



# BONFIGLIOLI TRASMITAL



## 300 Series Industrial Planetary Gearboxes



**BONFIGLIOLI**

*Power & Control Solutions*





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### Revisions

Refer to page 302 for the catalogue revision index.

Visit [www.bonfiglioli.com](http://www.bonfiglioli.com) to search for catalogues with up-to-date revisions.









## 1.0 - SPECIFICATIONS

The 300 series consists of a range of multi-purpose planetary gearboxes. Key features are:

- 18 frame sizes in modular design
- 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
- keyed output shaft, splined male shaft, splined hollow shaft, hollow shaft with shrink disc
- input adaptors for:
  - integral motor
  - NEMA motors
  - IEC-normalised electric motors
- high speed input shafts
- gearmotors
- mounting accessories:
  - flanges
  - pinion gears
  - splined bars
  - shrink discs

### Configurations

	Horsepower rating	Max torque capacity	Gear ratios	Efficiency
 In line	≤ 320 HP	≤ 4,600,000 in·lbs	3.4:1 ≤ i ≤ 2900:1	High
 Right-angle	≤ 100 HP	≤ 3,500,000 in·lbs	7:1 ≤ i ≤ 950:1	High
 Combined with worm gear unit	≤ 100 HP	≤ 4,600,000 in·lbs	370:1 ≤ i ≤ 5150:1	Medium
 Combined with helical bevel gear unit	≤ 50 HP	≤ 100,000 in·lbs	19:1 ≤ i ≤ 730:1	High

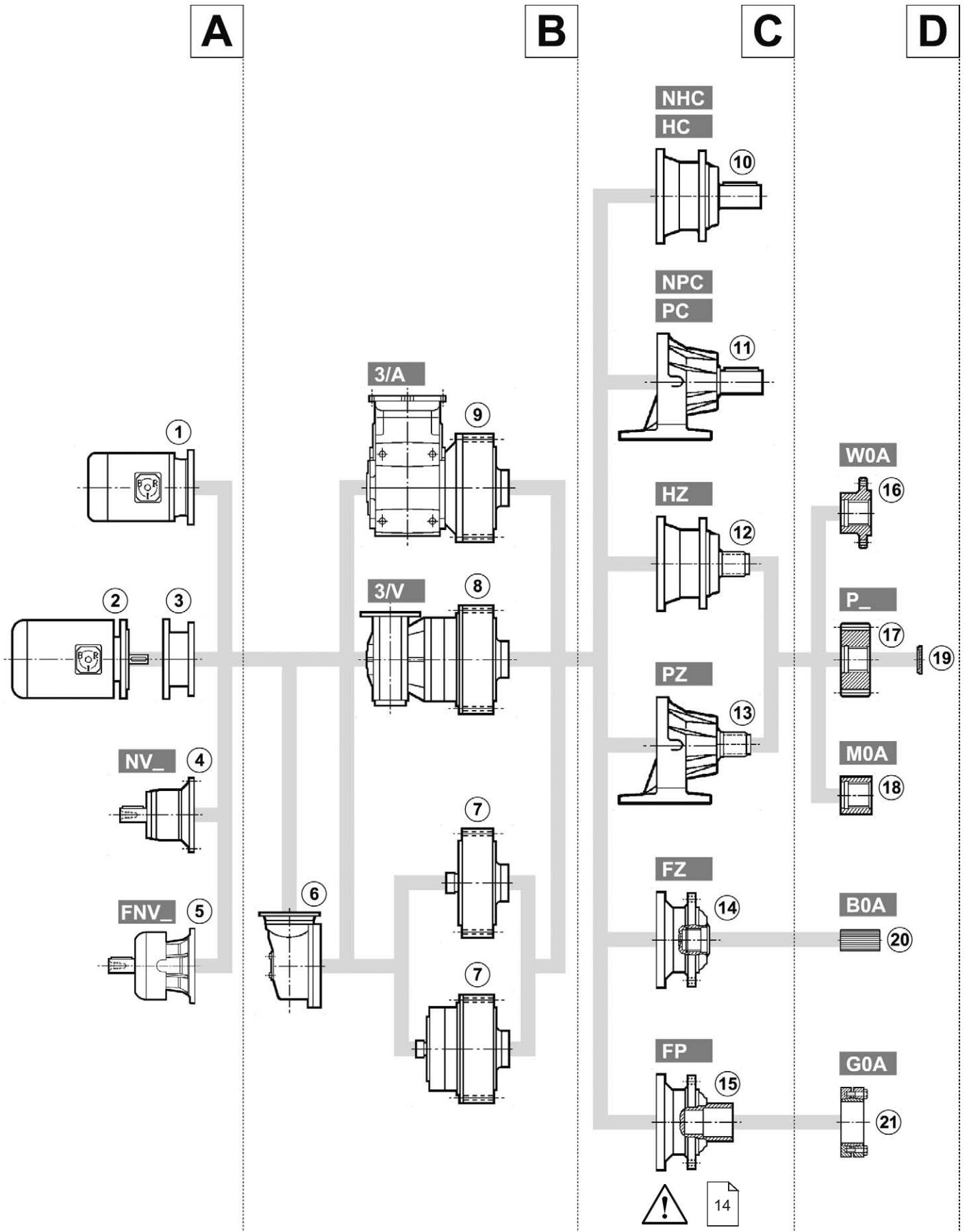
More design features:

- high torque density
- high overhung load capacity due to heavy duty taper roller bearings featured by all solid shaft gear units
- 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 from ductile cast iron.



