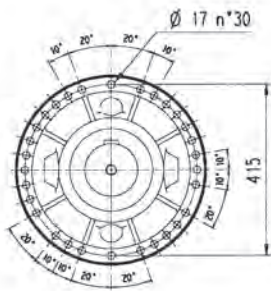
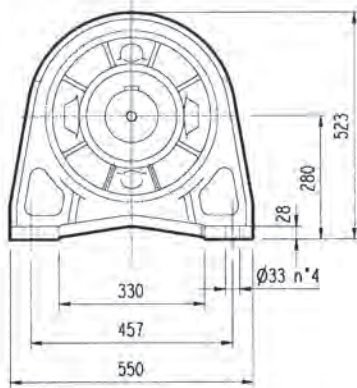
Metric



313 L



Metric

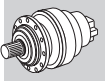
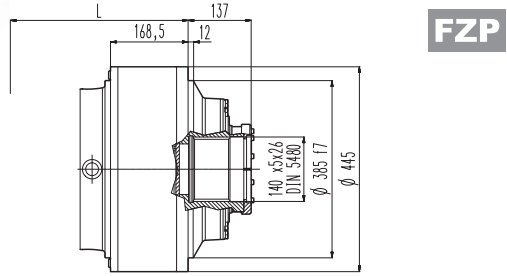
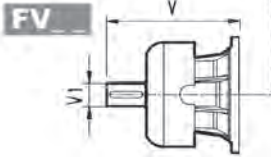
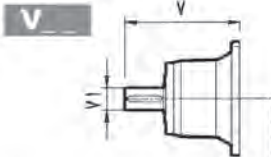
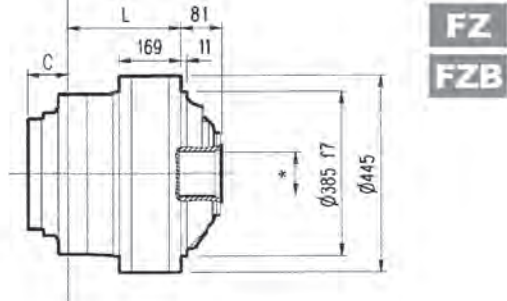
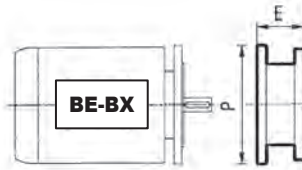
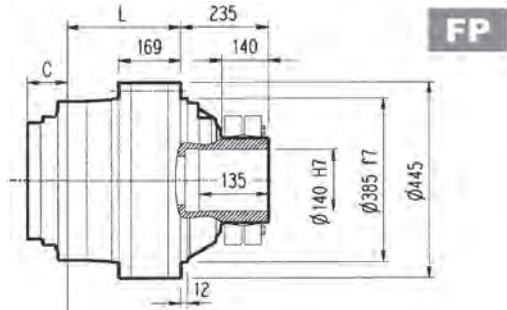
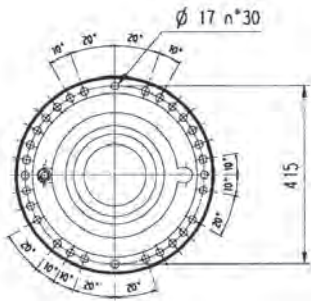
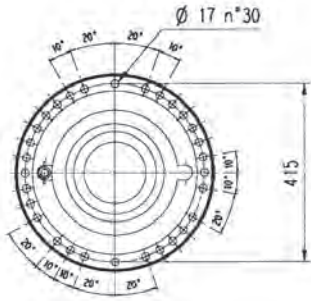


Dimensions are in mm

	L				Kg			
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP
313 L1	381	154	154	154	320	230	200	200
313 L2	531	304	304	304	380	290	260	280
313 L3	620	393	393	393	392	302	272	292
313 L4	685	458	458	458	399	309	279	299

	V						V1						C	Input
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg		
313 L1	343	80	55	—	—	—	451	80	71	—	—	—	76	D
313 L2	315	80	35	313	60	28	375	80	48	363	60	34	51	B
313 L3	239	48	15	—	—	—	276	48	17	—	—	—	37	A
313 L4	137.5	24	6	158	38	7	—	—	—	—	—	—	37	A

313 L



Metric

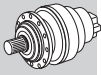
FP $T_{2max} = 699,210 \text{ lb}\cdot\text{in}$

Dimensions are in mm

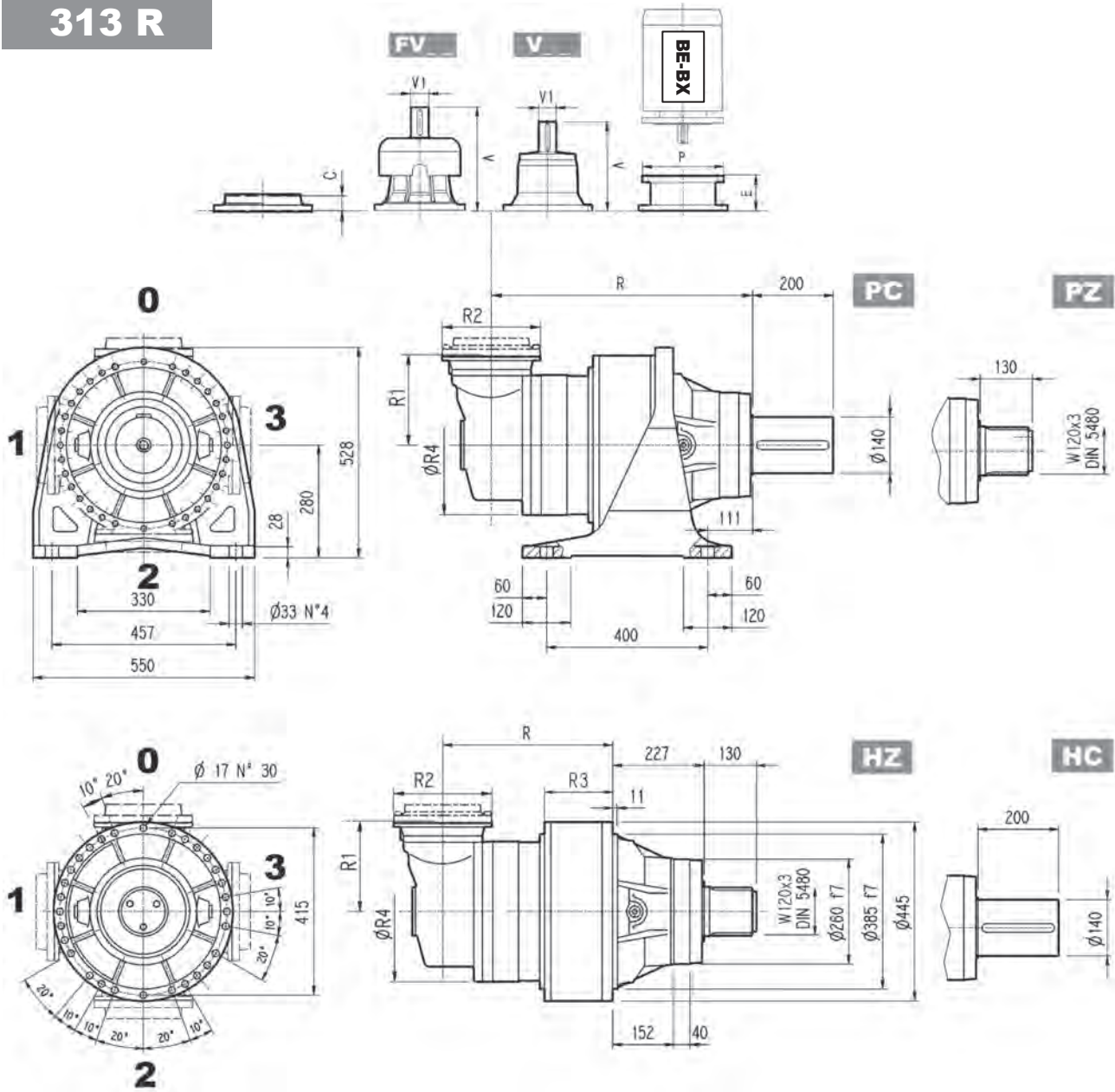
* For dimensions refer to page 410

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
313 L2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	195	350	186	400	216	450	216	550
313 L3	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—	—
313 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

313 R



Metric



Dimensions are in mm

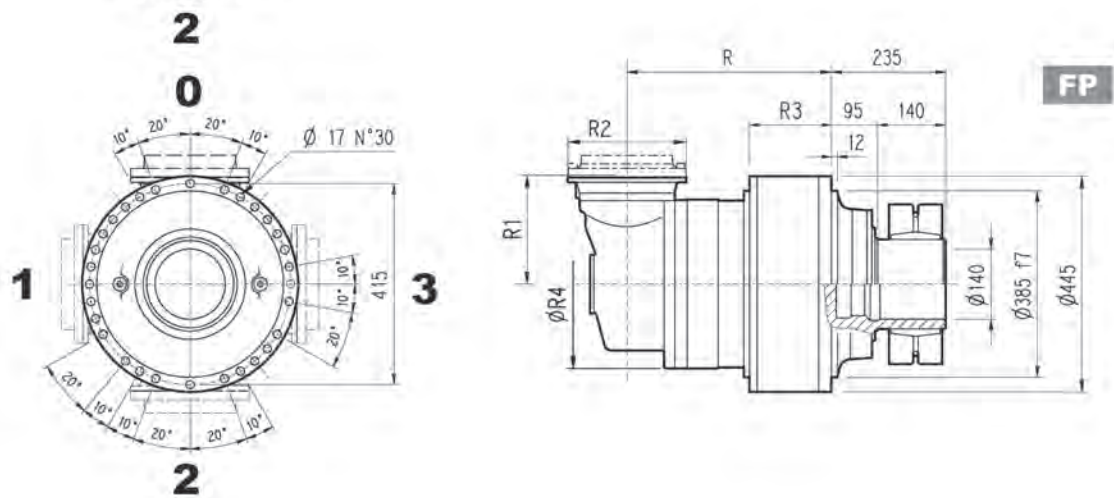
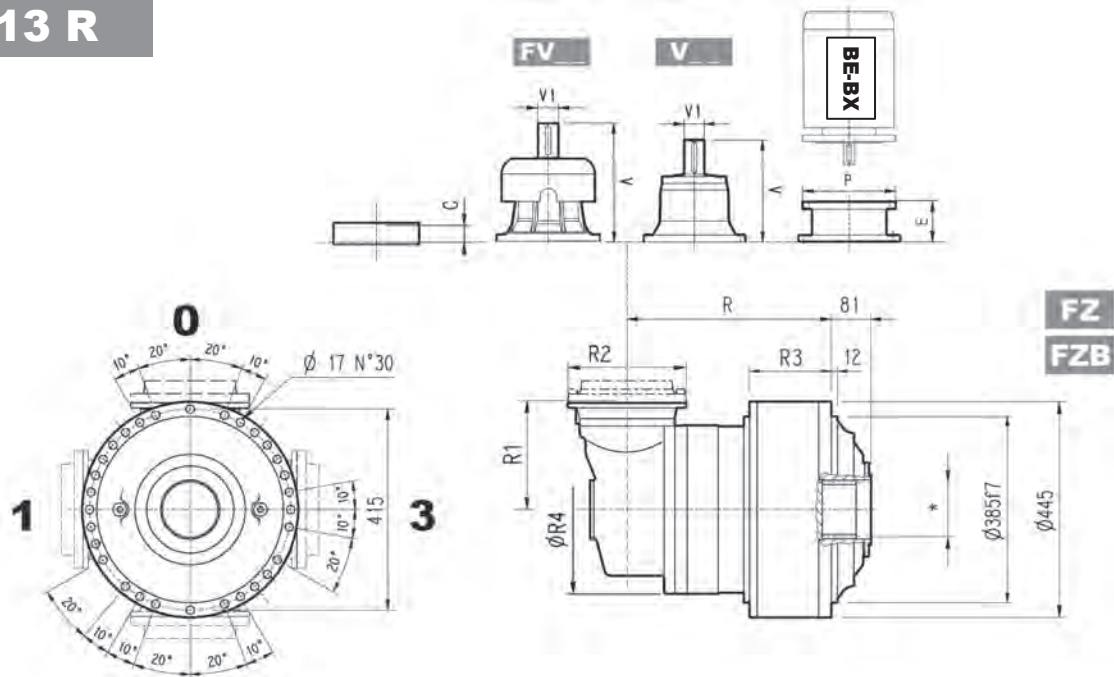
	R				R1	R2	R3			R4	Kg			
	PC-PZ	HC-HZ	FZ - FZP	FP			HC-HZ	FZ	FP		PC-PZ	HC-HZ	FZ - FZP	FP
313 R2 (B)	611	384	384	384	345	292	199	199	199	400	450	360	330	350
313 R2 (C)	611	384	384	384	390	292	168	168	168	480	460	370	340	360
313 R3	650	423	423	423	225	245	169	169	169	345	430	340	310	330
313 R4	712	485	485	485	140	186	169	169	169	244	412	322	292	312

													C	Input
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg		
313 R2 (B)	307	60	23	—	—	—	357	60	28	—	—	—	45	B
313 R2 (C)	307	60	23	—	—	—	357	60	28	—	—	—	45	B
313 R3	239	48	15	—	—	—	276	48	17	—	—	—	37	A
313 R4	137.5	24	6	158	38	7	—	—	—	—	—	—	37	A

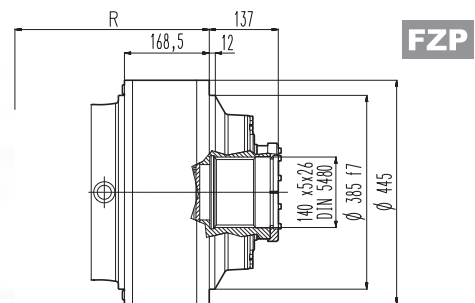
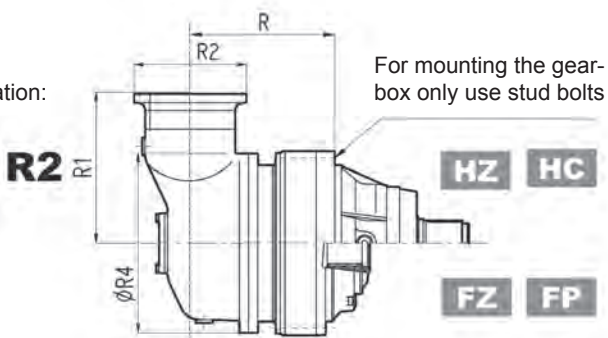
313 R



Metric



Only for configuration:



FP

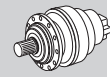
$T_{2max} = 699,210 \text{ lb}\cdot\text{in}$

Dimensions are in mm

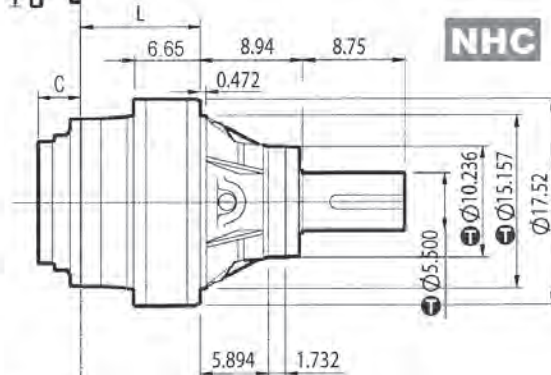
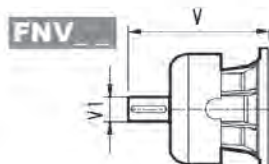
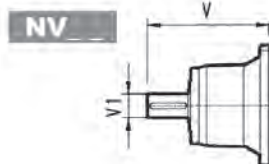
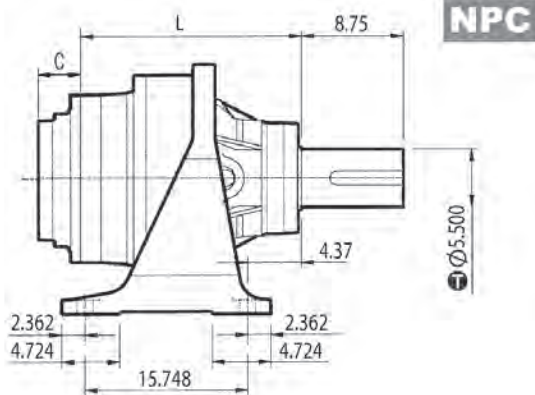
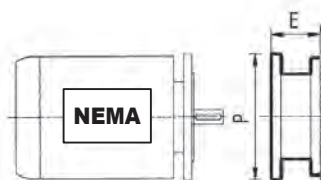
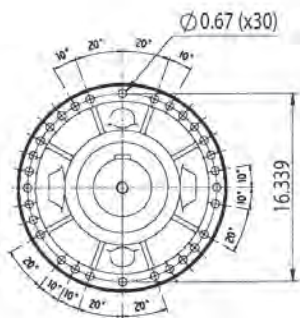
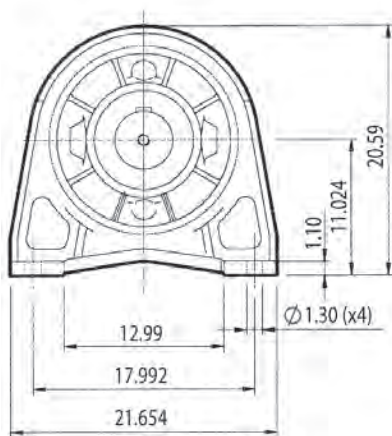
* For dimensions refer to page 410

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
313 R2 (B)	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550	—	—
313 R2 (C)	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550	—	—
313 R3	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—	—
313 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

313 L



Imperial



inch	Ⓜ
15.157	-0.00244 -0.00469
10.236	-0.00220 -0.00425
5.500	+0.00157 +0.00059

Dimensions are in Inch except when shown in *italic* [mm]

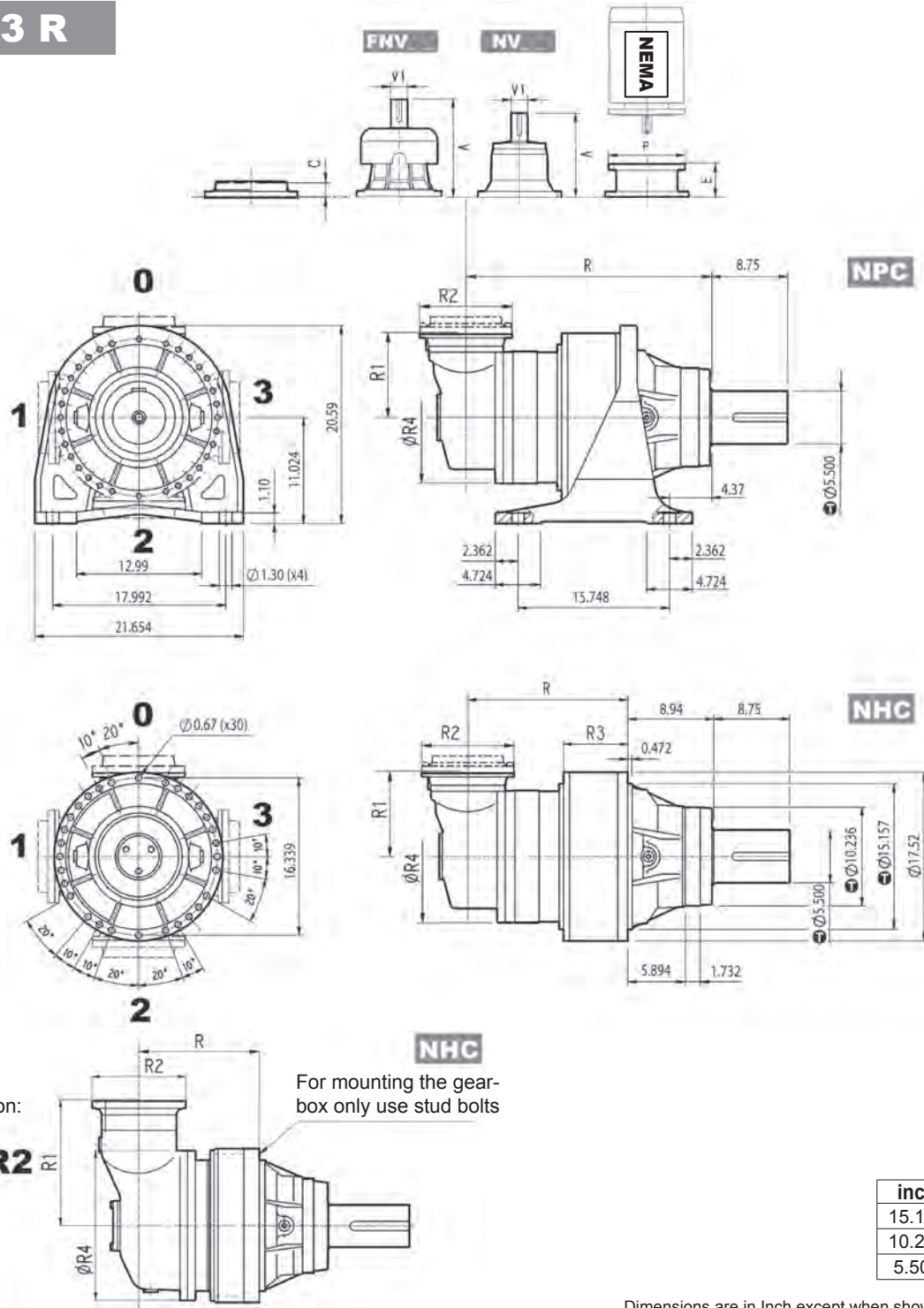
	L		lbs		V		V1		lbs		V		V1		lbs		C	Input
	NPC	NHC	NPC	NHC	V	V1	V	V1	V	V1	V	V1	V	V1	V	V1		
313 L1	15.000	6.063	705.6	507.2	13.563	3.000	121.3	—	—	—	17.835	3.000	140.0	—	—	—	2.992	D
313 L2	20.906	11.969	837.9	639.5	13.130	2.375	29.8	12.283	3.000	77.2	15.104	2.375	38.0	14.646	3.000	90.0	2.008	B
313 L3	24.409	15.472	864.4	665.9	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	—	—	—	1.457	A
313 L4	26.969	18.031	879.8	681.3	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	—	—	—	1.457	A

	N56C		N140TC		N180TC		N210TC		N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
313 L2	—	—	—	—	—	—	—	—	—	—	—	—	7.776	15.748	7.776	15.748
313 L3	—	—	—	—	—	—	—	—	5.216	11.811	6.221	13.780	—	—	—	—
313 L4	4.508	6.693	4.508	6.693	5.216	8.819	5.216	8.819	5.216	8.819	6.122	11.811	—	—	—	—

313 R



Imperial



Only for configuration:

For mounting the gear-box only use stud bolts

inch	Ⓜ
15.157	-0.00244 -0.00469
10.236	-0.00220 -0.00425
5.500	+0.00157 +0.00059

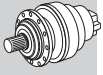
Dimensions are in Inch except when shown in *italic [mm]*

	R		R1	R2	R3	R4	lbs	
	NPC	NHC					NPC	NHC
313 R2 (B)	24.055	15.118	13.583	11.496	7.835	15.748	992.3	793.8
313 R2 (C)	24.055	15.118	15.354	11.496	6.614	18.898	1014.3	815.9
313 R3	25.591	16.654	8.858	9.646	6.654	13.583	948.2	749.7
313 R4	28.031	19.094	5.512	7.323	6.654	9.606	908.5	710.0

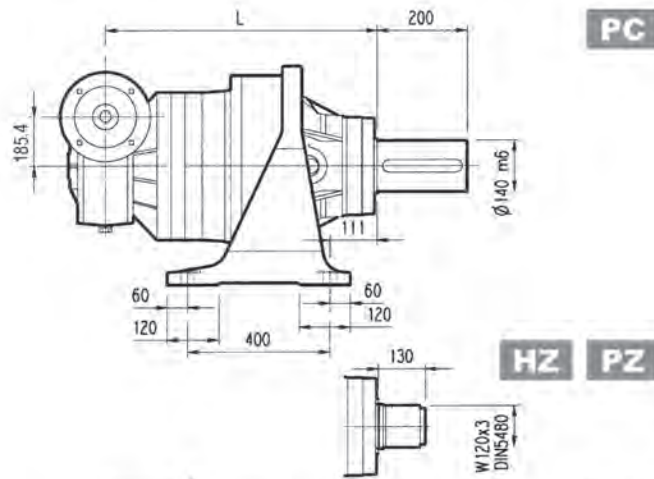
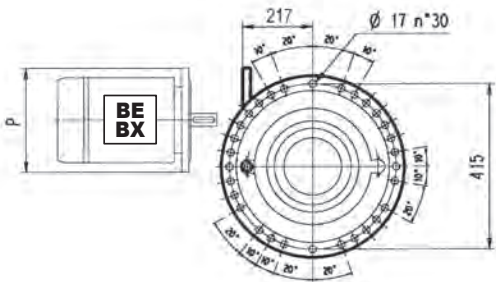
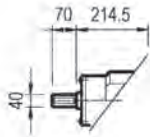
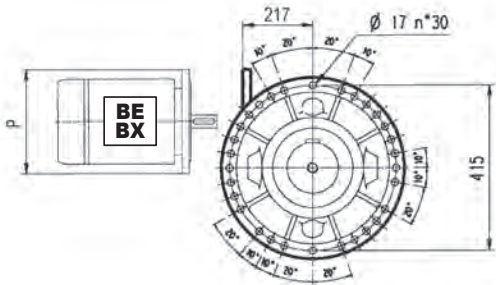
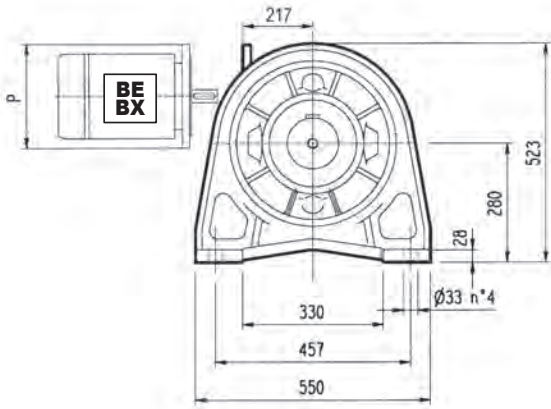
	V		lbs	V		lbs	V	V1	lbs	C	Input
	V	V1		V	V1						
313 R2 (B)	12.703	2.375	50.7	—	—	—	14.652	2.375	58.0	1.772	B
313 R2 (C)	12.703	2.375	50.7	—	—	—	14.652	2.375	58.0	1.772	B
313 R3	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	1.457	A
313 R4	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A

	N56C		N140TC		N180TC		N210TC		N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
313 R2 (B)	—	—	—	—	—	—	—	—	—	—	—	—	7.776	13.780	7.776	13.780
313 R2 (C)	—	—	—	—	—	—	—	—	—	—	—	—	7.776	13.780	7.776	13.780
313 R3	—	—	—	—	—	—	—	—	5.216	11.811	6.221	13.780	—	—	—	—
313 R4	4.508	6.693	4.508	6.693	5.216	8.819	5.216	8.819	5.216	8.819	6.122	11.811	—	—	—	—

3/V 13 L3

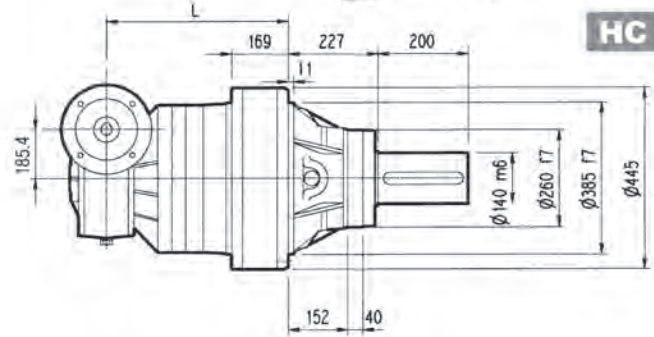


Metric

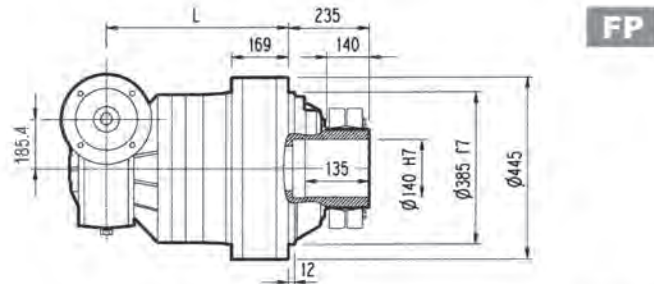


PC

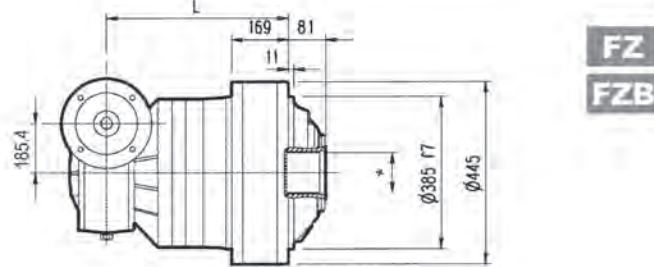
HZ PZ



HC

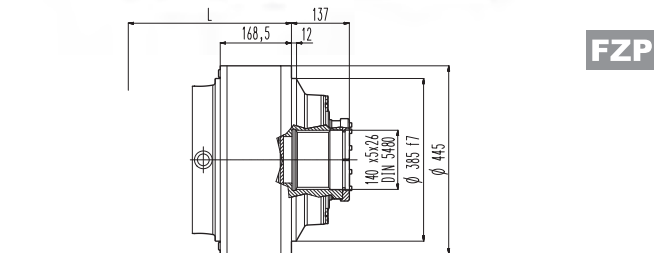


FP



FZ

FZB



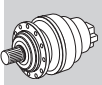
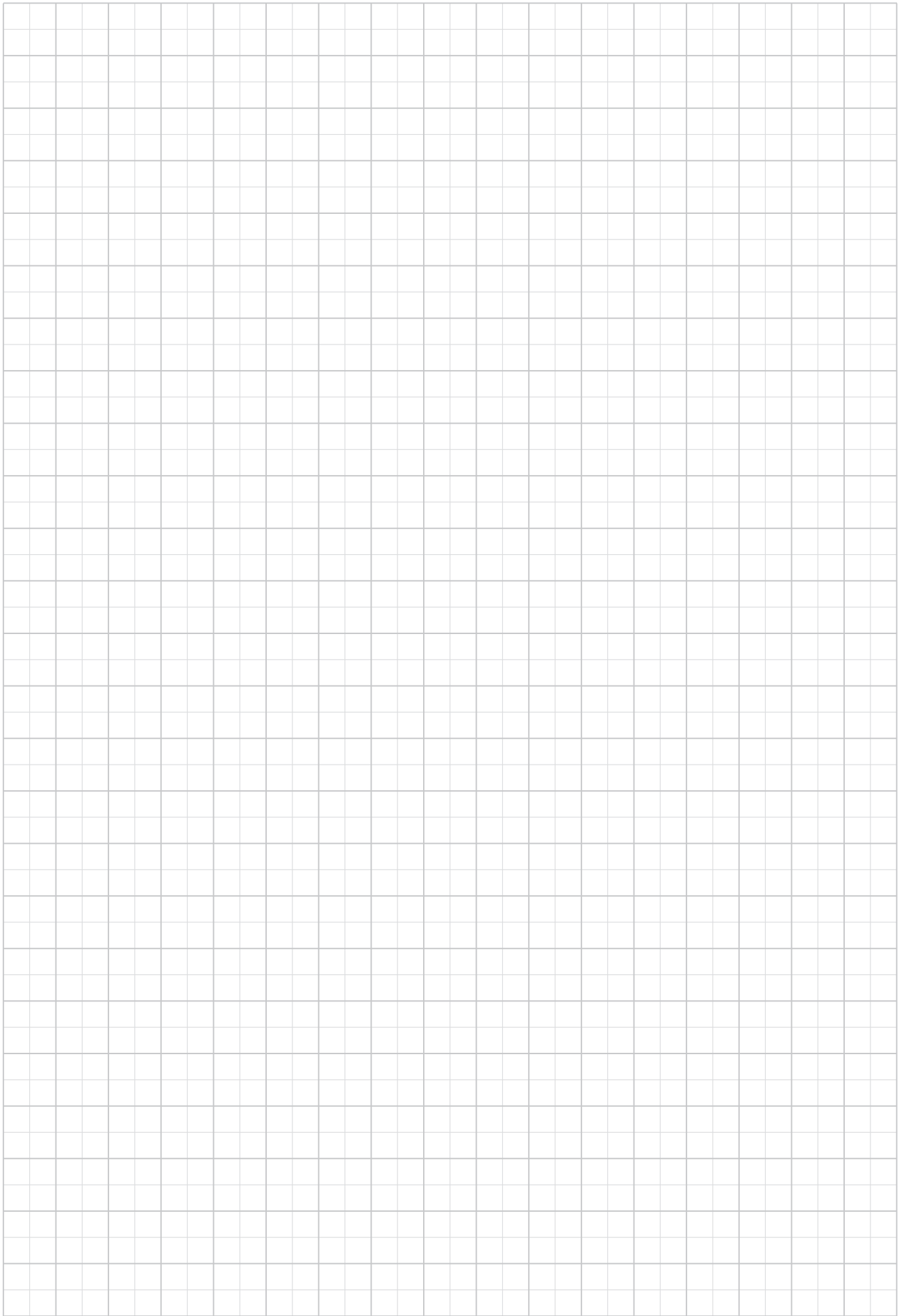
FZP

FP T_{2max} = 699,210 lb·in

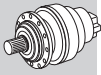
Dimensions are in mm

* For dimensions refer to page 410

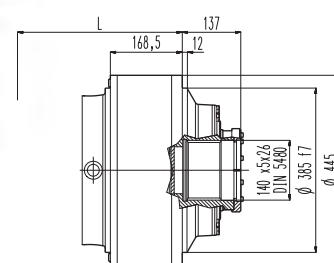
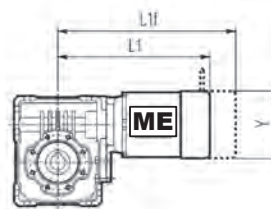
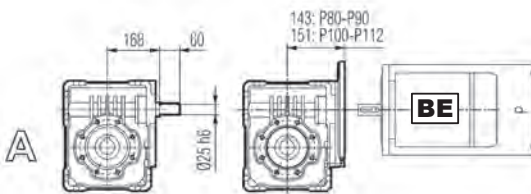
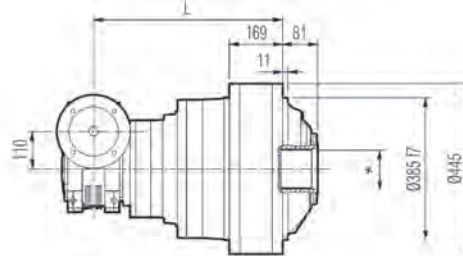
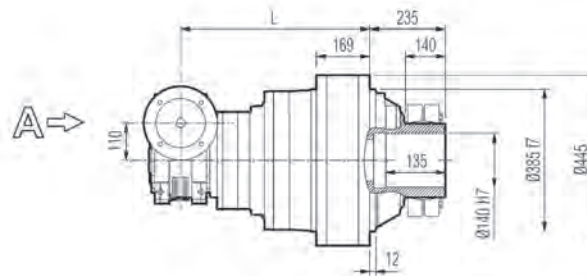
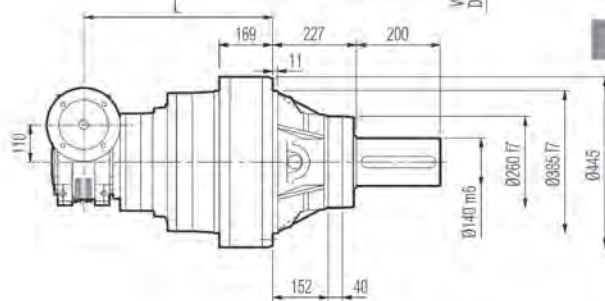
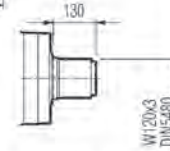
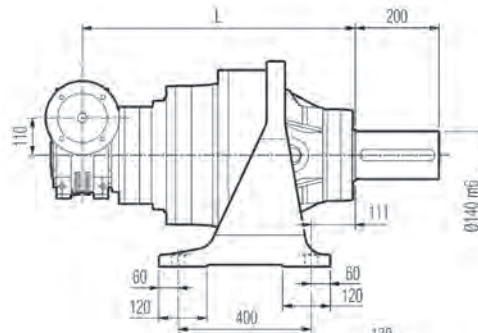
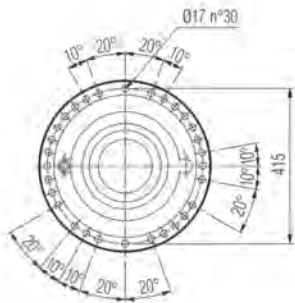
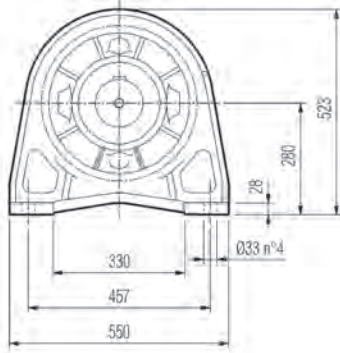
	L				Kg				P80	P90	P100	P112	P132	P160	P180
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP	P	P	P	P	P	P	P
3/V 13 L3	732	505	505	505	475	385	355	375	—	—	250	250	300	350	350



3/V 13 L4



Metric



PC

HZ PZ

HC

FP

FZ

FZB

FZP

FP

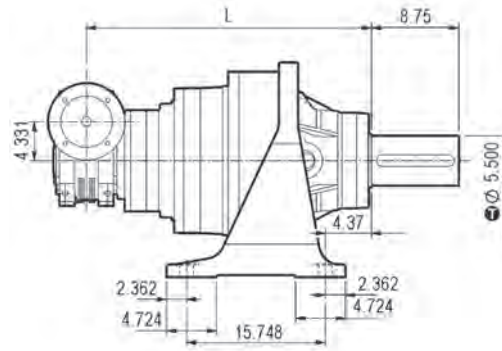
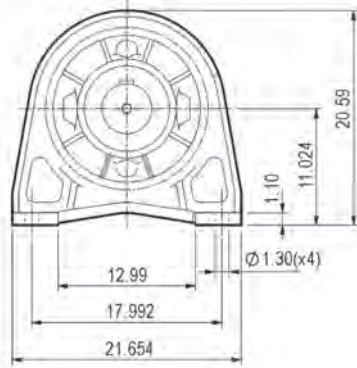
T_{2max} = 699,210 lb·in

Dimensions are in mm

* For dimensions refer to page 410

	L				FP	Kg								
	PC - PZ	HC - HZ	FZ - FZP	FP		PC - PZ	HC - HZ	FZ - FZP	FP					
3/V 13 L4	780	553	553	553	425	335	305	325						
	P80	P90	P100	P112	P132	S2 + ME2S			S3 + ME3S			S3 + ME3L		
	P	P	P	P	P	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y
3/V 13 L4	200	200	250	250	300	364	—	156	407	—	193	439	—	193

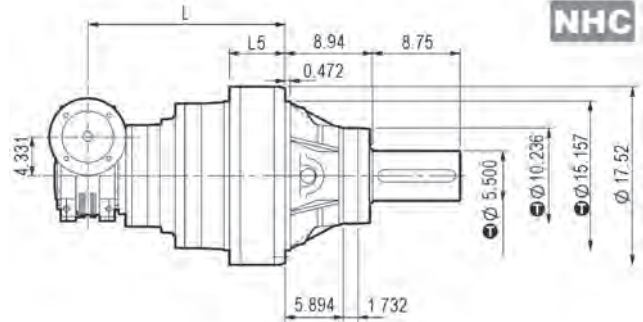
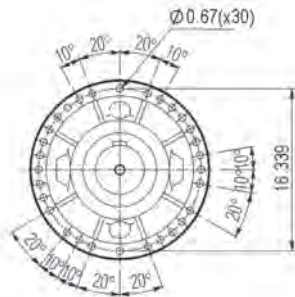
3/V 13 L4



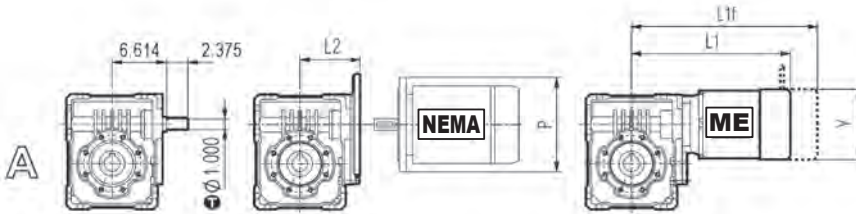
NPC



Imperial



NHC



inch	①
15.157	-0.00244 -0.00469
10.236	-0.00220 -0.00425
5.500	+0.00157 +0.00059

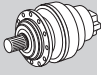
Dimensions are in Inch except when shown in *italic [mm]*

	L		lbs		N140TC		N180TC		N210TC	
	NPC	NHC	NPC	NHC	L2	P	L2	P	L2	P
3/V 13 L4	30.709	21.772	937.1	738.7	5.866	6.535	6.280	9.016	8.780	9.016
	S2 + ME2S			S3 + ME3S			S3 + ME3L			
	L1	L1f	Y	L1	L1f	Y	L1	L1f	Y	
3/V 13 L4	14.331	—	6.142	16.024	—	7.598	17.283	—	7.598	

313 L

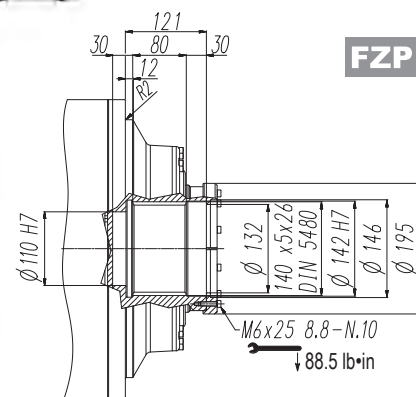
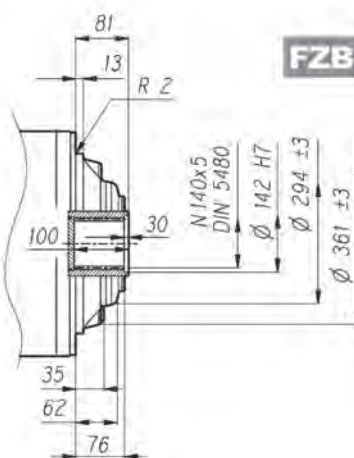
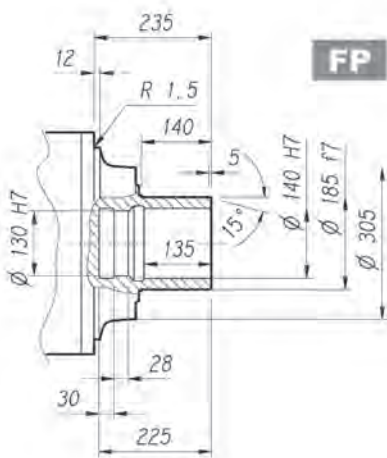
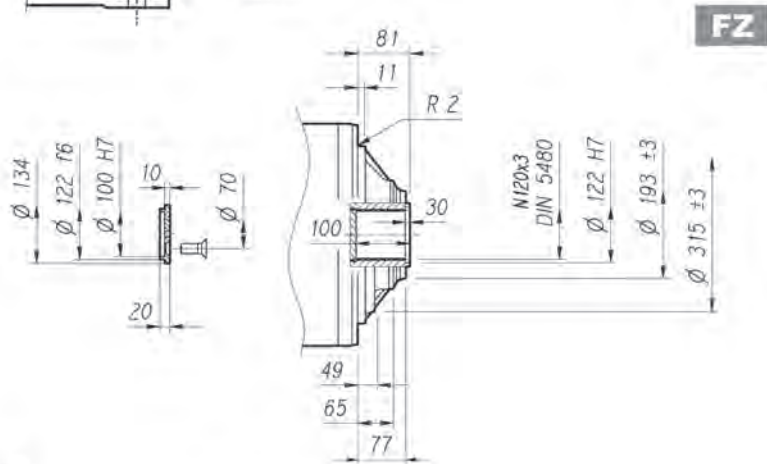
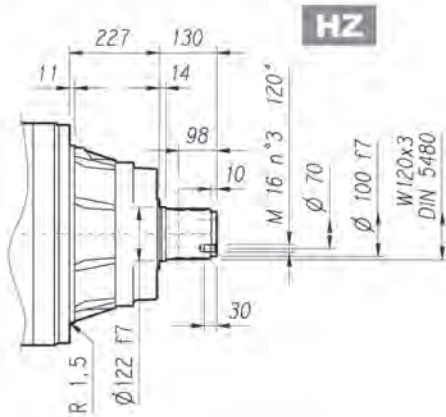
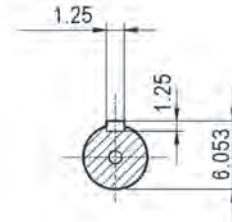
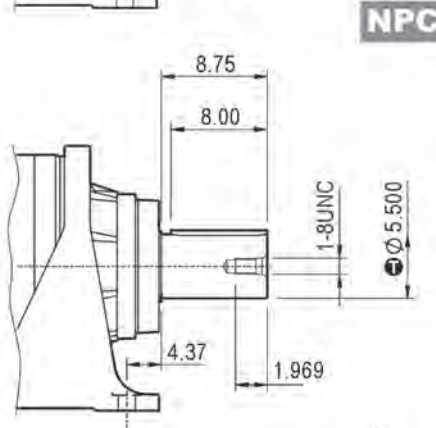
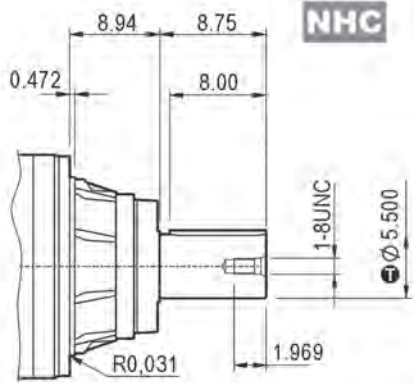
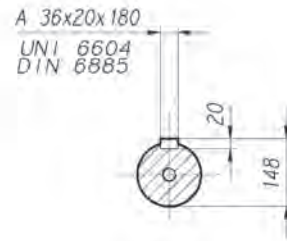
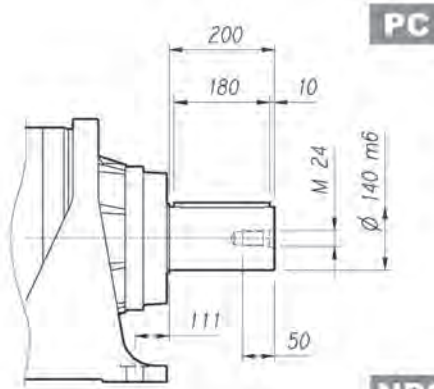
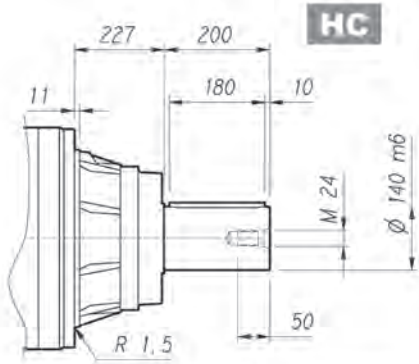
313 R

3/V 13 L



Metric

Imperial

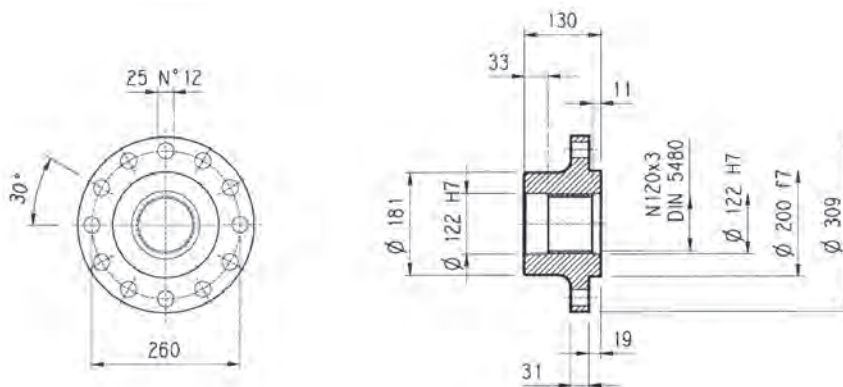
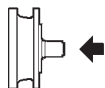
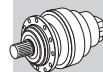


FP

T_{2max} = 699,210 lb·in

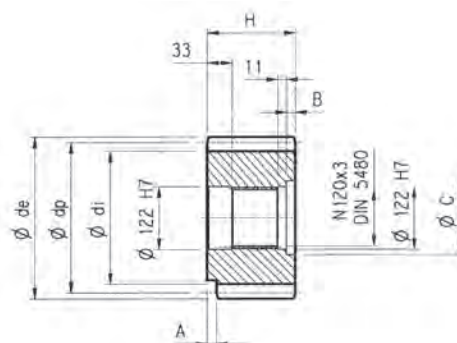
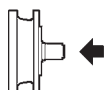
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	\pm
5.500	+0.00157 +0.00059

313 L**313 R****3/V 13 L****Flange****WOA****Metric**

Material: Steel C40

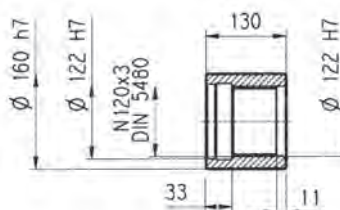
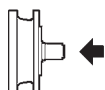
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

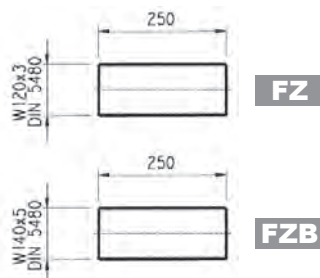
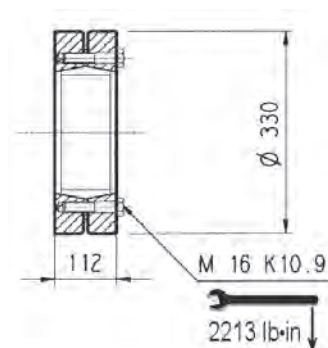
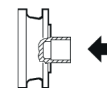
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PPH	16	17	0.500	272	247	315	135	—	5	136	Steel 39NiCrMo3 hardened and tempered
PRI	18	18	0.333	324	294	365	140	—	10	140	

Sleeve coupling**MOA**

Material: Steel 16CrNi4

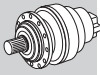
Dimensions are in mm

Splined bars**B0A****Shrink disc****G0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC

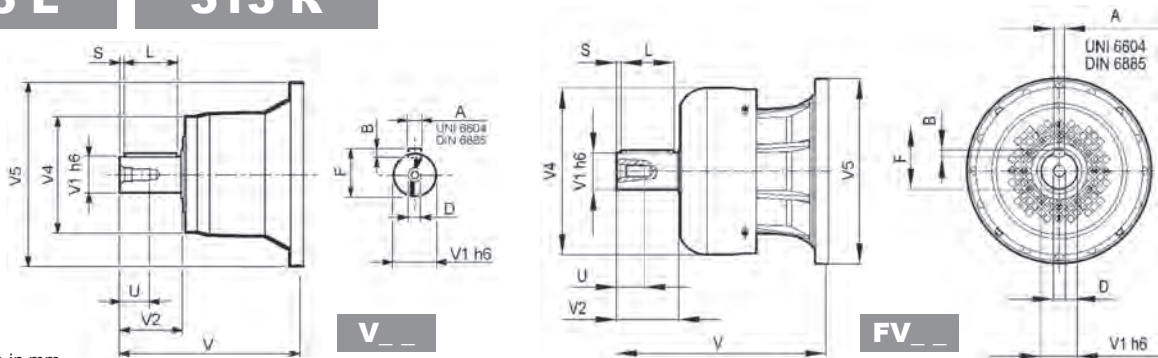
Dimensions are in mm

313 L

313 R



Metric

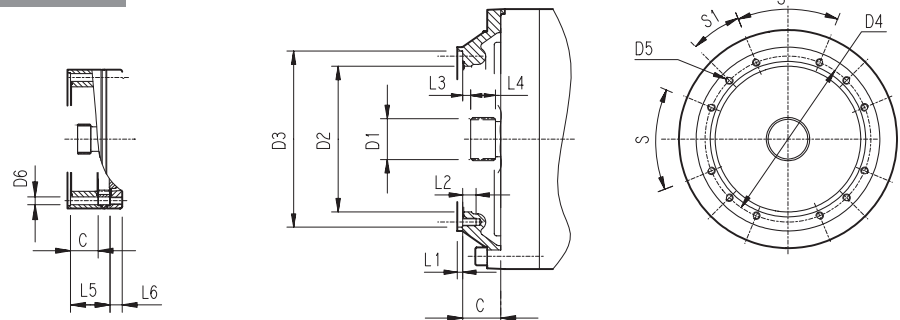


Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
313 L1	V11B	343	80	130	200	445	22	14	85	110	10	M16	36
	FV11B	451	80	130	347.5	445	22	14	85	110	10	M16	36
313 L2	V07B	315	80	130	200	345	22	14	85	110	10	M16	36
	FV07B	375	80	130	347.5	348	22	14	85	110	10	M16	36
	V07A	313	60	105	155	345	18	11	64	90	7.5	M16	36
313 L3	FV07A	363	60	105	309	348	18	11	64	90	7.5	M16	36
	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
313 L4	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
313 R2 (B) (C)	V01B	158	38	58	120	186	10	8	41	50	4	M12	28
	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
313 R3	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36
	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
313 R4	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

313 L

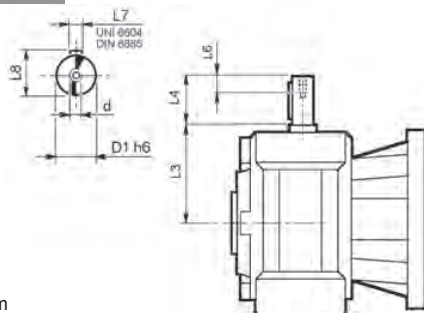
313 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
313 L1	V9AD	75	80x74 DIN 5482	270	335 H7	314	M16 n°8	—	5	30	9.5	40	—	—	60°	30°	D
313 L2	V9AB	51	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
313 L3	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	—	4	18	9	18	—	—	45°	45°	A
313 L4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	65	18	45°	45°	A
313 R3	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	18	9	18	—	—	45°	45°	A
313 R2 (B) (C)	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
313 R4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

3/V 13 L



Dimensions are in mm

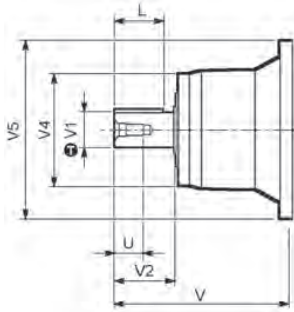
	D1 h6	L3	L4	L6	L7	L8	d
3/V 13 L3_HS	40	214.5	70	20	12	43	M8
3/V 13 L4_HS	25	168	60	19	8	28	M8

313 L

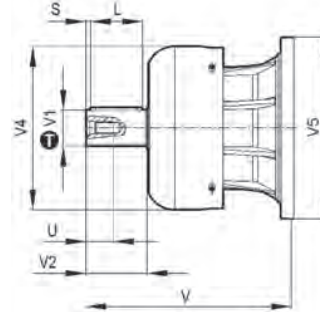
313 R



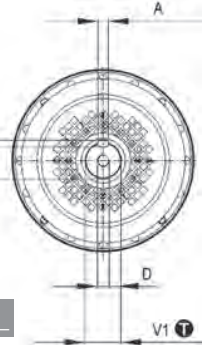
inch	T
3.000	0 -0.00075
2.375	0 -0.00053
1.875	0 -0.00053
1.625	0 -0.00053
1.125	0 -0.00051



NV _ _



FNV _ _



Imperial

Dimensions are in Inch except when shown in *italic* [mm]

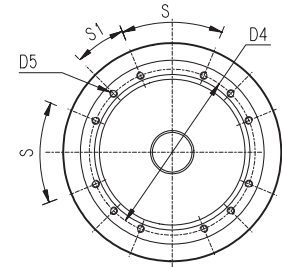
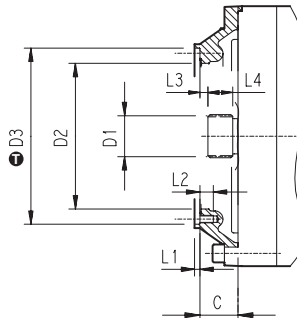
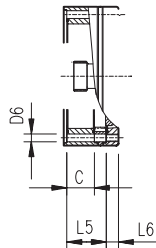
		V	V1	V2	V4	V5	A	B	F	L	D	U
313 L1	NV11B	13.563	3.000	5.000	8.160	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV11B	17.835	3.000	5.000	13.678	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
313 L2	NV07B	12.283	3.000	5.000	7.165	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV07B	14.646	3.000	5.000	13.677	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	NV07A	13.130	2.375	4.750	6.024	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
	FNV07A	15.104	2.375	4.750	6.811	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
313 L3	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
313 L4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102
313 R2 (B) (C)	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
313 R3	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
313 R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

313 L

313 R



inch	T
13.19	+0.00224 0
9.29	+0.00181 0
7.01	+0.00157 0



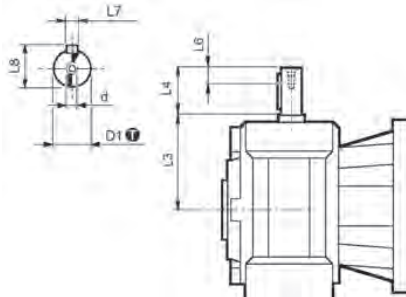
Dimensions are in Inch except when shown in *italic* [mm]

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
313 L1	V9AD	3.19	80x74 DIN 5482	10.63	13.19	12.36	M16 n°8	—	0.20	1.18	0.33	1.57	—	—	60°	30°	D
313 L2	V9AB	2.01	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
313 L3	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
313 L4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	2.56	0.71	45°	45°	A
313 R3	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	0.71	0.35	0.71	—	—	45°	45°	A
313 R2 (B) (C)	V9AB	1.77	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
313 R4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

3/V 13 L



inch	T
1.000	0 -0.00051



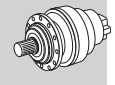
Dimensions are in Inch except when shown in *italic* [mm]

	D1	L3	L4	L6	L7	L8	d
3/V 13 L4_HS	1.000	11.89	1.969	0.75	0.250	1.109	3/8-16UNC

313 L

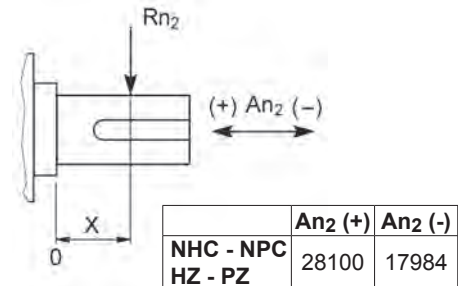
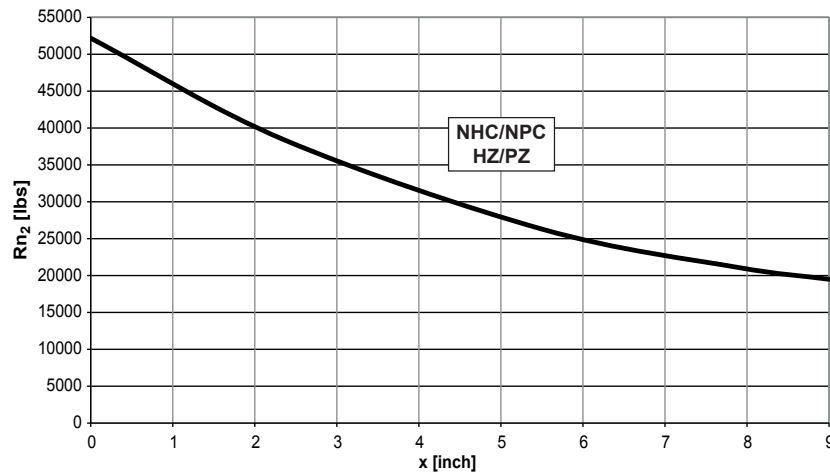
313 R

3/V 13 L

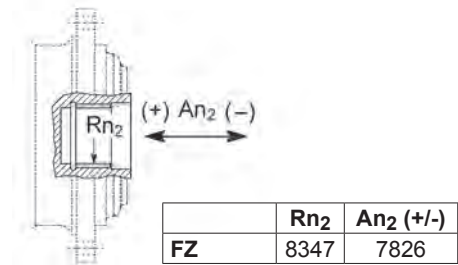


Imperial

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$



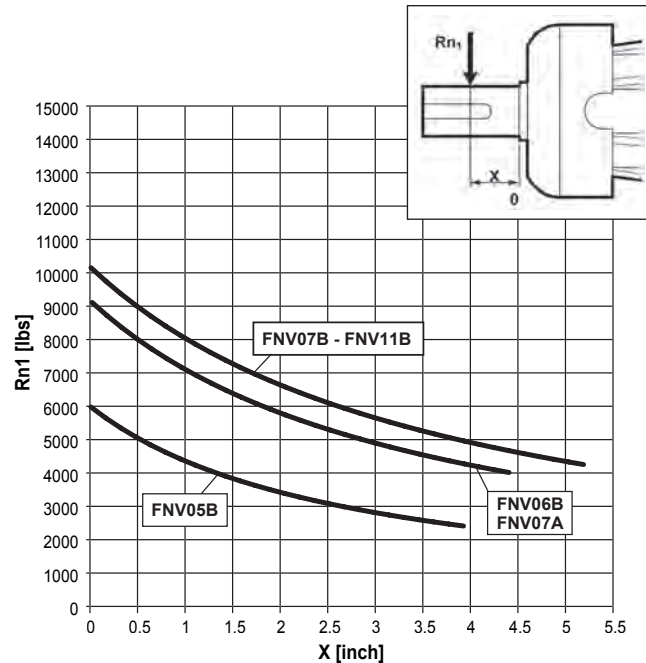
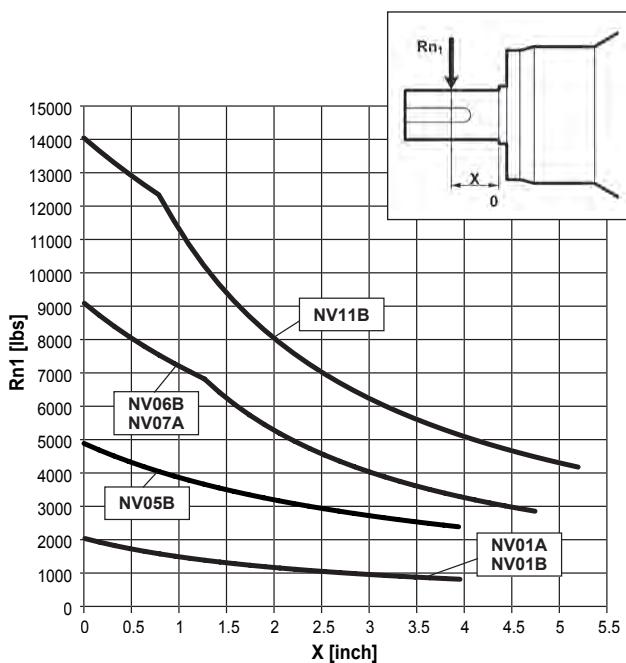
	An2 (+)	An2 (-)
NHC - NPC HZ - PZ	28100	17984



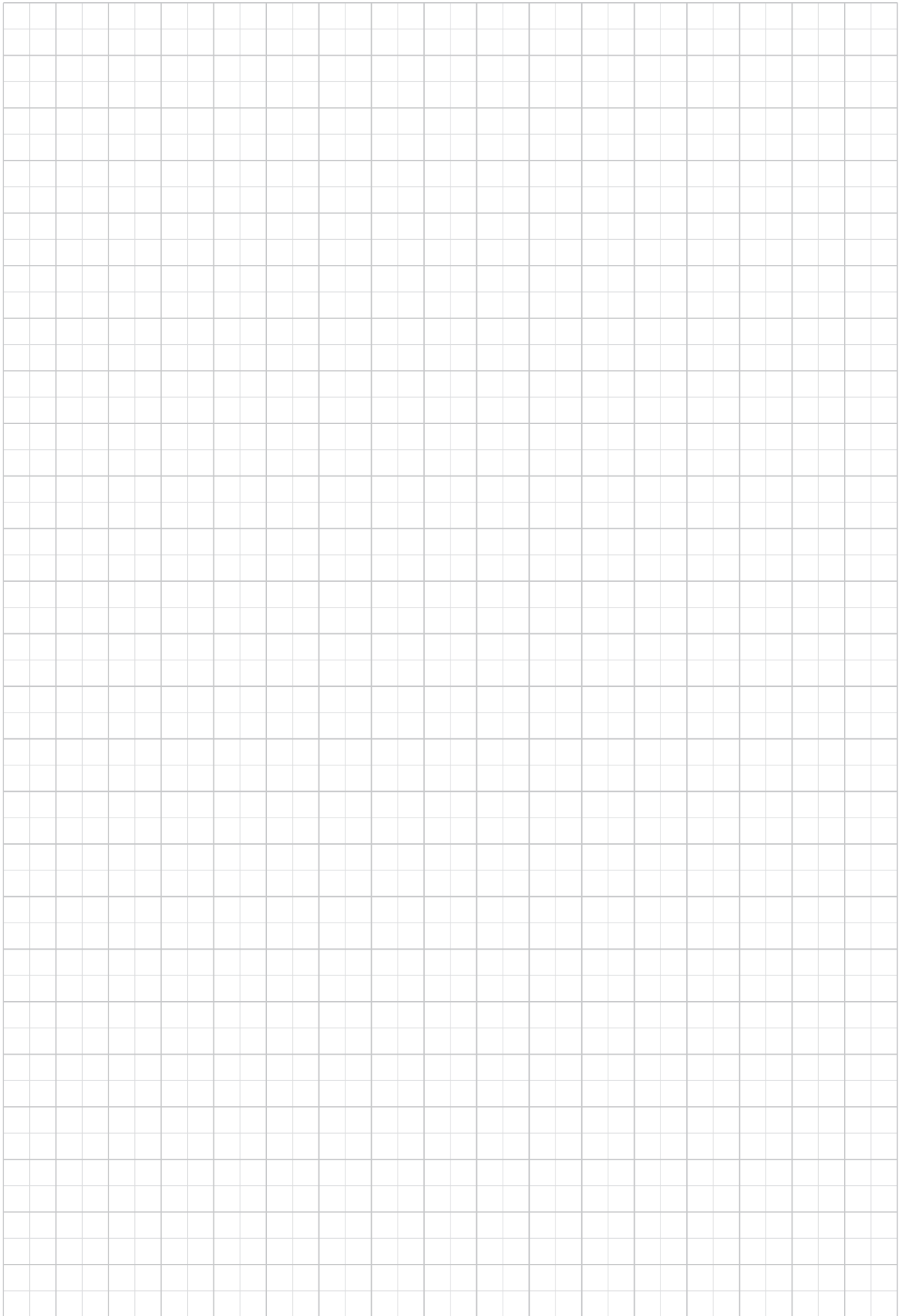
	Rn2	An2 (+/-)
FZ	8347	7826

Load corrective factor fh2 on shafts	Fh2 = n2 · h						
	10000						
	25000						
fh2	FZ	2.15	1.59	1.26	1.00	0.58	0.46
	NHC - NPC - HZ - PZ	1.32	1.20	1.20	1.00	0.62	0.50

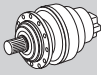
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



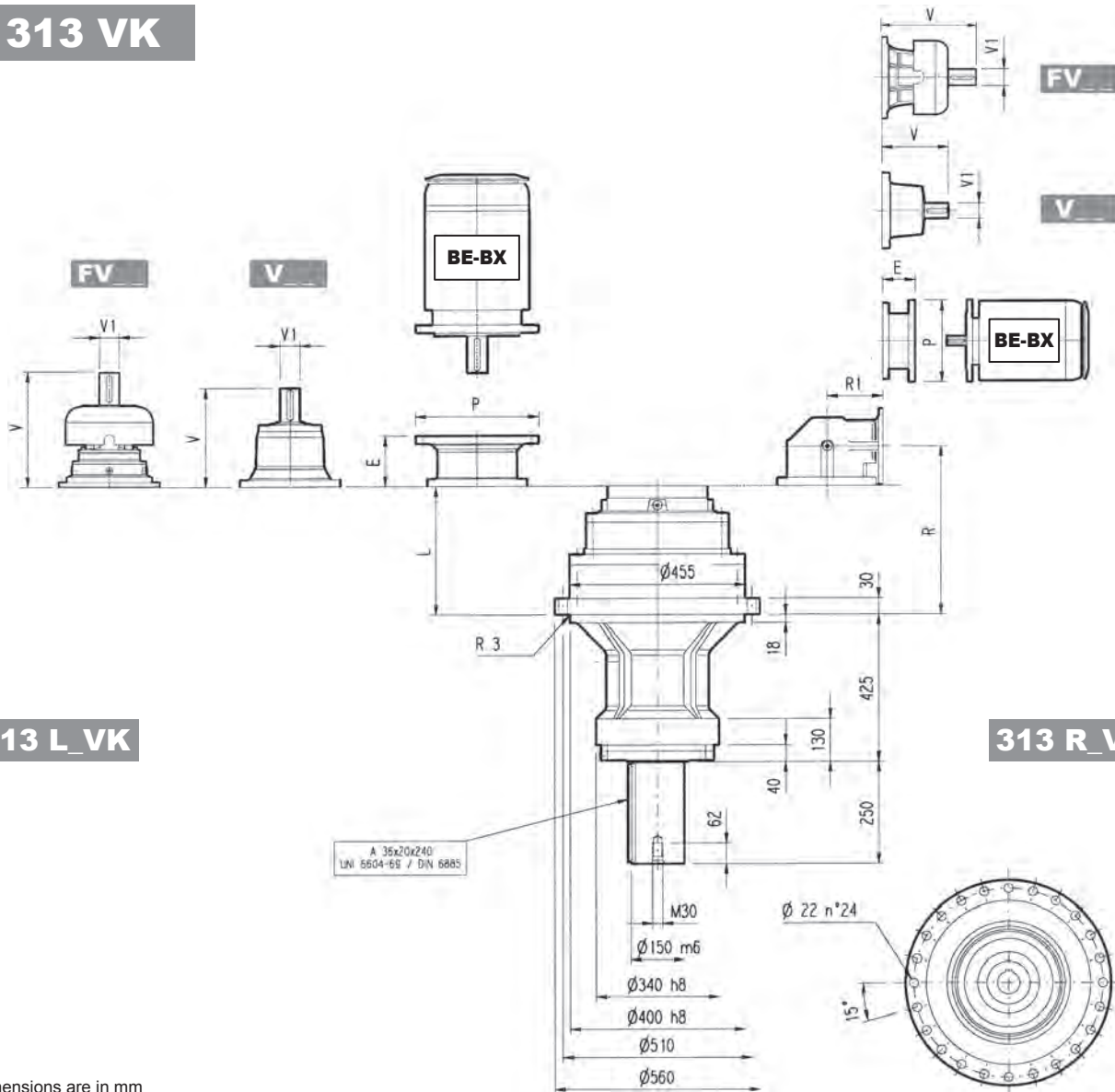
Load corrective factor fh1 on shafts	Fh1 = n1 · h						
	250000						
fh1	1	0.79	0.63	0.50	0.37	0.29	



313 VK



Metric



313 L_VK

313 R_VK

Dimensions are in mm

	L			V						V1					
	L	kg		V	V1	kg	V	V1	kg	V	V1	kg	V	V1	kg
313 L1	158	380		343	80	55	—	—	—	451	80	71	—	—	—
313 L2	308	440		315	80	35	313	60	28	375	80	48	363	60	34
313 L3	397	450		239	48	15	—	—	—	276	48	17	—	—	—
313 L4	462	460		137.5	24	6	158	38	7	—	—	—	—	—	—

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
313 L2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	195	350	186	400	216	450	216	550
313 L3	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—
313 L4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

	R		R1		V						V1					
	R	R1	kg		V	V1	kg	V	V1	kg	V	V1	kg	V	V1	kg
313 R2 (B)	388	345	510	307	60	23	—	—	—	—	357	60	28	—	—	—
313 R2 (C)	388	390	520	307	60	23	—	—	—	—	357	60	28	—	—	—
313 R3	427	225	490	239	48	15	—	—	—	—	—	—	—	—	—	—
313 R4	489	140	470	137.5	24	6	158	38	7	—	—	—	—	—	—	—

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
313 R2 (B)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550
313 R2 (C)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550
313 R3	—	—	—	—	—	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—
313 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

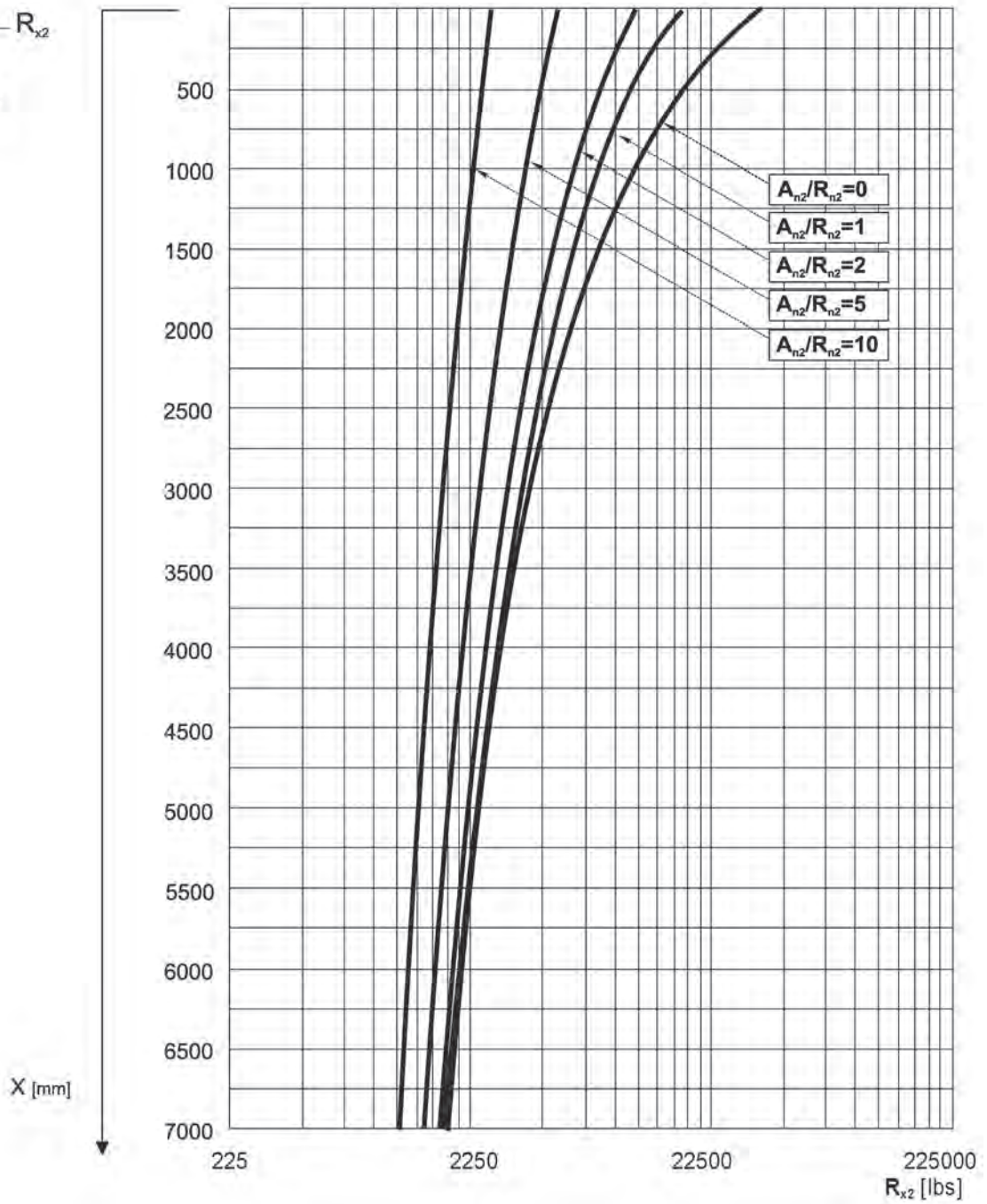
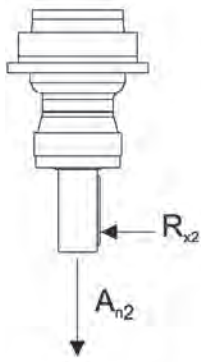
313 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

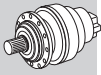
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



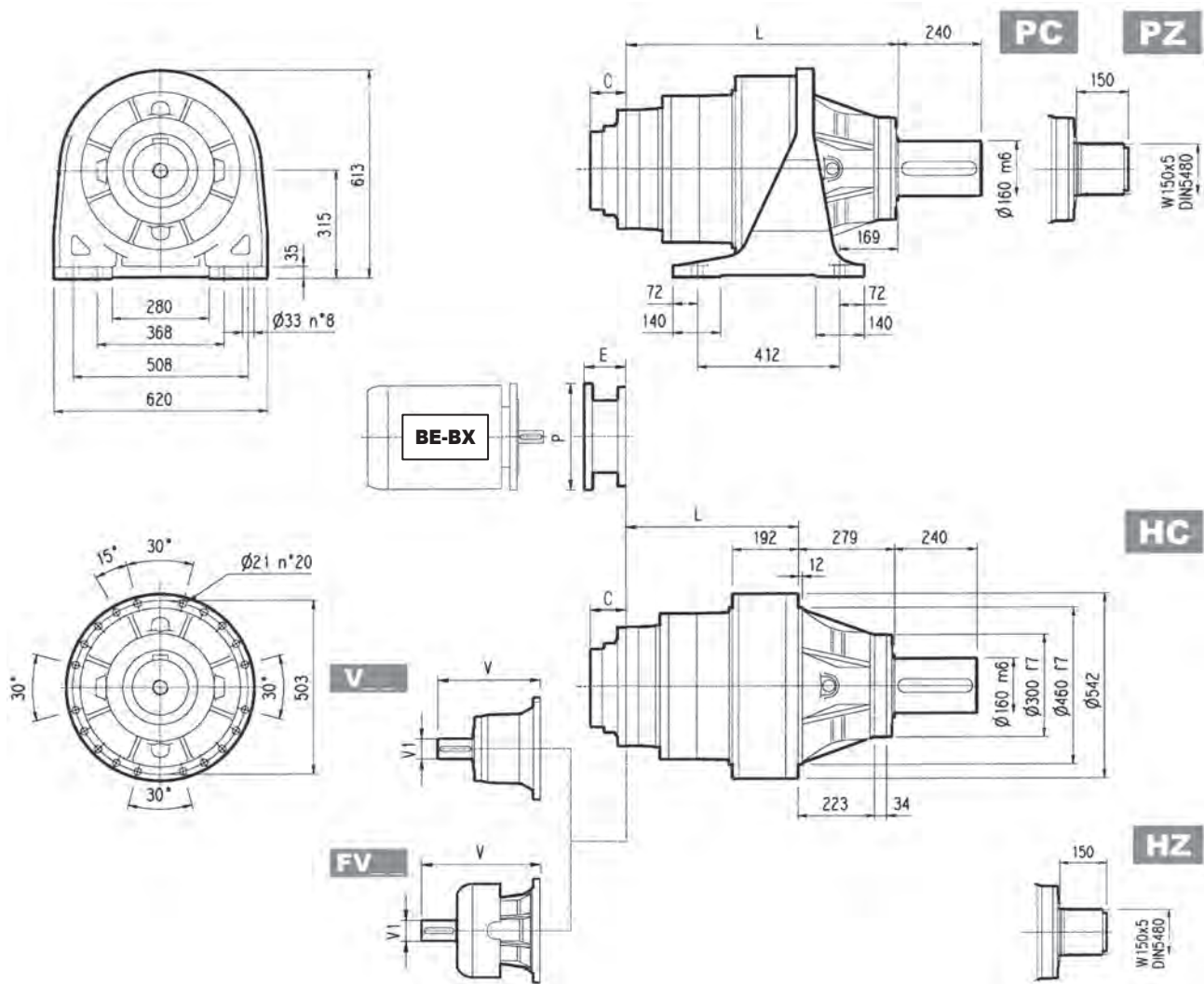
Metric



314 L



Metric

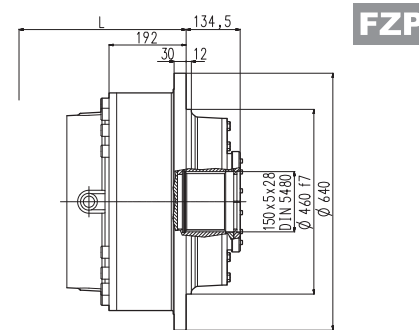
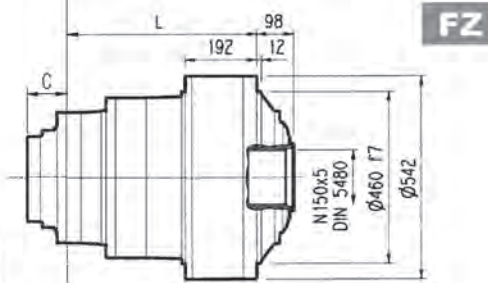
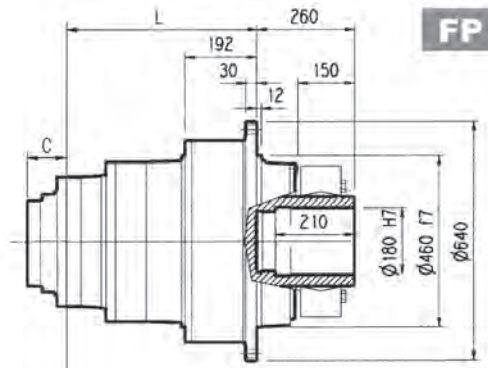
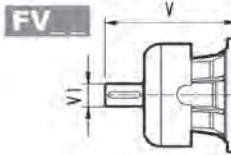
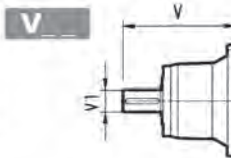
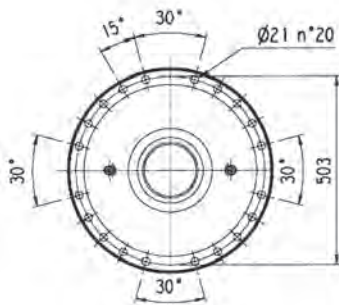
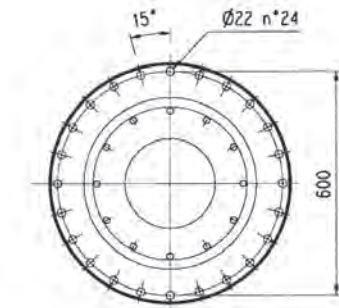


Dimensions are in mm

	L				Kg			
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP
314 L1	453	174	174	174	500	370	280	330
314 L2	641	362	362	362	545	415	325	375
314 L3	777	498	498	498	590	460	370	420
314 L4	842	563	563	563	600	470	380	430

							C	Input
	V	V1	Kg	V	V1	Kg		
314 L1	—	—	—	—	—	—	120	L
314 L2	377	80	50	457	80	63	88	C
314 L3	307	60	23	357	60	28	45	B
314 L4	239	48	15	276	48	17	37	A

314 L



Metric

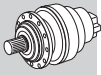
FP

$T_{2max} = 1,017,840 \text{ lb-in}$

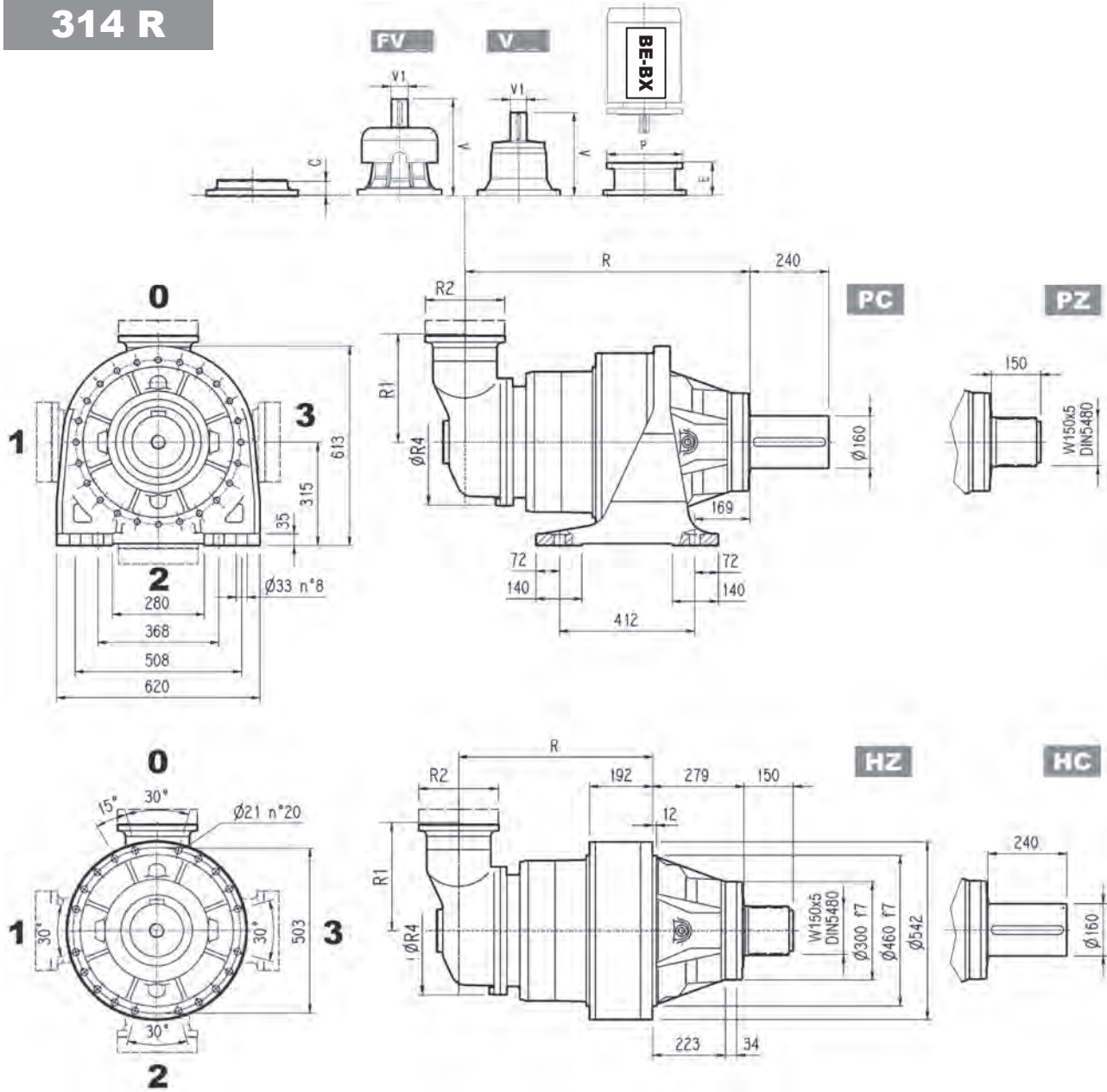
Dimensions are in mm

	P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P
314 L2	—	—	—	—	—	—	271	400	301	450	281	550
314 L3	—	—	153	350	153	350	183	400	213	450	193	550
314 L4	114	300	144	350	144	350	174	400	—	—	—	—

314 R



Metric



Dimensions are in mm

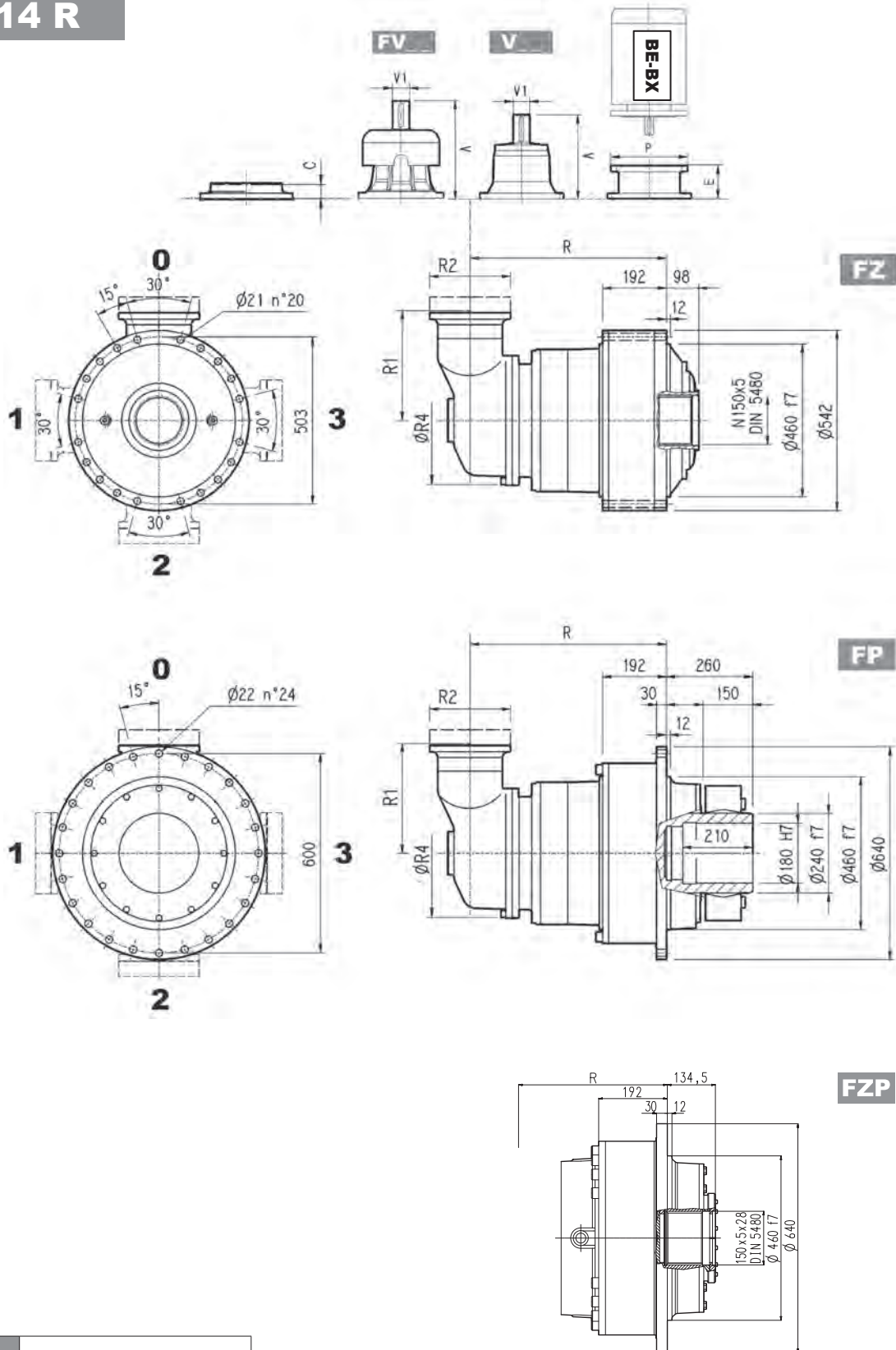
	R				R1	R2	R4	Kg			
	PC-PZ	HC-HZ	FZ - FZP	FP				PC-PZ	HC-HZ	FZ - FZP	FP
314 R3 (B)	848	569	569	569	345	292	400	720	590	500	550
314 R3 (C)	856	587	587	587	390	292	480	730	600	510	560
314 R4	914	635	635	635	140	186	244	680	550	460	510

	V			V1			V			V1			C	Input
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg		
314 R3 (B)	307	60	23	—	—	—	357	60	28	45	—	—	—	B
314 R3 (C)	307	60	23	—	—	—	357	60	28	45	—	—	—	B
314 R4	137.5	24	6	158	38	7	—	—	—	37	—	—	—	A

314 R



Metric



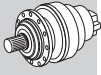
FP

$T_{2max} = 1,017,840 \text{ lb-in}$

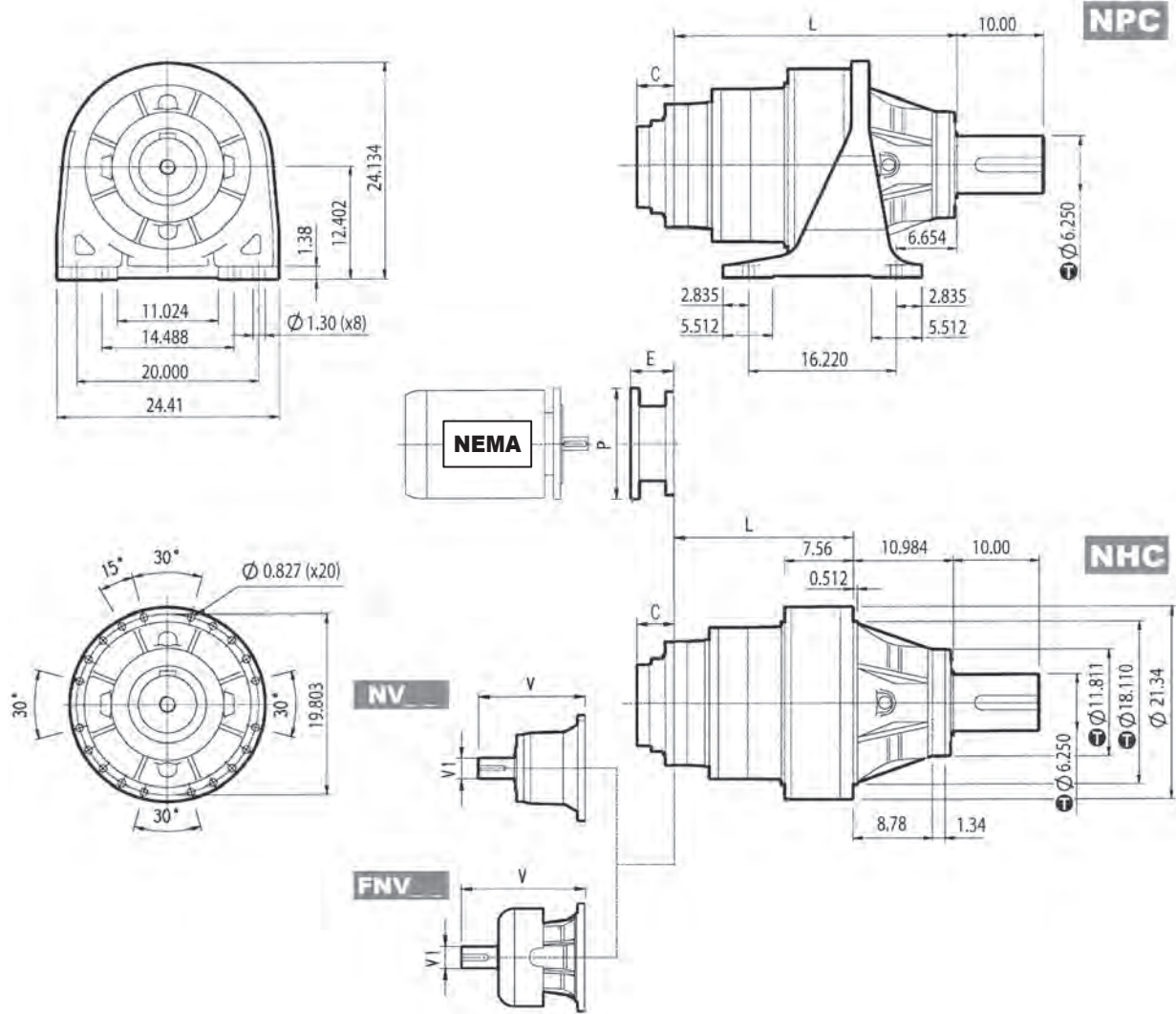
Dimensions are in mm

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
314 R3 (B)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550
314 R3 (C)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550
314 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

314 L



Imperial



inch	Ⓜ
18.110	-0.00268 -0.00516
11.811	-0.00220 -0.00425
6.250	+0.00157 +0.00059

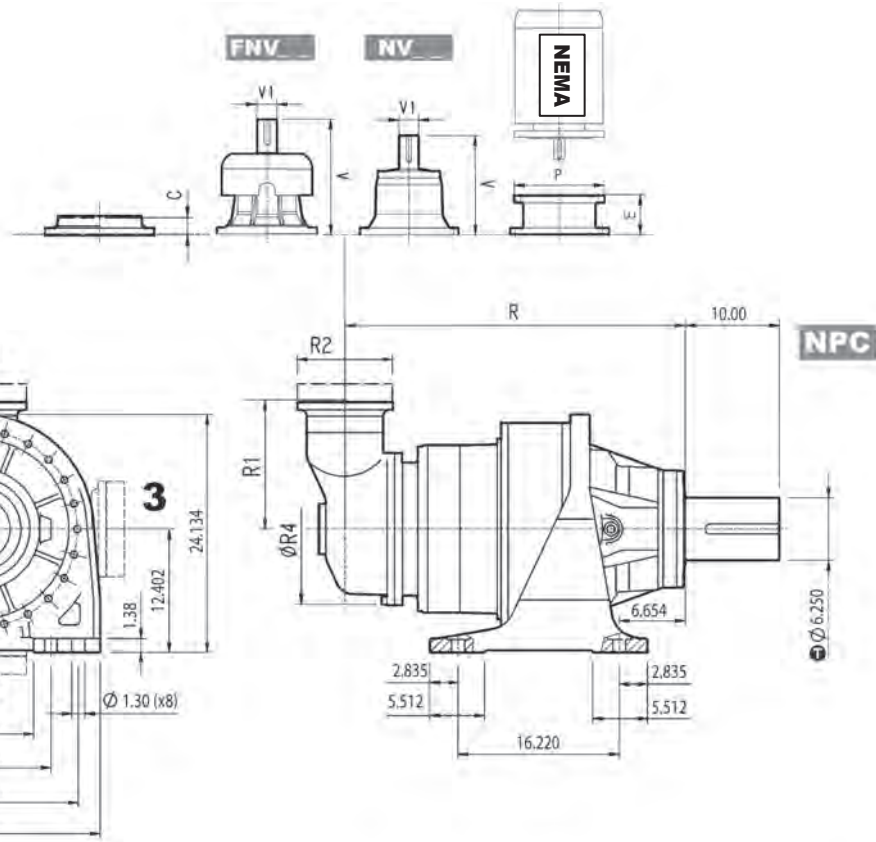
Dimensions are in Inch except when shown in *italic* [mm]