## 2.0 - GENERAL LAYOUT

			shaft	applicability			
<b>A</b>	①	AC electric motor					
	②	NEMA or IEC motor					
	③	NEMA or IEC motor adapter flange		300...321			
	④	<b>NV_</b> Solid input shaft - inch dimensions	parallel	300...321			
	⑤	<b>FNV_</b> Solid input shaft with fan - inch dimensions	parallel	303...321			
<b>B</b>	⑥	Right-angle reduction stage		300...321			
	⑦	Planetary reduction stage/s		300...321			
	⑧	<b>3/V</b> Worm/planetary combination		300...321			
	⑨	<b>3/A</b> Bevel-helical/planetary combination		300...307			
<b>C</b>	⑩	<b>NHC</b> Flanged output - inch dimensions	keyed shaft	300...315			
		<b>HC</b> Flanged output - metric	keyed shaft	316...321			
	⑪	<b>NPC</b> Footed output - inch dimensions	keyed shaft	300...315			
		<b>PC</b> Footed output - metric	keyed shaft	316...321			
	⑫	<b>HZ</b> Flanged output - metric	male splined	300...321			
	⑬	<b>PZ</b> Footed output - metric	male splined	300...321			
	⑭	<b>FZ</b> Flanged output - metric	female splined	300...321			
	⑮	<b>FP</b> Shaft mount output for shrink disc	keyless hollow	300...321			
<b>D</b>	⑯	<b>W0A</b> Flange		300...321			
	⑰	<b>P_</b> Pinion gear		300...321			
	⑱	<b>M0A</b> Sleeve coupling		300...321			
		End plate		300...321			
	⑳	<b>B0A</b> Splined bar		300...321			
	㉑	<b>G0A</b> Shrink disc		300...321			
<b>A</b>	INPUTS	<b>B</b>	GEAR REDUCTIONS	<b>C</b>	OUTPUTS	<b>D</b>	FITTINGS





### 3.0 - SYMBOLS AND UNITS OF MEASUREMENT

Symb.		Description
$A_c$	[lbs]	Calculated thrust load
$A_n$	[lbs]	Rated axial thrust
$A_r$	[lbs]	Thrust load at output shaft
$f_a$	—	Axial thrust factor
$f_L$	—	Lifetime factor
$f_n$	—	Speed factor
$f_t$	—	Thermal factor
$f_v$	—	Speed factor for thermal capacity calculation
$f_x$	—	Load location factor for radial loading
$i$	—	Gear ratio
$I$	—	Intermittence factor
$n$	[rpm]	Speed
$K_a$	—	Axial load duty factor
$K_r$	—	Transmission factor
$T$	[in·lbs]	Torque
$t_a$	[°C/°F]	Ambient temperature
$T_c$	[in·lbs]	Calculated output torque
$T_{max}$	[in·lbs]	Maximum transmissible torque
$T_n$	[in·lbs]	Rated torque
$T_r$	[in·lbs]	Required torque
$P$	[HP]	Horsepower
$P_n$	[HP]	Rated horsepower
$P_r$	[HP]	Required power
$P_s$	[HP]	Power to be dissipated
$P_t$	[HP]	Thermal capacity
$R_c$	[lbs]	Calculated radial load
$R_n$	[lbs]	Rated overhung load (OHL)
$R_x$	[lbs]	Radial OHL for force applying off the shaft midpoint
$S$	—	Safety factor
$S.F.$	—	Service factor
$Z$	[1/h]	Starts per hour
$\eta$		Efficiency

Footnotes:

- <sub>1</sub> Applies to input shaft
- <sub>2</sub> Applies to output shaft





Icon symbolises the weight.



Columns marked with this symbol indicate the page where installation drawings can be found



This symbol identifies the page the information is available at.



Areas marked in black show the input component parts.



The number associated with the wrench indicates the rated tightening torque.



In-line unit.



Right-angle unit.



Worm-planetary combined gear unit.



Bevel helical-planetary combined gear unit.



## 4.0 - TORQUE

### Rated output torque

$T_{n2}$  [in·lbs]

This is the torque output the gearbox can deliver safely, based on:

- uniform loading and service factor S.F.= 1
- 10000 hours theoretical lifetime

### Maximum torque

$T_{2max}$  [in·lbs]

The output torque the gear unit will withstand in a static condition or a highly intermittent operation. It is generally meant as a momentary peak load or starting-up torque under load.

### Required torque

$T_{r2}$  [in·lbs]

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.

### Calculated torque

$T_{c2}$  [in·lbs]

Computational torque value to be used when selecting the gearbox, considering required torque «  $T_{r2}$  » and service factor « S.F. ».  
It is obtained through the equation:

$$T_{c2} = T_{r2} \times \text{S.F.} \leq T_{n2} \quad (1)$$

## 5.0 - HORSEPOWER

### Rated input power

$P_{n1}$  [HP]

«  $P_{n1}$  » is the horsepower that can be safely applied to the gearbox when the same is operated:

- at rated speed (values listed for  $n_1 = 1750, 1450, 1150$  and  $870$  rpm)
- under service factor S.F. = 1
- yielding a theoretical lifetime of 10000 hours.



## 6.0 - THERMAL CAPACITY

$P_t$  [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 70°F/20°C, without the lubricant exceeding the temperature of 185-195°F/85-90°C and the gear case the temperature of 165-175°F/75-80°C, without the use of a supplementary cooling system.

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.

Should the ambient temperature be different from 70°F/20°C and/or duty be intermittent, the thermal capacity «  $P_t$  » is to be adjusted through thermal factor «  $f_t$  » as listed in table (A1).

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

$$P_{r1} \leq P_t \times f_t \quad (2)$$

(A1)

$t_a$		$f_t$				
		Continuous duty	Intermittent duty			
			Cyclic duration factor			
[°C]	[°F]		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

Cyclic duration factor is the relationship of operating time under load «  $t_f$  » to total cycle time ( $t_f + t_r$ , where «  $t_r$  » is the time at rest).



$$I = \frac{t_f}{t_f + t_r} \times 100 \quad (3)$$

Should the gear unit in the conventional configuration fall short of thermal capacity and not verify the condition (2) above, it is recommended that the fan cooled input shaft - ordering code FNV\_ \_ is specified instead.

The relevant thermal capacity is listed in the charts here after.



(A2)

Thermal capacity $P_t$ [HP] @ $n_1 = 1750$ rpm							Thermal capacity $P_t$ [HP] @ $n_1 = 1750$ rpm			
										
		FNV05B	FNV06B	FNV07B	FNV010B	FNV011B			FNV05B	FNV06B
303	L1	39	-	-	-	-	307	R2	71	-
304	L1	40	-	-	-	-	309	R2	71	-
305	L1	41	-	-	-	-	310	R2 (B)	-	110
306	L1	-	60	-	-	-		R2 (C)	-	110
	L2	41	-	-	-	-	311	R2 (B)	-	137
307	L1	-	-	66	-	-		R2 (C)	-	157
	L2	48	-	-	-	-	R3	78	-	
309	L1	-	-	70	-	-	313	R2 (B)	-	137
	L2	48	-	-	-	-		R2 (C)	-	157
310	L1	-	-	-	83	-		R3	78	-
	L2	-	66	-	-	-	314	R3 (B)	-	110
	L3	48	-	-	-	-		R3 (C)	-	110
311	L1	-	-	-	-	90 (*)	R4	51	-	
	L2	-	-	71	-	-	315	R3 (B)	-	137
	L3	48	-	-	-	-		R3 (C)	-	157
L4	44	-	-	-	-	R4		78	-	
313	L1	-	-	-	-	96 (*)	316	R3 (B)	-	137
	L2	-	-	76	-	-		R3 (C)	-	157
	L3	48	-	-	-	-		R4	84	-
314	L2	-	-	-	90	-	317	R3 (B)	-	157
	L3	-	70	-	-	-		R3 (C)	-	169
	L4	44	-	-	-	-		R4	90	-
315	L2	-	-	-	-	96 (*)	318	R4 (B)	-	144
	L3	-	-	76	-	-		R4 (C)	-	182
	L4	48	-	-	-	-	319	R4 (B)	-	162
316	L2	-	-	-	-	96 (*)		R4 (C)	-	189
	L3	-	-	76	-	-	321	R4 (B)	-	176
	L4	48	-	-	-	-		R4 (C)	-	202
317	L2	-	-	-	-	102 (*)				
	L3	-	-	83	-	-				
	L4	48	-	-	-	-				
318	L3	-	-	-	-	83 (*)				
	L4	-	-	60	-	-				
319	L3	-	-	-	-	102 (*)				
	L4	-	-	76	-	-				
321	L3	-	-	-	-	116 (*)				
	L4	-	-	83	-	-				

\* @  $n_1 = 1150$  rpm



## 7.0 - EFFICIENCY

 $\eta$ 

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 «  $P_1$  »:

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

Indicative efficiency values are listed in the chart here after:

(A3)

Reductions	Configuration		
	All planetary	Combined with worm gear unit	Combined with bevel-helical unit
1	0.97	—	—
2	0.94	0.73	—
3	0.91	0.70	0.91
4	0.88	—	—

## 8.0 - OPERATING SPEED

### 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. In case the gearbox is driven through an external transmission, the gearbox input speed is the speed of the motor divided by the reduction of the external transmission. In this case, it is recommended that the input speed be lower than 1750 rpm.

When selecting the prime mover, 4-pole motor, or lower speed motors, should be preferred.

### Output speed

 $n_2$  [rpm]

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

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



## 9.0 - SERVICE FACTOR

**S.F.**

A parameter representing the severity of the application. This factor takes into account, although approximately, the type of load the gearbox operates with, the specific duty as well as the operating daily hours.

(A4)

Service factor S.F.						
Type of load	Number of starts/hour  <b>Z</b>	Accumulated operating hours [h]				
		≤ 5000	10000	15000	25000	50000
		daily operating hours [h]				
	<b>Z</b>	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

## 10.0 - SAFETY FACTOR

**S**

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

$$S = \frac{P_{n1}}{P_1} \quad (6)$$



## 11.0 - SELECTING THE PRODUCT

The key parameters that are necessary when selecting a gearbox, or a gearmotor, are listed here below.

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.

(A5)

Type of application.....		
<b>GEARBOX</b>		
$P_{r2}$	Required output power .....	[HP]
$T_{r2}$	Required output torque .....	[lbs]
$n_2$	Output speed .....	[rpm]
$n_1$	Input speed .....	[rpm]
$R_2$	Radial force applying on output shaft .....	[lbs]
$X_2$	Overhung load distance from shoulder of output shaft .....	[in] (*)
$R_1$	Radial force applying on input shaft .....	[lbs]
$X_1$	Overhung load distance from shoulder of input shaft.....	[in] (*)
$A_2$	Axial thrust on output shaft .....	[lbs] (•)
$A_1$	Axial thrust on input shaft .....	[lbs] (•)
$h$	Lifetime expectancy .....	[h]
$t_a$	Ambient temperature .....	[°C/°F]
<b>ELECTRIC MOTOR</b>		
NEMA, or IEC frame size .....		
$P_n$	Rated horsepower .....	[HP]
	Mains voltage.....	[V]
	Number of poles .....	
	Frequency.....	[Hz]
	Duty type to IEC norms.....S...../.....%	
$Z$	Starts per hour .....	[1/h]
	Degree of protection.....IP.....	
	Insulation class .....	
<b>BRAKE (IF SPECIFIED)</b>		
	Brake voltage.....	[V]
$T_b$	Brake torque .....	[in·lbs]
Type <input type="checkbox"/> In line <input type="checkbox"/> Right angle		
<input type="checkbox"/> Combined worm gear/planetary <input type="checkbox"/> Combined bevel-helical/planetary		
Output version .....		
Accessories .....		
Mounting position.....		

N.B: Table (A5)

(\*) If a distance is not specified, a radial force acting at midpoint of the shaft will be assumed.

(•) + = push - = pull



**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.

## Selecting a gearbox

Examine the application and establish:

- a) service factor « S.F. » according to type of duty, number of starts per hour and expected lifetime (tab. A4);
  
- b) Determine calculated torque according to required output torque «  $M_{r2}$  » as follows:

$$T_{c2} = T_{r2} \times S.F. \quad (7)$$

- c) Determine gear ratio from required output speed «  $n_2$  » and drive speed «  $n_1$  »:

$$i = \frac{n_1}{n_2} \quad (8)$$

- 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 gear ratio «  $i$  » nearest to calculated ratio that also satisfies the condition:

$$T_{n2} \geq T_{c2} \quad (9)$$

If a motor is to be fitted to the gearbox, check availability of the relevant adapter.