	L		lbs	
	NPC	NHC	NPC	NHC
314 L1	—	—	—	—
314 L2	25.236	14.252	1225	930
314 L3	30.591	19.606	1326	1030
314 L4	33.150	22.165	1348	1050

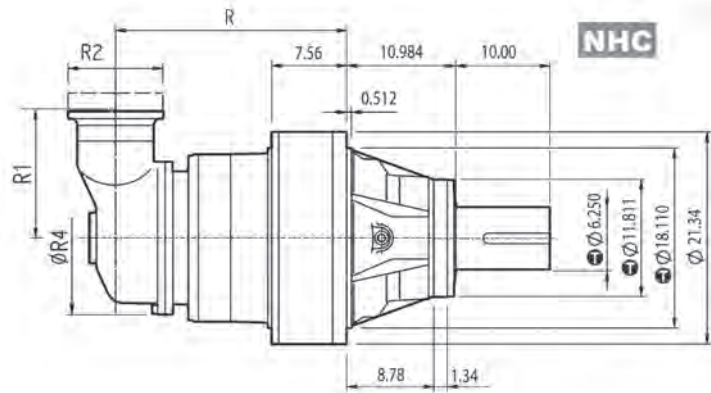
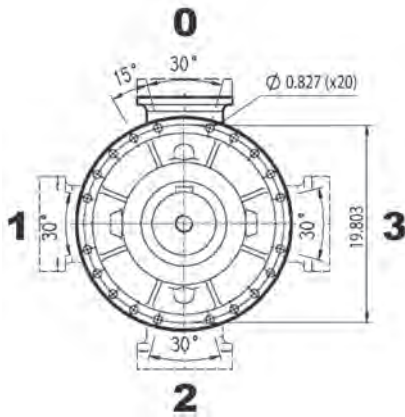
	V		lbs	V		lbs	C	Input
	V	V1		V	V1			
314 L1	—	—	—	—	—	—	4.724	L
314 L2	14.724	3.000	110.3	17.874	3.000	130.0	3.465	C
314 L3	12.703	2.375	50.7	14.652	2.375	58.0	1.772	B
314 L4	9.681	1.875	33.1	11.138	1.875	38.0	1.457	A

	N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P
314 L3	—	—	—	—	7.776	15.748	7.776	15.748
314 L4	5.216	11.811	6.221	13.780	—	—	—	—

314 R



Imperial



inch	Ⓜ
18.110	-0.00268 -0.00516
11.811	-0.00220 -0.00425
6.250	+0.00157 +0.00059

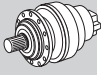
Dimensions are in Inch except when shown in *italic [mm]*

	R		R1	R2	R4	lbs	
	NPC	NHC				NPC	NHC
314 R3 (B)	33.386	22.402	13.583	11.496	15.748	1500	1210
314 R3 (C)	33.701	23.110	15.354	11.496	18.898	1530	1240
314 R4	35.984	25.000	5.512	7.323	9.606	1420	1125

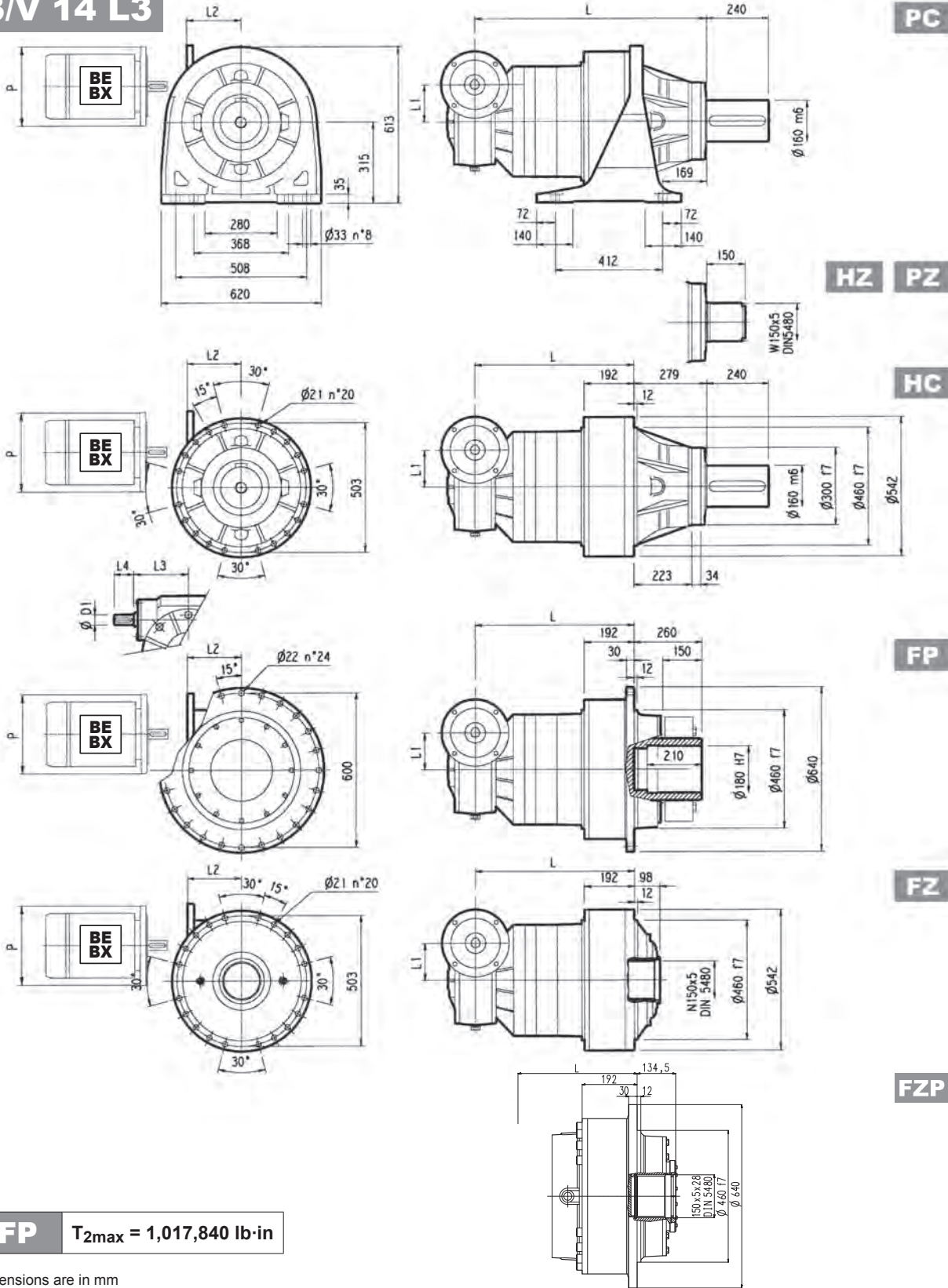
	V		lbs	V		lbs	V		lbs	C	Input
	V1	lbs		V1	lbs		V1	lbs			
314 R3 (B)	12.703	2.375	50.7	—	—	—	14.652	2.375	58.0	1.772	B
314 R3 (C)	12.703	2.375	50.7	—	—	—	14.652	2.375	58.0	1.772	B
314 R4	5.996	1.125	13.2	6.437	1.625	15.4	—	—	—	1.457	A

	N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P
314 R3 (B)	—	—	—	—	7.776	13.780	7.776	13.780
314 R3 (C)	—	—	—	—	7.776	13.780	7.776	13.780
314 R4	5.216	8.819	6.122	11.811	—	—	—	—

3/V 14 L3



Metric



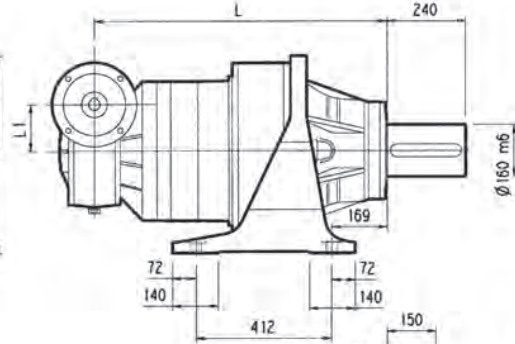
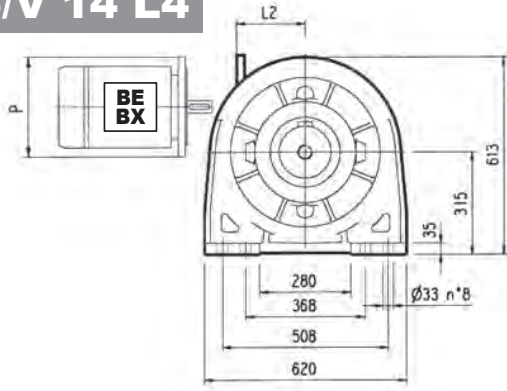
FP $T_{2max} = 1,017,840 \text{ lb}\cdot\text{in}$

Dimensions are in mm

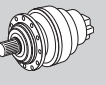
	L				L1	L2	D1	L3	L4	Kg			
	PC - PZ	HC - HZ	FZ - FZP	FP						PC - PZ	HC - HZ	FZ - FZP	FP
3/V 14 L3	920	641	641	641	185	217	40	214.5	70	665	535	445	495

	P100	P112	P132		P160		P180	
	P	P	L2	P	L2	P	L2	P
3/V 14 L3	250	250	—	300	—	350	—	350

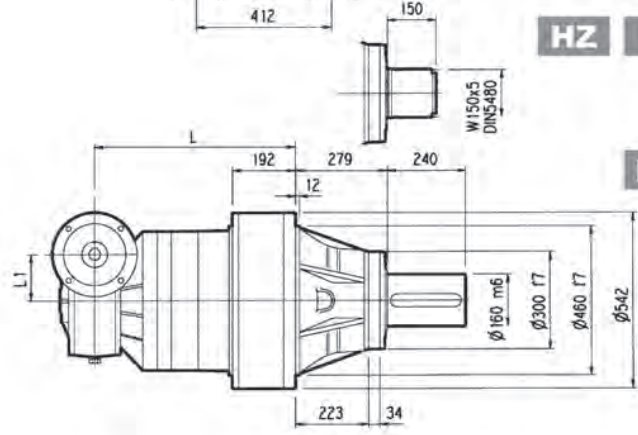
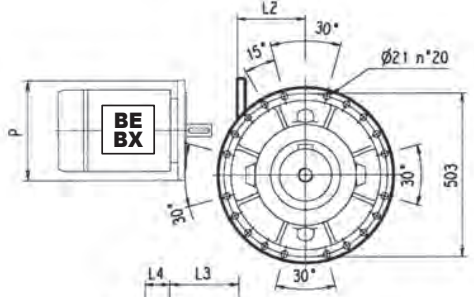
3/V 14 L4



PC

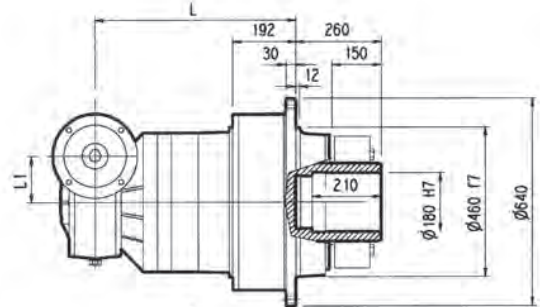
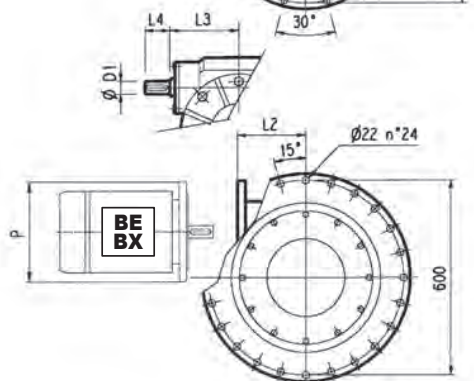


Metric

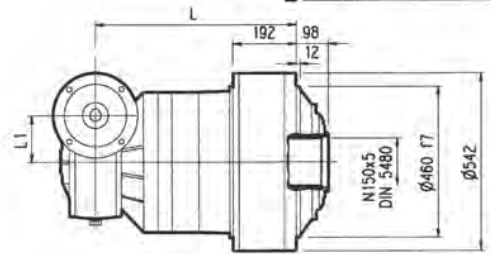
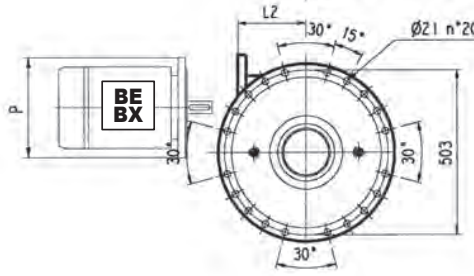


HZ PZ

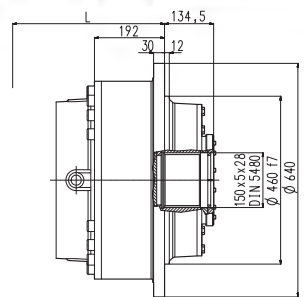
HC



FP



FZ



FZP

FP $T_{2max} = 1,017,840 \text{ lb}\cdot\text{in}$

Dimensions are in mm

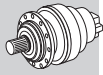
	L				L1	L2	D1	L3	L4	Kg				
	PC - PZ	HC - HZ	FZ - FZP	FP							PC - PZ	HC - HZ	FZ - FZP	FP
3/V 14 L4	961	682	682	682	150	190	35	185	65		690	560	470	520

	P100		P112		P132		P160		P180	
	P	P	L2	P	L2	P	L2	P	L2	P
3/V 14 L4	250	250	—	300	—	350	—	—	—	—

314 L

314 R

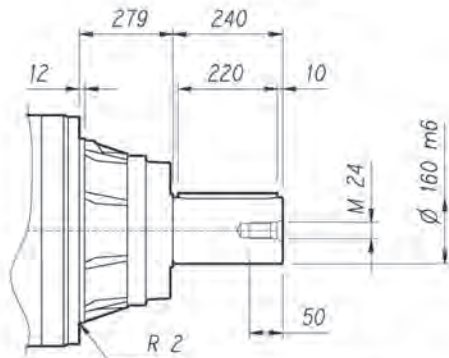
3/V 14 L



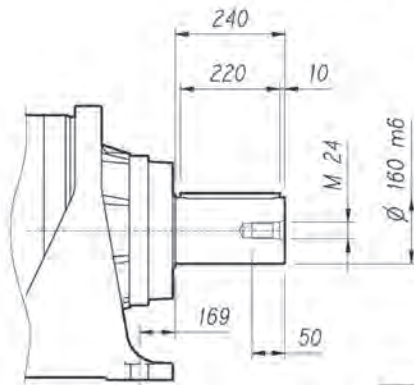
Metric

Imperial

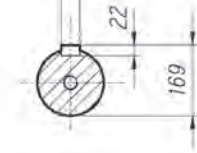
HC



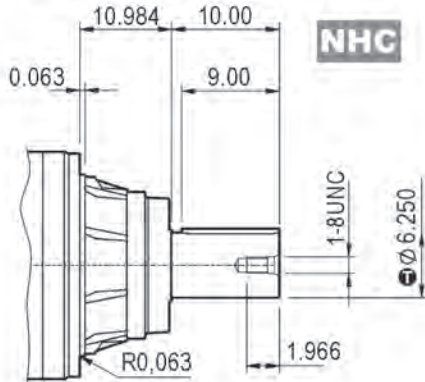
PC



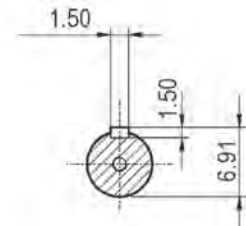
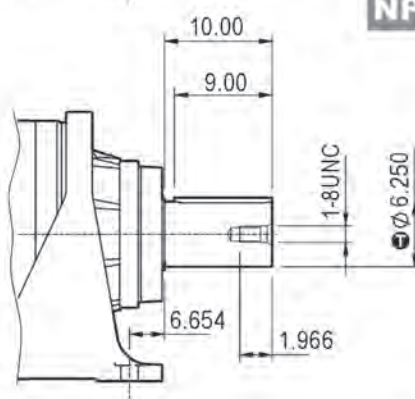
A 40x22x220
UNI 6604
DIN 6885



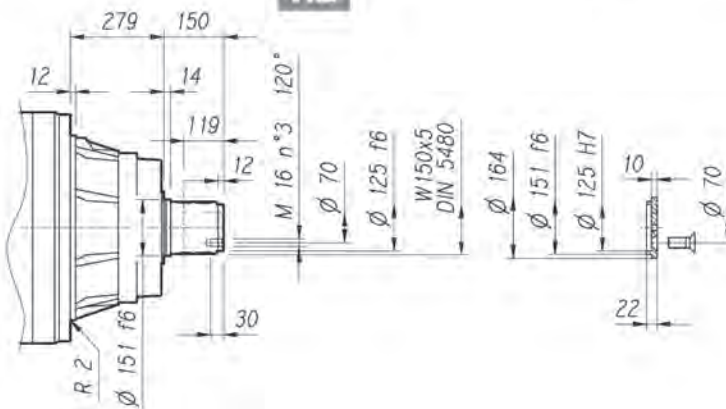
NHC



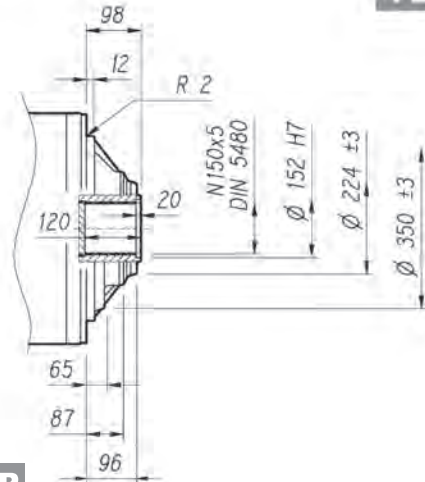
NPC



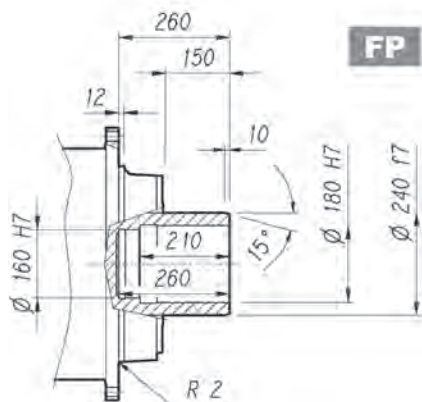
HZ



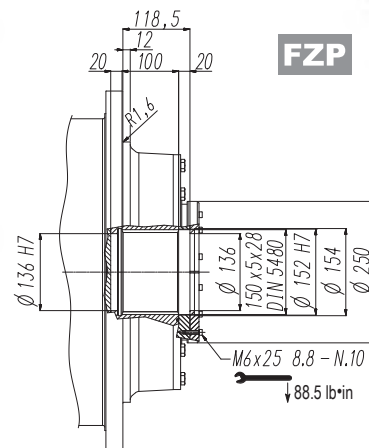
FZ



FP



FZP

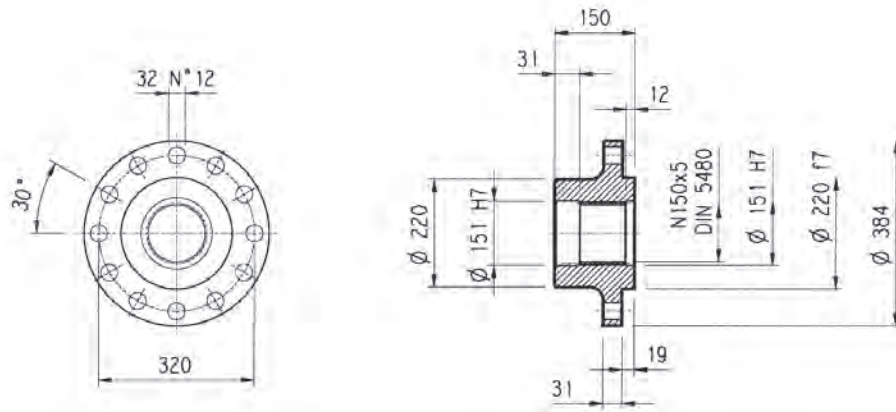
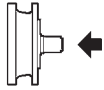


FP

$T_{2max} = 1,017,840 \text{ lb}\cdot\text{in}$

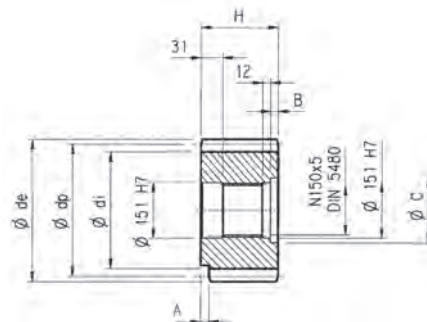
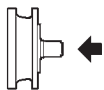
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

inch	
6.250	+0.00157 +0.00059

314 L**314 R****3/V 14 L****Flange****WOA****Metric**

Material: Steel C40

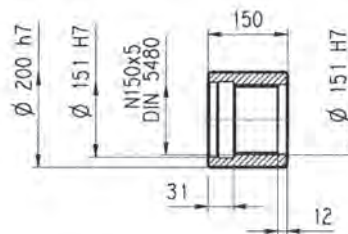
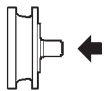
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

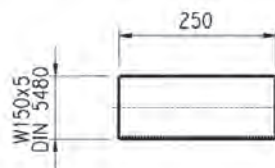
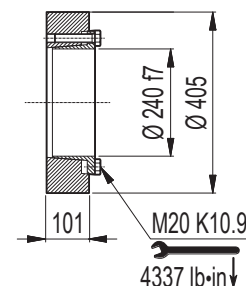
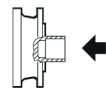
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PRG1	18	16	0.500	288	261	342	160	—	10	166	Steel 18NiCrMo5 case hardened
PRG2	18	16	0.617	288	271	339	150	30	—	—	Steel 39NiCrMo3 hardened and tempered

Sleeve coupling**MOA**

Material: Steel 16CrNi4

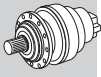
Dimensions are in mm

Splined bars**B0A****Shrink disc****G0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC

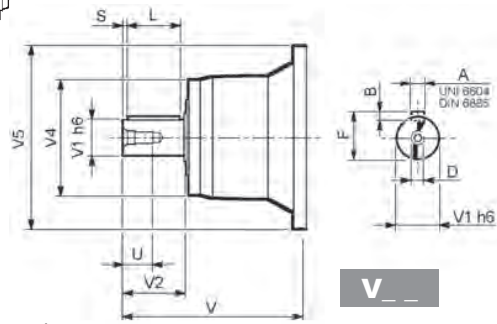
Dimensions are in mm

314 L

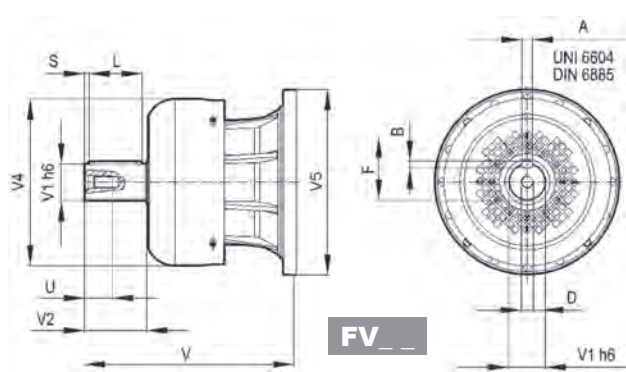
314 R



Metric



V __



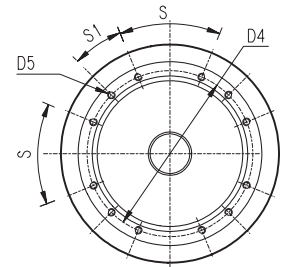
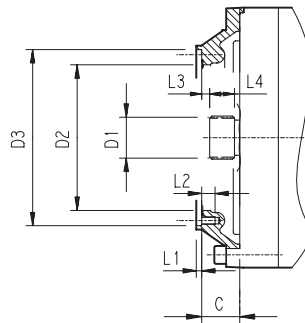
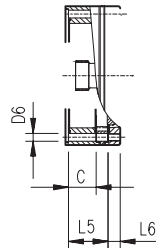
FV __

Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
314 L2	V10B	377	80	130	200	400	22	14	85	110	10	M16	36
	FV10B	457	80	130	347.5	400	22	14	85	110	10	M16	36
314 L3	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36
314 L4	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
314 R3 (B) (C)	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36
314 R4	V01A	137.5	24	36	120	186	8	7	27	30	3	M8	19
	V01B	158	38	58	120	186	10	8	41	50	4	M12	28

314 L

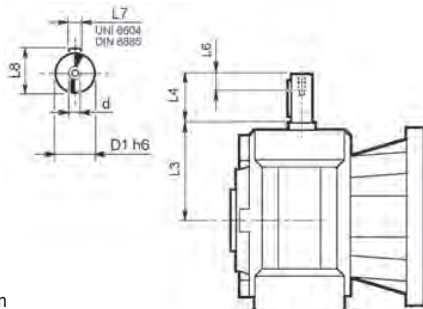
314 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
314 L1	V9AL	120	100x94 DIN 5482	295	336 H7	370	M16 n°15	—	8	21	13	55	—	—	24°	24°	L
314 L2	V9AC	88	70x64 DIN 5482	200	282 H7	266	M12 n°12	—	4	22	11	32	—	—	45°	45°	C
314 L3	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
314 L4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	—	4	18	9	18	—	—	45°	45°	A
314 R3 (B) (C)	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
314 R4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	—	9	18	37	18	45°	45°	A

3/V 14 L

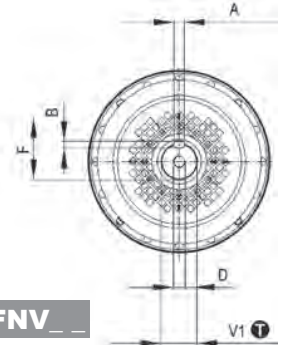
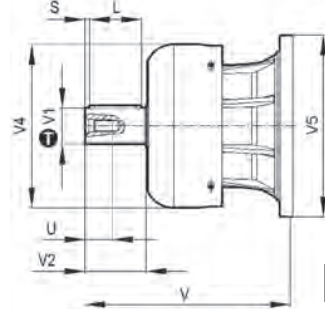
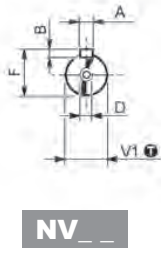
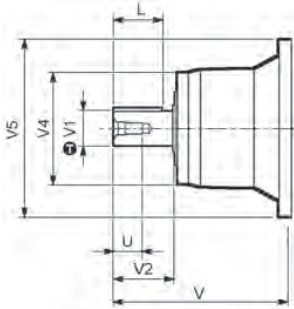


Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/V 14 L3_HS	40	214.5	70	20	12	43	M8
3/V 14 L4_HS	35	185	65	20	10	38	M8

314 L

314 R



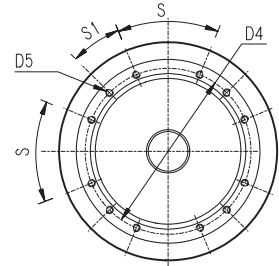
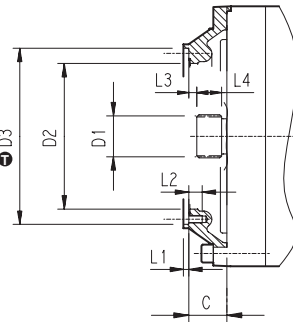
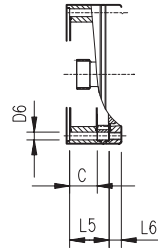
inch	Ⓜ
3.000	0 -0.00075
2.375	0 -0.00053
1.875	0 -0.00053
1.625	0 -0.00053
1.125	0 -0.00051

Dimensions are in Inch except when shown in *italic [mm]*

		V	V1	V2	V4	V5	A	B	F	L	D	U
314 L2	NV10B	14.724	3.000	5.000	7.165	15.748	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV10B	17.874	3.000	5.000	13.677	15.748	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
314 L3	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
314 L4	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
314 R3 (B) (C)	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
314 R4	NV01A	5.996	1.125	2.000	4.980	7.323	0.250	0.250	1.236	1.752	3/8-16 UNC	0.866
	NV01B	6.437	1.625	2.500	4.980	7.323	0.375	0.375	1.791	2.000	1/2-13 UNC	1.102

314 L

314 R



inch	Ⓜ
13.23	+0.00224 0
11.10	+0.00204 0
9.29	+0.00181 0
7.01	+0.00157 0

Dimensions are in Inch except when shown in *italic [mm]*

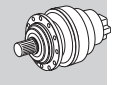
		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
314 L1	V9AL	4.72	100x94 DIN 5482	11.61	13.23	14.57	M16 n°15	—	0.31	0.83	0.51	2.17	—	—	24°	24°	L
314 L2	V9AC	3.46	70x64 DIN 5482	7.87	11.10	10.47	M12 n°12	—	0.16	0.87	0.43	1.26	—	—	45°	45°	C
314 L3	V9AB	1.77	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
314 L4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
314 R3 (B) (C)	V9AB	1.77	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
314 R4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	—	0.35	0.71	1.46	0.71	45°	45°	A

314 L

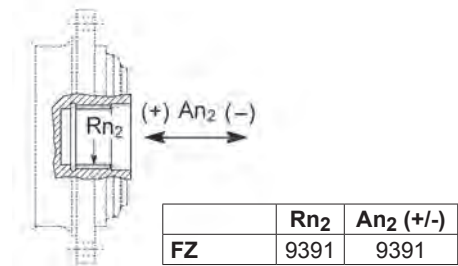
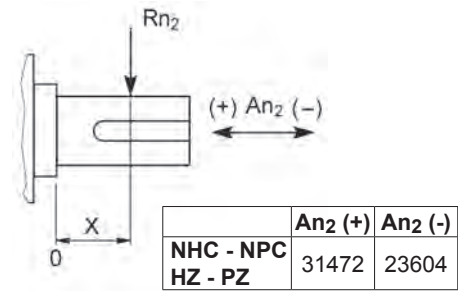
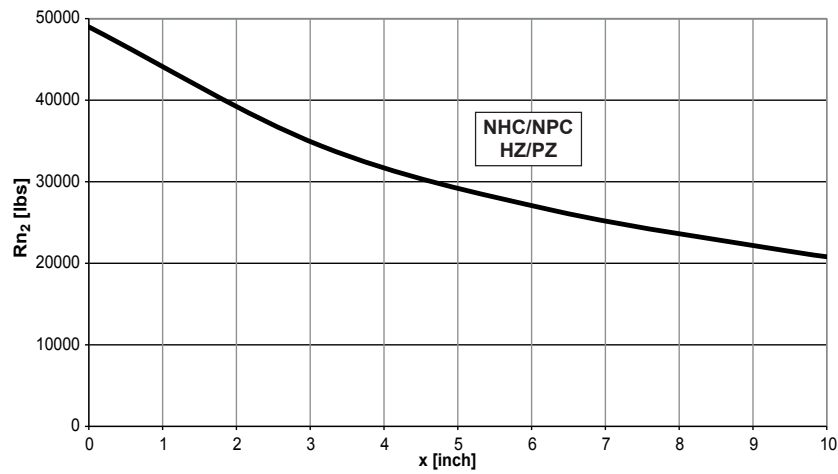
314 R

3/V 14 L

Permissible radial and axial loads on output shaft with $F_{h2} : n_2 \cdot h = 100000$

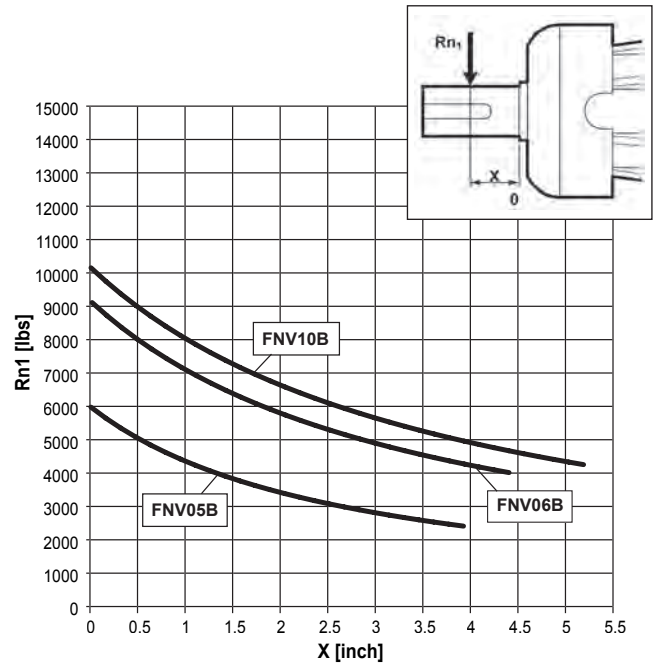
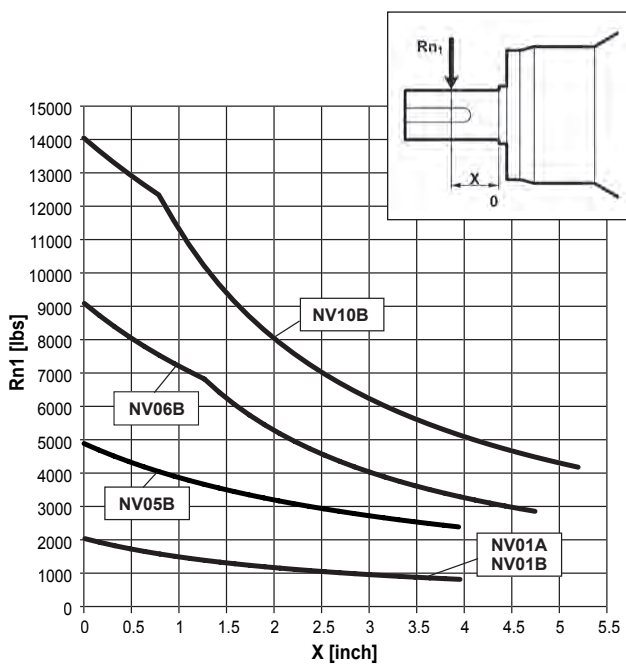


Imperial

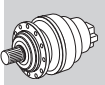
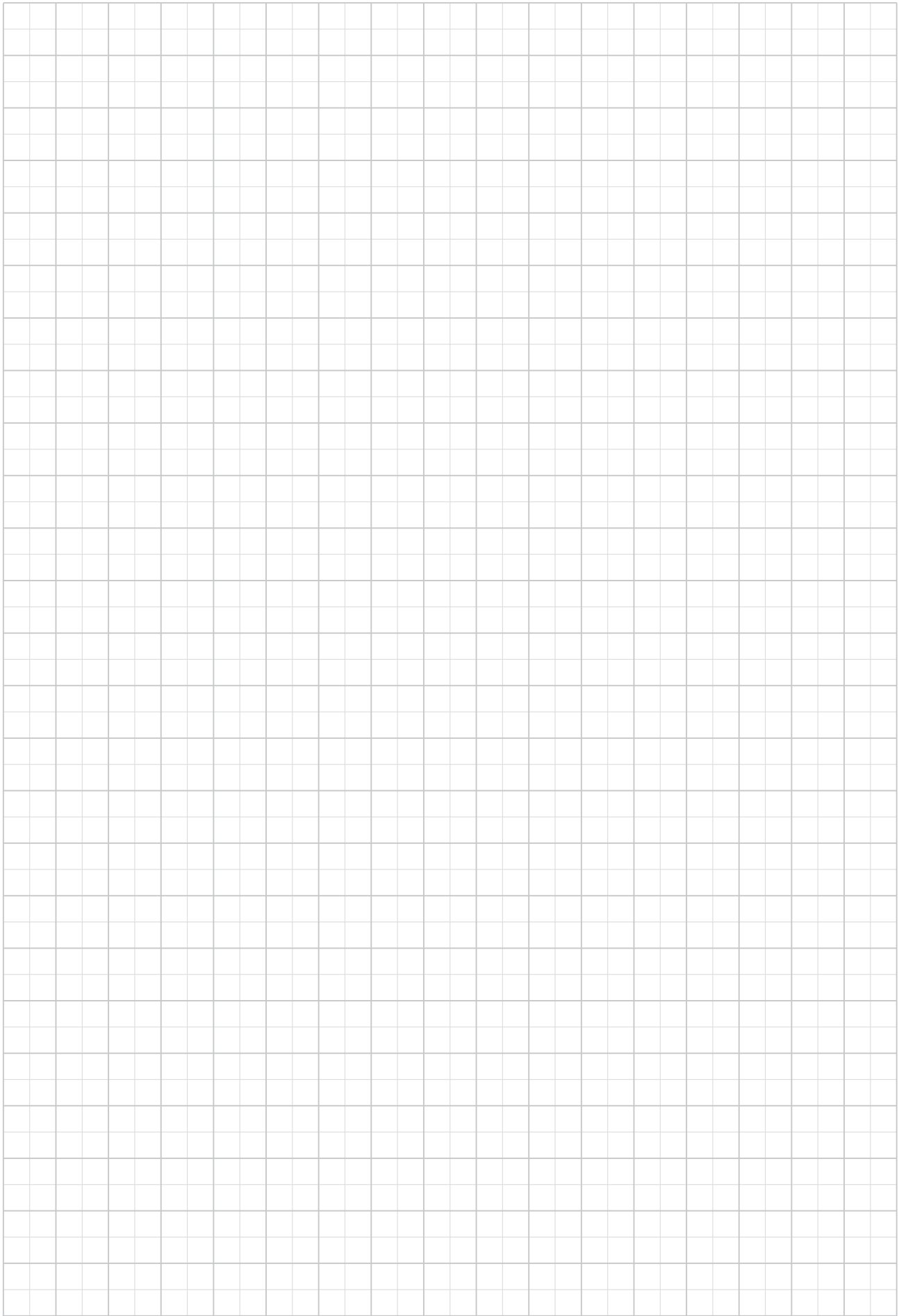


Load corrective factor f_{h2} on shafts	$F_{h2} = n_2 \cdot h$						
	f_{h2}	10000	25000	50000	100000	500000	1000000
		FZ	2.15	1.59	1.26	1.00	0.58
	NHC - NPC - HZ - PZ	2.00	1.52	1.23	1.00	0.62	0.50

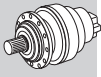
Permissible radial loads on input shaft with $F_{h1} : n_1 \cdot h = 250000$



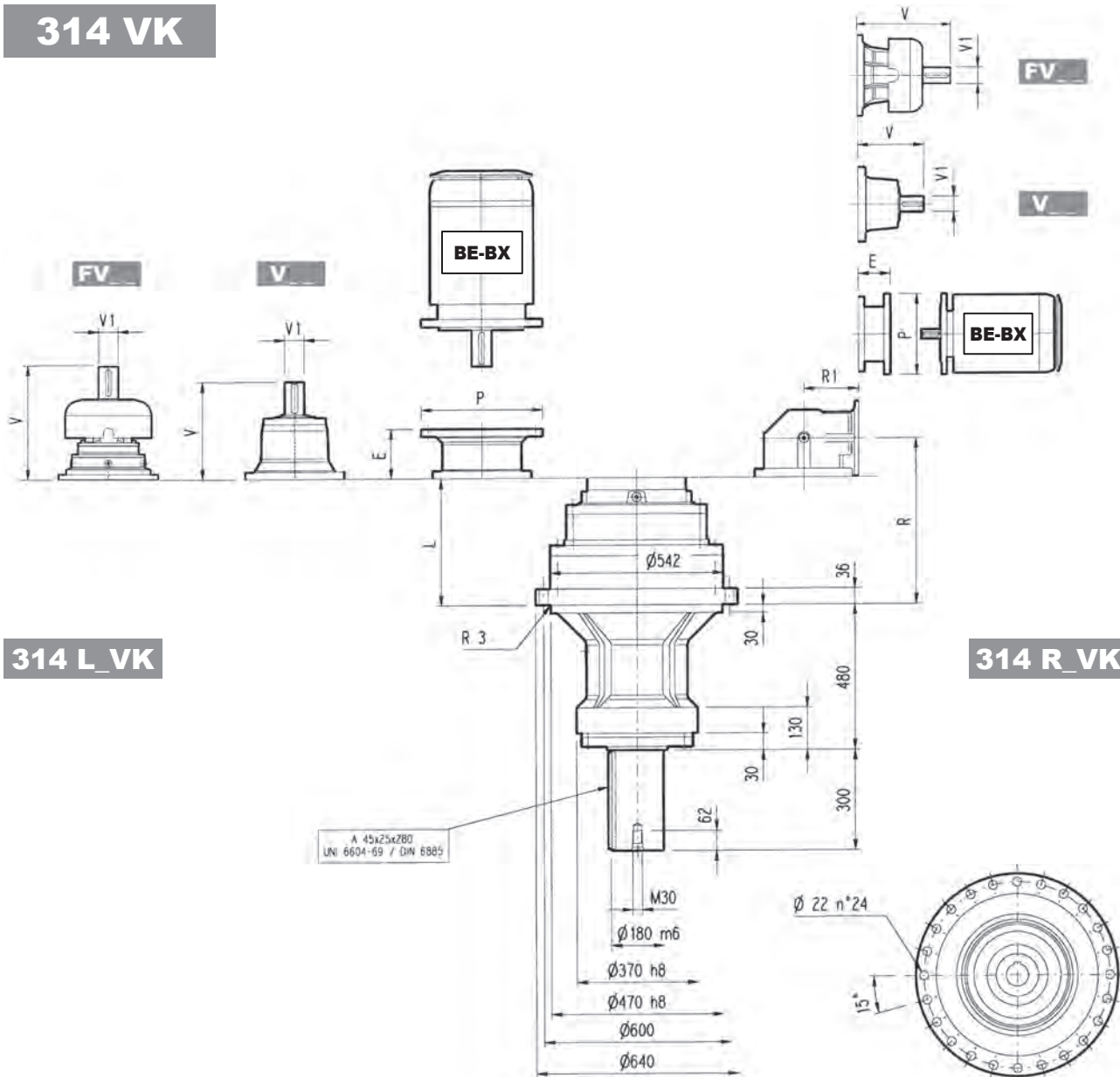
Load corrective factor f_{h1} on shafts	$F_{h1} = n_1 \cdot h$						
	f_{h1}	250000	500000	1000000	2000000	5000000	10000000
		1	0.79	0.63	0.50	0.37	0.29



314 VK



Metric



314 L_VK

314 R_VK

Dimensions are in mm

	L		V						V1						P132		P160		P180		P200		P225		P250	
	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	E	P	E	P	E	P	E	P	E	P	E	P		
314 L2	386	650	348	80	55	—	—	—	457	80	63	—	—	—	—	—	—	—	271	400	301	450	281	550		
314 L3	519	700	315	80	35	313	60	28	357	60	28	—	—	—	153	350	153	350	183	400	213	450	193	550		
314 L4	608	710	239	48	15	—	—	—	276	48	17	—	—	114	300	144	350	144	350	174	400	—	—	—	—	

	R		R1		V						V1					
	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
314 R3 (B)	611	345	720	307	60	23	—	—	—	—	357	60	28	—	—	
314 R3 (C)	611	390	730	307	60	23	—	—	—	357	60	28	—	—	—	
314 R4	638	225	690	137.5	24	6	158	38	7	—	—	—	—	—	—	

	P71		P80		P90		P100		P112		P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P
314 R3 (B)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550
314 R3 (C)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152	350	182	400	212	450	193	550
314 R4	65	160	84	200	84	200	94	250	94	250	114	300	144	350	—	—	—	—	—	—	—	—

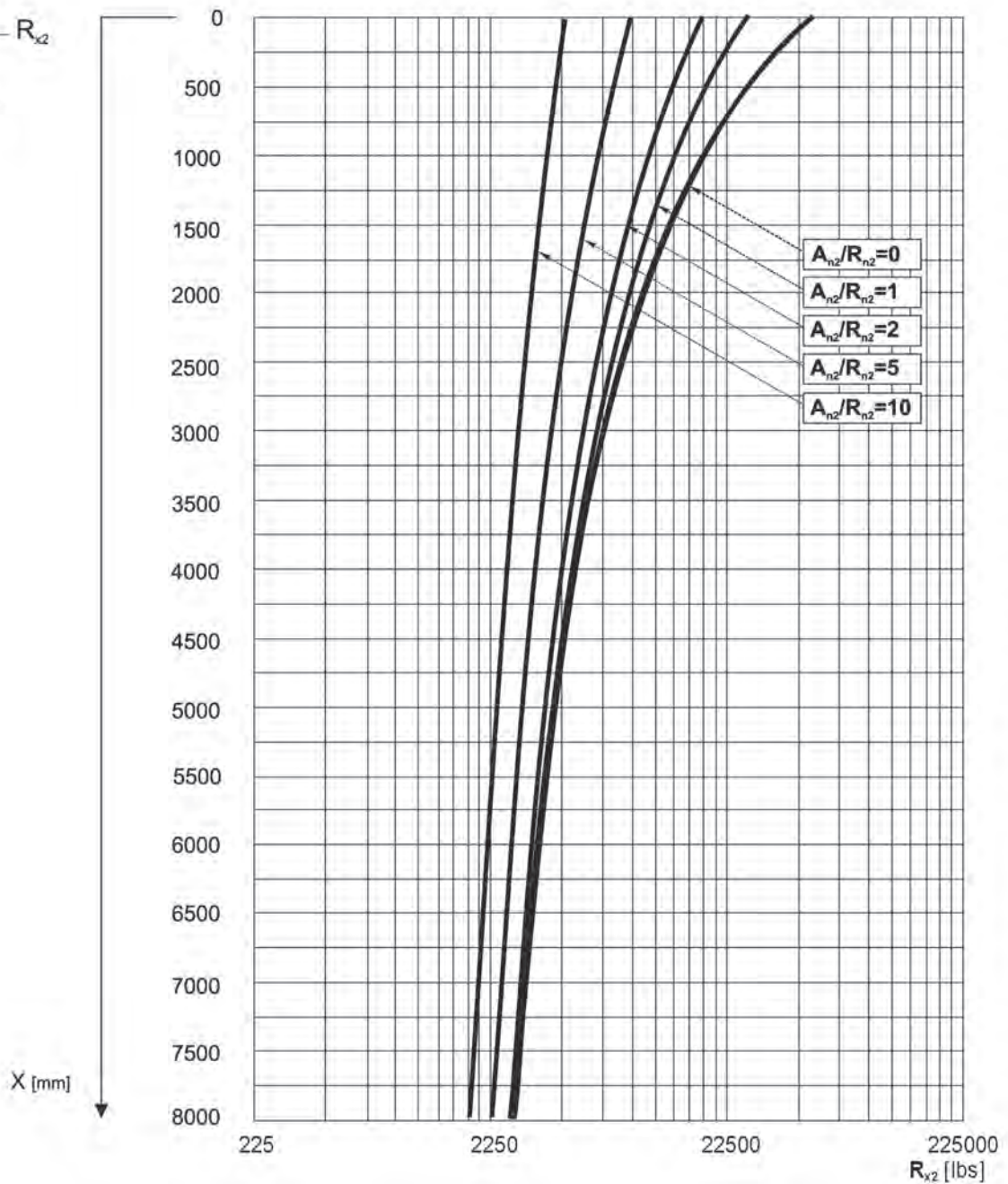
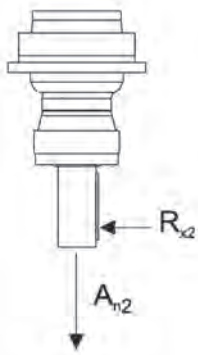
314 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

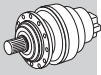
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



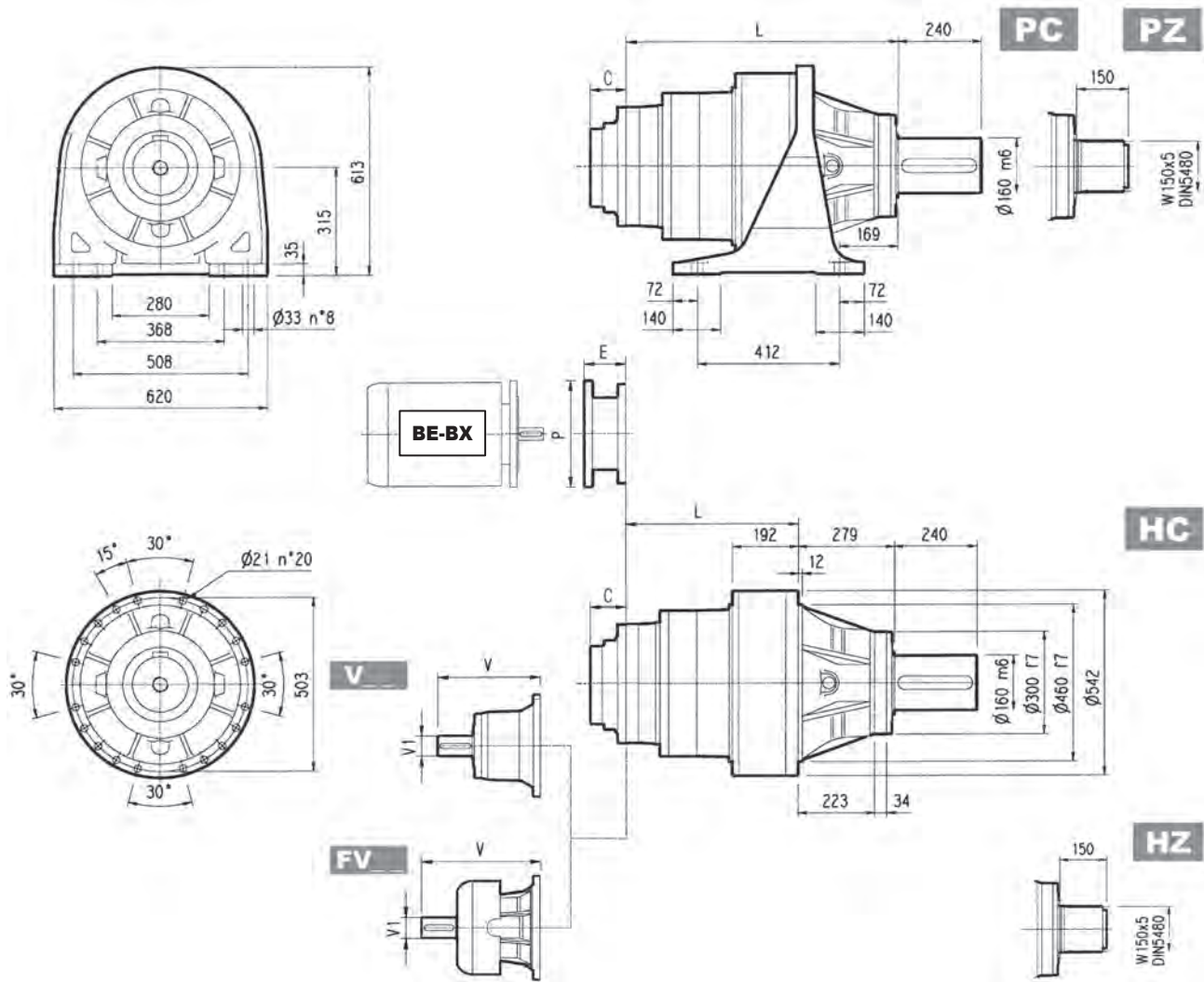
Metric



315 L



Metric

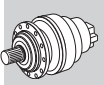


Dimensions are in mm

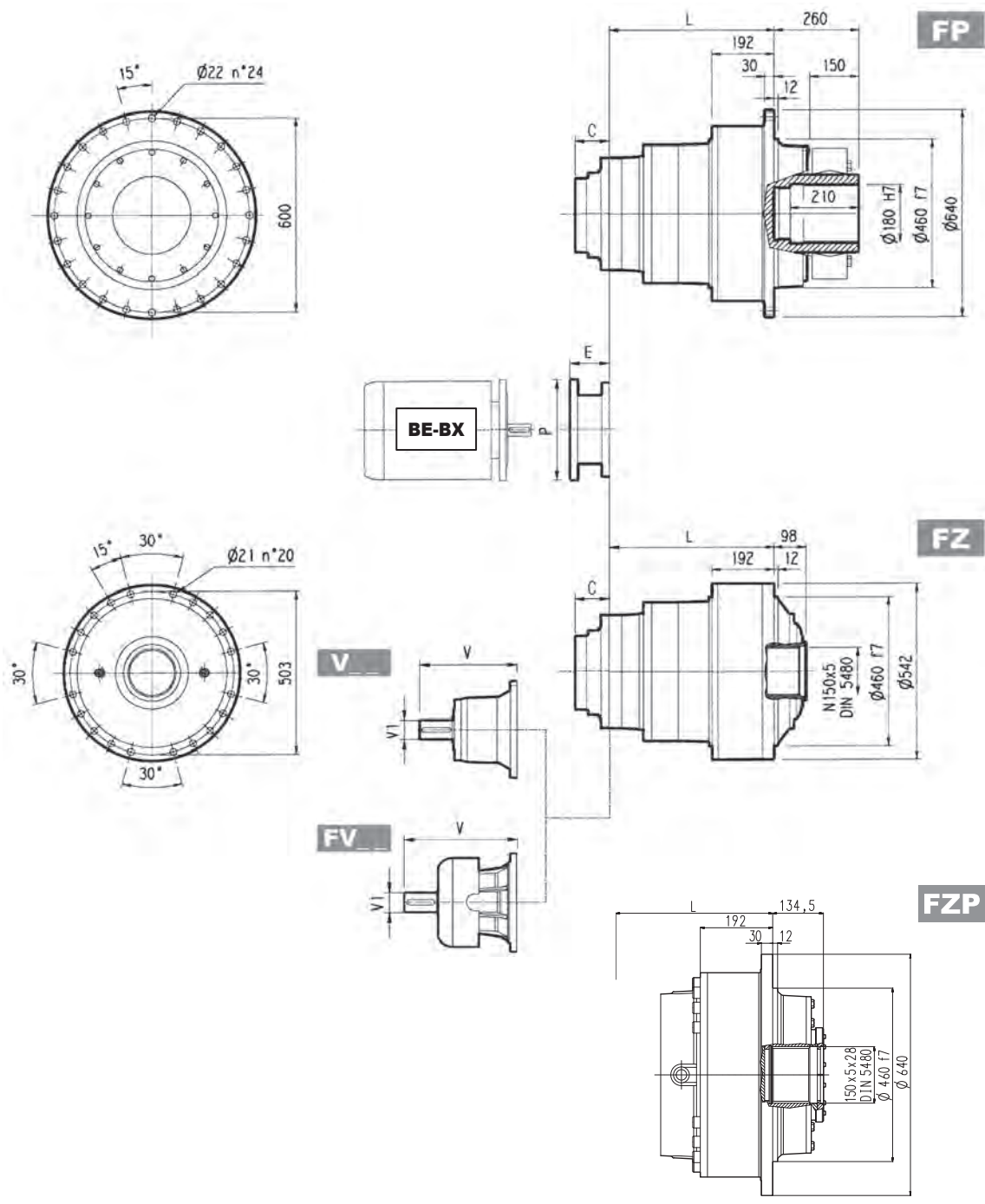
	L				Kg			
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP
315 L1	453	174	174	174	500	370	280	330
315 L2	665	386	386	386	585	455	365	415
315 L3	798	519	519	519	630	500	410	460
315 L4	887	608	608	608	642	512	422	472

	V			V1			V			V1			C	Input
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg		
315 L1	556	120	125	—	—	—	—	—	—	—	—	—	116	E
315 L2	348	80	55	—	—	—	456	80	85	—	—	—	81	D
315 L3	315	80	35	313	60	28	375	80	48	363	60	34	51	B
315 L4	239	48	15	—	—	—	276	48	17	—	—	—	37	A

315 L



Metric

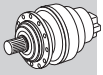


FP $T_{2max} = 1,194,850 \text{ lb-in}$

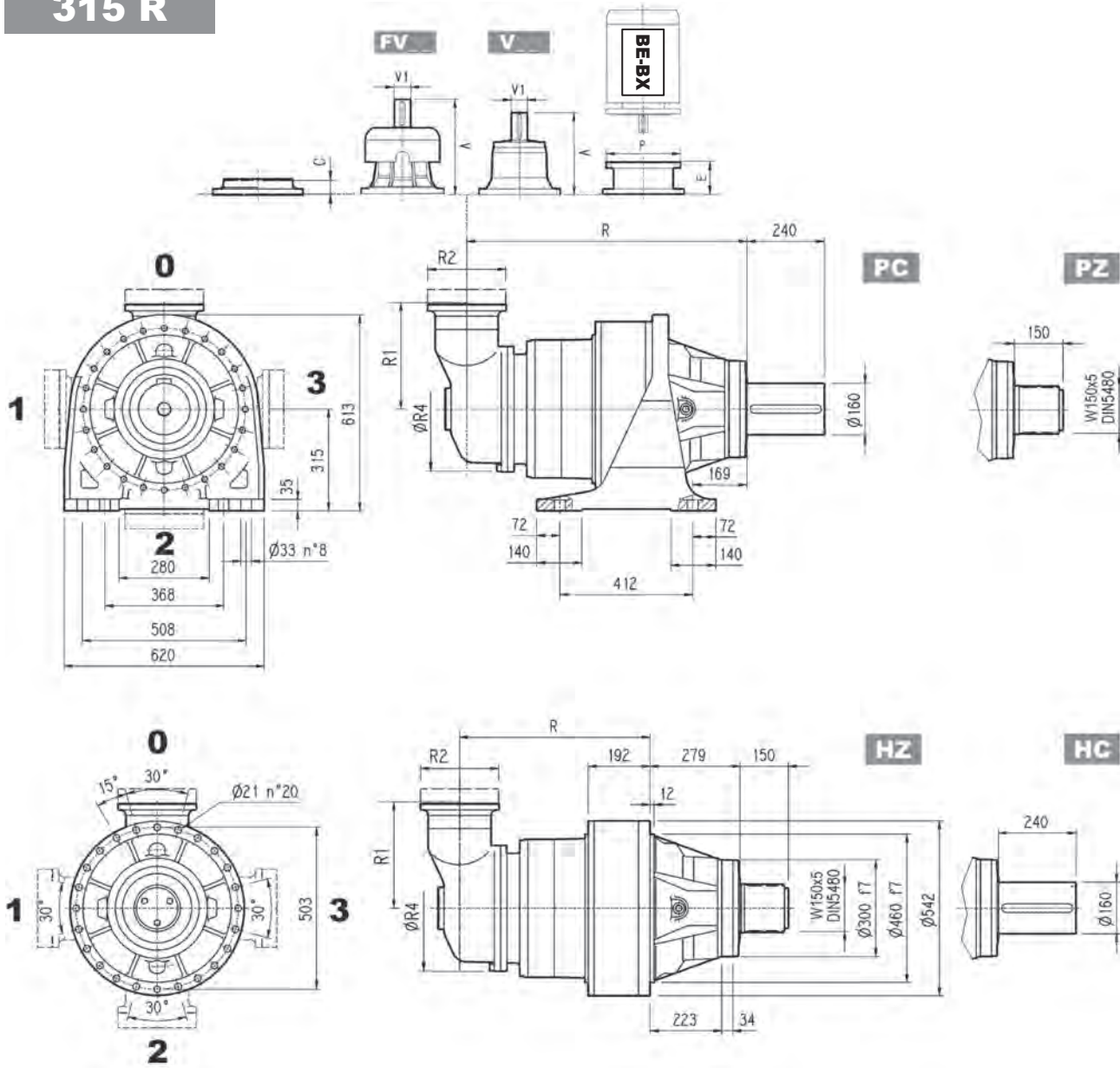
Dimensions are in mm

	P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P
315 L2	—	—	—	—	—	—	267	400	297	450	297	550
315 L3	—	—	—	—	195	350	186	400	216	450	215	550
315 L4	114	300	144	350	144	350	174	400	—	—	—	—

315 R



Metric



Dimensions are in mm

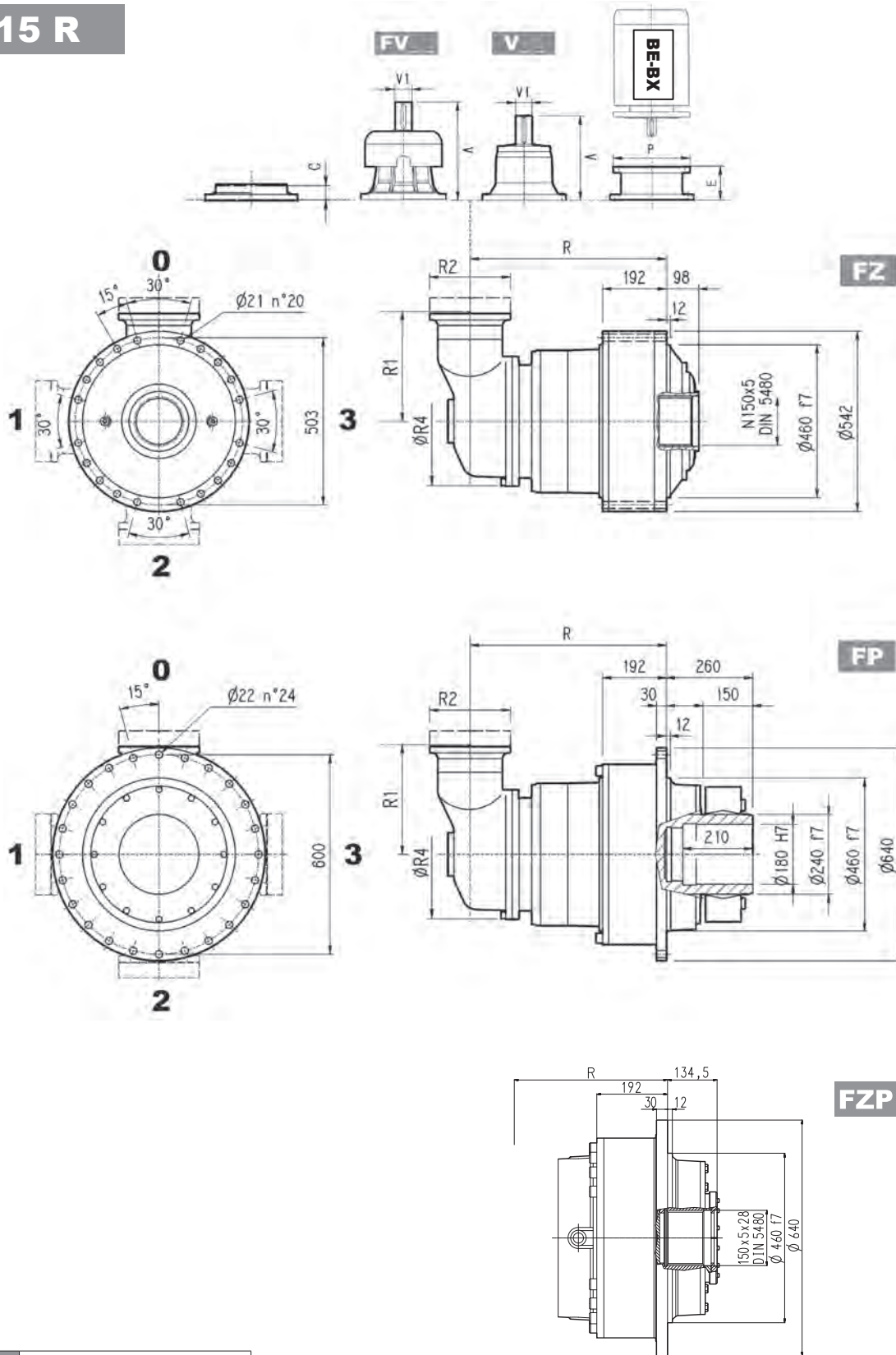
	R				R1	R2	R4	Kg			
	PC-PZ	HC-HZ	FZ - FZP	FP				PC-PZ	HC-HZ	FZ - FZP	FP
315 R3 (B)	890	611	611	611	345	292	400	720	590	500	550
315 R3 (C)	890	611	611	611	390	292	480	730	600	510	560
315 R4	917	638	638	638	225	245	345	680	550	460	510

							C	Input
	V	V1	Kg	V	V1	Kg		
315 R3 (B)	307	60	23	357	60	28	45	B
315 R3 (C)	307	60	23	357	60	28	45	B
315 R4	239	48	15	276	48	17	37	A

315 R



Metric



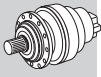
FP

$T_{2max} = 1,194,850 \text{ lb-in}$

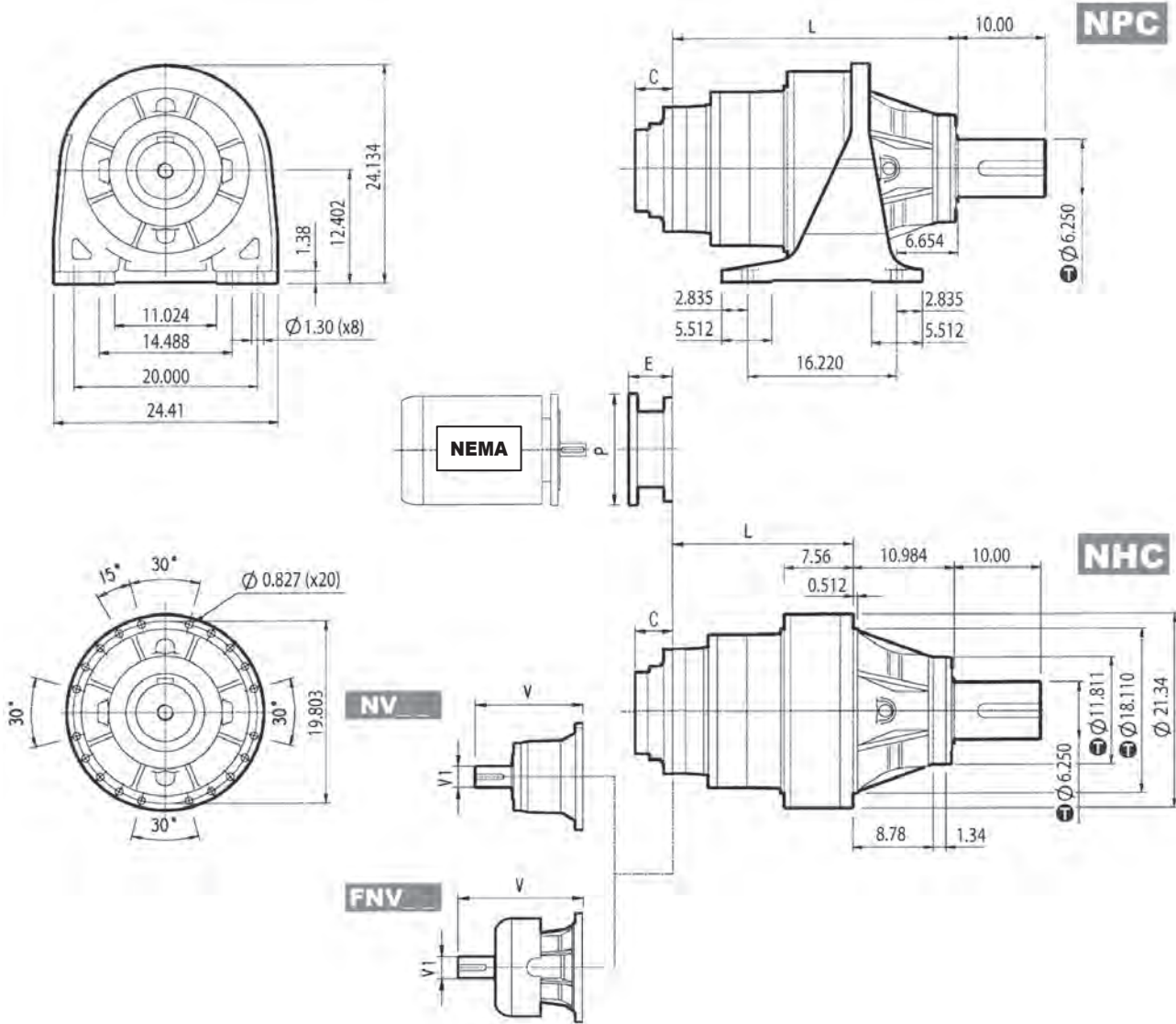
Dimensions are in mm

	P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P
315 R3 (B)	—	—	—	—	152	350	182	400	212	450	193	550
315 R3 (C)	—	—	—	—	152	350	182	400	212	450	193	550
315 R4	114	300	144	350	144	350	174	400	—	—	—	—

315 L



Imperial



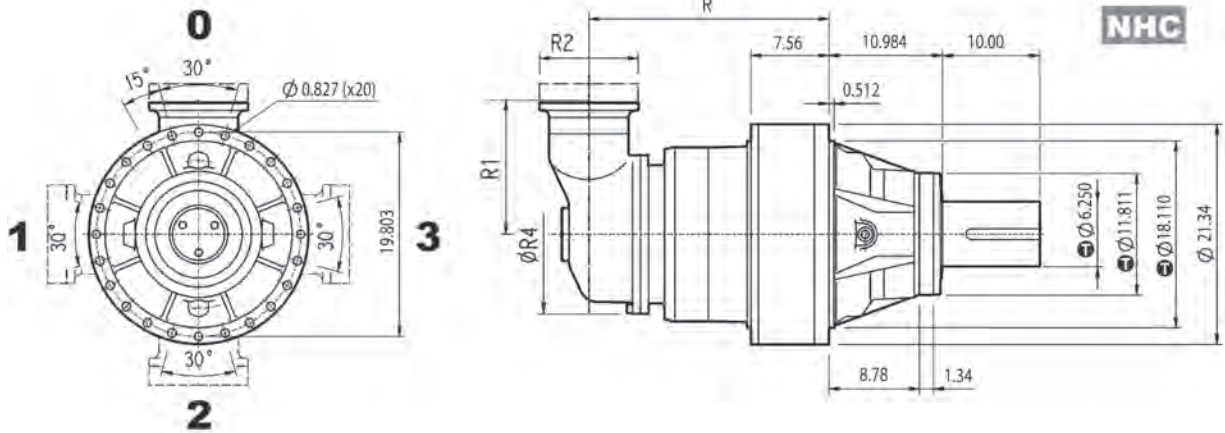
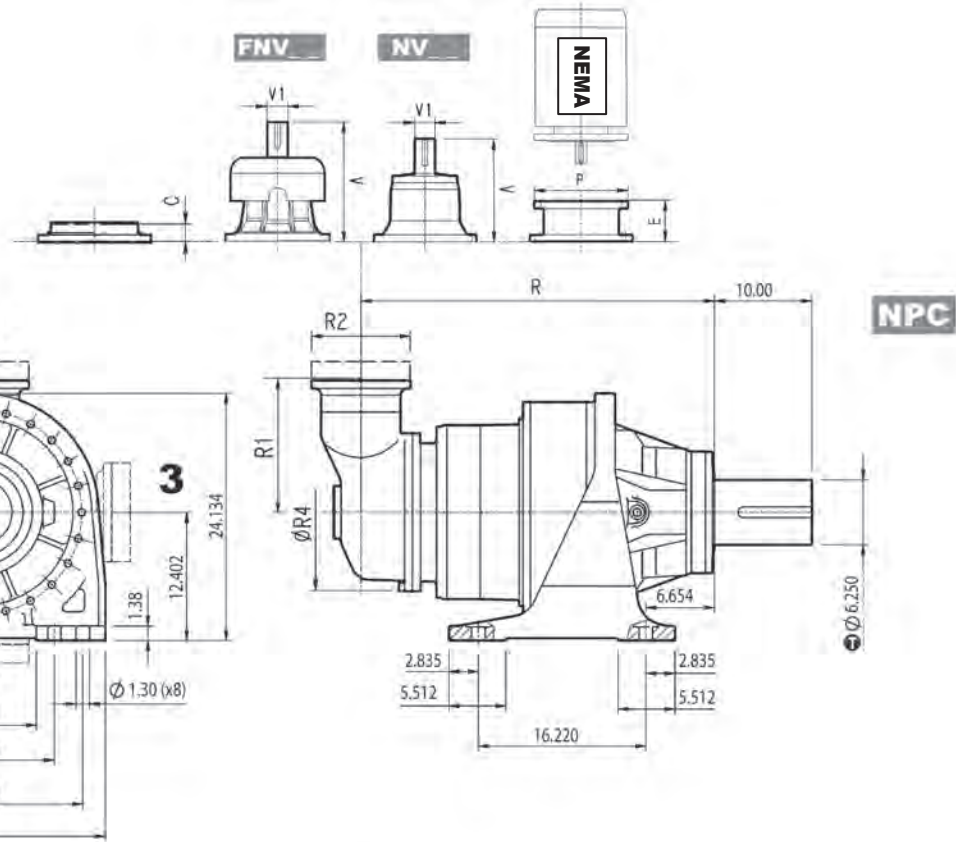
inch	\pm
18.110	-0.00268 -0.00516
11.811	-0.00220 -0.00425
6.250	+0.00167 +0.00059

Dimensions are in Inch except when shown in *italic* [mm]

	L		\circlearrowleft lbs										C	Input				
	NPC	NHC	NPC	NHC	V	V1	lbs	V	V1	lbs	V	V1			lbs			
315 L1	—	—	—	—	—	—	—	—	—	—	—	—	4.567	E				
315 L2	26.181	15.197	1290	1003	13.563	3.000	121.3	—	—	—	17.835	3.000	140.0	—	3.189	D		
315 L3	31.417	20.433	1389	1103	13.130	2.375	29.8	12.283	3.000	77.2	15.104	2.375	38.0	14.646	3.000	90.0	2.008	B
315 L4	34.921	23.937	1416	1129	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	—	—	—	1.457	A

	N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P
315 L3	—	—	—	—	8.445	15.748	8.445	15.748
315 L4	5.216	11.811	6.221	13.780	—	—	—	—

315 R



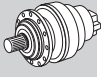
inch	Ⓢ
18.110	-0.00268 -0.00516
11.811	-0.00220 -0.00425
6.250	+0.00157 +0.00059

Dimensions are in Inch except when shown in *italic [mm]*

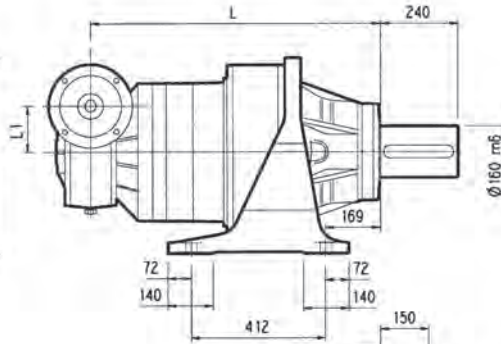
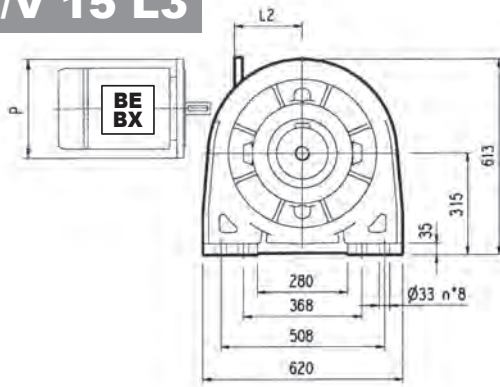
	R		R1	R2	R4	lbs		V		V1		lbs	C	Input	
	NPC	NHC				NPC	NHC	V	V1	V	V1				
315 R3 (B)	35.039	24.055	13.583	11.496	15.748	1588	1301	12.703	2.375	50.7	14.652	2.375	58.0	1.772	B
315 R3 (C)	35.039	24.055	15.354	11.496	18.898	1610	1323	12.703	2.375	50.7	14.652	2.375	58.0	1.772	B
315 R4	36.102	25.118	8.858	9.646	13.583	1499	1213	9.681	1.875	33.1	11.138	1.875	38.0	1.457	A

	N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P
315 R3 (B)	—	—	—	—	7.776	13.780	7.776	13.780
315 R3 (C)	—	—	—	—	7.776	13.780	7.776	13.780
315 R4	5.216	11.811	6.221	13.780	—	—	—	—

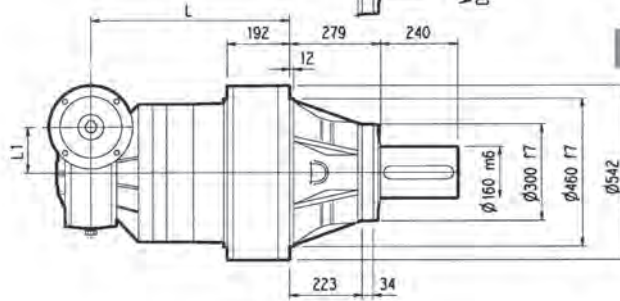
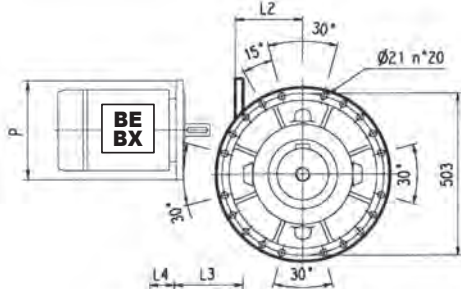
3/V 15 L3



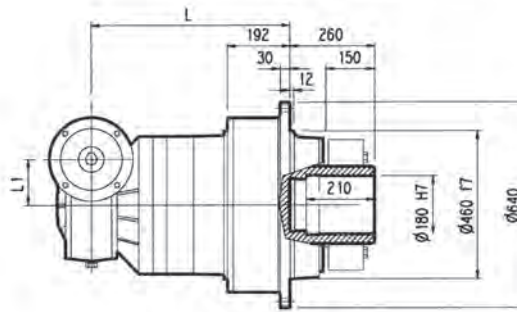
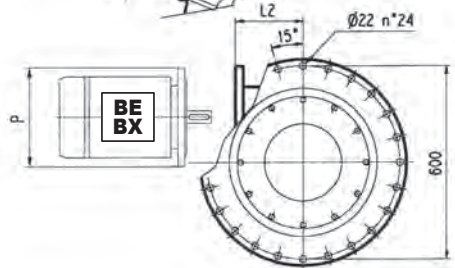
Metric



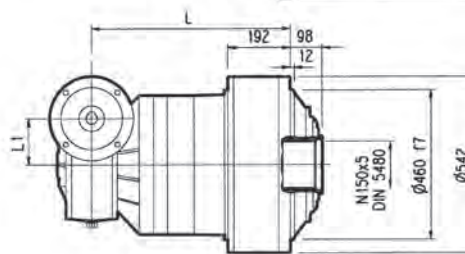
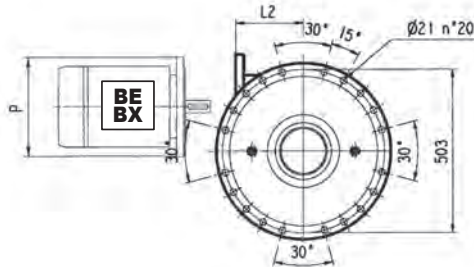
PC



HZ PZ

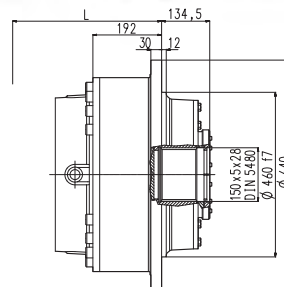


HC



FP

FZ



FZP

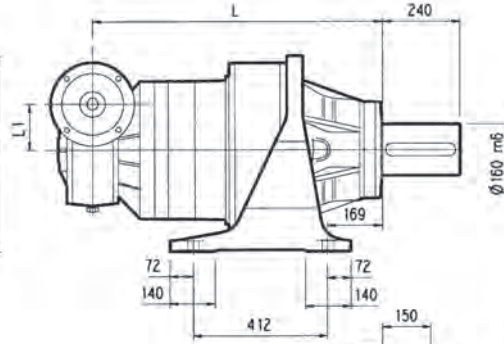
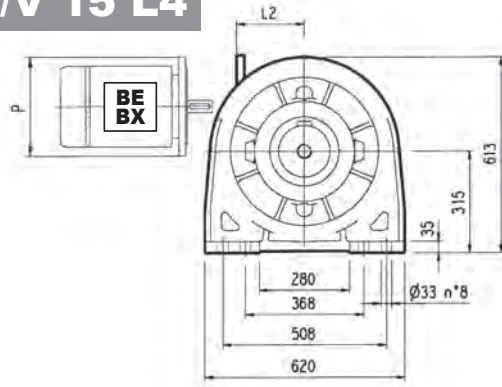
FP T_{2max} = 1,194,850 lb·in

Dimensions are in mm

	L				L1	L2	D1	L3	L4	Kg			
	PC - PZ	HC - HZ	FZ - FZP	FP						PC - PZ	HC - HZ	FZ - FZP	FP
3/V 15 L3	885	606	606	606	210	—	48	230	110	800	670	575	625

3/V 15 L3	P100	P112	P132		P160		P180		P200		P225	
	P	P	L2	P	L2	P	L2	P	L2	P	L2	P
	—	—	485	300	460	350	460	350	485	400	490	450

3/V 15 L4

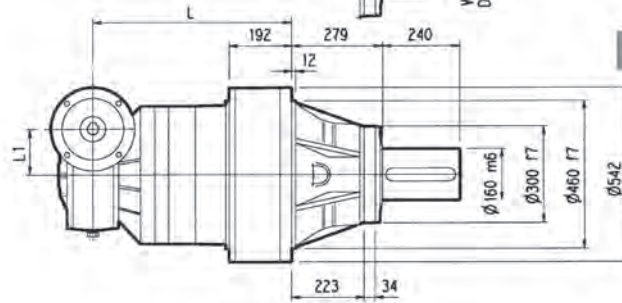
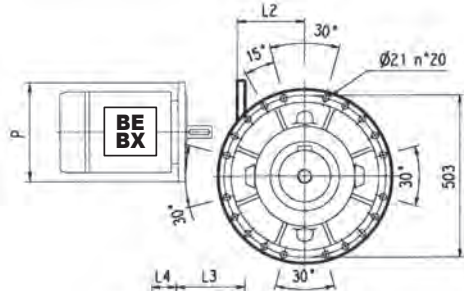


PC

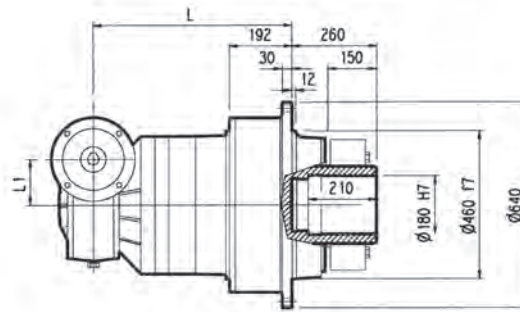
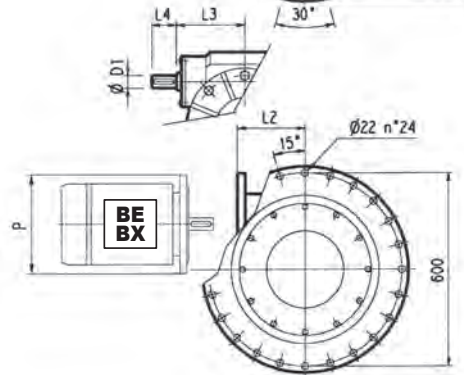


Metric

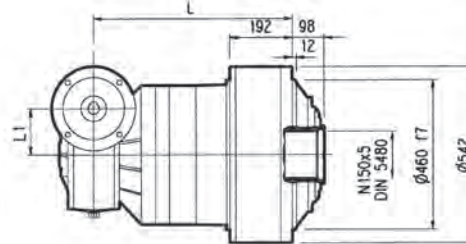
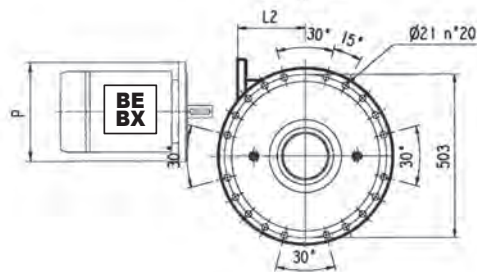
HZ PZ



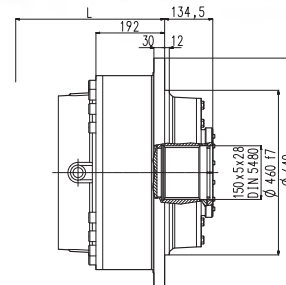
HC



FP



FZ



FZP

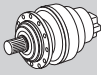
FP

$T_{2max} = 1,194,850 \text{ lb}\cdot\text{in}$

Dimensions are in mm

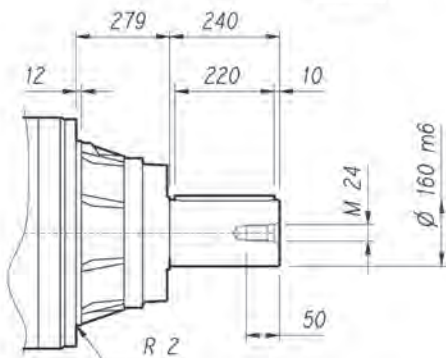
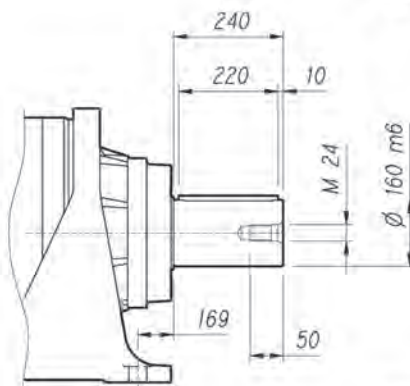
	L				L1	L2	D1	L3	L4	Kg			
	PC - PZ	HC - HZ	FZ - FZP	FP						PC - PZ	HC - HZ	FZ - FZP	FP
3/V 15 L4	989	710	710	710	150	190	35	185	65	690	560	470	520

	P100		P112		P132		P160		P180		P200		P225	
	P	P	L2	P	L2	P	L2	P	L2	P	L2	P	L2	P
3/V 15 L4	250	250	—	300	—	350	—	—	—	—	—	—	—	—

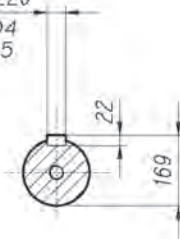
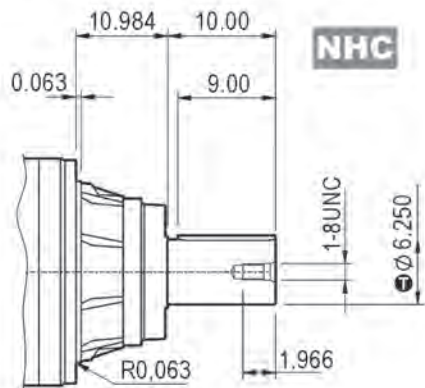
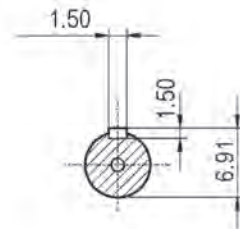
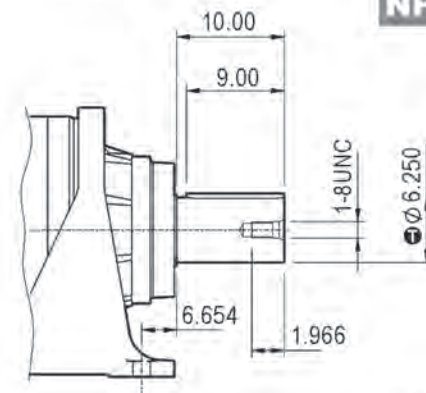
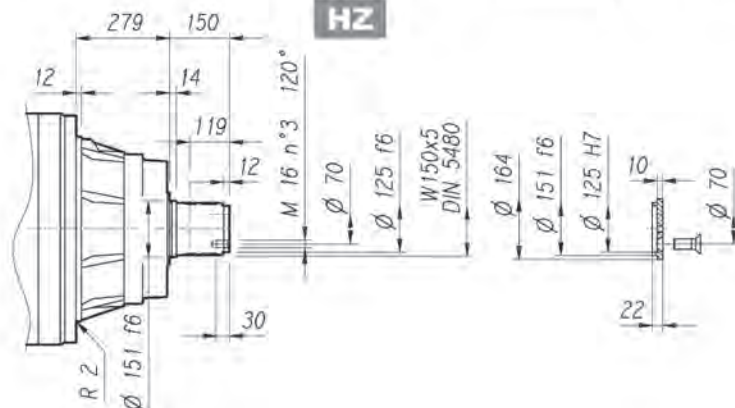
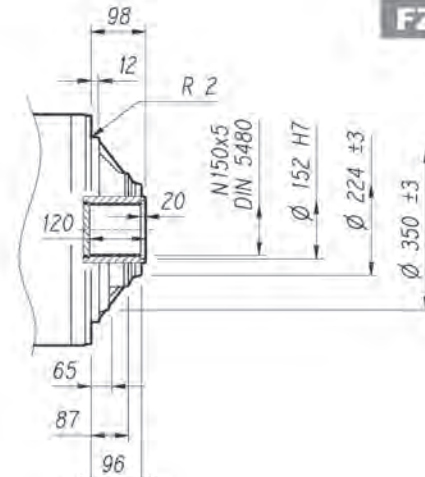
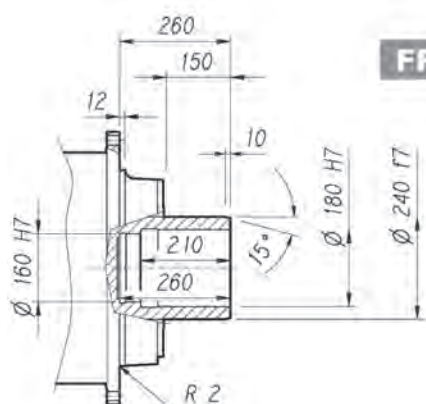
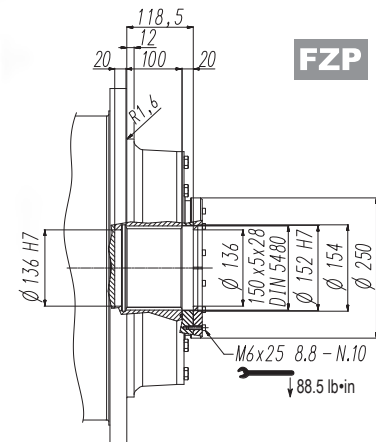
315 L**315 R****3/V 15 L**

Metric

Imperial

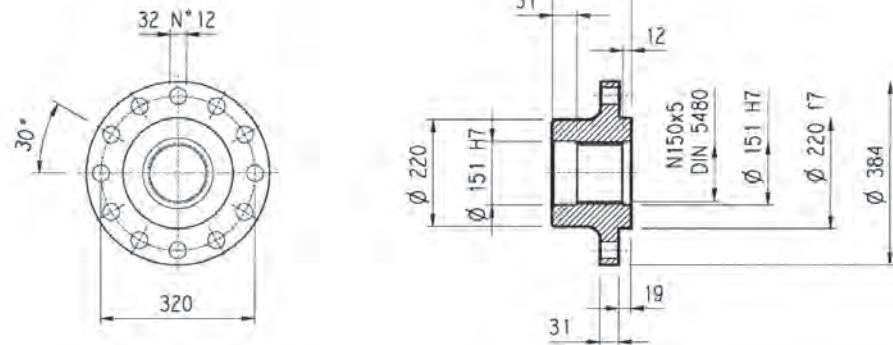
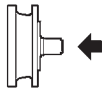
HC**PC**

A 40x22x220
UNI 6604
DIN 6885

**NHC****NPC****HZ****FZ****FP****FZP****FP****T_{2max} = 1,194,850 lb·in**

Dimensions are in mm when shown in italic, otherwise dimensions are in inches

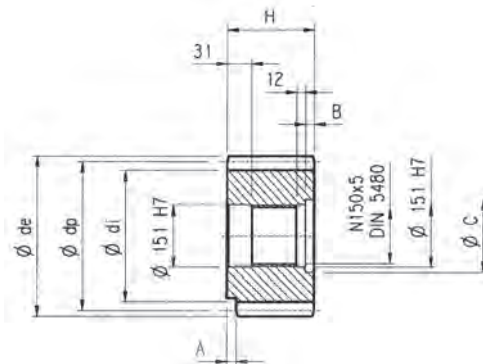
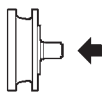
inch	T
6.250	+0.00157 +0.00059

315 L**315 R****3/V 15 L****Flange****W0A**

Metric

Material: Steel C40

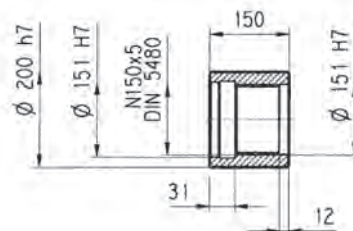
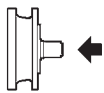
Dimensions are in mm

Pinions**P...**

Dimensions are in mm

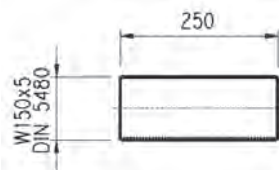
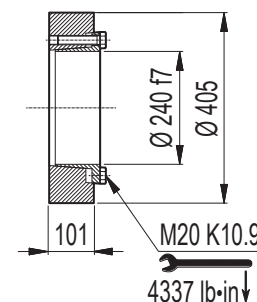
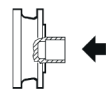
 $\alpha = 20^\circ$

	m	z	x	dp	di	de	H	A	B	C	Material
PRG1	18	16	0.500	288	261	342	160	—	10	166	Steel 18NiCrMo5 case hardened
PRG2	18	16	0.617	288	271	339	150	30	—	—	Steel 39NiCrMo3 hardened and tempered

Sleeve coupling**M0A**

Material: Steel 16CrNi4

Dimensions are in mm

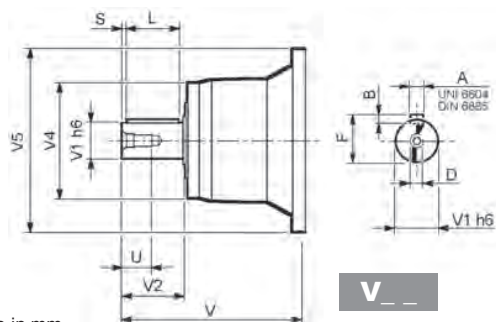
Splined bars**B0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC**Shrink disc****G0A**

Dimensions are in mm

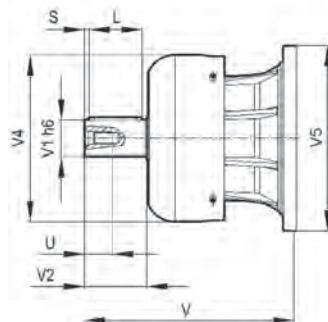
315 L

315 R

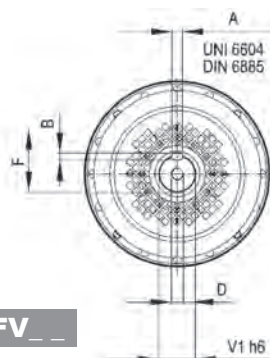
Metric



V__



FV__

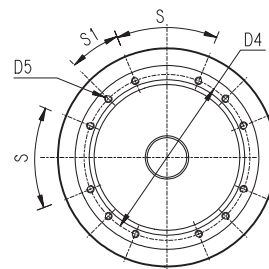
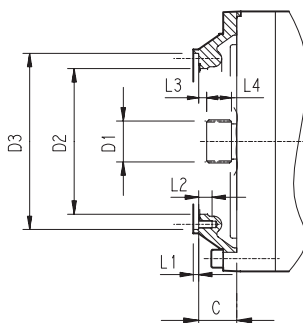
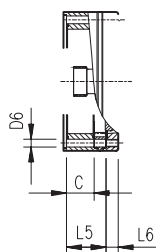


Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
315 L1	V15B	556	120	210	230	542	32	18	127	180	15	M24	50
	V11B	348	80	130	200	428	22	14	85	110	10	M16	36
315 L2	FV11B	456	80	130	347.5	428	22	14	85	110	10	M16	36
	V07B	315	80	130	200	345	22	14	85	110	10	M16	36
315 L3	FV07B	375	80	130	347.5	348	22	14	85	110	10	M16	36
	V07A	313	60	105	155	345	18	11	64	90	7.5	M16	36
	FV07A	363	60	105	309	348	18	11	64	90	7.5	M16	36
315 L4	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
315 R3 (B) (C)	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36
315 R4	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36

315 L

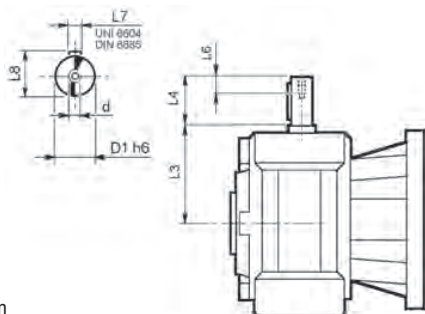
315 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
315 L1	V9AE	116	100x94 DIN 5482	340	412 H7	390	M16 n°18	—	7	30	8	55	—	—	20°	20°	E
315 L2	V9AD	81	80x74 DIN 5482	270	335 H7	314	M16 n°8	—	5	30	8.5	40	—	—	60°	30°	D
315 L3	V9AB	51	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
315 L4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	—	4	18	9	18	—	—	45°	45°	A
315 R4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	18	9	18	—	—	45°	45°	A
315 R3 (B) (C)	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B

3/V 15 L

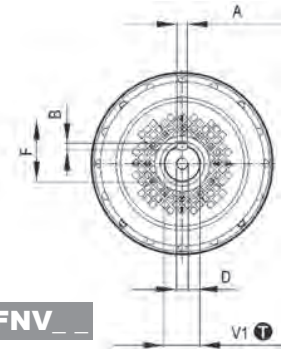
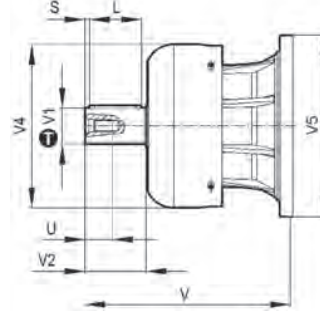
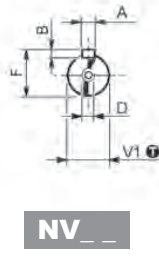
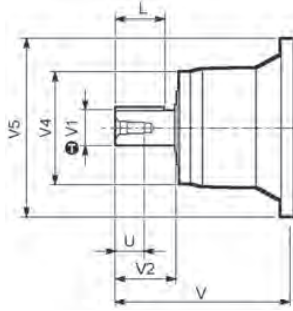


Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/V 15 L3_HS	48	230	110	40	14	51.5	M16
3/V 15 L4_HS	35	185	65	20	10	38	M8

315 L

315 R



inch	Ⓜ
3.000	0 -0.00075
2.375	0 -0.00053
1.875	0 -0.00053

NV __

FNV __



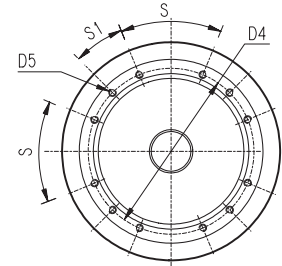
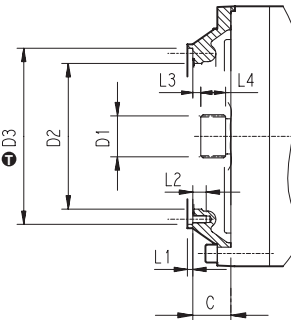
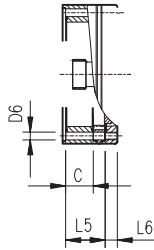
Imperial

Dimensions are in Inch except when shown in *italic [mm]*

		V	V1	V2	V4	V5	A	B	F	L	D	U
315 L2	NV11B	13.563	3.000	5.000	8.160	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV11B	17.835	3.000	5.000	13.678	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
315 L3	NV07B	12.283	3.000	5.000	7.165	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV07B	14.646	3.000	5.000	13.677	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	NV07A	13.130	2.375	4.750	6.024	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
315 L4	NV05B	15.104	2.375	4.750	6.811	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
	FNV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
315 R3 (B) (C)	NV06B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
315 R4	NV05B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
	FNV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417

315 L

315 R



inch	Ⓜ
16.22	+0.00248 0
13.19	+0.00224 0
9.29	+0.00181 0
7.01	+0.00157 0

Dimensions are in Inch except when shown in *italic [mm]*

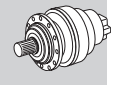
		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
315 L1	V9AE	4.57	100x94 DIN 5482	13.39	16.22	15.35	M16 n°18	—	0.28	1.18	0.31	2.17	—	—	20°	20°	E
315 L2	V9AD	3.19	80x74 DIN 5482	10.63	13.19	12.36	M16 n°8	—	0.20	1.18	0.33	1.57	—	—	60°	30°	D
315 L3	V9AB	2.01	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
315 L4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
315 R4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	0.71	0.35	0.71	—	—	45°	45°	A
315 R3 (B) (C)	V9AB	1.77	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B

315 L

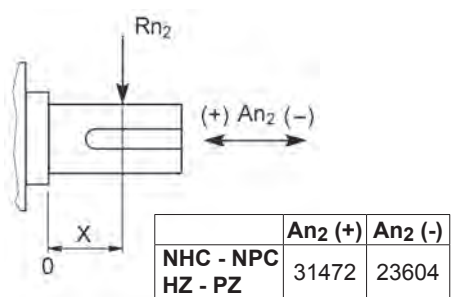
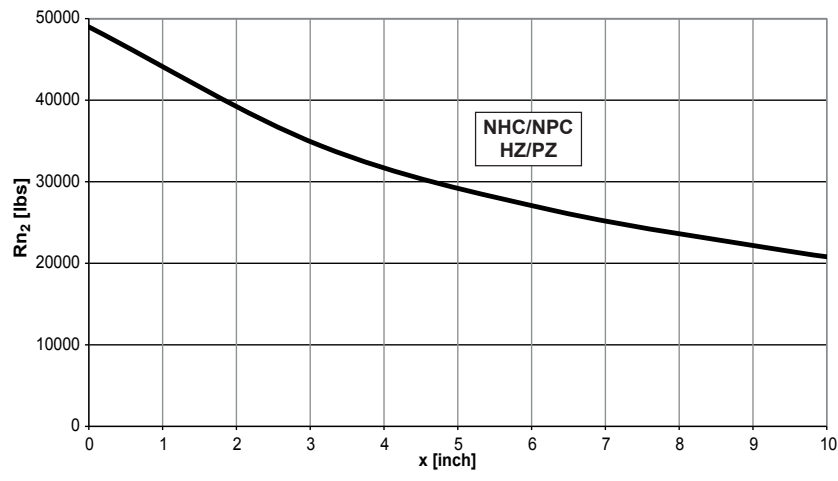
315 R

3/V 15 L

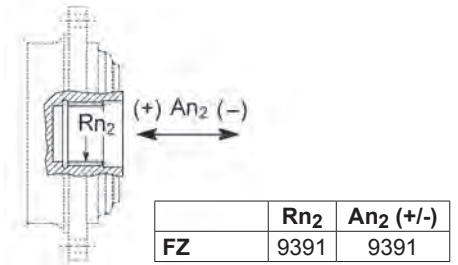
Permissible radial and axial loads on output shaft with $F_{h2} : n_2 \cdot h = 100000$



Imperial



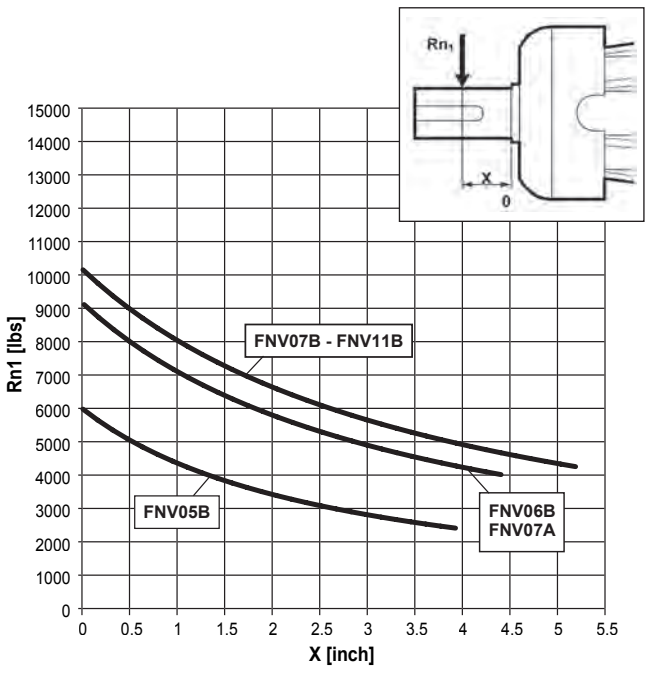
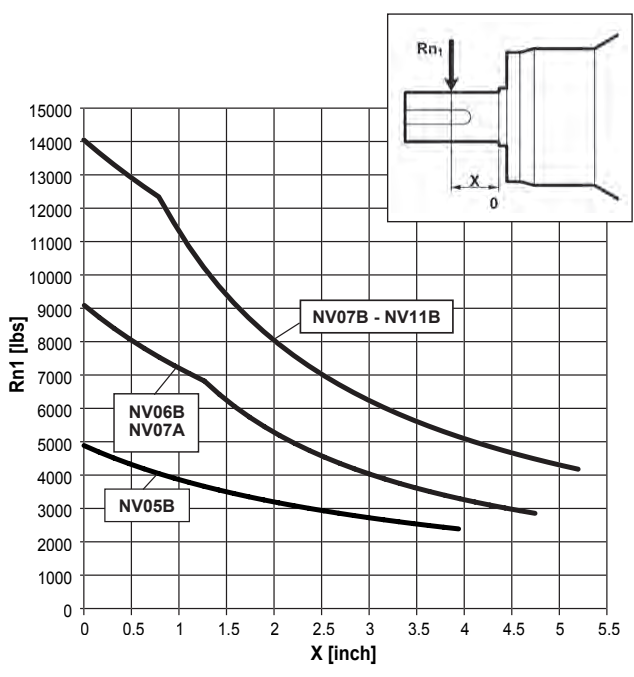
	An2 (+)	An2 (-)
NHC - NPC	31472	23604
HZ - PZ		



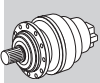
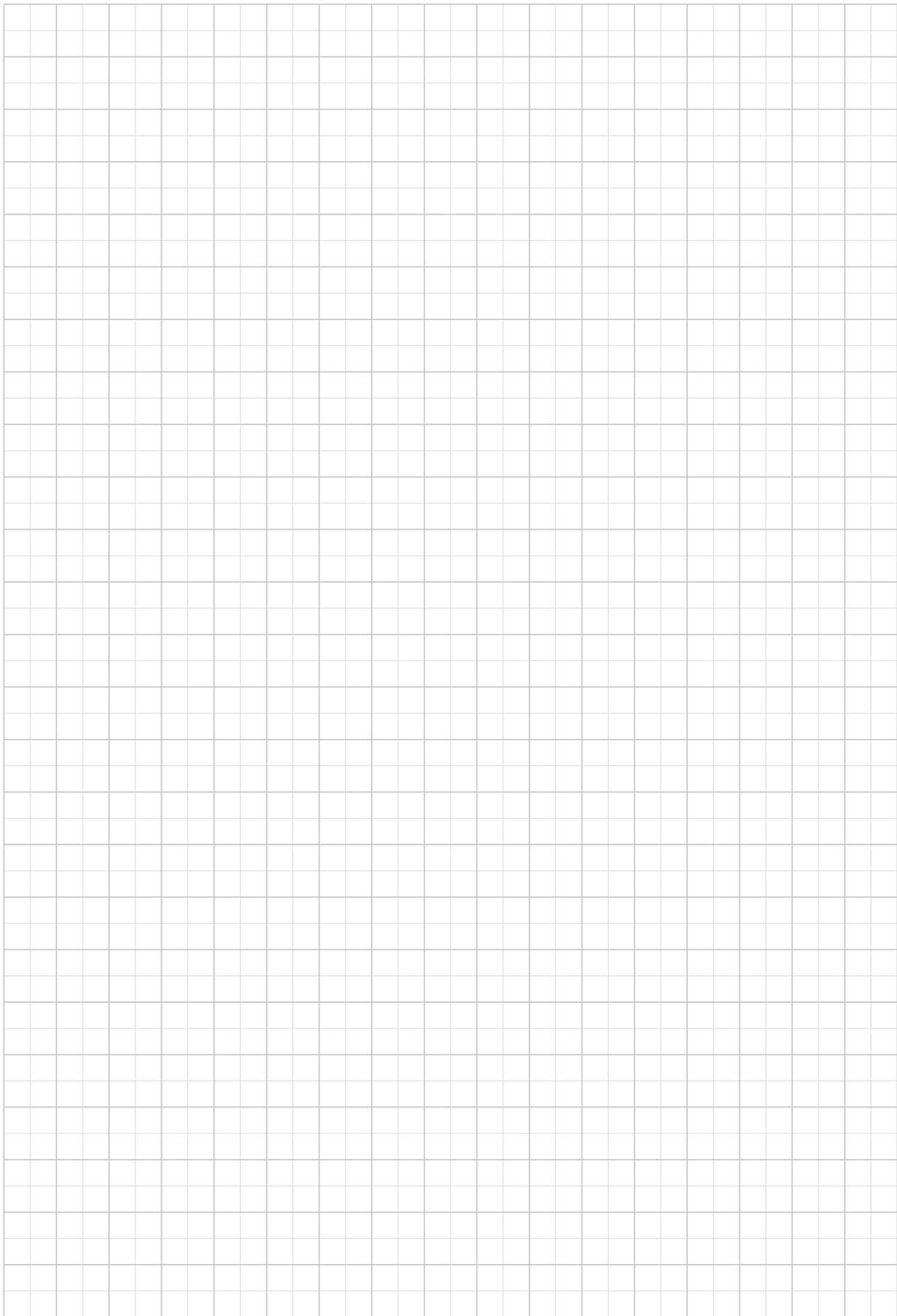
	Rn2	An2 (+/-)
FZ	9391	9391

Load corrective factor fh2 on shafts	$F_{h2} = n_2 \cdot h$						
	10000						
	25000						
fh2	FZ	2.15	1.59	1.26	1.00	0.58	0.46
	NHC - NPC - HZ - PZ	2.00	1.52	1.23	1.00	0.62	0.50

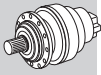
Permissible radial loads on input shaft with $F_{h1} : n_1 \cdot h = 250000$



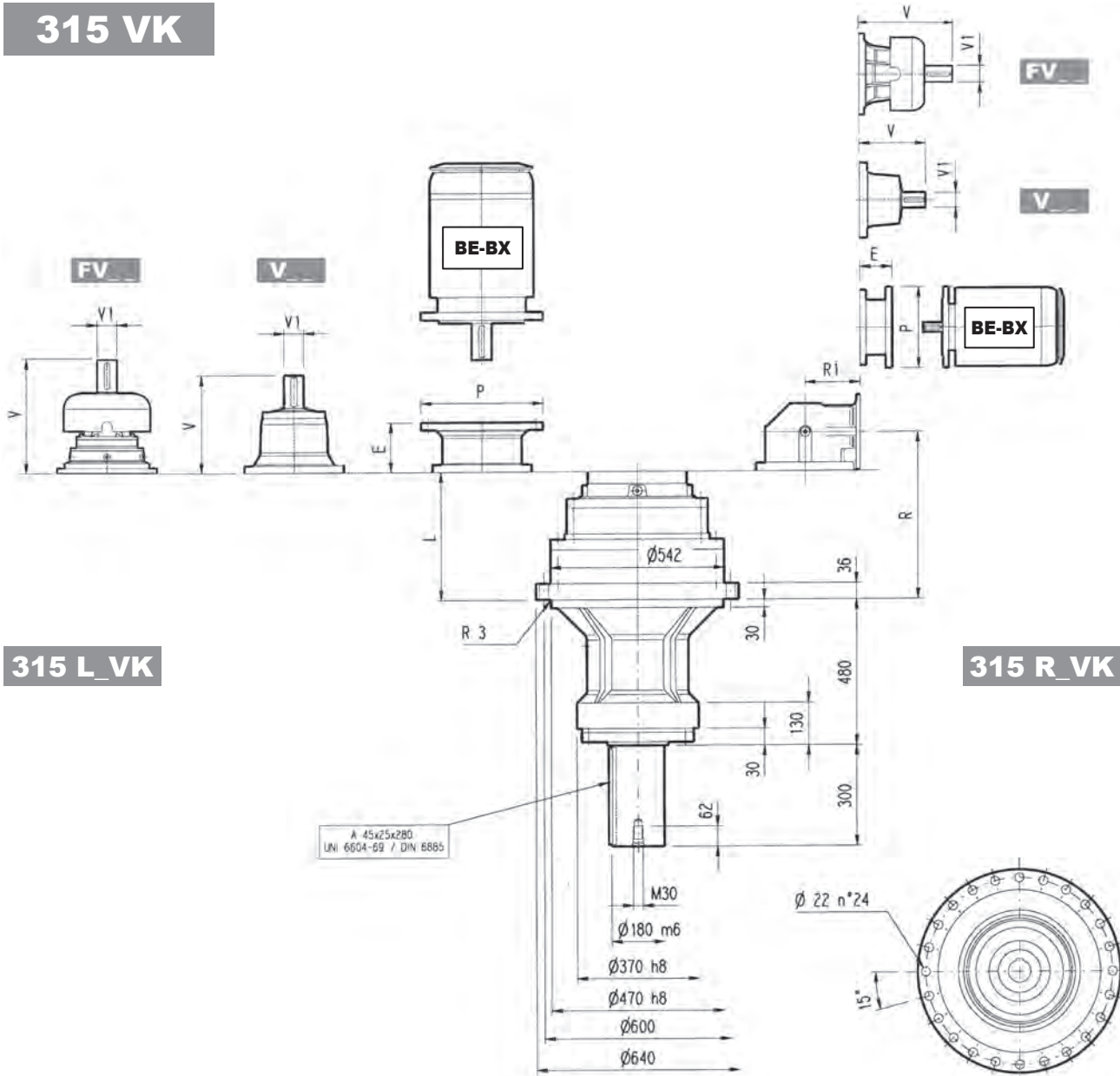
Load corrective factor fh1 on shafts	$F_{h1} = n_1 \cdot h$						
	250000						
fh1	1	0.79	0.63	0.50	0.37	0.29	



315 VK



Metric



315 L_VK

315 R_VK

Dimensions are in mm

	L		V						FV						P132		P160		P180		P200		P225		P250	
	kg	kg	V	V1	kg	V	V1	kg	V	V1	kg	V	V1	kg	E	P	E	P	E	P	E	P	E	P		
315 L2	386	650	348	80	55	—	—	—	456	80	85	—	—	—	—	—	—	—	—	—	—	—	—	—		
315 L3	519	700	315	80	35	313	60	28	375	80	48	363	60	34	—	—	—	—	195	350	186	400	216	450	215	550
315 L4	608	710	239	48	15	—	—	—	276	48	17	—	—	—	114	300	144	350	144	350	174	400	—	—	—	—

	R		V						FV						P132		P160		P180		P200		P225		P250		
	R1	kg	V	V1	kg	V	V1	kg	V	V1	kg	V	V1	kg	E	P	E	P	E	P	E	P	E	P	E	P	
315 R3 (B)	611	345	720	307	60	23	—	—	—	357	60	28	—	—	—	—	—	152	350	182	400	212	450	193	550		
315 R3 (C)	611	390	730	307	60	23	—	—	—	357	60	28	—	—	—	—	—	152	350	182	400	212	450	193	550		
315 R4	638	225	690	239	48	15	—	—	—	276	48	17	—	—	—	—	—	114	300	144	350	144	350	174	400	—	—

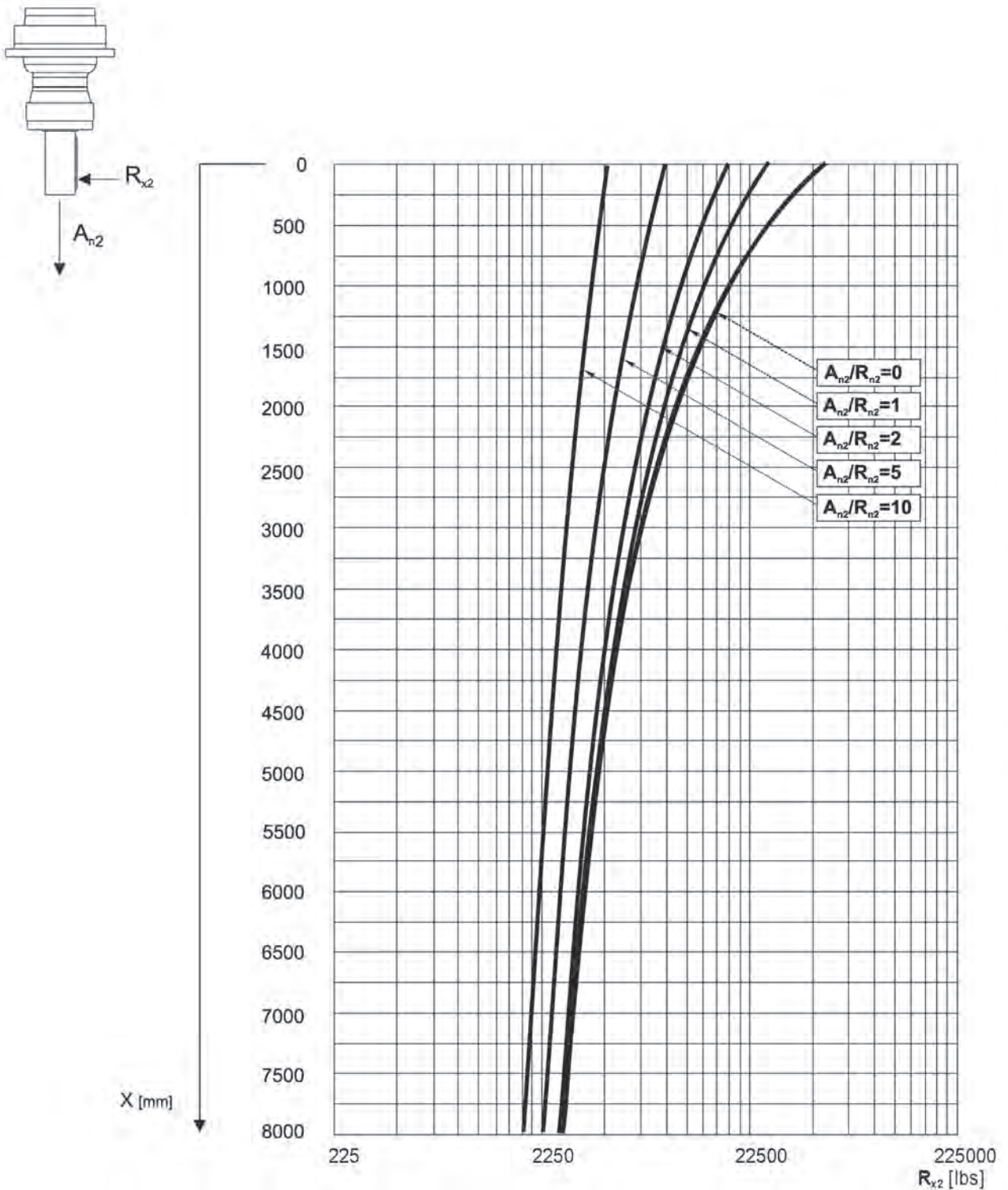
315 VK

The diagram below allows the calculation of permitted overhung load R_{x2} on the output shaft of gearbox, with radial force applying at a distance x from shaft shoulder.

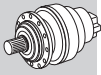
The curves are relevant to value resulting from the relationship of trust load A_{n2} to radial load R_{n2} , based on $n_2 = 10$ rpm and 10000 hrs theoretical lifetime.



Metric

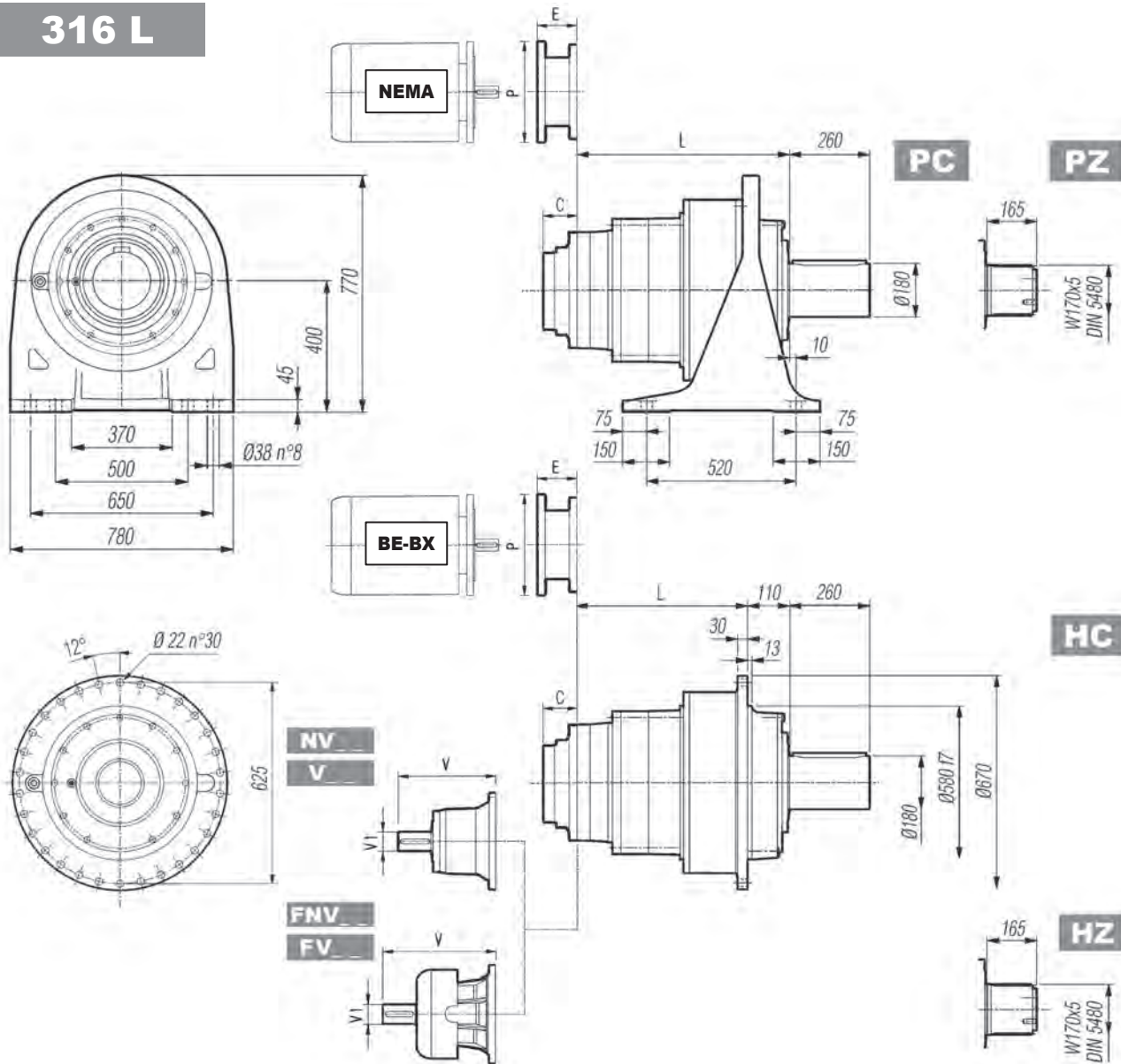


316 L



Metric

Imperial

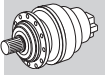
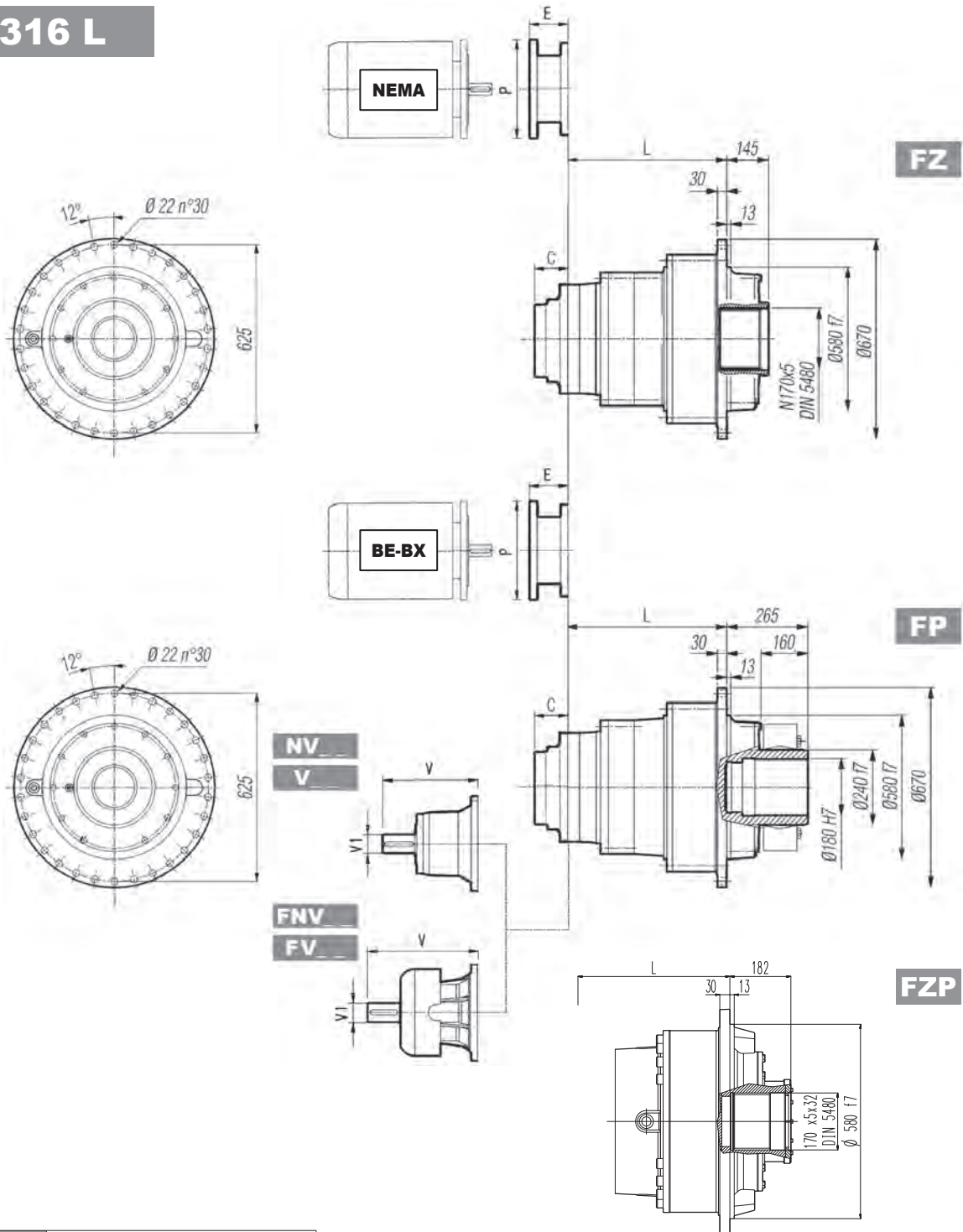


Dimensions are in mm when shown in italic, otherwise dimensions are in inches

	L				Kg				C		Input
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP	C	C	
316 L1	289	179	179	179	700	500	430	450	156	6.142	E
316 L2	541	431	431	431	790	590	520	540	81	3.189	D
316 L3	674	564	564	564	840	640	570	590	51	2.008	B
316 L4	763	653	653	653	860	660	590	610	37	1.457	A

	V			FV			NV			FNV					
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg
316 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
316 L2	348	80	55	—	—	—	456	80	85	—	—	—	13.563	3.000	121.3
316 L3	315	80	35	313	60	28	375	80	48	363	60	34	13.130	2.375	29.8
316 L4	239	48	15	—	—	—	276	48	17	—	—	—	9.681	1.875	33.1

316 L



Metric

Imperial

FP

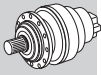
$T_{2max} = 1,575,430 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in italic, otherwise dimensions are in inches

	P132		P160		P180		P200		P225		P250	
	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>
316 L2	—	—	—	—	—	—	267	400	297	450	297	550
316 L3	—	—	—	—	195	350	186	400	216	450	215	550
316 L4	114	300	144	350	144	350	174	400	—	—	—	—

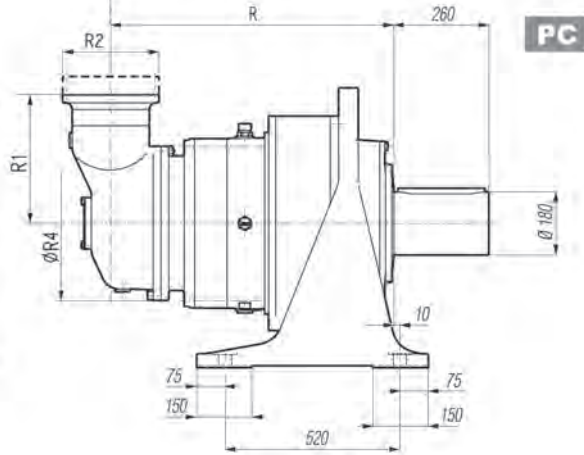
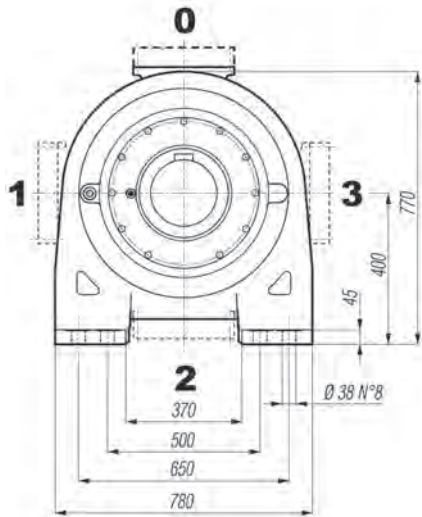
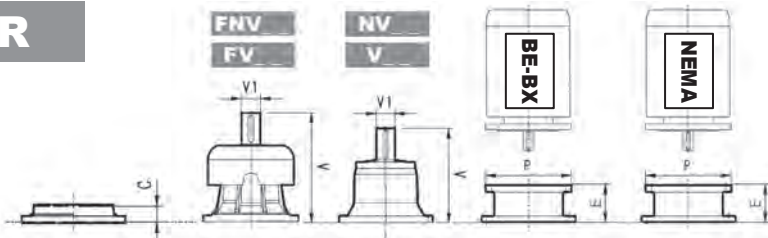
	N250TC		N280TC		N320TC		N360TC	
	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>
316 L2	—	—	—	—	—	—	—	—
316 L3	—	—	—	—	8.445	15.748	8.445	15.748
316 L4	5.216	11.811	6.221	13.780	—	—	—	—

316 R



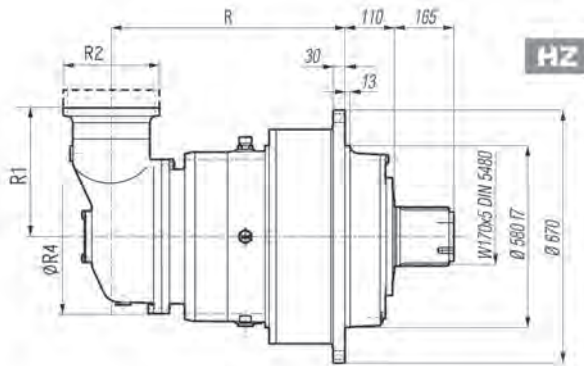
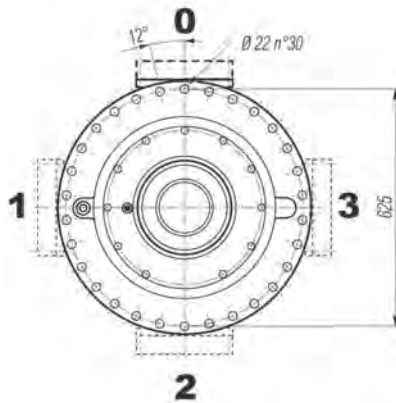
Metric

Imperial



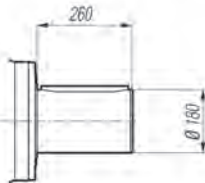
PC

PZ



HZ

HC

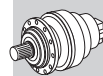
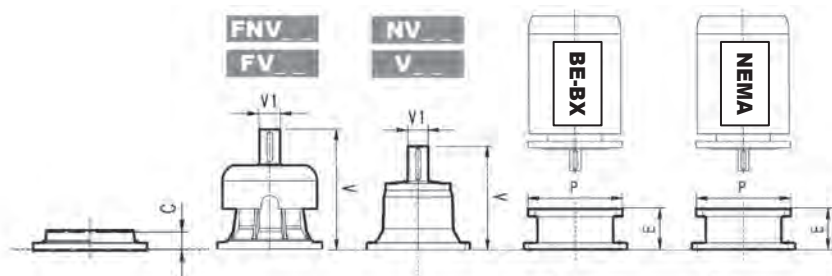


Dimensions are in mm when shown in *italics*, otherwise dimensions are in inches

	R				R1	R2	R4	Kg				C		Input
	PC-PZ	HC-HZ	FZ - FZP	FP				PC-PZ	HC-HZ	FZ - FZP	FP	C	C	
316 R3 (B)	766	656	656	656	345	292	400	910	710	640	660	45	1.772	B
316 R3 (C)	766	656	656	656	390	292	480	920	720	650	670	45	1.772	B
316 R4	793	683	683	683	225	245	345	890	690	620	640	37	1.457	A

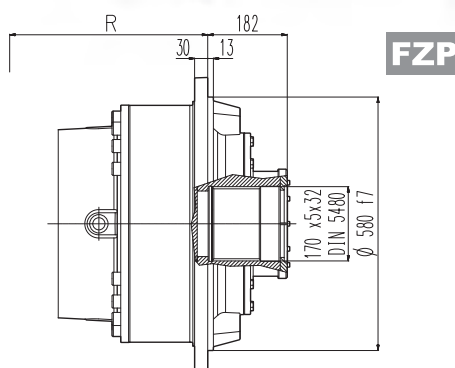
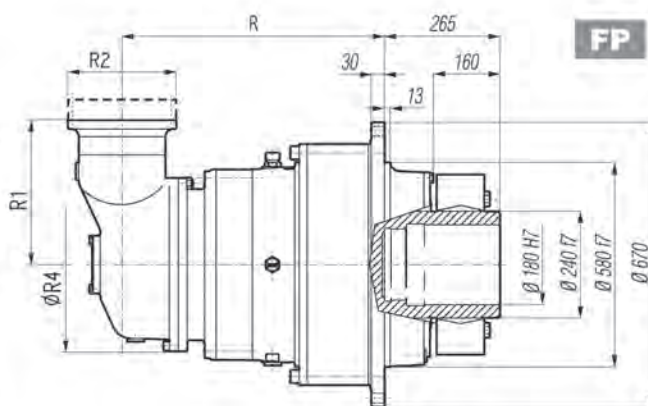
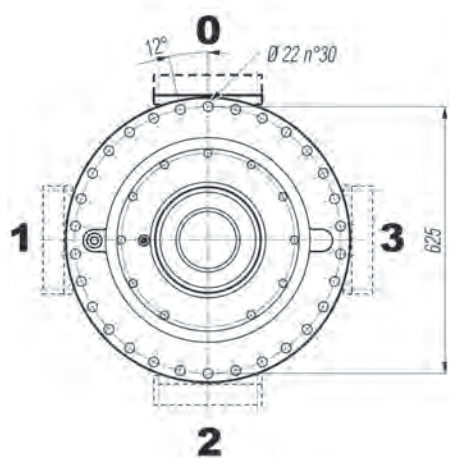
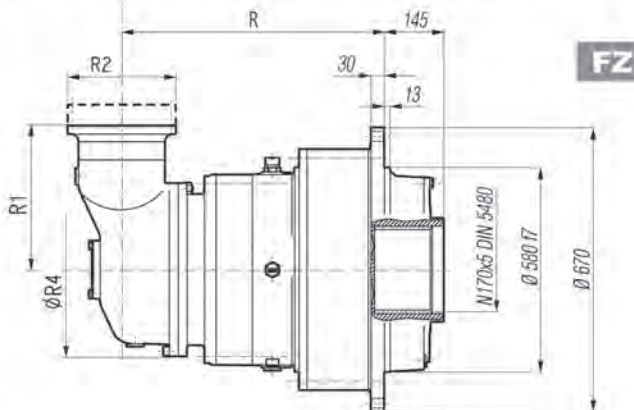
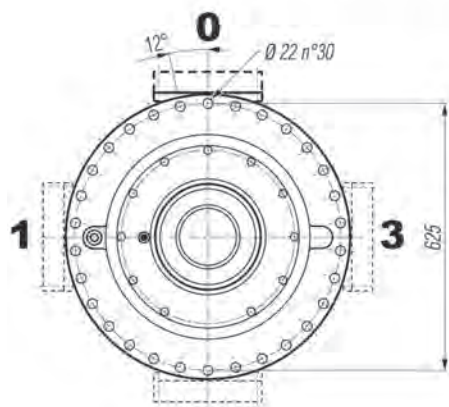
	V			FV			NV			FNV		
	V	V1	Kg	V	V1	Kg	V	V1	lbs	V	V1	lbs
316 R3 (B)	307	60	23	357	60	28	12.703	2.375	50.7	14.652	2.375	58.0
316 R3 (C)	307	60	23	357	60	28	12.703	2.375	50.7	14.652	2.375	58.0
316 R4	239	48	15	276	48	17	9.681	1.875	33.1	11.138	1.875	38.0

316 R



Metric

Imperial



FP

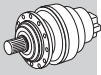
$T_{2max} = 1,575,430 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in *italics*, otherwise dimensions are in inches

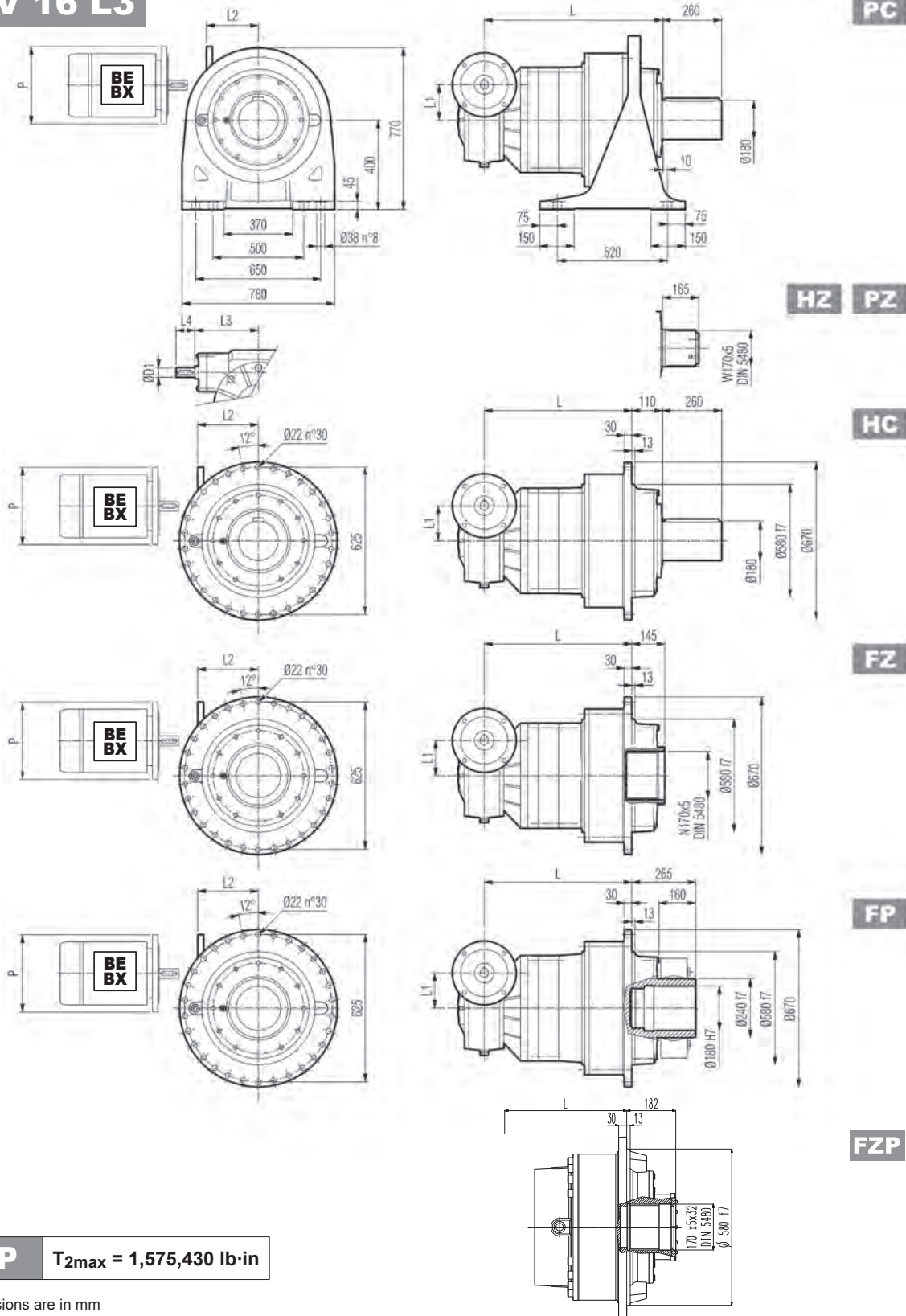
	P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P
316 R3 (B)	—	—	—	—	152	350	182	400	212	450	193	550
316 R3 (C)	—	—	—	—	152	350	182	400	212	450	193	550
316 R4	114	300	144	350	144	350	174	400	—	—	—	—

	N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P
316 R3 (B)	—	—	—	—	7.776	13.780	7.776	13.780
316 R3 (C)	—	—	—	—	7.776	13.780	7.776	13.780
316 R4	5.216	11.811	6.221	13.780	—	—	—	—

3/V 16 L3



Metric



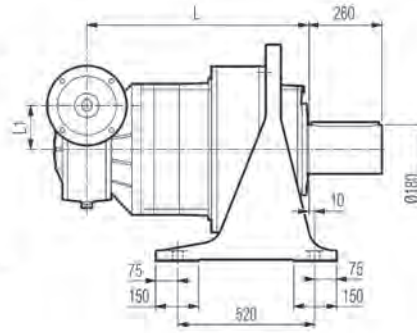
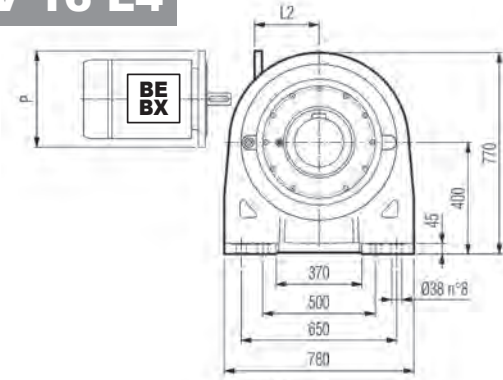
FP $T_{2max} = 1,575,430 \text{ lb}\cdot\text{in}$

Dimensions are in mm

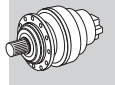
	L				L1	D1	L3	L4	Kg				
	PC - PZ	HC - HZ	FZ - FZP	FP						PC - PZ	HC - HZ	FZ - FZP	FP
3/V 16 L3	812	702	702	702	250	55	274	110	1100	900	830	850	

3/V 16 L3	P132		P160		P180		P200		P225	
	L2	P	L2	P	L2	P	L2	P	L2	P
	531	300	506	350	506	350	531	400	536	450

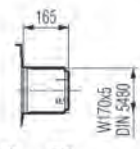
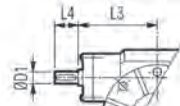
3/V 16 L4



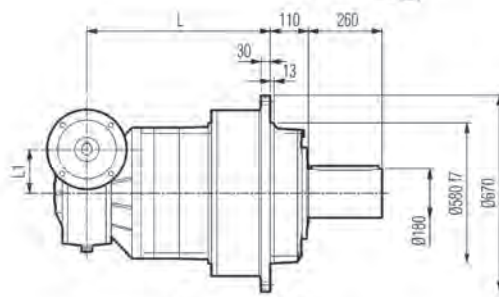
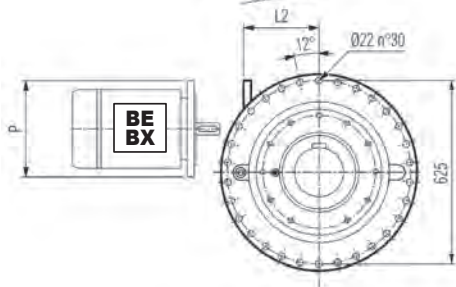
PC



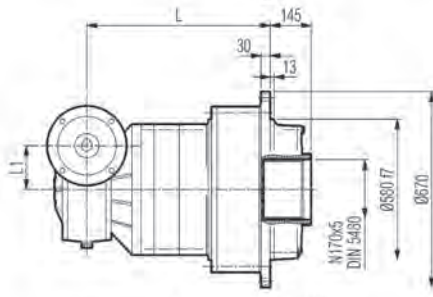
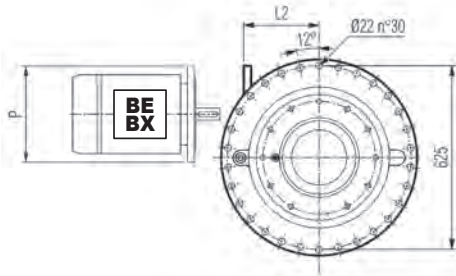
Metric



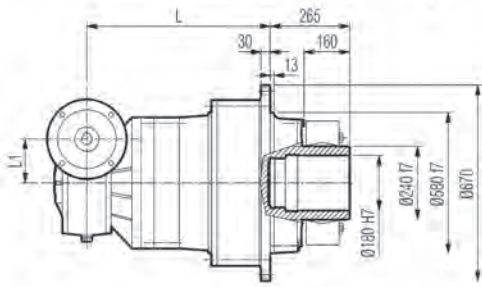
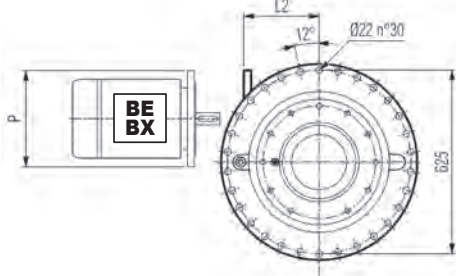
HZ PZ



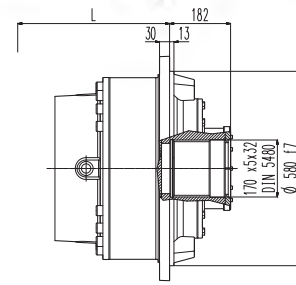
HC



FZ



FP



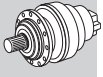
FZP

FP $T_{2max} = 1,575,430 \text{ lb}\cdot\text{in}$

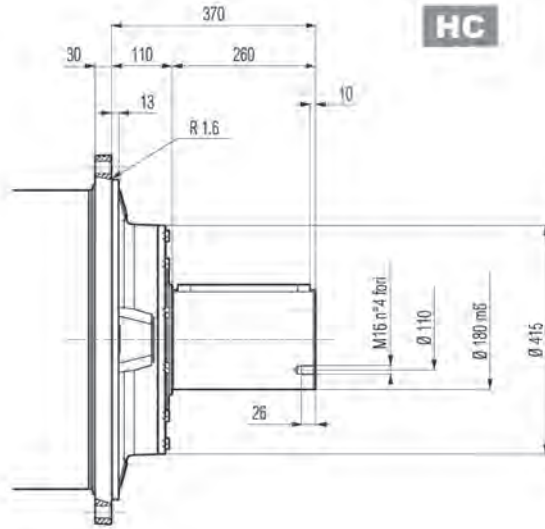
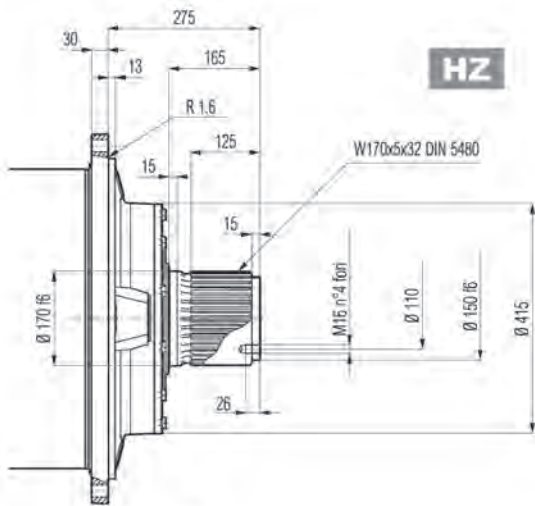
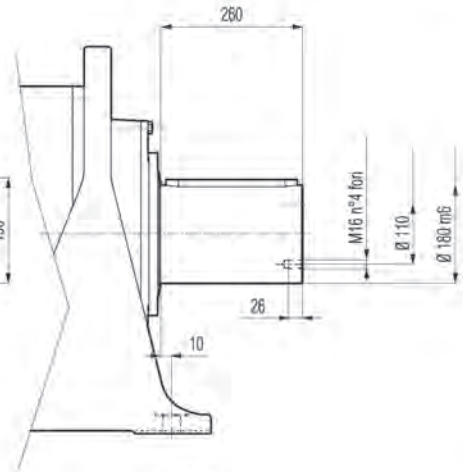
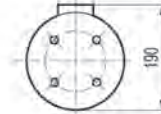
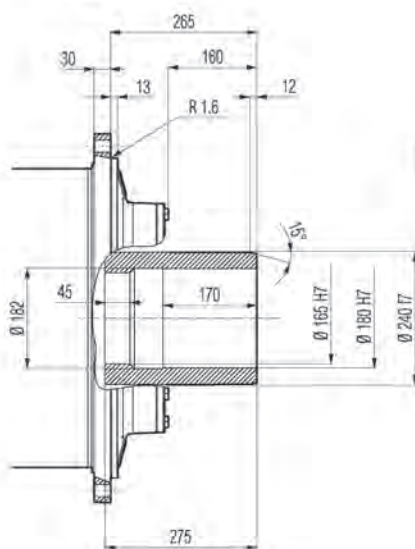
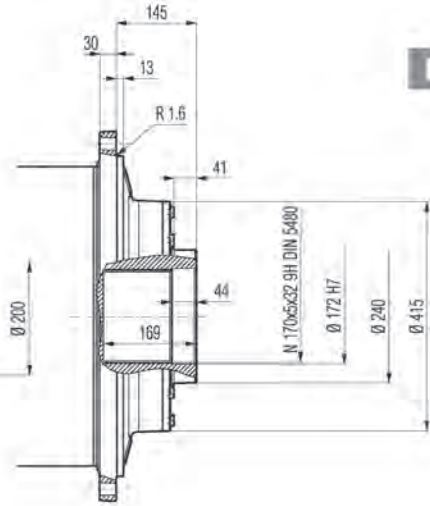
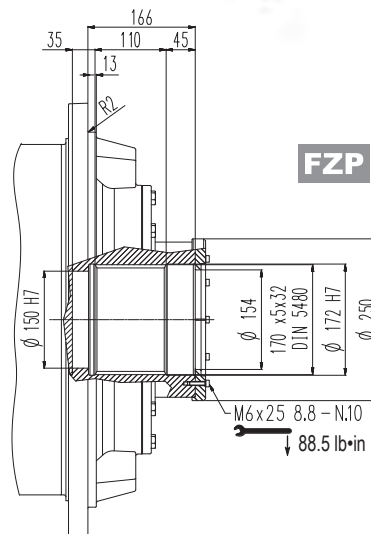
Dimensions are in mm

	L				L1	D1	L3	L4	Kg				
	PC - PZ	HC - HZ	FZ - FZP	FP						PC - PZ	HC - HZ	FZ - FZP	FP
3/V 16 L4	865	755	755	755	150	35	185	65		900	700	630	650

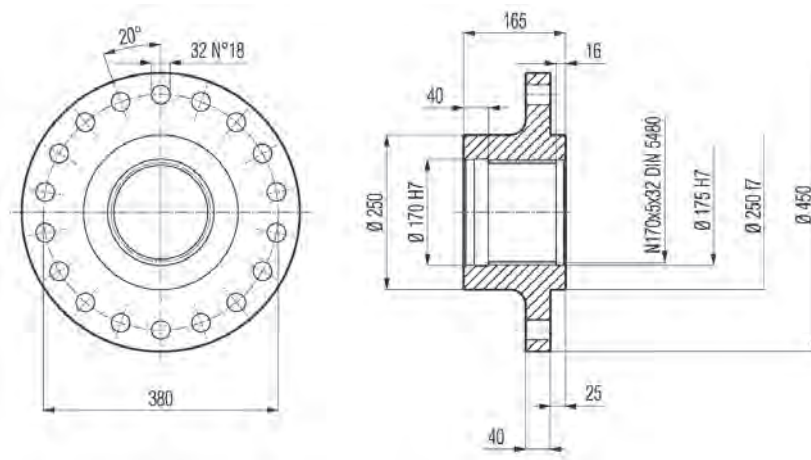
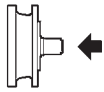
	P100		P112		P132		P160	
	L2	P	L2	P	L2	P	L2	P
3/V 16 L4	190	250	190	250	190	300	190	350

316 L**316 R****3/V 16 L**

Metric

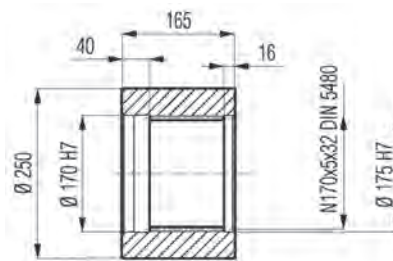
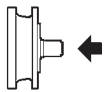
**HC****PC**A45x25x240
UNI 6604
DIN 6885**HZ****FZ****FP****FZP****FP** $T_{2max} = 1,575,430 \text{ lb}\cdot\text{in}$

Dimensions are in mm

316 L**316 R****3/V 16 L****Flange****WOA****Metric**

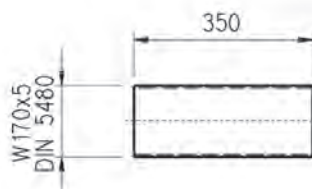
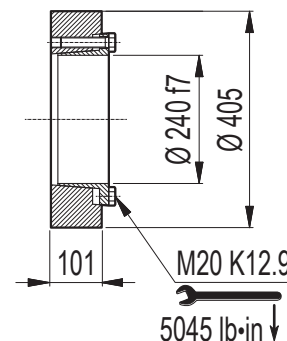
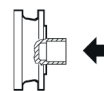
Material: Steel C40

Dimensions are in mm

Sleeve coupling**MOA**

Material: Steel C40

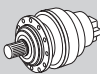
Dimensions are in mm

Splined bars**B0A**Material: Case hardening steel 18NiCrMo5 UNI 5331
must be case hardened 50-55 HRC**Shrink disc****G0A**

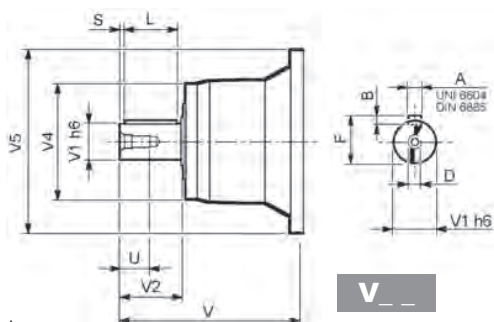
Dimensions are in mm

316 L

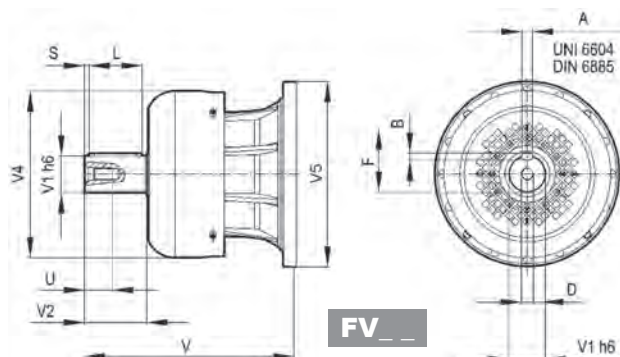
316 R



Metric



V__



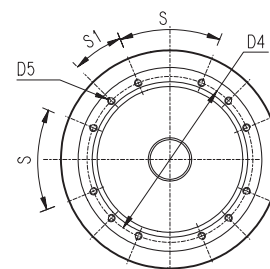
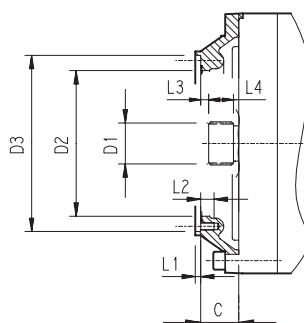
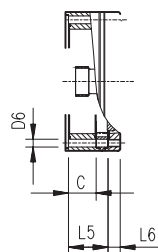
FV__

Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
316 L2	V11B	348	80	130	200	428	22	14	85	110	10	M16	36
	FV11B	456	80	130	347.5	428	22	14	85	110	10	M16	36
316 L3	V07B	315	80	130	200	345	22	14	85	110	10	M16	36
	FV07B	375	80	130	347.5	348	22	14	85	110	10	M16	36
	V07A	313	60	105	155	345	18	11	64	90	7.5	M16	36
	FV07A	363	60	105	309	348	18	11	64	90	7.5	M16	36
316 L4	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
316 R3 (B) (C)	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36
316 R4	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36

316 L

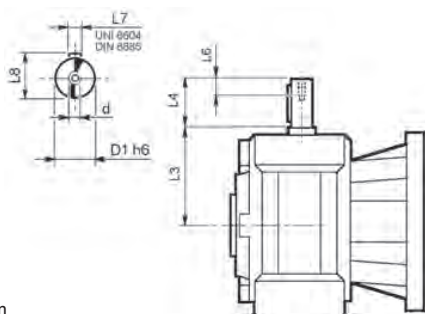
316 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
316 L1	V9AE	116	100x94 DIN 5482	340	412 H7	390	M16 n° 18	—	7	30	8	55	—	—	20°	20°	E
316 L2	V9AD	81	80x74 DIN 5482	270	335 H7	314	M16 n° 8	—	5	30	8.5	40	—	—	60°	30°	D
316 L3	V9AB	51	58x53 DIN 5482	195	236 H7	222	M10 n° 12	—	4	18	11	22	—	—	45°	22.5°	B
316 L4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n° 8	—	4	18	9	18	—	—	45°	45°	A
316 R3 (B) (C)	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10° 12	—	4	18	11	22	—	—	45°	22.5°	B
316 R4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n° 8	11	4	18	9	18	—	—	45°	45°	A

3/V 16 L

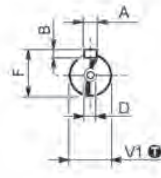
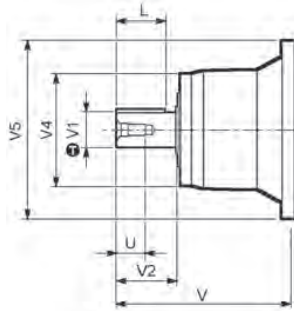


Dimensions are in mm

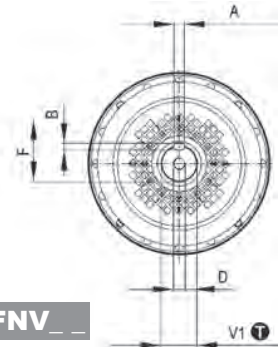
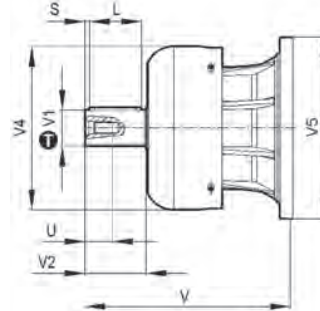
	D1 h6	L3	L4	L6	L7	L8	d
3/V 16 L3_HS	55	274	110	40	16	59	M16
3/V 16 L4_HS	35	185	65	20	10	38	M8

316 L

316 R



NV __



FNV __

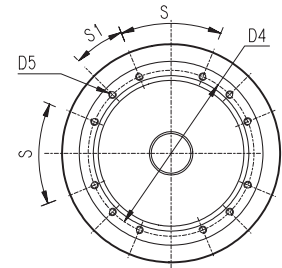
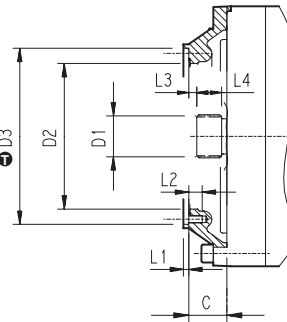
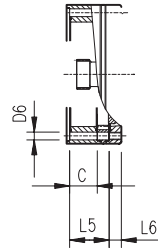
inch	Ⓜ
3.000	0 -0.00075
2.375	0 -0.00053
1.875	0 -0.00053

Dimensions are in Inch except when shown in *italic [mm]*

		V	V1	V2	V4	V5	A	B	F	L	D	U
316 L2	NV11B	13.563	3.000	5.000	8.160	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV11B	17.835	3.000	5.000	13.678	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
316 L3	NV07B	12.283	3.000	5.000	7.165	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV07B	14.646	3.000	5.000	13.677	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	NV07A	13.130	2.375	4.750	6.024	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
316 L4	NV05B	15.104	2.375	4.750	6.811	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
	FNV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
316 R3 (B) (C)	NV06B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
316 R4	NV05B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
	FNV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417

316 L

316 R



inch	Ⓜ
16.22	+0.00248 0
13.19	+0.00224 0
9.29	+0.00181 0
7.01	+0.00157 0

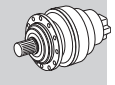
Dimensions are in Inch except when shown in *italic [mm]*

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
316 L1	V9AE	4.57	100x94 DIN 5482	13.39	16.22	15.35	M16 n° 18	—	0.28	1.18	0.31	2.17	—	—	20°	20°	E
316 L2	V9AD	3.19	80x74 DIN 5482	10.63	13.19	12.36	M16 n° 8	—	0.20	1.18	0.33	1.57	—	—	60°	30°	D
316 L3	V9AB	2.01	58x53 DIN 5482	7.68	9.29	8.74	M10 n° 12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
316 L4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n° 8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
316 R3 (B) (C)	V9AB	1.77	58x53 DIN 5482	7.68	9.29	8.74	M10 n° 12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
316 R4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n° 8	0.43	0.16	0.71	0.35	0.71	—	—	45°	45°	A

316 L

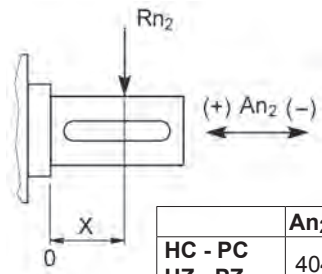
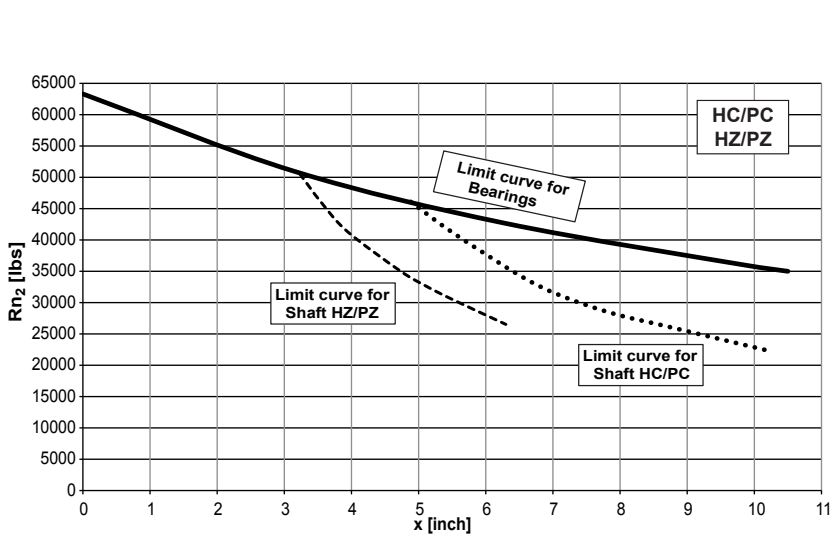
316 R

3/V 16 L

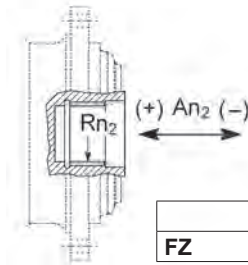


Imperial

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$



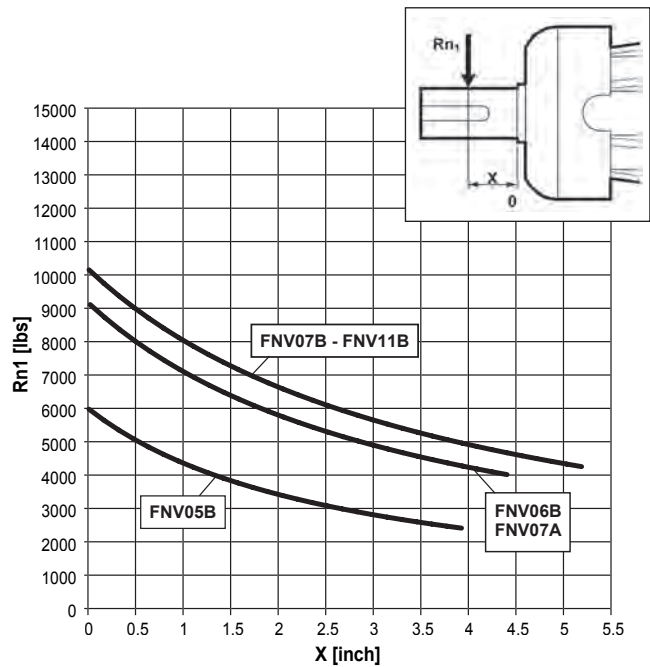
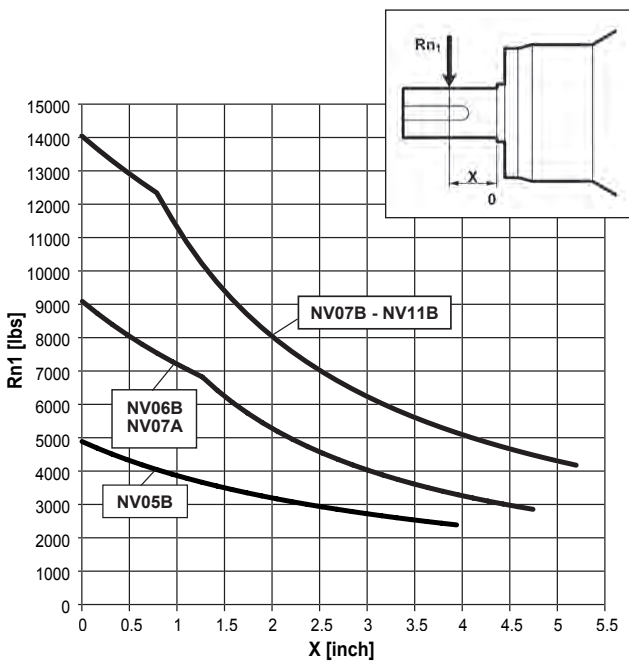
	An2 (+)	An2 (-)
HC - PC	40464	33720
HZ - PZ		



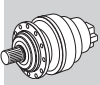
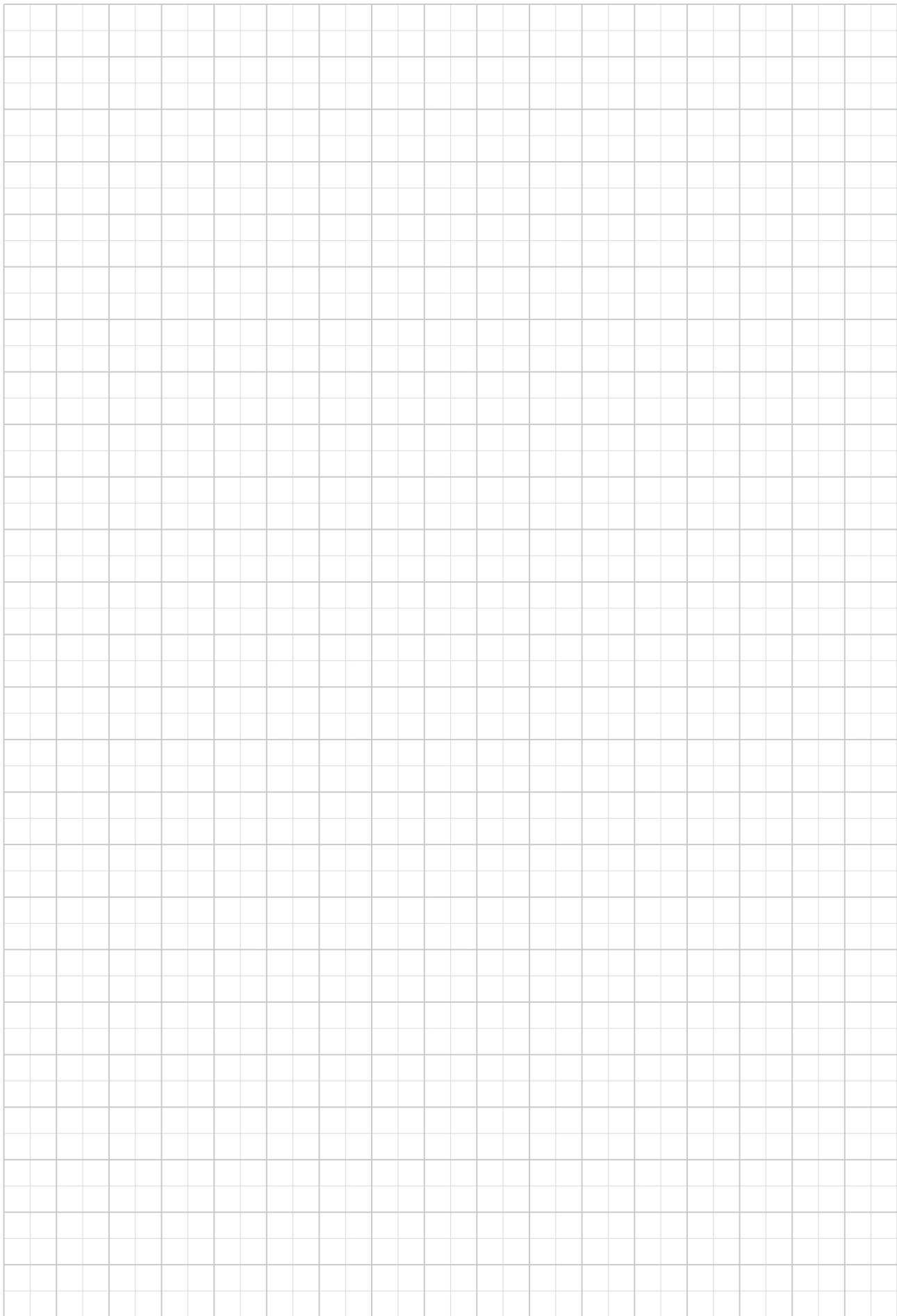
	Rn2	An2 (+/-)
FZ	15651	15651

Load corrective factor fh2 on shafts	Fh2 = n2 · h						
	10000						
	25000						
fh2	50000						
	100000						
	500000						
	1000000						
	FZ	2.15	1.59	1.26	1.00	0.58	0.46
	HC - PC	1.16	1.00	1.00	1.00	0.62	0.50
	HZ - PZ	1.19	1.02	1.02	1.00	0.62	0.50

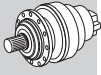
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



Load corrective factor fh1 on shafts	Fh1 = n1 · h						
	250000						
fh1	500000						
	1000000						
	2000000						
	5000000						
	10000000						
		1	0.79	0.63	0.50	0.37	0.29

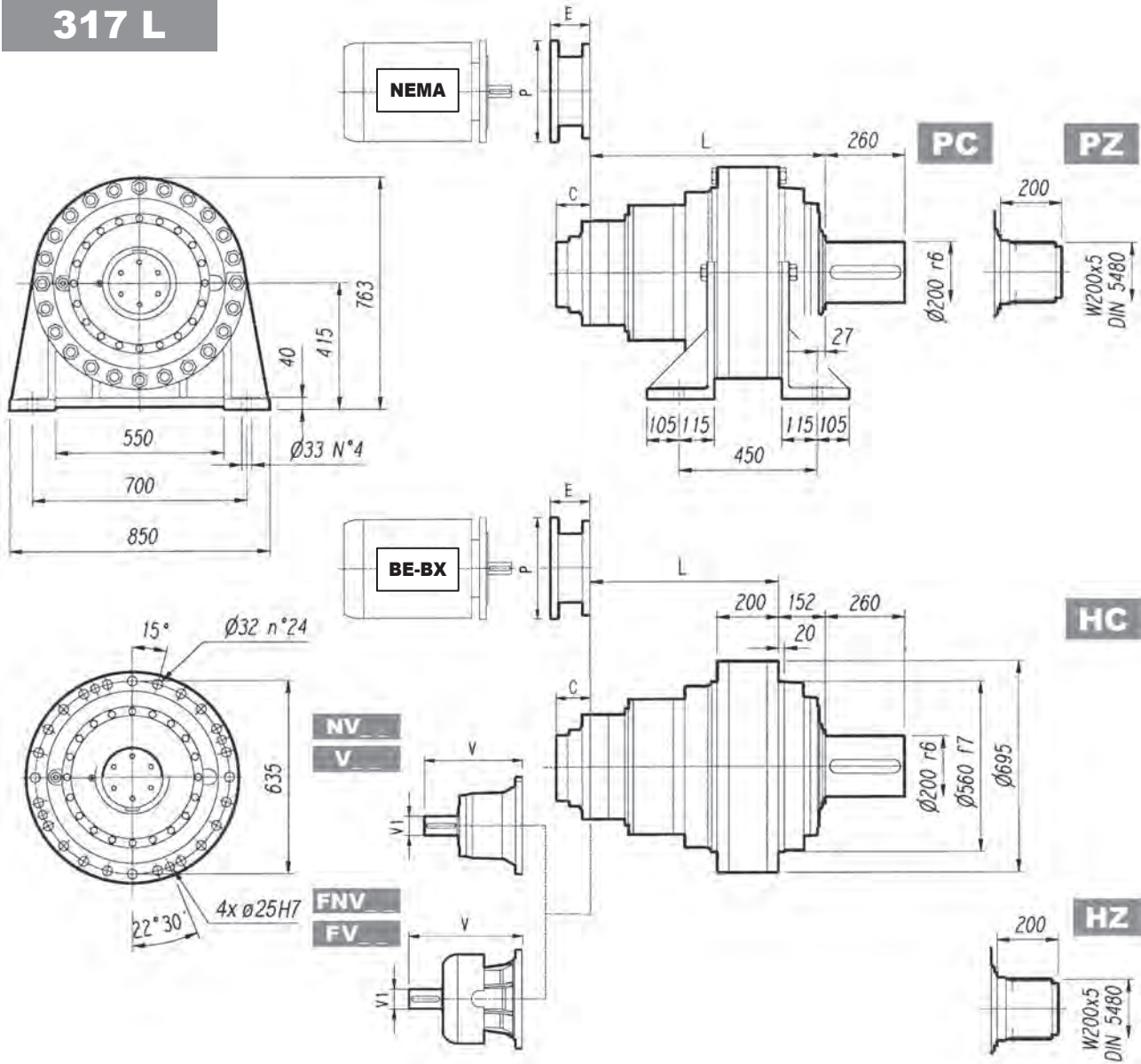


317 L















Metric

Imperial

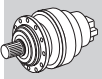
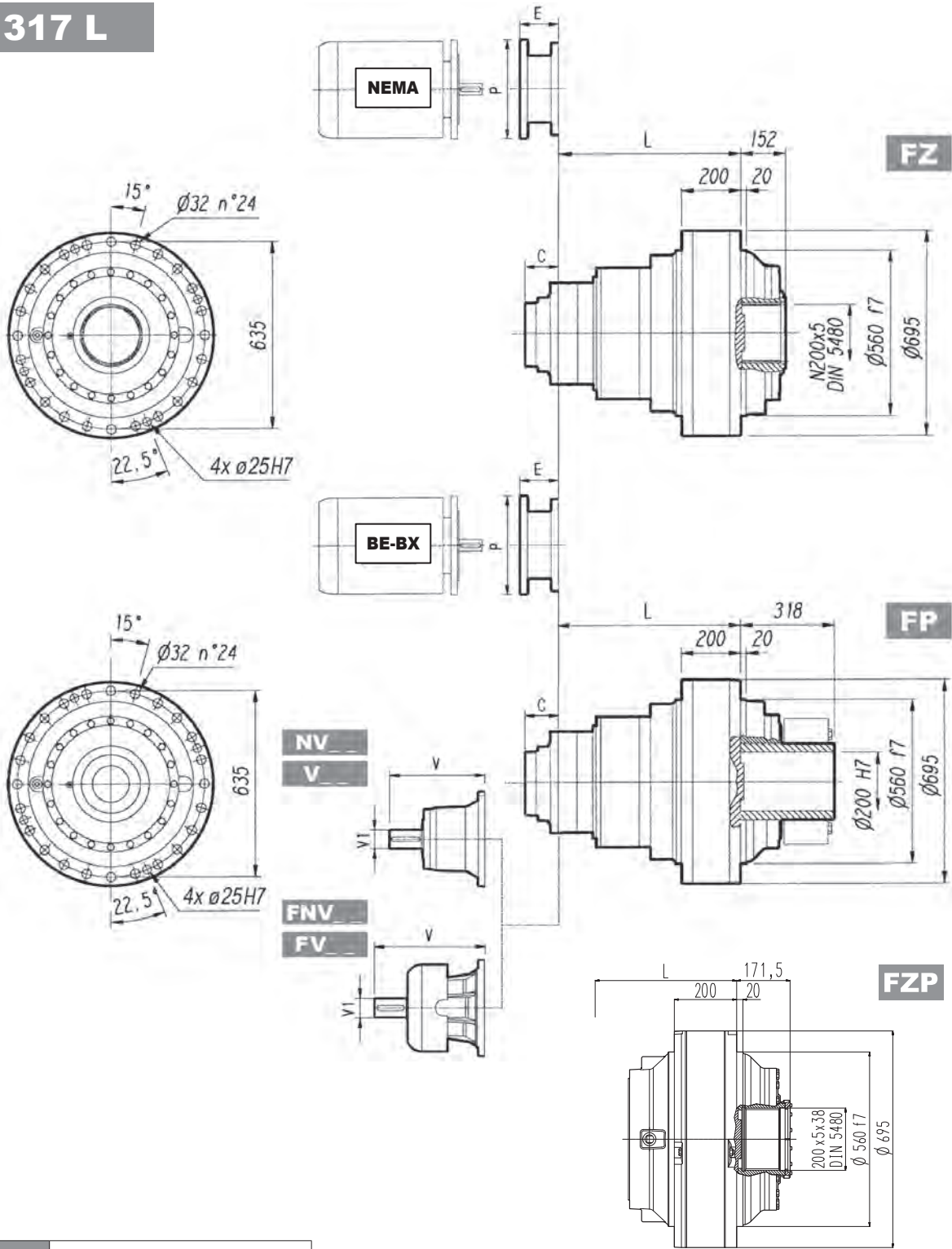


Dimensions are in mm when shown in italic, otherwise dimensions are in inches

	L				 Kg						Input
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP	C	C	
317 L1	315	163	163	163	950	800	750	800	181	7.126	F
317 L2	624	472	472	472	1080	930	880	930	75	2.953	D
317 L3	774	622	622	622	1140	990	940	990	51	2.008	B
317 L4	862	710	710	710	1152	1000	952	1000	37	1.457	A

	 V			 FV			 NV			 FNV														
	V	V1	 Kg	V	V1	 Kg	V	V1	 Kg	V	V1	 Kg	V	V1	 Kg	V	V1	 Kg						
317 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
317 L2	343	80	55	—	—	—	451	80	71	—	—	—	13.563	3.000	121.3	—	—	—	17.835	3.00	140.0	—	—	
317 L3	315	80	35	313	60	28	375	80	48	363	60	34	13.130	2.375	29.8	12.283	3.000	77.2	15.104	2.375	38.0	14.646	3.00	90.0
317 L4	239	48	15	—	—	—	276	48	17	—	—	—	9.681	1.875	33.1	—	—	—	11.138	1.875	38.0	—	—	—

317 L



Metric

Imperial

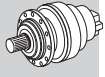
FP $T_{2max} = 2,141,880 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in *italics*, otherwise dimensions are in inches

	P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P
317 L3	—	—	—	—	196	350	186	400	216	450	216	550
317 L4	114	300	144	350	144	350	174	400	—	—	—	—

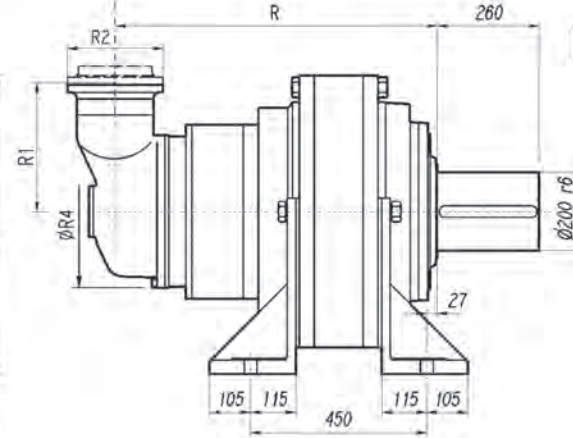
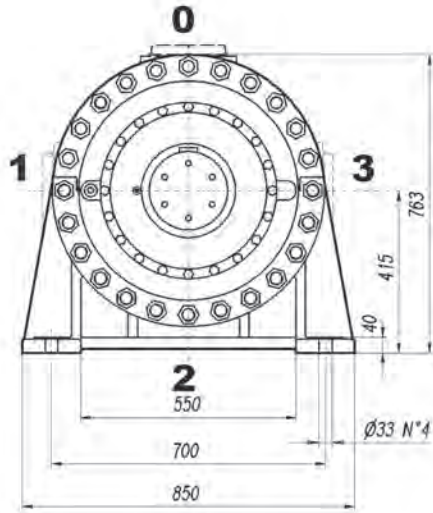
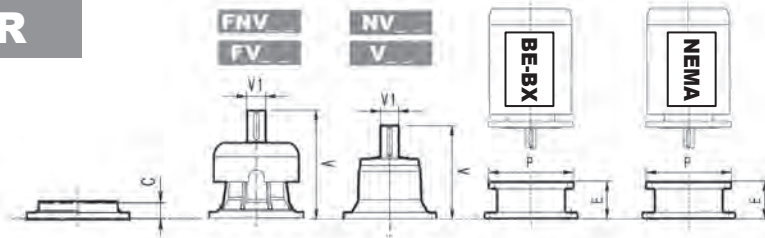
	N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P
317 L3	—	—	—	—	8.445	15.748	8.445	15.748
317 L4	5.216	11.811	6.221	13.780	—	—	—	—

317 R



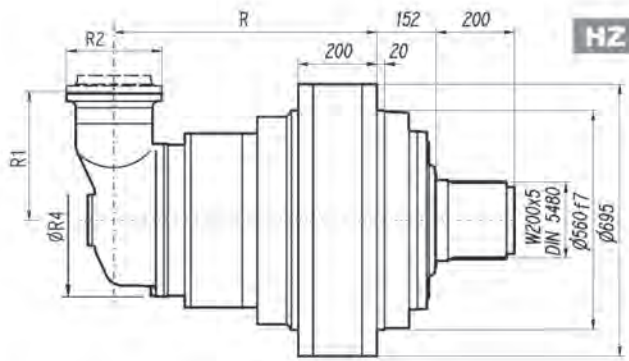
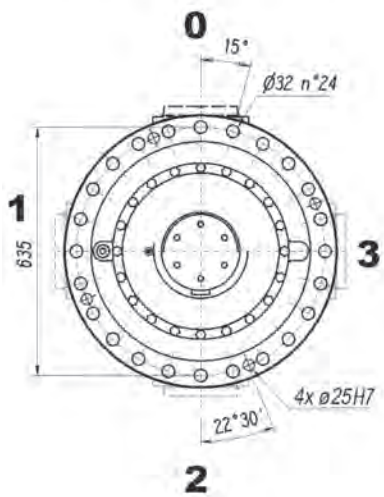
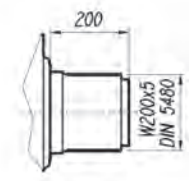
Metric

Imperial



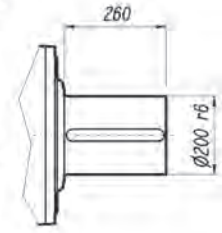
PC

PZ



HZ

HC

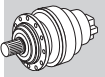
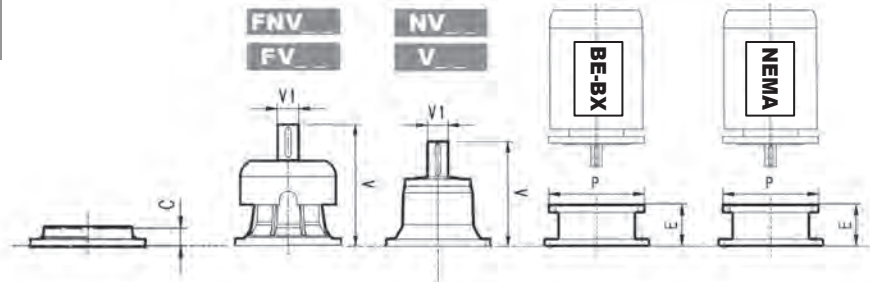


Dimensions are in mm when shown in *italics*, otherwise dimensions are in inches

	R				R1	R2	R4	Kg						Input
	PC-PZ	HC-HZ	FZ - FZP	FP				PC-PZ	HC-HZ	FZ - FZP	FP	C	C	
317 R3 (B)	853	701	701	701	345	292	400	1210	1060	1010	1060	45	1.772	B
317 R3 (C)	853	701	701	701	390	292	480	1220	1070	1020	1070	45	1.772	B
317 R4	892	740	740	740	225	245	345	1190	1040	990	1040	37	1.457	A

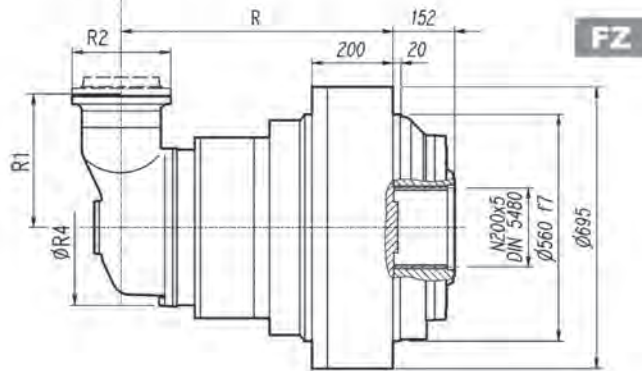
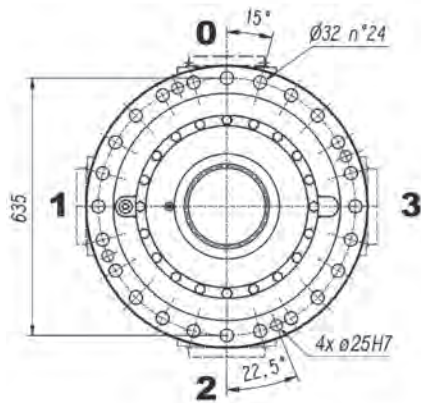
	V	V1		V	V1		V	V1		V	V1	
317 R3 (B)	307	60	23	357	60	28	12.703	2.375	50.7	14.652	2.375	58.0
317 R3 (C)	307	60	23	357	60	28	12.703	2.375	50.7	14.652	2.375	58.0
317 R4	239	48	15	276	48	17	9.681	1.875	33.1	11.138	1.875	38.0

317 R

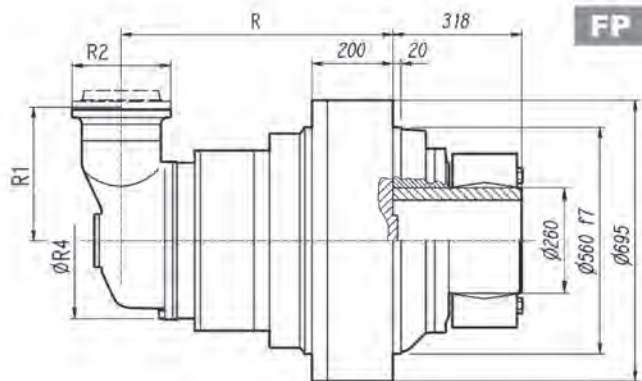
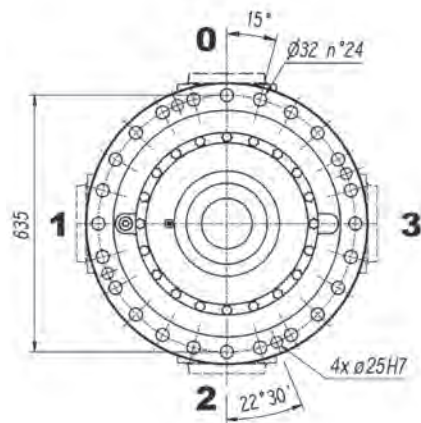


Metric

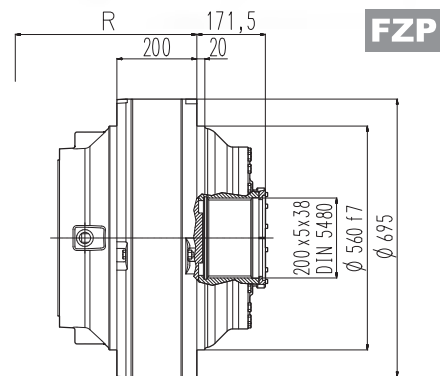
Imperial



FZ



FP



FZP

FP

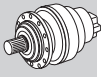
$T_{2max} = 2,141,880 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in *italic*, otherwise dimensions are in inches

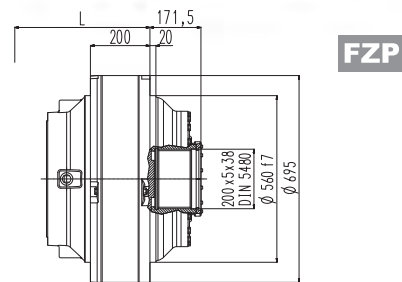
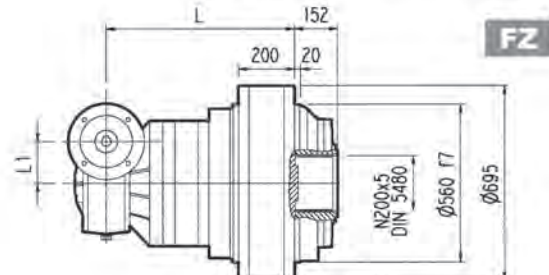
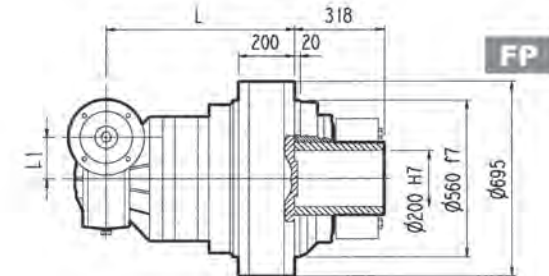
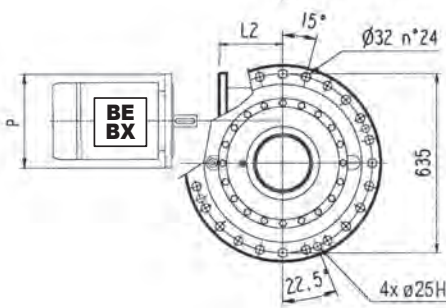
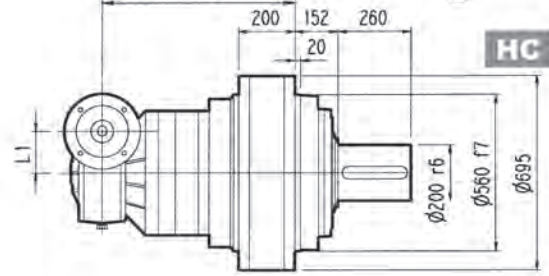
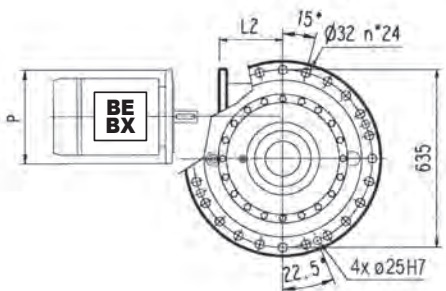
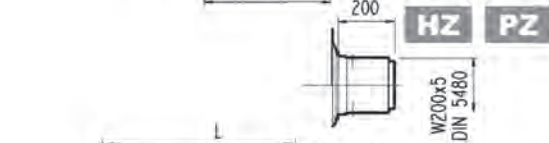
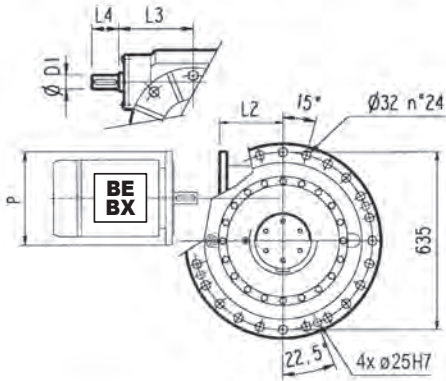
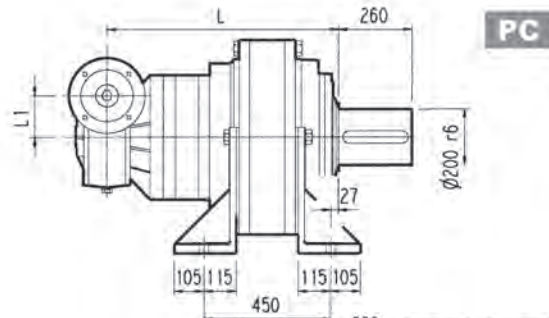
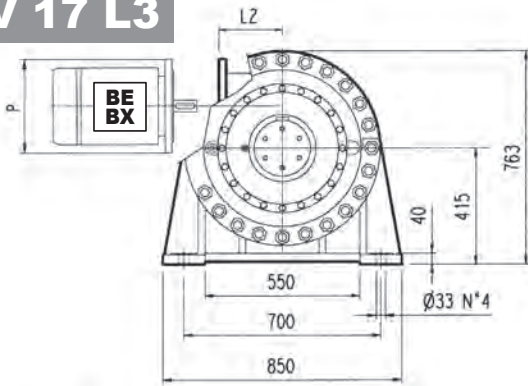
	P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P
317 R3 (B)	—	—	—	—	152	350	182	400	212	450	193	550
317 R3 (C)	—	—	—	—	152	350	182	400	212	450	193	550
317 R4	114	300	144	350	144	350	174	400	—	—	—	—

	N250TC		N280TC		N320TC		N360TC	
	E	P	E	P	E	P	E	P
317 R3 (B)	—	—	—	—	7.776	13.780	7.776	13.780
317 R3 (C)	—	—	—	—	7.776	13.780	7.776	13.780
317 R4	5.216	11.811	6.221	13.780	—	—	—	—

3/V 17 L3



Metric



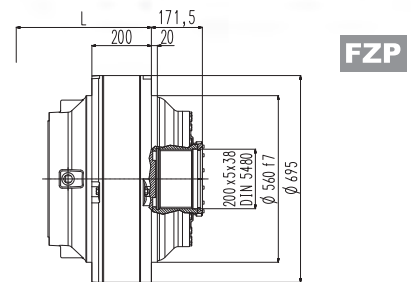
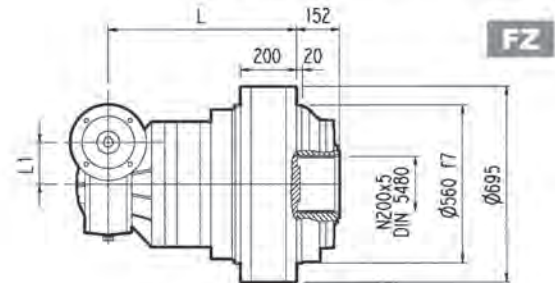
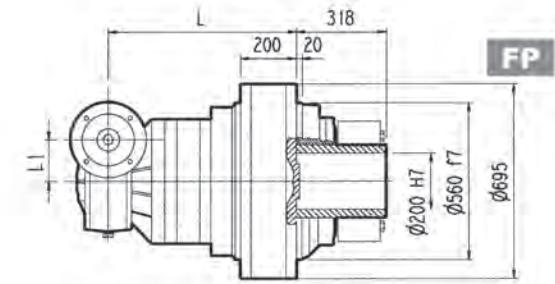
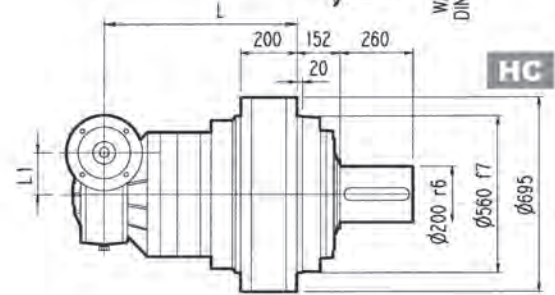
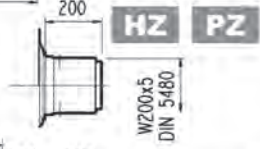
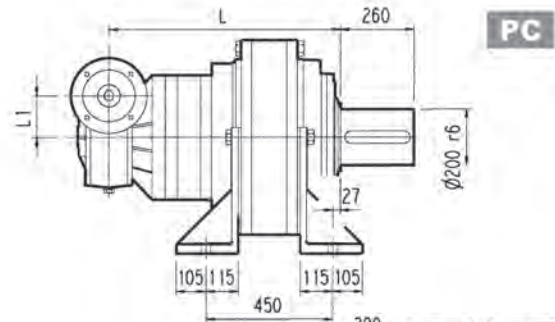
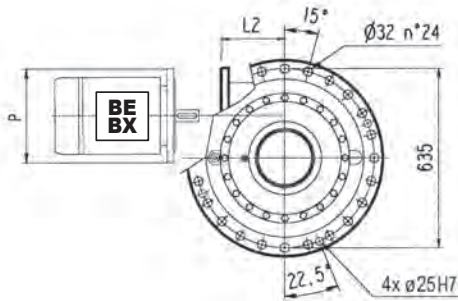
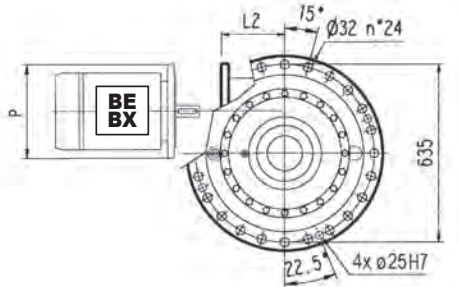
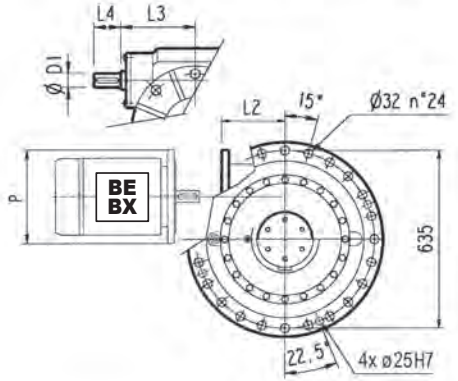
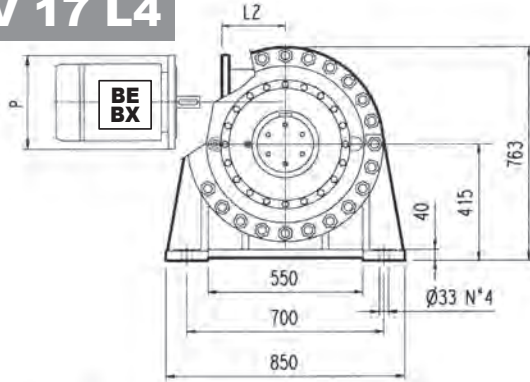
FP T_{2max} = 2,141,880 lb·in

Dimensions are in mm

	L				L1	D1	L3	L4	Kg	PC - PZ	HC - HZ	FZ - FZP	FP
	PC - PZ	HC - HZ	FZ - FZP	FP									
3/V 17 L3	894	745	745	745	250	55	276	110		1400	1250	1200	1250

3/V 17 L3	P132		P160		P180		P200		P225	
	L2	P	L2	P	L2	P	L2	P	L2	P
	531	300	506	350	506	350	531	400	536	450

3/V 17 L4



FP

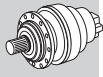
$T_{2max} = 2,141,880 \text{ lb}\cdot\text{in}$

Dimensions are in mm

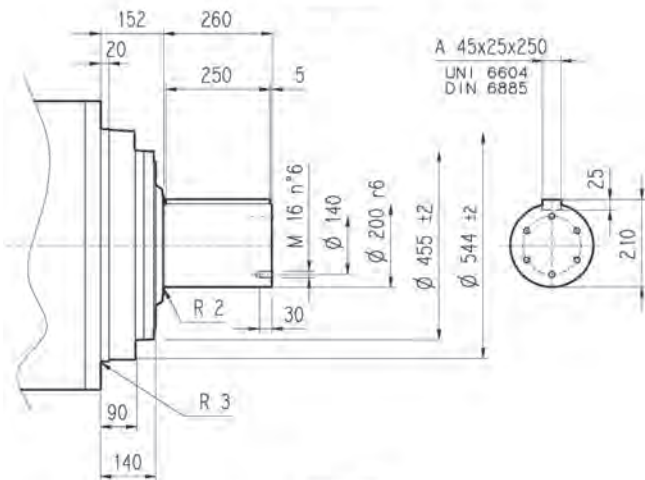
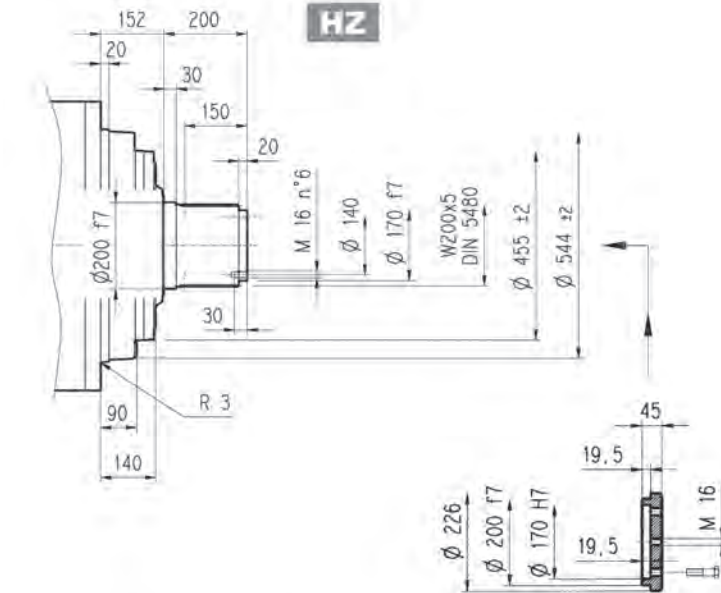
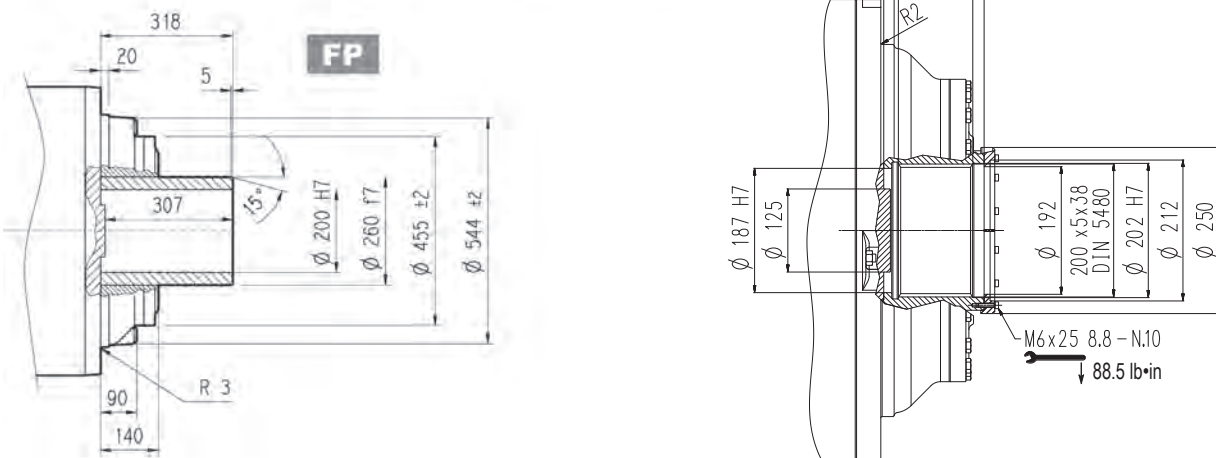
	L				L1	D1	L3	L4	Kg			
	PC - PZ	HC - HZ	FZ - FZP	FP					PC - PZ	HC - HZ	FZ - FZP	FP
3/V 17 L4	975	823	823	823	185.4	40	214.5	70	1250	1090	1040	1090

	P100		P112		P132		P160		P180	
	P	L2	P	L2	P	L2	P	L2	P	L2
3/V 17 L4	250	217	250	217	300	217	350	217	350	217



317 L**317 R****3/V 17 L**

Metric

HC**PC****HZ****FZ****FP****FZP****FP****T_{2max} = 2,141,880 lb·in**

Dimensions are in mm

317 L

317 R

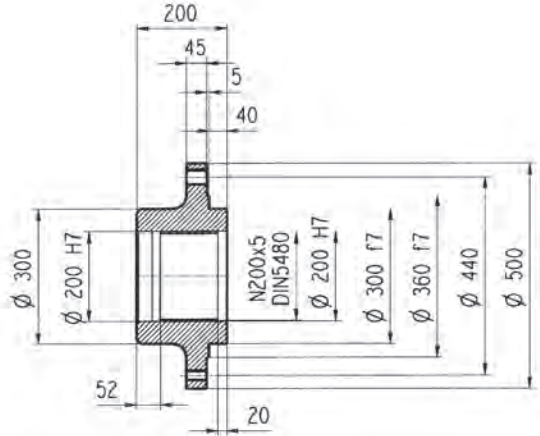
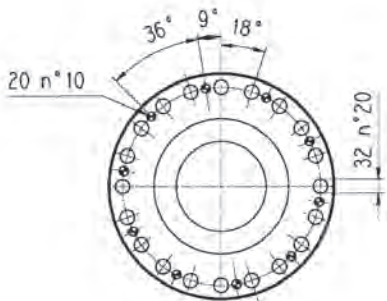
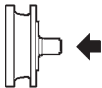
3/V 17 L



Flange

WOA

Metric

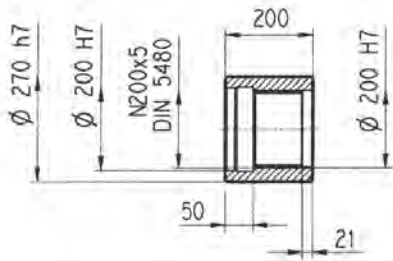
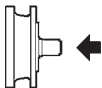


Material: Steel C40

Dimensions are in mm

Sleeve coupling

MOA

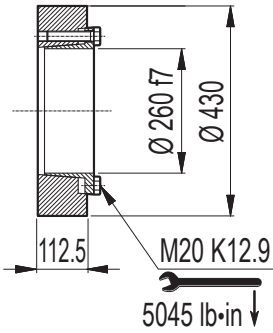
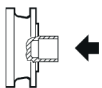


Material: Steel 16CrNi4

Dimensions are in mm

Shrink disc

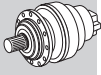
G0A



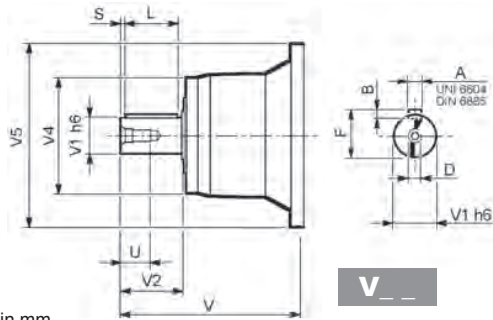
Dimensions are in mm

317 L

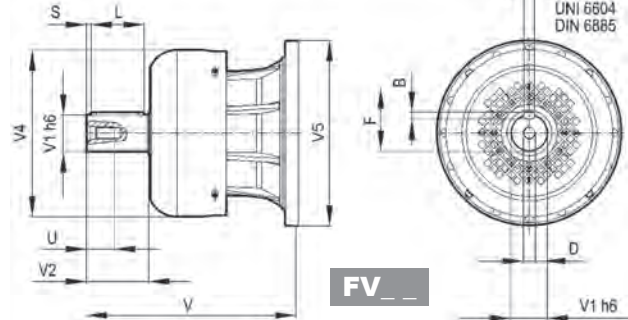
317 R



Metric



V__



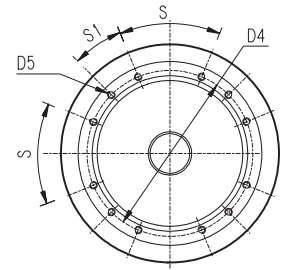
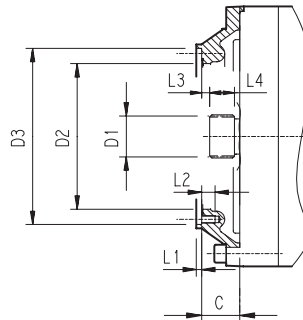
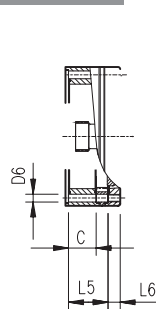
FV__

Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
317 L2	V11B	343	80	130	200	445	22	14	85	110	10	M16	36
	FV11B	451	80	130	347.5	445	22	14	85	110	10	M16	36
317 L3	V07B	315	80	130	200	345	22	14	85	110	10	M16	36
	FV07B	375	80	130	347.5	348	22	14	85	110	10	M16	36
	V07A	313	60	105	155	345	18	11	64	90	7.5	M16	36
317 L4	FV07A	363	60	105	309	348	18	11	64	90	7.5	M16	36
	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
317 R3 (B) (C)	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36
	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	40
317 R4	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36
	V05B	239	48	82	155	245	14	9	51.5	70	6	M16	36
317 R4	FV05B	276	48	82	219.5	244	14	9	51.5	70	6	M16	36

317 L

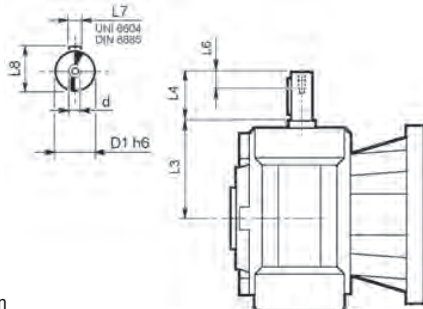
317 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
317 L1	V9AF	181	120x3 DIN 5480	365	390 g7	415	M16 n°18	—	4	30	3	65	—	—	20°	20°	F
317 L2	V9AD	75	80x74 DIN 5482	270	335 H7	314	M16 n°8	—	5	30	9.5	40	—	—	60°	30°	D
317 L3	V9AB	51	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
317 L4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	—	4	18	9	18	—	—	45°	45°	A
317 R4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M10 n°8	11	4	18	9	18	—	—	45°	45°	A
317 R3 (B) (C)	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B

3/V 17 L

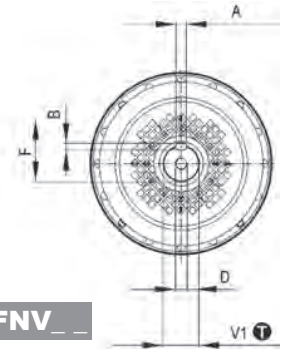
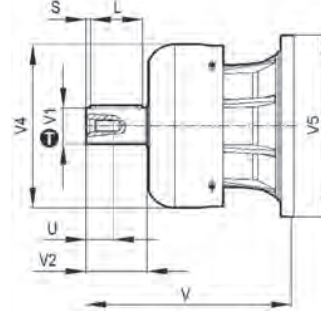
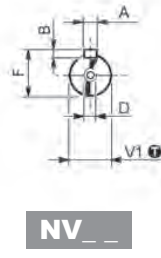
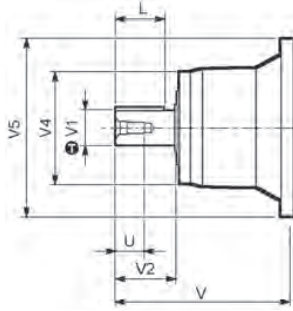


Dimensions are in mm

	D1 h6	L3	L4	L6	L7	L8	d
3/V 17 L3_HS	55	276	110	40	16	59	M16
3/V 17 L4_HS	40	214.5	70	20	12	43	M8

317 L

317 R



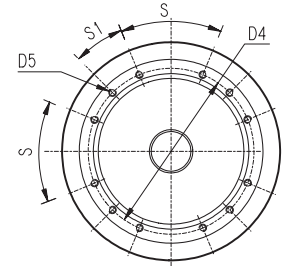
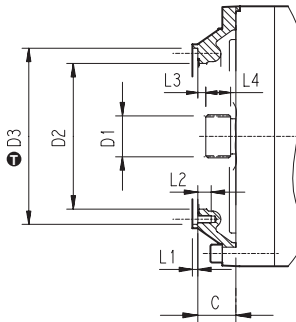
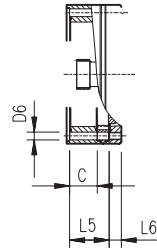
inch	Ⓜ
3.000	0 -0.00075
2.375	0 -0.00053
1.875	0 -0.00053

Dimensions are in Inch except when shown in *italic [mm]*

		V	V1	V2	V4	V5	A	B	F	L	D	U
317 L2	NV11B	13.563	3.000	5.000	8.160	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV11B	17.835	3.000	5.000	13.678	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
317 L3	NV07B	12.283	3.000	5.000	7.165	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV07B	14.646	3.000	5.000	13.677	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	NV07A	13.130	2.375	4.750	6.024	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
317 L4	FNV07A	15.104	2.375	4.750	6.811	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
317 R3 (B) (C)	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
317 R4	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
	NV05B	9.681	1.875	3.500	6.417	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417
	FNV05B	11.138	1.875	3.500	8.641	9.606	0.500	0.500	2.091	3.000	5/8-11 UNC	1.417

317 L

317 R



inch	Ⓜ
15.35	-0.000708 -0.00295
13.19	+0.00224 0
9.29	+0.00181 0
7.01	+0.00157 0

Dimensions are in Inch except when shown in *italic [mm]*

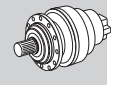
		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
317 L1	V9AF	7.13	120x3 DIN 5480	14.37	15.35	16.34	M16 n°18	—	0.16	1.18	0.12	2.56	—	—	20°	20°	F
317 L2	V9AD	2.95	80x74 DIN 5482	10.63	13.19	12.36	M16 n°8	—	0.20	1.18	0.37	1.57	—	—	60°	30°	D
317 L3	V9AB	2.01	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
317 L4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	—	0.16	0.71	0.35	0.71	—	—	45°	45°	A
317 R4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M10 n°8	0.43	0.16	0.71	0.35	0.71	—	—	45°	45°	A
317 R3 (B) (C)	V9AB	1.77	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B

317 L

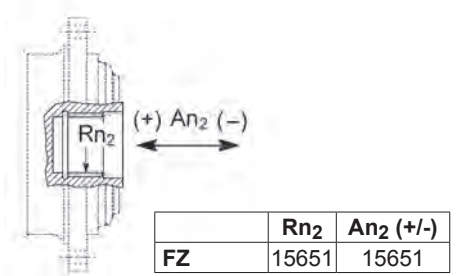
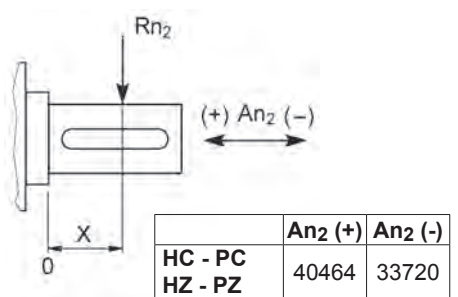
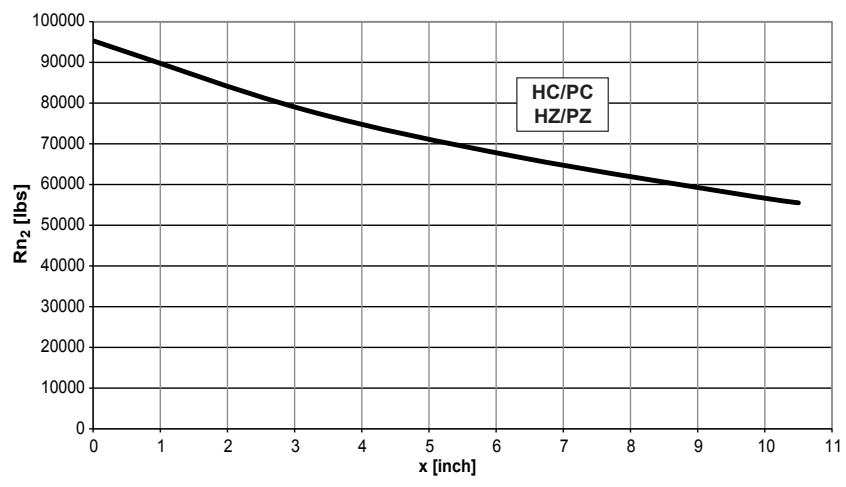
317 R

3/V 17 L

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$

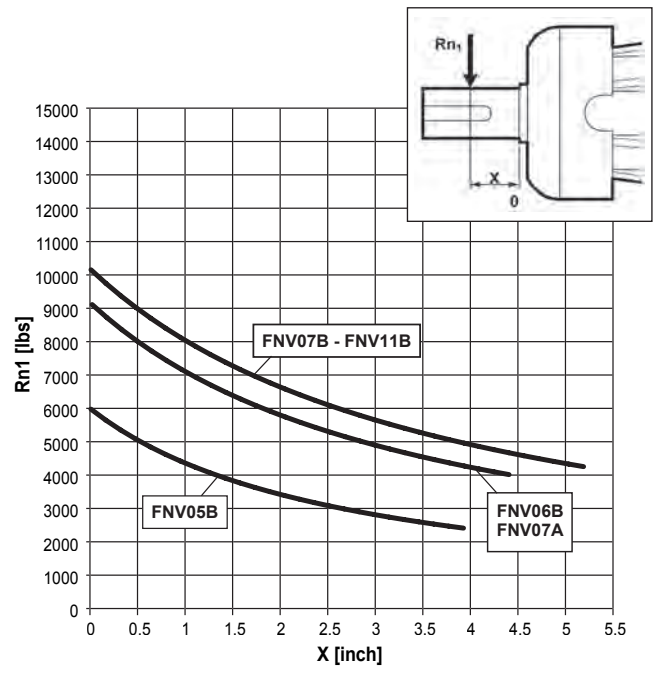
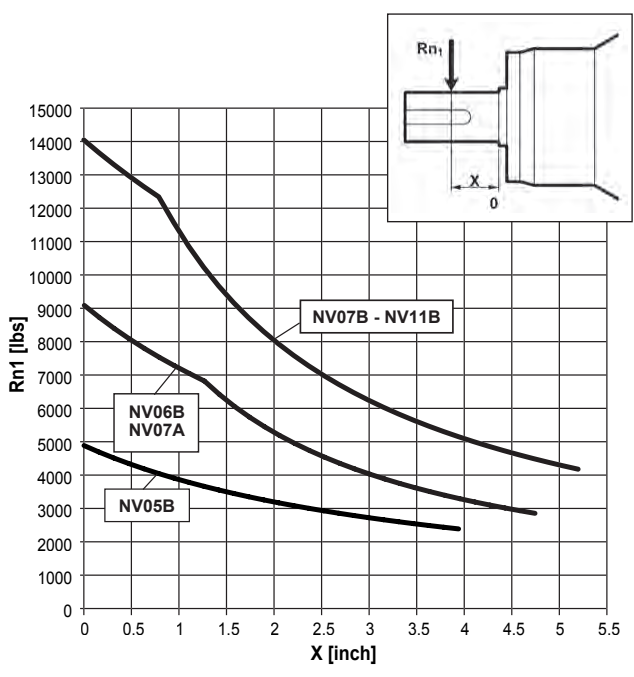


Imperial

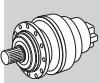
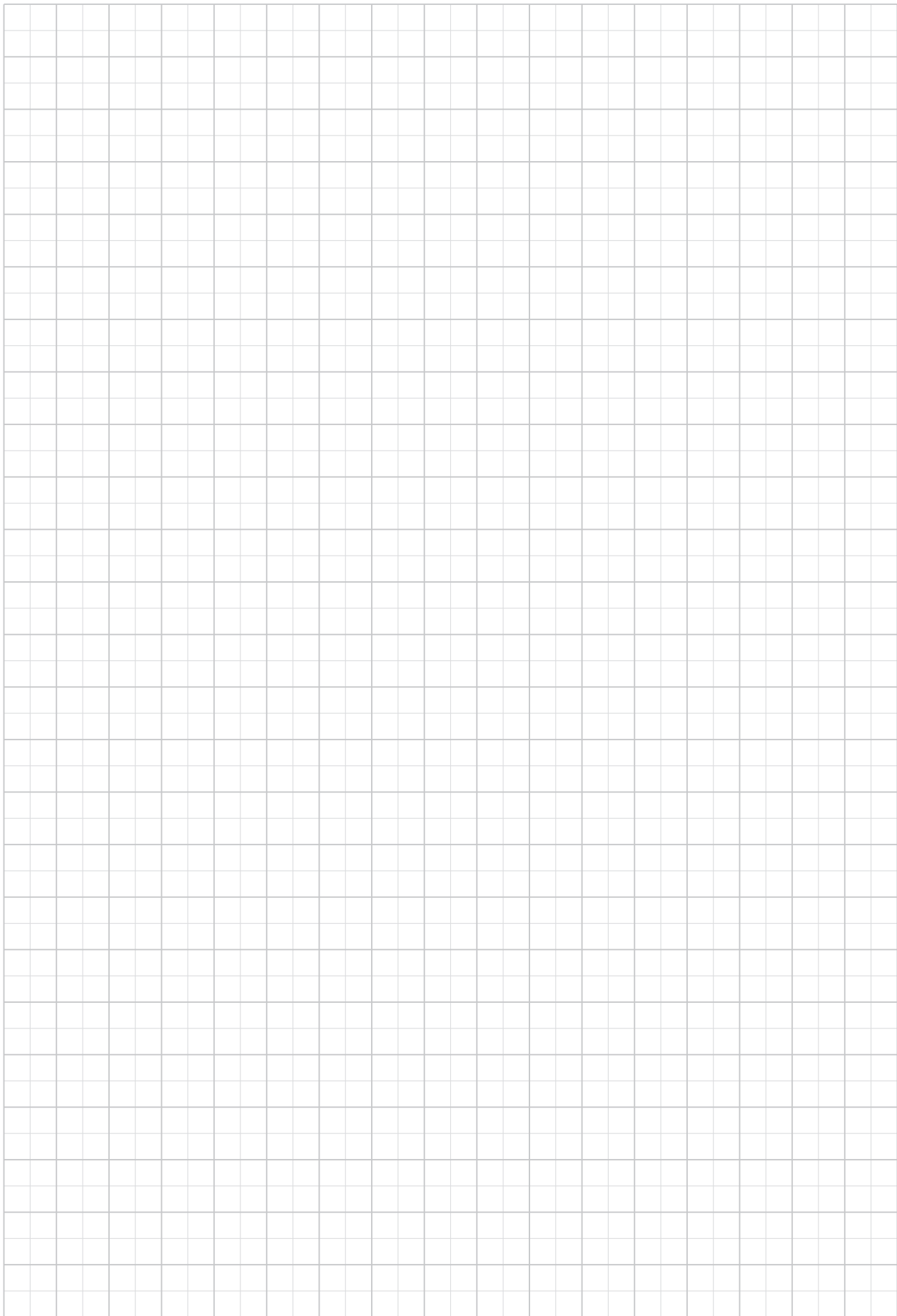


Load corrective factor fh2 on shafts	Fh2 = n2 · h						
	fh2	10000	25000	50000	100000	500000	1000000
		FZ	2.15	1.59	1.26	1.00	0.58
	HZ - HC - PZ - PC	1.50	1.50	1.23	1.00	0.62	0.50

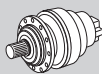
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



Load corrective factor fh1 on shafts	Fh1 = n1 · h						
	fh1	250000	500000	1000000	2000000	5000000	10000000
	1	0.79	0.63	0.50	0.37	0.29	

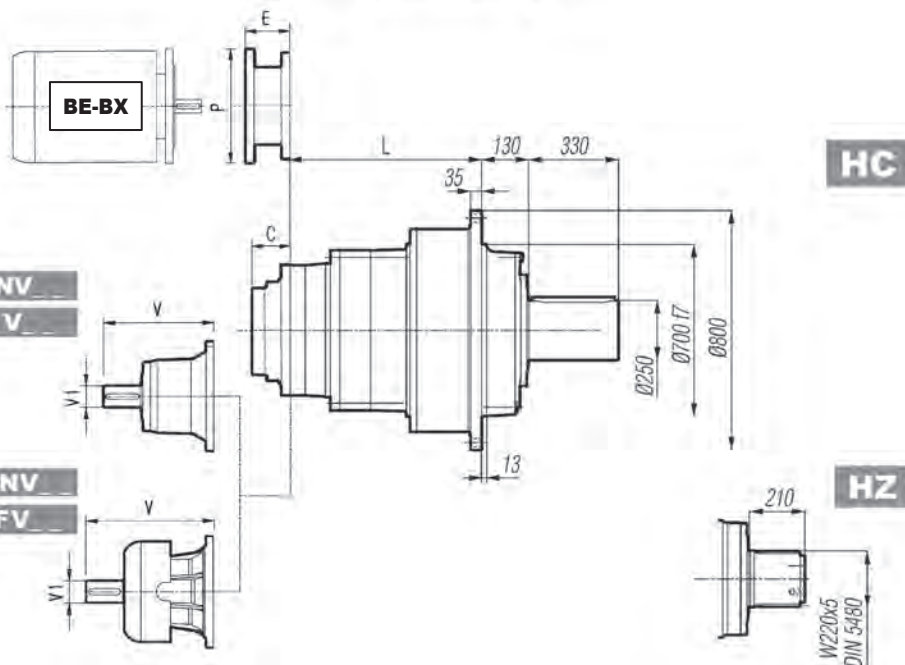
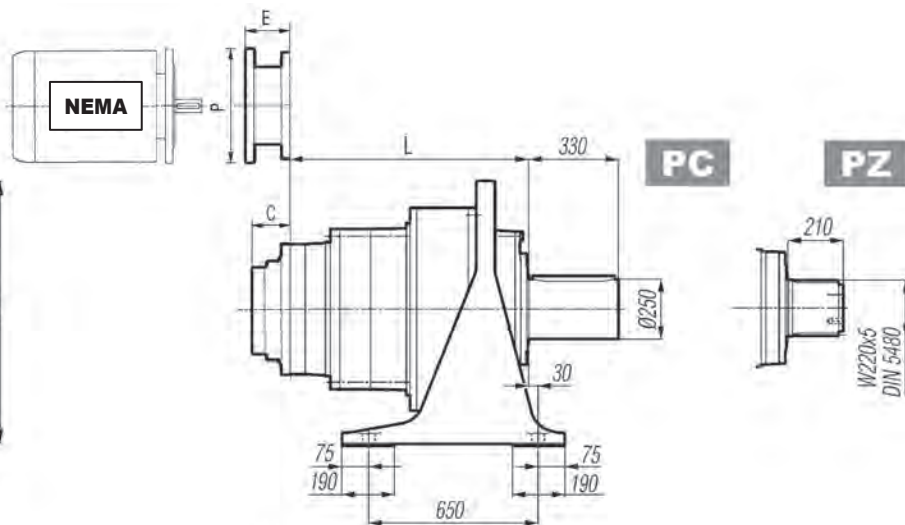
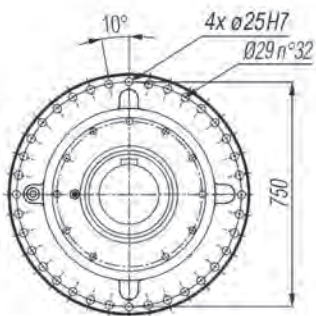
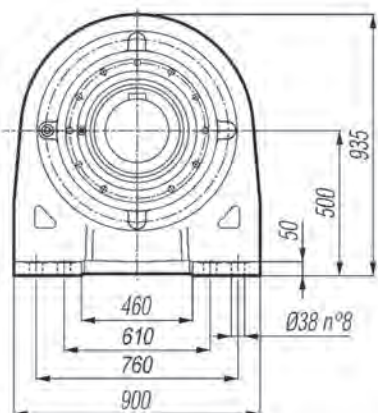


318 L



Metric

Imperial

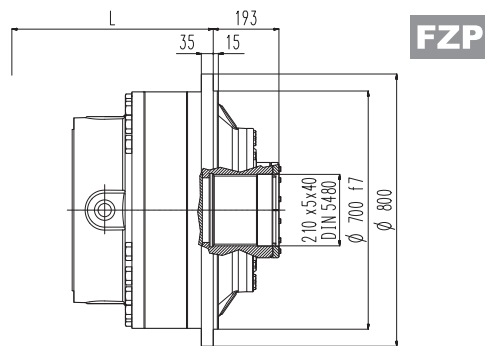
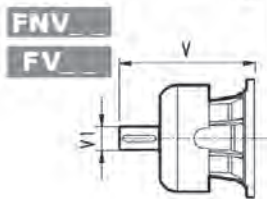
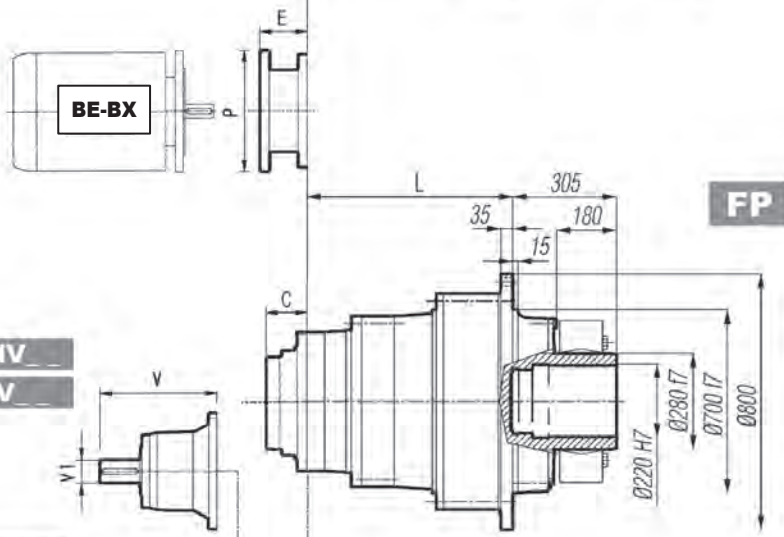
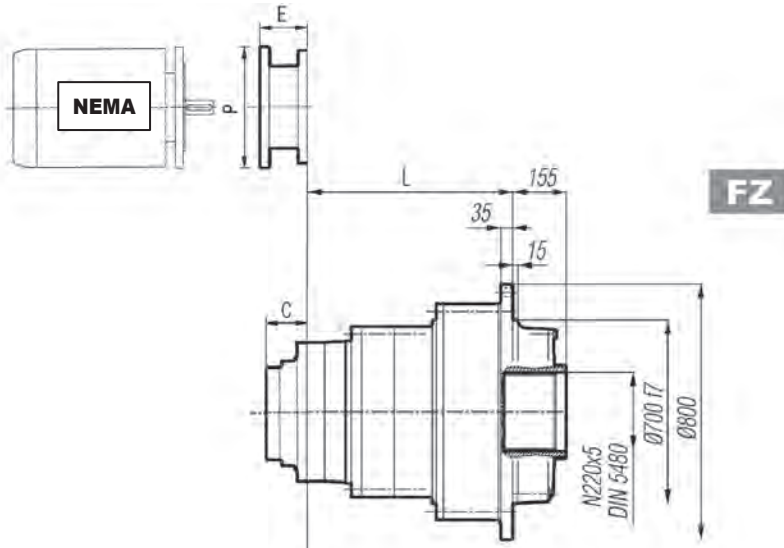
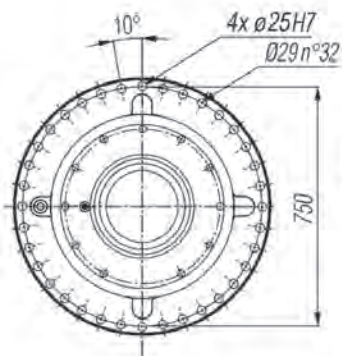
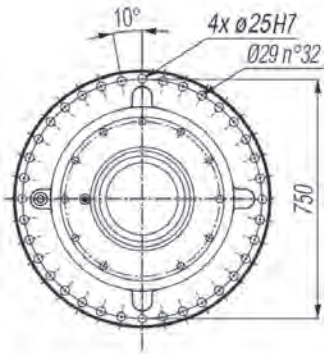


Dimensions are in mm when shown in *italics*, otherwise dimensions are in inches

	L				$\overset{\circ}{\text{Kg}}$				C		Input
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP	C	C	
318 L1	332	202	202	202	1250	950	800	830	208	8.189	G
318 L2	677	547	547	547	1500	1200	1050	1080	116	4.567	E
318 L3	889	759	759	759	1600	1300	1150	1180	81	3.189	D
318 L4	1022	892	892	892	1650	1350	1200	1230	51	2.008	B

	V			FV			NV			FNV														
	V	V1	$\overset{\circ}{\text{Kg}}$	V	V1	$\overset{\circ}{\text{Kg}}$	V	V1	$\overset{\circ}{\text{Kg}}$	V	V1	$\overset{\circ}{\text{Kg}}$	V	V1	$\overset{\circ}{\text{Kg}}$	V	V1	$\overset{\circ}{\text{Kg}}$	V	V1	$\overset{\circ}{\text{Kg}}$			
318 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
318 L2	556	120	125	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
318 L3	348	80	55	—	—	—	456	80	85	—	—	—	13.563	3.000	121.3	—	—	—	17.835	3.000	140.0	—		
318 L4	315	80	35	313	60	28	375	80	48	363	60	34	13.130	2.375	29.8	12.283	3.000	77.2	15.104	2.375	38.0	14.646	3.000	90.0

318 L



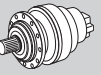
FP

$T_{2max} = 2,849,940 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in *italic*, otherwise dimensions are in inches

	P180		P200		P225		P250	
	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>
318 L3	—	—	267	400	297	450	297	550
318 L4	195	350	186	400	216	450	215	550

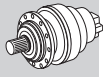
	N320TC		N360TC	
	<i>E</i>	<i>P</i>	<i>E</i>	<i>P</i>
318 L3	—	—	—	—
318 L4	8.445	15.748	8.445	15.748



Metric

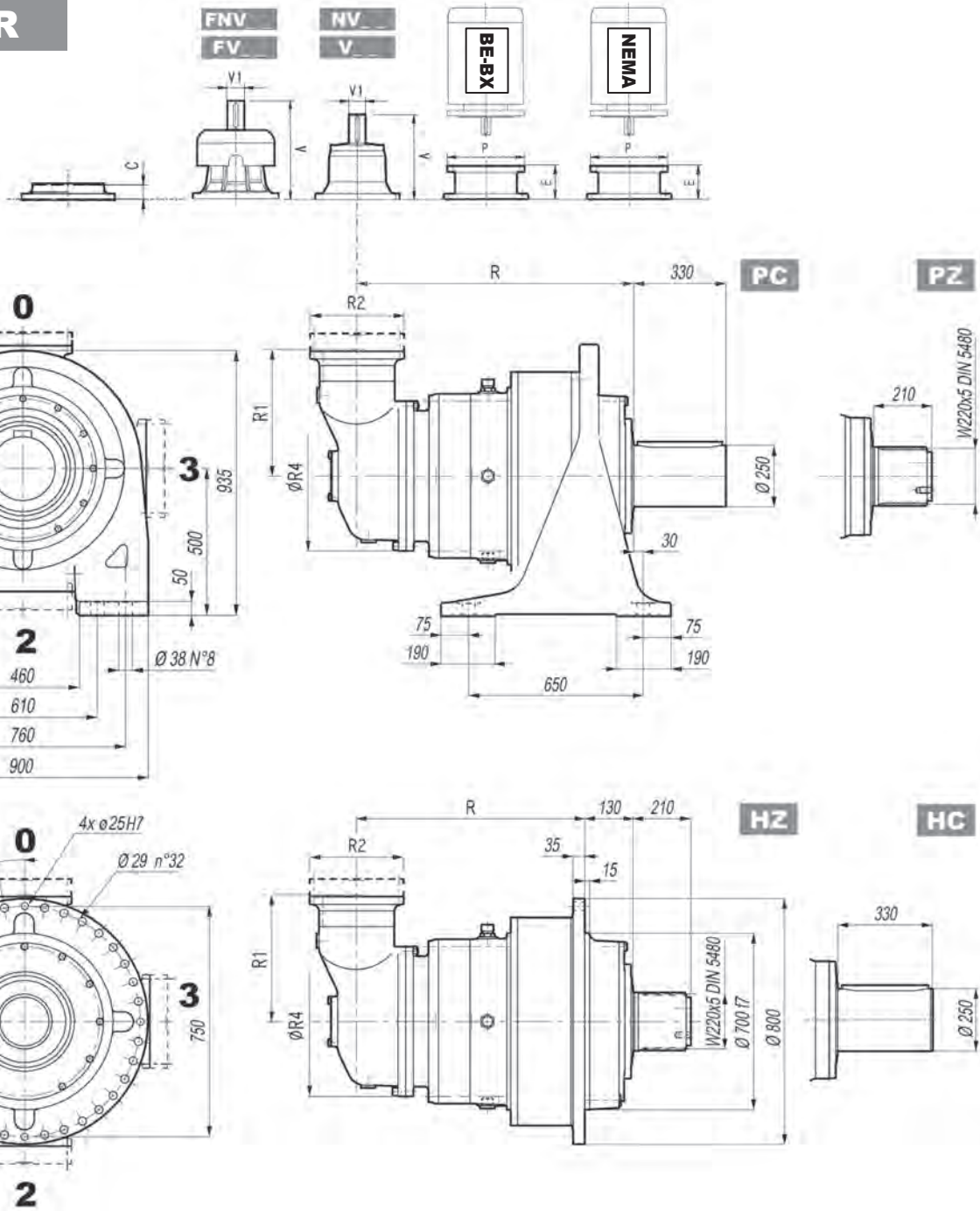
Imperial

318 R



Metric

Imperial

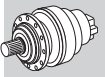
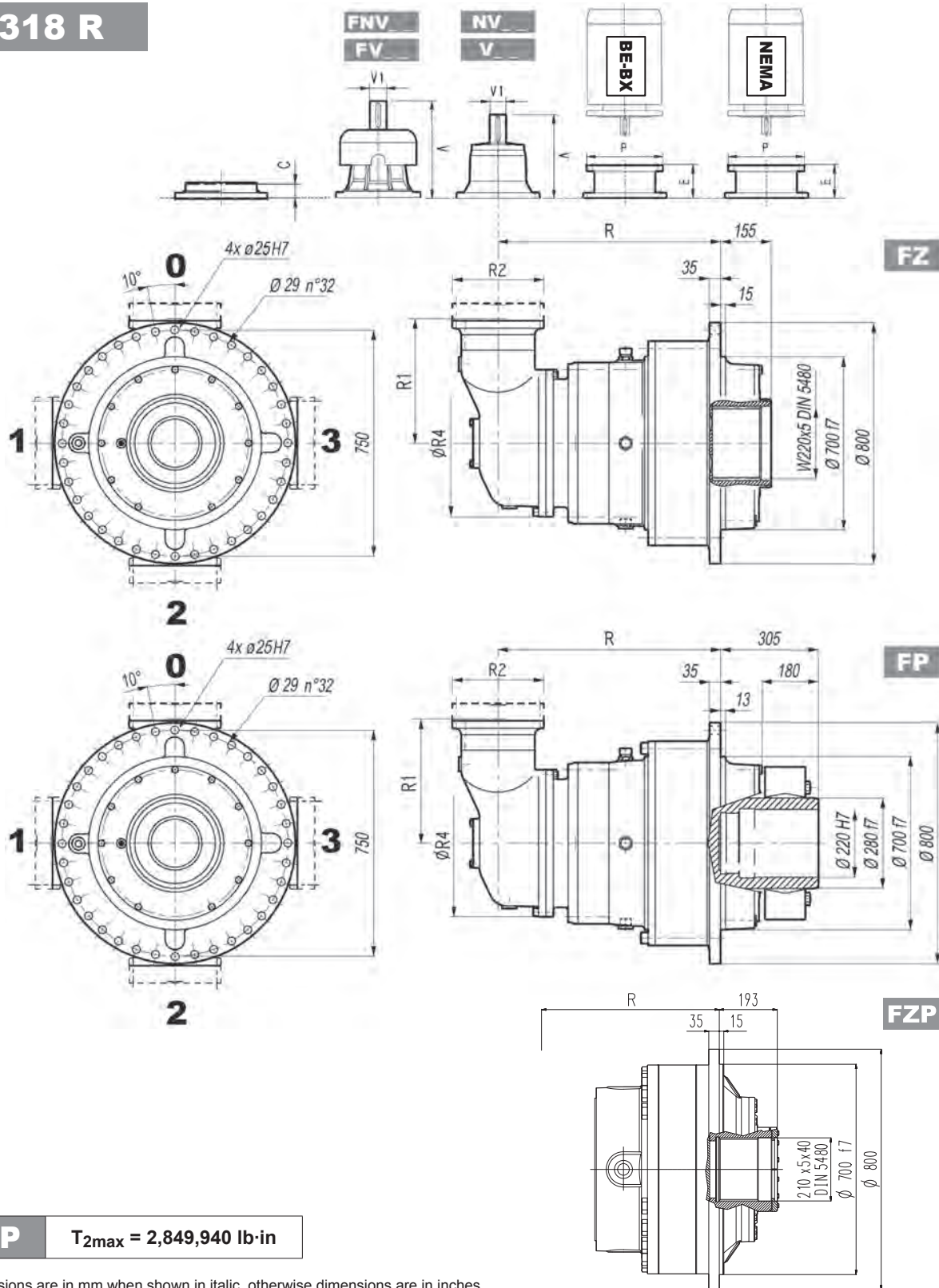


Dimensions are in mm when shown in italic, otherwise dimensions are in inches

	R				R1	R2	R4	Kg				C	C	Input
	PC-PZ	HC-HZ	FZ - FZP	FP				PC-PZ	HC-HZ	FZ - FZP	FP			
318 R4 (B)	1115	985	985	985	345	292	400	1720	1420	1270	1300	45	1.772	B
318 R4 (C)	1115	985	985	985	390	292	480	1730	1430	1280	1310	45	1.772	B

	V			FV			NV			FNV		
	V	V1	Kg	V	V1	Kg	V	V1	lbs	V	V1	lbs
318 R4 (B)	307	60	23	357	60	28	12.703	2.375	50.7	14.652	2.375	58.0
318 R4 (C)	307	60	23	357	60	28	12.703	2.375	50.7	14.652	2.375	58.0

318 R



Metric

Imperial

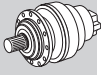
FP $T_{2max} = 2,849,940 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in *italics*, otherwise dimensions are in inches

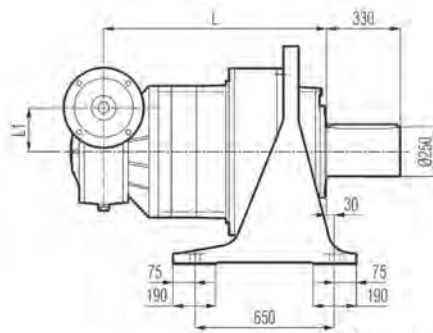
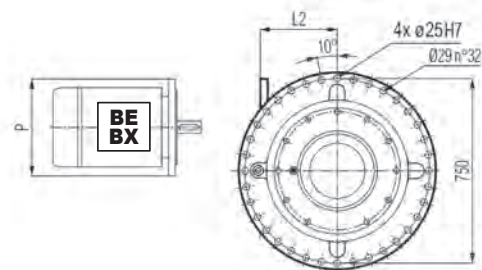
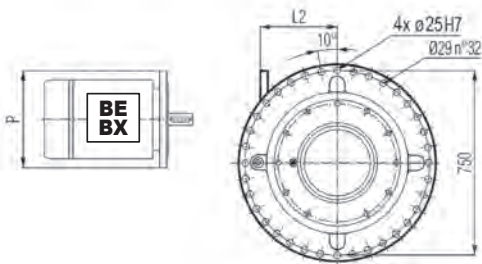
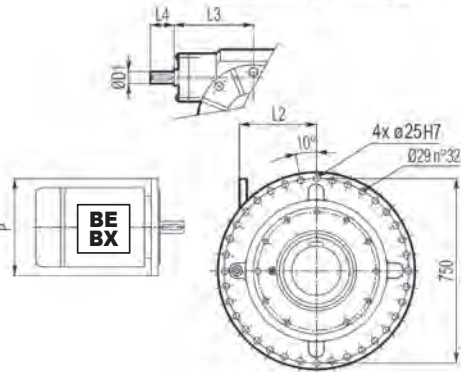
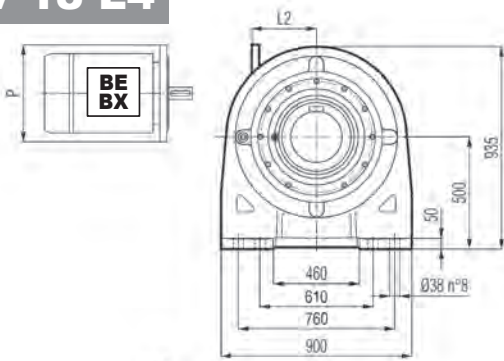
	P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P
318 R4 (B)	—	—	—	—	152	350	182	400	212	450	193	550
318 R4 (C)	—	—	—	—	152	350	182	400	212	450	193	550

	N320TC		N360TC	
	E	P	E	P
318 R4 (B)	7.776	13.780	7.776	13.780
318 R4 (C)	7.776	13.780	7.776	13.780

3/V 18 L4



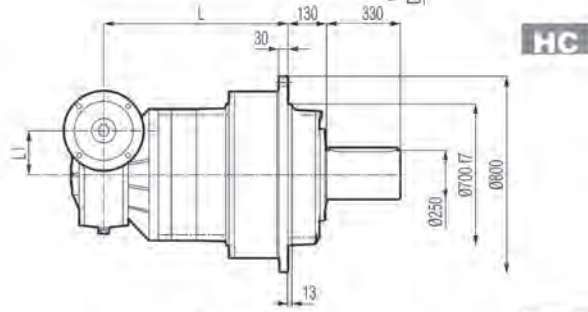
Metric



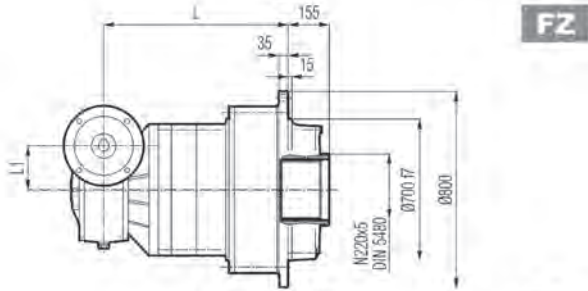
PC



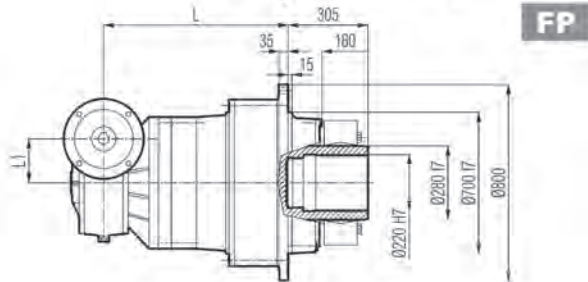
HZ PZ



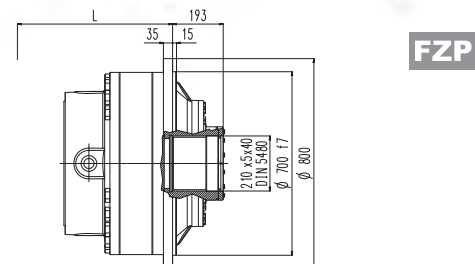
HC



FZ



FP



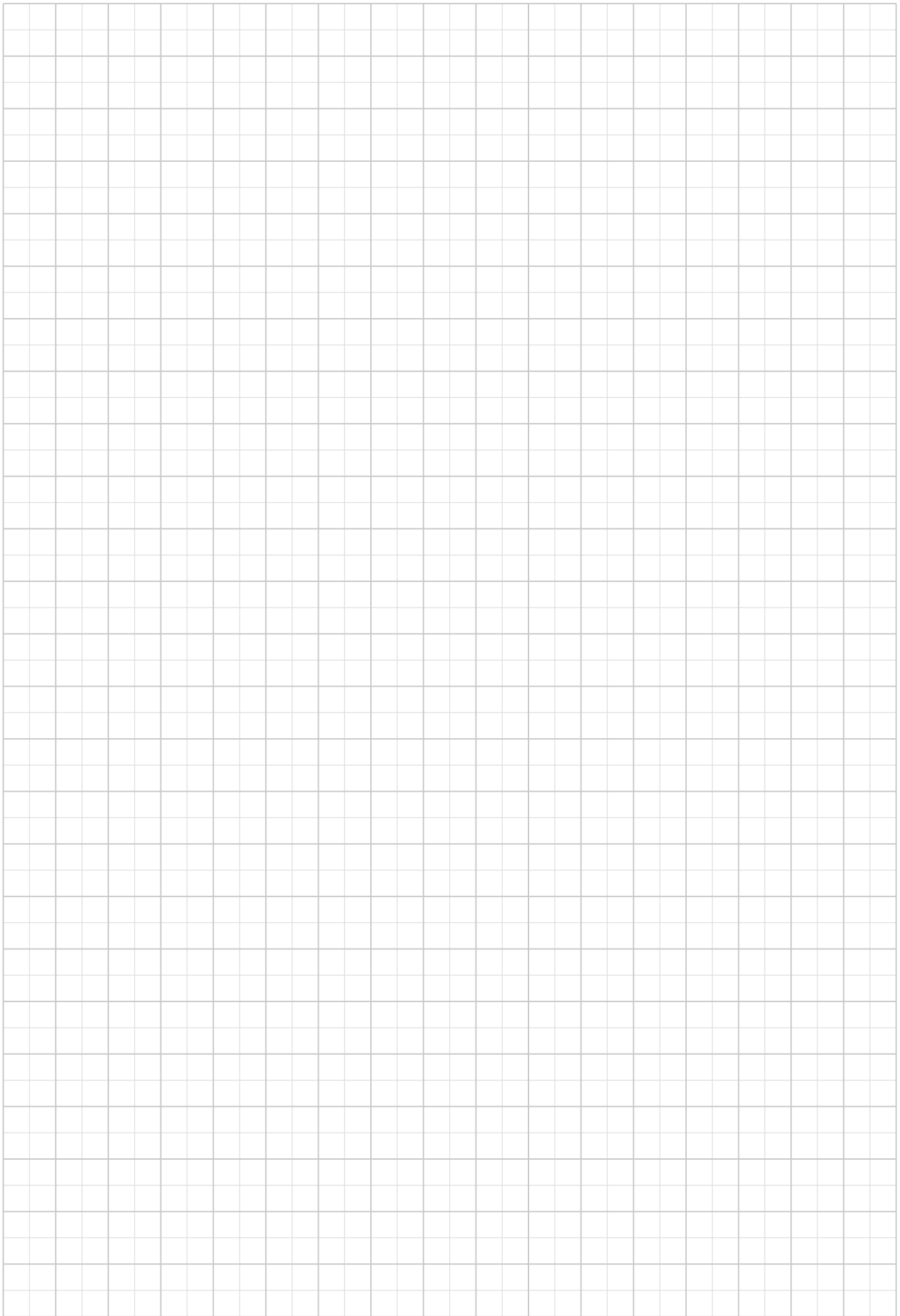
FZP

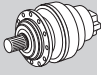
FP $T_{2max} = 2,849,940 \text{ lb}\cdot\text{in}$

Dimensions are in mm

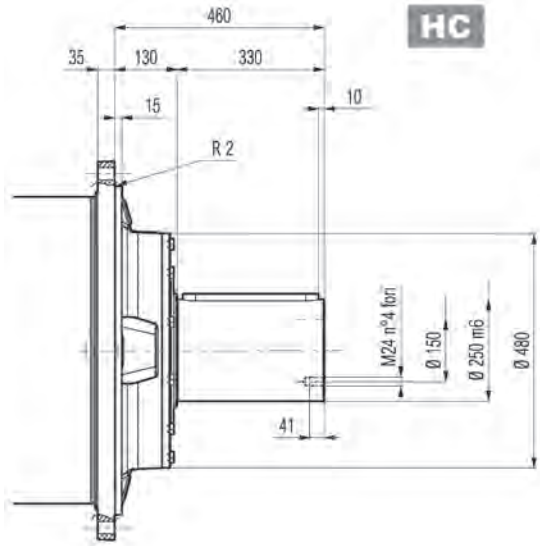
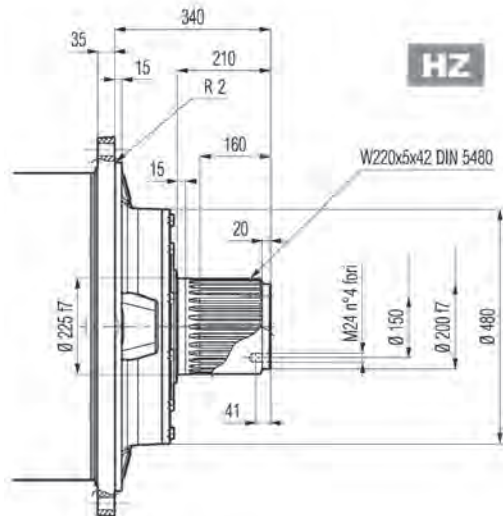
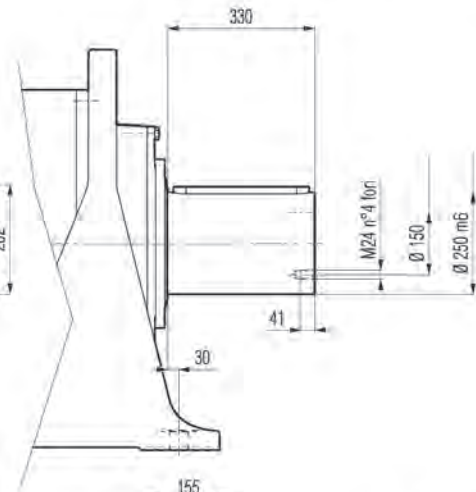
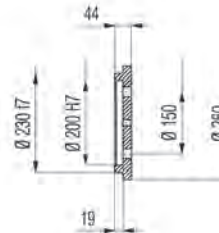
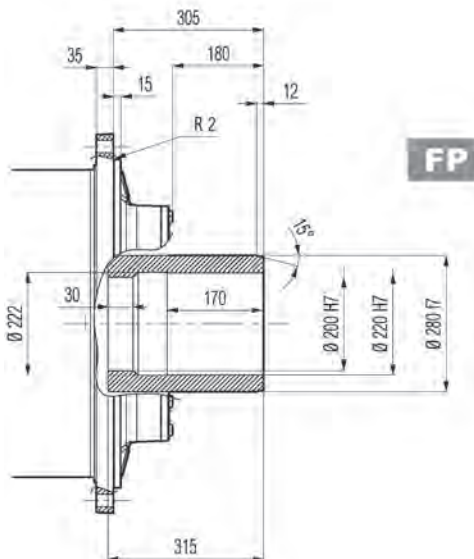
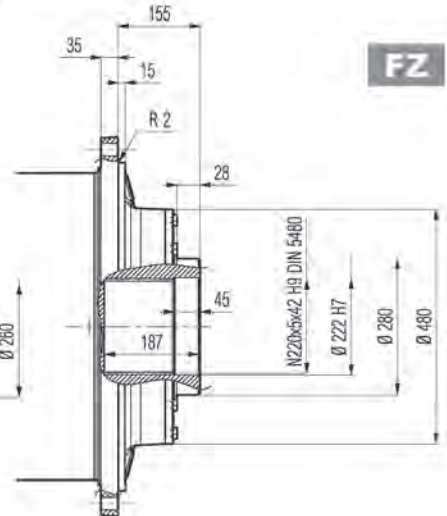
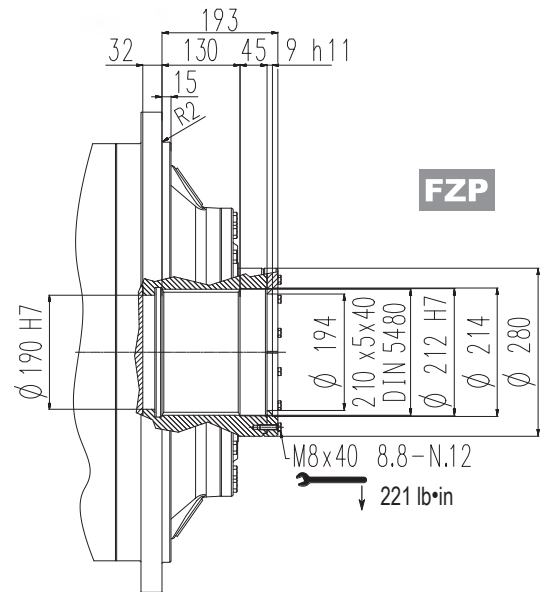
	L				L1	D1	L3	L4	Kg				
	PC - PZ	HC - HZ	FZ - FZP	FP						PC - PZ	HC - HZ	FZ - FZP	FP
3/V 18 L4	1114	984	984	984	210	48	230	110		1810	1510	1360	1390

3/V 18 L4	P132		P160		P180		P200		P225	
	L2	P	L2	P	L2	P	L2	P	L2	P
	485	300	460	350	460	350	485	400	490	450



318 L**318 R****3/V 18 L4**

Metric

**HC**A56x32x310
UNI 6604
DIN 6885**PC****HZ****FZ****FP****FZP****FP****T_{2max} = 2,849,940 lb·in**

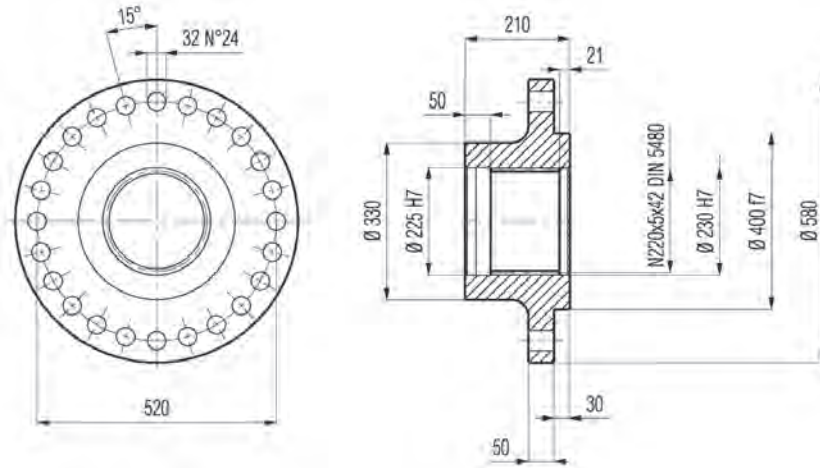
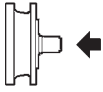
Dimensions are in mm

318 L

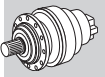
318 R

3/V 18 L4

Flange



WOA

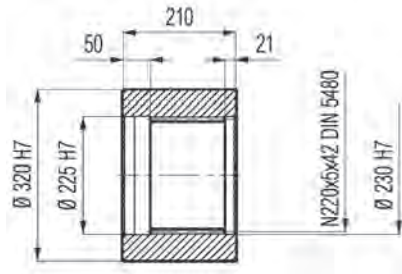
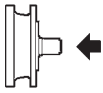


Metric

Material: Steel C40

Dimensions are in mm

Sleeve coupling

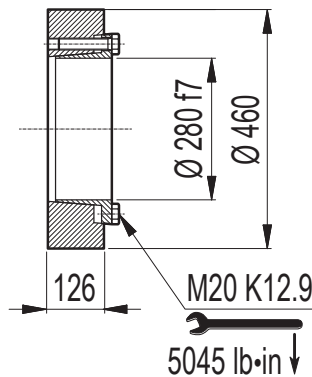
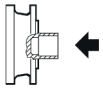


MOA

Material: Steel C40

Dimensions are in mm

Shrink disc

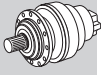


GOA

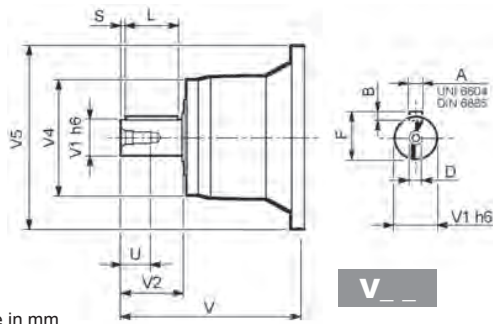
Dimensions are in mm

318 L

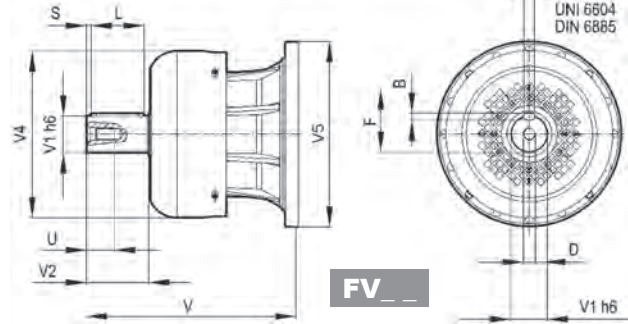
318 R



Metric



V __



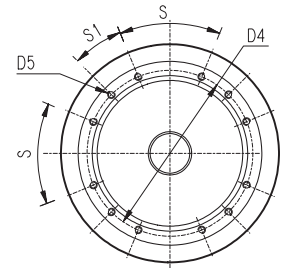
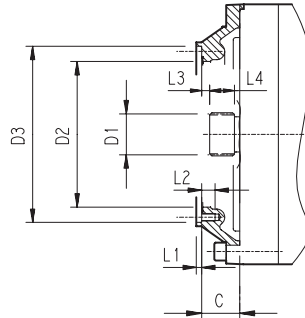
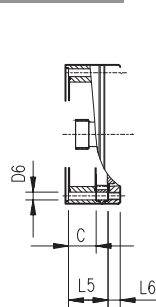
FV __

Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
318 L2	V15B	556	120	210	230	542	32	18	127	180	15	M24	50
318 L3	V11B	348	80	130	200	428	22	14	85	110	10	M16	36
	FV11B	456	80	130	347.5	428	22	14	85	110	10	M16	36
318 L4	V07B	315	80	130	200	345	22	14	85	110	10	M16	36
	FV07B	375	80	130	347.5	348	22	14	85	110	10	M16	36
	V07A	313	60	105	155	345	18	11	64	90	7.5	M16	36
	FV07A	363	60	105	309	348	18	11	64	90	7.5	M16	36
318 R4 (B) (C)	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36

318 L

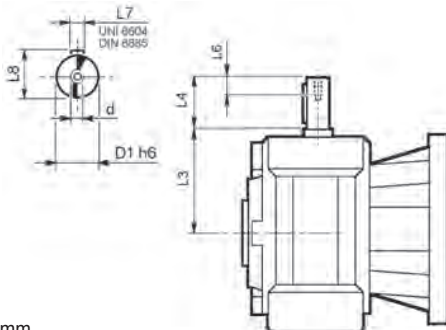
318 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
318 L1			Please consult Bonfiglioli Technical Service														
318 L2	V9AE	116	100x94 DIN 5482	340	412 H7	390	M16 n° 18	—	7	30	8	55	—	—	20°	20°	E
318 L3	V9AD	81	80x74 DIN 5482	270	335 H7	314	M16 n° 8	—	5	30	8.5	40	—	—	60°	30°	D
318 L4	V9AB	51	58x53 DIN 5482	195	236 H7	222	M16 n° 12	—	4	18	11	22	—	—	45°	22.5°	B
318 R4 (B) (C)	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10 n° 10	—	4	18	11	22	—	—	45°	22.5°	B

3/V 18 L4

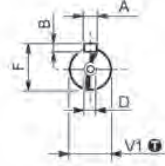
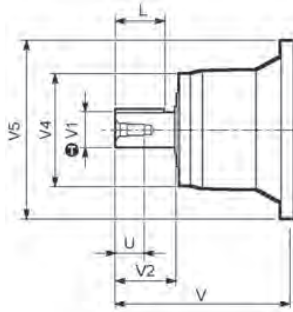


Dimensions are in mm

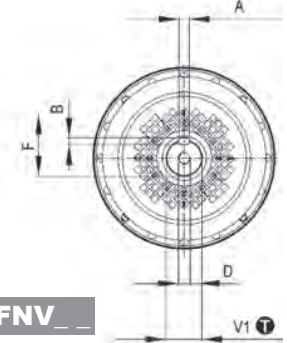
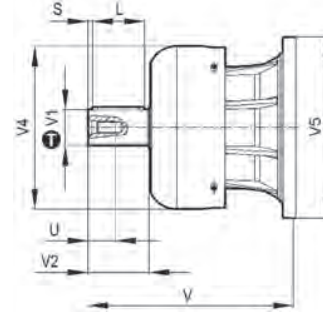
	D1 h6	L3	L4	L6	L7	L8	d
3/V 18 L4_HS	48	230	110	40	14	51.5	M16

318 L

318 R



NV __



FNV __

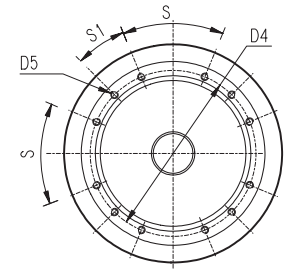
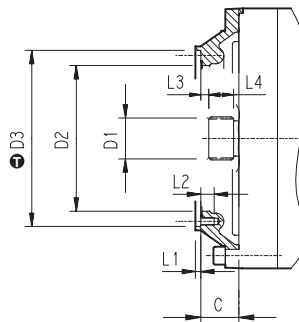
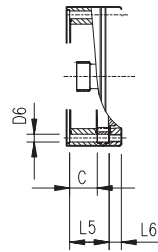
inch	Ⓜ
3.000	0 -0.00075
2.375	0 -0.00053
1.875	0 -0.00053

Dimensions are in Inch except when shown in *italic [mm]*

		V	V1	V2	V4	V5	A	B	F	L	D	U
318 L3	NV11B	13.563	3.000	5.000	8.160	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV11B	17.835	3.000	5.000	13.678	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
318 L4	NV07B	12.283	3.000	5.000	7.165	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV07B	14.646	3.000	5.000	13.677	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	NV07A	13.130	2.375	4.750	6.024	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
	FNV07A	15.104	2.375	4.750	6.811	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
318 R4 (B) (C)	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654

318 L

318 R



inch	Ⓜ
16.22	+0.00248 0
13.19	+0.00224 0
9.29	+0.00181 0

Dimensions are in Inch except when shown in *italic [mm]*

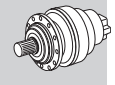
		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
318 L1																	
Please consult Bonfiglioli Technical Service																	
318 L2	V9AE	4.57	100x94 DIN 5482	13.39	16.22	15.35	M16 n° 18	—	0.28	1.18	0.31	2.17	—	—	20°	20°	E
318 L3	V9AD	3.19	80x74 DIN 5482	10.63	13.19	12.36	M16 n° 8	—	0.20	1.18	0.33	1.57	—	—	60°	30°	D
318 L4	V9AB	2.01	58x53 DIN 5482	7.68	9.29	8.74	M16 n° 12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
318 R4 (B) (C)	V9AB	1.77	58x53 DIN 5482	7.68	9.29	8.74	M10 n° 10	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B

318 L

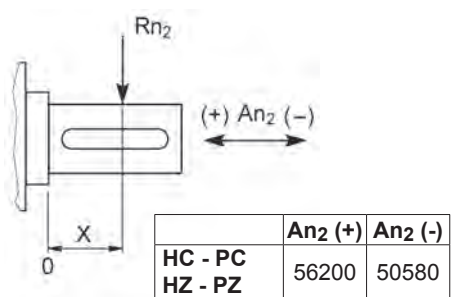
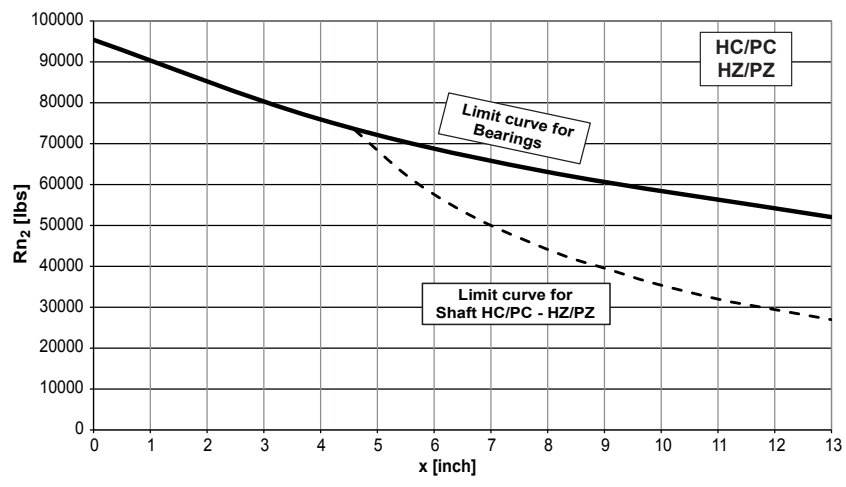
318 R

3/V 18 L4

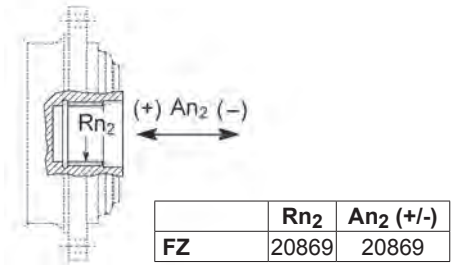
Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$



Imperial



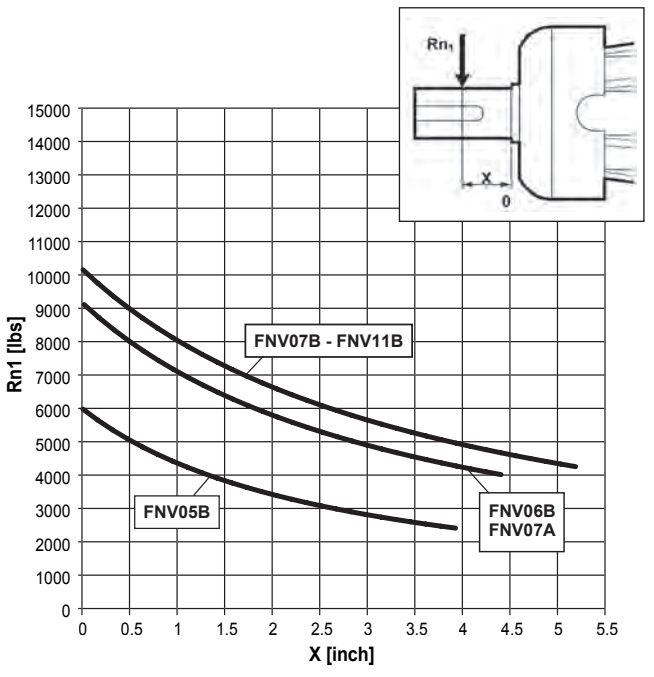
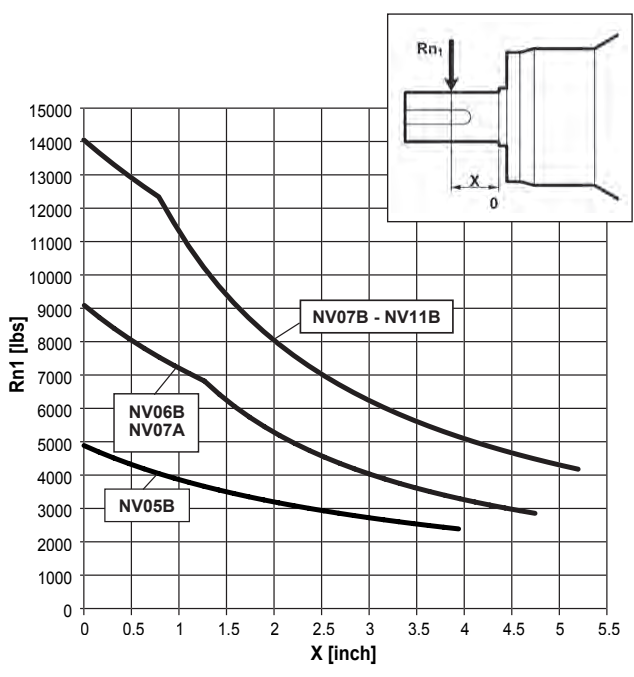
	An2 (+)	An2 (-)
HC - PC	56200	50580
HZ - PZ		



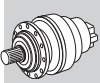
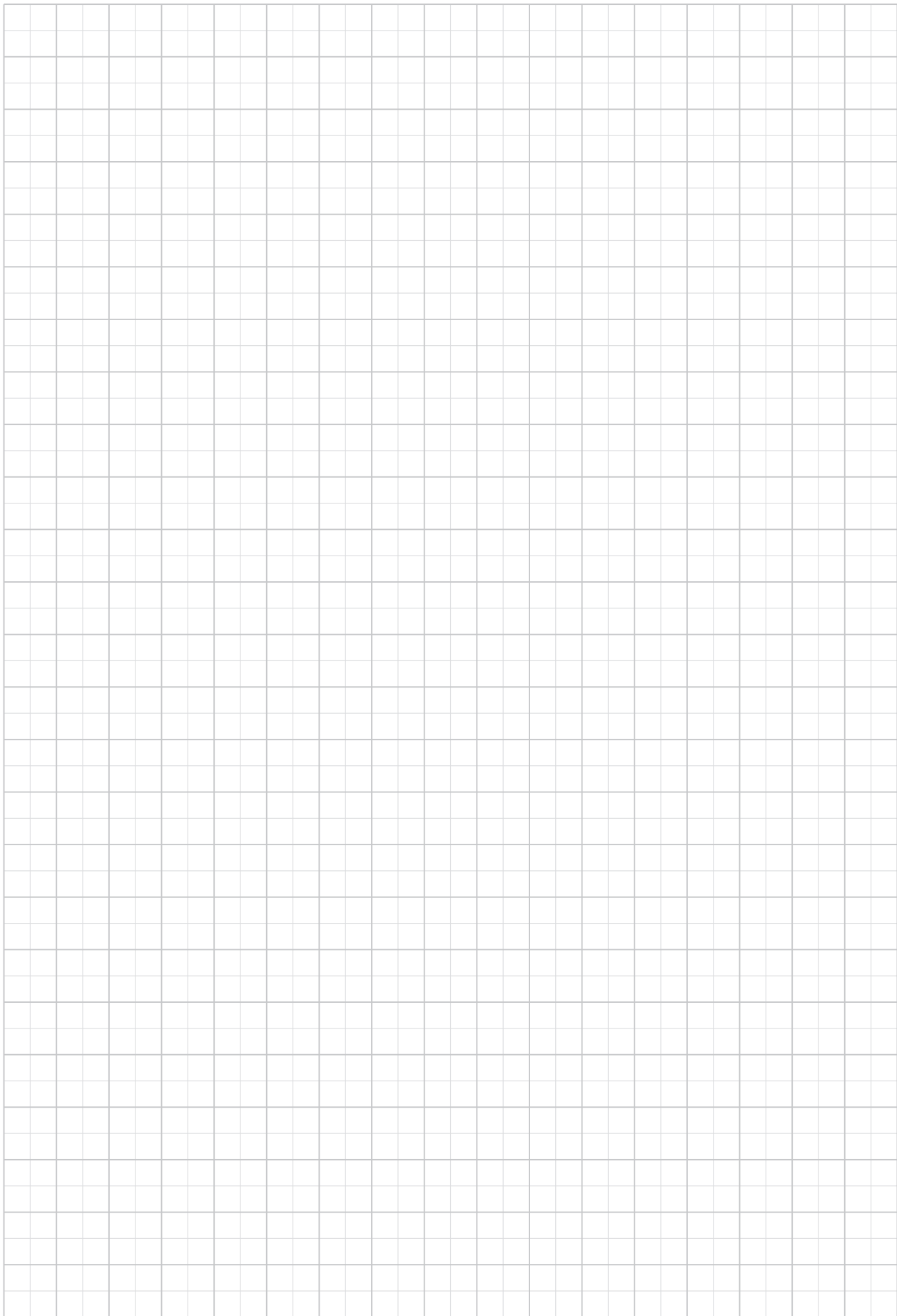
	Rn2	An2 (+/-)
FZ	20869	20869

Load corrective factor fh2 on shafts	Fh2 = n2 · h						
	fh2	10000	25000	50000	100000	500000	1000000
		FZ	2.15	1.59	1.26	1.00	0.58
	HC - PC	1.96	1.52	1.23	1.00	0.62	0.50
	HZ - PZ	1.15	1.00	1.00	1.00	0.62	0.50

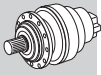
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



Load corrective factor fh1 on shafts	Fh1 = n1 · h						
	fh1	250000	500000	1000000	2000000	5000000	10000000
	1	0.79	0.63	0.50	0.37	0.29	

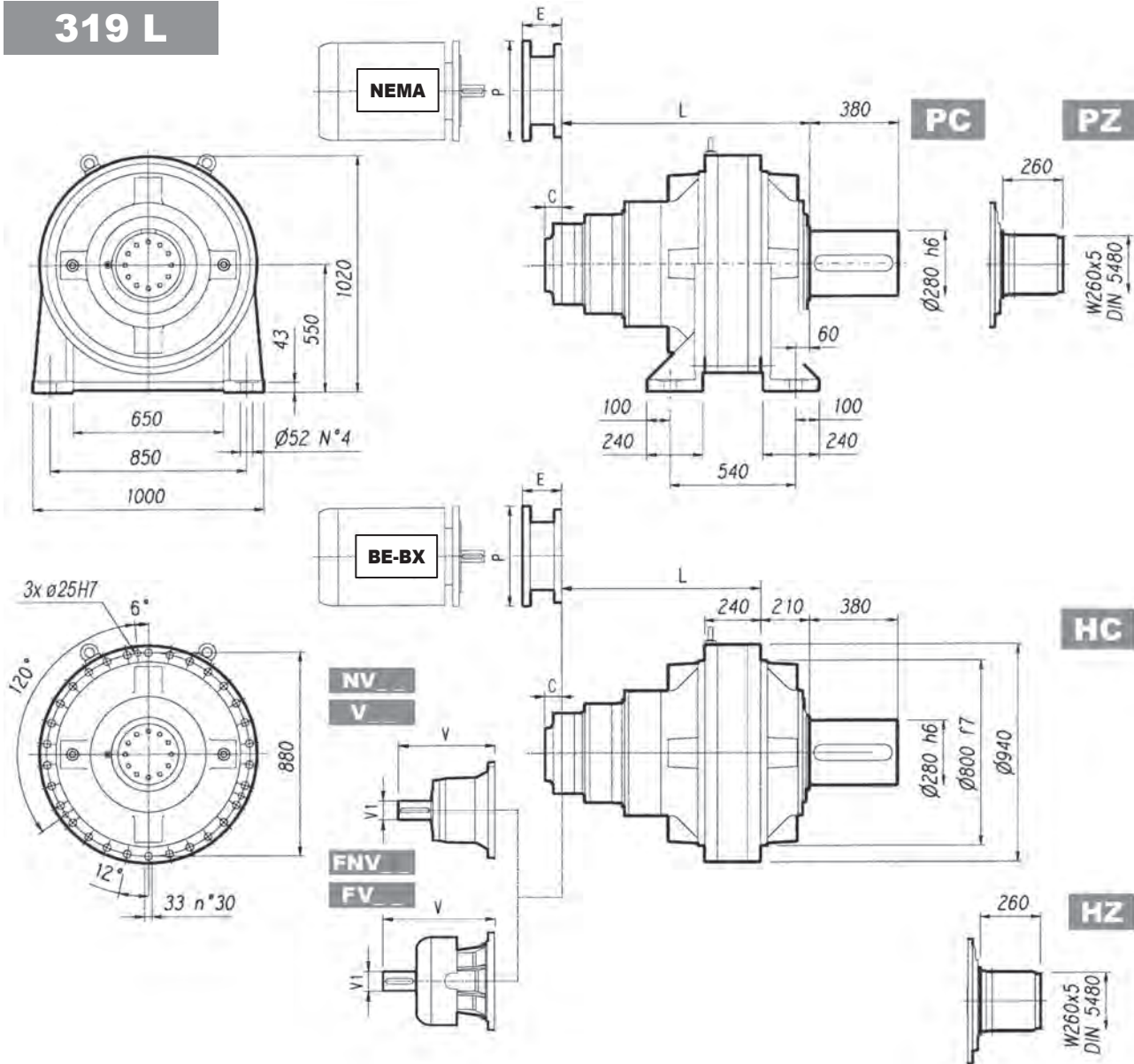


319 L



Metric

Imperial

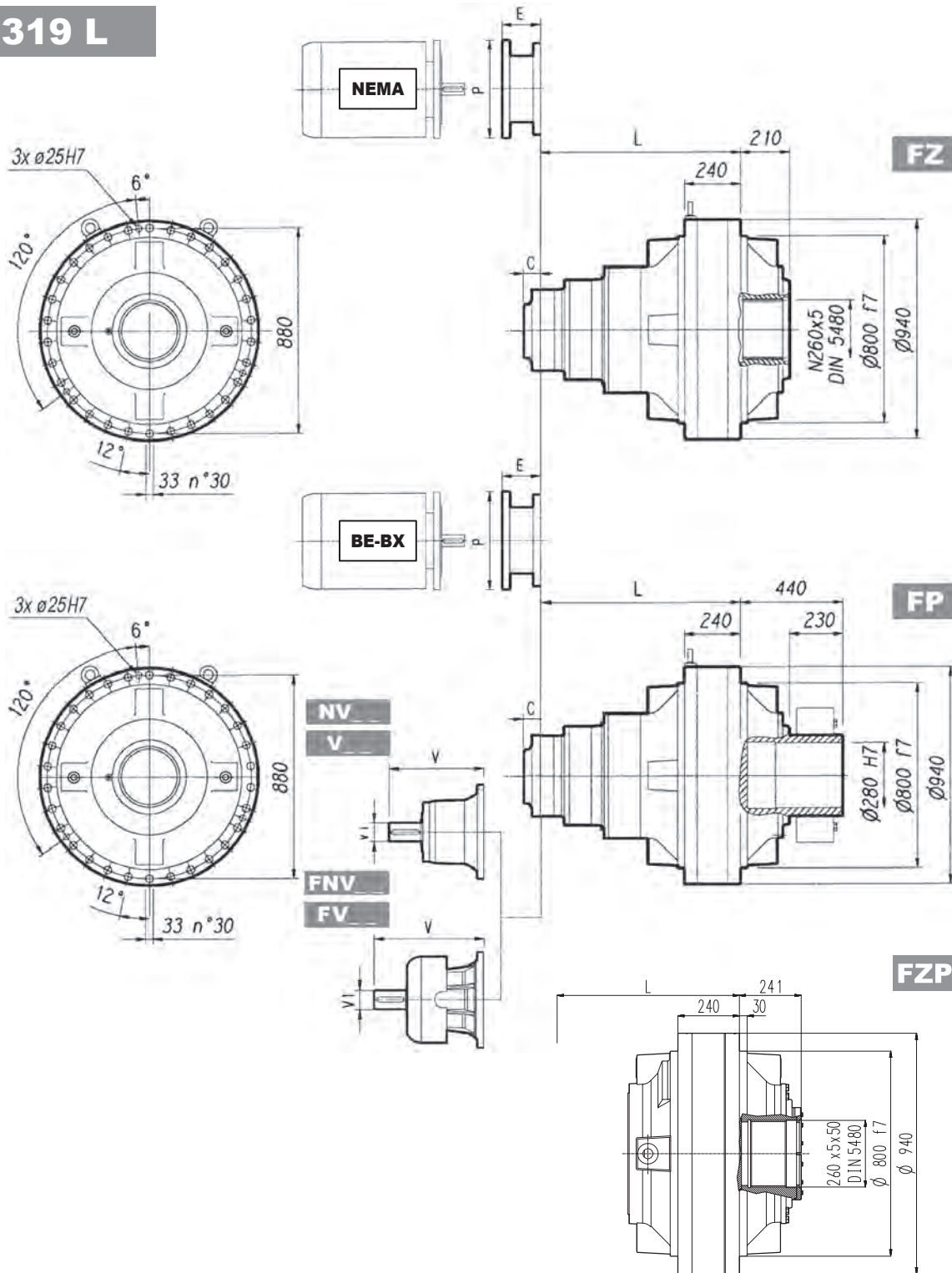


Dimensions are in mm when shown in italic, otherwise dimensions are in inches

	L				Kg				C		Input
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP	C	C	
319 L1	395	185	185	185	2100	1800	1700	1700	245	9.646	G
319 L2	778	568	568	568	2350	2050	1950	1950	116	4.567	E
319 L3	990	780	780	780	2435	2135	2035	2035	81	3.189	D
319 L4	1123	913	913	913	2480	2180	2080	2080	51	2.008	B

	V			FV			NV			FNV														
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	lbs	V	V1	lbs	V	V1	lbs			
319 L1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
319 L2	556	120	125	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
319 L3	348	80	55	—	—	456	80	85	—	—	—	13.563	3.000	121.3	—	—	—	—	17.835	3.000	140.0	—	—	—
319 L4	315	80	35	313	60	28	375	80	48	363	60	34	13.130	2.375	29.8	12.283	3.000	77.2	15.104	2.375	38.0	14.646	3.000	90.0

319 L



FP

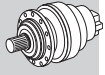
$T_{2max} = 4,248,360 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in *italics*, otherwise dimensions are in inches

	P180		P200		P225		P250	
	E	P	E	P	E	P	E	P
319 L3	—	—	267	400	297	450	297	550
319 L4	195	350	186	400	216	450	216	550

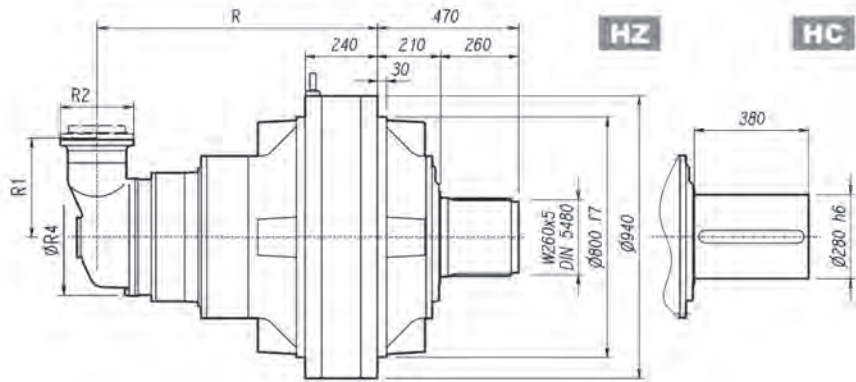
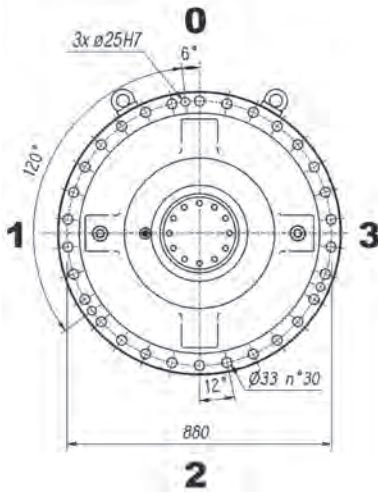
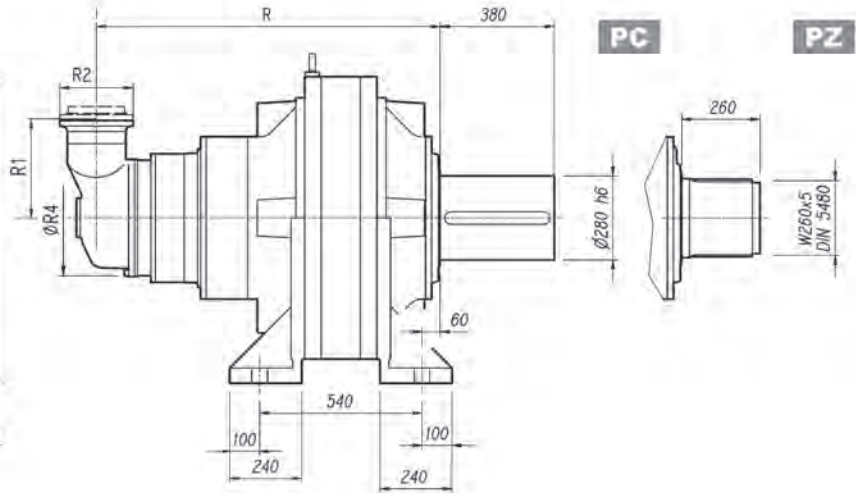
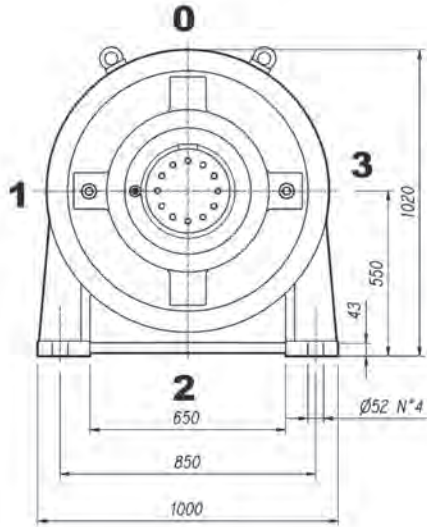
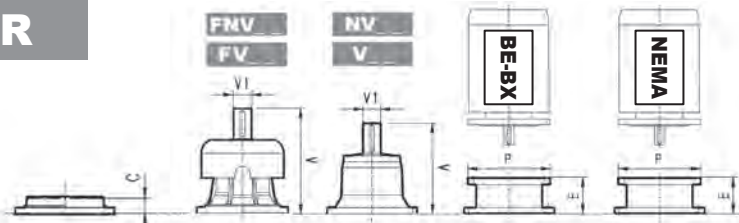
	N320TC		N360TC	
	E	P	E	P
319 L3	—	—	—	—
319 L4	8.445	15.748	8.445	15.748

319 R



Metric

Imperial

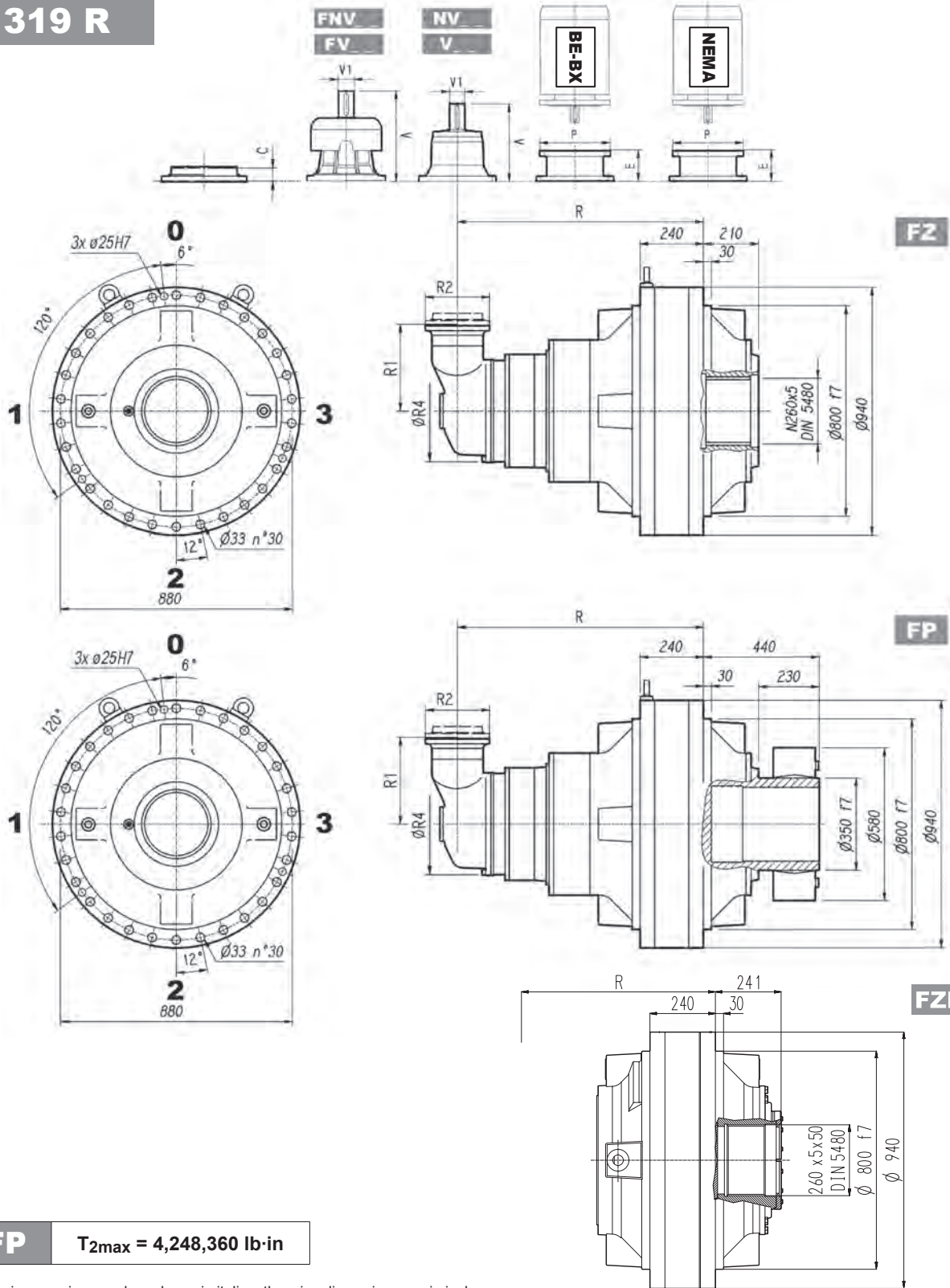


Dimensions are in mm when shown in italic, otherwise dimensions are in inches

	R				R1	R2	R4	Kg				C	C	Input
	PC-PZ	HC-HZ	FZ - FZP	FP				PC-PZ	HC-HZ	FZ - FZP	FP			
319 R4 (B)	1215	1005	1005	1005	345	292	400	2560	2260	2160	2160	45	1.772	B
319 R4 (C)	1215	1005	1005	1005	390	292	480	2580	2280	2180	2180	45	1.772	B