The combination of large, heavy weight, motors with single reduction units of sizes **300** to **307** in the **FP** configuration, may result into a reduced theoretical lifetime for the gearbox. Should this be your case, kindly contact the local Bonfiglioli Technical Service for directions.





## 12.0 - VERIFICATIONS

After the selection of the applicable drive unit is complete, check the following:

### a) Thermal capacity

Make sure that the thermal capacity of the gearbox is equal to or greater than the mechanical horsepower drawn by the application, as per equation (2).

If this is not the case provide a supplementary cooling system (see chapter 25.0) or select a larger gearbox.

### b) 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 following table for reference).

(A6)

Model	$T_{2max}$ [in·lbs]	Model	$T_{2max}$ [in·lbs]
300	14,000	311	490,000
301	21,500	313	580,000
303	32,000	314	900,000
304	43,000	315	1,150,000
305	62,000	316	1,500,000
306	106,000	317	2,000,000
307	160,000	318	2,600,000
309	222,000	319	4,000,000
310	354,000	321	5,800,000

### c) Overhung load

Examine the application and establish:

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

$$R_c[\text{lbs}] = \frac{2 \times T [\text{in} \cdot \text{lbs}] \times K_r}{D [\text{in}]} \quad (10)$$

$R_c$	Overhung load [lbs]
T	Torque [in·lbs]
D	P.C.D [in] of transmission element (sprocket, gear, pulley, etc.)
$K_r = 1$	Factor for chain transmission
$K_r = 1.25$	Factor for gear transmission
$K_r = 1.5-2.0$	Factor for V-belt transmission

- for extended lifetime requirements, locate the applicable adjusting factor «  $f_L$  », listed in the table here under:

(A7)

Expected lifetime	2500 h	5000 h	10000 h	15000 h	25000 h	50000 h	100000 h
$f_L$	0.81	1.00	1.23	1.39	1.62	2.00	2.46



### c<sub>1</sub>) output shaft

- for loads applying at shaft mid-point, check that the following condition is verified:

$$R_{n2} \geq R_{c2} \times f_L \quad (11)$$

where «  $R_{n2}$  » is the permitted overhung load, as listed in the rating charts.

- Should the force be acting off the shaft midpoint - with the exception of version FZ - establish the offset value «  $x$  » and find the adjusting factor «  $f_{x2}$  » in the relevant diagram (following the pages showing the installation drawing of gearbox under study).  
The following condition must be verified:

$$R_{x2} = R_{n2} \times f_{x2} \geq R_{c2} \times f_L \quad (12)$$

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 condition is verified:

$$R_{x2} \geq R_{c2} \quad (13)$$

For different speed, or lifetime expectancy, consider:

- a speed factor «  $f_{n2}$  », see table below for reference:

(A8)

$n_2$ [rpm]	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 «  $f_L$  », from table (A7).

The following condition must be verified:

$$R_{n2} \times f_{n2} \geq R_{c2} \times f_L \quad (14)$$

### c<sub>2</sub>) input shaft

- For the resulting force «  $R_{c1}$  » calculated through formula (10), determine the distance the force applies from shaft shoulder «  $x$  ». From the radial load diagram relevant to the specific unit locate the permitted overhung load «  $R_{n1}$  » corresponding to the actual «  $x$  » distance.  
The following condition must be verified:

$$R_{n1} \geq R_{c1} \quad (15)$$

Values listed in the diagram apply for:

- drive speed  $n_1 = 1000$  rpm
- 5000 hrs theoretical lifetime



For different speed, or life expectancy, consider:

- The adjusting factor «  $f_{n1}$  » as per table (A9) here below:

(A9)

$n_1$ [rpm]	500	750	900	1200	1500	1800
$f_{n1}$	1.23	1.09	1.03	0.95	0.89	0.84

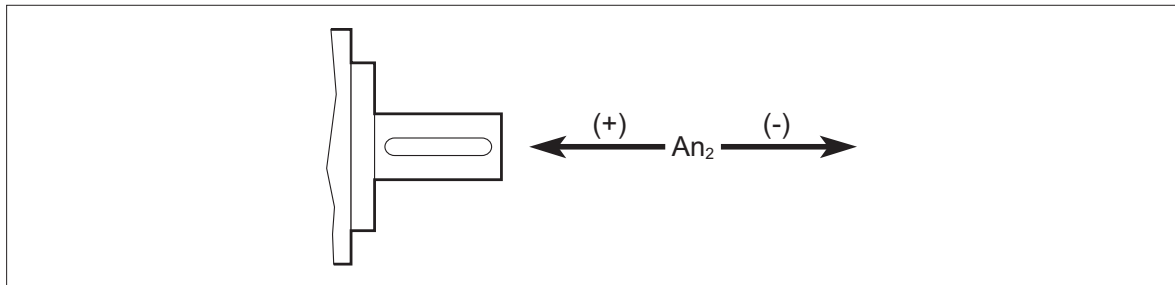
- a lifetime factor «  $f_L$  » as per table (A7).

The following condition must be verified:

$$R_{n1} \times f_{n1} \geq R_{c1} \times f_L \quad (16)$$

#### d) Thrust loads

Calculate value and direction of thrust  $A_{c2}$  that applies axially onto the shaft. For the gearbox under study locate the adjusting factor  $fa_2$  corresponding to the type of output and the direction the thrust load applies, with the signs (+) and (-) conventionally applied as follows:



From  $R_{n2}$  and  $fa_2$  determine the value of admissible thrust load  $A_{n2}$ :

$$A_{n2} = R_{n2} \times fa_2 \quad (17)$$

From chart (A7) select the adjusting factor  $f_L$  corresponding to the theoretical lifetime of bearings that is to be expected.

From chart below locate the axial load duty factor  $K_a$  depending on the type of loading that is applicable:

	Type of duty		
	Uniform	Moderate shock	Heavy shock
$K_a$	1.0	1.25	1.5

With all factors so determined verify that the following condition is satisfied:

$$A_{c2} \times f_L \times K_a \leq A_{n2} \quad (18)$$

If radial and axial loads apply simultaneously, please consult Bonfiglioli's Technical Service.



## 13.0 - INSTALLATION GUIDELINES

Observing the rules for correct installation is essential to the reliable operation of the gearbox. The rules set out here are intended as a preliminary guide only to installing a gear unit. For effective and proper installation, follow the instructions given in the Installation, use and maintenance manual available from our Sales network.

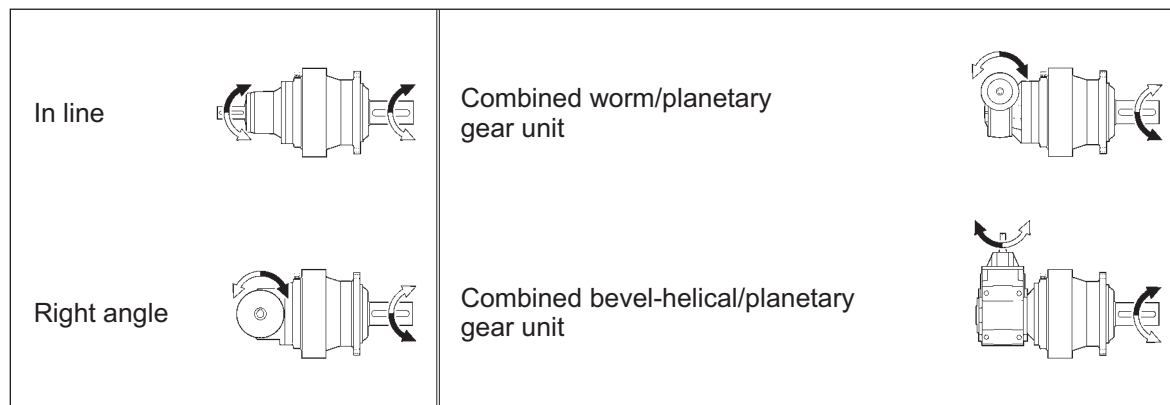
### a) Fastening:

- Place the gearbox on a surface that is sufficiently rigid. Mating surfaces should be machined and flat. The recommendation applies especially to flange-mounted gearboxes with splined hollow output shafts.
- Where heavy radial loads apply on the output shaft, flange mounting is recommended for some gearboxes as this mounting pattern benefits from the double pilot diameters provided on these gearboxes.
- Make sure the gear unit is configured for the mounting position specified when ordering.
- Use bolts of grade 8.8 or greater to secure the gearbox. Tighten the bolts to the rated values specified in the relevant charts.  
With transmitted torque greater than or equal to 70% of the given «  $T_{2max}$  », and with frequent reversals, use bolts with minimum grade 10.9.  
Some gearboxes can be fastened using both bolts and pins. If a pin is used, the portion of the pin inserted into the equipment the gearbox is being installed to should be at least 1.5 times its diameter.

### b) Connections

- When fitting transmission elements onto the input or output shaft do not tap them with hammers or similar tools. To slide these parts in, use the service screws and taps 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:

(A10)



### c) Paint coating

- Use paint compatible with the primer applied to the gearbox, see: Conditions of supply.  
Prior to painting, tape the seal rings installed on the shafts.  
Contact with the solvent may deteriorate the seals with subsequent oil leakage.

### d) Lubrication

- Prior to commissioning, fill the gearbox with the recommended type and quantity of oil (see: Lubrication).  
The level is to be checked through the appropriate plug 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 (see tab. A26).

## 14.0 - MAINTENANCE

Check the tightness of mounting bolts after the initial 50 hours of operation.  
Flush the gearbox and replace the oil after the initial 100-150 hours of operation.  
Subsequently, change the oil every 2000 - 3000 hours operation, depending on the application.  
Alternatively change oil once a year.  
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.

## 15.0 - STORAGE

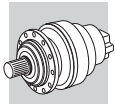
Observe the following instructions to ensure correct storage of the products:

- 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 (Mobilarma 248 or equivalent 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 (tab. A25 - A26).

## 16.0 - CONDITIONS OF SUPPLY

Gearboxes are generally supplied as follows:

- a) Configured for installation in the mounting position specified at the time of order;
- b) **Unlubricated. Inner parts are protected by a film of the oil used for factory testing (type SHELL ENSIS OIL N);**
- c) primer coated with grey antioxidant water-based primer type Idrayon Primer-Ral 7042/C441.  
Mounting surfaces will not paint coated.  
Finish coating is to be applied by the Customer;
- d) tested to factory specifications;
- e) suitably packed;
- f) helical or worm gear units lubricated "for life" are factory filled with oil.



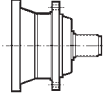
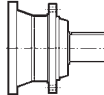
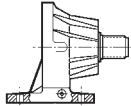

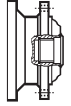
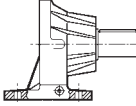
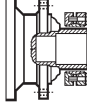

3  L

3  R

### 17.0 - PRODUCT DESIGNATION

## 3 11 L 2 16.7 NPC

#### OUTPUT VERSION

	<b>HZ</b> Heavy duty splined male shaft		<b>NHC</b> Heavy duty flanged output - keyed shaft, inch dims.
	<b>PZ</b> Foot base with splined shaft		<b>HC</b> Heavy duty flanged output - keyed shaft, metric dims.
	<b>FZ / FZB</b> Hollow splined shaft		<b>NPC</b> Footed base - keyed shaft, inch dims.
	<b>FP</b> Hollow shaft for shrink disc		<b>PC</b> Footed base - keyed shaft, metric dims.