	V			FV			NV			FNV		
	V	V1	Kg	V	V1	Kg	V	V1	lbs	V	V1	lbs
319 R4 (B)	307	60	23	357	60	28	12.703	2.375	50.7	14.652	2.375	58.0
319 R4 (C)	307	60	23	357	60	28	12.703	2.375	50.7	14.652	2.375	58.0

319 R



FP

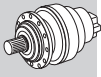
$T_{2max} = 4,248,360 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in italic, otherwise dimensions are in inches

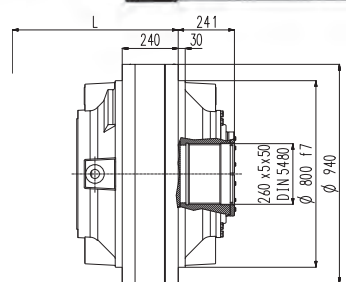
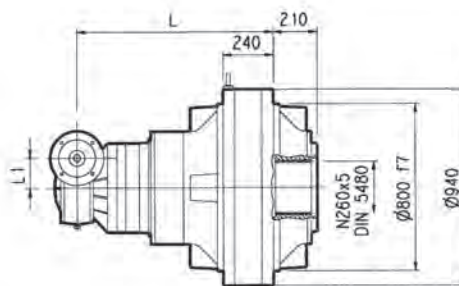
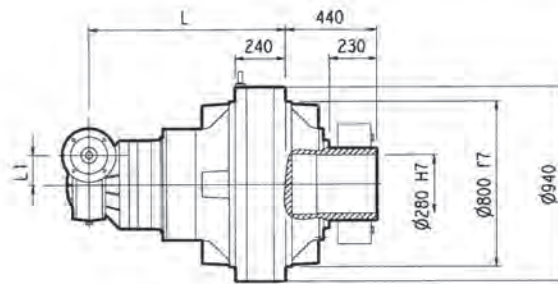
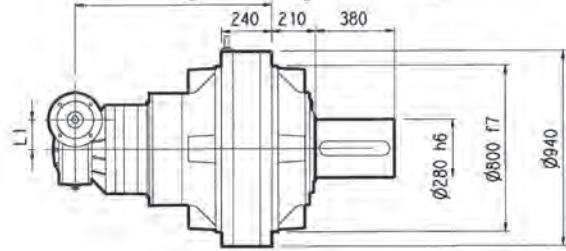
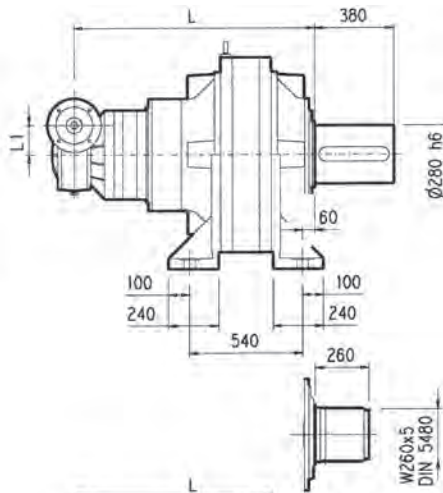
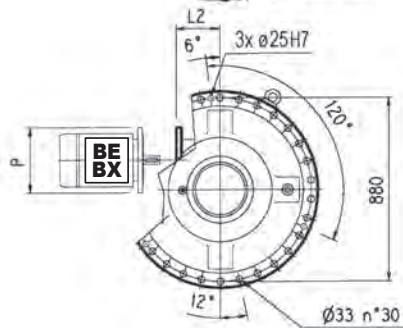
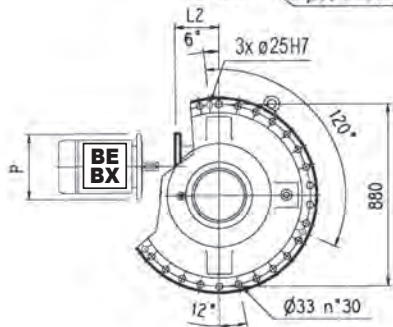
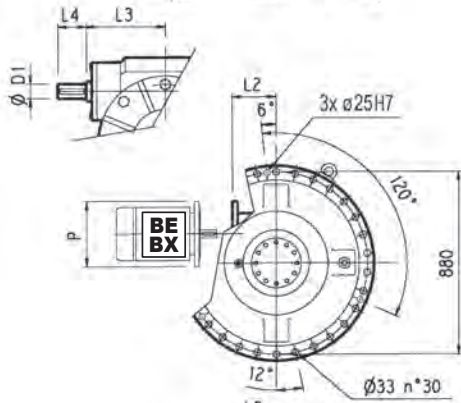
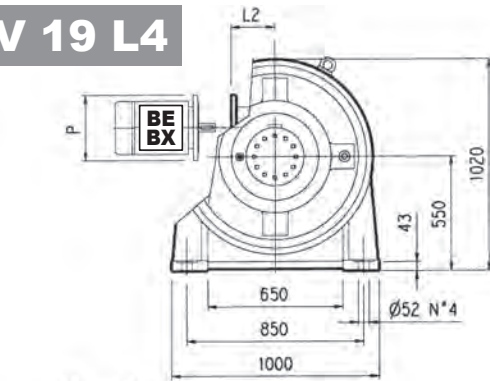
	P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P
319 R4 (B)	—	—	—	—	152	350	182	400	212	450	193	550
319 R4 (C)	—	—	—	—	152	350	182	400	212	450	193	550

	N320TC		N360TC	
	E	P	E	P
319 R4 (B)	7.776	13.780	7.776	13.780
319 R4 (C)	7.776	13.780	7.776	13.780

3/V 19 L4



Metric



PC

HZ PZ

HC

FP

FZ

FZP

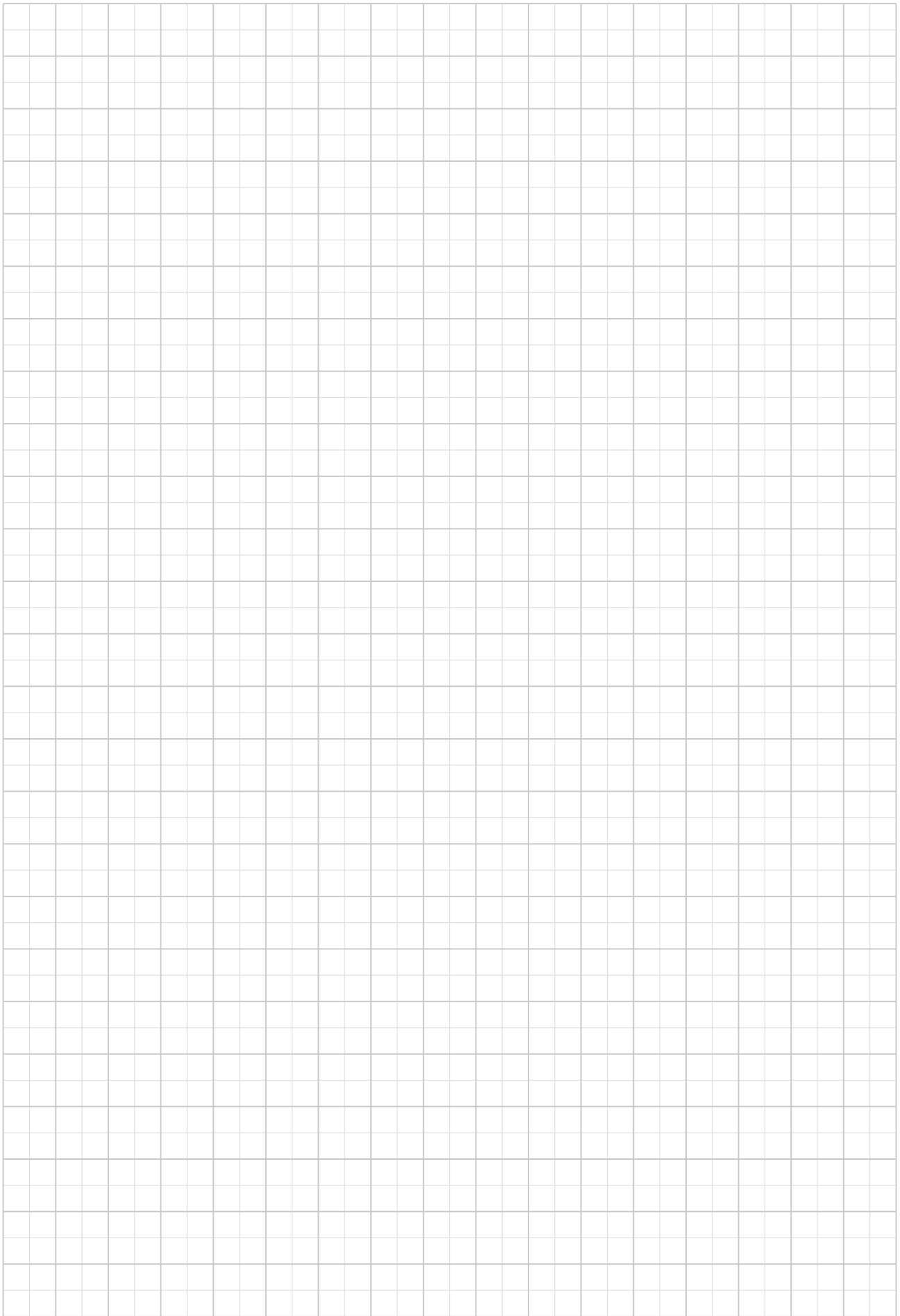
FP

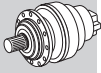
$T_{2max} = 4,248,360 \text{ lb}\cdot\text{in}$

Dimensions are in mm

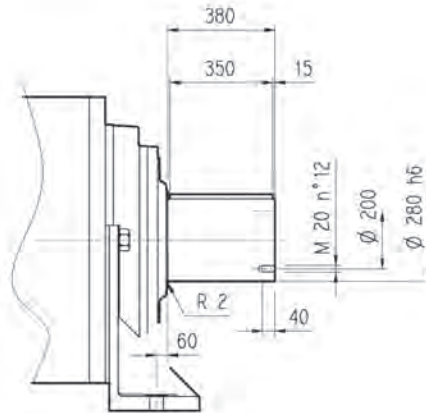
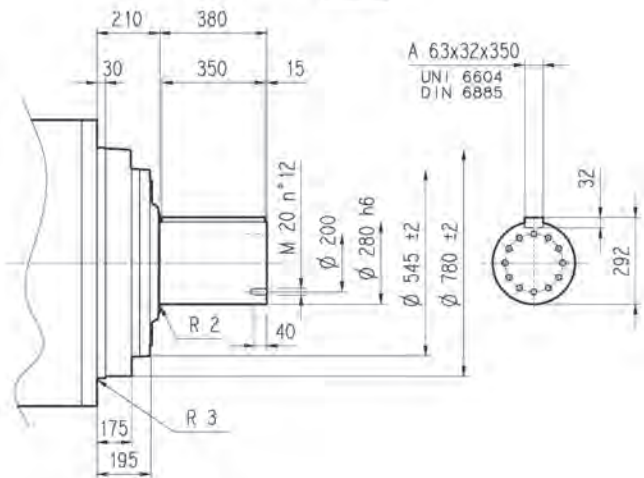
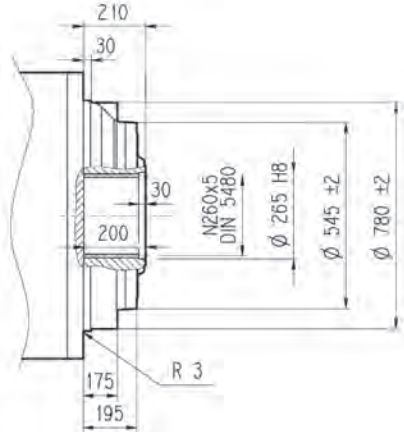
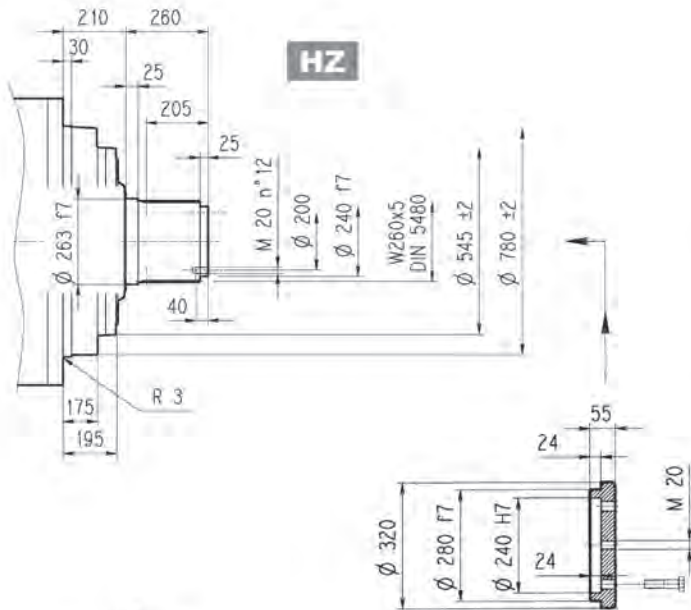
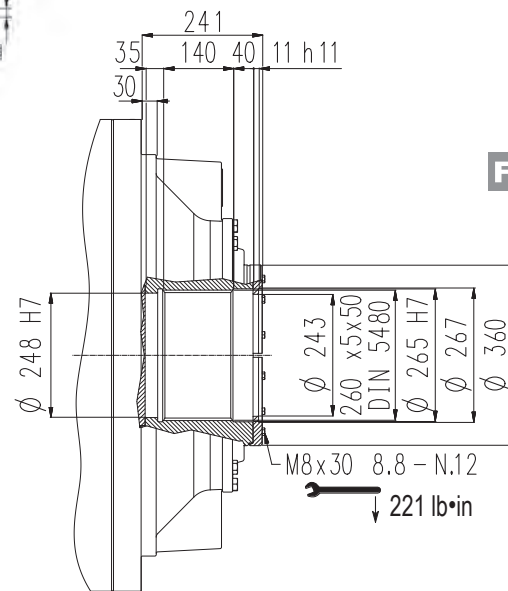
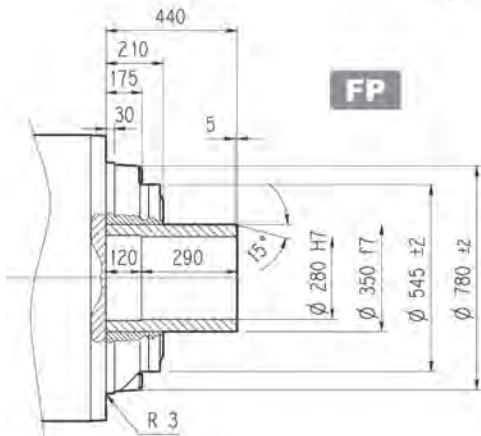
	L				L1	D1	L3	L4	Kg				
	PC - PZ	HC - HZ	FZ - FZP	FP						PC - PZ	HC - HZ	FZ - FZP	FP
3/V 19 L4	1210	1000	1000	1000	210	48	230	110		2650	2350	2250	2250

	P132		P160		P180		P200		P225	
	L2	P	L2	P	L2	P	L2	P	L2	P
3/V 19 L4	485	300	460	350	460	350	485	400	490	450

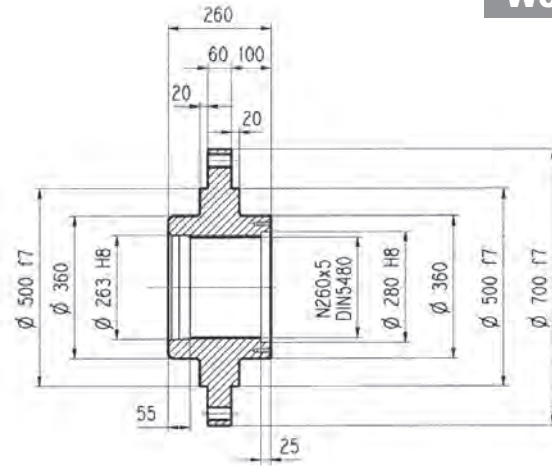
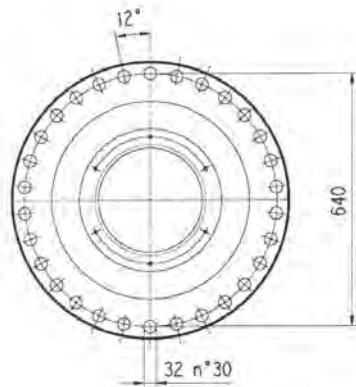
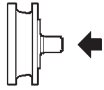


319 L**319 R****3/V 19 L4****HC****PC**

Metric

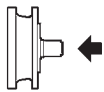
**HZ****FZ****FP****FZP****FP** $T_{2max} = 4,248,360 \text{ lb}\cdot\text{in}$

Dimensions are in mm

319 L**319 R****3/V 19 L4****Flange****WOA****Metric**

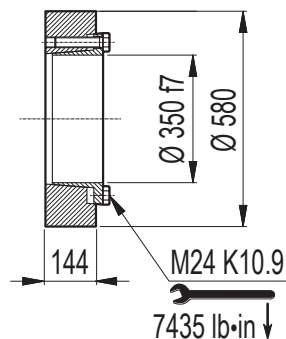
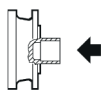
Material: Steel C40

Dimensions are in mm

Sleeve coupling**MOA**

Material: Steel 16CrNi4

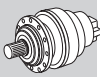
Dimensions are in mm

Shrink disc**GOA**

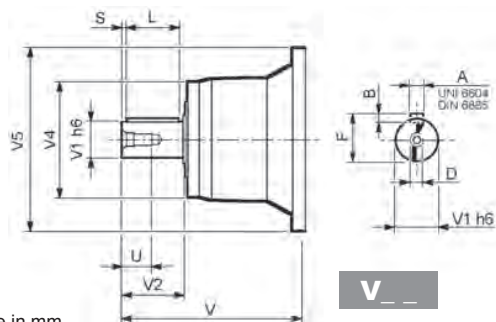
Dimensions are in mm

319 L

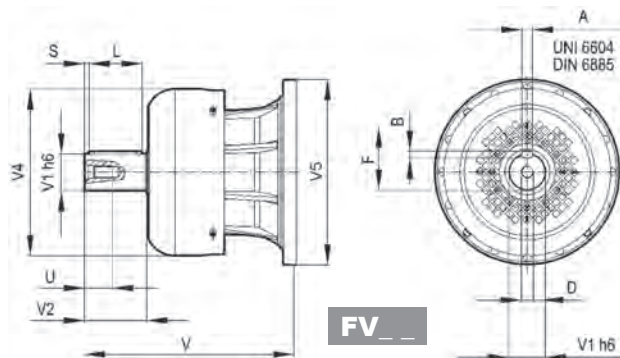
319 R



Metric



V__



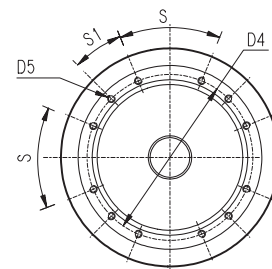
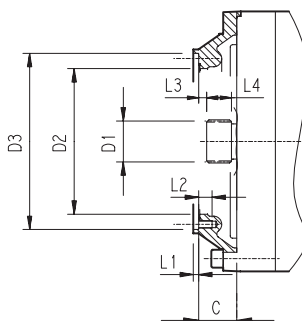
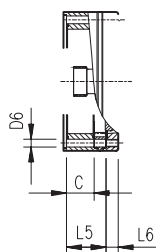
FV__

Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
319 L2	V15B	556	120	210	230	542	32	18	127	180	15	M24	50
319 L3	V11B	348	80	130	200	428	22	14	85	110	10	M16	36
	FV11B	456	80	130	347.5	428	22	14	85	110	10	M16	36
319 L4	V07B	315	80	130	200	345	22	14	85	110	10	M16	36
	FV07B	375	80	130	347.5	348	22	14	85	110	10	M16	36
	V07A	313	60	105	155	345	18	11	64	90	7.5	M16	36
319 R4 (B) (C)	FV07A	363	60	105	309	348	18	11	64	90	7.5	M16	36
	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36

319 L

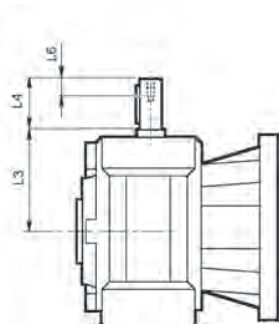
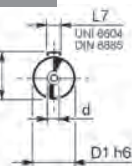
319 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
319 L1	V9AG	245	150x5x28 DIN 5480	444	474 g7	503	M20 n°20	20	5	40	20	82	—	—	30°	15°	G
319 L2	V9AE	116	100x94 DIN 5482	340	412 H7	390	M16 n°18	—	7	30	8	55	—	—	20°	20°	E
319 L3	V9AD	81	80x74 DIN 5482	270	335 H7	314	M16 n°8	—	5	30	8.5	40	—	—	60°	30°	D
319 L4	V9AB	51	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
319 R4	V9AA	37	40x36 DIN 5482	140	178 H7	165	M12 n°8	11	4	18	9	18	—	—	45°	45°	A
319 R4 (B) (C)	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B

3/V 19 L4

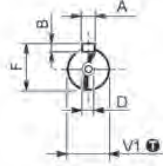
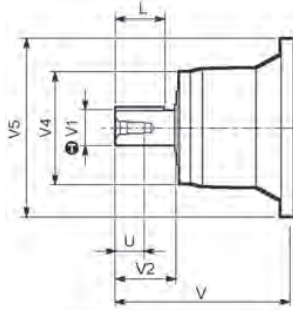


Dimensions are in mm

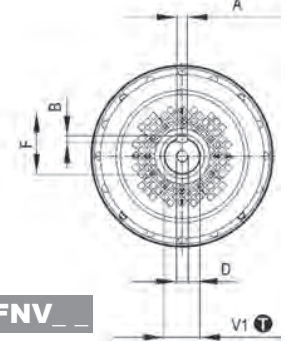
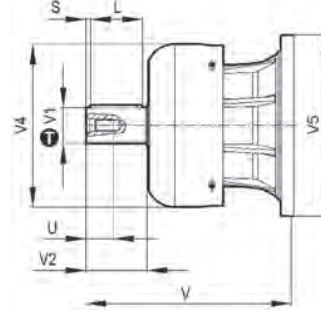
	D1 h6	L3	L4	L6	L7	L8	d
3/V 19 L4_HS	48	230	110	40	14	51.5	M16

319 L

319 R



NV __



FNV __

inch	T
3.000	0 -0.00075
2.375	0 -0.00053

Dimensions are in Inch except when shown in *italic* [mm]

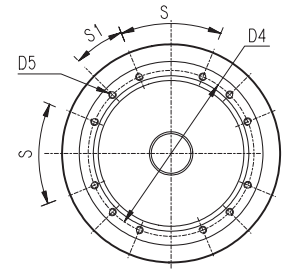
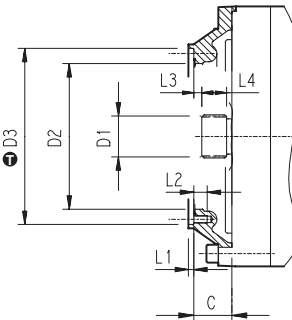
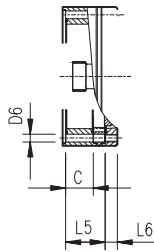
		V	V1	V2	V4	V5	A	B	F	L	D	U
319 L3	NV11B	13.563	3.000	5.000	8.160	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV11B	17.835	3.000	5.000	13.678	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
319 L4	NV07B	12.283	3.000	5.000	7.165	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV07B	14.646	3.000	5.000	13.677	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	NV07A	13.130	2.375	4.750	6.024	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
	FNV07A	15.104	2.375	4.750	6.811	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
319 R4 (B) (C)	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654

319 L

319 R



inch	T
18.66	-0.000787 -0.00326
16.22	$+0.00248$ 0
13.19	$+0.00224$ 0
9.29	$+0.00181$ 0
7.01	$+0.00157$ 0



Dimensions are in Inch except when shown in *italic* [mm]

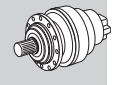
		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
319 L1	V9AG	9.65	150x5x28 DIN 5480	17.48	18.66	19.80	M20 n°20	0.79	0.20	1.57	0.79	3.23	—	—	30°	15°	G
319 L2	V9AE	4.57	100x94 DIN 5482	13.39	16.22	15.35	M16 n°18	—	0.28	1.18	0.31	2.17	—	—	20°	20°	E
319 L3	V9AD	3.19	80x74 DIN 5482	10.63	13.19	12.36	M16 n°8	—	0.20	1.18	0.33	1.57	—	—	60°	30°	D
319 L4	V9AB	2.01	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
319 R4	V9AA	1.46	40x36 DIN 5482	5.51	7.01	6.50	M12 n°8	0.43	0.16	0.71	0.35	0.71	—	—	45°	45°	A
319 R4 (B) (C)	V9AB	1.77	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B

319 L

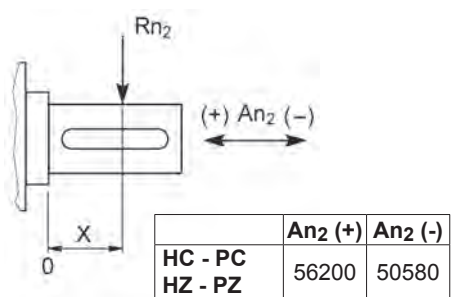
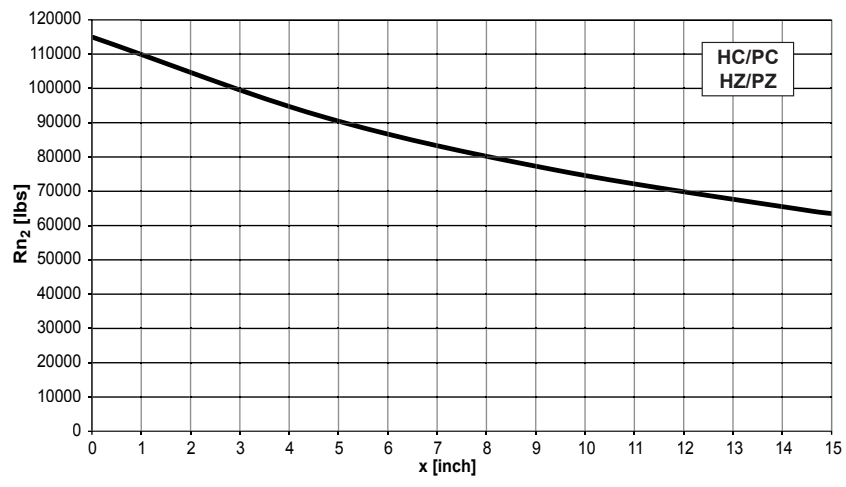
319 R

3/V 19 L4

Permissible radial and axial loads on output shaft with $F_{h2} : n_2 \cdot h = 100000$

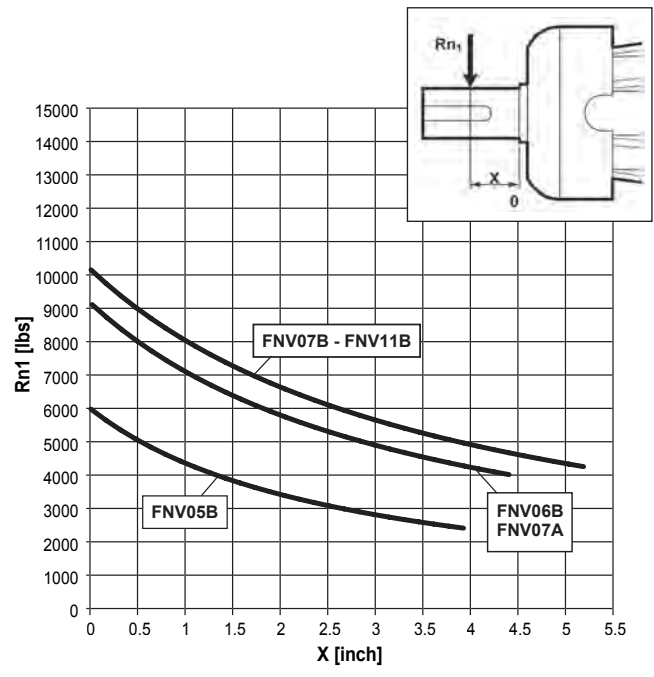
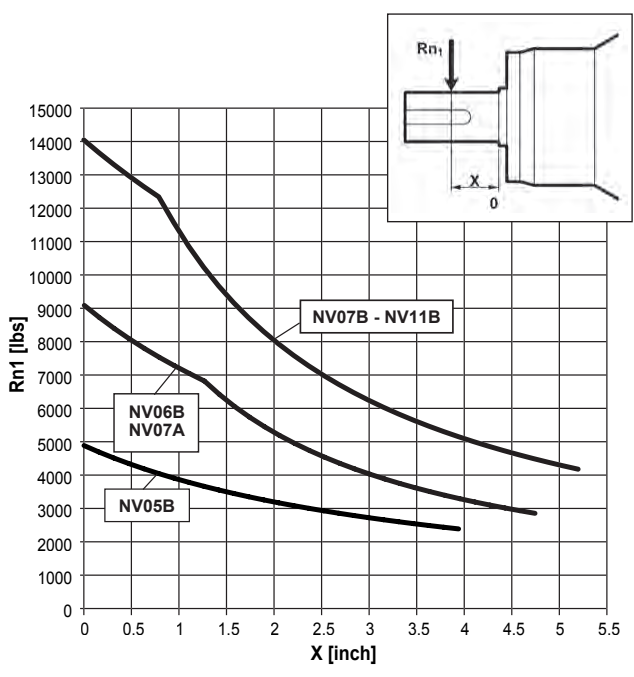


Imperial

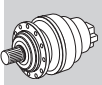
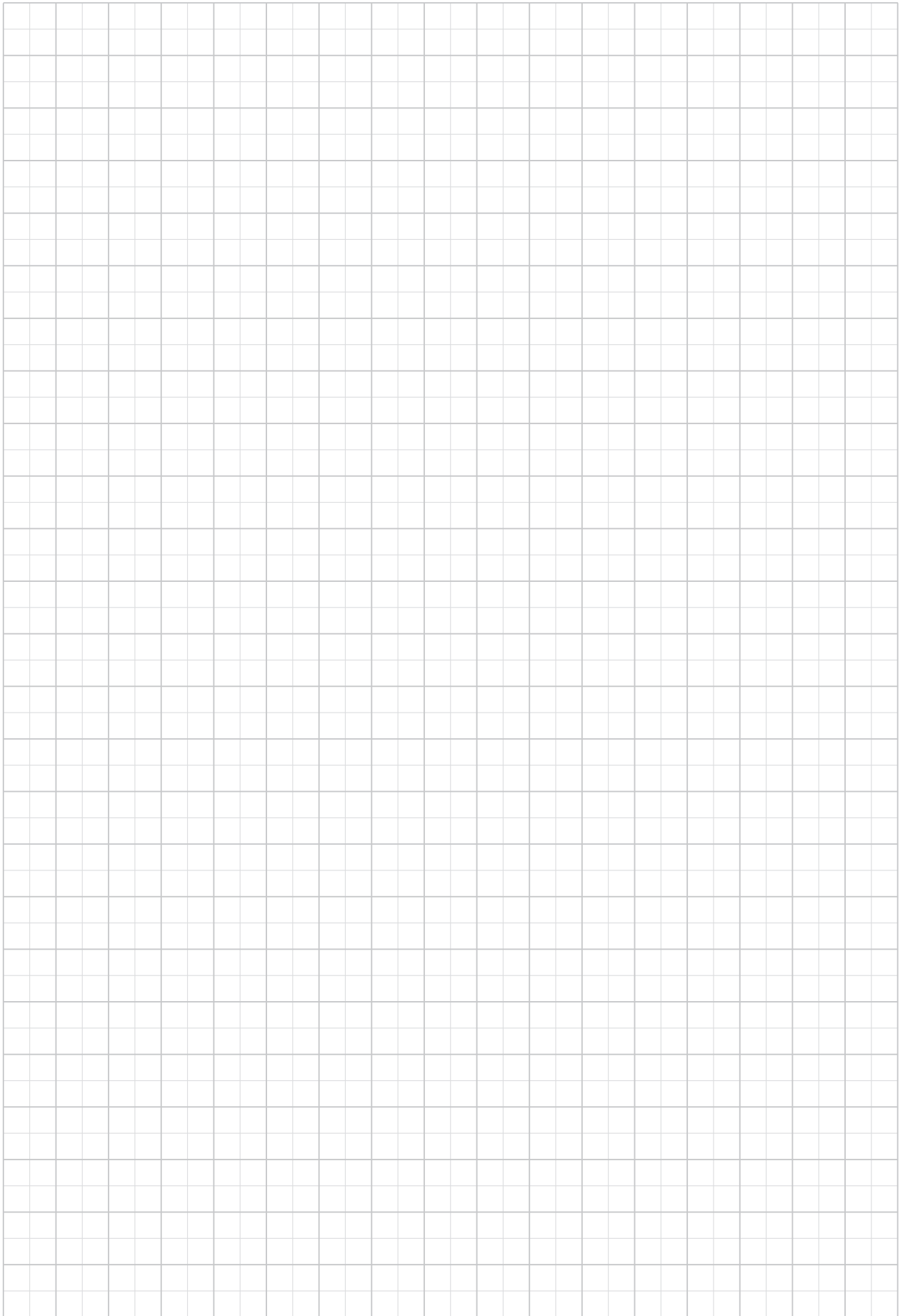


Load corrective factor fh2 on shafts	Fh2 = n2 · h						
	fh2	10000	25000	50000	100000	500000	1000000
		FZ	2.15	1.59	1.26	1.00	0.58
	HZ - HC - PZ - PC	1.75	1.52	1.23	1.00	0.62	0.50

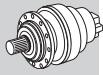
Permissible radial loads on input shaft with $F_{h1} : n_1 \cdot h = 250000$



Load corrective factor fh1 on shafts	Fh1 = n1 · h						
	fh1	250000	500000	1000000	2000000	5000000	10000000
		1	0.79	0.63	0.50	0.37	0.29

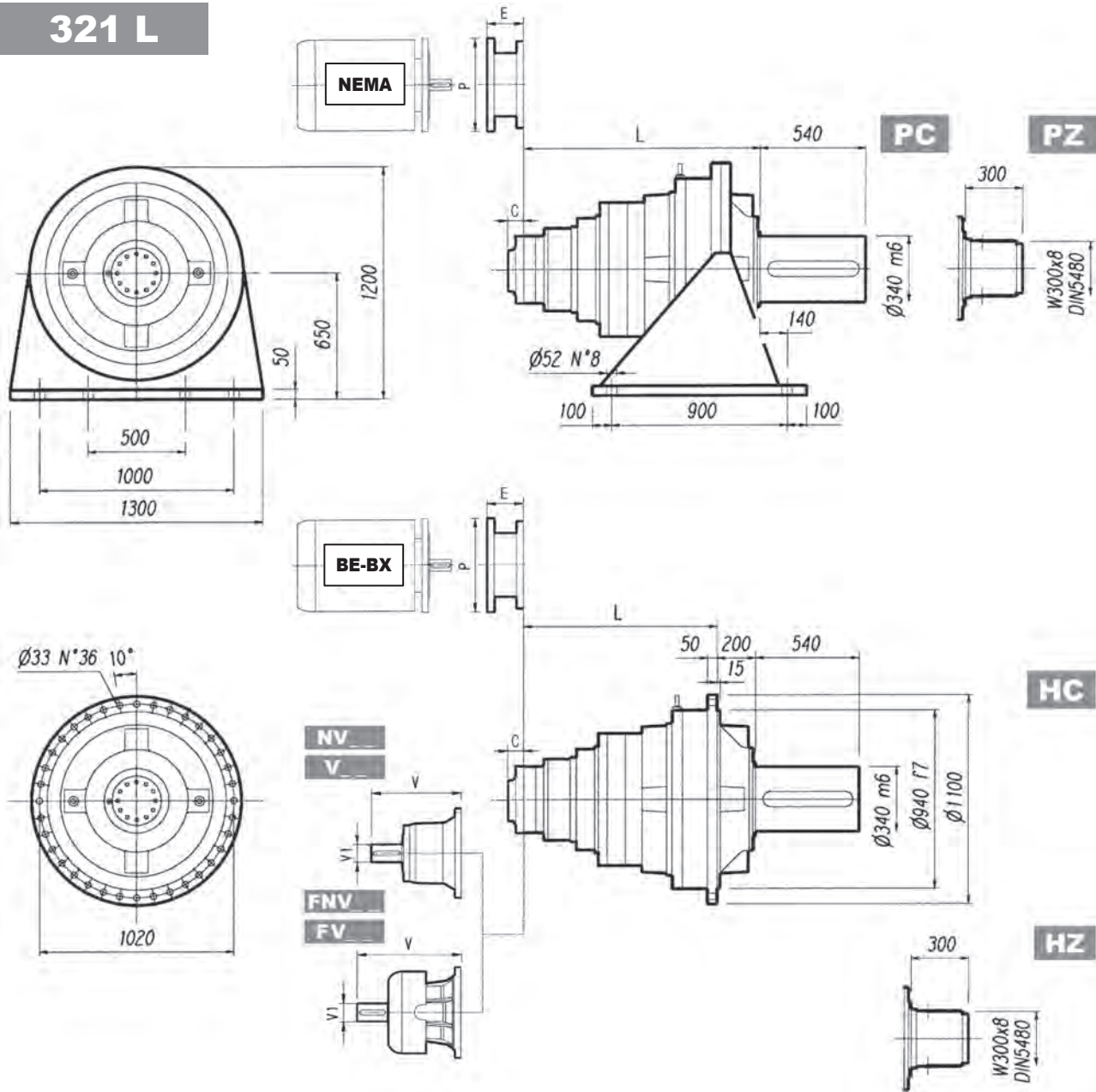


321 L



Metric

Imperial

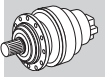
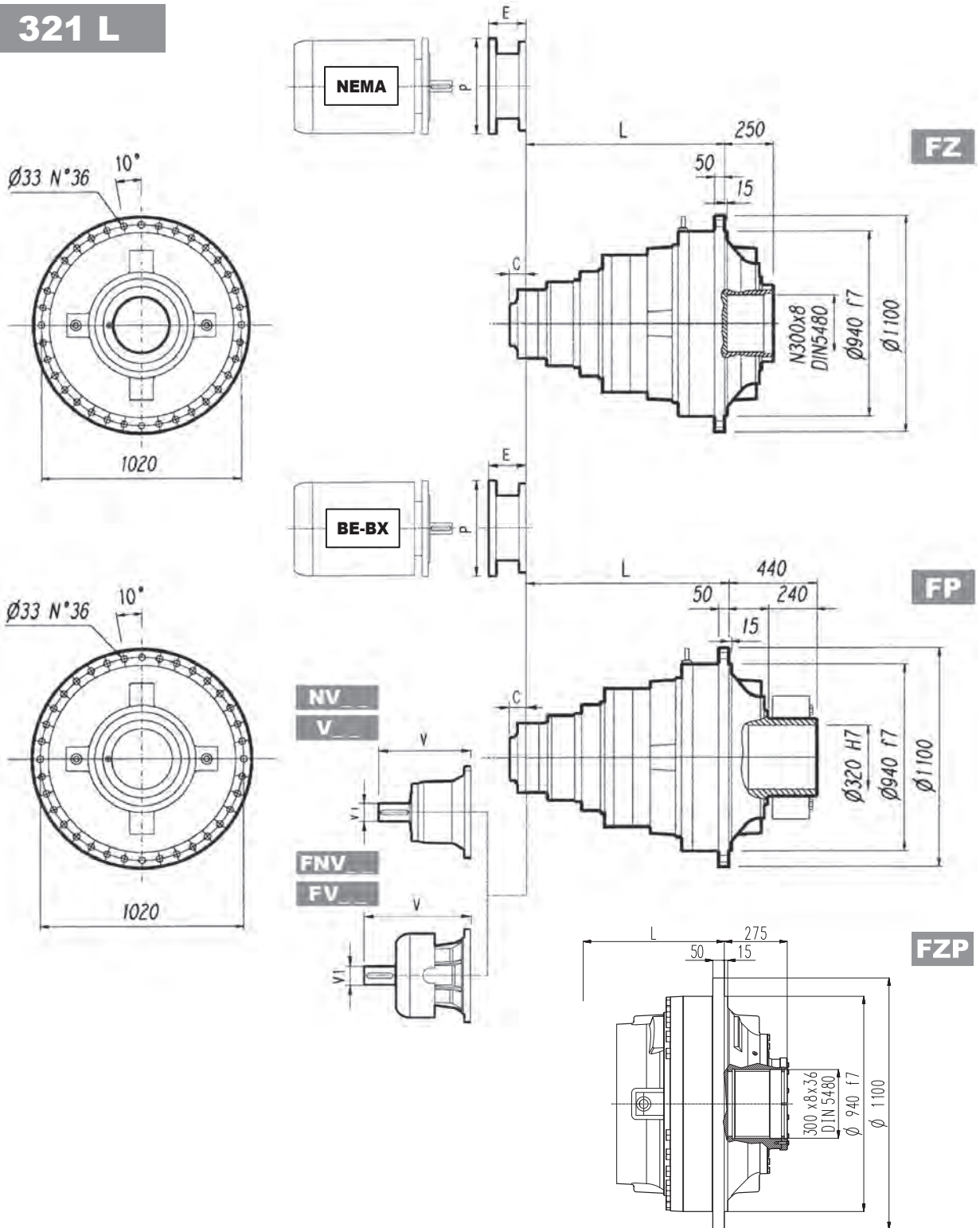


Dimensions are in mm when shown in *italics*, otherwise dimensions are in inches

	L				Kg				C			Input
	PC - PZ	HC - HZ	FZ - FZP	FP	PC - PZ	HC - HZ	FZ - FZP	FP	C	C	C	
321 L2	795	595	595	595	3000	2700	2600	2600	7.126	181	F	
321 L3	1104	904	904	904	3120	2820	2720	2720	2.953	75	D	
321 L4	1253	1053	1053	1053	3180	2880	2780	2780	2.008	51	B	

	V			FV			NV			FNV					
	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg	V	V1	Kg
321 L2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
321 L3	343	80	55	—	—	—	451	80	71	—	—	—	13.563	3.000	121.3
321 L4	315	80	35	313	60	28	375	80	48	363	60	34	13.130	2.375	29.8

321 L



Metric

Imperial

FP

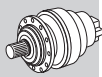
$T_{2max} = 6,372,540 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in *italic*, otherwise dimensions are in inches

	P180		P200		P225		P250	
	E	P	E	P	E	P	E	P
321 L4	195	350	186	400	216	450	216	550

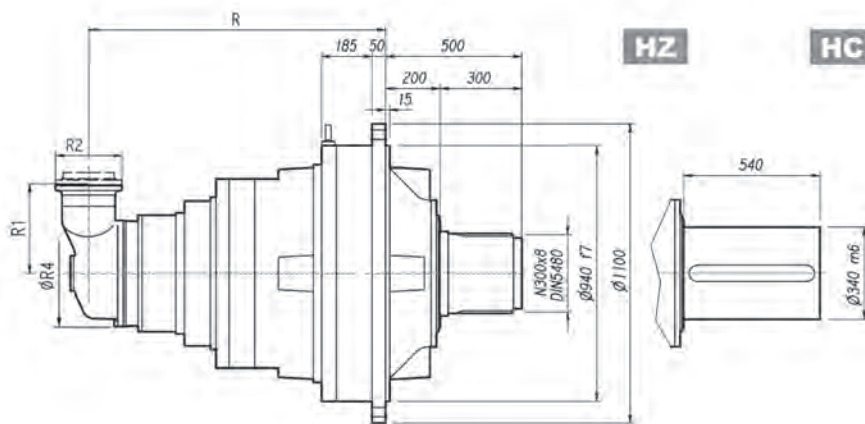
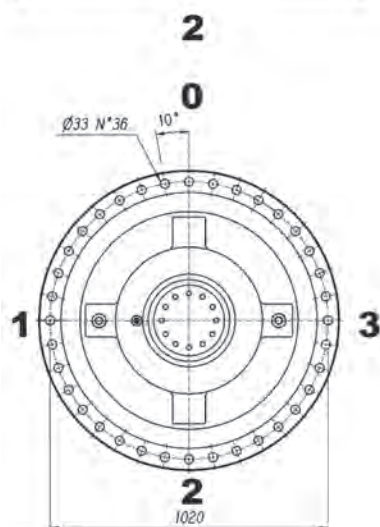
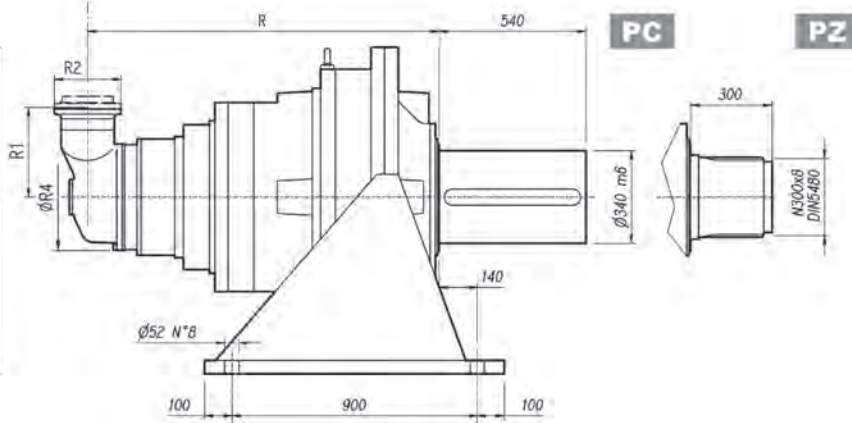
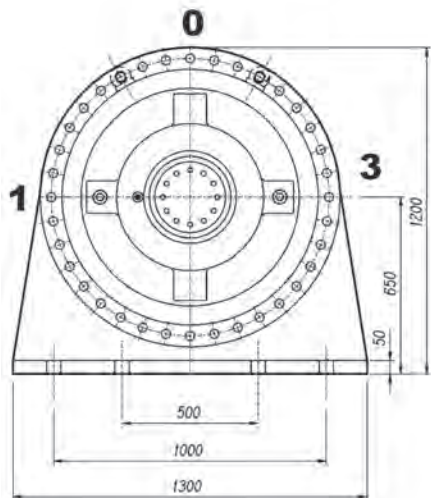
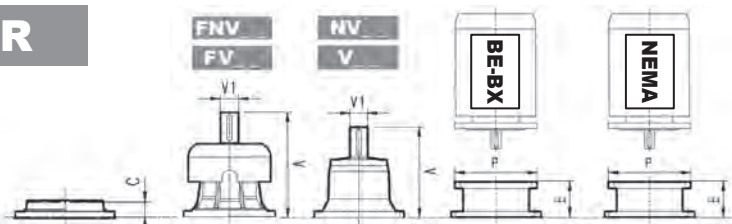
	N320TC		N360TC	
	E	P	E	P
321 L4	8.445	15.748	8.445	15.748

321 R



Metric

Imperial

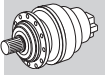
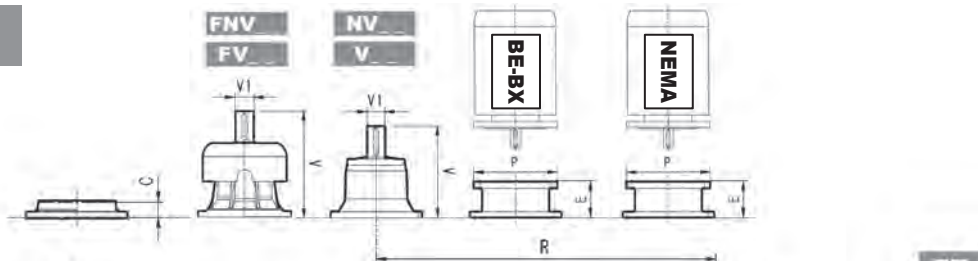


Dimensions are in mm when shown in italic, otherwise dimensions are in inches

	R				R1	R2	R4	Kg				C	C	Input
	PC-PZ	HC-HZ	FZ - FZP	FP				PC-PZ	HC-HZ	FZ - FZP	FP			
321 R4 (B)	1334	1134	1134	1134	345	292	400	3250	2950	2850	2850	45	1.772	B
321 R4 (C)	1334	1134	1134	1134	390	292	480	3260	2960	2860	2860	45	1.772	B

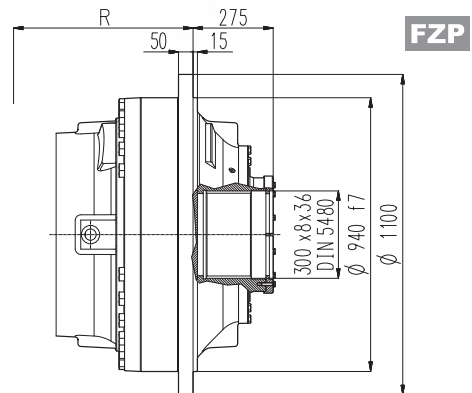
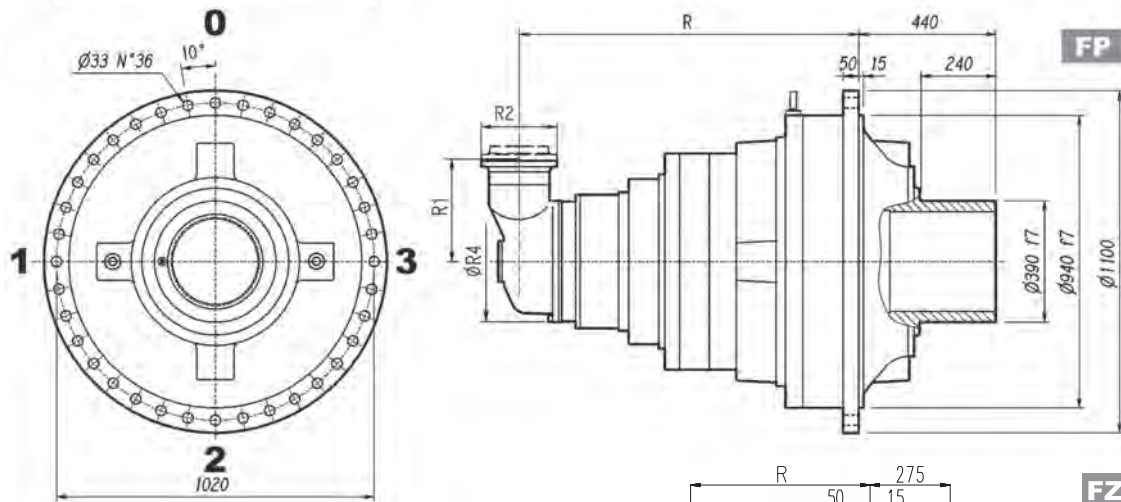
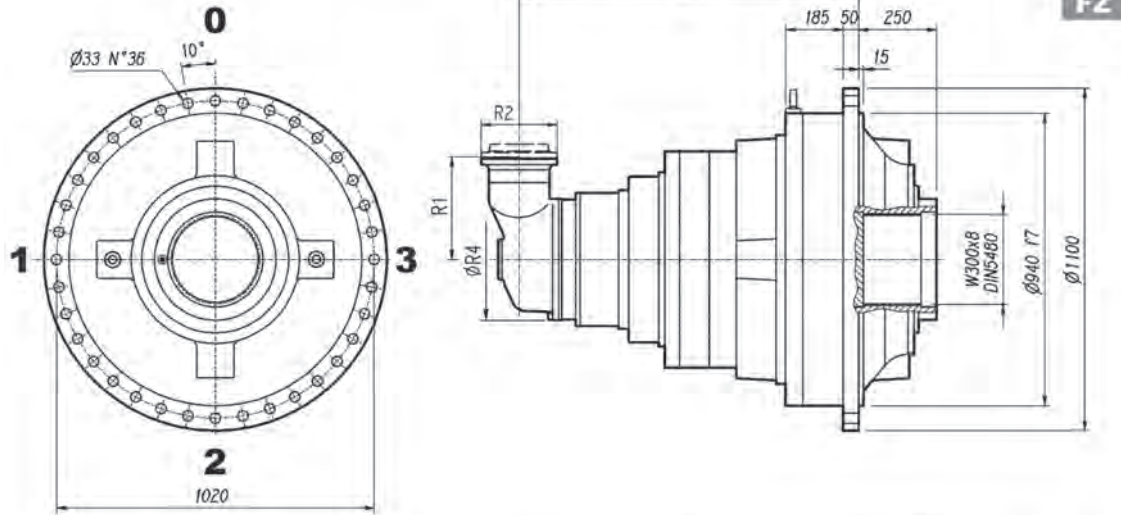
	V			FV			NV			FNV		
	V	V1	Kg	V	V1	Kg	V	V1	lbs	V	V1	lbs
321 R4 (B)	307	60	23	357	60	28	12.703	2.375	50.7	14.652	2.375	58.0
321 R4 (C)	307	60	23	357	60	28	12.703	2.375	50.7	14.652	2.375	58.0

321 R



Metric

Imperial



FP

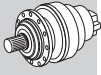
$T_{2max} = 6,372,540 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in italic, otherwise dimensions are in inches

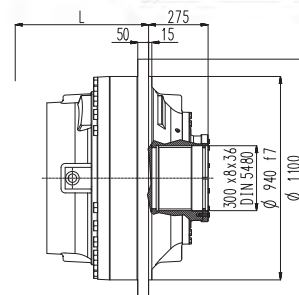
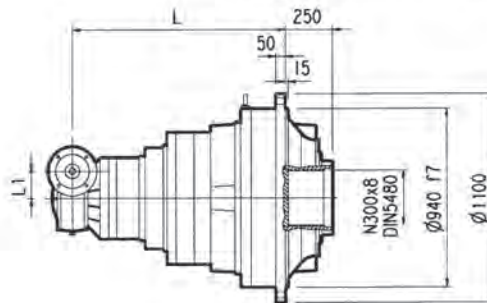
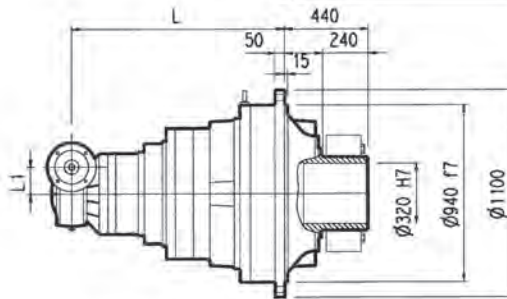
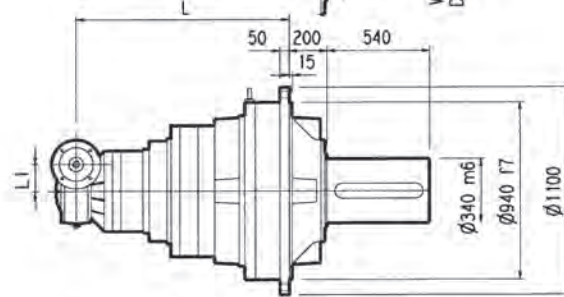
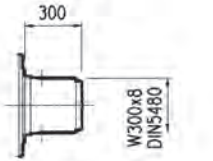
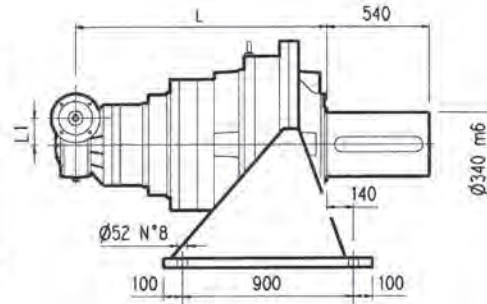
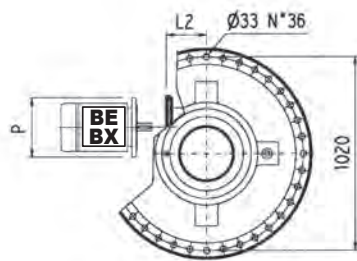
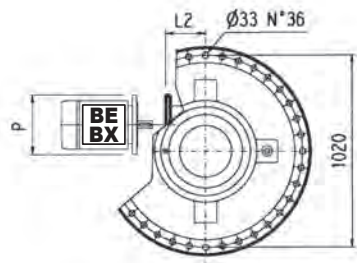
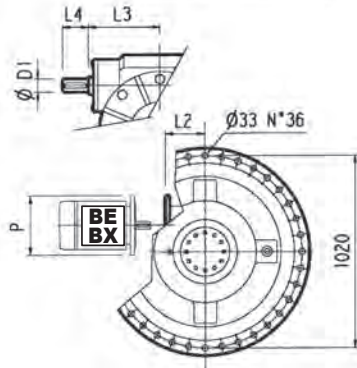
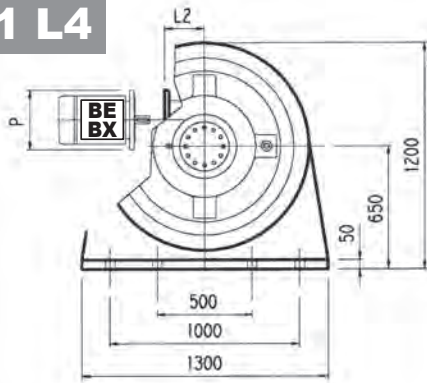
	P132		P160		P180		P200		P225		P250	
	E	P	E	P	E	P	E	P	E	P	E	P
321 R4 (B)	—	—	—	—	152	350	182	400	212	450	193	550
321 R4 (C)	—	—	—	—	152	350	182	400	212	450	193	550

	N320TC		N360TC	
	E	P	E	P
321 R4 (B)	7.776	13.780	7.776	13.780
321 R4 (C)	7.776	13.780	7.776	13.780

3/V 21 L4



Metric



PC

HZ PZ

HC

FP

FZ

FZP

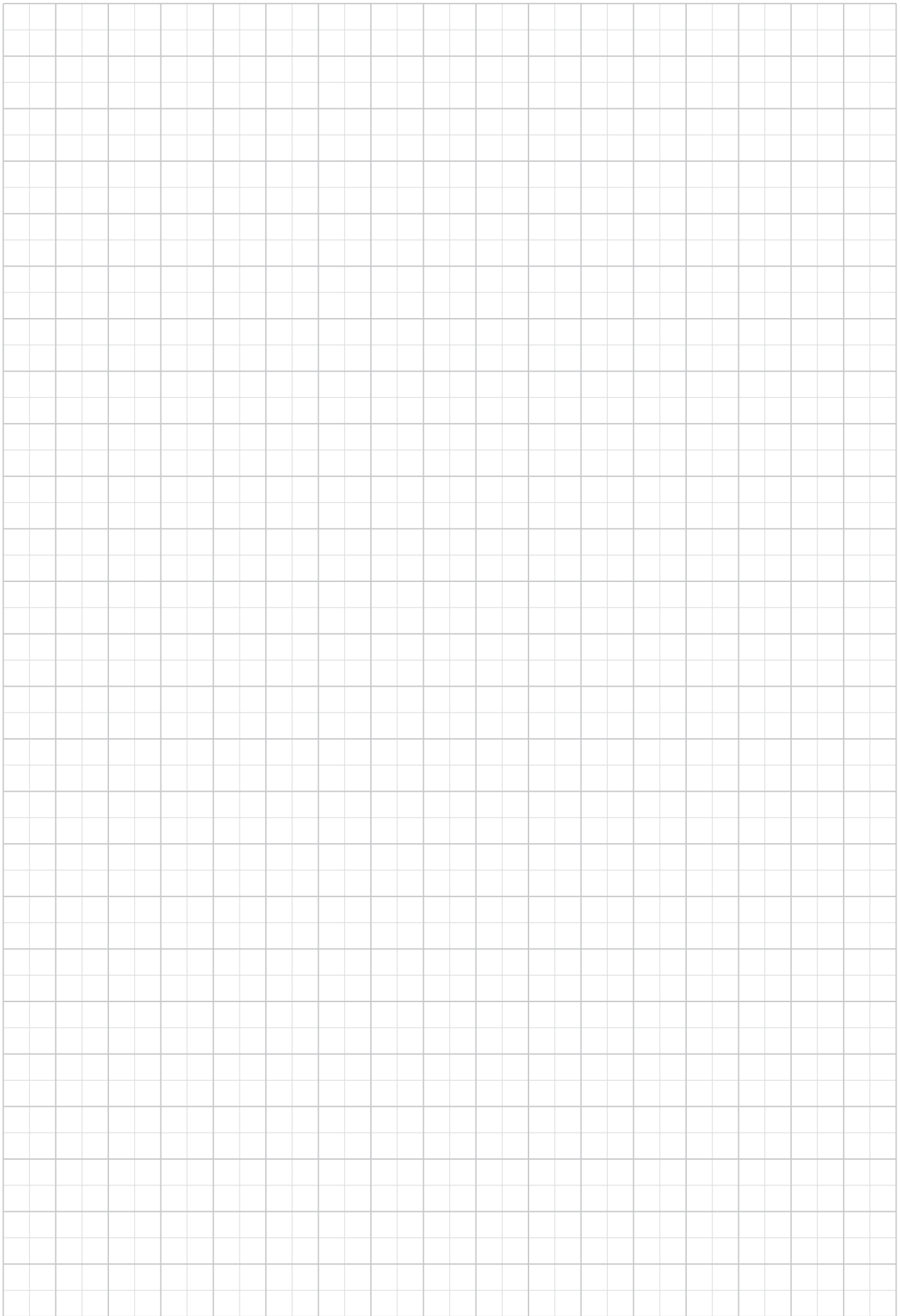
FP

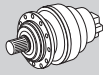
$T_{2max} = 6,372,540 \text{ lb}\cdot\text{in}$

Dimensions are in mm

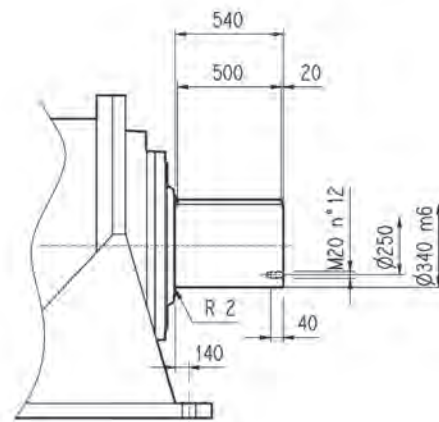
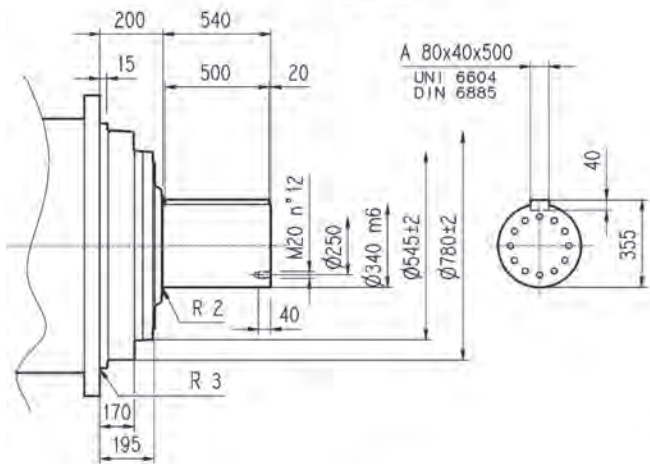
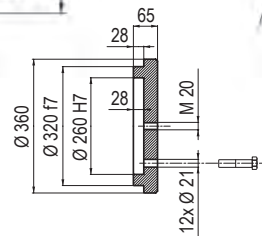
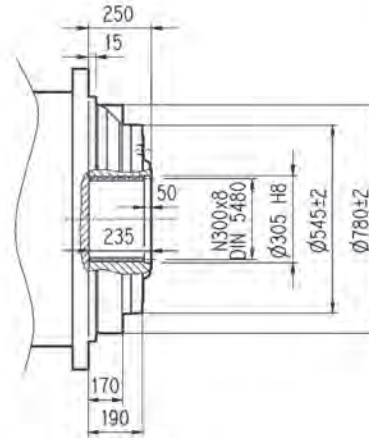
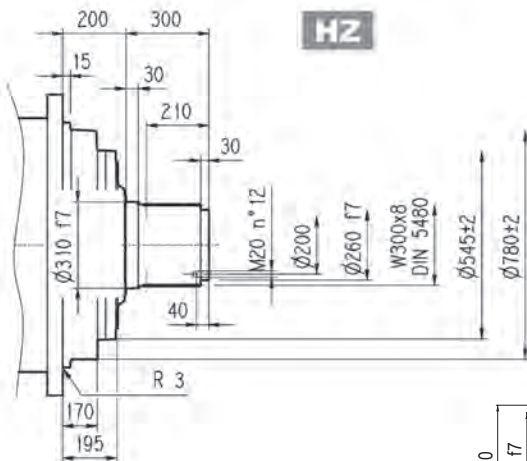
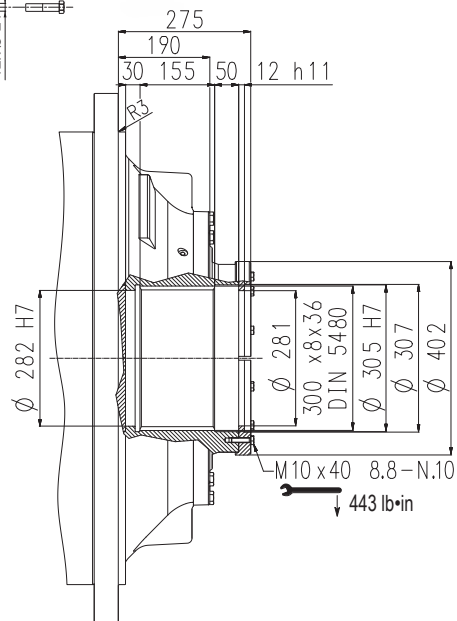
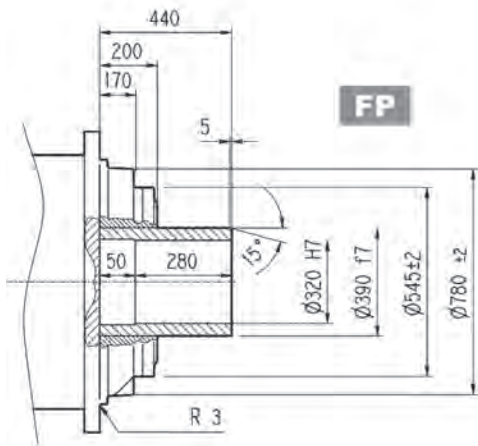
	L				L1	L2	D1	L3	L4	Kg				
	PC - PZ	HC - HZ	FZ - FZP	FP							PC - PZ	HC - HZ	FZ - FZP	FP
3/V 21 L4	1374	1174	1174	1174	250	—	55	276	110		3430	3130	3030	3030

	P132		P160		P180		P200		P225	
	L2	P	L2	P	L2	P	L2	P	L2	P
3/V 21 L4	531	300	506	350	506	350	531	400	536	450



321 L**321 R****3/V 21 L4**

Metric

HC**PC****HZ****FZ****FP****FZP****FP****T_{2max} = 6,372,540 lb·in**

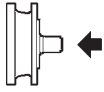
Dimensions are in mm

321 L

321 R

3/V 21 L4

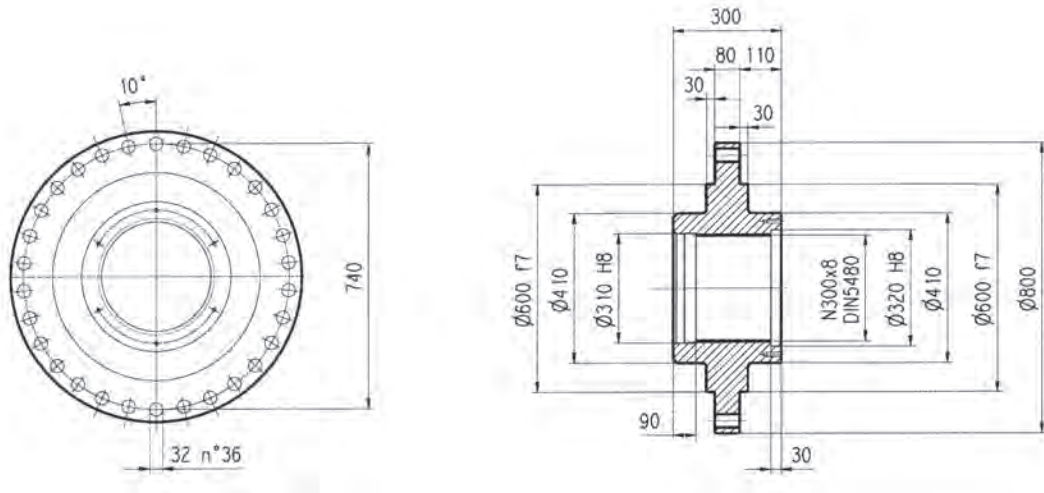
Flange



W0A



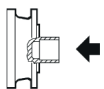
Metric



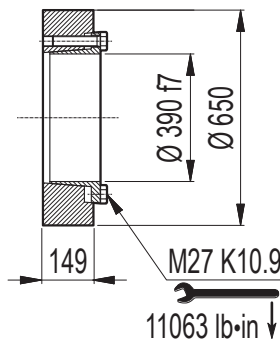
Material: Steel C40

Dimensions are in mm

Shrink disc



G0A

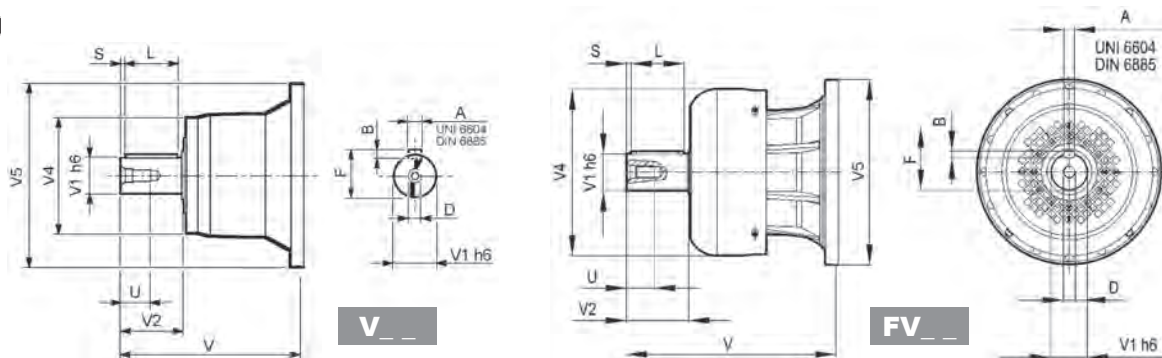
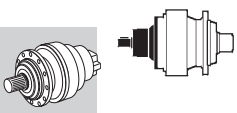


Dimensions are in mm

321 L

321 R

Metric

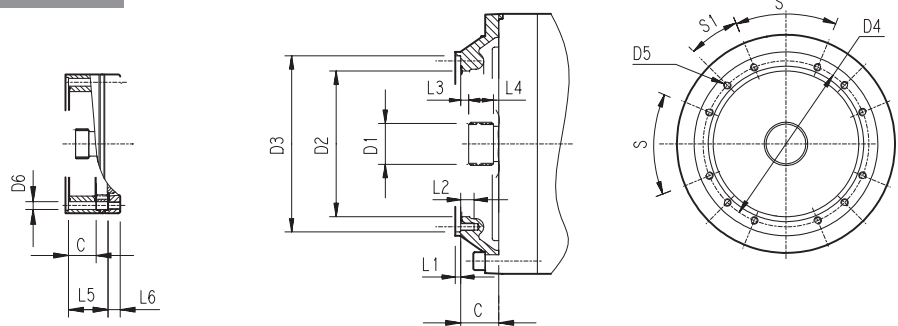


Dimensions are in mm

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
321 L3	V11B	343	80	130	200	445	22	14	85	110	10	M16	36
	FV11B	451	80	130	347.5	445	22	14	85	110	10	M16	36
321 L4	V07B	315	80	130	200	345	22	14	85	110	10	M16	36
	FV07B	375	80	130	347.5	348	22	14	85	110	10	M16	36
	V07A	313	60	105	155	345	18	11	64	90	7.5	M16	36
	FV07A	363	60	105	309	348	18	11	64	90	7.5	M16	36
321 R4 (B) (C)	V06B	307	60	105	155	292	18	11	64	90	7.5	M16	36
	FV06B	357	60	105	309	292	18	11	64	90	7.5	M16	36

321 L

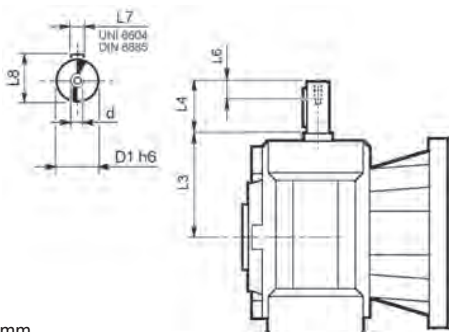
321 R



Dimensions are in mm

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
321 L1		Please consult Bonfiglioli Technical Service															
321 L2	V9AF	181	120x3 DIN 5480	365	390 f7	415	M16 n°18	—	4	30	3	65	—	—	20°	20°	F
321 L3	V9AD	75	80x74 DIN 5482	270	335 H7	314	M16 n°8	—	5	30	9.5	40	—	—	60°	30°	D
321 L4	V9AB	51	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B
321 R4 (B) (C)	V9AB	45	58x53 DIN 5482	195	236 H7	222	M10 n°12	—	4	18	11	22	—	—	45°	22.5°	B

3/V 21 L4

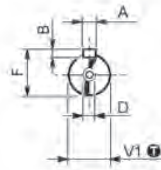
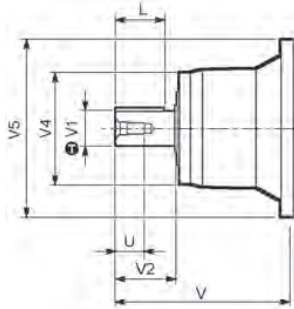


Dimensions are in mm

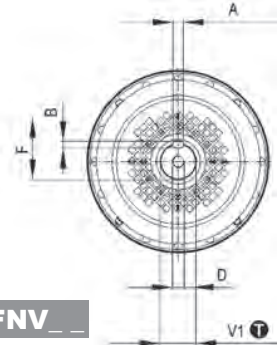
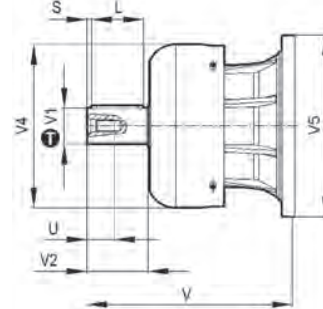
	D1 h6	L3	L4	L6	L7	L8	d
3/V 21 L4_HS	55	276	110	40	16	59	M16

321 L

321 R



NV __



FNV __

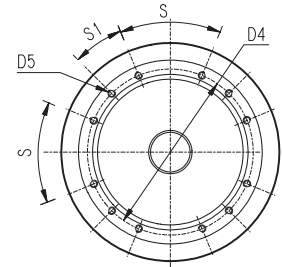
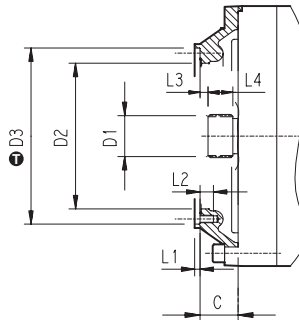
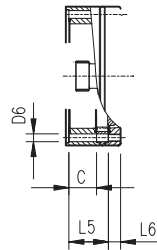
inch	Ⓣ
3.000	0 -0.00075
2.375	0 -0.00053

Dimensions are in Inch except when shown in *italic [mm]*

		V	V1	V2	V4	V5	A	B	F	L	D	U
321 L3	NV11B	13.563	3.000	5.000	8.160	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV11B	17.835	3.000	5.000	13.678	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
321 L4	NV07B	12.283	3.000	5.000	7.165	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV07B	14.646	3.000	5.000	13.677	13.699	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	NV07A	13.130	2.375	4.750	6.024	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
	FNV07A	15.104	2.375	4.750	6.811	13.700	0.625	0.625	2.645	4.250	3/4-10 UNC	1.654
321 R4 (B) (C)	NV06B	12.703	2.375	4.750	6.417	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654
	FNV06B	14.652	2.375	4.750	12.165	11.496	0.625	0.625	2.646	4.252	3/4-10 UNC	1.654

321 L

321 R



inch	Ⓣ
15.35	-0.000708 -0.00295
13.19	+0.00224 0
9.29	+0.00181 0

Dimensions are in Inch except when shown in *italic [mm]*

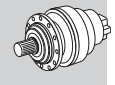
		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
321 L1		Please consult Bonfiglioli Technical Service															
321 L2	V9AF	7.13	120x3 DIN 5480	14.37	15.35	16.34	M16 n°18	—	0.16	1.18	0.12	2.56	—	—	20°	20°	F
321 L3	V9AD	2.95	80x74 DIN 5482	10.63	13.19	12.36	M16 n°8	—	0.20	1.18	0.37	1.57	—	—	60°	30°	D
321 L4	V9AB	2.01	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B
321 R4 (B) (C)	V9AB	1.77	58x53 DIN 5482	7.68	9.29	8.74	M10 n°12	—	0.16	0.71	0.43	0.87	—	—	45°	22.5°	B

321 L

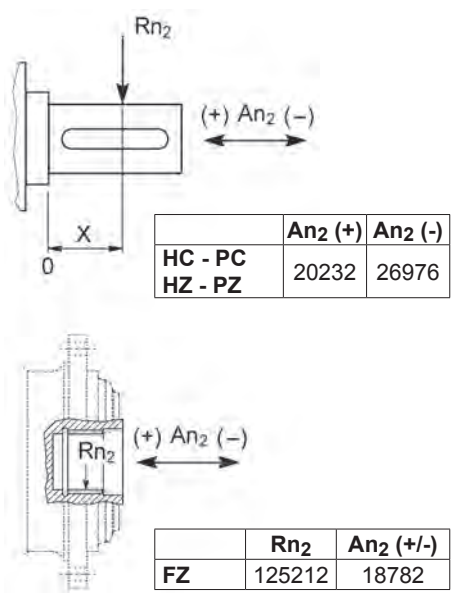
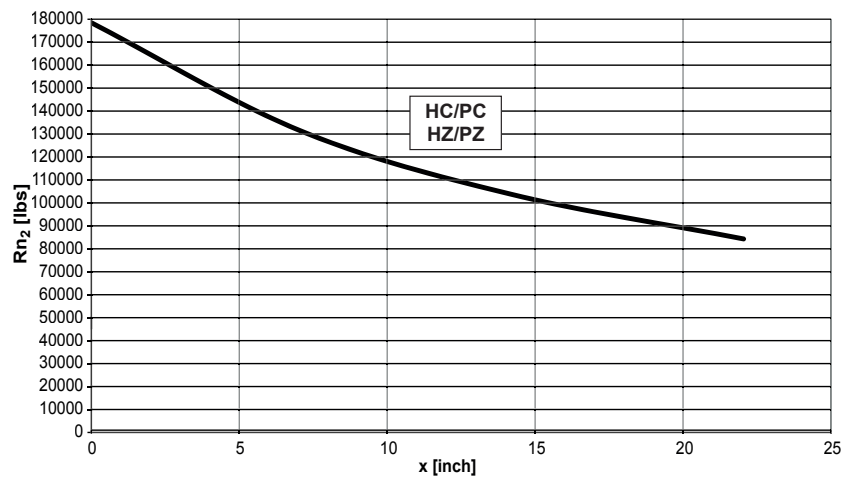
321 R

3/V 21 L4

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$

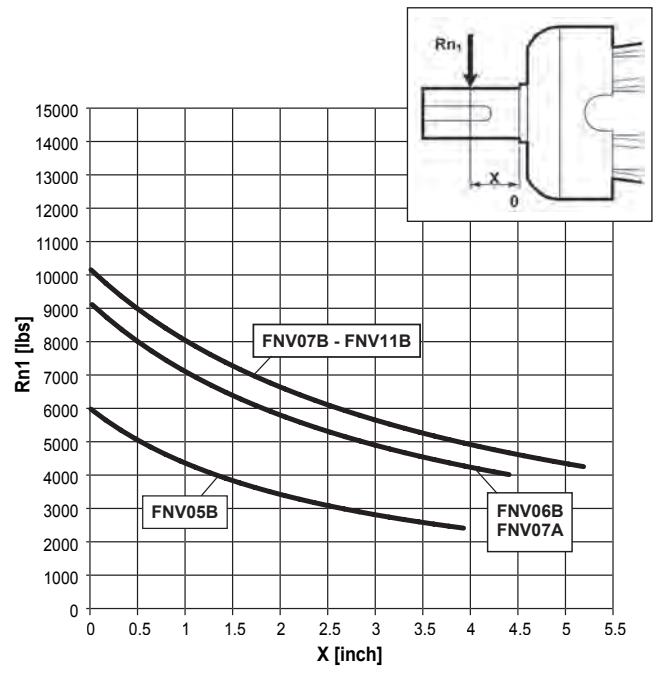
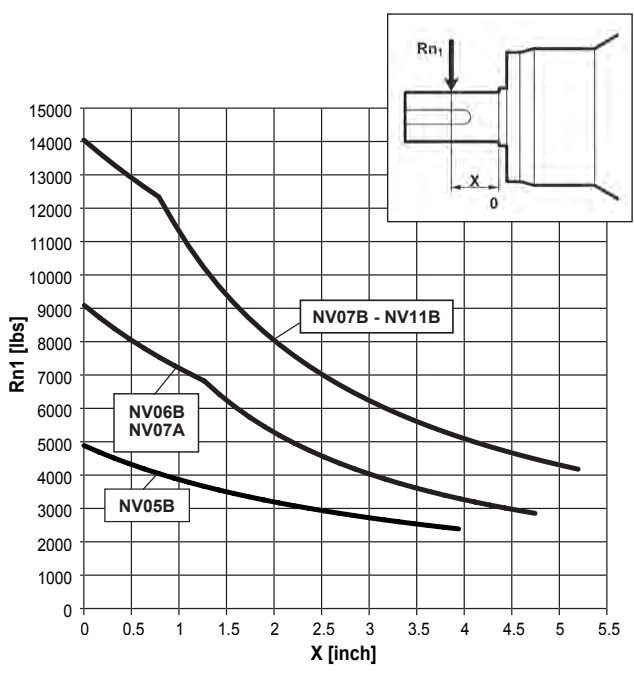


Imperial

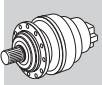
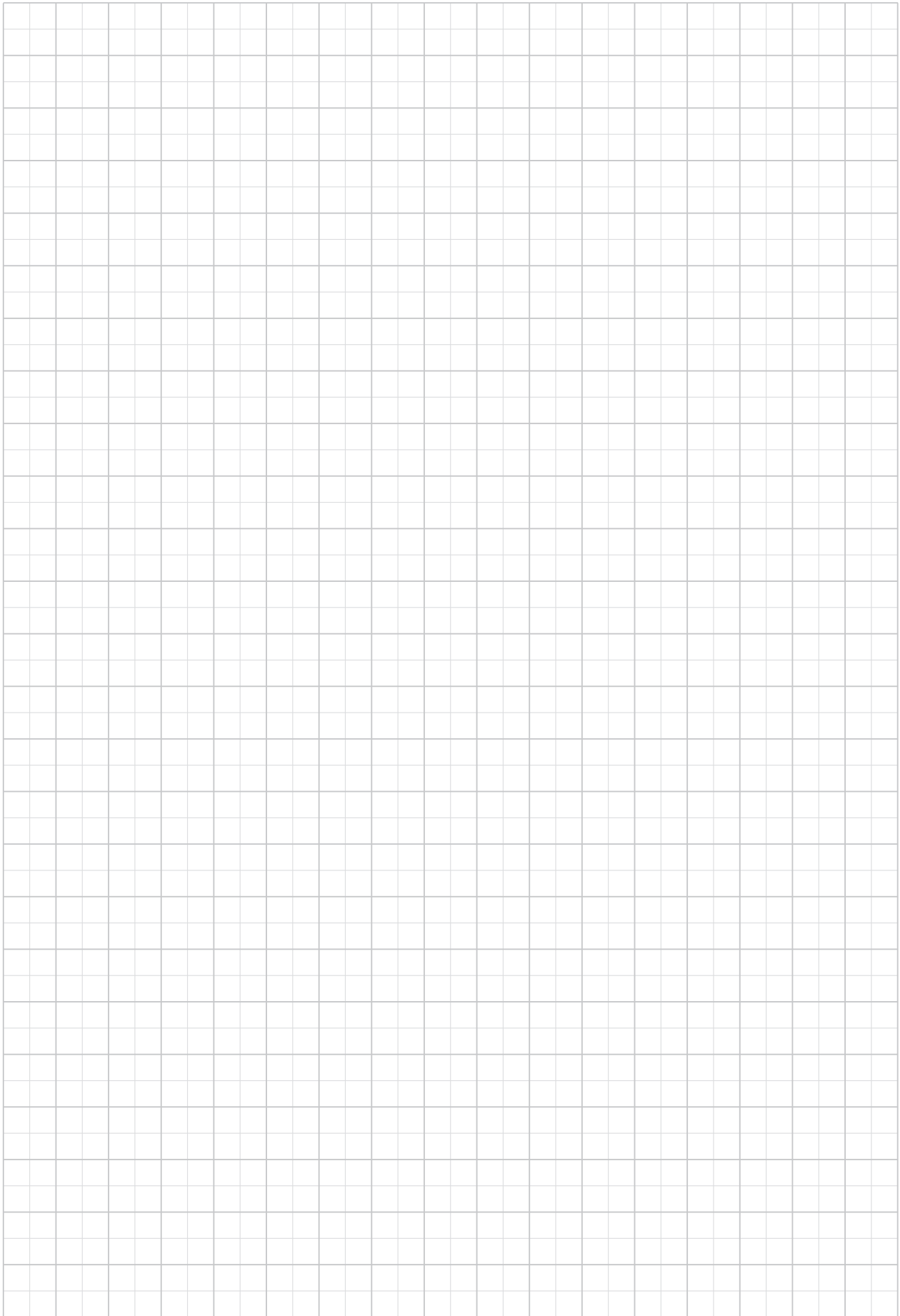


Load corrective factor fh2 on shafts	Fh2 = n2 · h						
	fh2	10000	25000	50000	100000	500000	1000000
		FZ	2.15	1.59	1.26	1.00	0.58
	HZ - HC - PZ - PC	1.54	1.35	1.23	1.00	0.62	0.50

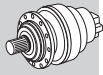
Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



Load corrective factor fh1 on shafts	Fh1 = n1 · h						
	fh1	250000	500000	1000000	2000000	5000000	10000000
		1	0.79	0.63	0.50	0.37	0.29

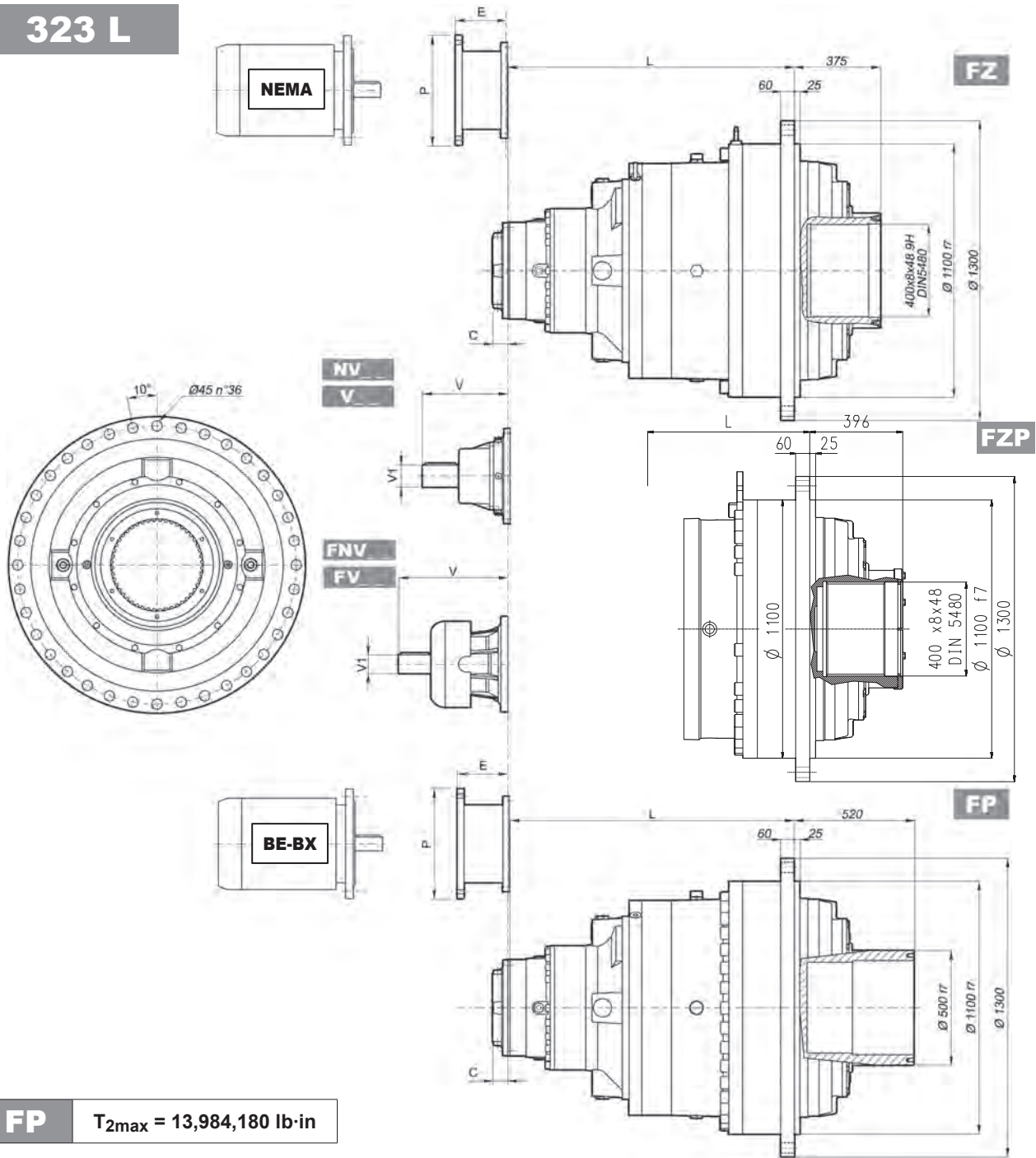


323 L



Metric

Imperial



FP

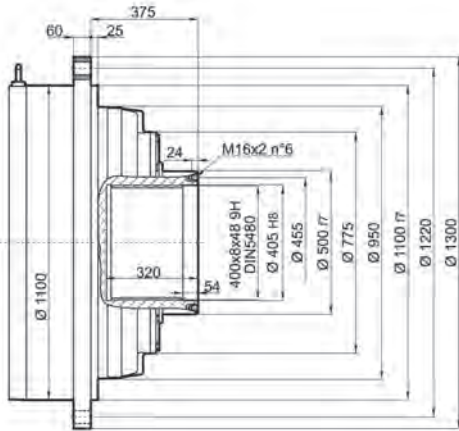
$T_{2\text{max}} = 13,984,180 \text{ lb}\cdot\text{in}$

Dimensions are in mm when shown in italic, otherwise dimensions are in inches

	L															
	FZ-FZP	FP	FZ-FZP	FP	V	V1		V	V1		V	V1		V	V1	
323 L1	Please consult Bonfiglioli Technical Service															
323 L2	666	666	4450	4550	—	—	—	—	—	—	—	—	—	—	—	—
323 L3	1049	1049	4750	4850	556	120	125	—	—	—	—	—	—	—	—	—
323 L4	1261	1261	4900	5000	315	80	35	456	80	85	13.563	3.000	121.3	17.835	3.000	140.0

			P200		P225		P250		N400TC	
	C	C	E	P	E	P	E	P	E	P
323 L1	—	—	—	—	—	—	—	—	—	—
323 L2	245	9.646	G	—	—	—	—	—	—	—
323 L3	116	4.567	E	—	—	—	—	—	—	—
323 L4	81	3.189	D	267	400	297	450	297	550	11.339 17.480

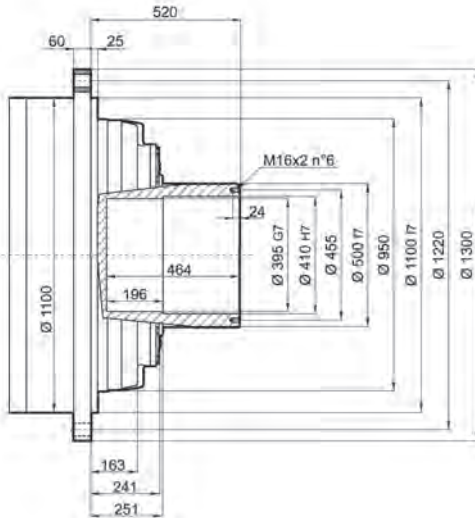
323 L



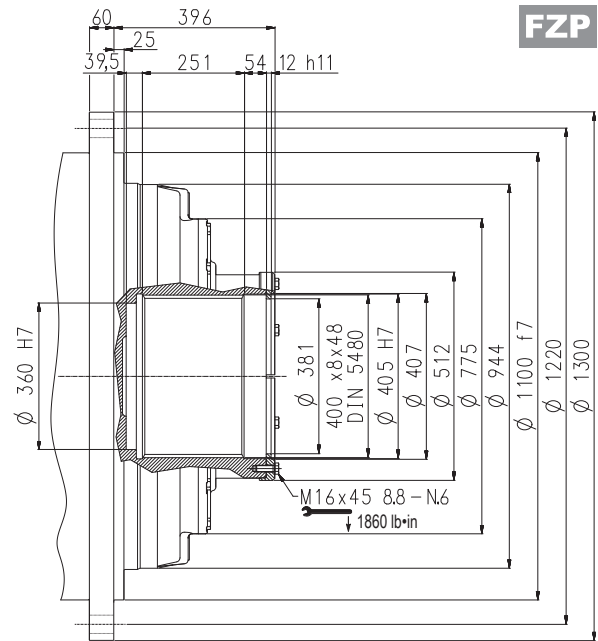
FZ



Metric



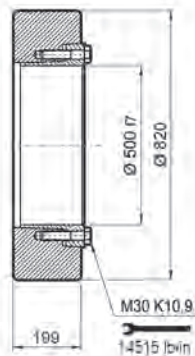
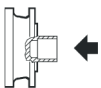
FP



FZP

Shrink disc

GOA



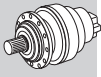
Dimensions are in mm

FP

T_{2max} = 13,984,180 lb-in

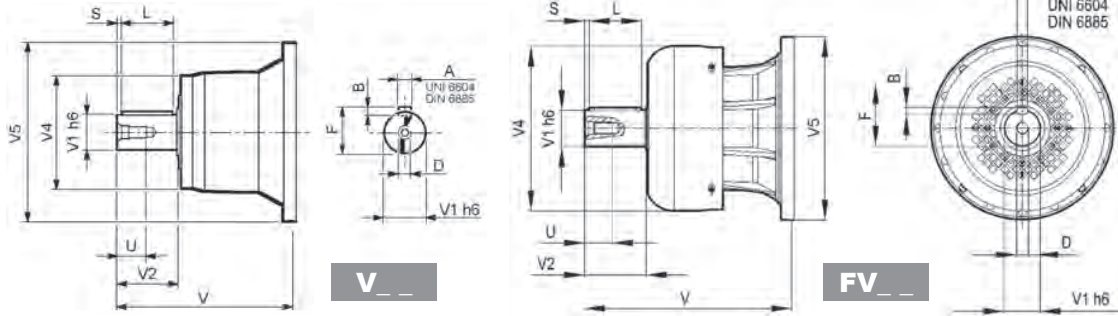
Dimensions are in mm

323 L



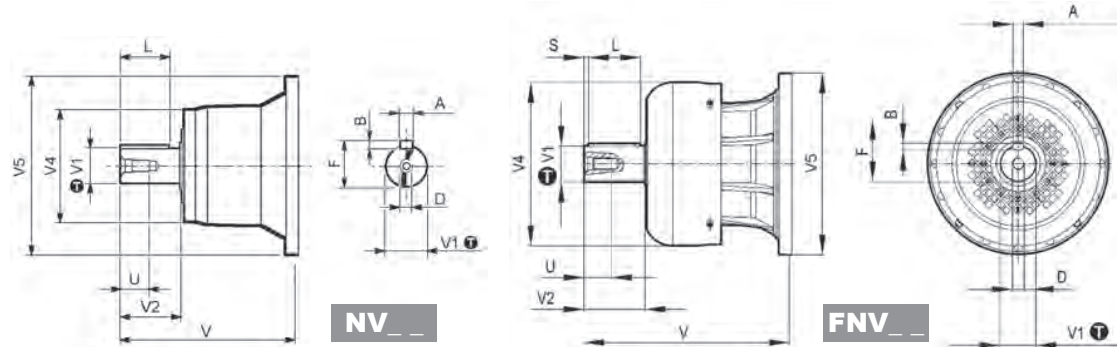
Metric

Imperial



Dimensions are in mm when shown in italic, otherwise dimensions are in inches

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
323 L3	V15B	556	120	210	230	542	32	18	127	180	15	M24	50
323 L4	V11B	348	80	130	200	428	22	14	85	110	10	M16	36
	FV11B	456	80	130	347.5	428	22	14	85	110	10	M16	36



inch	Ⓢ
3.000	0 -0.00075

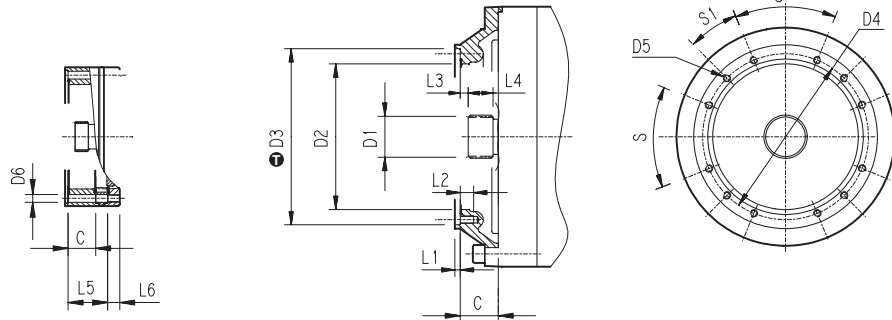
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