#### GEAR RATIO

Value to be specified, including point and decimals, as listed in the rating charts

Ex. 1:5.33 = 5.33    1:44.6 = 44.6    1:131 = 131

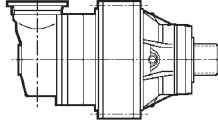
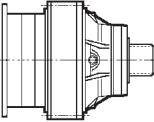
#### REDUCTIONS

1, 2, 3, 4

#### DESIGN

L = In line

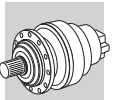
R = Right angle



#### FRAME SIZE

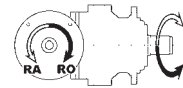
<b>00</b> = 300	152	<b>05</b> = 305	184	<b>10</b> = 310	218	<b>15</b> = 315	250	<b>19</b> = 319	282
<b>01</b> = 301	160	<b>06</b> = 306	192	<b>11</b> = 311	226	<b>16</b> = 316	258	<b>21</b> = 321	290
<b>03</b> = 303	168	<b>07</b> = 307	200	<b>13</b> = 313	234	<b>17</b> = 317	266		
<b>04</b> = 304	176	<b>09</b> = 309	208	<b>14</b> = 314	242	<b>18</b> = 318	274		

#### SERIES



# N320TC A ... ..






OPTIONS	
<b>PV</b>	OIL SEALS FROM VITON® COMPOUND
<b>RO</b> (CW) <b>RA</b> (CCW)	INPUT SHAFT PREFERRED ROTATION (right angle units only)



SUPPLEMENTARY COOLING SYSTEM  
**CR1, CR2, CR3**



## OUTPUT FITTINGS

 <b>P...</b> = Pinion gear	 <b>B0A</b> = Splined bar	 <b>M0A</b> = Sleeve coupling
 <b>G0A</b> = Shrink disc	 <b>W0A</b> = Flange	

MOUNTING POSITION



## INPUT



Input keyed shaft

**NV01A** - DIAM 1.125  
**NV01B** - DIAM 1.625  
**NV05B** - DIAM 1.875  
**NV06B** - DIAM 2.375

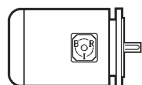
**NV07B** - DIAM 3.000  
**NV10B** - DIAM 3.000  
**NV11B** - DIAM 3.000



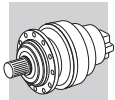
Fan cooled input shaft

**FNV05B** - DIAM 1.875  
**FNV06B** - DIAM 2.375  
**FNV07B** - DIAM 3.000

**FNV10B** - DIAM 3.000  
**FNV11B** - DIAM 3.000



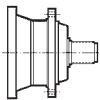
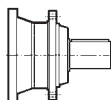
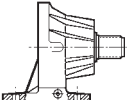
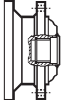
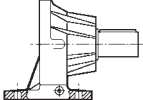
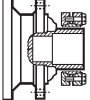
Electric motor adapter  
**P + IEC** motor size (80, 90, 100,...)  
**N + NEMA** motor size (56C, 140TC, 180TC,...)



3/V □ L

# 3/V 05 L 3 623 NPC

## OUTPUT VERSION

	<b>HZ</b> Heavy duty splined male shaft		<b>NHC</b> Heavy duty flanged output - keyed shaft, inch dims.
	<b>PZ</b> Foot mounted with splined shaft		<b>HC</b> Heavy duty flanged output - keyed shaft, metric dims.
	<b>FZ / FZB</b> Hollow splined shaft		<b>NPC</b> Footed output - keyed shaft, inch dims.
	<b>FP</b> Hollow shaft for shrink disc		<b>PC</b> Footed output - keyed shaft, metric dims.

## GEAR RATIO

Value to be specified, including point and decimals, as listed in the rating charts

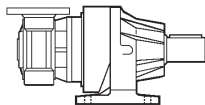
Ex. 1:773 = 773

## REDUCTIONS (1 worm, balance planetary)

3 - 4

## DESIGN

L



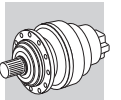
## FRAME SIZE

<b>00</b> = 3/V 00	152	<b>05</b> = 3/V 05	184	<b>10</b> = 3/V 10	218	<b>15</b> = 3/V 15	250	<b>19</b> = 3/V 19	282
<b>01</b> = 3/V 01	160	<b>06</b> = 3/V 06	192	<b>11</b> = 3/V 11	226	<b>16</b> = 3/V 16	258	<b>21</b> = 3/V 21	290
<b>03</b> = 3/V 03	168	<b>07</b> = 3/V 07	200	<b>13</b> = 3/V 13	234	<b>17</b> = 3/V 17	266		
<b>04</b> = 3/V 04	176	<b>09</b> = 3/V 09	208	<b>14</b> = 3/V 14	242	<b>18</b> = 3/V 18	274		

## SERIES

Combined worm+planetary gear unit










**N140TC B5 AF ... ..**

OPTIONS	
<b>PV</b>	OIL SEALS FROM VITON® COMPOUND

**OUTPUT FITTINGS**

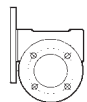
		
<b>P...</b> = Pinion gear	<b>B0A</b> = Splined bar	<b>M0A</b> = Sleeve coupling
		
<b>G0A</b> = Shrink disc	<b>W0A</b> = Flange	

MOUNTING POSITION



MOTOR EXECUTION (only for IEC motors)  
**B5, B14**

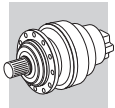
**INPUT**



Electric motor connection  
**P + IEC** motor size (80, 90, 100,...)  
**N + NEMA** motor size (56C, 140TC, 180TC, ...)



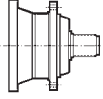
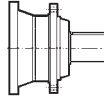
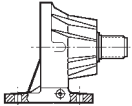
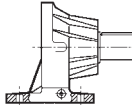
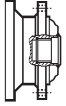
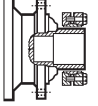
Input keyed shaft  
**NHS**



3/A □ L

# 3/A 06 L 2 69.9 NPC

## OUTPUT VERSION

	<b>HZ</b> Heavy duty splined male shaft		<b>NHC</b> Heavy duty flanged output - keyed shaft, inch dims.
	<b>PZ</b> Foot mounted with splined shaft		<b>NPC</b> Footed output - keyed shaft, inch dims.
	<b>FZ</b> Hollow splined shaft		
	<b>FP</b> Hollow shaft for shrink disc		

## GEAR RATIO

Value to be specified, including point and decimals, as listed in the rating charts

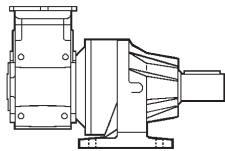
Ex. 1:19.4 = 19.4    1:175 = 175

## REDUCTION UNITS

2

## DESIGN

L



## FRAME 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)

152
160
168
176

05 = 3/A 05 (305+A41)

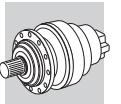
06 = 3/A 06 (306+A50)

07 = 3/A 07 (307+A60)

184
192
200

## SERIES





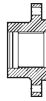
Combined bevel helical+planetary gear unit



**S4 EF ... ..**

OPTIONS	
<b>PV</b>	OIL SEALS FROM VITON® COMPOUND

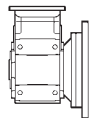
**OUTPUT FITTINGS**

 <b>P...</b> = Pinion gear	 <b>B0A</b> = Splined bar	 <b>M0A</b> = Sleeve coupling
 <b>G0A</b> = Shrink disc	 <b>W0A</b> = Flange	

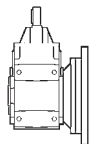
**MOUNTING POSITION**



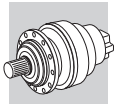
**INPUT**



Electric motor adapter:  
**P + IEC** motor size (80, 90, 100,...)  
**N+ NEMA** motor size (56C, 140TC, 180TC, ...)



Input keyed shaft  
**NHS**

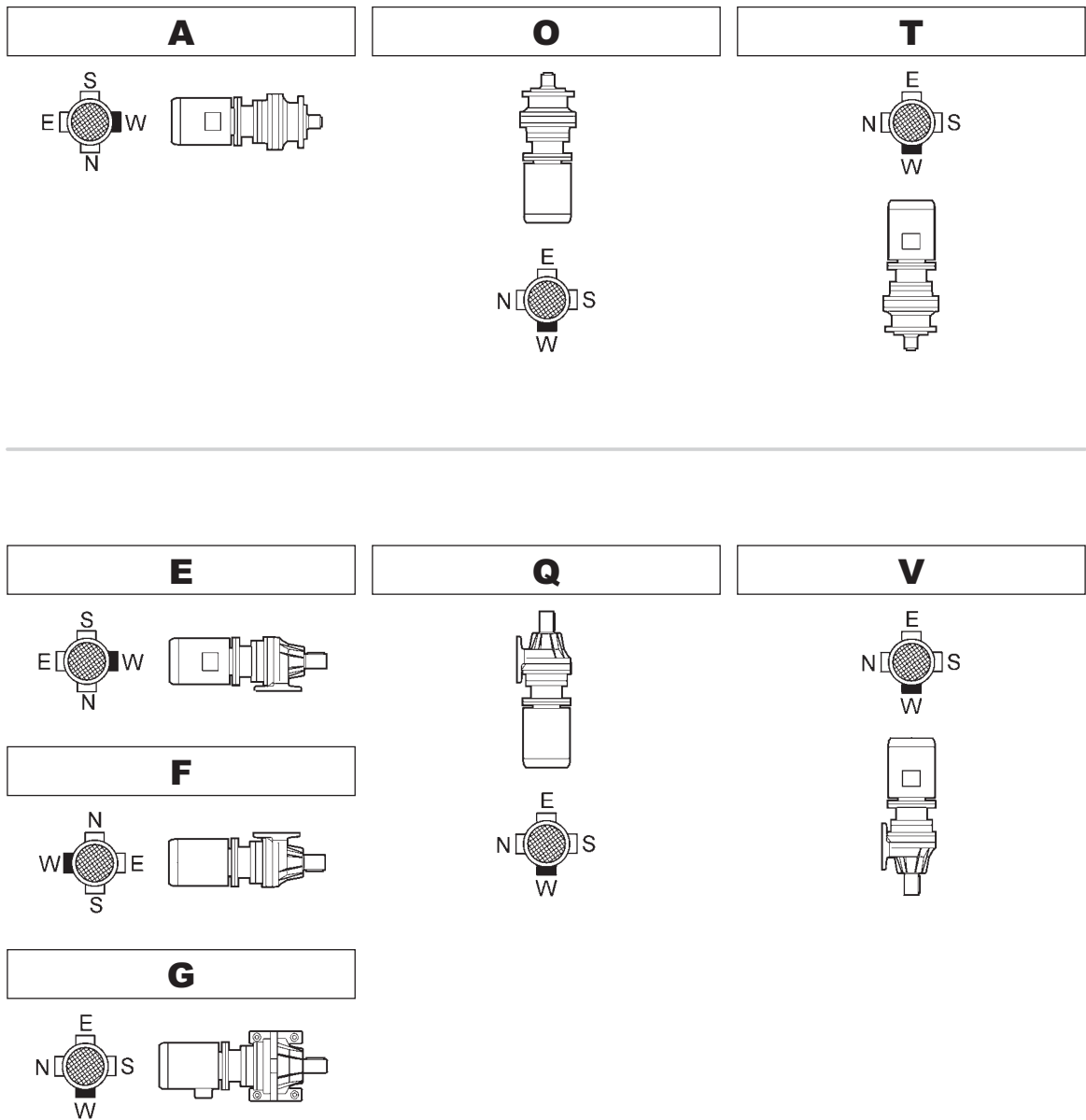


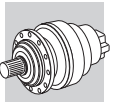
# 18.0 - MOUNTING POSITION

Mounting position is a mandatory information when specifying the gear unit. Please refer to table (A11) for in-line gear units, to (A12) for right angle units, to (A13) for 3/V series and to (A14) for 3/A series.