		V	V1	V2	V4	V5	A	B	F	L	D	U
323 L4	NV11B	13.563	3.000	5.000	8.160	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV11B	17.835	3.000	5.000	13.678	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654

323 L



inch	Ⓢ
18.66	-0.000787 -0.00326
16.22	+0.00248 0
13.19	+0.00224 0



Dimensions are in mm when shown in italic, otherwise dimensions are in inches

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
323 L1		Please consult Bonfiglioli Technical Service															
323 L2	V9AG	245	150x5x28 DIN 5480	444	474 g7	503	M20 n°20	20	5	40	20	82	—	—	30°	15°	G
323 L3	V9AE	116	100x94 DIN 5482	340	412 H7	390	M16 n°18	—	7	30	8	55	—	—	20°	20°	E
323 L4	V9AD	81	80x74 DIN 5482	270	335 H7	314	M16 n°8	—	5	30	8.5	40	—	—	60°	30°	D

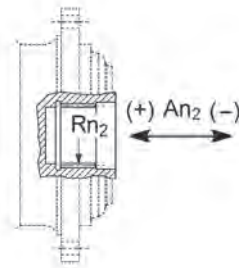
		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
323 L1		Please consult Bonfiglioli Technical Service															
323 L2	V9AG	9.65	150x5x28 DIN 5480	17.48	18.66	19.80	M20 n°20	0.79	0.20	1.57	0.79	3.23	—	—	30°	15°	G
323 L3	V9AE	4.57	100x94 DIN 5482	13.39	16.22	15.35	M16 n°18	—	0.28	1.18	0.31	2.17	—	—	20°	20°	E
323 L4	V9AD	3.19	80x74 DIN 5482	10.63	13.19	12.36	M16 n°8	—	0.20	1.18	0.33	1.57	—	—	60°	30°	D

323 L

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$



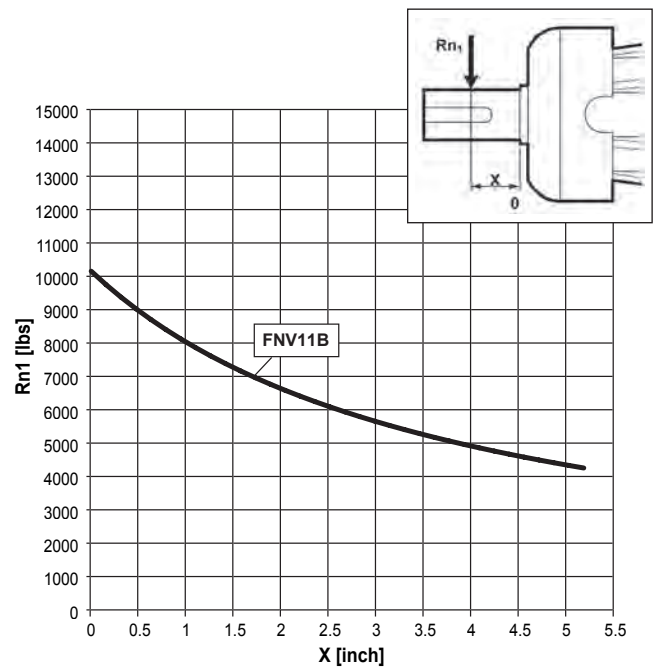
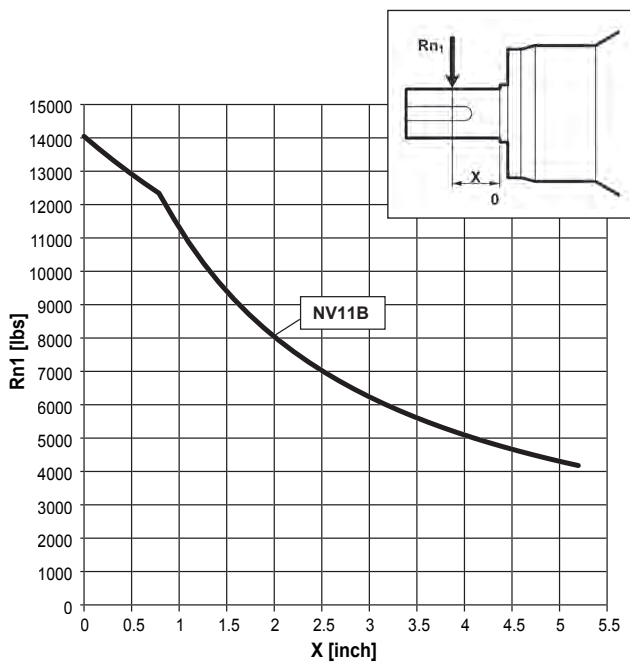
Imperial



	Rn_2	$An_2 (+)$	$An_2 (-)$
FZ	114777	39129	15651

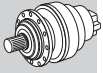
Load corrective factor fh_2 on shafts	$Fh_2 = n_2 \cdot h$		10000	25000	50000	100000	500000	1000000
	fh_2	FZ	2.15	1.59	1.26	1.00	0.58	0.46

Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$



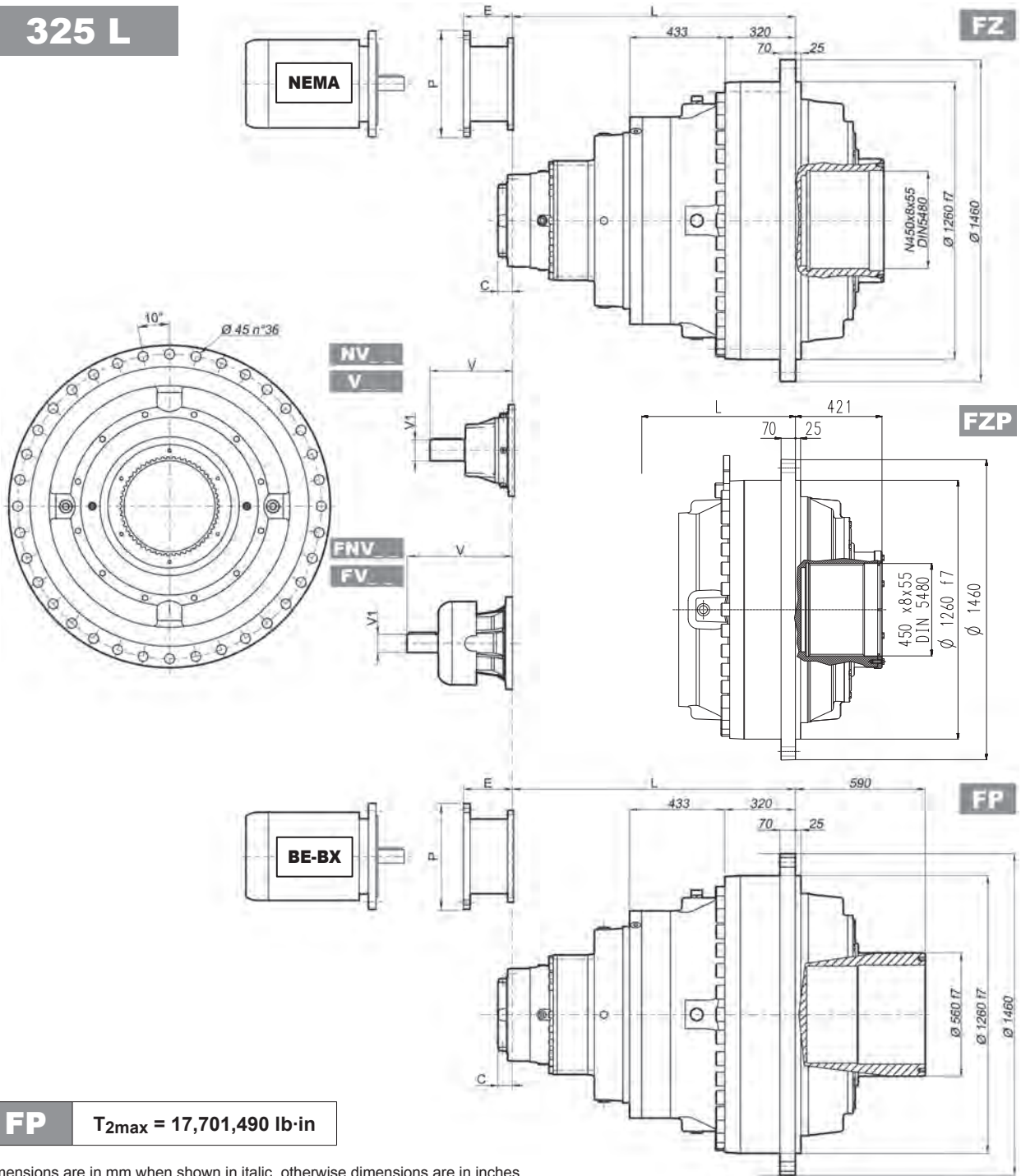
Load corrective factor fh_1 on shafts	$Fh_1 = n_1 \cdot h$		250000	500000	1000000	2000000	5000000	10000000
	fh_1		1	0.79	0.63	0.50	0.37	0.29

325 L



Metric

Imperial



FP

$T_{2max} = 17,701,490 \text{ lb-in}$

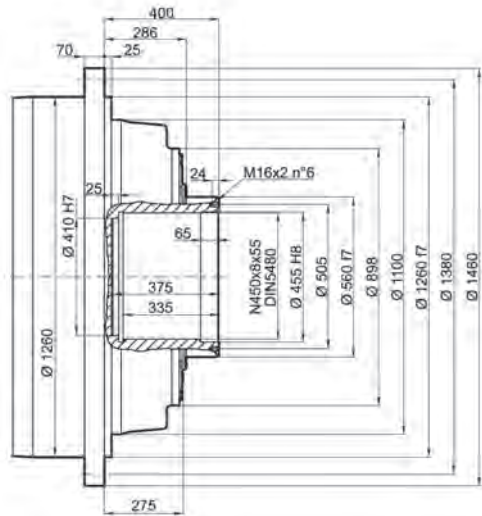
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

	L		Kg		V			FV			NV			FNV			
	FZ-FZP	FP	FZ-FZP	FP	V	V1	Kg	V	V1	Kg	V	V1	lbs	V	V1	lbs	
325 L1																	
Please consult Bonfiglioli Technical Service																	
325 L2	698	698	5700	5900	—	—	—	—	—	—	—	—	—	—	—	—	—
325 L3	1081	1081	6000	6200	556	120	125	—	—	—	—	—	—	—	—	—	—
325 L4	1293	1293	6150	6350	315	80	35	456	80	85	13.563	3.000	121.3	17.835	3.000	140.0	—

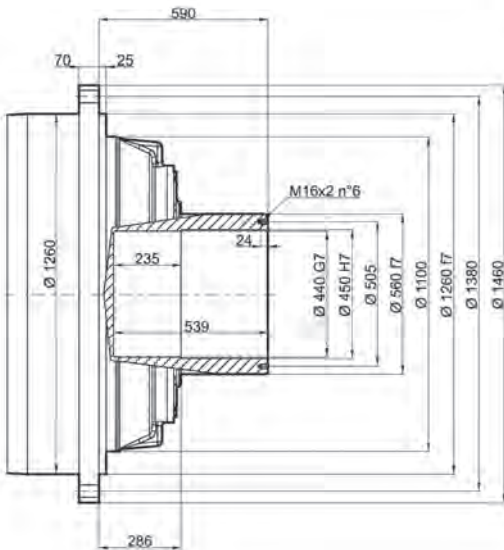
	C		Input	P200		P225		P250		N400TC	
	C	C		E	P	E	P	E	P	E	P
325 L1	—	—	—	—	—	—	—	—	—	—	—
325 L2	245	9.646	G	—	—	—	—	—	—	—	—
325 L3	116	4.567	E	—	—	—	—	—	—	—	—
325 L4	81	3.189	D	267	400	297	450	297	550	11.339	17.480

325 L

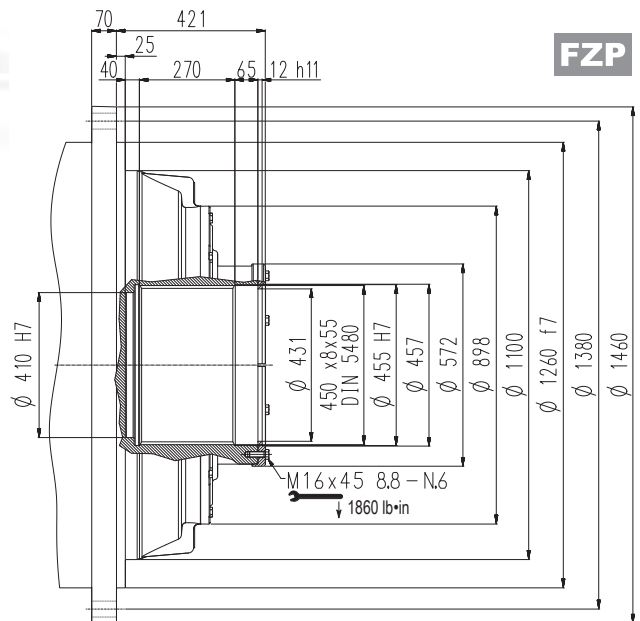
FZ



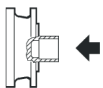
FP



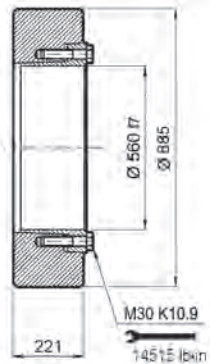
FZP



Shrink disc



GOA



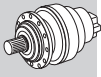
FP

$T_{2max} = 17,701,490 \text{ lb-in}$

Dimensions are in mm

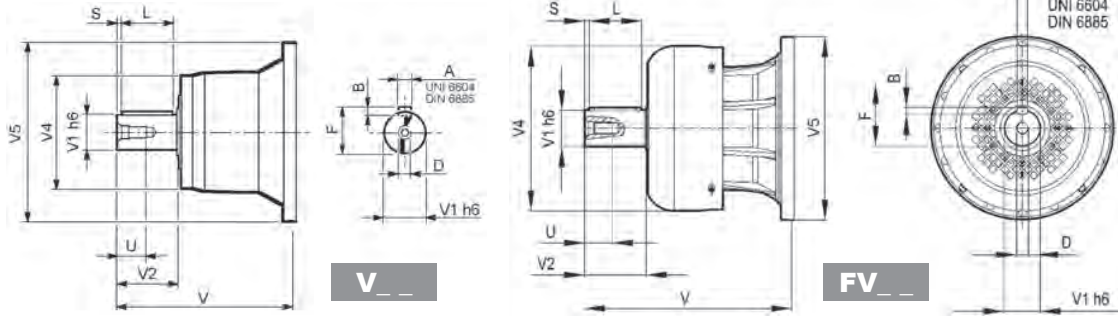
Dimensions are in mm

325 L



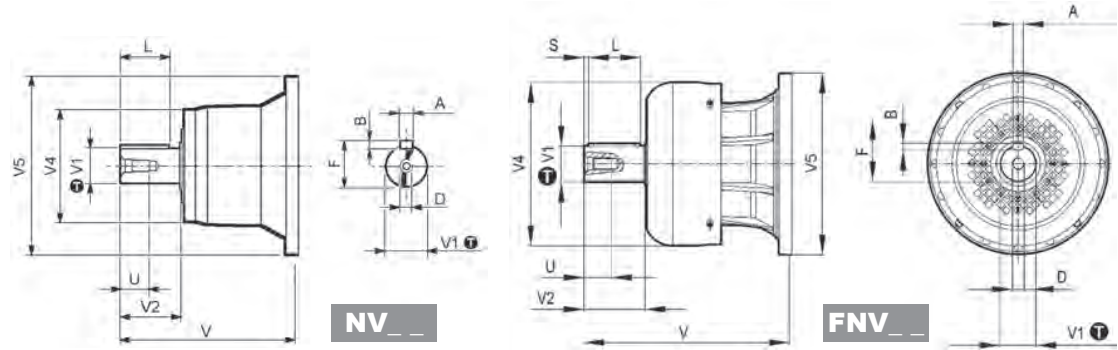
Metric

Imperial



Dimensions are in mm when shown in italic, otherwise dimensions are in inches

		V	V1	V2	V4	V5	A	B	F	L	S	D	U
325 L3	V15B	556	120	210	230	542	32	18	127	180	15	M24	50
325 L4	V11B	348	80	130	200	428	22	14	85	110	10	M16	36
	FV11B	456	80	130	347.5	428	22	14	85	110	10	M16	36



inch	Tolerance
3.000	0 -0.00075

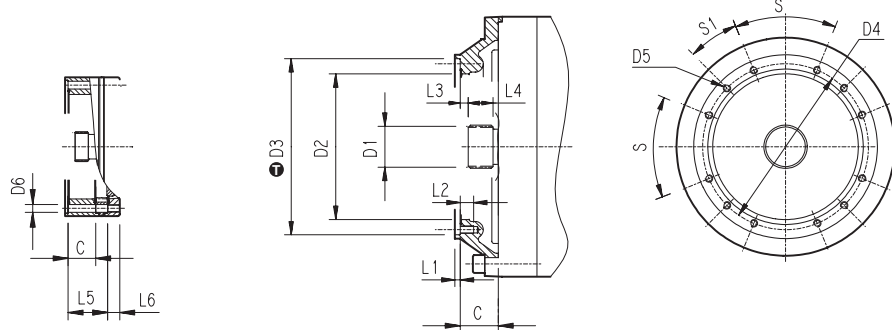
Dimensions are in mm when shown in italic, otherwise dimensions are in inches

		V	V1	V2	V4	V5	A	B	F	L	D	U
325 L4	NV11B	13.563	3.000	5.000	8.160	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654
	FNV11B	17.835	3.000	5.000	13.678	16.850	0.750	0.750	3.328	4.374	3/4-10 UNC	1.654

325 L



inch	Tolerance
18.66	-0.000787 -0.00326
16.22	+0.00248 0
13.19	+0.00224 0



Dimensions are in mm when shown in italic, otherwise dimensions are in inches

		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
325 L1		Please consult Bonfiglioli Technical Service															
325 L2	V9AG	245	150x5x28 DIN 5480	444	474 g7	503	M20 n°20	20	5	40	20	82	—	—	30°	15°	G
325 L3	V9AE	116	100x94 DIN 5482	340	412 H7	390	M16 n°18	—	7	30	8	55	—	—	20°	20°	E
325 L4	V9AD	81	80x74 DIN 5482	270	335 H7	314	M16 n°8	—	5	30	8.5	40	—	—	60°	30°	D

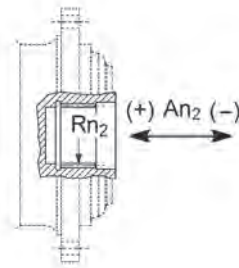
		C	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	S	S1	Input
325 L1		Please consult Bonfiglioli Technical Service															
325 L2	V9AG	9.65	150x5x28 DIN 5480	17.48	18.66	19.80	M20 n°20	0.79	0.20	1.57	0.79	3.23	—	—	30°	15°	G
325 L3	V9AE	4.57	100x94 DIN 5482	13.39	16.22	15.35	M16 n°18	—	0.28	1.18	0.31	2.17	—	—	20°	20°	E
325 L4	V9AD	3.19	80x74 DIN 5482	10.63	13.19	12.36	M16 n°8	—	0.20	1.18	0.33	1.57	—	—	60°	30°	D

325 L

Permissible radial and axial loads on output shaft with $Fh_2 : n_2 \cdot h = 100000$



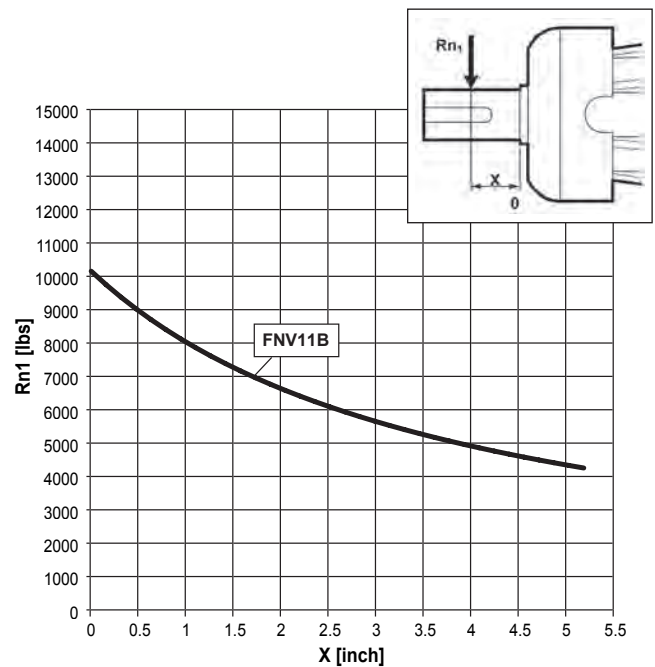
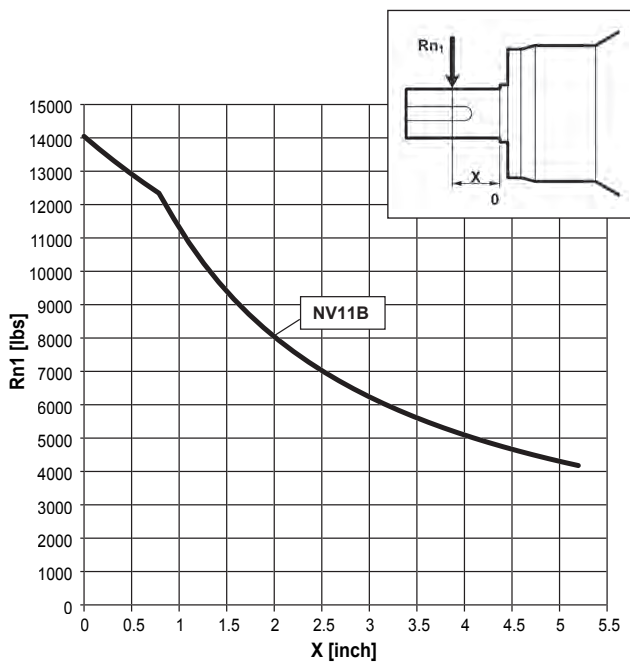
Imperial



	Rn_2	$An_2 (+)$	$An_2 (-)$
FZ	114777	39129	15651

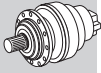
Load corrective factor fh_2 on shafts	$Fh_2 = n_2 \cdot h$		10000	25000	50000	100000	500000	1000000
	fh_2	FZ	2.15	1.59	1.26	1.00	0.58	0.46

Permissible radial loads on input shaft with $Fh_1 : n_1 \cdot h = 250000$

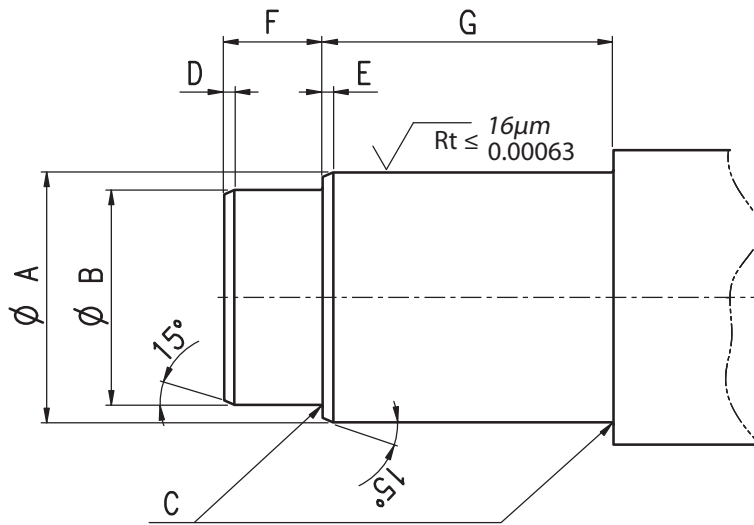


Load corrective factor fh_1 on shafts	$Fh_1 = n_1 \cdot h$		250000	500000	1000000	2000000	5000000	10000000
	fh_1		1	0.79	0.63	0.50	0.37	0.29

CUSTOMER'S SHAFT

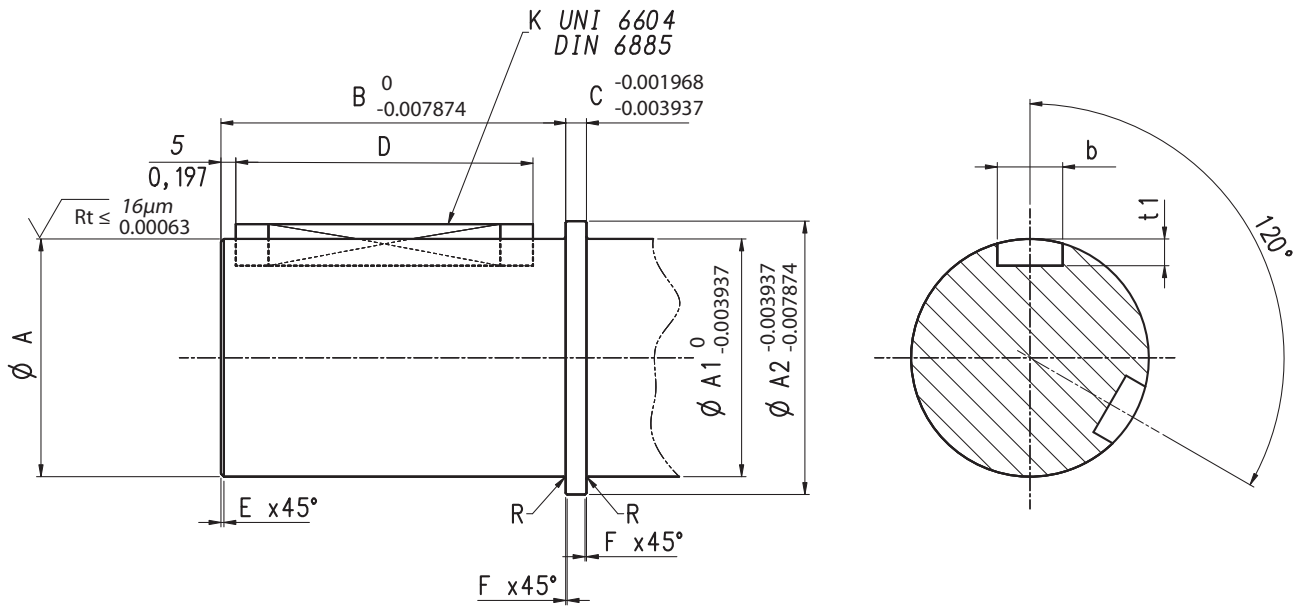


FP



Dimensions are in Inch except when shown in *italic [mm]*

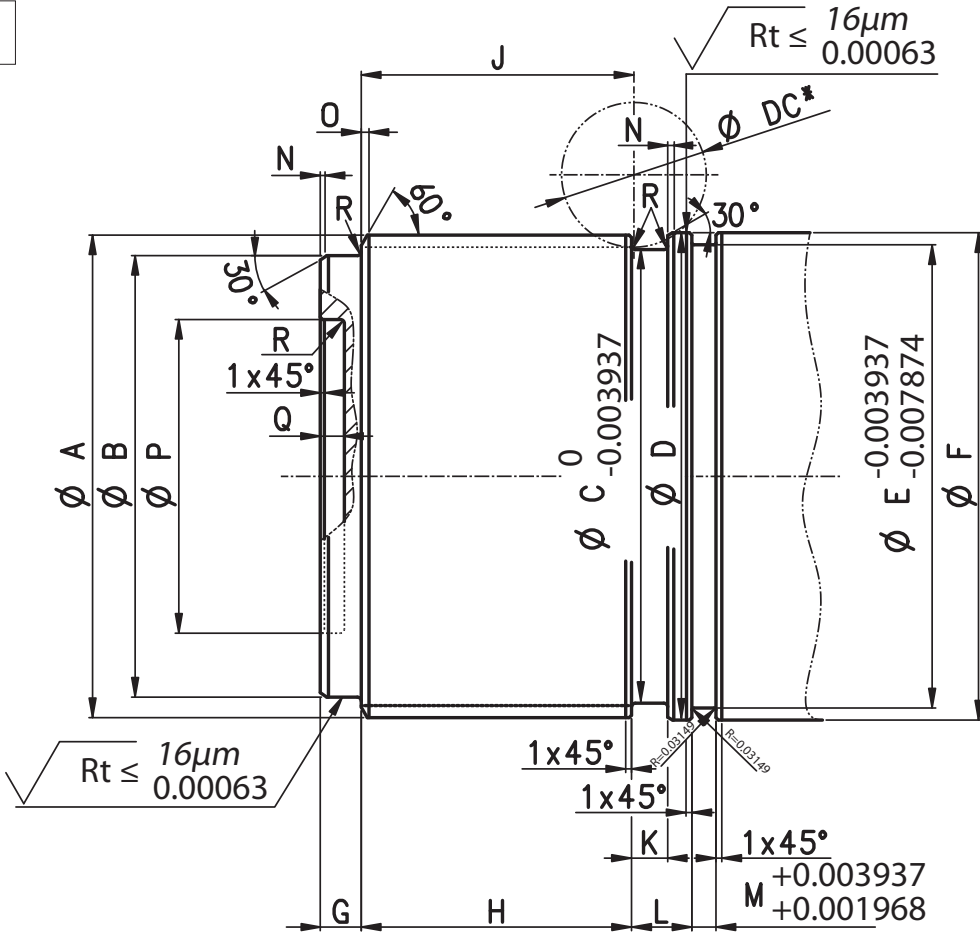
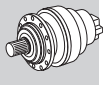
	A		B		C	D	E	F	G	Shaft material
	[mm] [in]									
300	42	<i>g6</i>	35	<i>g6</i>	1.6	2	2	18	38	Suggested material: Steel with tensile strength $\sigma_R \geq 101,526.39$ lbs/in ²
	1.653	-0.0035 -0.0010	1.377	-0.0035 -0.0010	0.062	0.078	0.078	0.708	1.496	
301	52	<i>g6</i>	35	<i>g6</i>	1.6	2	2	18	38	
	2.047	-0.0004 -0.0011	1.377	-0.0035 -0.0010	0.062	0.078	0.078	0.708	1.496	
303	75	<i>g6</i>	65	<i>g6</i>	1.6	2	2	30	65	
304	75	<i>g6</i>	65	<i>g6</i>	1.6	2	2	30	65	
305	2.952	-0.0004 -0.0011	2.559	-0.0004 -0.0011	0.062	0.078	0.078	1.181	2.559	
306	90	<i>g6</i>	75	<i>g6</i>	1.6	3	3	55	85	
	3.543	-0.0005 -0.0013	2.952	-0.0004 -0.0011	0.062	0.118	0.118	2.165	3.346	
307	100	<i>g6</i>	85	<i>g6</i>	1.6	3	3	40	95	
	3.937	-0.0005 -0.0013	3.346	-0.0005 -0.0013	0.062	0.118	0.118	1.574	3.740	
309	120	<i>g6</i>	—	—	1.6	—	3	—	140	
	4.724	-0.0005 -0.0013	—	—	0.062	—	0.118	—	5.511	
310	130	<i>g6</i>	—	—	1.6	—	3	—	155	
	5.118	-0.0006 -0.0015	—	—	0.062	—	0.118	—	6.102	
311	135	<i>g6</i>	—	—	1.6	—	3	—	150	
	5.314	-0.0006 -0.0015	—	—	0.062	—	0.118	—	5.905	
313	140	<i>g6</i>	130	<i>g6</i>	2	3	3	45	150	
	5.511	-0.0006 -0.0015	5.118	-0.0006 -0.0015	0.078	0.118	0.118	1.771	5.905	
314	180	<i>g6</i>	160	<i>g6</i>	1.6	3	3	50	200	
	7.086	-0.0006 -0.0015	6.299	-0.0006 -0.0015	0.062	0.118	0.118	1.968	7.874	
315	180	<i>g6</i>	160	<i>g6</i>	1.6	3	3	50	200	
	7.086	-0.0006 -0.0015	6.299	-0.0006 -0.0015	0.062	0.118	0.118	1.968	7.874	
316	180	<i>g6</i>	165	<i>g6</i>	1.6	3	3	90	180	
	7.086	-0.0006 -0.0015	6.496	-0.0006 -0.0015	0.062	0.118	0.118	3.543	7.086	
317	200	<i>g6</i>	—	—	1.6	—	3	—	250	
	7.874	-0.0006 -0.0017	—	—	0.062	—	0.118	—	9.842	
318	220	<i>g6</i>	200	<i>g6</i>	2	3	3	130	180	
	8.661	-0.0006 -0.0017	7.874	-0.0006 -0.0017	0.078	0.118	0.118	5.118	7.086	
319	280	<i>g6</i>	—	—	2	—	3	—	300	
	11.023	-0.0007 -0.0019	—	—	0.078	—	0.118	—	11.811	
321	320	<i>g6</i>	—	—	2	—	3	—	300	
	12.598	-0.0007 -0.0021	—	—	0.078	—	0.118	—	11.811	
323	410	<i>g6</i>	—	—	2	—	3	—	250	
	16.141	-0.0008 -0.0024	—	—	0.078	—	0.118	—	9.842	
325	450	<i>g6</i>	—	—	2	—	3	—	300	
	17.716	-0.0008 -0.0024	—	—	0.078	—	0.118	—	11.811	



Dimensions are in Inch except when shown in *italic* [mm]

	A	B	A1	A2	C	Shaft material	Keyways dimensions		b	t ₁	Chamfer dimensions		R	Fillet	
	[mm] [in]						Keyways UNI 6604 / DIN 6885	[mm] [in]							
300	35 ^{g6} 1.377	64 2.520	35 1.378	39 1.535	4 0.157	Suggested material: Steel with tensile strength OR ≥ 130,533.93 lbs/in ²	—	10x8x50	10 ^{H8} 0.394	Dimension according to UNI6604 / DIN 6885 standard.	1 0.039	x 45°	0.5 0.020	x 45°	(*)
301	35 ^{g6} 1.377	64 2.520	35 1.378	43 1.693	5 0.197				10 ^{H8} 0.394		1 0.039	x 45°	0.5 0.020	x 45°	0.5 0.020
303 304 305	65 ^{g6} 2.559	95 3.740	65 2.559	75 2.953	6 0.236				18 ^{H8} 0.709		1 0.039	x 45°	0.5 0.020	x 45°	0.8 0.031
306	80 ^{g6} 3.150	116 4.567	80 3.150	92 3.622	7 0.276				22 ^{H8} 0.866		1 0.039	x 45°	0.5 0.020	x 45°	0.8 0.031
307	90 ^{g6} 3.543	141 5.551	90 3.543	102 4.016	8 0.315				25 ^{H8} 0.984		2 0.079	x 45°	1 0.039	x 45°	0.8 0.031
309	120 ^{g6} 4.724	128 5.039	120 4.724	136 5.354	10 0.394				32 ^{H8} 1.260		2 0.079	x 45°	1 0.039	x 45°	1.6 0.063
310	130 ^{g6} 5.118	138 5.433	130 5.118	146 5.748	10 0.394				32 ^{H8} 1.260		2 0.079	x 45°	1 0.039	x 45°	1.6 0.063

(*) Relief groove (UNI 4386 - 75 E0.6x0.3)

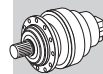


Dimensions are in Inch except when shown in *italic [mm]*

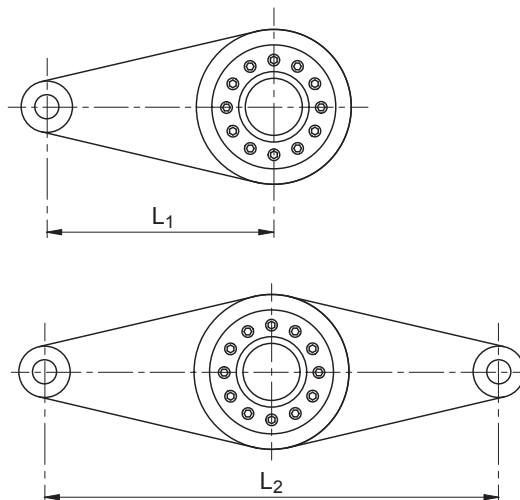
	A	B	C	Shaft material	D	E	F	G	H	K	J	L	M	N	O	P	Q	R	DC*
	Splined shaft DIN 5480		Relief groove diameter		[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]	[mm] [in]
Suggested material: Steel with tensile strength or $\geq 130,533.93$ lbs/in ²	311	120x3x38	108 ^{g6} 4.252 -0.0005 -0.0013	112 4.409	124 ^{g6} 4.882 -0.0006 -0.0015	112 4.409	124 4.882	19 0.748	69 2.716	9 0.354	70 2.755	18.5 0.728	6 0.236	1 0.039	1.6 0.062	—	—	1.6 0.062	60 2.362
	313	140x5x26	110 ^{g6} 4.331 -0.0005 -0.0013	132 5.197	142 ^{g6} 5.591 -0.0006 -0.0015	132 5.197	142 5.591	26 1.023	83 3.267	18 0.708	84 3.307	30 1.181	6 0.236	1 0.039	2 0.078	—	—	3 0.118	60 2.362
	314	150x5x28	136 ^{g6} 5.354 -0.0006 -0.0015	136 5.354	152 ^{g6} 5.984 -0.0006 -0.0015	136 5.354	152 5.984	16 0.629	103 4.055	8 0.314	104 4.094	20 0.787	8 0.314	1 0.039	2 0.078	—	—	1.6 0.062	60 2.362
	315	150x5x28	136 ^{g6} 5.984 -0.0006 -0.0015	136 5.354	152 ^{g6} 5.984 -0.0006 -0.0015	136 5.354	152 5.984	16 0.629	103 4.055	8 0.314	104 4.094	20 0.787	8 0.314	1 0.039	2 0.078	—	—	1.6 0.062	60 2.362
	316	170x5x32	150 ^{g6} 5.906 -0.0006 -0.0015	154 6.063	172 ^{g6} 6.772 -0.0006 -0.0015	154 6.063	172 6.772	30 1.181	113 4.448	20 0.787	114 4.488	45 1.771	9 0.354	1 0.039	3 0.118	—	—	3 0.118	60 2.362
	317	200x5x38	187 ^{g6} 7.362 -0.0006 -0.0017	186 7.323	202 ^{g6} 7.953 -0.0006 -0.0017	192 7.559	202 7.953	16 0.629	100 3.937	19 0.748	101 3.976	33 1.299	9 0.354	1 0.039	3.5 0.137	130 5.118	10 0.393	1.6 0.062	60 2.362
	318	210x5x40	190 ^{g6} 7.480 -0.0006 -0.0017	194 7.638	212 ^{g6} 8.346 -0.0006 -0.0017	194 7.638	212 8.346	27 1.062	133 5.236	20 0.787	134 5.275	45 1.771	9 0.354	2 0.078	3 0.118	—	—	3 0.118	60 2.362
	319	260x5x50	248 ^{g6} 9.764 -0.0006 -0.0017	243 9.567	265 ^{g6} 10.433 -0.0007 -0.0019	243 9.567	265 10.433	29 1.141	144 5.669	20 0.787	145 5.708	40 1.574	11 0.433	2 0.078	3 0.118	—	—	3 0.118	60 2.362
	321	300x8x36	282 ^{g6} 11.102 -0.0007 -0.0019	281 11.063	305 ^{g6} 12.008 -0.0007 -0.0019	281 11.063	305 12.008	25 0.984	158 6.22	25 0.984	159 6.259	50 1.968	12 0.472	2 0.078	3 0.118	—	—	3 0.118	70 2.755
	323	400x8x48	360 ^{g6} 14.173 -0.0007 -0.0021	381 15.000	405 ^{g6} 15.945 -0.0008 -0.0024	381 15.000	405 15.945	35 1.377	254 10	26 1.023	256 10.078	53.5 2.106	12 0.472	2 0.078	4 0.157	—	—	5 0.196	70 2.755
	325	450x8x55	410 ^{g6} 16.142 -0.0008 -0.0024	431 16.969	455 ^{g6} 17.913 -0.0008 -0.0024	431 16.969	455 17.913	34 1.338	272 10.708	24 0.944	274 10.787	66 2.598	12 0.472	2 0.078	4 0.157	—	—	5 0.196	70 2.755

* Max cutter diameter

TORQUE ARM



	L1 [mm / in]	L2 [mm / in]
300	300 / 11.811	450 / 17.716
301	580 / 22.834	
303	350 / 13.779	500 / 19.685
304		
305	370 / 14.566	
306	410 / 16.141	600 / 23.622
307	490 / 19.291	700 / 27.559
309	600 / 23.622	900 / 35.433
310	1030 / 40.551	1000 / 39.37
311	800 / 31.496	1100 / 43.307
313	900 / 35.433	1200 / 47.244
314	1100 / 43.307	1400 / 55.118
315		
316	1280 / 50.393	1500 / 59.055
317	1300 / 51.181	1600 / 62.992
318	1900 / 74.803	1800 / 70.866
319	1500 / 59.055	2000 / 78.74
321	1500 / 59.055	
323	1750 / 68.897	3000 / 118.11
325	2050 / 80.708	3200 / 125.984



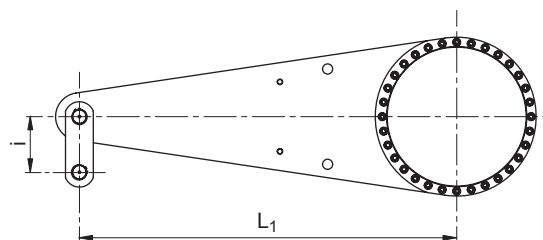
NOTE: Drawings for illustration purpose only

Suggested material: S275JR - UNI EN 10025 or S355JR - UNI EN 10025.

TORQUE ARM KIT FOR FP VERSIONS

If requested, it's possible to install a specific "Torque arm" Kit on 300 series geraboxes. For detailed information please contact our Technical Service .

	L1 [mm / in]	i [mm / in]
300	300 / 11.811	55 / 2.165
301	580 / 22.834	
303	350 / 13.779	80 / 3.149
304		
305	370 / 14.566	
306	410 / 16.141	115 / 4.527
307	490 / 19.291	
309	600 / 23.622	135 / 5.314
310	1030 / 40.551	
311	800 / 31.496	155 / 6.102
313	900 / 35.433	160 / 6.299
314	1100 / 43.307	200 / 7.874
315		
316	1280 / 50.393	210 / 8.267
317	1300 / 51.181	240 / 9.448
318	1900 / 74.803	280 / 11.023
319	1500 / 59.055	320 / 12.598
321	1500 / 59.055	360 / 14.173
323	1750 / 68.897	400 / 15.748
325	2050 / 80.708	440 / 17.322

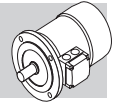


NOTE: Draw for illustration purpose only

Suggested material: S275JR - UNI EN 10025 or S355JR - UNI EN 10025.

ELECTRIC MOTORS

M1 SYMBOLS AND UNITS OF MEASUREMENT



Symbols	Units of Measure	Description	Symbols	Units of Measure	Description
$\cos\varphi$	–	Power factor	n	[rpm]	Rated speed
η	–	Efficiency	P_B	[W]	Power drawn by the brake at 20°C
f_m	–	Power adjusting factor	P_n	[kW/hp]	Motor rated power
I	–	Cyclic duration factor	P_r	[kW/hp]	Required power
I_N	[A]	Rated current	t_1	[ms]	Brake response time with one-way rectifier
I_s	[A]	Locked rotor current	t_{1s}	[ms]	Brake response time with electronic-controlled rectifier
J_C	[lb·ft ²]	Load moment of inertia	t_2	[ms]	Brake reaction time with a.c. disconnect
J_M	[lb·ft ²]	Moment of inertia	t_{2c}	[ms]	Brake reaction time with a.c. and d.c. disconnect
K_c	–	Torque factor	t_a	[°F]	Ambient temperature
K_d	–	Load factor	t_f	[min]	Work time at constant load
K_J	–	Inertia factor	t_r	[min]	Rest time
T_A	[lb·in]	Mean breakaway torque	W	[lb·ft]	Braking work between service interval
T_B	[lb·in]	Brake torque	W_{max}	[lb·ft]	Maximum brake work for each braking
T_N	[lb·in]	Rated torque	Z	[1/h]	Permissible starting frequency, loaded
T_L	[lb·in]	Counter-torque during acceleration	Z_0	[1/h]	Max. permissible unloaded starting frequency (I = 50%)
T_S	[lb·in]	Starting torque			

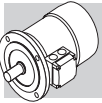
Efficiency classes and test methods

Efficiency classes characterise the efficiency with which an electric motor converts electrical energy into mechanical energy. In Europe, the energy efficiency of low voltage electric motors used to be classified using the voluntary Eff1/Eff2/Eff3 system. Outside Europe, other countries used to apply their own national systems, often very different to the European system. This uncertainty in standards led manufacturers to develop a harmonised international standard, and push for the issue of IEC (International Electrotechnical Commission) standard IEC 60034-30-1, “Efficiency classes of single-speed, three-phase, cage-induction motors (IE code)”.

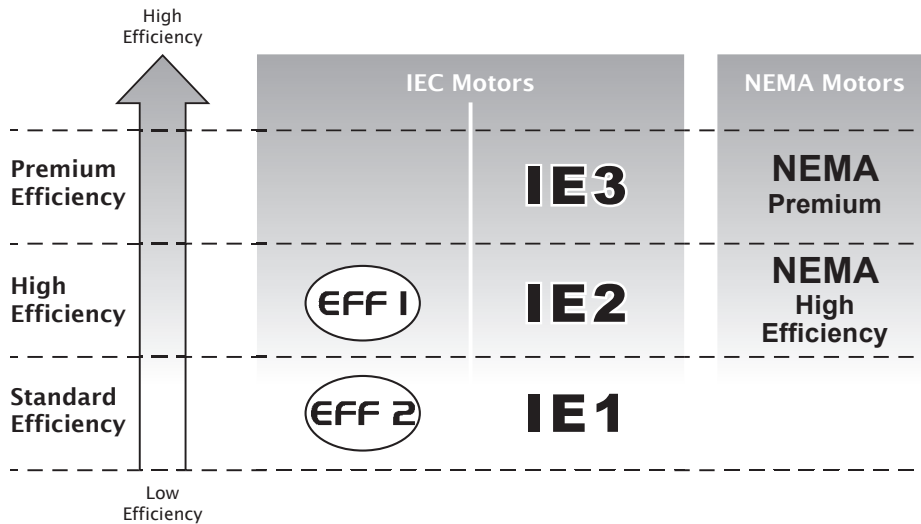
In the USA, the reference standard is NEMA MG1.

These new standards:

- defines new classes of efficiency
- **IE1** (standard efficiency)
- **IE2** (NEMA high efficiency)
- **IE3** (NEMA premium efficiency)
- provides a common, international reference system for the classification of electric motors and for national legislation
- introduces a new efficiency measurement method in conformity with standard IEC 60034-1-2:2007



The following table shows the correspondence among the main classes.



European Commission regulation 640/2009

IEC standard 60034-30-1 establishes technical guidelines for efficiency classification but does not impose any legal requirements for the adoption of any particular efficiency class. These are laid down by European Directives and national laws.

The EC Regulation applying Directive 2005/32/EC was adopted on the 22nd July 2009. This establishes the legal requirements and eco-compatible design criteria for electric motors, and imposes minimum efficiency limits according to the following schedule:

- **16/06/2011:** Electric motors must have a minimum efficiency level equivalent to class **IE2**
- **01/01/2015:** Electric motors with a rated power output between 10 HP (7.5 kW) and 500 HP (375 kW) must have
 - a minimum efficiency level corresponding to **IE3**, or to **IE2** if controlled by an inverter.
- **01/01/2017:** Electric motors with a rated power output between 1 HP (0.75 kW) and 500 HP (375 kW) must have
 - a minimum efficiency level corresponding to **IE3**, or to **IE2** if controlled by an inverter.

Scope and exclusions

EC Regulation 640/2009 applies to 2, 4, and 6 pole, single-speed, three-phase, 50 Hz or 60 Hz, cage-induction motors with rated outputs of 1 HP (0.75 kW) to 500 HP (375 kW), and rated voltage up to 1000 V, designed for continuous duty (S1).

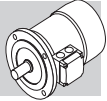
The regulation does not apply to:

- brakemotors
- motors designed to function immersed in liquid
- motors that are fully integrated in a product (like a gearbox, pump, fan), so that it is not possible to test the performance of the motor independently of that of the product.
- motors expressly designed to function:
 - at altitudes above 13.100 ft (4000 metres) a.s.l.;
 - in ambient temperatures above 140 °F (60 °C);
 - at maximum operating temperatures above 750 °F (400 °C);
 - in ambient temperatures below -20 °F (-30 °C) (all motors) or below 32 °F (0 °C) (water-cooled motors);
 - with incoming liquid coolants at temperatures below 32 °F (0 °C) or above 90 °F (32 °C);
 - in potentially explosive atmospheres as defined by Directive 2014/34/EU.

DOE (the U.S. Department of Energy)

According to the Electronic Code of Federal Regulations (eCFR) of the United States of America, part 431 (ENERGY EFFICIENCY PROGRAM FOR CERTAIN COMMERCIAL AND INDUSTRIAL EQUIPMENT), subpart B (Electric Motors), the TEFC (totally enclosed fan cover) electric induction motors, whether equipped with a brake or not, may be placed onto the USA market according to the following prescriptions:

- **IE1 / Standard** motors can be sold in USA only if one or more of the following conditions apply:
 - their rated power is $P_n < 1$ HP (0.75 kW)
 - they are rated for a non-continuous duty (all duties, except S1)
 - they are labelled for inverter (VFD) only operation
 - they are multi speed motors
- **IE2 / High Efficiency** motors can be sold in USA **until June 1st 2016**, only if:
 - have performance in accordance with NEMA design C characteristics, as described in MG1 or an equivalent IEC design(s) such as IEC Design H
- Any motors manufactured **as of June 1st 2016 onwards** shall be **IE3 / Premium Efficient**, unless the following relevant exemptions apply:
 - their rated power is $P_n < 1$ HP (0.75 kW)
 - motors rated for a non-continuous duty (all duties, except S1)
 - motors labelled for inverter (VFD) only operation
 - multi speed motors



M3 GENERAL CHARACTERISTICS

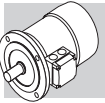
M3.1 Production range

The asynchronous three-phase electric motors BX, BE, BN, MX, ME and M of BONFIGLIOLI RIDUTTORI's production, are available in basic designs IMB5 and derived versions, with the following polarities: 2, 4, 6 at 50Hz and 60Hz (BX, BE / MX, ME motors are available at 60 Hz in 4 pole configuration only). For requests concerning other polarities (e.g. double speed motors), please contact the Technical Department.

Motors are provided as totally enclosed fan cooled (TEFC) according to NEMA MG1.

M3.2 Standards

The motors described in this catalogue are manufactured to the applicable standards shown in the following table.



(F01)

Title	CEI	IEC
General requirements for rotating electrical machines	CEI EN 60034-1	IEC 60034-1
Terminal markings and direction of rotation of rotating machines	CEI 2-8	IEC 60034-8
Methods of cooling for electrical machines	CEI EN 60034-6	IEC 60034-6
Dimensions and output ratings for rotating electrical machines	EN 50347	IEC 60072
Classification of degree of protection provided by enclosures for rotating machines	CEI EN 60034-5	IEC 60034-5
Noise limits	CEI EN 60034-9	IEC 60034-9
Classification of type of construction and mounting arrangements	CEI EN 60034-7	IEC 60034-7
Rated voltage for low voltage mains power	CEI 8-6	IEC 60038
Vibration level of electric machines	CEI EN 60034-14	IEC 60034-14
Efficiency classes of single-speed, three-phase, cage-induction motors (IE code)	CEI EN 60034-30-1	IEC 60034-30-1
Standard method for determining losses and efficiency from tests	CEI EN 60034-2-1	IEC 60034-2-1

The motors also comply with foreign standards adapted to IEC 60034-1 as shown here below.

(F02)

NEMA MG1	USA
DIN VDE 0530	Germany
BS5000 / BS4999	Great Britain
AS 1359	Australia
NBNC 51 - 101	Belgium
NEK - IEC 34	Norway
NF C 51	France
OEVE M 10	Austria
SEV 3009	Switzerland
NEN 3173	Netherlands
SS 426 01 01	Sweden

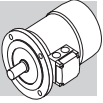
M3.3 Directives 2006/95/EC (LVD) and 2004/108/EC (EMC)

BX, BE, BN, MX, ME and M motors meet the requirements of Directives 2006/95/EC (Low Voltage Directive) and 2004/108/EC (Electromagnetic Compatibility Directive) and their name plates bear the CE mark.

As for the EMC Directive, construction is in accordance with standards CEI EN 60034-1, EN 61000-6-2, EN 61000-6-4.

Motors with FD brakes, when fitted with the suitable capacitive filter at rectifier input (option **CF**), meet the emission limits required by Standard EN 61000-6-3:2007 "Electromagnetic compatibility - Generic Emission Standard - Part 6-3 Residential, commercial and light industrial environment".

Motors also meet the requirements of standard CEI EN 60204-1 "Electrical equipment of machines". The responsibility for final product safety and compliance with applicable directives rests with the manufacturer or the assembler who incorporate the motors as component parts.



M3.4 Tolerances

As per the Norms CEI EN 60034-1, applicable the tolerances here below apply to the following quantities.






(F03)

-0.15 (1 - η) P \leq 75 hp	Efficiency
-(1 - $\cos\phi$)/6 min 0.02 max 0.07	Power factor
$\pm 20\%$ *	Slip
+20%	Locked rotor current
-15% +25%	Locked rotor torque
-10%	Max. torque

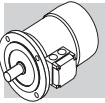
(*) $\pm 30\%$ for motors with Pn < 0.75 hp

M4 VARIANTS AND OPTIONS

















M4.1 Variants

Description		Default	Option	Page
Voltage		230/400/50		 533
Protection class	BX - BE - BN - MX - ME - M	IP 55	IP 56	 530
	BN_FD - BN_FA M_FD - M_FA	IP 54	IP 55	
Insulation class		CLF	CLH	 536  537
Design version	BX - BE - BN	B5 B5 R		 529

 Default values.



M4.2 Options

Description	Catalogue numbers						Availability	Page
	D3	K1	E3					
Thermal protective devices	D3	K1	E3				BX - BE - BN MX - ME - M	 552
50 Hz normalized power	PN						BN M	 535
Feedback devices	EN1	EN2	EN3	EN4	EN5	EN6	BX - BE - BN MX - ME - M	 557
Anti-condensate heaters	H1	NH1					BX - BE - BN MX - ME - M	 554
Tropicalized windings	TP						BX - BE - BN MX - ME - M	 554
Double-extended shaft	PS						BX - BE - BN MX - ME - M	 554
Rotor balancing grade B	RV						BX - BE - BN MX - ME - M	 555
External mechanical protections	RC	TC					BX - BE - BN MX - ME - M	 556
Certification	CUS						BE - BN ME - M	 535
China Compulsory Certification	CCC						BE - BN ME - M	 536
Surface protection	C_						BX - BE - BN MX - ME - M	 558
Painting	RAL						BX - BE - BN MX - ME - M	 558
Certificates	ACM						BX - BE - BN MX - ME - M	 559
Inspection certificate	CC						BX - BE - BN MX - ME - M	 559
Backstop device	AL	AR					MX - ME - M	 555
Type of duty	S2	S3	S9				BN M	 537







M4.3 Brake-related options

(F06)	Description	Catalogue numbers				Availability	Page
	Brake torque	Refer to the specific brake type					545 548
	Manual release lever	R	RM			BN M	550
	Release lever orientation	AB	AA	AC	AD	BN M	551
	DC brake rectifier	NB	NBR	SB	SBR	BN M	544
	Soft-start flywheel	F1				BN M	551
	Capacitive filter	CF				BN M	552
	Brake separate power supply (*)	...SA	...SD			BN M	544 548
	Brake functionality check	MSW				BN M	553
	Additional cable entry for brake motors	IC				BN M	553

(*) Specify voltage.

■ Default values.

M4.4 Example of identification nameplate

				Bonfiglioli					
3~Mot BE 90LA 4		Cod. 8U0903000P							
No 1003001 - 6954785		S1		IM B5		15,1 kg			
kW 1,5 HP 2		CL F		IP 55		Amb 40 °C			
Hz		V ± 10%		A		min ⁻¹		cos φ	
50		230/400 Δ/Y		6.1/3.5		1430		0.74	
50Hz-IE2		83.5(100%) - 83.0(75%) - 80.0(50%)							
TEFC - kVA		Code H							
									

- ① BONFIGLIOLI Motor type
- ② Serial number
- ③ Rated voltage

- ④ Motor code
- ⑤ Type of duty: S1 Continuous duty
- ⑥ IE Class, Efficiency at: 4/4 - 3/4 - 2/4 load

M5 MECHANICAL FEATURES

M5.1 Versions

EC-normalised BX, BE and BN motors are available in the design versions as indicated in the table below here after as per Standards EN 60034-7 (BX, BE), CEI EN 60034-14 (BN).

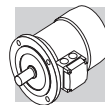
Mounting versions are:

IM B5 (basic)

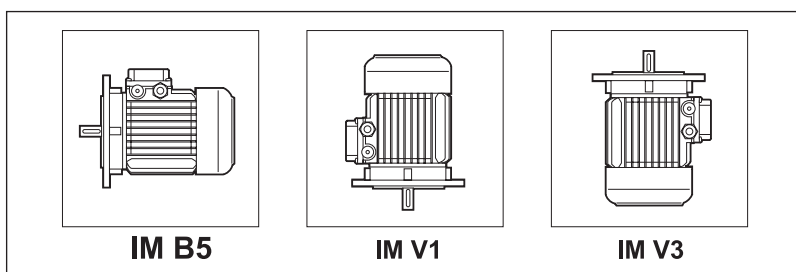
IM V1, IM V3 (derived)

IM B5 design motors can be installed in positions IM V1 and IM V3. In such cases, the basic design IM B5 is indicated on the motor name plate.

In design versions with a vertically located motor and shaft downwards, it is recommended to request the drip cover (always necessary for brake motors). This facility, included in the option list should be specified when ordering as it does not come as a standard device

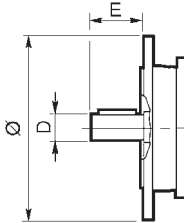


(F07)



Flange output motors are also available with reduced coupling dimensions, as indicated in the table below - executions **B5R**.

(F08)

							
		BN 71	BE/BN 80	BE/BN 90	BE/BN 100	BE/BN 112	BX/BE/BN 132
		DxE - Ø					
B5R	[mm]	11x23 - 140	14x30 - 160	19x40 - 200	24x50 - 200	24x50 - 200	28x60 - 250
	[in]	0.433x0.905 - 5.511	0.551x1.181 - 6.299	0.748x1.574 - 7.874	0.944x1.968 - 7.874	0.944x1.968 - 7.874	1.102x2.362 - 9.842

B5R flange is provided with through holes







M5.2 Degree of protection








IP..

The following chart provides an overview of the degrees of protection available.

In addition to the degree of protection specified when ordering, motors to be installed outdoors require protection against direct sunlight and also – when they are to be installed vertically down – a drip cover to prevent the ingress of water and solid particles (option **RC**).

(F09)

		IP 54	IP 55	IP 56
BX - BE - BN	MX - ME - M		standard	
BN_FD BN_FA	M_FD M_FA	standard		

IP		5	5
0		Not protected	0
1	 ∅ 50 mm	Protected against extraneous solid bodies having $\varnothing \geq 50$ mm	1
2	 ∅ 12 mm	Protected against extraneous solid bodies having $\varnothing \geq 12.5$ mm	2
3	 ∅ 2.5 mm	Protected against extraneous solid bodies having $\varnothing \geq 2.5$ mm	3
4	 ∅ 1 mm	Protected against extraneous solid bodies having $\varnothing \geq 1.0$ mm	4
5		Protected against dust	5
6		No dust ingress	6
			0
			1
			2
			3
			4
			5
			6
			7
			8

M5.3 Cooling

The motors are externally ventilated (IEC 411 / NEMA MG1-6 - CEI EN 60034-6) and are equipped with a plastic fan working in both directions.

The motors must be installed allowing sufficient space between fan cowl and the nearest wall to ensure free air intake and allow access for maintenance purposes on motor and brake, if supplied.

M5.4 Direction of rotation

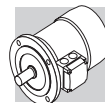
Rotation is possible in both directions. If terminals U1, V1 and W1 are connected to line phases L1, L2 and L3, clockwise rotation (looking from drive end) is obtained. For counterclockwise rotation, switch two phases.

M5.5 Noise

Noise levels, measured using the method prescribed by ISO 1680 Standards, are within the maximum levels specified by Standards CEI EN 60034-9.

M5.6 Vibrations and balancing

Rotor shafts are balanced with half key fitted and fall within the vibration class N, as per Standard CEI EN 60034-14.



M5.7 Terminal box

Terminal board features 6 studs for eyelet terminal connection (9 studs execution for US voltage "Dual Voltage"). A ground terminal is also supplied for earthing of the equipment.



Terminals number and type are shown in the following table.

For brake power supply, please read par. 8 (brake FD), 9 (brake FA).

Brakemotors house the a.c./d.c. rectifier (factory pre-wired) inside the terminal box.

Wiring instructions are provided either in the box or in the user manual.



(F10)

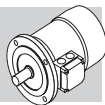
		No. of terminals	Terminal threads [mm]	Wire max cross section area [mm ² / in ²]
BE 80, BE 90 BN 56 ... BN 71 BN 80, BN 90	ME2 M05, M1 M2	6	M4	2.5 / 0.098
BE 100 ... BE 132 - BX 132 BN 100 ... BN 112 BN 132 ... BN 160MR	ME3, MX4 - ME4 M3 MX4 - M4	6	M5	6 / 0.236
BX 160 - BE 160 BN 160M ... BN 180M	ME5 MX5 - M5	6	M6	16 / 0.629
BX 180 - BE 180 BN 180L ... BN 200L	- -	6	M8	25 / 0.984
BX 132 BE 80 ... BE 132 BN 63 ... BN 160MR	MX4 ME2 ... ME4 M05 ... M4	9	M4	6 / 0.236
BX 160 ... BX 180 BE 160 ... BE 180 BN 160M ... BN 200L	MX5 ME5 M5	9	M6	16 / 0.629

M5.8 Cable entry

The holes used to bring cables to terminal boxes use metric threads in accordance with standard EN 50262 as indicated in the table here after.

(F11)

			Cable gland and dimensions		Maximum cable diameter allowed [mm / inch]
BN 63		M05	2 x M20 x 1.5	1 Hole on each side	13 / 0.512
BN 71		M1	2 x M25 x 1.5		17 / 0.669
BE 80, BE 90 BN 80, BN 90		ME2 M2	2 x M25 x 1.5		17 / 0.669
BE 100 BN 100		ME3 M3	2 x M32 x 1.5 2 x M25 x 1.5	2 Holes on each side	21 / 0.827 17 / 0.669
BN 112, BE 112		–	2 x M32 x 1.5 2 x M25 x 1.5		21 / 0.827 17 / 0.669
BX 132 - BE 132 BN 132...BN 160MR		MX4 - ME4 M4	4 x M32 x 1.5		21 / 0.827
BX 160 - BE 160, BX 180 - BE 180 BN 160M...BN 200L		MX5 - ME5 M5	2 x M40 x 1.5	Pivoting, 4 x 90°	28 / 1.102




M5.9 Bearings


Life lubricated preloaded radial ball bearings are used, types are shown in the chart here under. Calculated endurance lifetime L_{10h} , as per ISO 281, in unloaded condition, exceeds 40000 hrs.

DE = drive end

NDE = non drive end

(F12)

	DE	NDE	
	M, M_FD, M_FA	M	M_FD, M_FA
M05	6004 2Z C3	6201 2Z C3	6201 2RS C3
M1	6004 2Z C3	6202 2Z C3	6202 2RS C3
ME2 - M2	6007 2Z C3	6204 2Z C3	6204 2RS C3
ME3 - M3	6207 2Z C3	6206 2Z C3	6206 2RS C3
MX4 - ME4 - M4	6309 2Z C3	6308 2Z C3	6308 2RS C3
MX5 - ME5 - M5	6309 2Z C3	6309 2Z C3	6309 2RS C3

	DE	NDE	
	BX, BE, BN, BN_FD BN_FA	BX, BE, BN	BN_FD BN_FA
BN 56	6201 2Z C3	6201 2Z C3	–
BN 63	6201 2Z C3	6201 2Z C3	6201 2RS C3
BN 71	6202 2Z C3	6202 2Z C3	6202 2RS C3
BE 80 BN 80	6204 2Z C3	6204 2Z C3	6204 2RS C3
BE 90 BN 90	6205 2Z C3	6205 2Z C3	6305 2RS C3
BE 100 BN 100	6206 2Z C3	6206 2Z C3	6206 2RS C3
BE 112 BN 112	6306 2Z C3	6306 2Z C3	6306 2RS C3
BX 132 - BE 132 BN 132	6308 2Z C3	6308 2Z C3	6308 2RS C3
BN 160MR	6309 2Z C3	6308 2Z C3	6308 2RS C3
BX 160M/L - BE 160M/L BN 160M/L	6309 2Z C3	6309 2Z C3	6309 2RS C3
BN 180M	6310 2Z C3	6309 2Z C3	6309 2RS C3
BX 180M/L - BE 180M/L BN 180L	6310 2Z C3	6310 2Z C3	6310 2RS C3
BN 200L	6312 2Z C3	6310 2Z C3	6310 2RS C3

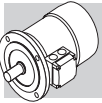
M6.1 Voltage

Single speed motors are provided in standard execution either for nominal voltage 230 / 400 V, 50 Hz, or 400 / 690 V, 50 Hz, or 230 / 460 V, 60 Hz with a voltage tolerance of $\pm 10\%$, according to what is specified on the below table.



On all the motors BN and M, for which the voltage / frequency configuration is not included on the below table, the voltage tolerance is reduced down to $\pm 5\%$.

For the operation out of the tolerance boundaries, the temperature may exceed by 10 K the limit provided by the adopted insulation class.

The motors are suitable for operation on distribution European grid with voltage complying with the publication IEC 60038.



(F13)


Efficiency class			V_{mot} $\pm 10\%$ 3~	Configuration
IE3	BX 132	MX 4	230 / 400 V - Δ/Y - 50 Hz	standard
	BX 160, BX 180	MX 5	400 / 690 V - Δ/Y - 50 Hz	standard
IE2	BE 80 ... 132	ME 2 ... ME 4	230 / 400 V - Δ/Y - 50 Hz	standard
			460 V Y - 60 Hz ¹	standard
	BE 160, BE 180	ME 5	400 / 690 V - Δ/Y - 50 Hz	At request, carries no extra charge
			460 V Δ - 60 Hz ¹	standard
IE1	BN 56 ... BN 132	M0 ... M4	230 / 400 V - Δ/Y - 50 Hz	standard
			400 / 690 V - Δ/Y - 50 Hz	At request, carries no extra charge
	BN 160 ... 200	M5	460 V Y - 60 Hz	standard
			400 / 690 V - Δ/Y - 50 Hz	standard
			460 V Δ - 60 Hz	standard

¹ 4 pole motor only

The only rated voltage for motors type at 50 Hz and all double speed motors is 400 V. Applicable tolerances as per CEI EN 60034-1.

The table below shows the wiring options available.

(F14)





Number of poles		Winding connection
2	BE 80 ... BE 160, BN 63 ... BN 200	Δ / Y ⁽²⁾
4	BX 132 ... BX 180 BE 80 ... BE 180, BN 56 ... BN 200	
6	BE 90 ... BE 160, BN 63 ... BN 200	
8	BN 71 ... BN 132	
2/4	BN 63 ... BN 132	Δ / YY (Dahlander)
2/6	BN 71 ... BN 132	Y / Y (Two windings)
2/8	BN 71 ... BN 132	
2/12	BN 80 ... BN 132	
4/6	BN 71 ... BN 132	
4/8	BN 80 ... BN 132	Δ / YY (Dahlander)

⁽²⁾ Motors with voltage in ratio 2 (ex. 230/460 - 60) will be equipped with a 9 pin terminal box with winding connection either Δ/Δ or YY/Y (except 6 pole BN 63 Δ/Y)

M6.2 Frequency

Rated output power BN / M for 60 Hz operation is shown in the following diagram.

(F15)

		P _n [kW/HP]					P _n [kW/HP]		
		2P	4P	6P			2P	4P	6P
									
BN 56A	–	–	0.07 / 0.09	–	BN 112M	M3LB	4.7 / 6.30	4.7 / 6.30	2.5 / 3.35
BN 56B	M0B	–	0.10 / 0.13	–	–	M3LC	–	4.7 / 6.30	2.5 / 3.35
BN 63A	M05A	0.21 / 0.28	0.14 / 0.19	0.10 / 0.13	BN 132S	M4SA	–	6.5 / 8.62	3.5 / 4.69
BN 63B	M05B	0.30 / 0.40	0.21 / 0.28	0.14 / 0.19	BN 132SA		6.5 / 8.62	–	–
BN 71A	M05C	0.45 / 0.60	0.30 / 0.40	0.21 / 0.28	BN 132SB	M4SB	8.7 / 11.67	–	–
BN 71B	M05SD	0.65 / 0.87	0.45 / 0.60	0.30 / 0.40	BN 132M	M4LA	11 / 14.75	–	–
BN 80A	M1LA	0.90 / 1.21	0.65 / 0.87	0.45 / 0.60	BN 132MA		–	8.7 / 11.67	4.6 / 6.17
BN 80B	M2SA	1.30 / 1.74	0.90 / 1.21	0.65 / 0.87	BN 132MB	M4LB	–	11 / 14.75	6.5 / 8.62
BN 90S	M2SB	–	1.30 / 1.74	0.90 / 1.21	BN 160MR	M4LC	12.5 / 16.76	12.5 / 16.76	–
BN 90SA		1.8 / 2.41	–	–	BN 160MB	M5SB	17.5 / 23.47	–	–
BN 90L	M3SA	2.5 / 3.35	–	1.30 / 1.74	BN 160M	M5SA	–	–	8.6 / 11.53
BN 90LA		–	1.8 / 2.41	–	BN 160L	M5S	21.5 / 28.83	17.5 / 23.47	12.6 / 16.9
BN 100L	M3LA	3.5 / 4.69	–	–	BN 180M	M5LA	24.5 / 32.85	21.5 / 28.83	–
BN 100LA		–	2.5 / 3.35	1.8 / 2.41	BN 180L	–	–	25.3 / 33.93	17.5 / 23.47
BN 100LB		M3LB	4.7 / 6.30	3.5 / 4.69	2.2 / 2.95	BN 200L	–	–	34 / 45.59
					BN 200LA	–	34 / 45.59	–	22 / 29.50

BX, BE / MX, ME motors are available at 60 Hz on a 4 pole configuration only, and their power rating is the same as their 50 Hz counterpart.

If a nominal power rating, equal to the normalised nominal power rating at 50 Hz, was requested to be on a nameplate of a motor meant to be voltage supplied at 60 Hz, the PN option shall be specified on the motor designation. Motors normally designed for a 50 Hz frequency may be used on a 60 Hz operating grid, but the related data shall be updated according to the following table. Motors designated for 50 Hz operation show on the nameplate also the values for 60 Hz operation (excluding motors in CUS execution and brake motors). See the following table.

(F16)

	50 Hz	60 Hz			
	V - 50 Hz	V - 60 Hz	P _n - 60 Hz	T _n , T _a /T _n - 60 Hz	n [rpm] - 60 Hz
BX/MX BE/ME	230/400 Δ/Y	265 - 460 Δ Y	1	0.83	1.2
	400/690 Δ/Y	460 Δ			
BN/M	230/400 Δ/Y	220 - 240 Δ 380 - 415 Y	1.15	1	1.2
	400/690 Δ/Y	380 - 415 Δ			
BN/M	230/400 Δ/Y	265 - 280 Δ 440 - 480 Y	1.15	1	1.2
	400/690 Δ/Y	440 - 480 Δ			

M6.3 Ambient temperature

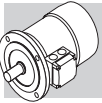
Catalogue rating values are calculated for standard ambient conditions (temperature 104 °F / 40 °C; elevation ≤ 3300 ft / 1000 m a.s.l.) as per the CEI EN 60034-1 Standards.

The motors can be used within the 104 -140 °F / 40 - 60 °C temperature range with rated power output adjusted by factors given in the table below.

(F17)

Ambient temperature [°F]	100°	115°	120°	130°	140°
Permitted power as a % of rated power	100%	95%	90%	85%	80%

Should a derating factor higher than 15% apply please consult factory.



M6.4 50 HZ normalized power

PN

With this option, motor name plate includes 50 Hz normalized power information even when motor is designated for operation with 60 Hz power mains. For 60 Hz supplies along with voltages 230/460V and 575V the PN option is applied by default.

M6.5 Motors for USA and Canada

CUS

BN motors are available in NEMA Design C configuration (concerning electrical characteristics), in compliance with CSA (Canadian standard) C22.2 No. 100 and UL (Underwriters Laboratory) UL 1004-1 (UL Bonfiglioli file number E308649). By specifying the option CUS the name plate is marked with both symbols shown here below.



CUS option is not currently available for IE3 motors.

The CUS option does not apply to servo-ventilated motors. US power mains voltages and the corresponding rated voltages to be specified for the motor are indicated in the following table:

(F18)

Frequency	Mains voltage	V _{mot}
60 Hz	208 V	200 V
	240 V	230 V
	480 V	460 V
	600 V	575 V

CUS option is applicable onto 50 Hz operating motors as well.

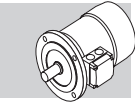
Motors with voltage in ratio 2 (e.g. 230/460-60; 220/440-60) feature, as standard, a 9-stud terminal board. For some executions, as well as for 575V-60Hz executions, as well as for 575V-60Hz supply, the nominal rating is coincident with the correspondent 50Hz rating.

For DC brake motors type BN_FD, the rectifier is connected to a single-phase 230 VAC supply voltage in the motor terminal box.

Brake power supply for brake motors is as follows:

(F19)

BN_FD M_FD	BN_FA M_FA	Power supply
Connected to terminal box 1~230V c.a.	Separate power supply 230V Δ - 60Hz	230SA
	Separate power supplya 460V Y - 60Hz	460SA



M6.6 China Compulsory Certification



Electric motors destined to be sold in the People's Republic of China have to be certified under the CCC (China Compulsory Certification) system. BN motors of up to 62 lb·in in rated torque are available with CCC certification and a special nameplate bearing the mark shown below:



CCC option is not currently available for IE3 motors.

CCC option is not currently available for servo - ventilated motors.

M6.7 Insulation class



Bonfiglioli motors use class **F** insulating materials (enamelled wire, insulators, impregnation resins) as compare to the standard motor.

In standard motors, stator windings over temperature normally stays below the 80 K limit corresponding to class B over temperature.

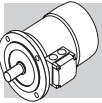
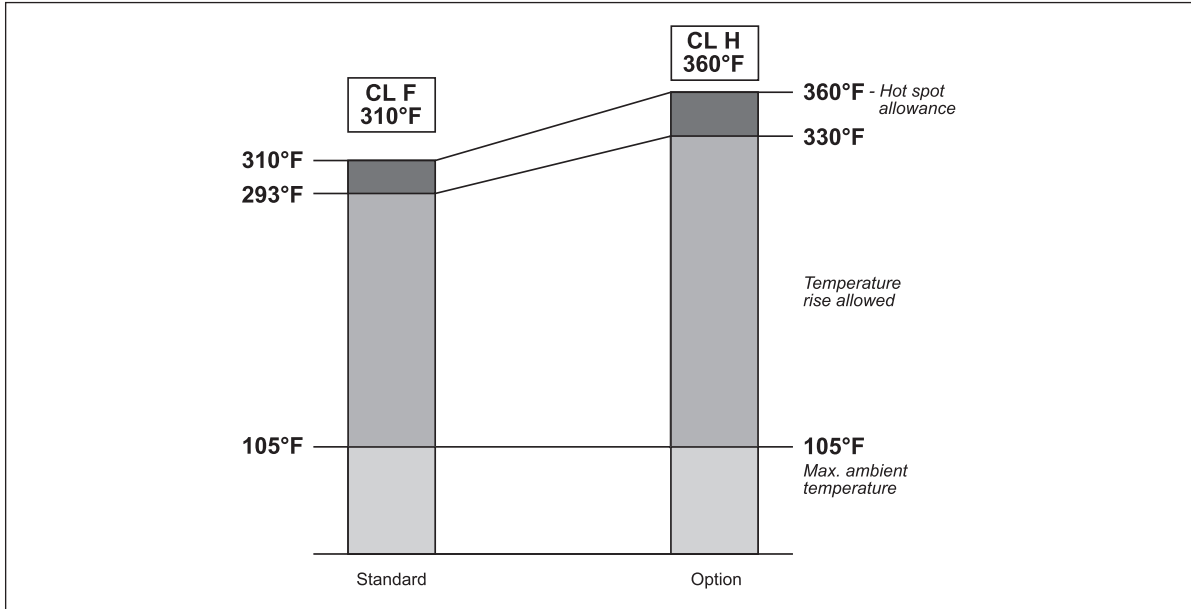
A careful selection of insulating components makes the motors compatible with tropical climates and normal vibration.

For applications involving the presence of aggressive chemicals or high humidity, contact Bonfiglioli Engineering for assistance with product selection.

CL H

Motors manufactured in insulation class **H** are available at request.
 Not available for motors in compliance with CSA e UL standards (CUS option).

(F20)



M6.8 Type of duty

Unless otherwise specified, catalogue motor power refers to continuous duty S1.

Any operating conditions other than S1 duty must be identified in accordance with duty cycle definitions laid down in standards CEI EN 60034-1.

For duty cycles S2 and S3, the power increase co-efficient reported in the following table may be used. Please note that the table provided below applies to single-speed motors.

As an alternative to S1 continuous duty, one of the following values can be specified at the product configuration stage: S2, S3 or S9. The motor nameplate will be marked with an increased power rating to suit the type of duty, and with specific electrical data and a duty type of S2-30 min, S3-70% or S9 respectively.

For further details, contact Bonfiglioli's Technical Service.

Please contact Bonfiglioli Engineering for the power increase coefficients applicable to switch-pole motors.

(F21)

	Type of duty						
	S2			S3 *			S4 - S9
	Duration (min)			Intermittence (I)			
	10	30 (*)	60	25%	40%	70% (*)	Contact us
f_m	1.35	1.15	1.05	1.25	1.15	1.1	

* Cycle duration must, in any event, be equal to or less than 10 minutes; if this time is exceeded, please contact our Technical Service.

(*) Default values from options (tab. F05).

M6.8.1 Cyclic duration factor:

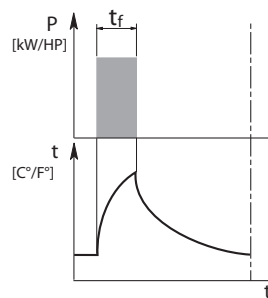
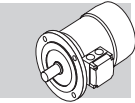
$$I = \frac{t_f}{t_f + t_r} \cdot 100 \quad (01)$$

t_f = work time under constant load

t_r = rest time

M6.8.2 Limited duration duty S2

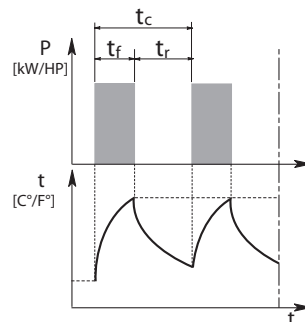
This type of duty is characterized by operation at constant load for a limited time, which is shorter than the time required to reach thermal equilibrium, followed by a rest period of sufficient duration to restore ambient temperature in the motor.



M6.8.3 Periodical intermittent duty S3:

This type of duty is characterized by a sequence of identical operation cycles, each including a constant load operation period and a rest period.

For this type of duty, the starting current does not significantly influence overtemperature.



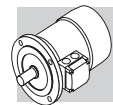
M6.9 Inverter-controlled motors

The Bonfiglioli electric motors may be used in combination with PWM inverters with rated voltage at a transformer input up to 500 V. Standard motors use a phase insulating system with separators, class 2 enameled wire and class H impregnation resins (1600V peak-to-peak voltage pulse capacity and rise edge $t_s > 0.1\mu s$ at motor terminals are allowed).

The Bonfiglioli electric motors may be continuously operated (S1 duty) in “turn - down” mode, i.e. at frequencies lower than the rated frequency, hereafter also called “base frequency” - f_b , in ratios f_b / f up to 10 : 1, according to the below reported tables.

(F22)

INVERTER OPERATION - BE MOTORS TURN-DOWN DATA																			
Type	Inverter operation Motor data 10:1 (60-6Hz) CONSTANT TORQUE				Inverter operation Motor data 5:1 (60-12Hz) CONSTANT TORQUE				60HZ grid supply - Motor data										
	T ₆	N ₆	P ₆		T ₁₂	n ₁₂	P ₁₂		P _n		n	η	T _n	In 230V	In 460V	cosφ	Is/In	Jm	kVA Code Letter
	[lb·in]	[rpm]	[HP]	[kW]	[lb·in]	[rpm]	[HP]	[kW]	[HP]	[kW]	[rpm]	%	[lb·in]	[A]	[A]		p.u.	[lb·ft ²]	
BE 80B 4	36.3	125	0.072	0.054	36.3	305	0.176	0.131	1	0.75	1745	82.5	36.3	2.92	1.46	0.78	7.6	0.066	K
BE 90S 4	53.4	120	0.102	0.076	53.4	300	0.254	0.190	1.5	1.1	1740	84	53.4	4.50	2.25	0.73	7.7	0.066	L
BE 90LA 4	65.5	120	0.125	0.093	72.9	300	0.347	0.259	2	1.5	1740	84.5	72.9	6.20	3.10	0.73	7.1	0.081	K
BE 100LA 4	99.0	125	0.196	0.146	106.6	305	0.516	0.385	3	2.2	1745	87.5	106.6	8.40	4.20	0.76	7	0.128	J
BE 100LB 4	120.9	115	0.221	0.165	146.1	295	0.684	0.510	4	3	1735	87.5	146.1	11.80	5.90	0.76	7	0.145	K
BE 112M 4	145.8	130	0.301	0.224	178.7	310	0.879	0.655	5	3.7	1750	87.5	178.7	13.20	6.60	0.80	7.8	0.249	K
BE 132S 4	228.5	140	0.507	0.378	264.1	320	1.341	1.000	7.5	5.5	1760	89.5	264.1	18.60	9.30	0.83	8.7	0.641	K
BE 132MA 4	301.9	140	0.671	0.500	360.2	320	1.829	1.364	10	7.5	1760	89.5	360.2	25.40	12.70	0.83	8	0.757	K
BE 132MB 4	370.9	140	0.824	0.614	441.8	320	2.243	1.673	12.5	9.2	1760	90	441.8	31.20	15.60	0.82	8.3	0.854	K
BE 160M 4	451.1	145	1.038	0.774	526.7	325	2.716	2.025	15	11	1765	91	526.7	37.40	19	0.81	7.7	1.542	J
BE 160L 4	543.1	150	1.292	0.964	645.8	330	3.381	2.522	20	15	1770	90.5	716.3	51.00	25.5	0.81	7.1	1.875	J
BE 180M 4	663.6	145	1.527	1.139	789.2	325	4.070	3.035	25	18.5	1765	91.9	885.9	60.60	30.3	0.83	7.3	2.966	H
BE 180L 4	757.8	150	1.803	1.345	901.2	330	4.718	3.519	30	22	1770	92.5	1050.5	72.00	36.0	0.83	8.1	3.916	J



(F23)

INVERTER OPERATION - BN MOTORS TURN-DOWN DATA																			
Type	Inverter operation Motor data 10:1 (60-6Hz) CONSTANT TORQUE				Inverter operation Motor data 5:1 (60-12Hz) CONSTANT TORQUE				60HZ grid supply - Motor data										
	T ₆	N ₆	P ₆		T ₁₂	n ₁₂	P ₁₂		P _n		n	η	T _n	In 230V	In 460V	cosφ	Is/In	Jm	kVA Code Letter
	[lb·in]	[rpm]	[HP]	[kW]	[lb·in]	[rpm]	[HP]	[kW]	[HP]	[kW]	[rpm]	%	[lb·in]	[A]	[A]		p.u.	[lb·ft ²]	
BN 56A 4	3.0	50	0.0024	0.0018	3.0	230	0.011	0.008	0.08	0.06	1670	53	3.0	0.52	0.26	0.55	2.9	0.0036	J
BN 56B 4	4.1	50	0.0033	0.0024	4.5	230	0.017	0.012	0.12	0.09	1670	59	4.5	0.74	0.37	0.52	2.8	0.0036	H
BN 63A 4	5.1	30	0.0024	0.0018	6.1	210	0.020	0.015	0.16	0.12	1650	55	6.1	0.86	0.43	0.64	3.1	0.0048	H
BN 63B 4	7.2	50	0.0057	0.0043	9.4	230	0.034	0.026	0.25	0.18	1670	58	9.4	1.36	0.68	0.59	3.1	0.0055	H
BN 71A 4	9.5	80	0.012	0.009	12.2	260	0.050	0.038	0.33	0.25	1700	64	12.2	1.30	0.65	0.74	4.3	0.0138	H
BN 71B 4	14.3	80	0.018	0.014	18.5	260	0.076	0.057	0.5	0.37	1700	66	18.5	1.94	0.97	0.73	4.5	0.0164	H
BN 80A 4	21.7	90	0.031	0.023	27.6	270	0.12	0.088	0.75	0.55	1710	73	27.6	2.56	1.28	0.75	4.9	0.0356	H
BN 80B 4	28.8	100	0.046	0.03	36.6	280	0.16	0.12	1	0.75	1720	78	36.6	3.20	1.60	0.75	6.2	0.0482	J
BN 90S 4	40	100	0.063	0.05	47	280	0.21	0.16	1.5	1.1	1720	78	55	4.86	2.43	0.74	5.7	0.0499	J
BN 90LA 4	55	100	0.087	0.06	65	280	0.29	0.22	2	1.5	1720	81	73	6.24	3.12	0.74	6.6	0.0665	K
BN 90LB 4	65	100	0.103	0.08	77	280	0.34	0.26	2.5	1.85	1720	80.4	92	7.60	3.80	0.76	6.5	0.0712	K
BN 100LA 4	76	100	0.120	0.09	90	280	0.40	0.30	3	2.2	1720	81	110	9.6	4.8	0.73	5.5	0.096	H
BN 100LC 4	104	110	0.182	0.14	124	290	0.57	0.43	5	3.7	1730	84	182	15	7.5	0.74	5.6	0.145	K
BN 112M 4	147	110	0.257	0.19	175	290	0.81	0.60	5.5	4	1730	85	200	16	8	0.76	7.0	0.233	K
BN 132S 4	195	110	0.340	0.25	232	290	1.07	0.80	7.5	5.5	1730	84	273	20	10	0.84	6.3	0.506	H
BN 132MA 4	253	120	0.481	0.36	300	300	1.43	1.07	10	7.5	1740	85	362	26.2	13.1	0.84	6.1	0.641	H
BN 132MB 4	297	130	0.612	0.46	353	310	1.74	1.29	12.3	9.2	1750	86.4	443	33.0	16.5	0.81	6.8	0.757	J
BN 160MR 4	350	120	0.667	0.50	416	300	1.98	1.48	15	11	1740	88	543	38.8	19.4	0.81	6.5	0.855	H
BN 160L 4	488	130	1.007	0.75	581	310	2.86	2.13	20	15	1750	90	720	49.6	24.8	0.84	5.8	1.544	G
BN 180M 4	604	140	1.342	1.00	718	320	3.65	2.72	25	18.5	1760	90	895	62.6	31.3	0.83	5.8	1.88	G
BN 180L 4	699	140	1.552	1.16	831	320	4.22	3.15	30	22	1760	89.6	1074	78.0	39.0	0.79	6.8	2.97	H
BN 200L 4	879	140	1.954	1.46	1046	320	5.31	3.96	40	30	1760	90.5	1432	104.0	52.0	0.80	8.4	3.92	K

Key: T₆ Torque at 6 Hz n₆ Speed at 6 Hz P₆ Output power at 6 Hz
 T₁₂ Torque at 12 Hz n₁₂ Speed at 12 Hz P₁₂ Output power at 12 Hz

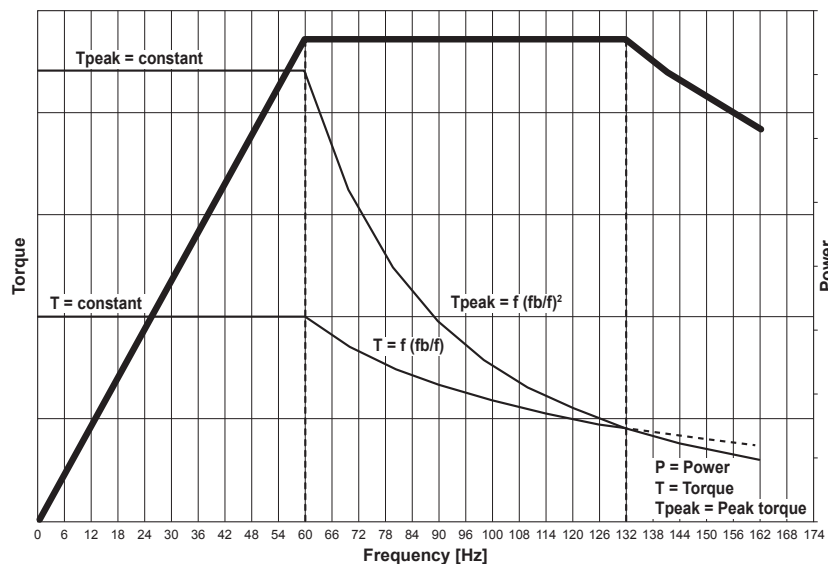
For information on turn-down data for BX motors please contact Bonfiglioli Technical Department

On self - ventilated motors (IC411) the cooling capacity may be impaired at frequencies lower than 60 Hz due to the lower speed, thus the allowed torque is decreased accordingly, as per the above tables. The use of thermal protective devices (see the options section in this catalogue) is strongly recommended when a 5:1 (or higher, up to 10:1) turn down is operated, in order to guarantee the motor safety in case of accidental overheating. For a more effective cooling, even at the lowest frequencies, motors equipped with a forced ventilation system (i.e. servo fan) may be also available - please contact the Bonfiglioli Technical Department for more details.

For the operation above the base frequency f_b , upon reaching the maximum output voltage of the inverter, the motor enters a constant - power field of operation also called “field weakening” range, and the shaft torque drops with ratio f / f_b . As the motor peak torque decreases with a ratio $(f / f_b)^2$, the allowed overload capacity of the motor must be reduced progressively above a certain speed, depending on the motor.

The following Torque / Power Vs Frequency curves are for reference:

- Solid lines - theoretical curves (Torque: thin line; Power: thick line);
- Dashed lines - depending on the motor size, below the base frequency $f_b = 60$ Hz, the torque capacity, as well as the motor power, may significantly decrease (see the above turn - down tables) due to the reduced cooling.
- Dotted line - theoretical torque values beyond the peak torque curve



IMPORTANT NOTE: the reported turn - down data has been worked out on empirical basis and shall be considered as indicative, please contact Bonfiglioli Technical Department for more details.

The following table reports the mechanical speed limit for motors operating above the rated frequency:

(F24)

		n [rpm]		
		2p	4p	6p
≤ BE 112 - BN 112	ME2, ME3 M05 ... M3	5200	4000	3000
≥ BE 132 - BN 132	ME4, ME5 M4, M5	4500	4000	3000
BX 132 ... BX 180	MX4, MX5		4000	

Above the rated speed, mechanical vibrations and noise might occur on the rotating parts of the motor. Class B rotor balancing is highly recommended for these applications. A separate supply fan cooling may also be advisable. Remote-controlled fan and brake (if fitted) must always be connected directly to mains power supply.

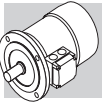
M6.10 Permissible starts per hour, Z

The rating charts of brakemotors lend the permitted number of starts Z_0 , based on 50% intermittence and for unloaded operation.

The catalogue value represents the maximum number of starts per hour for the motor without exceeding the rated temperature for the insulation class F.

To give a practical example for an application characterized by inertia J_c , drawing power P_r and requiring mean torque at start-up M_L the actual number of starts per hour for the motor can be calculated approximately through the following equation:

$$Z = \frac{Z_0 \cdot K_c \cdot K_d}{K_J} \quad (02)$$



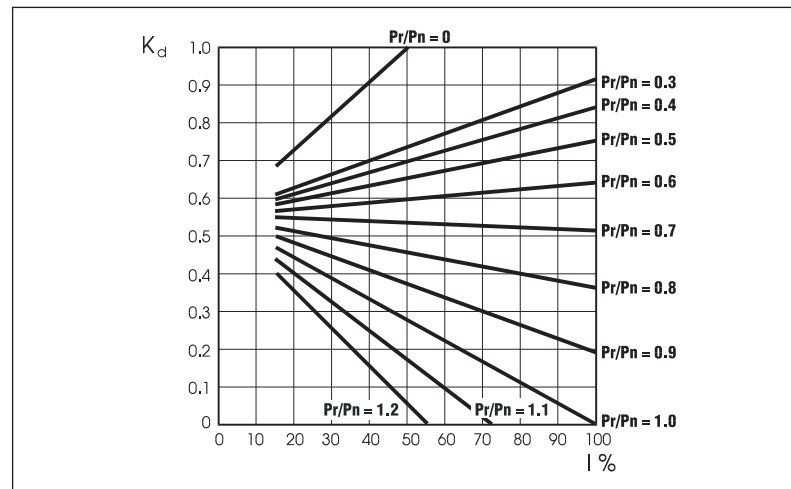
where:

$$K_J = \frac{J_m + J_c}{J_m} \quad \text{inertia factor}$$

$$K_c = \frac{T_a - T_L}{T_a} \quad \text{torque factor}$$

$$K_d = \quad \text{load factor, see the following table}$$

(F25)

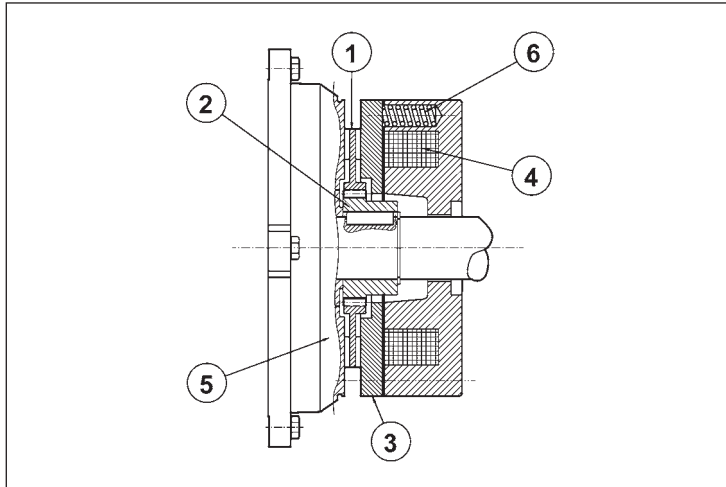


If actual starts per hour is within permitted value (Z) it may be worth checking that braking work is compatible with brake (thermal) capacity W_{max} also given in tables (F31), (F39) and dependent on the number of switches (c/h).

M7.1 Operation

Versions with incorporated brake use spring-applied DC (FD option) or AC (FA options) brakes. All brakes are designed to provide fail-safe operation, meaning that they are applied by spring-action in the event of power failure.

(F26)



Key:

- ① brake disc
- ② disc carrier
- ③ pressure plate
- ④ brake coil
- ⑤ motor rear shield
- ⑥ brake springs

When voltage is interrupted, pressure springs push the armature plate against the brake disc. The disc becomes trapped between the armature plate and motor shield and stops the shaft from rotation. When the coil is energized, a magnetic field strong enough to overcome spring action attracts the armature plate, so that the brake disc – which is integral with the motor shaft – is released.

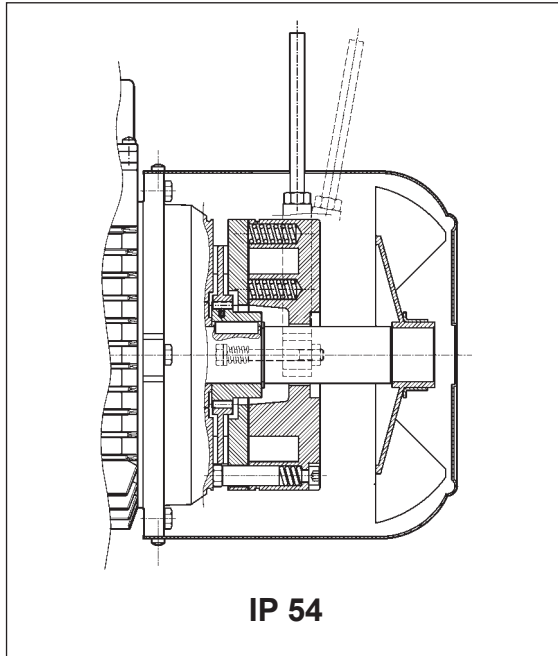
M7.2 Most significant features

- High braking torques (normally $T_b \approx 2 T_n$), braking torque adjustment.
- Steel brake disc with double friction lining (low-wear, asbestos-free lining).
- Hexagonal seat on motor shaft fan end (N.D.E.) for manual rotation (not compatible with options PS, RC, TC, EN1, EN2, EN3, EN4, EN5, EN6).
- Manual release lever (options R and RM for BN_FD; option R for BN_FA).
- Corrosion-proof treatment on all brake surfaces.
- Insulation class F.

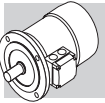
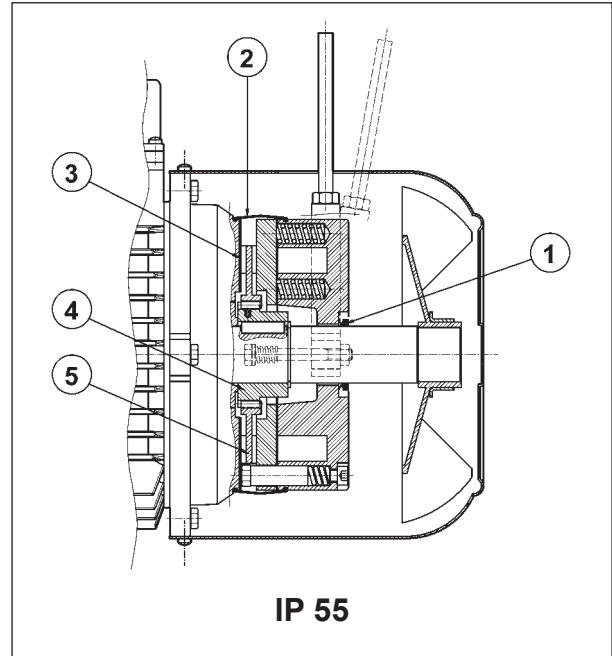
Frame sizes: BN 63 ... BN 200L / M05 ... M5

BE/ME motors may be available equipped with the FD brake, for further information please contact our Technical Department

(F27)



(F28)



Direct current toroidal-coil electromagnetic brake bolted onto motor shield. Preloading springs provide axial positioning of magnet body.

Brake disc slides axially on steel hub shrunk onto motor shaft with anti-vibration device.

Brake torque factory setting is indicated in the corresponding motor rating charts. Braking torque may be modified by changing the type and/or number of springs.

At request, motors may be equipped with manual release lever with automatic return (**R**) or system for holding brake in the released position (**RM**).

See variant at paragraph "BRAKE RELEASE SYSTEMS" for available release lever locations.

FD brakes ensure excellent dynamic performance with low noise. DC brake operating characteristics may be optimized to meet application requirements by choosing from the various rectifier/power supply and wiring connection options available.

For applications involving lifting and/or high hourly energy dissipation, contact Bonfiglioli's Technical Service.

M8.1 Degree of protection

Standard protection class is IP54.

Brake motor FD is also available in protection class **IP55**, which mandates the following variants:

- ① V-ring at N.D.E. of motor shaft
- ② dust and water-proof rubber boot
- ③ stainless steel ring placed between motor shield and brake disc
- ④ stainless steel hub
- ⑤ stainless steel brake disc

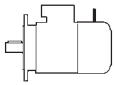

M8.2 FD brake power supply

A rectifier accommodated inside the terminal box feeds the DC brake coil. Wiring connection across rectifier and brake coil is performed at the factory.

On all single-pole motors, rectifier is connected to the motor terminal board.

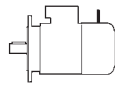

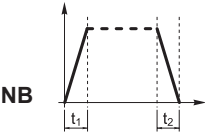
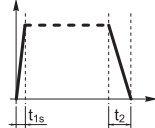
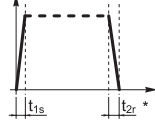
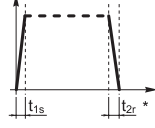
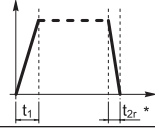
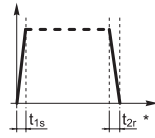
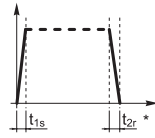
Rectifier standard power supply voltage V_B is as indicated in the following table, regardless of mains frequency:

(F29)

2, 4, 6 P		1 speed			
		BN_FD / M_FD $V_{mot} \pm 10\%$ 3 ~	$V_B \pm 10\%$ 1 ~	brake connected to terminal board power supply	separate power supply
BN 63...BN 132	M05...M4LB	230/400 V – 50 Hz	230 V	standard	specify V_B SA or V_B SD
BN 160...BN 200	M4LC...M5	400/690 V – 50 Hz	400 V	standard	specify V_B SA or V_B SD
BN 63...BN 200	M05...M5	230/400 V – 60 Hz	230 V	standard	specify V_B SA or V_B SD

The diode half-wave rectifier ($V_{DC} \approx 0,45 \times V_{AC}$) is available in versions **NB**, **SB**, **NBR** e **SBR**, as detailed in the table below:

(F30)

		brake	standard	at request					
BN 63	M05	FD 02	 NB	 SB					
BN 71	M1	FD 03 FD 53			 SB	 SBR			
BN 80	M2	FD 04					 NBR		
BN 90S	—	FD 14							
BN 90L	—	FD 05							
BN 100	M3	FD 15							
—		FD 55							
BN 112	—	FD 06S						 SB	 SBR
BN 132 - BN 160MR	M4	FD 56 FD 06 FD 07							
BN 160L - BN 180M	M5	FD 08							
BN 180L - BN 200M	—	FD 09							

(*) $t_{2c} < t_{2r} < t_2$

Rectifier **SB** with electronic energizing control over-energizes the electromagnet upon power-up to cut brake release response time and then switches to normal half-wave operation once the brake has been released.

Use of the **SB** rectifier is mandatory in the event of:

- high number of operations per hour
- reduced brake release response time
- brake is exposed to extreme thermal stress

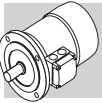
Rectifiers **NBR** or **SBR** are available for applications requiring quick brake intervention (braking condition reinstatement) response.

These rectifiers complement the **NB** and **SB** types as their electronic circuit incorporates a static switch that de-energizes the brake quickly in the event voltage is missing.

This arrangement ensures short brake release response time with no need for additional external wiring and contacts.

Optimum performance of rectifiers **NBR** and **SBR** is achieved with separate brake power supply.

Versions available: 230Vac ±10%, 400Vac ± 10%, 50/60 Hz (with power supply); 100Vdc ±10%, 180Vdc ± 10% (with SD option).



M8.3 FD brake technical specifications

The table below reports the technical specifications of DC brakes FD.

(F31)

Brake	Brake torque T_b [lb·in] springs			Release		Braking		W_{max} per brake operation [lb·ft]			W [lb·ft x10 ⁶]	P [W]
	6	4	2	t_1 [ms]	t_{1s} [ms]	t_2 [ms]	t_{2c} [ms]	10 s/h	100 s/h	1000 s/h		
FD02	–	31	16	30	15	80	9	3320	1030	130	11	17
FD03	44	31	16	50	20	100	12	5160	1400	170	18	24
FD53	66	44	22	60	30	100	12					
FD04	133	89	44	80	35	140	15	7380	2290	260	22	33
FD14												
FD05	354	230	115	130	65	170	20	13300	3320	370	37	45
FD15	354	230	115	130	65	170	20					
FD55	487	328	159	–	65	170	20					
FD06S	531	354	177	–	80	220	25	14800	3540	410	52	55
FD56	–	664	328	–	90	250	20	21400	5460	590	59	65
FD06		886	443		100	250	20					
FD07	1329	886	443	–	120	200	25	29500	6860	740	96	65
FD08*	2210	1770	1510	–	140	350	30	44300	10300	1110	170	100
FD09**	3540	2660	1770	–	200	450	40	51600	11100	1250	170	120

* brake torque values obtained with 9, 7 and 6 springs, respectively

** brake torque values obtained with 12, 9 and 6 springs, respectively

t_1 = brake release time with half-wave rectifier

t_{1s} = brake release time with over-energizing rectifier

t_2 = brake engagement time with AC line interruption and separate power supply

t_{2c} = brake engagement time with AC and DC line interruption – Values for t_1 , t_{1s} , t_2 , t_{2c} indicated in the tab. (F30) are referred to brake set at maximum torque, medium air gap and rated voltage

W_{max} = max energy per brake operation

W = braking energy between two successive air gap adjustments

P_b = brake power absorption at 70 °F

T_b = static braking torque (±15%)

s/h = starts per hour

The brake pad wear depends on the operating/ambient conditions (temperature, humidity, angular speed, specific pressure); Therefore the declared wear rate must be considered as indicative.

M8.4 FD brake connections

On standard single-pole motors, the rectifier is connected to the motor terminal board at the factory. For switch-pole motors and where a separate brake power supply is required, connection to rectifier must comply with brake voltage VB stated in motor name plate.

Because the load is of the inductive type, brake control and DC line interruption must use contacts from the usage class AC-3 to IEC 60947-4-1.

Table (F32) – Brake power supply from motor terminals and AC line interruption

Delayed stop time t_2 and function of motor time constants.

Mandatory when soft-start/stops are required.

Table (F33) – Brake coil with separate power supply and AC line interruption

Normal stop time independent of motor.

Achieved stop times t_2 are indicated in the table (F31).

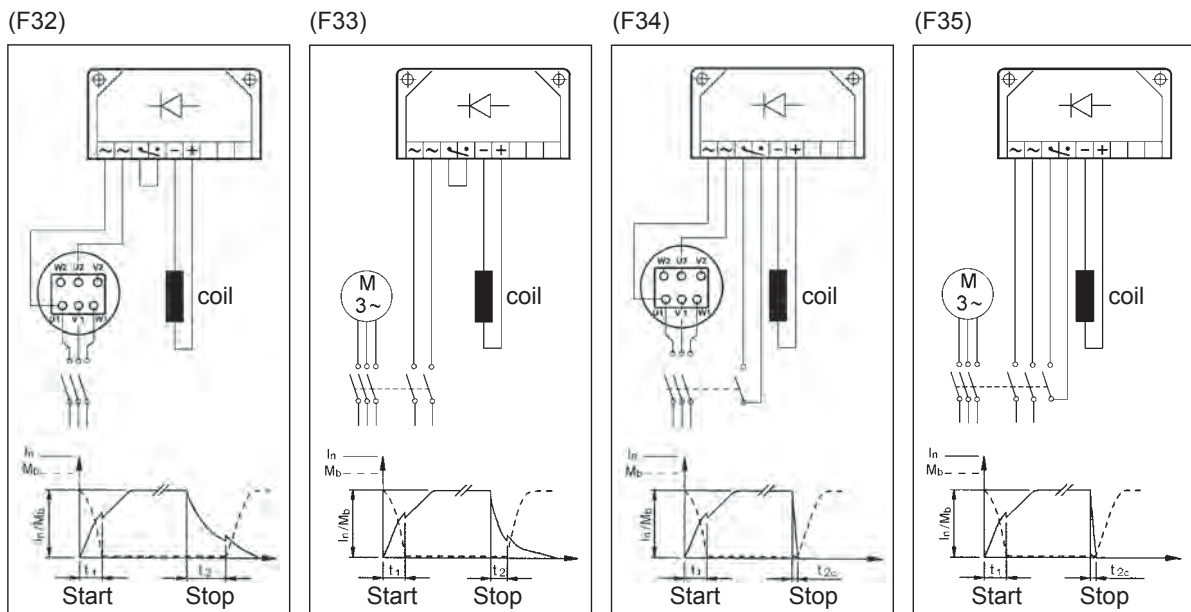
Table (F34) – Brake coil power supply from motor terminals and AC/DC line interruption.

Quick stop with operation times t_{2c} as per table (F31).

Table (F35) – Brake coil with separate power supply and AC/DC line interruption.

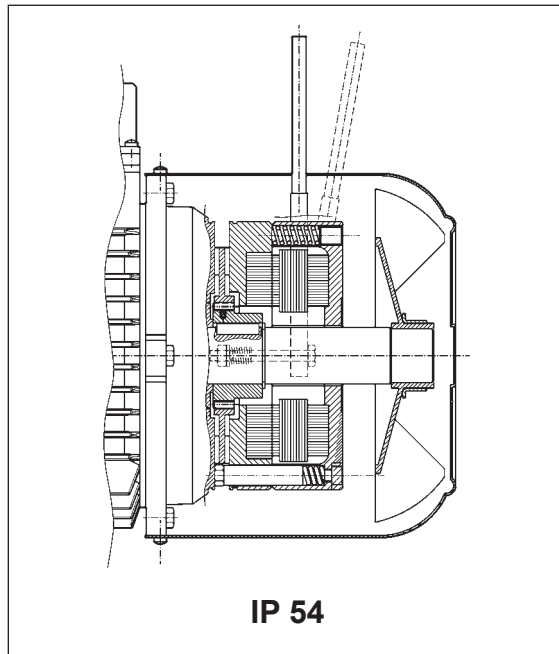
Stop time decreases by values t_{2c} indicated in the table (F31).

The brake may be voltage supplied directly from the motor terminal box (from tab. F32 to tab. F35) only if the nominal voltage of the brake is the same as the smaller voltage of the motor.

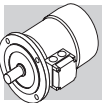
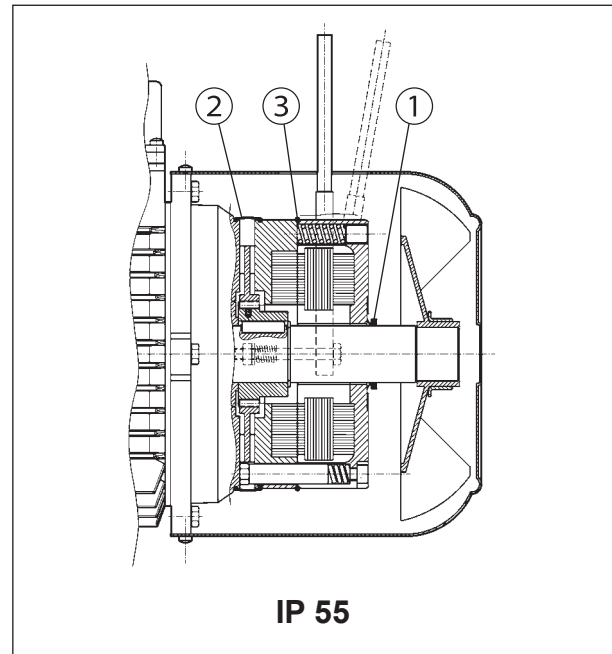


Frame sizes: BN 63 ... BN 180M / M05 ... M5

(F36)



(F37)



Electromagnetic brake operates from three-phase alternated current power supply and is bolted onto conveyor shield. Preloading springs provide axial positioning of magnet body. Steel brake disc slides axially on steel hub shrunk onto motor shaft with anti-vibration device. Brake torque factory setting is indicated in the corresponding motor rating charts. Spring preloading screws provide stepless braking torque adjustment. Torque adjustment range is $30\% T_{bMAX} < T_b < T_{bMAX}$ (where T_{bMAX} is maximum braking torque as shown in tab. (F39)). Thanks to their high dynamic characteristics, FA brakes are ideal for heavy-duty applications as well as applications requiring frequent stop/starts and very fast response time. Motors may be equipped with manual release lever with automatic return (R) at request. See variant at paragraph "BRAKE RELEASE SYSTEMS" for available release lever locations. **For applications involving lifting and/or high hourly energy dissipation, contact Bonfiglioli's Technical Service.**

M9.1 Degree of protection

Standard protection class is IP54.

Brake motor _FA is also available in protection class **IP55**, which mandates the following variants:

- ① V-ring at N.D.E. of motor shaft
- ② dust and water-proof rubber boot
- ③ O-ring

M9.2 FA brake power supply

In single speed motors, power supply is brought to the brake coil direct from the motor terminal box. As a result, brake voltage and motor voltage are the same. In this case, brake voltage indication may be omitted in the designation.

Switch-pole motors and motors with separate brake power supply feature an auxiliary terminal board with 6 terminals for connection to brake line. In both cases, brake voltage indication in the designation is mandatory.

The following table reports standard AC brake power supply ratings for single-pole motors:

(F38)

single-pole motor	BN 63...BN 132	BN 160...BN 180
	230Δ / 400Y V ±10% – 50 Hz	400Δ/ 690Y V ±10% – 50 Hz
	265Δ / 460Y ±10% - 60 Hz	460Y – 60 Hz

Unless otherwise specified, standard brake power supply is 230Δ /400Y V - 50 Hz.

Special voltages in the 24...690 V, 50-60 Hz range are available at request.

FA brakes for motors whose voltage is in ratio 2 (e.g. 230 - 460 V - 60Hz) may be only supplied separately (SA option).

M9.3 Technical specifications of FA brakes

(F39)

Brake	Brake torque T_b [lb·in]	Release t_1 [ms]	Braking t_2 [ms]	W_{max} [lb·ft]			W [lb·ft x10 ⁶]	P [VA]
				10 s/h	100 s/h	1000 s/h		
FA 02	31	4	20	3320	1030	130	11	60
FA 03	66	4	40	5160	1400	170	18	80
FA 04	133	6	60	7380	2290	260	22	110
FA 14								
FA 05	354	8	90	13300	3320	370	37	250
FA 15								
FA 06S	531	16	120	14800	3540	410	52	470
FA 06	664	16	140	21400	5460	590	59	550
FA 07	1329	16	180	29500	6860	740	96	600
FA 08	2210	20	200	44300	10300	1110	170	1200

T_b = max static braking torque (±15%)

t_1 = brake release time

t_2 = brake engagement time

W_{max} = max energy per brake operation (brake thermal capacity)

W = braking energy between two successive air gap adjustments

P_b = power drawn by brake at 20° (50 Hz)

s/h = starts per hour

NOTE

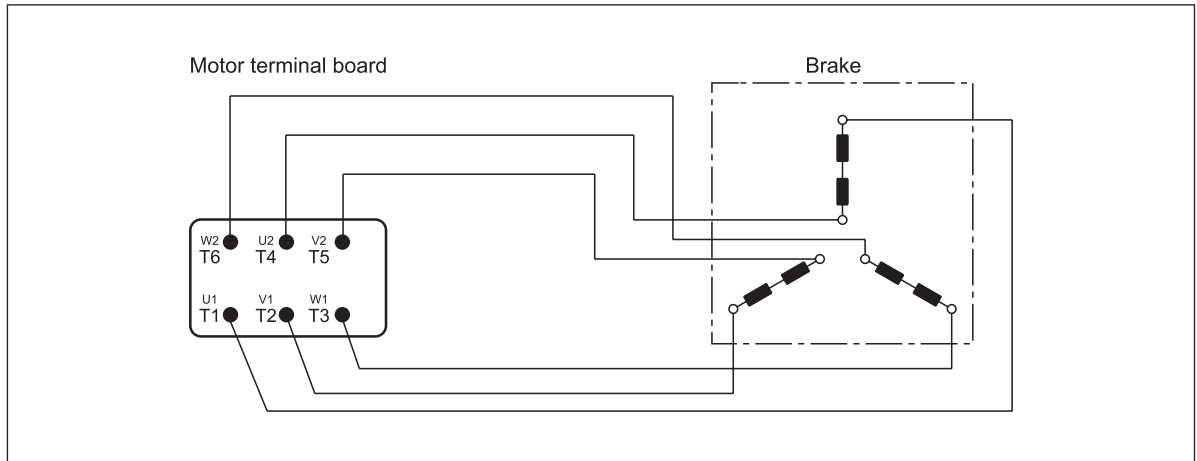
Values t_1 and t_2 in the table refer to a brake set at rated torque, medium air gap and rated voltage.

The brake pad wear depends on the operating/ambient conditions (temperature, humidity, angular speed, specific pressure); Therefore the declared wear rate must be considered as indicative.

M9.4 FA brake connections

The following diagram shows the wiring when brake is connected directly to same power supply of the motor:

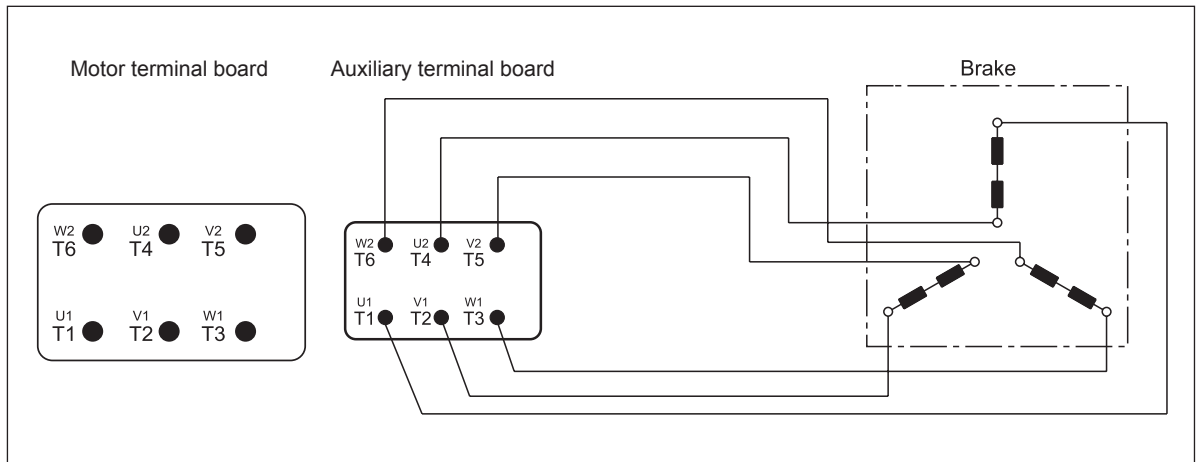
(F40)



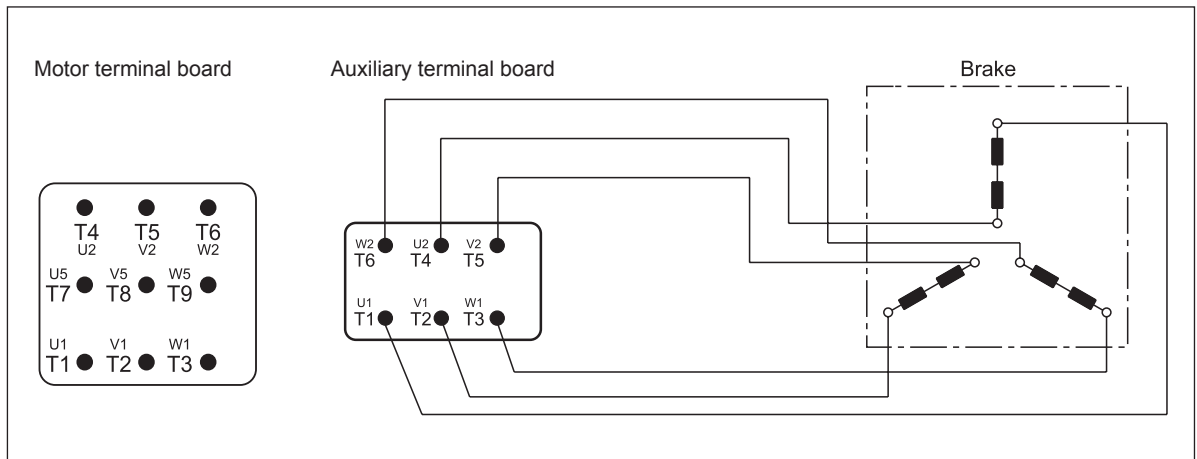
Switch-pole motors and, at request, single-pole motors with separate power supply are equipped with an auxiliary terminal board with 6 terminals for brake connection.

In this version, motors feature a larger terminal box. See diagram below:

(F41)



(F42)

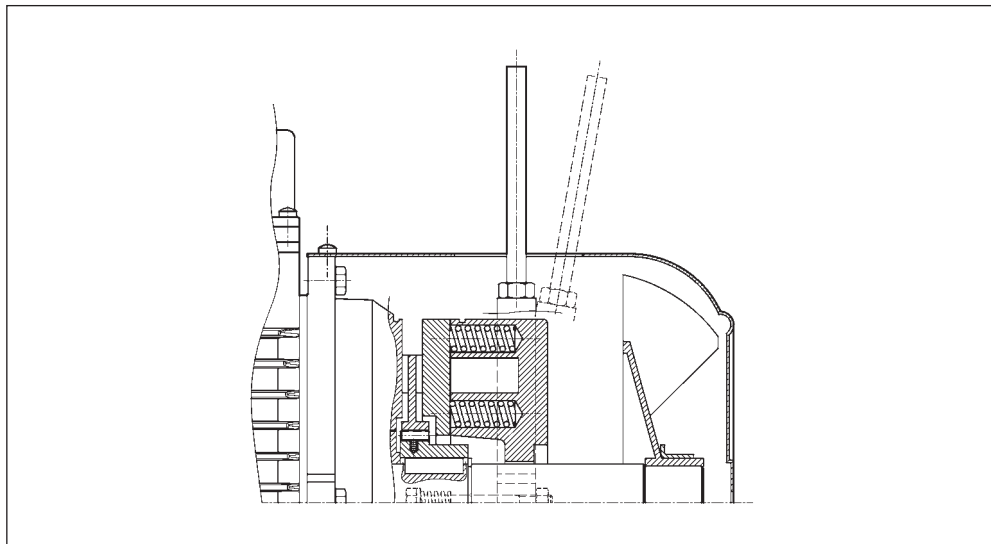


M10 BRAKE RELEASE SYSTEMS

Spring-applied brakes type FD and FA may be equipped with optional manual release devices. These are typically used for manually releasing the brake before servicing any machine or plant parts operated by the motor.

R

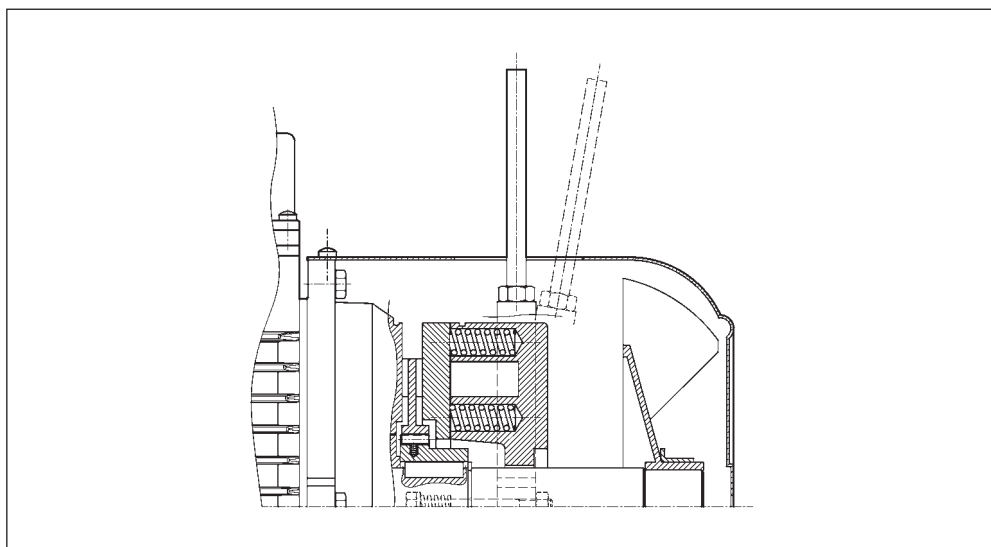
(F43)



A return spring brings the release lever back in the original position.

RM

(F44)



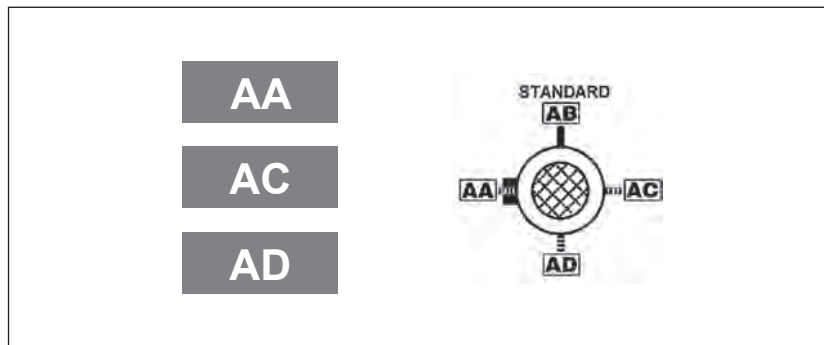
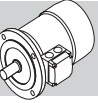
On motors type BN_FD, if the option RM is specified, the release device may be locked in the "release" position by tightening the lever until its end becomes engaged with a brake housing projection. The availability for the various disengagement devices is charted here below:

(F45)

	R	RM
BN_FD	BN 63...BN 200	BN 63 ... BN 132 FD07
BN_FA	BN 63...BN 180M	

M10.1 Release lever orientation

Unless otherwise specified, the release lever is located 90° away from the terminal box – identified by letters **[AB]** in the diagram below – in a clockwise direction on both options **R** and **RM**. Alternative lever positions **[AA]**, **[AC]** and **[AD]** are also possible when the corresponding option is specified:





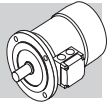
M11.1 Soft-start / stop

F1

An optional flywheel - option F1 - is available for applications requiring soft starting or stopping. The flywheel's added inertia uses up kinetic energy during starting and returns it back during braking, thus catering for more progressive and gradual shock loads. The optional flywheel is available for brake motors type BN_FD with specific characteristics as detailed in the table below:

(F46)

Main data for flywheel of motore type: BN_FD, M_FD			
		Fly-wheel weight [lbs]	Fly-wheel inertia [lb·ft ²] x 10 ⁻⁵
BN 63	M05	0.31	2.7
BN 71	M1	0.51	5.7
BN 80	M2	0.76	11.4
BN 90 S - BN 90 L	–	1.14	22.3
BN 100	M3	1.58	35.4
BN 112	–	2.19	62.4
BN 132 S - BN 132 M	M4	2.81	108.6



M11.2 Capacitive filter

CF

An optional capacitive filter is available for DC brake motors type BN_FD only. When the suitable capacitive filter is installed upstream of the rectifier (option CF), motors comply with the emission limits required by standard EN61000-6-3:2007“ Electromagnetic Compatibility – Generic Emission Standard – Part 6-3: Residential, commercial and light industrial environment”.

M11.3 Thermal protective devices

In addition to the standard protection provided by the magneto-thermal device, motors can be supplied with built-in thermal probes to protect the winding against overheating caused, by insufficient ventilation or by an intermittent duty.

This additional protection should always be specified for servoventilated motors (IC416).

M11.4 Thermistors

E3

These are semi-conductors having rapid resistance variation when they are close to the rated switch off temperature 302 °F (150 °C). Variations of the $R = f(T)$ characteristic are specified under DIN 44081, IEC 34-11 Standards. Positive temperature coefficient thermistors are normally used (also known as PTC “cold conductor resistors”). Thermistors cannot control relays directly and must be connected to a suitable disconnect device. Thus protected, three PTCs connected in series are installed in the winding, the terminals of which are located on the auxiliary terminal-board.

K1

The design characteristics of this sub-group of PTC thermistors allow them to be used as positive temperature coefficient sensors with variable resistance.

Functioning temperature range: 32 °F ... +500 °F (0°C ... +260°C).

Thermistors cannot control relays directly and must be connected to a suitable disconnect device. Terminals (polarised) for 1 x KTY 84-130 are provided on an auxiliary terminal strip.

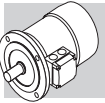
M11.5 Bimetallic thermostates

D3

These types of protective devices house a bimetal disk. When the rated switch off temperature 302 °F (150 °C) is reached, the disk switches the contacts from their initial rest position.

As temperature falls, the disk and the contacts automatically return to rest position.

Three bimetallic thermostates connected in series are usually employed, with normally closed contacts. The terminals are located on an auxiliary terminal-board.



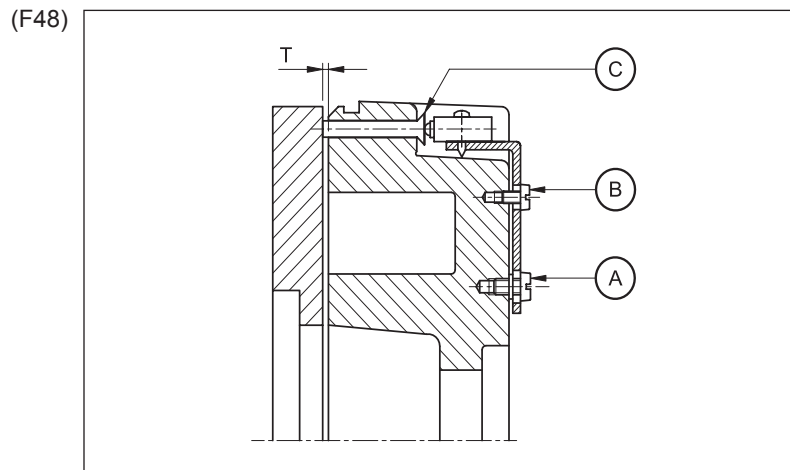
M11.6 Control of brake operation

MSW

The microswitch can be set in order to obtain from it a signal related to the attraction/release of an anchor plate, or it can be set in order to give feedback when the air gap reaches the maximum value.

MSW option is available for brakes FD03...FD09.

The microswitch is provided with three lead wires (NC, NO, COM). The next figure shown the main components of the brake equipped with microswitch.



- A: Plate fixing screws
- B: Setting screws
- C: Actuator control pin

M11.7 Additional cable entry for brakemotors

IC

The terminal box cover of brakemotors BN63...BN160MR / M05...M4 is provided with two additional cable entry M16 x 1.5 (one cable entry per side).

The terminal box cover of brakemotors BN160...BN200 / M5 is provided with an additional cable entry M16 x 1.5 next to the cable entry used for the brake.

M11.8 Anti-condensation heaters


NH1

H1

Where an application involves high humidity or extreme temperature fluctuation, motors may be equipped with an anti-condensate heater.

A single-phase power supply is available in the auxiliary terminal board inside the main terminal box. Values for the absorbed power are listed here below:

(F49)

	H1	NH1
	1~ 230V ± 10% P [W]	1~ 115V ± 10% P [W]
BE 80 BN 56 ... BN 80	10	10
BX 132 BE 90 ... BE 132MB BN 90 ... BN 160MR	25	25
BX 160, BX 180 BE 160, BE 180 BN 160, BN 200	50	50

Warning!

Always remove power supply to the anti-condensate heater before operating the motor.

M11.9 Tropicalization

TP

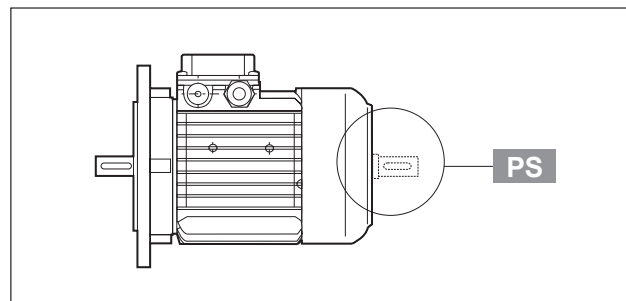
When option **TP** is specified, motor windings receive additional protection for operation in high humidity and temperature conditions.

M11.10 Second shaft extension

PS

This option is not compatible with variants RC, TC, EN1, EN2, EN3, EN4, EN5, EN6. For shaft dimensions please see motor dimensions tables.

(F50)



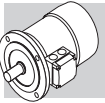
M11.11 Backstop device

AL


AR

For applications where backdriving must be avoided, motors equipped with an anti run-back device can be used (available for the MX, ME and M series only). While allowing rotation in the direction required, this device operates instantaneously in case of a power failure, preventing the shaft from running back. The anti run-back device is life lubricated with special grease for this specific application. When ordering, customers should indicate the required rotation direction, AL or AR.

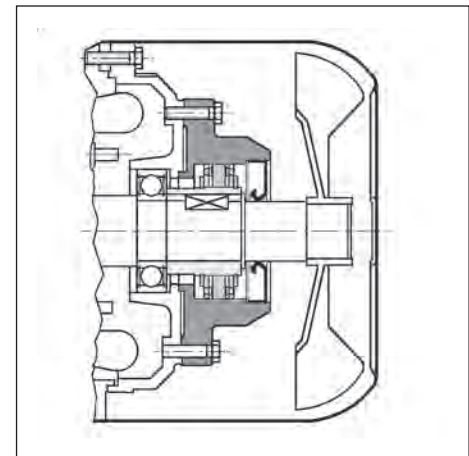
Never use the anti run-back device to prevent reverse rotation caused by faulty electrical connection. Table (F51) shows rated and maximum locking torques for the anti run-back devices. A diagram of the device can be seen in Table (F52). Overall dimensions are same as the corresponding brake motor. The direction of free rotation is described in the “MOTOR OPTIONS” section of specifically dedicated sections to gear units.



(F51)

	Rated locking torque [lb·in]	Max. locking torque [lb·in]	Release speed [rpm]
M1	53	90	750
ME2 M2	140	240	650
ME3 M3	480	815	520
MX4 - ME4 M4	970	1815	430

(F52)



M11.12 Rotor balancing

RV

Where low noise is a priority requirement, the option RV ensures reduced vibration in accordance with vibration class B.

The table below reports effective velocity of vibration for normal (A) and B grade balancing.

Values are obtained from measurements on freely suspended motor during no-load operation; tolerance $\pm 10\%$.

(F53)

Vibration level	Angular velocity n [rpm]	Limits of the vibration velocity (mm/s) BX 132 ≤ H ≤ BX 180L BE 80 ≤ H ≤ BE 180L BN 56 ≤ H ≤ BN 200
A	600 < n < 3600	1.6
B	600 < n < 3600	0.70

M11.13 Rain canopy



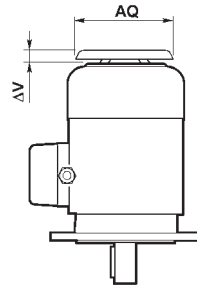
RC

The rain canopy protects the motor from dripping and avoids the ingress of solid bodies. It is recommended when motor is installed in a vertical position with the shaft downwards.

Relevant dimensions are indicated in the table below.

The drip cover is not compatible with variants PS, EN1, EN2, EN3, EN4, EN5, EN6.

(F54)

		AQ [mm / inch]	ΔV [mm / inch]	
BN 63	M05	118 / 4.646	24 / 0.945	
BN 71	M1	134 / 5.276	27 / 1.063	
BE 80 BN 80	ME2 M2	152 / 5.984	25 / 0.984	
BE 90 BN 90	— —	168 / 6.614	30 / 1.181	
BE 100 BN 100	ME3 M3	190 / 7.480	28 / 1.102	
BE 112 BN 112	— —	211 / 8.307	32 / 1.260	
BX 132 - BE 132 BN 132...BN 160MR	MX4 - ME4 M4	254 / 10.000	32 / 1.260	
BX 160 - BE 160 BN 160M...BN 180M	MX5 - ME5 M5	302 / 11.890	36 / 1.417	
BX 180 - BE 180 BN 180L...BN 200L	— —	340 / 13.386	36 / 1.417	

M11.14 Textile canopy

TC

Option TC is a cover variant for textile industry environments, where lint may obstruct the fan grid and prevent a regular flow of cooling air.

This option is not compatible with variants EN1, EN2, EN3, EN4, EN5, EN6, PS.

Overall dimensions are the same as drip cover type RC.

M11.15 Feedback units

Motors may be combined with six different types of encoders to achieve feedback circuits.

Configurations with double-extended shaft (PS) and rain canopy (RC, TC) are not compatible with encoder installation.

EN1

Incremental encoder, $V_{IN} = 5$ V, line-driver output RS 422.

EN2

Incremental encoder, $V_{IN} = 10-30$ V, line-driver output RS 422.

EN3

Incremental encoder, $V_{IN} = 12-30$ V, push-pull output 12-30 V

EN4

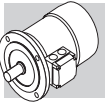
Encoder sin/cos, $V_{IN} = 4.5-5.5$ V, output Sinus $0.5V_{PP}$.

EN5

Absolute encoder singleturn, HIPERFACE® interface, $V_{IN} = 7-12$ V.

EN6

Absolute encoder multiturn, HIPERFACE® interface, $V_{IN} = 7-12$ V.



(F55)

	EN1	EN2	EN3	EN4	EN5	EN6
Interface	TTL/RS 422	TTL/RS 422	HTL/push-pull	Sinus 0.5 VPP	HIPERFACE®	HIPERFACE®
Power supply voltage [V]	4...6	10...30	12...30	4.4...5.5	7...12	7...12
Output voltage [V]	5	5	12...30	—	—	—
No-load operating current [mA]	120	100	100	40	80	80
No. of pulses per revolution	1024					
Steps per revolution	—	—	—	—	15 bit	15 bit
Revolutions	—	—	—	—	—	12 bit
No. of signals	6 (A, B, Z + inverted signals)			6 (cos-, cos+, sin-, sin+, Z, \bar{Z})	—	—
Max. output frequency [kHz]	600			200		
Max. speed [rpm]	6000 (9000 rpm for 10 s)					
Temperature range [°F]	-20 ... +210					
Protection class	IP 65					

(F56)

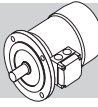
EN1, EN2, EN3, EN4, EN5, EN6		A	B
		[mm / inch]	[mm / inch]
BX 132 ... BX 180L BE 80 ... BE 180L	MX4 ... MX5L ME2S ... ME5L	65 / 2.559	59 / 2.323
BN 63 ... BN 200L	M05 ... M5		
BN 63_FD ... BN 200L_FD	M05_FD ... M5_FD		
BN 63_FA ... BN 200L_FA	M05_FA ... M5_FA		

M11.16 Surface protection

C_

When no specific protection class is requested, the painted (ferrous) surfaces of motors are protected to at least corrosivity class C2 (UNI EN ISO 12944-2). For improved resistance to atmospheric corrosion, motors can be delivered with C3 and C4 surface protection.

(F57)



SURFACE PROTECTION	Typical environments	Maximum surface temperature	Corrosivity class according to UNI EN ISO 12944-2
C3	Urban and industrial environments with up to 100% relative humidity (medium air pollution)	120°C [248 F°]	C3
C4	Industrial areas, coastal areas, chemical plant, with up to 100% relative humidity (high air pollution)	120°C [248 F°]	C4

Motors with optional protection to class C3 or C4 are available in a choice of colours. If no specific colour is requested (see the “PAINTING” option) motors are finished in RAL 7042.

Motors can also be supplied with surface protection for corrosivity class C5 according to UNI EN ISO 12944-2. Contact our Technical Service for further details.

M11.17 Painting

RAL

Gearboxes with optional protection to class C3 or C4 are available in the colours listed in the following table.

(F58)

PAINTING	Colour	RAL number
RAL7042*	Traffic Grey A	7042
RAL5010	Gentian Blue	5010
RAL9005	Jet Black	9005
RAL9006	White Aluminium	9006
RAL9010	Pure White	9010

* Gearboxes are supplied in this standard colour if no other colour is specified.

NOTE – “PAINTING” options can only be specified in conjunction with “SURFACE PROTECTION” options.

M11.18 Certificates

ACM

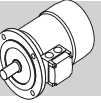
Certificate of compliance of motors

The document certifies the compliance of the product with the purchase order and the construction in conformity with the applicable procedures of the Bonfiglioli Quality System.

CC

Inspection certificate

The document entails checking on order compliance, the visual inspection of external conditions and instrumental testing of the electrical characteristics in unloaded conditions. Units inspected are sampled within the shipping batch and marked individually.





M11.19 Servo fan motors and plug connectors



Servo fan motors or motors equipped with plug connectors may be available in CSA/UL version; for more details, please contact the Bonfiglioli Technical Department.

M12 TABLES OF MOTORS CORRELATION



(F59)

Pn	2 pole							
	Efficiency class		IE1	IE2	IE3	IE1	IE2	IE3
	[hp]	[kW]						
	0.08	0.06						
	0.12	0.09						
	0.16	0.12						
	0.25	0.18	BN 63A 2			M 05A 2		
	0.33	0.25	BN 63B 2			M 05B 2		
	0.5	0.37	BN 71A 2			M 05C 2		
	0.75	0.55	BN 71B 2			M 1SD 2		
	1	0.75	BN 71C 2	BE 80A 2		M 1LA 2	ME 2SA 2	
			BN 80A 2					
	1.5	1.1	BN 80B 2	BE 80B 2		M 2SA 2	ME 2SB 2	
	2	1.5	BN 90SA 2	BE 90SA 2		M 2SB 2		
	2.5	1.85	BN 90SB 2					
	3	2.2	BN 90L 2	BE 90L 2		M 3SA 2		
	4	3	BN 100L 2	BE 100L 2		M 3LA 2	ME 3LB 2	
	5.5	4	BN 112M 2	BE 112M 2		M 3LB 2		
	7.5	5.5	BN 132SA 2	BE 132SA 2		M 4SA 2	ME 4SA 2	
	10	7.5	BN 132SB 2	BE 132SB 2		M 4SB 2	ME 4LA 2	
	12.5	9.2	BN 132M 2	BE 132MB 2		M 4LA 2	ME 4LB 2	
	15	11	BN 160MR 2	BE 160MA 2		M 4LC 2	ME 5SA 2	
			BN 160M 2					
	20	15	BN 160MB 2	BE 160MB 2		M 5SB 2	ME 5SB 2	
	25	18.5	BN 160L 2	BE 160L 2		M 5SC 2	ME 5LA 2	
	30	22	BN 180M 2			M 5LA 2		
	40	30	BN 200LA 2					

(F60)


4 pole								
Efficiency class			IE1	IE2	IE3	IE1	IE2	IE3
Pn	[hp]	[kW]						
		0.08	0.06	BN 56A 4				
	0.12	0.09	BN 56B 4			M 0B 4		
	0.16	0.12	BN 63A 4			M 05A 4		
	0.25	0.18	BN 63B 4			M 05B 4		
	0.33	0.25	BN 63C 4 BN 71A 4			M 05C 4		
	0.5	0.37	BN 71B 4			M 1SD 4		
	0.75	0.55	BN 71C 4 BN 80A 4			M 1LA 4		
	1	0.75	BN 80B 4	BE 80B 4		M 2SA 4	ME 2SB 4	
	1.5	1.1	BN 80C 4 BN 90S 4	BE 90S 4		M 2SB 4	ME 3SA 4	
	2	1.5	BN 90LA 4	BE 90LA 4		M 3SA 4	ME 3SB 4	
	2.5	1.85	BN 90LB 4					
	3	2.2	BN 100LA 4	BE 100LA 4		M 3LA 4	ME 3LA 4	
	4	3	BN 100LB 4	BE 100LB 4		M 3LB 4	ME 3LB 4	
	5.5	4	BN 112M 4	BE 112M 4		M 3LC 4	ME 4SA 4	
	7.5	5.5	BN 132S 4	BE 132S 4	BX 132SB 4	M 4SA 4	ME 4SB 4	MX 4SB 4
	10	7.5	BN 132MA 4	BE 132MA 4	BX 132MA 4	M 4LA 4	ME 4LA 4	MX 4LA 4
	12.5	9.2	BN 132MB 4	BE 132MB 4	BX 160MA 4	M 4LB 4	ME 4LB 4	MX 5SA 4
	15	11	BN 160MR 4 BN 160M 4	BE 160M 4	BX 160MB 4	M 4LC 4	ME 5SA 4	MX 5SB 4
	20	15	BN 160L 4	BE 160L 4	BX 160L 4	M 5SB 4	ME 5LA 4	MX 5LA 4
	25	18.5	BN 180M 4	BE 180M 4	BX 180M 4	M 5LA 4		
	30	22	BN 180L 4	BE 180L 4	BX 180L 4			
	40	30	BN 200L 4					

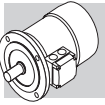
(F61)

6 pole								
Efficiency class			IE1	IE2	IE3	IE1	IE2	IE3
Pn	[hp]	[kW]						
		0.08	0.06					
	0.12	0.09	BN 63A 6			M 05A 6		
	0.16	0.12	BN 63B 6			M 05B 6		
	0.25	0.18	BN 71A 6			M 1SC 6		
	0.33	0.25	BN 71B 6 BN 71C 6			M 1SD 6		
	0.5	0.37	BN 80A 6			M 1LA 6		
	0.75	0.55	BN 80B 6			M 2SA 6		
	1	0.75	BN 80C 6 BN 90S 6	BE 90S 6		M 2SB 6		
	1.5	1.1	BN 90L 6			M 3SA 6		
	2	1.5	BN 100LA 6	BE 100LA 6		M 3LA 6	ME 3LB 6	
	2.5	1.85	BN 100LB 6			M 3LB 6		
	3	2.2	BN 112M 6	BE 112M 6		M 3LC 6		
	4	3	BN 132S 6	BE 132S 6		M 4SA 6	ME 4SB 6	
	5.5	4	BN 132MA 6	BE 132MA 6		M 4LA 6	ME 4LA 6	
	7.5	5.5	BN 132MB 6	BE 160MA 6		M 4LB 6	ME 5SA 6	
	10	7.5	BN 160M 6	BE 160MB 6		M 5SA 6	ME 5SB 6	
	12.5	9.2						
	15	11	BN 160L 6			M 5SB 6		
	20	15	BN 180L 6					
	25	18.5	BN 200LA 6					
	30	22						
	40	30						


M13 MOTOR RATING CHARTS BX-MX

4 P	1800 rpm - S1	60 Hz - IE3
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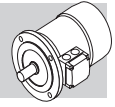
P _n			n	T _n	I _n 460V	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m lb·ft ²	IM B5	
hp	kW					100%	75%	50%							Kg	lbs
7.5	5.5	BX 132SB 4	1775	262	10.2	91.7	89.3	86.7	0.76	10.8	5.1	3.5	N	0.7356	57	126
10	7.5	BX 132MA 4	1765	359	13.1	91.7	90.9	89.5	0.79	9.6	4.3	2.9	L	0.8530	67	148
12.5	9.2	BX 160MA 4	1770	439	15.6	91.7	92.5	91.6	0.8	8.6	3.7	2.4	K	1.5425	95	209
15	11	BX 160MB 4	1770	525	18.2	92.4	92.9	92.0	0.82	8.0	3.1	1.9	J	1.8509	110	243
20	15	BX 160L 4	1770	716	24.5	93.0	93.5	92.5	0.81	8.2	3.1	2.0	J	2.1120	121	267
25	18.5	BX 180M 4	1780	878	28.6	93.6	94.5	93.2	0.85	11.1	2.2	2.4	M	3.7019	155	342
30	22	BX 180L 4	1775	1045	33.1	93.6	94.2	93.1	0.87	9.9	1.9	2.0	K	3.9392	163	359


BX-MX

4 P	1800 rpm - S1	60 Hz - IE3
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
P _n			n	T _n	I _n 460V	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m lb·ft ²	IM B5	
hp	kW					100%	75%	50%							Kg	lbs
7.5	5.5	MX 4SB 4	1775	262	10.2	91.7	89.3	86.7	0.76	10.8	5.1	3.5	N	0.7356	57	126
10	7.5	MX 4LA 4	1765	359	13.1	91.7	90.9	89.5	0.79	9.6	4.3	2.9	L	0.8530	67	148
12.5	9.2	MX 5SA 4	1770	439	15.6	91.7	92.5	91.6	0.80	8.6	3.7	2.4	K	1.5425	95	209
15	11	MX 5SB 4	1770	525	18.2	92.4	92.9	92.0	0.82	8.0	3.1	1.9	J	1.8509	110	243
20	15	MX 5LA 4	1770	716	24.5	93.0	93.5	92.5	0.81	8.2	3.1	2.0	J	2.1120	121	267

BX / MX motors (Premium Efficiency) will be available starting from June 2016




BX-MX

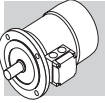
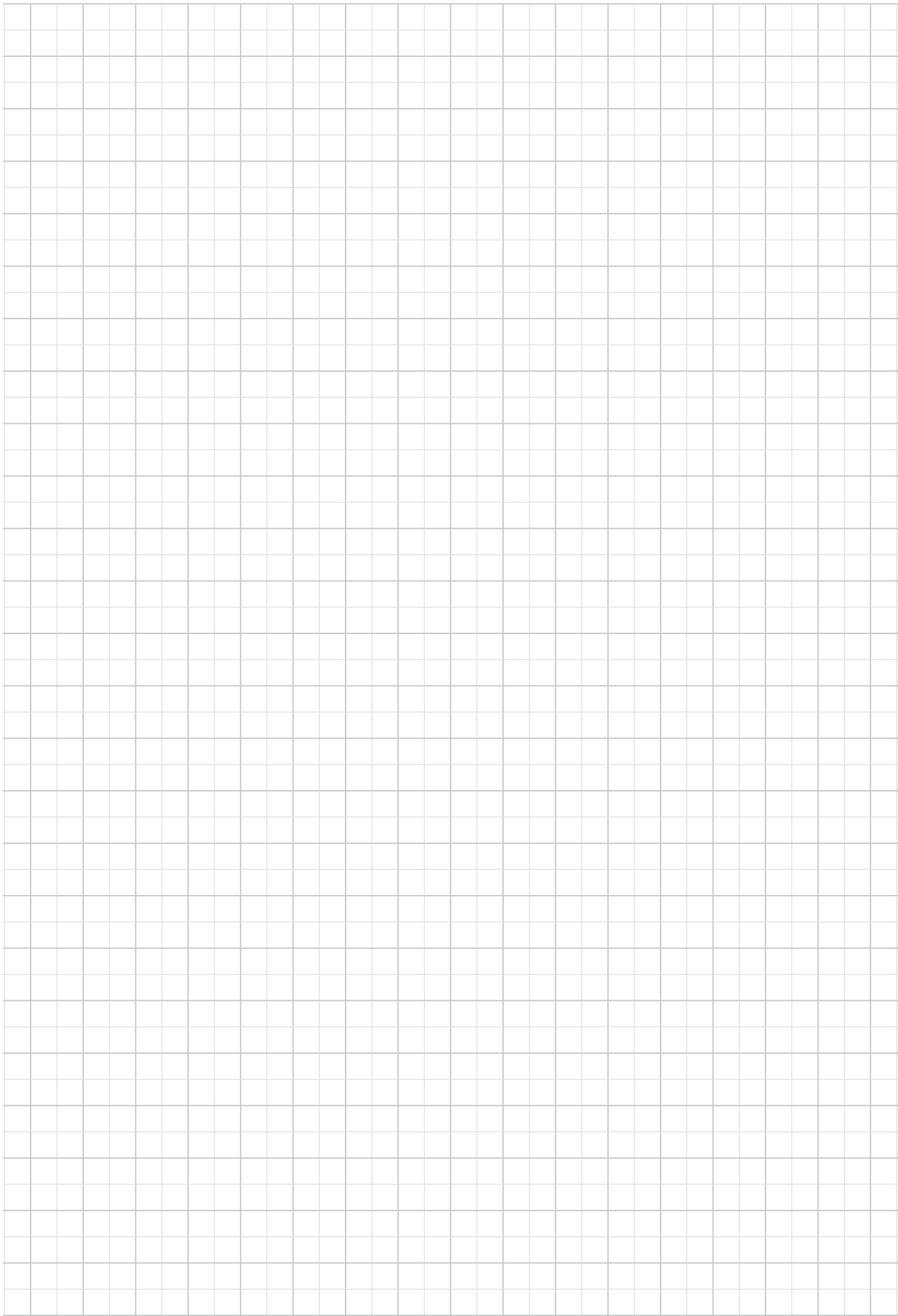
4 P		1500 rpm - S1											50 Hz - IE3			
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P _n			n	T _n	I _n 400V	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m	IM B5	
hp	kW					rpm	lb·in	A							100%	75%
7.5	5.5	BX 132SB 4	1470	316	11.5	89.6	89.2	87.3	0.77	6.6	2.9	2.9	H	0.7356	57	126
10	7.5	BX 132MA 4	1460	434	15.0	90.4	90.9	90.2	0.80	7.9	3.4	3.0	K	0.8543	67	148
12.5	9.2	BX 160MA 4	1465	531	17.8	91.0	92.1	91.7	0.82	6.1	2.5	2.2	G	1.5425	95	209
15	11	BX 160MB 4	1465	635	20.5	91.4	92.9	92.5	0.84	6.4	2.5	2.3	G	1.8509	110	243
20	15	BX 160L 4	1465	865	28.1	92.1	93.2	92.6	0.82	6.7	2.5	2.1	H	2.1120	121	267
25	18.5	BX 180M 4	1480	1056	32.9	92.6	94.1	93.1	0.85	10.4	2.5	2.9	L	3.7019	155	342
30	22	BX 180L 4	1475	1261	38.2	93.0	93.6	92.8	0.88	10.0	2.1	2.6	K	3.9392	163	359

4 P		1500 rpm - S1											50 Hz - IE3			
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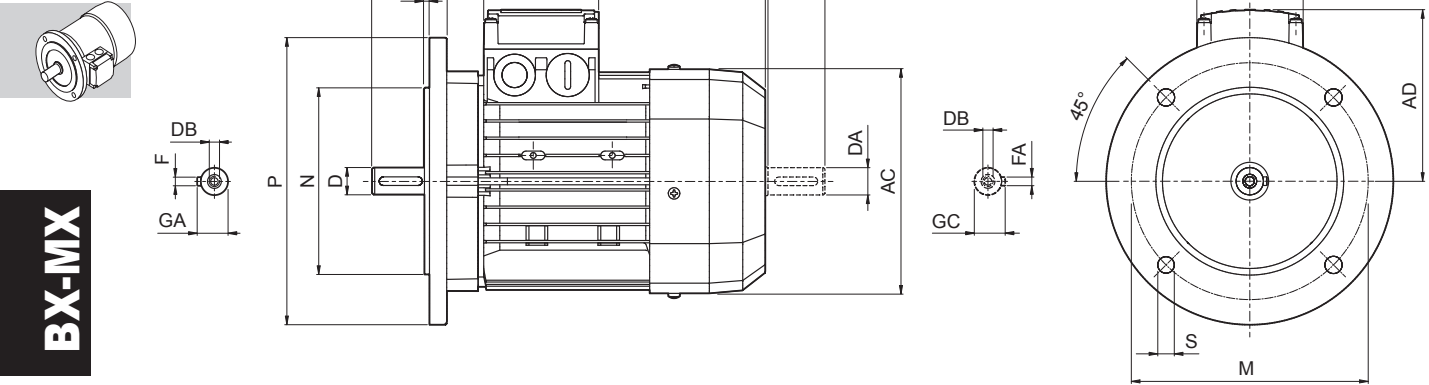
P _n			n	T _n	I _n 400V	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m	IM B5	
hp	kW					rpm	lb·in	A							100%	75%
7.5	5.5	MX 4SB 4	1470	316	11.5	89.6	89.2	87.3	0.77	6.6	2.9	2.9	H	0.7356	57	126
10	7.5	MX 4LA 4	1460	434	15.0	90.4	90.9	90.2	0.80	7.9	3.4	3.0	K	0.8543	67	148
12.5	9.2	MX 5SA 4	1465	531	17.8	91.0	92.1	91.7	0.82	6.1	2.5	2.2	G	1.5425	95	209
15	11	MX 5SB 4	1465	635	20.5	91.4	92.9	92.5	0.84	6.4	2.5	2.3	G	1.8509	110	243
20	15	MX 5LA 4	1465	865	28.1	92.1	93.2	92.6	0.82	6.7	2.5	2.1	H	2.1120	121	267

BX / MX motors (Premium Efficiency) will be available starting from June 2016



BX-MX

BX - IM B5



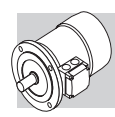
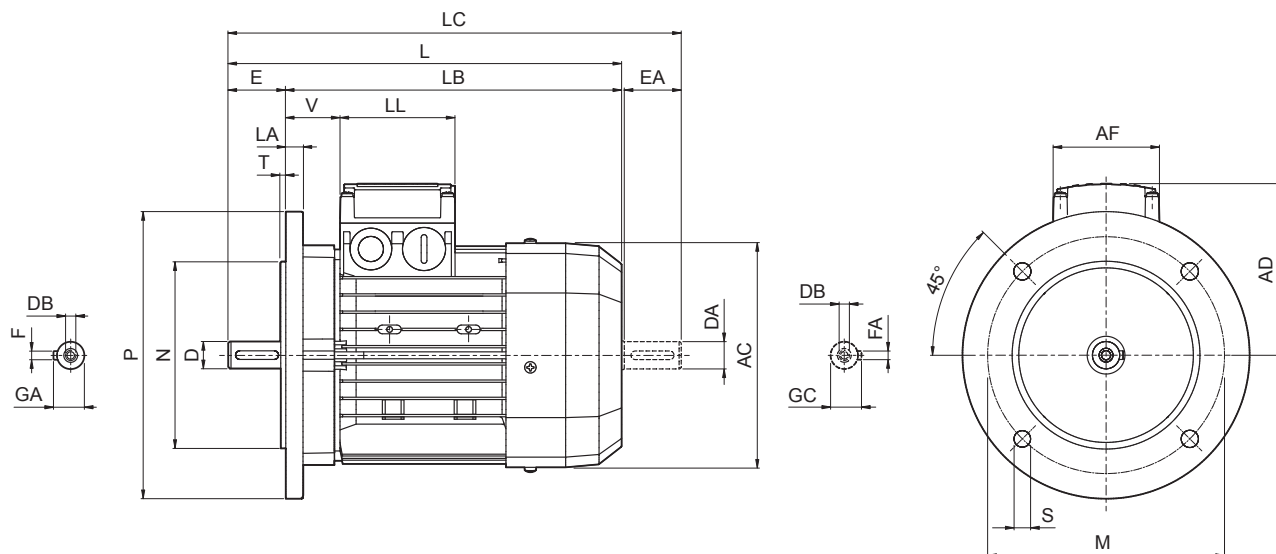
Dimensions are in [mm]

	Shaft					Flange						Motor							
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V
BX 132 SB	38	80	M12	41	10	265	230	300	14	4	20	258	493	413	556	193	118	118	58
BX 132 MA	28 ⁽¹⁾	60 ⁽¹⁾	M10 ⁽¹⁾	31 ⁽¹⁾	8 ⁽¹⁾								528	448	591				
BX 160 MA	42 38 ⁽¹⁾	110 80 ⁽¹⁾	M16 M12 ⁽¹⁾	45 41 ⁽¹⁾	12 10 ⁽¹⁾	300	250	350	18.5	5	15	310	596	486	680	245	187	187	51
BX 160 MB													640	530	724				
BX 160 L													640	530	724				
BX 180 M	48	110	M16	51.5	14	300	250	350	18.5	5	18	348	708	598	823	261	187	187	52
BX 180 L	42 ⁽¹⁾	110 ⁽¹⁾	M16 ⁽¹⁾	45 ⁽¹⁾	12 ⁽¹⁾								708	598	823				

N.B.:

1) These values refer to the rear shaft end.

BX - IM B5



BX-MX

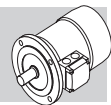
Dimensions are in Inch except when shown in *italic [mm]*

	Shaft					Flange						Motor							
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V
BX 132 SB	1.496	3.150	<i>M12</i>	1.614	0.394	10.433	9.055	11.811	0.551	0.157	0.787	10.157	19.409	16.260	21.890	7.598	4.646	4.646	2.283
BX 132 MA	1.102 ⁽¹⁾	2.362 ⁽¹⁾	<i>M10⁽¹⁾</i>	1.220 ⁽¹⁾	0.315 ⁽¹⁾								20.787	17.638	23.268				
BX 160 MA	1.654	4.331	<i>M16</i>	1.772	0.472	11.811	9.843	13.780	0.728	0.197	0.591	12.205	23.465	19.134	26.772	9.646	7.362	7.362	2.008
BX 160 MB													1.496 ⁽¹⁾	3.150	<i>M12⁽¹⁾</i>				
BX 160 L																			
BX 180 M	1.890	4.331	<i>M16</i>	2.028	0.551														
BX 180 L	1.654 ⁽¹⁾	4.331 ⁽¹⁾	<i>M16⁽¹⁾</i>	1.772 ⁽¹⁾	0.472 ⁽¹⁾						0.709	13.701	27.874	23.543	32.402	10.276			

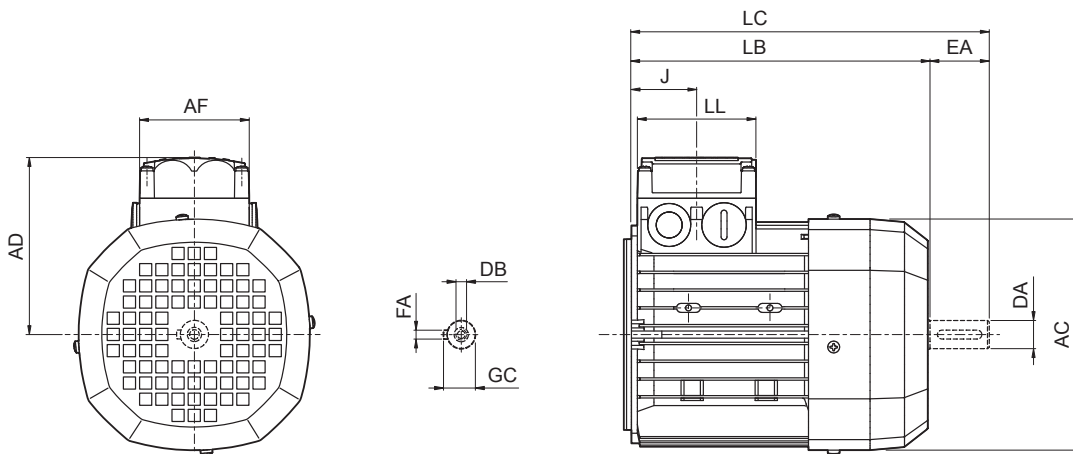
N.B.:

1) These values refer to the rear shaft end.

MX



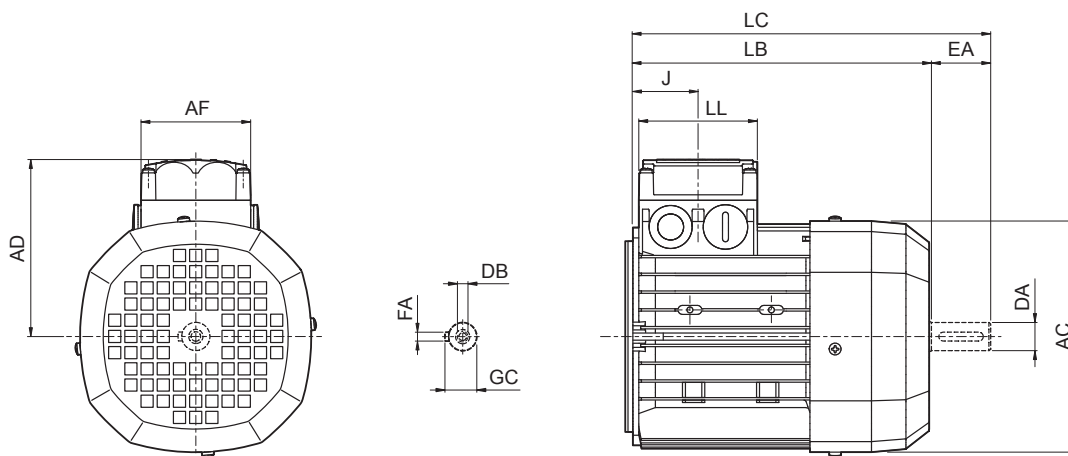
BX-MX



Dimensions are in [mm]

	Read shaft end					Motor						
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD
MX 4SB	28	60	M10	8	31	258	361	424	118	118	64.5	193
MX 4LA							396	459				
MX 5SA	38	80	M12	10	41	310	418	502	187	187	77	245
MX 5SB							462	546				
MX 5LA												

MX




Dimensions are in Inch except when shown in *italic* [mm]

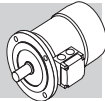
	Read shaft end					Motor						
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD
MX 4SB	1.102	2.362	<i>M10</i>	0.315	1.220	10.157	14.213	16.693	4.646	4.646	2.539	7.598
MX 4LA							15.591	18.071				
MX 5SA	1.496	3.150	<i>M12</i>	0.394	1.614	12.205	16.457	19.764	7.362	7.362	3.031	9.646
MX 5SB							18.189	21.496				
MX 5LA												

BX-MX


M15 MOTOR RATING CHARTS BE-ME

4 P	1800 rpm - S1	60 Hz - IE2
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
HP	P _n kW		n rpm	T _n lb-in	I _n 460V A	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m lb-ft ²	IM B5		
						100%	75%	50%							kg	lbs	
1	0.75	BE 80B	4	1745	36.3	1.46	82.5	81.1	77.6	0.78	7.6	3.5	3.2	K	0.0664	12.2	27
1.5	1.1	BE 90S	4	1740	53	2.25	84	82.7	79	0.73	7.7	3.5	3.2	L	0.0664	13.6	30
2	1.5	BE 90LA	4	1740	73	3.1	84.5	83.9	80.7	0.73	7.1	3.6	3.4	K	0.0807	15.1	33
3	2.2	BE 100LA	4	1745	106	4.2	87.5	85.5	83.2	0.76	7	3.3	2.9	J	0.1281	22	49
4	3	BE 100LB	4	1735	146	5.9	87.5	87.7	86.3	0.76	7	3.2	2.9	K	0.1448	24	53
5	3.7	BE 112M	4	1750	177	6.6	87.5	87.5	86.1	0.8	7.8	3.3	3.2	K	0.2492	32	71
7.5	5.5	BE 132S	4	1760	266	9.3	89.5	89.5	87.7	0.83	8.7	3.5	3.5	K	0.6407	53	117
10	7.5	BE 132MA	4	1760	363	12.7	89.5	89.5	87.9	0.83	8	3.4	3.3	K	0.7570	59	130
12.5	9.2	BE 132MB	4	1760	443	15.6	90	90	88.6	0.82	8.3	3.5	3.6	K	0.8543	70	154
15	11	BE 160M	4	1765	531	18.7	91	91	90	0.81	7.7	2.9	2.8	J	1.5425	99	218
20	15	BE 160L	4	1770	717	25.5	91	90.5	89.5	0.81	7.1	3.1	2.7	J	1.8747	115	254
25	18.5	BE 180M	4	1765	885	30.3	92.4	91.9	90.5	0.83	7.3	2.7	2.5	H	2.9663	135	298
30	22	BE 180L	4	1770	1053	36	92.4	92.5	92.2	0.83	8.1	3.3	3.2	J	3.9155	157	346

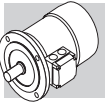

BE-ME

4 P	1800 rpm - S1	60 Hz - IE2
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
HP	P _n kW		n rpm	T _n lb-in	I _n 460V A	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m lb-ft ²	IM B5		
						100%	75%	50%							kg	lbs	
1	0.75	ME 2SB	4	1745	36.3	1.46	82.5	81.1	77.6	0.78	7.6	3.5	3.2	K	0.0664	10.9	24
1.5	1.1	ME 3SA	4	1740	53	2.25	84	82.5	80.5	0.73	6	2.9	2.7	J	0.0807	15.5	34
2	1.5	ME 3SB	4	1740	73	3.3	84.5	84	83	0.71	6.3	3.1	2.9	K	0.0949	17	37
3	2.2	ME 3LA	4	1745	106	4.2	87.5	85.5	83.2	0.76	7	3.3	2.9	J	0.1281	21	46
4	3	ME 3LB	4	1735	146	5.9	87.5	87.7	86.3	0.76	7	3.2	2.9	K	0.1448	23	51
5	3.7	ME 4SA	4	1740	177	6.7	87.5	85.6	82.9	0.79	7	3.3	2.9	J	0.5055	42	93
7.5	5.5	ME 4SB	4	1760	266	9.3	89.5	89.5	87.7	0.83	8.7	3.5	3.5	K	0.6407	51	112
10	7.5	ME 4LA	4	1760	363	12.7	89.5	89.5	87.9	0.83	8	3.4	3.3	K	0.7570	57	126
12.5	9.2	ME 4LB	4	1760	443	15.6	90	90	88.6	0.82	8.3	3.5	3.6	K	0.8543	65	143
15	11	ME 5SA	4	1765	531	18.7	91	91	90	0.81	7.7	2.9	2.8	J	1.5425	85	187
20	15	ME 5LA	4	1770	717	25.5	91	90.5	89.5	0.81	7.1	3.1	2.7	J	1.8747	101	223

2 P	3000 rpm - S1	50 Hz - IE2
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P _n			n	T _n	I _n 400V	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m	IM B5		
HP	kW					100%	75%	50%							lb·ft ²	Kg	lbs
						rpm	lb·in	A									
1	0.75	BE 80A	2	2860	22.1	1.65	80	79.6	76.4	0.83	6.8	3.8	3.5	J	0.0214	9.5	21
1.5	1.1	BE 80B	2	2845	32.7	2.35	81.5	82.2	79.9	0.83	6.9	3.8	3.1	J	0.0271	11.3	25
2	1.5	BE 90SA	2	2865	44.3	3.2	81.3	80.7	78.1	0.82	6.8	3.6	2.8	J	0.0297	12.3	27
3	2.2	BE 90L	2	2870	65	4.7	83.2	83.1	80.8	0.82	6.9	3.1	2.9	J	0.0396	14	31
4	3	BE 100L	2	2880	88	6.2	84.6	84.6	83.7	0.83	7.3	3.5	3.1	J	0.0925	23	51
5.5	4	BE 112M	2	2920	116	8.2	85.8	85.5	84.3	0.82	7.9	3.5	3.1	K	0.1353	28	62
7.5	5.5	BE 132SA	2	2925	159	10.6	87	85	81.7	0.86	8.5	3.6	3.3	K	0.3441	42	93
10	7.5	BE 132SB	2	2935	212	14.3	88.1	87.4	84.7	0.86	8.8	3.9	3.6	K	0.4224	53	117
12.5	9.2	BE 132MB	2	2920	266	16.4	88.8	86.5	84.2	0.91	8.4	3.7	3.3	J	0.4983	65	143
15	11	BE 160MA	2	2940	319	20	89.4	89.5	88	0.89	8.1	3	2.9	J	0.8068	84	185
20	15	BE 160MB	2	2950	434	27.2	90.5	90.5	89.5	0.88	8.5	3	2.8	K	0.9967	97	214
25	18.5	BE 160L	2	2945	531	32	90.9	90.5	89.8	0.91	7.7	2.9	2.7	H	1.1628	109	240




4 P	1500 rpm - S1	50 Hz - IE2
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P _n			n	T _n	I _n 400V	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m	IM B5		
HP	kW					100%	75%	50%							lb·ft ²	Kg	lbs
						rpm	lb·in	A									
1	0.75	BE 80B	4	1430	44.3	1.65	81	80.5	78	0.81	6.1	3.2	3	H	0.0664	12.2	27
1.5	1.1	BE 90S	4	1430	65	2.53	82.5	82	79.5	0.76	6.3	2.9	2.8	J	0.0664	13.6	30
2	1.5	BE 90LA	4	1430	89	3.5	83.5	83	80	0.74	5.9	3.1	3	J	0.0807	15.1	33
3	2.2	BE 100LA	4	1430	130	4.9	85.4	85	84	0.76	5.8	3	2.8	H	0.1281	22	49
4	3	BE 100LB	4	1420	177	6.6	85.5	86	85.5	0.77	5.9	2.8	2.6	H	0.1448	24	53
5.5	4	BE 112M	4	1440	239	8.3	87	87	86	0.8	6.5	2.8	2.8	H	0.2492	32	71
7.5	5.5	BE 132S	4	1460	319	11.1	88.5	88.5	87.5	0.81	7.3	2.9	2.9	J	0.6407	53	117
10	7.5	BE 132MA	4	1460	434	14.8	89	89	88.5	0.82	6.9	2.9	2.8	H	0.7570	59	130
12.5	9.2	BE 132MB	4	1460	531	18.1	89.5	89.5	88.5	0.82	6.9	2.9	3	H	0.8543	70	154
15	11	BE 160M	4	1465	637	21.5	91	91.3	90.5	0.81	6.5	2.8	2.6	H	1.5425	99	218
20	15	BE 160L	4	1465	867	28.7	90.8	91	90.5	0.83	6.5	2.6	2.3	H	1.8747	115	254
25	18.5	BE 180M	4	1465	1071	35	91.6	92	91.3	0.83	6.5	2.6	2.5	H	2.9663	135	298
30	22	BE 180L	4	1465	1266	41	91.6	91.8	91.4	0.84	6.8	2.7	2.6	H	3.9155	157	346

BE-ME


6 P	1000 rpm - S1	50 Hz - IE2
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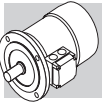
HP	P _n kW		n rpm	T _n lb·in	I _n 400V A	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m lb·ft ²	IM B5	
						100%	75%	50%							Kg	lbs
1	0.75	BE 90S 6	935	68	2.06	75.9	75.9	73	0.69	5.1	3.1	2.9	J	0.0783	15	33
1.5	1.1	BE 100M 6 (*)	945	98	2.75	78.1	76.2	73	0.74	4.9	2.2	1.9	G	0.1946	22	49
2	1.5	BE 100LA 6	945	135	3.9	79.8	77.5	74	0.72	5.6	2.5	2.3	J	0.2254	24	53
3	2.2	BE 112M 6	950	195	5.2	81.8	81.8	79.3	0.74	5.2	2.6	2.3	G	0.3987	32	71
4	3	BE 132S 6	955	266	6.6	83.3	83.3	82.4	0.79	6.1	2.1	1.9	H	0.7000	44	97
5.5	4	BE 132MA 6	965	354	8.7	84.6	85	83.1	0.79	6.9	2.2	2	J	0.9089	56	123
7.5	5.5	BE 160MA 6 (*)	965	478	11.6	87	87	86.4	0.79	6.6	2.5	2.3	H	1.7561	83	183
10	7.5	BE 160MB 6 (*)	965	655	15	88	88	87.2	0.82	6.6	2.3	2.1	H	2.3019	103	227

(*) Power /size relation not standardized

BE-ME


2 P	3000 rpm - S1	50 Hz - IE2
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P _n			n	T _n	I _n 400V	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m	IM B9		
HP	kW					100%	75%	50%							lb·ft ²	Kg	lbs
						rpm	lb·in	A									
1	0.75	ME 2SA	2	2860	22	1.63	80	79.6	76.4	0.83	6.8	3.8	3.5	J	0.0214	8.8	19
1.5	1.1	ME 2SB	2	2845	33	2.35	81.5	82.2	79.9	0.83	6.9	3.8	3.1	J	0.0271	10.6	23
2	1.5	ME 3SA	2	2845	44	3.2	81.3	79	76	0.84	6.1	2.9	2.7	H	0.0570	15.5	34
3	2.2	ME 3LA	2	2895	65	4.8	83.2	83.2	81.5	0.8	6.3	2.7	2.5	H	0.0736	18.7	41
4	3	ME 3LB	2	2880	88	6.2	84.6	84.6	83.7	0.83	7.3	3.5	3.1	J	0.0925	22	49
5.5	4	ME 4SA	2	2900	117	7.8	85.8	84.5	82.2	0.87	7	2.9	2.8	H	0.2397	33	73
7.5	5.5	ME 4SB	2	2925	159	10.6	87	85	81.7	0.86	8.5	3.6	3.3	K	0.3441	40	88
10	7.5	ME 4LA	2	2935	212	14.3	88.1	87.4	84.7	0.86	8.8	3.9	3.6	K	0.4224	51	112
12.5	9.2	ME 4LB	2	2920	266	16.4	88.8	86.5	84.2	0.91	8.4	3.7	3.3	J	0.4983	60	132
15	11	ME 5SA	2	2940	319	20	89.4	89.5	88	0.89	8.1	3	2.9	J	0.8068	70	154
20	15	ME 5SB	2	2950	434	27.2	90.5	90.5	89.5	0.88	8.5	3	2.8	K	0.9967	83	183
25	18.5	ME 5LA	2	2945	531	32	90.9	90.5	89.8	0.91	7.7	2.9	2.7	H	1.1628	95	209




BE-ME

4 P	1500 rpm - S1	50 Hz - IE2
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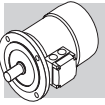
P _n			n	T _n	I _n 400V	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m	IM B9		
HP	kW					100%	75%	50%							lb·ft ²	Kg	lbs
						rpm	lb·in	A									
1	0.75	ME 2SB	4	1430	44	1.65	81	80.5	78	0.81	6.1	3.2	3	H	0.0664	10.9	24
1.5	1.1	ME 3SA	4	1430	65	2.6	82.5	82	79	0.74	5.5	2.5	2.8	H	0.0807	15.5	34
2	1.5	ME 3SB	4	1420	89	3.48	84	84	83	0.74	6.2	2.9	2.9	J	0.0949	17	37
3	2.2	ME 3LA	4	1430	130	4.89	85.4	85	84	0.76	5.8	3	2.8	H	0.1281	21	46
4	3	ME 3LB	4	1420	177	6.58	85.5	86	85.5	0.77	5.9	2.8	2.6	H	0.1448	23	51
5.5	4	ME 4SA	4	1440	239	8.25	87.5	86.8	84	0.8	7.1	3	3.1	J	0.5055	42	93
7.5	5.5	ME 4SB	4	1460	319	11.07	88.5	88.5	87.5	0.81	7.3	2.9	2.9	J	0.6407	51	112
10	7.5	ME 4LA	4	1460	434	14.83	89	89	88.5	0.82	6.9	2.9	2.8	H	0.7570	57	126
12.5	9.2	ME 4LB	4	1460	531	18.09	89.5	89.5	88.5	0.82	6.9	2.9	3	H	0.8543	65	143
15	11	ME 5SA	4	1465	637	21.54	91	91.3	90.5	0.81	6.5	2.8	2.6	H	1.5425	85	187
20	15	ME 5LA	4	1465	867	28.73	90.8	91	90.5	0.83	6.5	2.6	2.3	H	1.8747	101	223

6 P	1000 rpm - S1	50 Hz - IE2
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P _n			n	T _n	I _n 400V	η%			cos φ	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m lb·ft ²	IM B9		
HP	kW					100%	75%	50%							Kg	lbs	
1	0.75	ME 3SA	6	940	67	1.98	75.9	75	70.7	0.72	4.7	2.2	2	H	0.0783	17	37
1.5	1.1	ME 3LA	6 (*)	945	98	2.75	78.1	76.2	73	0.74	4.9	2.2	1.9	G	0.1946	21	46
2	1.5	ME 3LB	6	945	135	3.8	79.8	77.5	74	0.72	5.6	2.5	2.3	J	0.2254	23	51
3	2.2	ME 4SA	6	955	195	4.9	81.8	81.8	80	0.8	5.7	1.9	1.7	H	0.5126	34	75
4	3	ME 4SB	6	955	266	6.6	83.3	83.3	82.4	0.79	6.1	2.1	1.9	H	0.7000	43	95
5.5	4	ME 4LA	6	965	354	8.6	84.6	85	83.1	0.79	6.9	2.2	2	J	0.9089	54	119
7.5	5.5	ME 5SA	6 (*)	965	478	11.6	87	87	86.4	0.79	6.6	2.5	2.3	H	1.7561	69	152
10	7.5	ME 5SB	6 (*)	965	655	15	88	88	87.2	0.82	6.6	2.3	2.1	H	2.3019	89	196

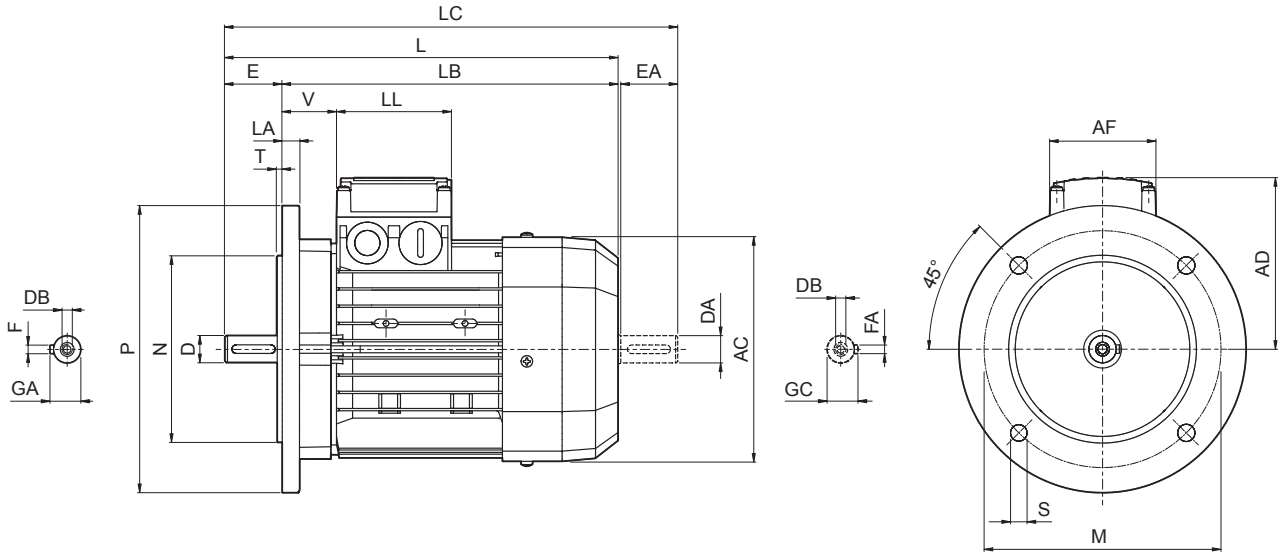
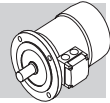
(*) Power /size relation not standardized

BE-ME



BE-ME

BE - IM B5



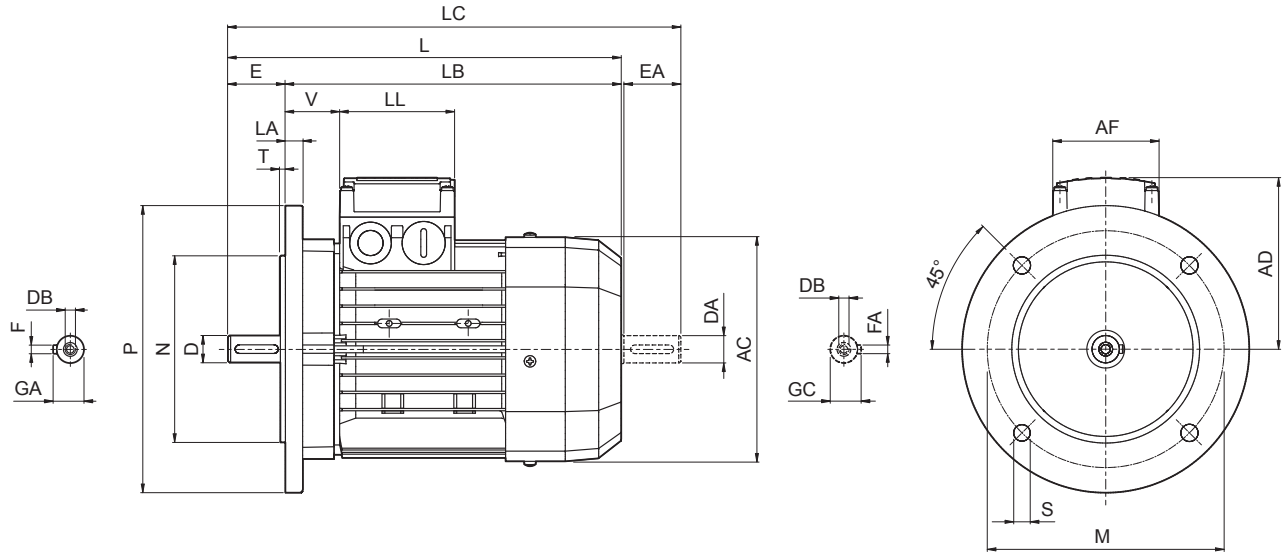
Dimensions are in [mm]

	Shaft					Flange					Motor								
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V
BE 80	19	40	M6	21.5	6							156	274	234	315	119	74	80	38
BE 90 S	24	50	M8	27	8	165	130	200	11.5	3.5	11.5	176	326	276	378	133	98	98	44
BE 90 L																			
BE 100	28	60	M10	31		215	180	250			14	195	367	307	429	142			50
BE 112											15								
BE 132 S	38	80	M12	41	10	265	230	300	14	4	20	258	493	413	576	193	118	118	58
BE 132 MA													528	448	611				
BE 132 MB																			
BE 160 M	42	110	M16	45	12	300	250	350	18.5	5	15	310	596	486	680	245			51
BE 160 L	38 ⁽¹⁾	80 ⁽¹⁾	M12 ⁽¹⁾	41 ⁽¹⁾	10 ⁽¹⁾								640	530	724				
BE 180 M	48	110	M16	51.5	14	300	250	350	18.5	5	18	348	708	598	823	261	187	187	52
BE 180 L	42 ⁽¹⁾	110 ⁽¹⁾	M16 ⁽¹⁾	45 ⁽¹⁾	12 ⁽¹⁾														

N.B.:

1) These values refer to the rear shaft end.

BE - IM B5



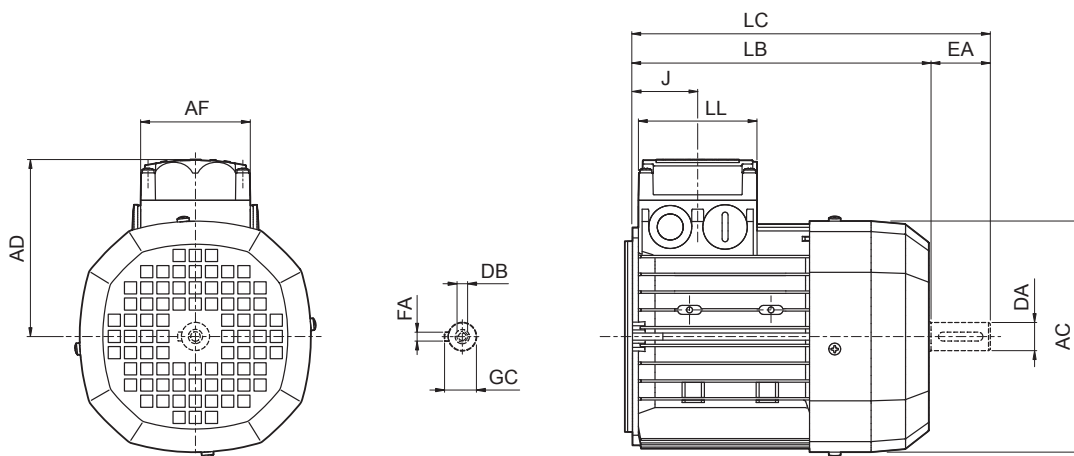
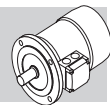
Dimensions are in Inch except when shown in *italic* [mm]

	Shaft					Flange						Motor																			
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V												
BE 80	0.748	1.575	M6	0.846	0.236							6.142	10.787	9.213	12.402	4.685	2.913	3.150	1.496												
BE 90 S	0.945	1.969	M8	1.063	0.315	6.496	5.118	7.874	0.453	0.138	0.453	6.929	12.835	10.866	14.882	5.236			1.732												
BE 90 L																															
BE 100	1.102	2.362	M10	1.220	0.315	8.465	7.087	9.843				0.551	7.677	14.449	12.087	16.890	5.591	3.858	3.858	1.969											
BE 112												0.591	8.622	15.157	12.795	17.638	6.181													2.047	
BE 132 S	1.496	3.150	M12	1.614	0.394	10.433	9.055	11.811	0.551	0.157		0.787	10.157	19.409	16.260	22.677	7.598	4.646	4.646	2.283											
BE 132 MA																															
BE 132 MB														20.787	17.638	24.055															
BE 160 M	1.654	4.331	M16	1.772	0.472								23.465	19.134	26.772					2.008											
BE 160 L	1.496 ⁽¹⁾	3.150 ⁽¹⁾	M12 ⁽¹⁾	1.615 ⁽¹⁾	0.394 ⁽¹⁾							0.591	12.205	25.197	20.866	28.504	9.646														
						11.811	9.843	13.780	0.728	0.197								7.362	7.362												
BE 180 M	1.890	4.331	M16	2.028	0.551																										
BE 180 L	1.654 ⁽¹⁾	4.331 ⁽¹⁾	M16 ⁽¹⁾	1.772 ⁽¹⁾	0.472 ⁽¹⁾							0.709	13.701	27.874	23.543	32.402	10.276			2.047											

N.B.:

1) These values refer to the rear shaft end.

ME

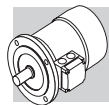
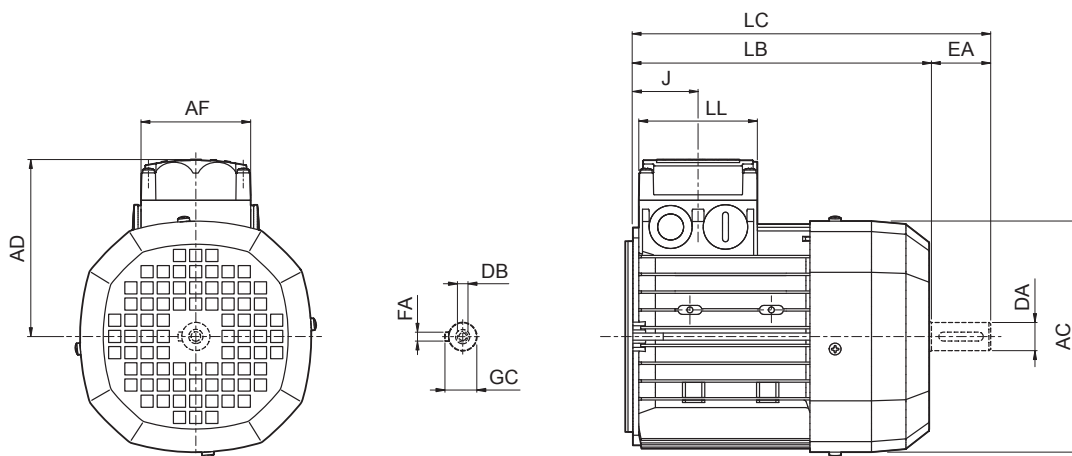


Dimensions are in [mm]

	Rear shaft end					Motor						
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD
ME 2S	19	40	M6	6	21.5	156	202	245	74	80	44	119
ME 3S	28	60	M10	8	31	195	230	293	98	98	53.5	142
ME 3L							262	325				
ME 4S	38	80	M12	10	41	258	361	444	118	118	64.5	193
ME 4L							396	479				
ME 4LB												
ME 5S	310	418	502	187	187	77	245					
ME 5L								462	546			

BE-ME

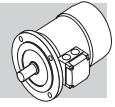
ME



Dimensions are in Inch except when shown in *italic* [mm]

	Rear shaft end					Motor						
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD
ME 2S	0.748	1.575	<i>M6</i>	0.236	0.846	6.142	7.953	9.646	2.913	3.150	1.732	4.685
ME 3S	1.102	2.362	<i>M10</i>	0.315	1.220	7.677	9.055	11.535	3.858	3.858	2.106	5.591
ME 3L							10.315	12.795				
ME 4S	1.496	3.150	<i>M12</i>	0.394	1.614	10.157	14.213	17.480	4.646	4.646	2.539	7.598
ME 4L							15.591	18.858				
ME 4LB												
ME 5S												
ME 5L	12.205	16.457	19.764	7.362	7.362	3.031	9.646					
								18.189	21.496			

BE-ME




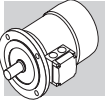
P _n		3600 rpm - S1													60 Hz										
		d.c. brake													a.c. brake										
		FD													FA										
		hp	kW		n	T _n	η	cosφ	I _n	I _s /I _n	T _s /T _n	T _s /T _n	KVA Code	J _m	IM B5	Mod	T _b	Z ₀	J _m	IM B5	Mod	T _b	Z ₀	J _m	IM B5
		rpm	lb-in		%		A					lb-ft ²			lb-in		1/h	lb-ft ²				lb-in	1/h	lb-ft ²	
0.25	0.18	BN 63A	2	3360	4.7	58	0.74	0.55	3.7	2.9	2.4	H	0.0048	3.5	7.7	15	2700	0.0062	4.9	10.7	15	3300	0.0062	5.0	11
0.33	0.25	BN 63B	2	3370	6.2	61	0.73	0.69	4.2	2.9	2.9	H	0.0055	3.9	8.6	15	2700	0.0071	5.2	11.5	15	3300	0.0071	5.4	11.9
0.5	0.37	BN 71A	2	3420	9.2	71	0.77	0.86	5.8	3.3	3.1	J	0.0082	5.4	11.9	30	2400	0.0109	7.5	16.6	30	3200	0.0109	7.8	17.2
0.75	0.55	BN 71B	2	3450	13.7	76	0.75	1.23	6.2	3.4	3.4	K	0.0097	6.2	13.7	44	2200	0.0126	8.3	18.2	44	2700	0.0126	8.6	19
1	0.75	BN 80A	2	3440	18.3	76	0.76	1.62	5.9	3.1	2.8	J	0.0185	8.6	19	44	1400	0.0223	11.8	26	44	1700	0.0223	12.2	27
1.5	1.1	BN 80B	2	3430	27.6	77	0.76	2.4	6.2	3.8	2.9	J	0.0214	9.5	21	88	1200	0.0252	12.2	27	88	1600	0.0252	13.2	29
2	1.5	BN 90SA	2	3480	36.2	79	0.78	3.04	7.3	3.6	3.2	K	0.0297	12.2	27	133	750	0.0335	15.4	34	133	1000	0.0335	16.3	36
3	2.2	BN 90L	2	3490	54	81	0.79	4.4	7.3	3.8	3.3	K	0.0397	14.1	31	230	750	0.0435	18.6	41	230	1000	0.0435	21	46
5	3.7	BN 100LB	2	3490	90	84	0.83	6.7	6.7	2.9	3.3	J	0.0926	23	51	354	360	0.102	27	59	354	500	0.102	30	66
7.5	5.5	BN 132SA	2	3490	135	83	0.86	9.8	6.4	2.7	2.6	H	0.240	35	77	440	400	0.266	44	98	440	400	0.266	49	108
10	7.5	BN 132SB	2	3490	181	82	0.88	13	6.2	2.8	2.7	H	0.318	42	93	440	350	0.344	51	113	440	350	0.344	56	123
15	11	BN 160MR	2	3510	271	87	0.88	18.3	6.9	2.7	2.9	H	0.499	65	143										
20	15	BN 160MB	2	3510	359	86	0.9	24.2	6	2.5	2.8	G	0.808	84	185										
25	18.5	BN 160L	2	3520	449	88	0.91	29.2	6.9	2.8	2.7	H	0.998	97	214										
30	22	BN 180M	2	3520	537	88	0.91	35.1	6.9	2.8	2.8	H	1.164	109	240										
40	30	BN 200LA	2	3530	716	89	0.91	46.2	6.9	2.6	3.5	H	1.829	140	309										

4P

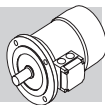
1800 rpm - S1

60 Hz

P _n		d.c. brake																a.c. brake										
		FD																FA										
		hp	Mod	T _b lb-in	Z _o 1/h	NB	SB	J _m lb-ft ²	IM B5 kg	IM B5 lbs	KVA Code	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{I_a}{T_n}$	I _n 460V A	$\frac{I_s}{I_n}$	η	cosφ	T _n lb-in	n rpm		Mod	T _b lb-in	Z _o 1/h	J _m lb-ft ²	IM B5 kg	IM B5 lbs	
0.08	BN 56A	4	1670	3	53	0.55	0.26	2.9	3.1	2.5	J	0.0036	3.1	6.8	FD 02	15	7000	9000	0.0062	5.2	11.5	FA 02	15	9000	0.0062	5.0	11	
0.12	BN 56B	4	1670	4.5	59	0.52	0.37	2.8	2.9	3.0	H	0.0036	3.1	6.8	FD 02	30	7000	9000	0.0071	5.6	12.3	FA 02	30	9000	0.0071	5.4	11.9	
0.16	BN 63A	4	1650	6.1	55	0.64	0.43	3.1	2.4	2.2	H	0.0048	3.5	7.7	FD 03	30	6000	8500	0.0164	7.8	17.2	FA 03	30	8500	0.0164	7.5	16.5	
0.25	BN 63B	4	1670	9.4	58	0.59	0.68	3.1	2.8	2.4	H	0.0055	3.9	8.6	FD 03	44	4800	7500	0.0190	8.6	19	FA 03	44	7500	0.0190	8.3	18.3	
0.33	BN 71A	4	1700	12.2	64	0.74	0.65	4.3	2.6	2.1	H	0.0138	5.1	11.2	FD 04	89	3400	7000	0.0394	12.2	27	FA 04	89	7000	0.0394	11.8	26	
0.5	BN 71B	4	1700	18.5	66	0.73	0.97	4.5	2.6	2.4	H	0.0164	5.9	13	FD 04	133	3000	6000	0.0523	13.6	30	FA 04	133	6000	0.0523	13.6	30	
0.75	BN 80A	4	1710	27.6	73	0.75	1.28	4.9	3	2.4	H	0.0356	8.2	18.1	FD 14	133	3000	7000	0.0546	16.3	36	FA 14	133	7000	0.0546	16.3	36	
1	BN 80B	4	1720	36.6	78	0.75	1.6	6.2	3.4	3.1	J	0.0482	10.0	22	FD 05	230	2200	4700	0.076	19.5	43	FA 05	230	4700	0.076	20	45	
1.5	BN 90S	4	1720	55	78	0.74	2.43	5.7	3.1	2.7	J	0.0499	12.2	27	FD 15	354	1000	2700	0.105	25	55	FA 15	354	2700	0.105	25	55	
2	BN 90LA	4	1720	73	81	0.74	3.12	6.6	3.3	3.0	K	0.0665	13.6	30	FD 55	480		1200	0.154	30	66	FA 15	354	1200	0.154	29	64	
3	BN 100LA	4	1720	110	81	0.73	4.8	5.5	2.7	2.4	H	0.096	18.1	40	FD 06S	530		850	0.254	40	88	FA 06S	530	850	0.254	42	93	
5	BN 100LC	4	1730	182	84	0.74	7.5	5.6	2.8	2.9	K	0.145	25	55	FD 56	664		850	0.530	57	126	FA 06	664	850	0.530	58	128	
5.5	BN 112M	4	1730	200	85	0.76	8	7	3.1	3.0	K	0.233	30	66	FD 06	885		700	0.665	66	146	FA 07	885	700	0.665	71	157	
7.5	BN 132S	4	1730	273	84	0.84	10	6.3	2.9	2.6	H	0.506	44	97	FD 07	1328		600	0.907	86	190	FA 07	1328	600	0.907	88	194	
10	BN 132MA	4	1740	362	85	0.84	13.1	6.1	2.9	2.9	H	0.641	53	117	FD 08	1770		400	1.722	129	284	FA 08	1770	400	1.722	128	282	
15	BN 160MR	4	1740	543	88	0.81	19.4	6.5	3.1	3.0	H	0.855	70	154	FD 08	2210		300	2.054	145	320	FA 08	2210	300	2.054	144	317	
20	BN 160L	4	1750	720	90	0.84	24.8	5.8	2.3	2.5	G	1.544	99	218														
25	BN 180M	4	1760	895	90	0.83	31.3	5.8	2.5	3.0	G	1.876	115	254														



BN-M



1200 rpm - S1

6P


60 Hz

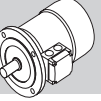
P _n		d.c. brake																a.c. brake														
		FD																FA														
		hp	kW		n	T _n	η	cosφ	I _n	I _s	I _s /I _n	I _s /T _n	I _a /T _n	KVA Code	J _m	IM B5	Mod	T _b	Z _o	1/h	NB	SB	J _m	IM B5	Mod	T _b	Z _o	1/h	J _m	IM B5		
				rpm	lb-in	%	A							lb-ft ²			lb-in	1/h			lb-ft ²			lb-in	1/h	lb-ft ²			lb-in	1/h	lb-ft ²	
0.12	0.09	BN 63A	6	1100	6.9	47	0.5	0.48	2.8	2.9	2.3	K	0.0081	4.6	10.1	FD 02	30	7000	10000	10000	0.0095	6.3	13.9	FA 02	30	10000	0.0095	6.1	13.4			
0.16	0.12	BN 63B	6	1100	9.2	50	0.55	2.4	2.4	2.4	2.2	H	0.0088	4.9	10.8	FD 02	30	7000	10000	10000	0.0102	6.6	14.6	FA 02	30	10000	0.0102	6.4	14.1			
0.25	0.18	BN 71A	6	1100	14.3	61	0.65	3.3	3.3	2.6	2.0	G	0.0200	5.5	12.1	FD 03	44	6500	10000	10000	0.0226	8.2	18.1	FA 03	44	10000	0.0226	7.9	17.4			
0.33	0.25	BN 71B	6	1100	18.9	64	0.65	3.2	3.2	2.6	2.1	G	0.0259	6.7	14.8	FD 03	44	6200	8000	8000	0.0285	9.5	21	FA 03	44	8000	0.0285	9.1	20			
0.5	0.37	BN 80A	6	1130	27.9	67	0.65	3.9	3.9	2.6	2.5	H	0.0499	10.0	22	FD 04	88	4100	5500	5500	0.0546	13.6	30	FA 04	88	5500	0.0546	13.6	30			
0.75	0.55	BN 80B	6	1140	41.4	76	0.66	4.9	4.9	3.2	2.7	J	0.0594	11.3	25	FD 04	133	3800	5000	5000	0.0641	15.4	34	FA 04	133	5000	0.0641	15.0	33			
1	0.75	BN 90S	6	1140	55	73	0.63	2.05	4.5	2.9	2.8	K	0.0618	13.2	29	FD 14	133	2700	4000	4000	0.0665	16.8	37	FA 14	133	4000	0.0665	16.8	37			
1.5	1.1	BN 90L	6	1140	83	75	0.65	2.83	4.3	2.8	2.4	H	0.0784	15.0	33	FD 05	230	2000	3500	3500	0.0879	21	46	FA 05	230	3500	0.0879	22	49			
2	1.5	BN 100LA	6	1140	111	76	0.66	3.75	4.5	2.4	2.4	H	0.195	22	49	FD 15	354	1500	3000	3000	0.204	28	62	FA 15	354	3000	0.204	29	64			
3	2.2	BN 112M	6	1150	164	81	0.69	4.9	5.5	2.8	2.4	J	0.400	32	71	FD 06S	530		1250		0.420	42	93	FA 06S	530	1250	0.420	44	97			
5	3.7	BN 132MA	6	1150	274	80	0.79	7.3	6.1	2.5	2.3	J	0.701	44	97	FD 06	885	900	900	900	0.724	58	128	FA 07	885	900	0.724	63	139			
7.5	5.5	BN 132MB	6	1140	414	82	0.75	11.2	5.4	2.7	2.3	H	0.910	56	123	FD 07	1328	800	800	800	0.964	72	159	FA 07	1328	800	0.964	74	163			
10	7.5	BN 160M	6	1160	543	85	0.82	13.5	5.8	2.3	2.4	G	1.758	83	183	FD 08	1500	550	550	550	1.936	112	247	FA 08	1500	550	1.936	113	249			
15	11	BN 160L	6	1160	815	84	0.83	19.8	5.8	2.5	2.7	G	2.304	103	227	FD 08	1770	400	400	400	2.482	133	293	FA 08	1770	400	2.482	133	293			

2P

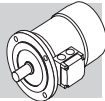
3600 rpm - S1

60 Hz

P _n		d.c. brake																	a.c. brake										
		FD																	FA										
		hp	kw		n	T _n	η	cosφ	I _n	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_a}{T_n}$	KVA Code	J _m	IM B5	Mod	T _b	Z ₀	Z ₀	J _m	J _m	Z ₀	Mod	T _b	Z ₀	J _m	IM B5	IM B5	
			rpm	lb-in	%		A					lb-ft ²	$\frac{kg}{kg}$	$\frac{lbs}{lbs}$		lb-in	1/h	1/h	lb-ft ²	$\frac{kg}{kg}$	$\frac{lbs}{lbs}$		lb-in	1/h	lb-ft ²	$\frac{kg}{kg}$	$\frac{lbs}{lbs}$		
0.25	0.18	M 05A	2	3380	4.7	60	0.74	0.53	4.1	3	2.4	H	0.0048	3.2	7.1	FD 02	15	2700	3300	0.0062	4.9	10.8	FA 02	15	3300	0.0062	4.7	10.4	
0.33	0.25	M 05B	2	3400	6.1	65	0.75	0.63	4.9	3.2	2.9	J	0.0055	3.6	7.9	FD 02	15	2700	3300	0.0071	5.3	11.7	FA 02	15	3300	0.0071	5.1	11.2	
0.5	0.37	M 05C	2	3420	9.2	69	0.76	0.89	5.5	3.3	3.2	J	0.0062	4.8	10.6	FD 02	30	2500	3000	0.0078	6.5	14.3	FA 02	30	3000	0.0078	6.3	13.9	
0.75	0.55	M 1SD	2	3450	13.7	76	0.75	1.23	6.2	3.4	3.4	K	0.0097	5.8	12.8	FD 03	44	2200	2700	0.0126	8.5	18.7	FA 03	44	2700	0.0126	8.2	18.1	
1	0.75	M 1LA	2	3440	18.3	77	0.75	1.62	6.2	3.8	3.5	K	0.0119	6.9	15.2	FD 03	44	1500	2100	0.0145	9.5	21	FA 03	44	2100	0.0145	9.5	21	
1.5	1.1	M 2SA	2	3430	27.6	77	0.76	2.4	6.2	3.8	2.9	J	0.0214	8.8	19.4	FD 04	88	1200	1600	0.0252	12.7	28	FA 04	88	1600	0.0252	12.7	28	
2	1.5	M 2SB	2	3420	36.8	80	0.81	2.89	6	3.3	2.9	H	0.0271	10.4	23	FD 04	133	1000	1300	0.0309	14.5	32	FA 04	133	1300	0.0309	14.5	32	
3	2.2	M 3SA	2	3430	55	81	0.83	4.2	6	2.4	3.2	H	0.0570	15.4	34	FD 15	230	800	1000	0.0665	22	49	FA 15	230	1000	0.0665	23	51	
5	3.7	M 3LB	2	3490	92	84	0.83	6.7	6.7	2.9	3.2	J	0.0926	22	49	FD 15	354	360	500	0.102	28	62	FA 15	354	500	0.102	29	64	
7.5	5.5	M 4SA	2	3490	135	83	0.86	9.8	6.4	2.7	2.6	H	0.240	33	72	FD 06	440	400	400	0.266	46	101	FA 06	440	400	0.266	47	104	
10	7.5	M 4SB	2	3490	181	82	0.88	13	6.2	2.8	2.7	H	0.318	40	88	FD 06	440	350	350	0.344	53	117	FA 06	440	350	0.344	65	143	
15	11	M 4LC	2	3510	271	87	0.88	18.3	6.9	2.7	2.9	H	0.499	60	132														
20	15	M 5SB	2	3510	359	86	0.9	24.2	6	2.5	2.8	G	0.808	70	154														
25	18.5	M 5SC	2	3520	449	88	0.91	29.2	6.9	2.8	2.7	H	0.998	83	183														
30	22	M 5LA	2	3520	537	88	0.91	35.1	6.9	2.8	2.8	H	1.164	95	209														



BN-M



1800 rpm - S1

4P


60 Hz

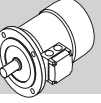
P _n		d.c. brake															a.c. brake							
		FD															FA							
hp	kW	IM B5	J _m	KVA Code	T _a /T _n	T _s /T _n	I _s /I _n	I _n 460V	cosφ	η	T _n	n		T _b	Mod	Z _o NB	Z _o SB	J _m	IM B5	Mod	T _b	Z _o 1/h	J _m	IM B5
		kg	lb-ft ²				A		%	lb-in	rpm		lb-in			1/h	1/h	lb-ft ²	lbs		lb-in	1/h	lb-ft ²	lbs
0.12	0.09	M 0B	0.0036	H	3.0	2.9	0.37	0.52	59	4.5	1670		15			7000	9000	0.0062	4.9		15	9000	0.0062	4.7
0.16	0.12	M 05A	0.0048	J	2.3	2.4	0.44	0.57	60	6	1690		30	FD 02		7000	9000	0.0062	10.8	FA 02	15	9000	0.0062	10.4
0.25	0.18	M 05B	0.0055	G	2.4	2.8	0.65	0.6	58	9.4	1670		30	FD 02		7000	9000	0.0071	5.3	FA 02	30	9000	0.0071	5.1
0.33	0.25	M 05C	0.0078	G	2.4	2.5	0.77	0.64	64	12.4	1670		30	FD 02		6000	8000	0.0093	6.5	FA 02	30	8000	0.0093	6.3
0.5	0.37	M 1SD	0.0164	G	2.4	2.6	0.96	0.73	66	18.5	1700		44	FD 03		4800	7500	0.0190	8.2	FA 03	44	7500	0.0190	7.9
0.75	0.55	M 1LA	0.0216	J	2.8	3	1.37	0.7	72	27.6	1710		66	FD 53		3400	7000	0.0242	9.5	FA 53	66	7000	0.0242	9.5
1	0.75	M 2SA	0.0482	J	3.1	3.4	1.61	0.75	78	36.6	1720		133	FD 04		3000	6000	0.0523	13.2	FA 04	133	6000	0.0523	13.2
1.5	1.1	M 2SB	0.0594	J	3.0	3.4	2.33	0.76	78	55	1720		133	FD 04		2000	4200	0.0641	14.5	FA 04	133	4200	0.0641	14.5
2	1.5	M 3SA	0.0808	J	2.6	2.9	3.15	0.73	82	73	1720		230	FD 15		1500	3000	0.0903	22	FA 15	230	3000	0.0903	23
3	2.2	M 3LA	0.096	H	2.4	2.7	4.67	0.73	81	110	1720		354	FD 15		1000	2700	0.105	24	FA 15	354	2700	0.105	24
5	3.7	M 3LC	0.145	H	2.9	2.8	7.5	0.74	84	182	1730		480	FD 55		1200	1200	0.154	29	FA 15	354	1200	0.154	30
7.5	5.5	M 4SA	0.506	H	2.6	2.9	9.8	0.84	84	273	1730		664	FD 56		850	850	0.530	55	FA 06	664	850	0.530	56
10	7.5	M 4LA	0.641	H	2.9	2.9	13.2	0.84	85	362	1740		885	FD 06		700	700	0.665	64	FA 06	885	700	0.665	65
15	11	M 4LC	0.855	H	3.0	3.1	19.4	0.81	88	543	1740		1328	FD 07		600	600	0.907	81	FA 07	1328	600	0.907	83
20	15	M 5SB	1.544	G	2.5	2.3	24.9	0.84	90	720	1750		1770	FD 08		400	400	1.781	115	FA 08	1770	400	1.781	114
25	18.5	M 5LA	1.876	G	3.0	2.5	31.1	0.83	90	895	1760		2210	FD 08		300	300	2.054	131	FA 08	2210	300	2.054	130

6P

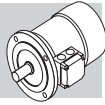
1200 rpm - S1

60 Hz

P _n		d.c. brake																a.c. brake										
		FD								FA								FA										
hp	kW		n rpm	T _n lb-in	η %	cosφ	I _n 460V A	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m lb-ft ²	IM B5 kg	IM B5 lbs	Mod	T _b lb-in	Z _o 1/h	NB	SB	J _m lb-ft ²	IM B5 kg	IM B5 lbs	Mod	T _b lb-in	Z _o 1/h	J _m lb-ft ²	IM B5 kg	IM B5 lbs
0.12	0.09																											
0.16	0.12	M 05B	1100	9.2	49	0.54	0.57	2.3	2.4	2.2	H	0.0088	4.6	10.1	FD 02	30	7000	10000	0.0102	0.0102	6.3	13.9	FA 02	30	10000	0.0102	6.1	13.4
0.25	0.18	M 15C	1100	14.3	61	0.65	0.57	3.3	2.6	2.0	G	0.0200	5.1	11.2	FD 03	44	6500	10000	0.0226	0.0226	7.8	17.2	FA 03	44	10000	0.0226	7.5	16.5
0.33	0.25	M 15D	1100	18.9	64	0.65	0.75	3.2	2.6	2.1	G	0.0259	6.3	13.9	FD 03	44	6200	8000	0.0290	0.0290	9.0	19.8	FA 03	44	8000	0.0290	8.7	19.2
0.5	0.37	M 1LA	1100	28.6	66	0.65	1.08	3.3	2.6	2.4	G	0.0306	7.3	16.1	FD 53	66	4000	7000	0.0330	0.0330	10.0	22	FA 03	66	7000	0.0330	9.5	21
0.75	0.55	M 2SA	1140	41.4	76	0.66	1.38	4.9	3.2	2.7	J	0.0594	10.4	23	FD 04	133	3800	5000	0.0641	0.0641	14.5	32	FA 04	133	5000	0.0641	14.5	32
1	0.75	M 2SB	1140	55	76	0.61	2.03	4.4	2.8	2.8	J	0.0665	11.3	25	FD 04	133	2700	5000	0.0713	0.0713	15.4	34	FA 04	133	5000	0.0713	15.4	34
1.5	1.1	M 3SA	1140	83	74	0.68	2.74	4.4	2.4	2.2	H	0.147	16.8	37	FD 15	230	2300	4500	0.157	0.157	23	51	FA 15	230	4500	0.157	24	53
2	1.5	M 3LA	1140	111	76	0.66	3.75	4.5	2.4	2.4	H	0.195	21	46	FD 15	354	1500	3000	0.204	0.204	27	60	FA 15	354	3000	0.204	28	62
3	2.2	M 3LC	1140	166	77	0.68	5.3	5.1	2.6	2.6	J	0.226	23	51	FD 55	480	1500	1500	0.235	0.235	29	64	FA 15	480	1500	0.235	30	66
5	3.7	M 4LA	1150	274	80	0.79	7.3	6.1	2.5	2.3	H	0.701	43	95	FD 06	885	900	900	0.724	0.724	56	123	FA 06	885	900	0.724	57	126
7.5	5.5	M 4LB	1140	414	82	0.75	11.2	5.4	2.7	2.3	H	0.910	54	119	FD 07	1328	800	800	0.964	0.964	70	154	FA 07	1328	800	0.964	72	159
10	7.5	M 5SA	1160	543	85	0.82	13.5	5.8	2.3	2.4	G	1.758	69	152	FD 08	1500	550	550	1.936	1.936	98	216	FA 08	1500	550	1.936	98	216
15	11	M 5SB	1160	815	84	0.83	19.8	5.8	2.5	2.7	G	2.304	89	196	FD 08	1770	400	400	2.482	2.482	119	262	FA 08	1770	400	2.482	118	260



BN-M



2P

3000 rpm - S1

50 HZ

P _n		d.c. brake																a.c. brake															
		FD												FA				FA															
		kW	HP	P _n diagram	n	T _n	IE1	η (100%)	η (75%)	η (50%)	cosφ	I _n 400V	I _s /I _n	T _s /T _n	T _a /T _n	KVA Code	J _m	IM B5	Mod	T _b	Z ₀ 1/h	SB	NB	Z ₀ 1/h	J _m	IM B5	Mod	T _b	Z ₀ 1/h	J _m	IM B5		
kg	lbs																															kg	lbs
0.18	0.25	BN 63A	2	2730	5.6	○	59.9	56.9	51.9	0.77	0.56	3.0	2.1	2.0	E	0.0005	3.5	7.7	FD 02	15	3900	4800	0.0006	0.0006	5.2	11	FA 02	15	4800	0.0006	5.0	11	
0.25	0.33	BN 63B	2	2740	7.7	○	66.0	64.8	64.8	0.76	0.72	3.3	2.3	2.3	E	0.0005	3.9	8.6	FD 02	15	3900	4800	0.0007	0.0007	5.6	12	FA 02	15	4800	0.0007	5.4	12	
0.37	0.5	BN 63C	2	2800	11.2	○	69.1	66.8	66.8	0.78	0.99	3.9	2.6	2.6	F	0.0008	5.1	11	FD 02	31	3600	4500	0.0009	0.0009	6.8	15	FA 02	31	4500	0.0009	6.6	15	
0.37	0.5	BN 71A	2	2820	11.1	○	73.8	73.0	70.6	0.76	0.95	4.8	2.8	2.6	H	0.0008	5.4	12	FD 03	31	3000	4100	0.0011	0.0011	8.1	18	FA 03	31	4200	0.0011	7.8	17	
0.55	0.75	BN 71B	2	2820	16.5	○	76.0	75.8	74.8	0.76	1.37	5.0	2.9	2.8	H	0.0010	6.2	14	FD 03	44	2900	4200	0.0013	0.0013	8.9	20	FA 03	44	4200	0.0013	8.6	19	
0.75	1	BN 71C	2	2810	23.0	○	76.6	76.2	76.2	0.76	1.86	5.1	3.1	2.8	H	0.0012	7.3	16	FD 03	44	1900	3300	0.0014	0.0014	10.0	22	FA 03	44	3600	0.0014	9.7	21	
0.75	1	BN 80A	2	2810	23.0	●	76.2	75.5	68.3	0.81	1.75	4.8	2.6	2.2	G	0.0019	8.6	19	FD 04	44	1700	3200	0.0022	0.0022	12.5	28	FA 04	44	3200	0.0022	12.4	27	
1.1	1.5	BN 80B	2	2800	33.6	●	76.4	76.2	75.0	0.81	2.57	4.8	2.8	2.4	G	0.0021	9.5	21	FD 04	89	1500	3000	0.0025	0.0025	13.4	30	FA 04	89	3000	0.0025	13.3	29	
1.5	2	BN 80C	2	2800	45	●	79.1	79.5	77.2	0.81	3.4	4.9	2.7	2.4	G	0.0027	11.3	25	FD 04	133	1300	2600	0.0031	0.0031	15.2	34	FA 04	133	2600	0.0031	15.1	33	
1.5	2	BN 90SA	2	2870	44	●	82.0	81.5	78.1	0.80	3.4	5.9	2.7	2.6	H	0.0030	12.3	27	FD 14	133	900	2200	0.0033	0.0033	16.5	36	FA 14	133	2200	0.0033	16.4	36	
1.85	2.5	BN 90SB	2	2880	54	●	82.5	82.0	75.4	0.80	4.0	6.2	2.9	2.6	H	0.0040	14	31	FD 14	133	900	2200	0.0043	0.0043	18.2	40	FA 14	133	2200	0.0043	18.1	40	
2.2	3	BN 90L	2	2880	65	●	82.7	82.1	80.8	0.80	4.8	6.3	2.9	2.7	J	0.0040	14	31	FD 05	230	900	2200	0.0050	0.0050	20	44	FA 05	230	2200	0.0050	20.7	46	
3	4	BN 100L	2	2860	89	●	81.5	81.3	77.4	0.79	6.7	5.6	2.6	2.2	H	0.0074	20	44	FD 15	230	700	1600	0.0083	0.0083	26	57	FA 15	230	1600	0.0083	27	60	
4	5.5	BN 100LB	2	2870	118	●	83.1	83.0	77.8	0.80	8.7	5.8	2.7	2.5	H	0.0093	23	51	FD 15	354	450	900	0.0102	0.0102	29	64	FA 15	354	1000	0.0102	30	66	
4	5.5	BN 112M	2	2900	117	●	85.5	84.5	83.0	0.82	8.2	6.9	3.0	2.9	J	0.0135	28	62	FD 06S	354	—	950	0.0157	0.0157	39	86	FA 06S	354	950	0.0157	40	88	
5.5	7.5	BN 132SA	2	2890	161	●	84.7	84.5	81.2	0.84	11.2	5.9	2.6	2.2	G	0.0240	35	77	FD 06	443	—	600	0.0266	0.0266	48	106	FA 06	443	600	0.0266	49	108	
7.5	10	BN 132SB	2	2900	221	●	86.5	86.3	84.4	0.85	14.7	6.4	2.6	2.2	H	0.0344	42	93	FD 06	443	—	550	0.0365	0.0365	55	121	FA 06	443	550	0.0365	56	123	
9.2	12.5	BN 132M	2	2930	266	●	87.0	86.5	83.6	0.86	17.7	6.7	2.8	2.3	H	0.0422	53	117	FD 56	664	—	430	0.0449	0.0449	66	146	FA 06	664	430	0.0449	67	148	
11	15	BN 160MR	2	2920	319	●	87.6	87.0	86.0	0.88	20.6	6.9	2.9	2.5	H	0.0498	65	143															
15	20	BN 160MB	2	2930	434	●	89.6	89.4	88.0	0.86	28.1	7.1	2.6	2.3	H	0.0807	84	185															
18.5	25	BN 160L	2	2930	531	●	90.4	90.1	89.0	0.86	34	7.6	2.7	2.3	J	0.0997	97	214															
22	30	BN 180M	2	2930	637	●	89.9	89.7	89.5	0.88	40	7.8	2.6	2.4	J	0.116	109	240															
30	40	BN 200LA	2	2930	867	●	90.7	90.1	87.6	0.89	54	7.8	2.7	2.9	J	0.183	140	309															

○ = n.a. ● = IE1

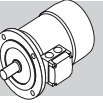
4P

1500 rpm - S1

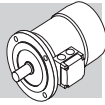
50 Hz

P _n		d.c. brake																	a.c. brake												
		FD																	FA												
		kW	HP	P _n icon	n	T _n	IE1	η (100%)	η (75%)	η (50%)	cosφ	I _n 400V	I _s / I _n	T _s / T _n	T _a / T _n	KVA Code	J _m	IM B5	Mod	T _b	Z _o NB	Z _o SB	J _m	IM B5	Mod	T _b	Z _o	J _m	IM B5	IM B5	
kg	lbs																														kg
0.06	0.08	BN 56A	4	1340	3.8	○	46.8	44.2	41.3	0.65	0.28	2.6	2.3	2.0	H	0.0004	3.1	6.8		15	10000	13000	0.0006	5.2	11	FA 02	15	13000	0.0006	5.0	11
0.09	0.12	BN 56B	4	1350	5.7	○	51.7	47.6	42.9	0.60	0.42	2.6	2.5	2.4	H	0.0004	3.1	6.8		31	10000	13000	0.0007	5.6	12	FA 02	31	13000	0.0007	5.4	12
0.12	0.16	BN 63A	4	1350	7.5	○	59.8	56.2	47.0	0.62	0.47	2.6	1.9	1.8	F	0.0005	3.5	7.7	FD 02	31	7800	10000	0.0009	6.8	15	FA 02	31	10000	0.0009	6.6	15
0.18	0.25	BN 63B	4	1320	11.5	○	54.8	52.9	52.5	0.67	0.71	2.6	2.2	2.0	F	0.0005	3.9	8.6	FD 02	31	10000	13000	0.0007	5.6	12	FA 02	31	13000	0.0007	5.4	12
0.25	0.33	BN 63C	4	1340	15.8	○	65.3	65.0	57.9	0.69	0.80	2.7	2.1	1.9	E	0.0008	5.1	11	FD 02	31	7800	10000	0.0009	6.8	15	FA 02	31	10000	0.0009	6.6	15
0.25	0.33	BN 71A	4	1380	15.3	○	63.7	62.2	59.1	0.73	0.78	3.3	1.9	1.7	F	0.0014	5.1	11	FD 03	31	7700	11000	0.0016	7.8	17	FA 03	31	11000	0.0016	7.5	17
0.37	0.5	BN 71B	4	1370	23.0	○	66.8	66.7	63.0	0.76	1.05	3.7	2.0	1.9	F	0.0016	5.9	13	FD 03	44	6000	9400	0.0019	8.6	19	FA 03	44	9400	0.0019	8.3	18
0.55	0.75	BN 71C	4	1380	33.6	○	69.0	68.9	68.8	0.74	1.55	4.1	2.3	2.3	G	0.0022	7.3	16	FD 53	66	4300	8700	0.0024	10.0	22	FA 03	66	8700	0.0024	9.7	21
0.55	0.75	BN 80A	4	1390	33.6	○	72.0	71.3	69.7	0.77	1.43	4.1	2.3	2.0	F	0.0036	8.2	18	FD 04	89	4100	8000	0.0039	12.1	27	FA 04	89	8000	0.0039	12.0	26
0.75	1	BN 80B	4	1400	45	●	75.0	74.5	69.3	0.78	1.85	4.9	2.7	2.5	H	0.0047	9.9	22	FD 04	133	4100	7800	0.0052	13.8	30	FA 04	133	7800	0.0052	13.7	30
1.1	1.5	BN 80C	4	1400	66	●	75.5	76.2	70.4	0.78	2.7	5.1	2.8	2.5	H	0.0059	11.3	25	FD 04	133	2600	5300	0.0064	15.2	34	FA 04	133	5300	0.0064	15.1	33
1.1	1.5	BN 90S	4	1390	67	●	76.5	76.2	72.2	0.77	2.70	4.6	2.6	2.2	G	0.0050	12.2	27	FD 14	133	4800	8000	0.0055	16.4	36	FA 14	133	8000	0.0055	16.3	36
1.5	2	BN 90LA	4	1410	90	●	78.7	78.5	74.9	0.77	3.6	5.3	2.8	2.4	H	0.0066	13.6	30	FD 05	230	3400	6000	0.0076	19.6	43	FA 05	230	6000	0.0076	20.3	45
1.85	2.5	BN 90LB	4	1390	112	●	78.6	78.9	77.2	0.79	4.3	5.1	2.8	2.6	G	0.0071	15.1	33	FD 05	230	3200	5900	0.0081	21.1	47	FA 05	230	5900	0.0081	21.8	48
2.2	3	BN 100LA	4	1410	132	●	81.1	81.4	79.9	0.75	5.2	4.5	2.2	2.0	F	0.0095	18	40	FD 15	354	2600	4700	0.0104	25	55	FA 15	354	4700	0.0104	25	55
3	4	BN 100LB	4	1410	177	●	82.6	83.8	83.7	0.77	6.8	5.0	2.3	2.2	G	0.0128	22	49	FD 15	354	2400	4400	0.0138	28	62	FA 15	354	4400	0.0138	29	64
4	5.5	BN 112M	4	1430	239	●	84.4	84.2	81.6	0.81	8.4	5.6	2.7	2.5	G	0.0233	30	66	FD 06S	531	—	1400	0.0254	40	88	FA 06S	531	2100	0.0254	42	93
5.5	7.5	BN 132S	4	1440	319	●	84.7	84.8	82.5	0.81	11.6	5.5	2.3	2.2	G	0.0505	44	97	FD 56	664	—	1050	0.0529	57	126	FA 06	664	1200	0.0529	58	128
7.5	10	BN 132MA	4	1440	443	●	86.0	86.3	85.3	0.81	15.5	5.7	2.5	2.4	H	0.0641	53	117	FD 06	885	—	950	0.0664	66	146	FA 07	885	1000	0.0664	71	157
9.2	12.5	BN 132MB	4	1440	540	●	88.4	88.6	87.5	0.81	18.8	5.9	2.7	2.5	H	0.0757	59	130	FD 07	1328	—	900	0.0812	75	165	FA 07	1328	900	0.0812	77	170
11	15	BN 160MR	4	1440	646	●	87.6	87.8	86.0	0.81	22.4	6.0	2.7	2.5	G	0.0854	70	154	FD 07	1328	—	850	0.0906	86	190	FA 07	1328	850	0.0906	88	194
15	20	BN 160L	4	1460	867	●	88.7	88.5	88.4	0.81	30	6.0	2.3	2.1	G	0.154	99	218	FD 08	1770	—	750	0.172	129	284	FA 08	1770	750	0.168	128	282
18.5	25	BN 180M	4	1460	1071	●	89.3	89.5	89.2	0.81	37	6.2	2.6	2.5	H	0.187	115	254	FD 08	2213	—	700	0.205	145	320	FA 08	2213	700	0.202	144	317
22	30	BN 180L	4	1460	1275	●	89.9	90.0	90.0	0.80	44	6.4	2.5	2.5	G	0.297	135	298	FD 09	2655	—	400	0.344	175	386	FA 08	2655	400	0.344	175	386
30	40	BN 200L	4	1460	1735	●	91.4	91.7	91.0	0.80	59	7.1	2.7	2.8	J	0.392	157	346	FD 09	3540	—	300	0.439	197	434	FA 08	3540	300	0.439	197	434

○ = n.a. ● = IE1



BN-M



6P

1000 rpm - S1

50 HZ

P _n		d.c. brake																a.c. brake														
		FD											FA					FA														
		kW	HP	P _n rpm	T _n lb-in	IE1	η (100%) %	η (75%) %	η (50%) %	cosφ	In 400V A	I _s / I _n	T _s / T _n	T _a / T _n	KVA Code	J _m lb-ft ²	IM B5 $\frac{kg}{lbs}$	Mod	T _b lb-in	Z ₀ 1/h	NB	SB	Z ₀ 1/h	J _m lb-ft ²	IM B5 $\frac{kg}{lbs}$	Mod	T _b lb-in	Z ₀ 1/h	J _m lb-ft ²	IM B5 $\frac{kg}{lbs}$		
0.09	0.12																														BN 63A	6
0.12	0.16	BN 63B	6	870	11.7	○	45.0	44.0	41.8	0.60	0.64	2.1	1.9	1.7	G	0.0009	4.9	11	FD 02	31	9000	14000	0.0016	6.6	15	FA 02	31	14000	0.0010	6.4	14	
0.18	0.25	BN 71A	6	900	16.9	○	55.0	55.5	51.0	0.69	0.68	2.6	1.9	1.7	F	0.0020	5.5	12	FD 03	44	8100	13500	0.0019	8.2	18	FA 03	44	13500	0.0023	7.9	17	
0.25	0.33	BN 71B	6	900	23.9	○	62.0	58.5	51.4	0.71	0.82	2.6	1.9	1.7	D	0.0026	6.7	15	FD 03	44	7800	13000	0.0022	9.4	21	FA 03	44	13000	0.0028	9.1	20	
0.37	0.5	BN 71C	6	910	34.5	○	66.0	60.0	53.3	0.69	1.17	3.0	2.4	2.0	E	0.0031	7.7	17	FD 53	66	5100	9500	0.0025	10.4	23	FA 03	66	9500	0.0033	10.1	22	
0.37	0.5	BN 80A	6	910	34.5	○	68.0	67.4	63.3	0.68	1.15	3.2	2.2	2.0	F	0.0050	9.9	22	FD 04	89	5200	8500	0.0033	13.8	30	FA 04	89	8500	0.0055	13.7	30	
0.55	0.75	BN 80B	6	920	50	○	70.0	69.8	64.3	0.68	1.67	3.9	2.6	2.2	G	0.0059	11.3	25	FD 04	133	4800	7200	0.0036	15.2	34	FA 04	133	7200	0.0064	15.1	33	
0.75	1	BN 80C	6	920	69	●	70.0	70.0	64.4	0.65	2.38	3.8	2.5	2.2	G	0.0066	12.2	27	FD 04	133	3400	6400	0.0038	16.1	35	FA 04	133	6400	0.0071	16.0	35	
0.75	1	BN 90S	6	920	69	●	70.0	69.0	64.2	0.68	2.27	3.8	2.4	2.2	G	0.0062	12.6	28	FD 14	133	3400	6500	0.0040	16.8	37	FA 14	133	6500	0.0066	16.7	37	
1.1	1.5	BN 90L	6	920	101	●	72.9	72.6	69.1	0.69	3.2	3.9	2.3	2.0	G	0.0078	15	33	FD 05	230	2700	5000	0.0050	21	46	FA 05	230	5000	0.0088	22	49	
1.5	2	BN 100LA	6	940	135	●	75.2	74.2	70.3	0.72	4.0	4.1	2.1	2.0	G	0.0195	22	49	FD 15	354	1900	4100	0.0066	28	62	FA 15	354	4100	0.0204	29	64	
1.85	2.5	BN 100LB	6	930	168	●	76.6	72.8	62.6	0.73	4.8	4.6	2.1	2.0	G	0.0225	24	53	FD 15	354	1700	3600	0.0071	30	66	FA 15	354	3600	0.0235	31	68	
2.2	3	BN 112M	6	940	195	●	78.5	79.0	76.5	0.73	5.5	4.8	2.2	2.0	H	0.0399	32	71	FD 06S	531	—	2100	0.0100	42	93	FA 06S	531	2100	0.0420	44	97	
3	4	BN 132S	6	940	266	●	79.7	77.0	75.1	0.76	7.1	5.1	1.9	1.8	G	0.0513	36	79	FD 56	664	—	1400	0.0116	49	108	FA 06	664	1400	0.0536	50	110	
4	5.5	BN 132MA	6	950	354	●	81.4	81.5	79.5	0.77	9.2	5.5	2.0	1.8	H	0.0700	45	99	FD 06	885	—	1200	0.0138	58	128	FA 07	885	1200	0.0755	63	139	
5.5	7.5	BN 132MB	6	945	496	●	83.1	80.9	79.1	0.78	12.2	6.1	2.1	1.9	H	0.0909	56	123	FD 07	1328	—	1050	0.0171	72	159	FA 07	1328	1050	0.0963	74	163	
7.5	10	BN 160M	6	955	664	●	85.0	85.0	84.8	0.81	15.7	5.9	2.2	2.0	H	0.176	83	183	FD 08	1505	—	900	0.0266	112	247	FA 08	1505	900	0.193	113	249	
11	15	BN 160L	6	960	965	●	86.4	86.5	85.9	0.81	22.7	6.6	2.5	2.3	H	0.230	103	227	FD 08	1770	—	800	0.0316	133	293	FA 08	1770	800	0.248	133	293	
15	20	BN 180L	6	970	1310	●	87.7	88.0	87.3	0.82	30	6.2	2.0	2.4	H	0.368	130	287	FD 09	2655	—	600	0.0403	170	375	—	—	—	—	—	—	—
18.5	25	BN 200LA	6	960	1629	●	88.6	88.0	87.3	0.81	37	5.9	2.0	2.3	G	0.403	145	320	FD 09	3540	—	450	0.0439	185	408	—	—	—	—	—	—	—

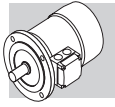
○ = n.a. ● = IE1

2P

3000 rpm - S1

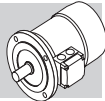
50 Hz

P _n		d.c. brake																		a.c. brake															
		FD														FA				FA															
		kW	HP	P _n image	n	T _n	IE1	η (100%)	η (75%)	η (50%)	cosφ	In 400V	I _s /I _n	T _s /T _n	T _a /T _n	KVA Code	J _m	IM B5	Mod	T _b	Z ₀	1/h	SB	NB	Z ₀	1/h	J _m	IM B5	Mod	T _b	Z ₀	1/h	J _m	IM B5	
kg	lbs																																		kg
0.18	0.25	M 05A	2	2730	5.6	○	59.9	56.9	51.9	0.77	0.56	3.0	2.1	2.0	F	0.0005	3.2	7.1	FD 02	15	3900	4800			4800	0.0006	4.9	11	FA 02	15	4800	0.0006	4.7	10	
0.25	0.33	M 05B	2	2740	7.7	○	66.0	64.8	64.8	0.76	0.72	3.3	2.3	2.3	D	0.0005	3.6	7.9	FD 02	15	3900	4800			4800	0.0007	5.3	12	FA 02	15	4800	0.0007	5.1	11	
0.37	0.5	M 05C	2	2800	11.2	○	69.1	66.8	66.8	0.78	0.99	3.9	2.6	2.6	A	0.0008	4.8	11	FD 02	31	3600	4500			4500	0.0009	6.5	14	FA 02	31	4500	0.0009	6.3	14	
0.55	0.75	M 1SD	2	2820	16.5	○	76.0	75.8	74.8	0.76	1.37	5.0	2.9	2.8	A	0.0010	5.8	13	FD 03	44	2900	4200			4200	0.0013	8.5	19	FA 03	44	4200	0.0013	8.2	18	
0.75	1	M 1LA	2	2810	23.0	○	76.6	76.2	76.2	0.76	1.86	5.1	3.1	2.8	J	0.0012	6.9	15	FD 03	44	1900	3300			3300	0.0014	9.6	21	FA 03	44	3300	0.0014	9.3	21	
1.1	1.5	M 2SA	2	2800	33.6	●	76.4	76.2	75.0	0.81	2.57	4.8	2.8	2.4	H	0.0021	8.8	19	FD 04	89	1500	3000			3000	0.0025	11.9	26	FA 04	89	3000	0.0025	12.6	28	
1.5	2	M 2SB	2	2800	45	●	79.1	79.5	77.2	0.81	3.4	4.9	2.7	2.4	F	0.0027	10.6	23	FD 04	133	1300	2600			2600	0.0031	9.9	22	FA 04	133	2600	0.0031	14.4	32	
2.2	3	M 3SA	2	2880	65	●	82.7	82.1	81.0	0.80	4.8	6.3	2.9	2.7	K	0.0057	15.5	34	FD 15	230	1100	2400			2400	0.0066	22	49	FA 15	230	2400	0.0066	23	51	
3	4	M 3LA	2	2860	89	●	81.5	81.3	77.4	0.79	6.7	5.6	2.6	2.2	J	0.0074	18.7	41	FD 15	230	700	1600			1600	0.0083	25	55	FA 15	230	1600	0.0083	26	57	
4	5.5	M 3LB	2	2870	118	●	83.1	83.0	77.8	0.80	8.7	5.8	2.7	2.5	A	0.0093	22	49	FD 15	354	450	900			900	0.0102	28	62	FA 15	354	900	0.0102	29	64	
5.5	7.5	M 4SA	2	2890	161	●	84.7	84.5	81.2	0.84	11.2	5.9	2.6	2.2	H	0.0240	33	73	FD 06	443	—	600			600	0.0266	46	101	FA 06	443	600	0.0266	47	104	
7.5	10	M 4SB	2	2900	221	●	86.5	86.3	84.4	0.85	14.7	6.4	2.6	2.2	J	0.0344	40	88	FD 06	443	—	550			550	0.0365	53	117	FA 06	443	550	0.0365	54	119	
9.2	12.5	M 4LA	2	2930	266	●	87.0	86.5	83.6	0.86	17.7	6.7	2.8	2.3	J	0.0422	51	112	FD 56	664	—	430			430	0.0449	64	141	FA 06	664	430	0.0449	65	143	
11	15	M 4LC	2	2920	319	●	87.6	87.0	86.0	0.88	20.6	6.9	2.9	2.5	J	0.0498	60	132																	
15	20	M 5SB	2	2930	434	●	89.6	89.4	88.0	0.86	28.1	7.1	2.6	2.3	J	0.0807	70	154																	
18.5	25	M 5SC	2	2930	531	●	90.4	90.1	89.0	0.86	34	7.6	2.7	2.3	K	0.0997	83	183																	
22	30	M 5LA	2	2930	637	●	89.9	89.7	89.5	0.88	40	7.8	2.6	2.4	K	0.116	95	209																	



BN-M

○ = n.a. ● = IE1

BN-M**4P****1500 rpm - S1****50 Hz**

P _n kW HP		n rpm	T _n lb-in	IE1	η (100%) %	η (75%) %	η (50%) %	cosφ	In 400V A	I _s I _n	T _s T _n	T _a T _n	KVA Code	J _m lb-ft ²	IM B5 kg lbs	Mod	T _b lb-in	Z _o 1/h	NB	SB	d.c. brake		a.c. brake										
																					FD		FA										
																					J _m lb-ft ²	Z _o 1/h	T _b lb-in	Mod	T _b lb-in	Z _o 1/h	J _m lb-ft ²	IM B5 kg lbs					
0.09	0.12	IM 0B 4	1350	5.7	○	51.7	47.6	42.9	0.60	0.42	2.6	2.5	2.4	H	0.0004	2.9	6.4	15	10000														
0.12	0.16	IM 05A 4	1350	7.5	○	59.8	56.2	47.0	0.62	0.47	2.6	1.9	1.8	E	0.0005	3.2	7.1	15	13000														
0.18	0.25	IM 05B 4	1320	11.5	○	54.8	52.9	52.5	0.67	0.71	2.6	2.2	2.0	A	0.0005	3.6	7.9	31	10000														
0.25	0.33	IM 05C 4	1340	15.8	○	65.3	65.0	57.9	0.69	0.80	2.7	2.1	1.9	E	0.0008	4.8	11	31	7800														
0.37	0.5	IM 1SD 4	1370	23.0	○	66.8	66.7	63.0	0.76	1.05	3.7	2.0	1.9	D	0.0016	5.5	12	44	6000														
0.55	0.75	IM 1LA 4	1380	33.6	○	69.0	68.9	68.8	0.74	1.55	4.1	2.3	2.3	G	0.0022	6.9	15	66	4300														
0.75	1	IM 2SA 4	1400	45	●	75.0	74.5	69.3	0.78	1.85	4.9	2.7	2.5	A	0.0047	9.2	20	133	4100														
1.1	1.5	IM 2SB 4	1400	66	●	76.4	76.2	70.4	0.78	2.66	5.1	2.8	2.5	G	0.0059	10.6	23	133	2600														
1.5	2	IM 3SA 4	1410	90	●	79.6	80.5	79.3	0.77	3.5	4.6	2.1	2.1	D	0.0081	15.5	34	230	2800														
2.2	3	IM 3LA 4	1410	132	●	81.1	81.4	79.9	0.75	5.2	4.5	2.2	2.0	A	0.0095	17	37	354	2600														
3	4	IM 3LB 4	1410	177	●	82.6	83.8	83.7	0.77	6.8	5.0	2.3	2.2	G	0.0128	21	46	354	2400														
4	5.5	IM 3LC 4	1400	239	○	82.7	83.1	80.5	0.78	9.0	4.7	2.3	2.2	F	0.0145	23	51	487	1300														
5.5	7.5	IM 4SA 4	1440	319	●	84.7	84.8	82.5	0.81	11.6	5.5	2.3	2.2	A	0.0505	42	93	664	1050														
7.5	10	IM 4LA 4	1440	443	●	86.0	86.3	85.3	0.81	15.5	5.7	2.5	2.4	G	0.0641	51	112	885	950														
9.2	12.5	IM 4LB 4	1440	540	●	88.4	88.6	87.5	0.81	18.8	5.9	2.7	2.5	G	0.0757	57	126	1328	900														
11	15	IM 4LC 4	1440	646	●	87.6	87.8	86.0	0.81	22.4	6.0	2.7	2.5	G	0.0854	65	143	1328	850														
15	20	IM 5SB 4	1460	867	●	88.7	88.5	88.4	0.81	30.1	6.0	2.3	2.1	G	0.154	85	187	1770	750														
18.5	25	IM 5LA 4	1460	1071	●	89.3	89.5	89.2	0.81	37	6.2	2.6	2.5	H	0.187	101	223	2213	700														

○ = n.a. ● = IE1

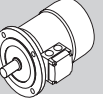
6P

1000 rpm - S1

50 Hz

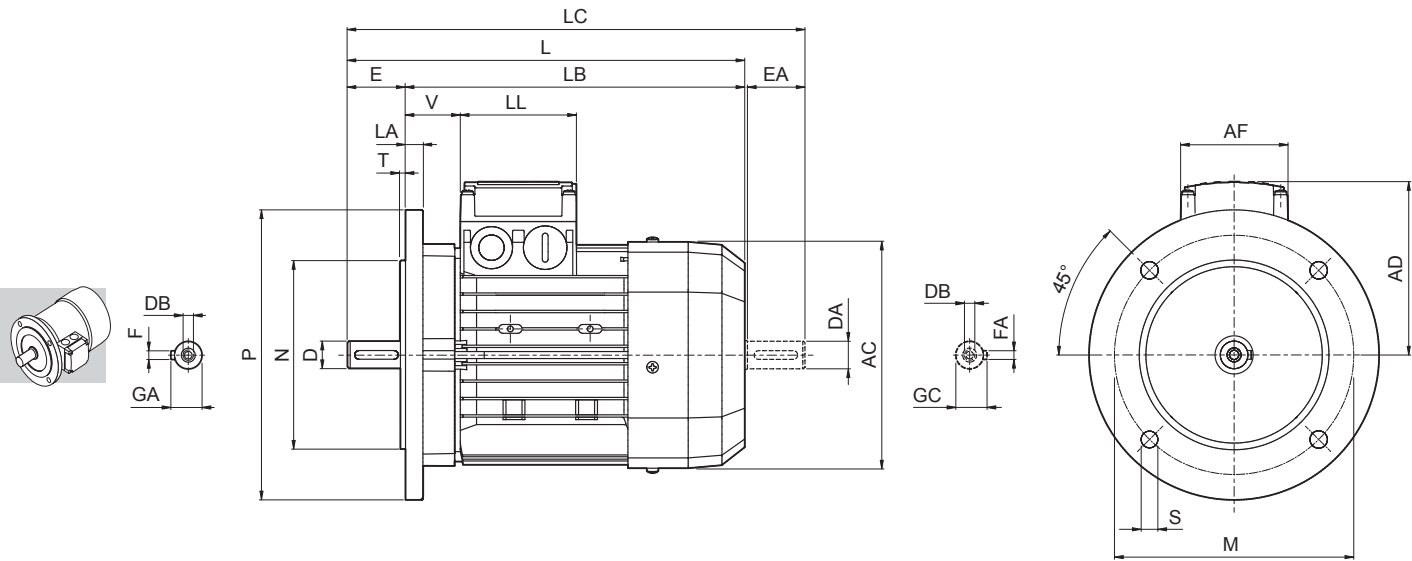
P _n		d.c. brake																	a.c. brake												
		FD																	FA												
		kW	HP	IM B5 Kg	IM B5 lbs	J _m lb-ft ²	KVA Code	T _a / T _n	T _s / T _n	I _s / I _n	In 400V A	cosφ	η (100%) %	η (75%) %	η (50%) %	T _n lb-in	n rpm	T _n lb-in	IE1	Mod	T _b lb-in	Z _o 1/h	NB	SB	J _m lb-ft ²	IM B5 Kg	IM B5 lbs	Mod	T _b lb-in	Z _o 1/h	J _m lb-ft ²
0.09	0.12																														
0.12	0.16	IM 05B	6	870	11.7	○	45.0	44.0	41.8	0.60	0.64	2.1	1.9	1.7	F	0.0009	4.6	10	FD 02	31	9000	14000	0.0010	6.3	14	FA 02	31	14000	0.0010	6.1	13
0.18	0.25	IM 1SC	6	900	16.9	○	55.0	55.5	51.0	0.69	0.68	2.6	1.9	1.7	A	0.0020	5.1	11	FD 03	44	8100	13500	0.0023	7.8	17	FA 03	44	13500	0.0023	7.5	17
0.25	0.33	IM 1SD	6	900	23.9	○	62.0	58.5	51.4	0.71	0.82	2.6	1.9	1.7	D	0.0026	6.3	14	FD 03	44	7800	13000	0.0028	9.0	20	FA 03	44	13000	0.0028	8.7	19
0.37	0.5	IM 1LA	6	910	34.5	○	66.0	60.0	53.3	0.69	1.17	3.0	2.4	2.0	B	0.0031	7.3	16	FD 53	66	5100	9500	0.0033	10.0	22	FA 03	66	9500	0.0033	9.7	21
0.55	0.75	IM 2SA	6	920	50	○	70.0	69.8	64.3	0.68	1.67	3.9	2.6	2.2	G	0.0059	10.6	23	FD 04	133	4800	7200	0.0064	14.5	32	FA 04	133	7200	0.0064	14.4	32
0.75	1	IM 2SB	6	920	69	●	70.0	70.0	64.4	0.65	2.38	3.8	2.5	2.2	A	0.0066	11.5	25	FD 04	133	3400	6400	0.0071	15.4	34	FA 04	133	6400	0.0071	15.3	34
1.1	1.5	IM 3SA	6	920	101	●	75.0	74.0	72.0	0.72	2.9	4.3	2.0	1.8	G	0.0078	17	37	FD 15	230	2700	5000	0.0088	23	51	FA 15	230	5000	0.0088	24	53
1.5	2	IM 3LA	6	940	135	●	75.2	74.2	70.3	0.72	4.0	4.1	2.1	2.0	D	0.0195	21	46	FD 15	354	1900	4100	0.0204	27	60	FA 15	354	4100	0.0204	28	62
1.85	2.5	IM 3LB	6	930	168	●	76.6	72.8	62.6	0.73	4.8	4.6	2.1	2.0	A	0.0225	23	51	FD 15	354	1700	3600	0.0235	29	64	FA 15	354	3600	0.0235	30	66
2.2	3	IM 3LC	6	930	204	●	77.7	76.8	72.4	0.71	5.8	4.7	2.3	2.1	G	0.0225	23	51	FD 55	487	—	1900	0.0235	29	64	FA 15	487	1900	0.0235	30	66
3	4	IM 4SA	6	940	266	●	79.7	77.0	75.1	0.76	7.1	5.1	1.9	1.8	G	0.0513	34	75	FD 56	664	—	1400	0.0536	47	104	FA 06	664	1400	0.0536	48	106
4	5.5	IM 4LA	6	950	354	●	81.4	81.5	79.5	0.77	9.2	5.5	2.0	1.8	A	0.0700	43	95	FD 06	885	—	1200	0.0724	56	123	FA 07	885	1200	0.0724	57	126
5.5	7.5	IM 4LB	6	945	496	●	83.1	80.9	79.1	0.78	12.2	6.1	2.1	1.9	H	0.0909	54	119	FD 07	1328	—	1050	0.0963	70	154	FA 07	1328	1050	0.0963	72	159
7.5	10	IM 5SA	6	955	664	●	85.0	85.0	84.8	0.81	15.7	5.9	2.2	2.0	H	0.176	69	152	FD 08	1505	—	900	0.193	98	216	FA 08	1505	900	0.190	98	216
11	15	IM 5SB	6	960	965	●	86.4	86.5	85.9	0.81	22.7	6.6	2.5	2.3	H	0.230	89	196	FD 08	1770	—	800	0.248	119	262	FA 08	1770	800	0.244	118	260

○ = n.a. ● = IE1



BN-M

BN - IM B5



Dimensions are in [mm]

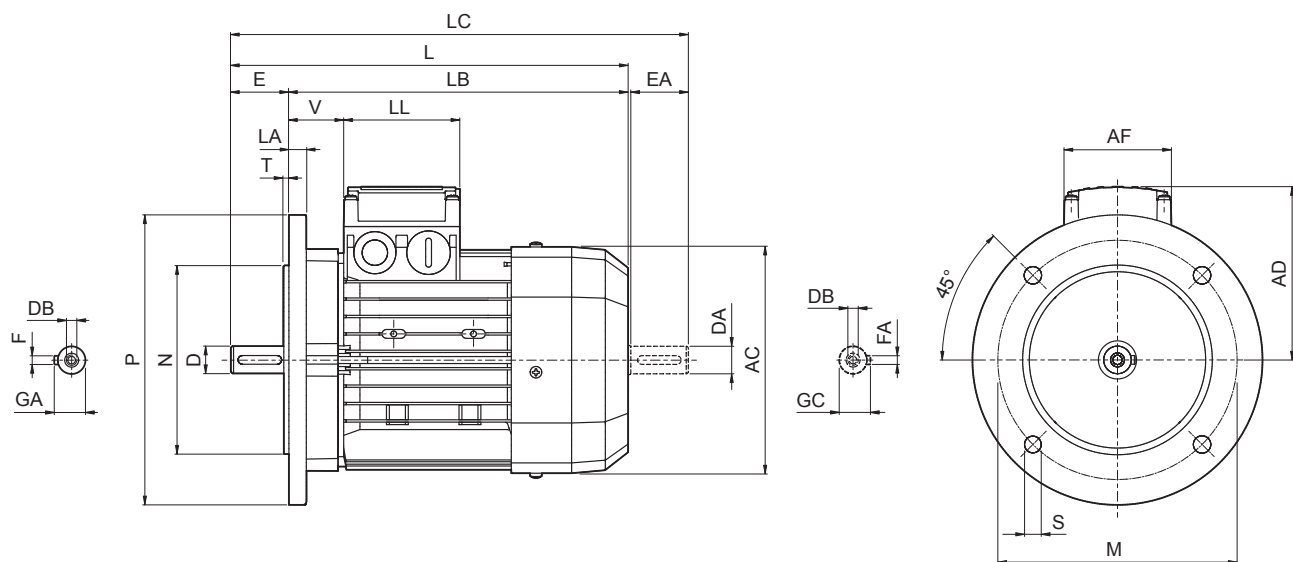
BN-M

	Shaft					Flange					Motor									
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V	
BN 56	9	20	M3	10.2	3	100	80	120	7	3	8	110	185	165	207	91	74	80	34	
BN 63	11	23	M4	12.5	4	115	95	140	9.5		10	121	207	184	232				95	26
BN 71	14	30	M5	16	5	130	110	160			10	138	249	219	281				108	37
BN 80	19	40	M6	21.5	6	165	130	200	11.5	3.5	11.5	156	274	234	315	119	98	98	38	
BN 90	24	50	M8	27	8							176	326	276	378	133			44	
BN 100	28	60	M10	31	8	215	180	250	14	4	14	195	367	307	429	142	98	98	50	
BN 112											15	219	385	325	448	157			52	
BN 132	38	80	M12	41	10	265	230	300	18.5	5	20	258	493	413	576	193	118	118	58	
BN 160 MR	42 38 (1)	110 80 (1)	M16 M12 (1)	45 41 (1)	12 10 (1)	300	250	350			15		310	596	486				680	245
BN 160 M									18	348	310	640	530	724	187	187	51			
BN 160 L	48 38 (1)	110 110 (1)	M16 M12 (1)	51.5 41 (1)	14 10 (1)	350	300	400			5	18	348	708	598	823	261	187	187	52
BN 180 M									722	612				837	66					
BN 180 L	48 42 (1)	110 110 (1)	M16 M16 (1)	51.5 45 (1)	14 12 (1)	350	300	400	5	18	348	708	598	823	261	187	187	52		
BN 200 L	55 42 (1)	110 110 (1)	M20 M16 (1)	59 45 (1)	16 12 (1)							722	612	837				66		

NOTE:

1) These values refer to the rear shaft end.

BN - IM B5



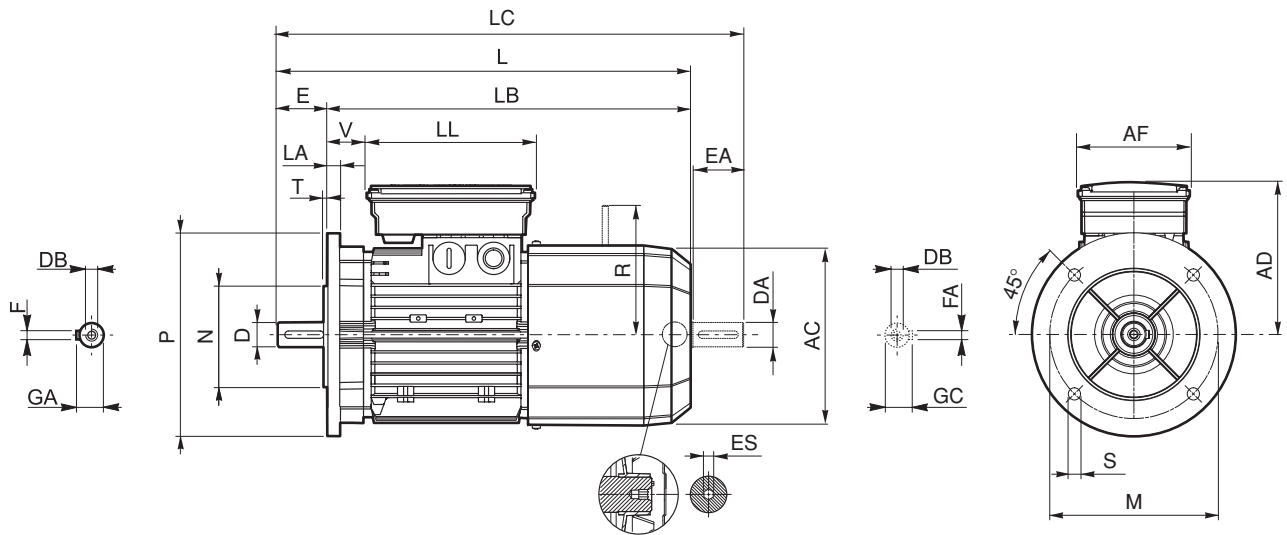
Dimensions are in Inch except when shown in *italic [mm]*

	Shaft					Flange					Motor														
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V						
BN 56	0.354	0.787	M3	0.402	0.118	3.937	3.150	4.724	0.276	0.118	0.315	4.331	7.283	6.496	8.150	3.583	2.913	3.150	1.339						
BN 63	0.433	0.906	M4	0.492	0.157	4.528	3.740	5.512	0.374		0.394	4.764	8.150	7.244	9.134	3.740			1.024						
BN 71	0.551	1.181	M5	0.630	0.197	5.118	4.331	6.299			0.374	0.394	5.433	9.803	8.622	11.063			4.252	1.457					
BN 80	0.748	1.575	M6	0.846	0.236	6.496	5.118	7.874	0.453	0.138	0.453	6.142	10.787	9.213	12.402	4.685	3.858	3.858	1.496						
BN 90	0.945	1.969	M8	1.063	0.315							6.929	12.835	10.866	14.882	5.236			1.732						
BN 100	1.102	2.362	M10	1.220	0.315	8.465	7.087	9.843	0.551	0.157	0.551	7.677	14.449	12.087	16.890	5.591	3.858	3.858	1.969						
BN 112												8.622	15.157	12.795	17.638	6.181			2.047						
BN 132	1.496	3.150	M12	1.614	0.394	10.433	9.055	11.811	0.728	0.197	0.787	10.157	19.409	16.260	22.677	7.598	4.646	4.646	2.283						
BN 160 MR	1.654	4.331	M16	1.772	0.472	11.811	9.843	13.780				0.728	0.197	0.787	22.126	17.795	25.394	9.646	7.362	7.362	2.008				
BN 160 M															1.496 ⁽¹⁾	3.150 ⁽¹⁾	M12 ⁽¹⁾					1.614 ⁽¹⁾	0.395 ⁽¹⁾	0.591	12.205
BN 160 L									1.890	4.331	M16				2.028	0.551	12.205					25.197	20.866	28.504	10.276
BN 180 M	1.496 ⁽¹⁾	4.331 ⁽¹⁾	M16	2.018	0.551	13.780	11.811	15.748	0.728	0.197	0.709	13.701	27.874	23.543	32.402	10.276	7.362	7.362	2.047						
BN 180 L	1.654 ⁽¹⁾	4.331 ⁽¹⁾	M16 ⁽¹⁾	1.772 ⁽¹⁾	0.472 ⁽¹⁾							28.425	24.094	32.953	2.047										
BN 200 L	2.165	4.331	M20	2.323	0.630	13.780	11.811	15.748	0.728	0.197	0.709	13.701	27.874	23.543	32.402	10.276	7.362	7.362	2.047						
BN 200 L	1.654 ⁽¹⁾	4.331 ⁽¹⁾	M16 ⁽¹⁾	1.772 ⁽¹⁾	0.472 ⁽¹⁾							28.425	24.094	32.953	2.598										

NOTE:

1) These values refer to the rear shaft end.

BN_FD ; IM B5



Dimensions are in [mm]

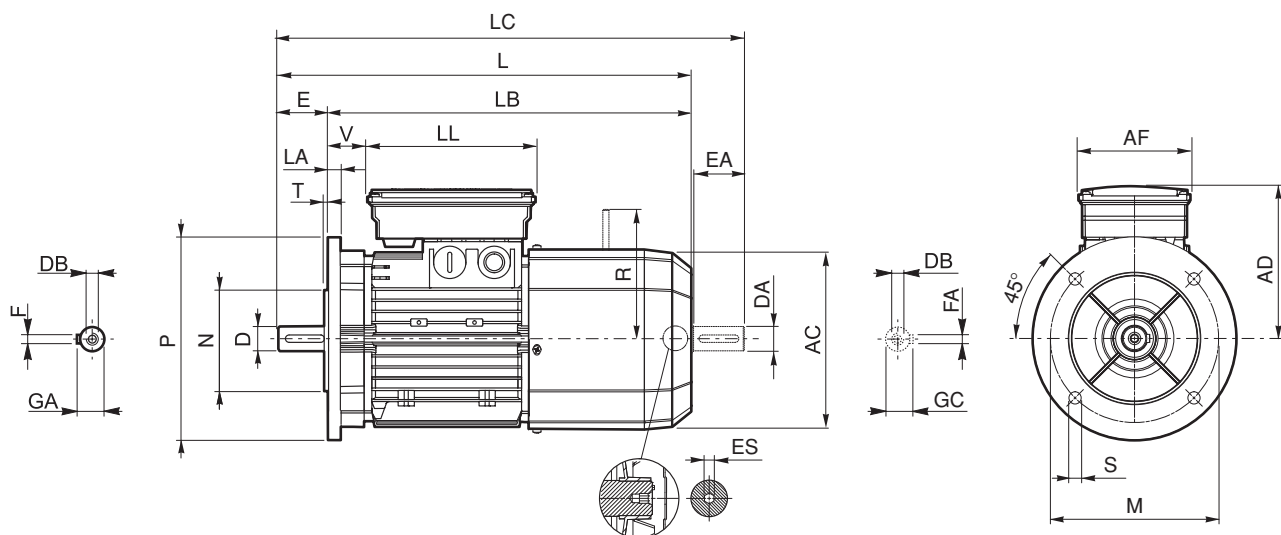
	Shaft					Flange					Motor										
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V	R	ES
BN 63	11	23	M4	12.5	4	115	95	140	9.5	3	10	121	272	249	297	122	98	133	14	96	5
BN 71	14	30	M5	16	5	130	110	160	9.5	3.5		138	310	280	342	135			25	103	
BN 80	19	40	M6	21.5	6	165	130	200	11.5			156	346	306	388	146			41	129	
BN 90 S	24	50	M8	27	8					215	180	250	14	4	176	409	359	461	149	110	165
BN 90 L						146	165	62													
BN 100	28	60	M10	31	10	265	230	300	14	4	14	195	458	398	521	158	165	73	199	6	
BN 112											15	219	484	424	547	173					165
BN 132	38	80	M12	41	10	300	250	350	18.5	5	20	603	523	686	210	140	188	46	204 (2)	—	
BN 160 MR	42	110	M16	45	12						258	672	562	755				161	226		
BN 160 M	38 (1)	80 (1)	M12 (1)	41 (1)	10 (1)	300	250	350	18.5	5	15	310	736	626	820	245	187	187	51	266	—
BN 160 L	42	110	M16	45	12								780	670	864				52	305	
BN 180 M	48	80 (1)	M12 (1)	51.5	14	350	300	400	18.5	18	348	866	756	981	261	64	305	—			
BN 180 L	48	110	M16	51.5	14							878	768	993							
BN 200 L	55	110 (1)	M20	59	16	350	300	400	18.5	18	348	866	756	981	261	64	305	—			
BN 200 L	42 (1)	110 (1)	M16 (1)	45 (1)	12 (1)							878	768	993							

NOTE:

- 1) These values refer to the rear shaft end.
- 2) For FD07 brake value R=226.

ES hexagon is not supplied with PS option.

BN_FD ; IM B5



Dimensions are in Inch except when shown in *italic [mm]*

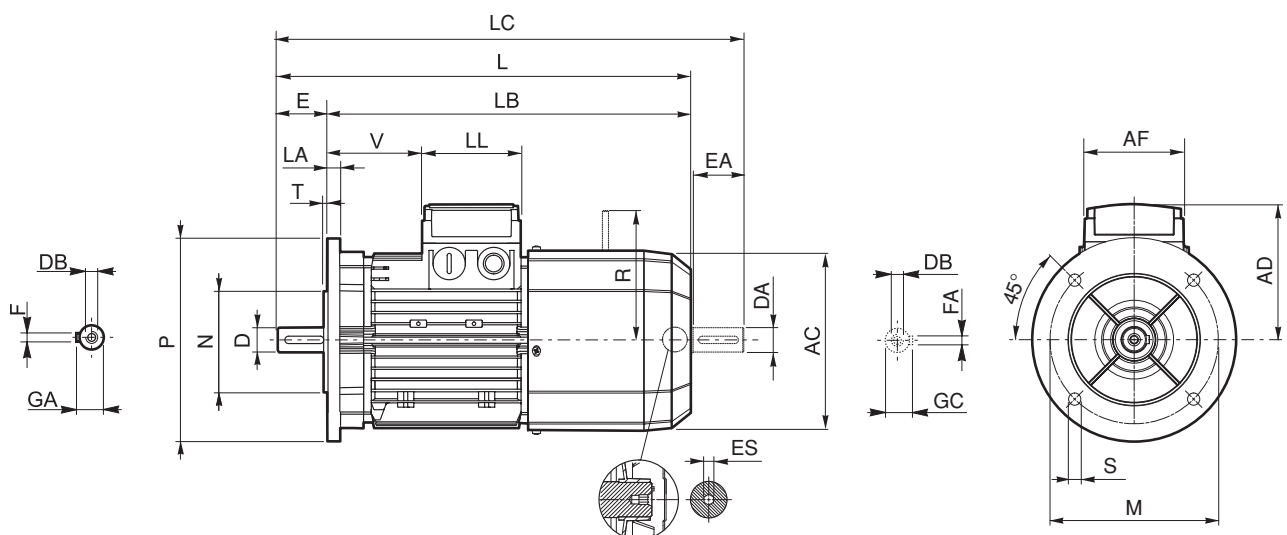
	Shaft					Flange					Motor										
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V	R	ES
BN 63	0.433	0.906	M4	0.492	0.157	4.528	3.740	5.512	0.374	0.118	0.394	4.764	10.709	9.803	11.693	4.803	3.858	5.236	0.551	3.780	0.197
BN 71	0.551	1.181	M5	0.630	0.197	5.118	4.331	6.299	0.374	0.138		5.433	12.205	11.024	13.465	5.315			5.866	4.331	
BN 80	0.748	1.575	M6	0.846	0.236	6.496	5.118	7.874	0.453		0.138	6.142	13.622	12.047	15.276	5.748	5.748	4.331			6.496
BN 90 S	0.945	1.969	M8	1.063	0.315					8.465		7.087	9.843	0.551	0.157	6.929			16.102	14.134	
BN 90 L	1.102	2.362	M10	1.220		0.315	8.465	7.087	9.843		0.551					0.157	0.551	7.677	18.031	15.669	20.512
BN 100					0.591					8.622		19.055	16.693	21.535	6.811		4.331	6.496	2.874	7.835	
BN 112	1.496	3.150	M12	1.614	0.394	10.433	9.055	11.811		0.787	10.157	23.740	20.591	27.008	8.268	5.512			7.402	1.811	8.031 ⁽²⁾
BN 160 MR	1.654	4.331	M16	1.772	0.472	11.811	9.843	13.780	0.728	0.197	10.157	26.457	22.126	29.724	8.268	5.512	7.402	6.339	8.898		
BN 160 M	1.496 ⁽¹⁾	3.150 ⁽¹⁾	M12 ⁽¹⁾	1.614 ⁽¹⁾	0.394 ⁽¹⁾																
BN 160 L	1.654	4.331	M16	1.772	0.472	11.811	9.843	13.780	0.728	0.197	12.205	28.976	24.646	32.283	9.646	7.362	7.362	2.008	10.472		
BN 180 M	1.890	3.150 ⁽¹⁾	M12 ⁽¹⁾	2.028	0.551																
BN 180 L	1.890	4.331	M16	2.028	0.551	13.780	11.811	15.748	0.728	0.709	13.701	30.709	26.378	34.016	10.276	7.362	7.362	2.047	12.008		
BN 200 L	2.165	4.331 ⁽¹⁾	M20	2.323	0.630																
	1.654 ⁽¹⁾		M16 ⁽¹⁾	1.772 ⁽¹⁾	0.472 ⁽¹⁾							34.567	30.236	39.094				2.520			

NOTE:

- 1) These values refer to the rear shaft end.
- 2) For FD07 brake value R=8.898

ES hexagon is not supplied with PS option.

BN_FA - IM B5



Dimensions are in [mm]

	Shaft					Flange					Motor										
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V	R	ES
BN 63	11	23	M4	12.5	4	115	95	140	9.5	3	10	121	272	249	297	95	74	80	26	116	5
BN 71	14	30	M5	16	5	130	110	160		138		310	280	342	108	68			124		
BN 80	19	40	M6	21.5	6	165	130	200	11.5	3.5	156	346	306	388	119	83			134		
BN 90	24	50	M8	27	8					176	409	359	461	133	95	160					
BN 100	28	60	M10	31	8	215	180	250	14	4	14	195	458	398	521	142	98	98	119	198	6
BN 112										15	219	484	424	547	157	128					
BN 132	38	80	M12	41	10	265	230	300	18.5	5	20	258	603	523	686	210	140	188	46	200 (2)	—
BN 160 MR	42 38 (1)	110 80 (1)	M16 M12 (1)	45 41 (1)	12 10 (1)	300	250	350			18.5		5	15	736	626	820	245	187	187	
BN 160 M									310	780		670		864							
BN 160 L									310	780		670		864							
BN 180 M									310	780		670		864							

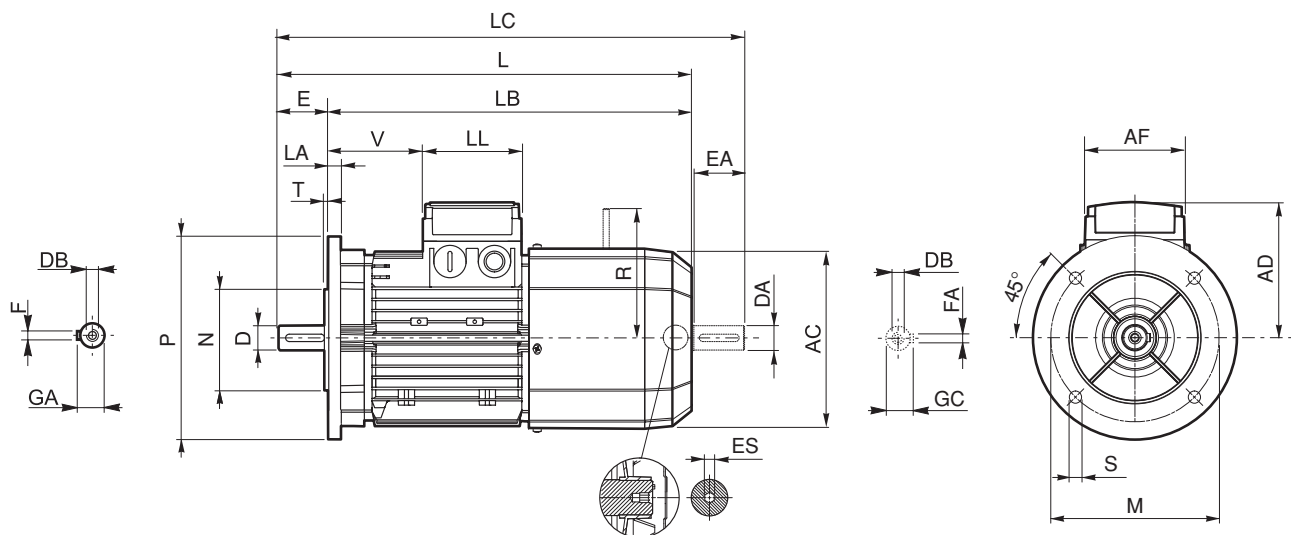
NOTE:

- 1) These values refer to the rear shaft end.
- 2) For FA07 brake value R=217.

Dimensions AD, AF, LL and V, relevant to terminal box of motors BN...FA featuring the separate brake supply (option SA), are coincident with corresponding dimensions of same-size BN...FD motors

ES hexagon is not supplied with PS option.

BN_FA - IM B5



Dimensions are in Inch except when shown in *italic* [mm]

	Shaft					Flange					Motor										
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V	R	ES
BN 63	0.433	0.906	M4	0.492	0.157	4.528	3.740	5.512		0.118		4.764	10.709	9.803	11.693	3.740			1.024	4.567	
BN 71	0.551	1.181	M5	0.630	0.197	5.118	4.331	6.299		0.374		5.433	12.205	11.024	13.465	4.252	2.913	3.150	2.677	4.882	0.197
BN 80	0.748	1.575	M6	0.846	0.236					0.138		6.142	13.622	12.047	15.276	4.685			3.268	5.276	
BN 90	0.945	1.969	M8	1.063		6.496	5.118	7.874	0.453		0.453	6.929	16.102	14.134	18.150	5.236			3.740	6.299	
BN 100					0.315						0.551	7.677	18.031	15.669	20.512	5.591	3.858	3.858	4.685		
BN 112	1.102	2.362	M10	1.220		8.465	7.087	9.843		0.551	0.157	0.591	8.622	19.055	16.693	21.535	6.181		5.039	7.795	0.236
BN 132	1.496	3.150	M12	1.614	0.394	10.433	9.055	11.811			0.787		23.740	20.591	27.008	8.268	5.512	7.402	1.811	7.874 ⁽²⁾	
BN 160 MR												10.157	26.457	22.126	29.724	7.598	4.646	4.646	8.583	8.543	
BN 160 M	1.654	4.331	M16	1.772	0.472						0.591		28.976	24.646	32.283						
BN 160 L	1.496 ⁽¹⁾	3.150 ⁽¹⁾	M12 ⁽¹⁾	1.614 ⁽¹⁾	0.394 ⁽¹⁾	11.811	9.843	13.780	0.728	0.197		12.205				9.646	7.362	7.362	2.008	9.724	—
BN 180 M				2.028	0.551								30.709	26.378	34.016						
				1.614 ⁽¹⁾	0.394 ⁽¹⁾																

BN-M

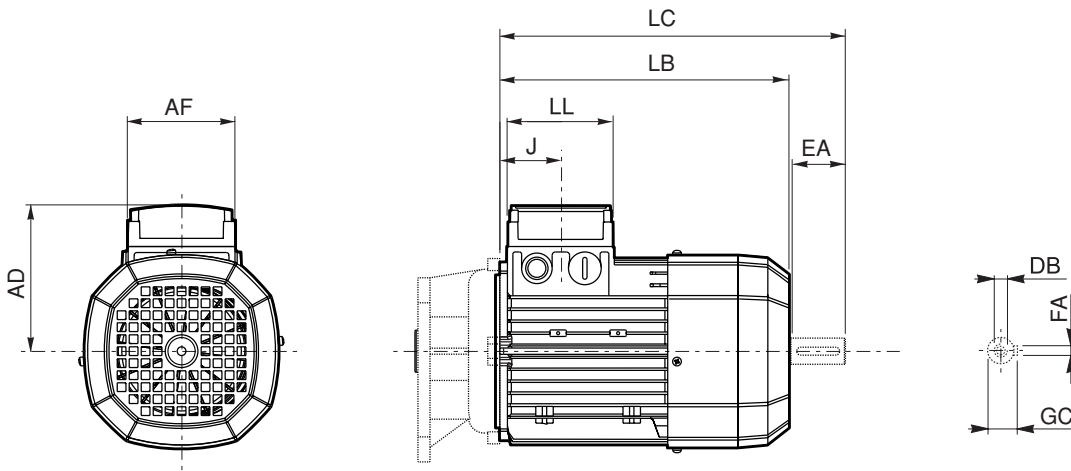
NOTE:

- 1) These values refer to the rear shaft end.
- 2) For FA07 brake value R=8.543

Dimensions AD, AF, LL and V, relevant to terminal box of motors BN...FA featuring the separate brake supply (option SA), are coincident with corresponding dimensions of same-size BN...FD motors

ES hexagon is not supplied with PS option.

M

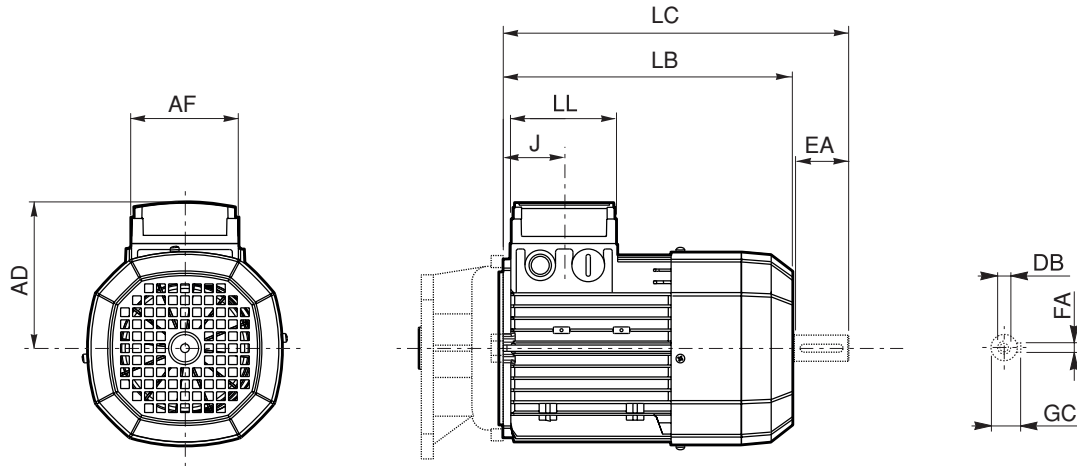


Dimensions are in [mm]

	Rear shaft end					Motor						
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD
M 0	9	20	M3	3	10.2	110	133	155	74	80	42	91
M 05	11	23	M4	4	12.5	121	165	191			48	95
M 1	14	30	M5	5	16	138	187	219			45	108
M 2 S	19	40	M6	6	21.5	156	202	245			44	119
M 3 S	28	60	M10	8	31	195	230	293	98	98	53.5	142
M 3 L							262	325				
M 4	38	80	M12	10	41	258	361	444	118	118	64.5	193
M 4 LC							396	479				
M 5 S						310	418	502	187	187	77	245
M 5 L							462	546				

BN-M

M

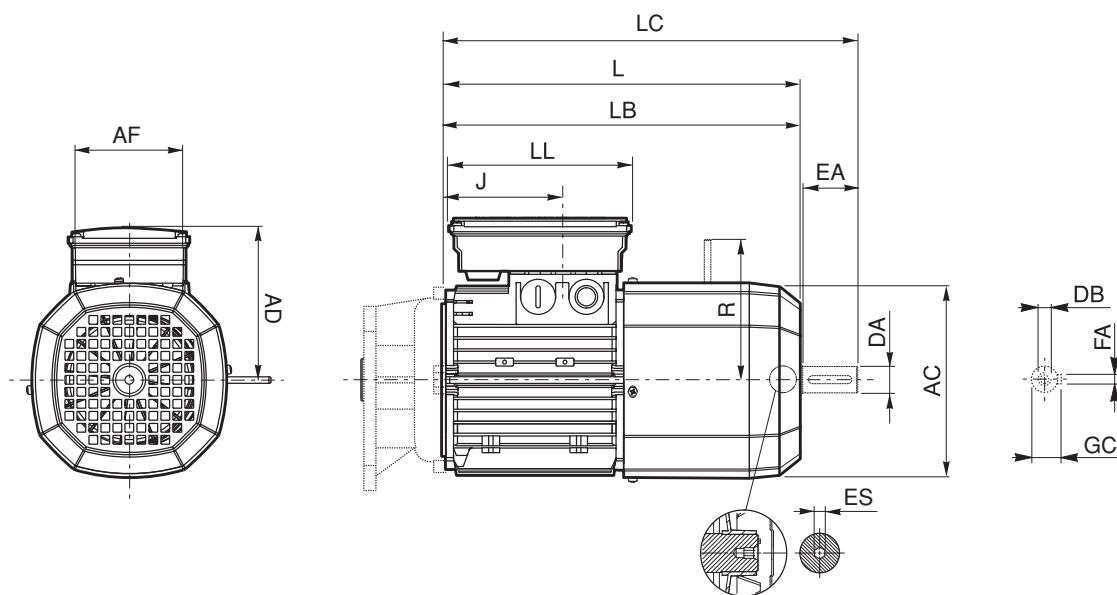
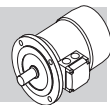


Dimensions are in Inch except when shown in *italic* [mm]

	Rear shaft end					Motor						
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD
M 0	0.354	0.787	<i>M3</i>	0.118	0.402	4.331	5.236	6.102	2.913	3.150	1.654	3.583
M 05	0.433	0.906	<i>M4</i>	0.157	0.492	4.764	6.496	7.520			1.890	3.740
M 1	0.551	1.181	<i>M5</i>	0.197	0.630	5.433	7.362	8.622			1.772	4.252
M 2 S	0.748	1.575	<i>M6</i>	0.236	0.846	6.142	7.953	9.646			1.732	4.685
M 3 S	1.102	2.362	<i>M10</i>	0.315	1.220	7.677	9.055	11.535	3.858	3.858	2.106	5.591
M 3 L						10.315	12.795					
M 4	1.496	3.150	<i>M12</i>	0.394	1.614	10.157	14.213	17.480	4.646	4.646	2.539	7.598
M 4 LC							15.591	18.858				
M 5 S						12.205	16.457	19.764	7.362	7.362	3.031	9.646
M 5 L							18.189	21.496				

BN-M

M_FD



Dimensions are in [mm]

	Rear shaft end					Motor								
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD	R	ES
M 05	11	23	M4	4	12.5	121	231	256	98	133	48	122	96	5
M 1	14	30	M5	5	16	138	248	280			73	135	103	
M 2 S	19	40	M6	6	21.5	156	272	314			88	146	129	
M 3 S	28	60	M10	8	31	195	326	389	110	165	124.5	158	160	6
M 3 L							353	416						
M 4	38	80	M12	10	41	258	470	553	140	188	185.5	210	204 (1)	
M 4 LC							495	578			64.5		226	
M 5 S						310	558	642	187	187	77	245	266	
M 5 L	602	686												

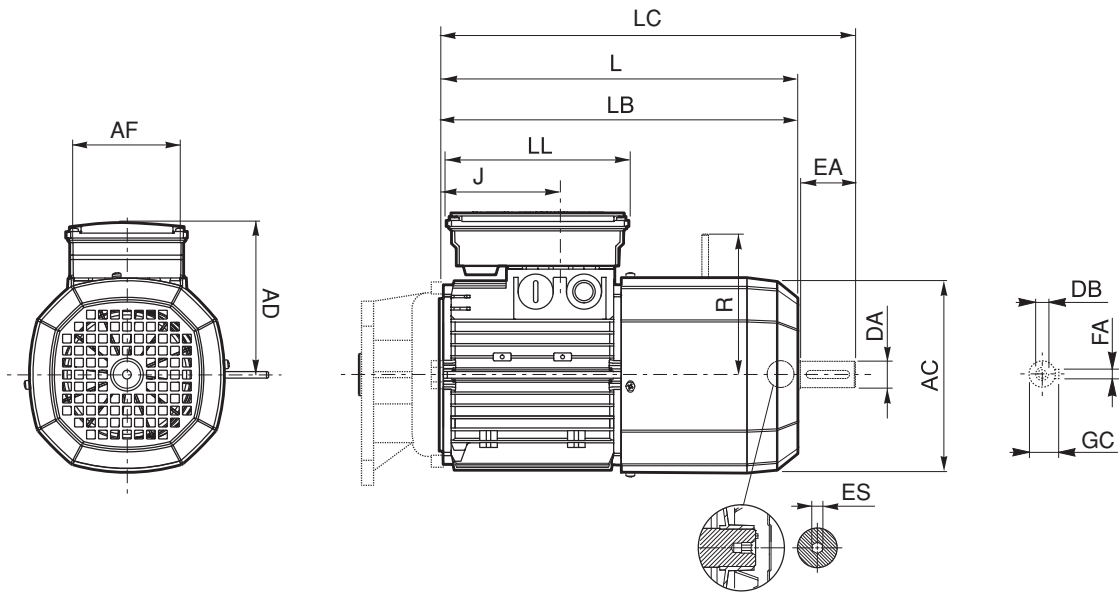
NOTE:

1) For FD07 brake value R=226.

ES hexagon is not supplied with PS option.

BN-M

M_FD



Dimensions are in Inch except when shown in *italic* [mm]

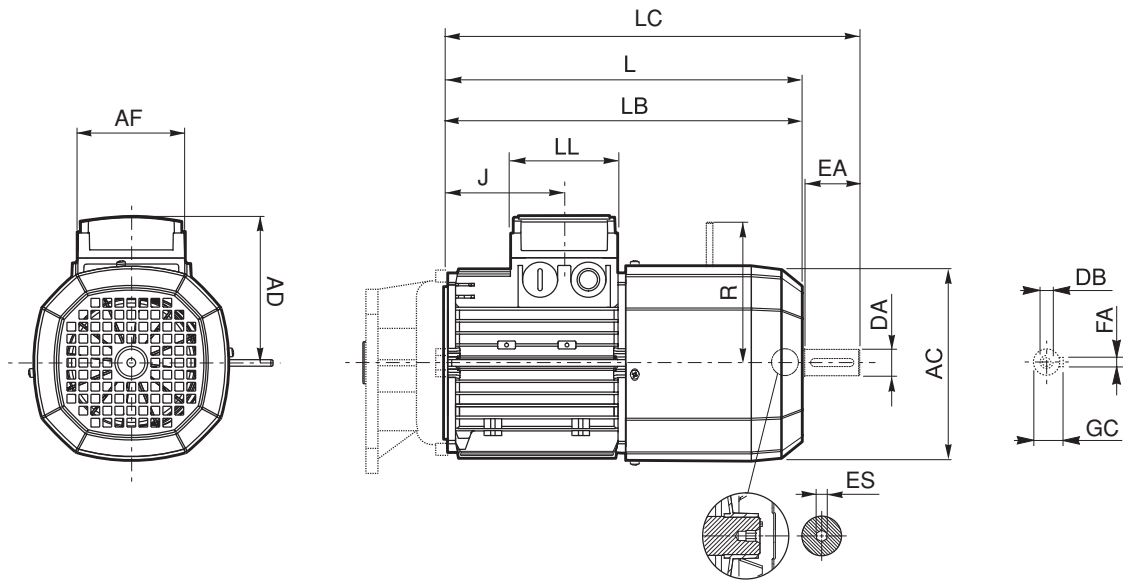
	Rear shaft end					Motor											
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD	R	ES			
M 05	0.433	0.906	<i>M4</i>	0.157	0.492	4.764	9.094	10.079	3.858	5.236	1.890	4.803	3.780	0.197			
M 1	0.551	1.181	<i>M5</i>	0.197	0.630	5.433	9.764	11.024			2.874	5.315	4.055				
M 2 S	0.748	1.575	<i>M6</i>	0.236	0.846	6.142	10.709	12.362			3.465	5.748	5.079				
M 3 S	1.102	2.362	<i>M10</i>	0.315	1.220	7.677	12.835	15.315	4.331	6.496	4.902	6.220	6.299	0.236			
M 3 L							13.898	16.378									
M 4	1.496	3.150	<i>M12</i>	0.394	1.614	10.157	18.504	21.772	5.512	7.402	7.303	8.268	8.031 ⁽¹⁾				
M 4 LC							19.488	22.756			2.539		8.898				
M 5 S							12.205	21.969			25.276	7.362	7.362	3.031	9.646	10.472	—
M 5 L								23.701			27.008						

NOTE:

1) For FD07 brake value R=8.898

ES hexagon is not supplied with PS option.

M_FA



Dimensions are in [mm]

	Rear shaft end					Motor								
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD	R	ES
M 05	11	23	M4	4	12.5	121	231	256	74	80	48	95	116	5
M 1	14	30	M5	5	16	138	248	280			73	108	124	
M 2 S	19	40	M6	6	21.5	156	272	314			88	119	134	
M 3 S	28	60	M10	8	31	195	326	389	98	98	124.5	142	160	6
M 3 L							353	416						
M 4	38	80	M14	10	41	258	470	553	140	188	185.5	210	200 (1)	
M 4 LC							495	578			64.5		217	
M 5 S							M12	310			558	642	187	
M 5 L	602	686												

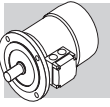
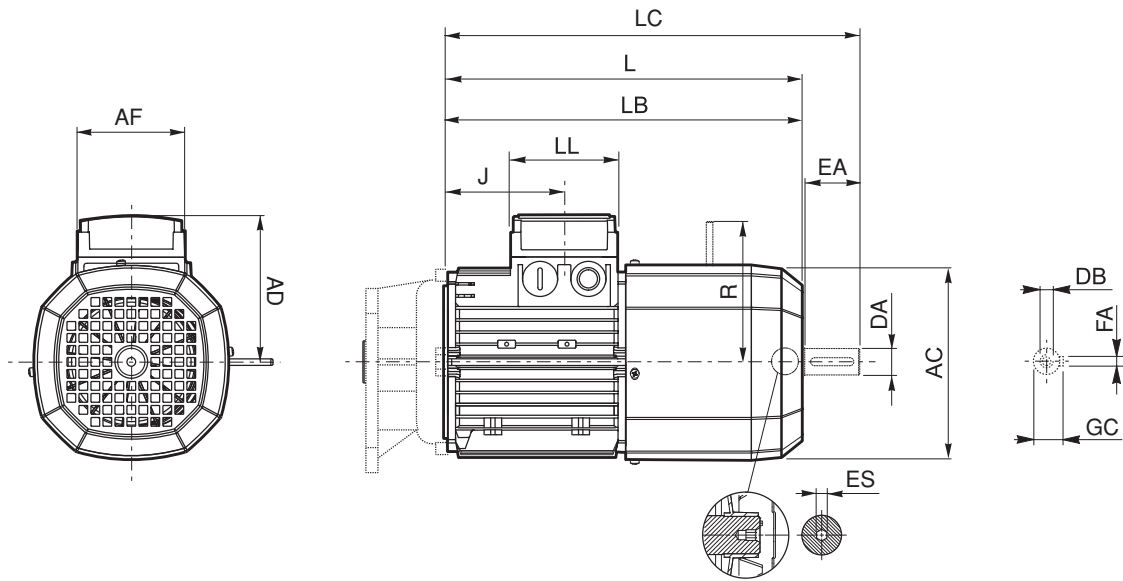
NOTE:

1) For FA07 brake value R=217.

Dimensions AD, AF, LL and V, relevant to terminal box of motors M...FA featuring the separate brake supply (option SA), are coincident with corresponding dimensions of same-size M...FD motors

ES hexagon is not supplied with PS option.

M_FA



Dimensions are in Inch except when shown in *italic* [mm]

	Rear shaft end					Motor								
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD	R	ES
M 05	0.433	0.906	<i>M4</i>	0.157	0.492	4.764	9.094	10.079	2.913	3.150	1.890	3.740	4.567	0.197
M 1	0.551	1.181	<i>M5</i>	0.197	0.630	5.433	9.764	11.024			2.874	4.252	4.882	
M 2 S	0.748	1.575	<i>M6</i>	0.236	0.846	6.142	10.709	12.362			3.465	4.685	5.276	
M 3 S	1.102	2.362	<i>M10</i>	0.315	1.220	7.677	12.835	15.315	3.858	3.858	4.902	5.591	6.299	0.236
M 3 L							13.898	16.378						
M 4	1.496	3.150	<i>M14</i>	0.394	1.614	10.157	18.504	21.772	5.512	7.402	7.303	8.268	7.874 ⁽¹⁾	
M 4 LC							19.488	22.756			2.539		8.543	
M 5 S			<i>M12</i>			12.205	21.969	25.276	7.362	7.362	3.031	9.646	9.724	—
M 5 L														

BN-M

NOTE:


1) For FA07 brake value R=8.543

Dimensions AD, AF, LL and V, relevant to terminal box of motors M...FA featuring the separate brake supply (option SA), are coincident with corresponding dimensions of same-size M...FD motors

ES hexagon is not supplied with PS option.



INDEX OF REVISIONS

BR_CAT_300IND_NEM_ENG_R02_3	
	Description
226 ... 517	Fixed tables for dimensions 305 R, 321 R
520	Updated dimensions for FZP customer shaft.

2018.04.30

This publication supersedes and replaces any previous edition and revision. We reserve the right to implement modifications without notice.

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Conversion table for commonly used metric – imperial units

Length

1 in	=	25.40 mm	= 0.0254 m
1 ft	=	304.8 mm	= 0.3048 m
1 yd	=	914.4 mm	= 0.9144 m

Area

1 in ²	=	645.16 mm ²	= 0.645×10 ⁻³ m ²
1 ft ²	=	92.9×10 ³ mm ²	= 92.9×10 ³ m ²
1 yd ²	=	836×10 ³ mm ²	= 0.8361 m ²

Volume

1 in ³	=	16.4×10 ⁻³ dm ³	= 16.4×10 ⁻⁶ m ³
1 ft ³	=	28.32 dm ³	= 28.3×10 ⁻³ m ³

Force – Weight

1 lbm	=	2.2046 kg
1 lbf	=	4.4482 N

Torque

1 lb in	=	0.1129 Nm
1 lb ft	=	1.3558 Nm

Power

1 hp	=	0.7457 kW
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Moment of inertia

1 lb ft ²	=	4.214×10 ⁻²	kg m ²
1 lb in s ²	=	1.12985×10 ⁻¹	kg m ²
1 lb ft s ²	=	1.35582	kg m ²

Pressure – stress

1 lb/in ²	=	6.89×10 ⁻³	N/mm ²
1 lb/ft ²	=	47.88	N/m ²

Temperature

t [°F]	=	$\frac{5}{9} \times [t - 32]$	[°C]
T [°C]	=	$\left(\frac{9}{5} \times T + 32\right)$	[°F]



We have a relentless commitment to excellence, innovation and sustainability. Our team creates, distributes and services world-class power transmission and drive solutions to keep the world in motion.



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