## In-line units

(A11)

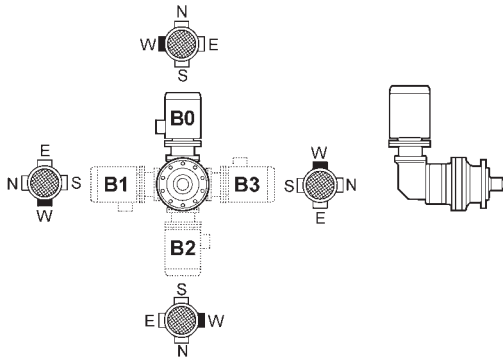




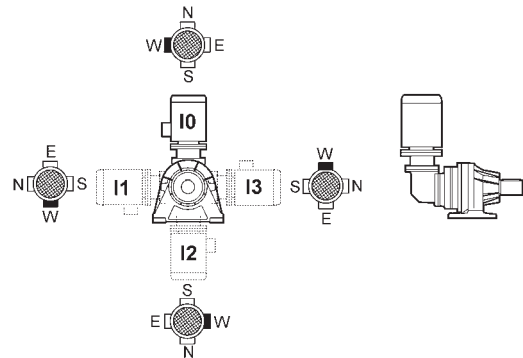
**Right angle units**

(A12)

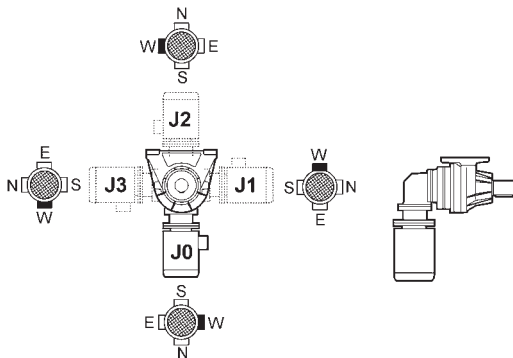
**B0 - B1 - B2 - B3**



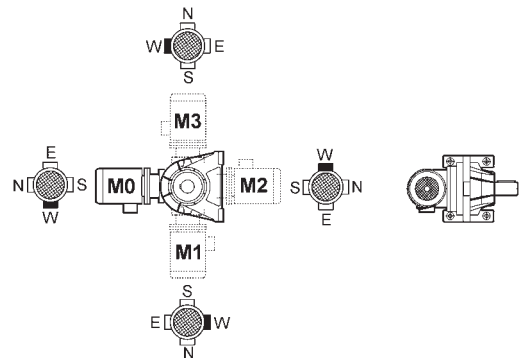
**I0 - I1 - I2 - I3**



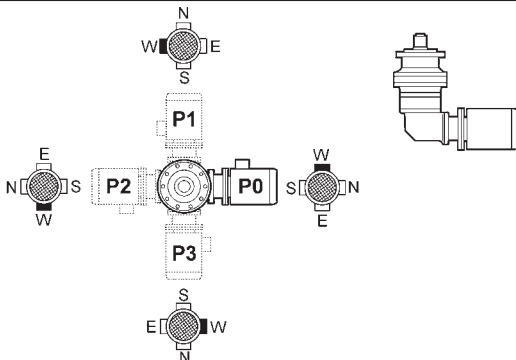
**J0 - J1 - J2 - J3**



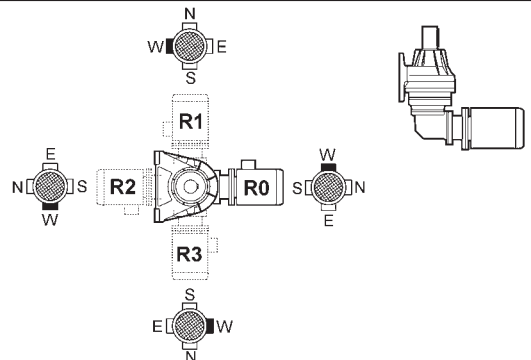
**M0 - M1 - M2 - M3**



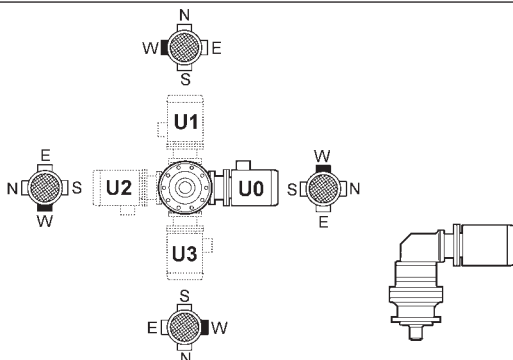
**P0 - P1 - P2 - P3**



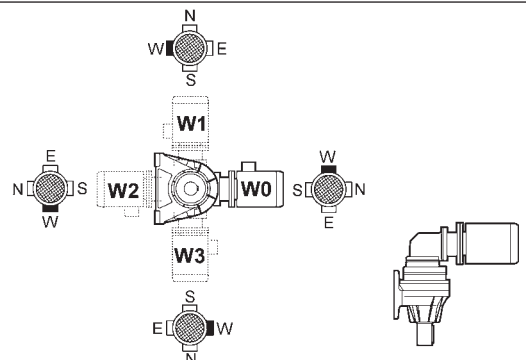
**R0 - R1 - R2 - R3**

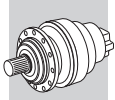


**U0 - U1 - U2 - U3**



**W0 - W1 - W2 - W3**



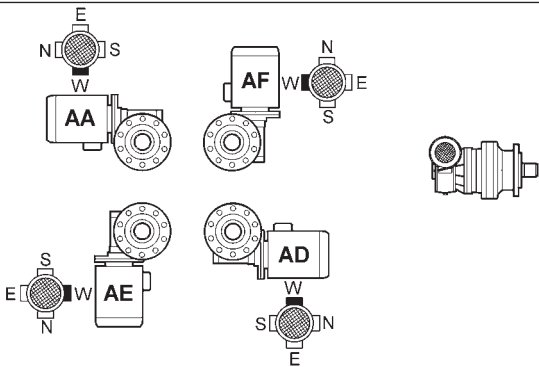


3/V □ L

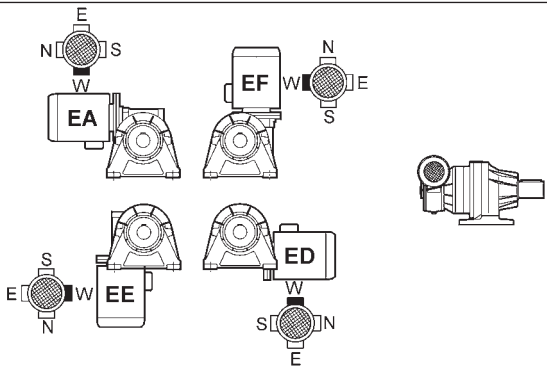
### 3/V series

(A13)

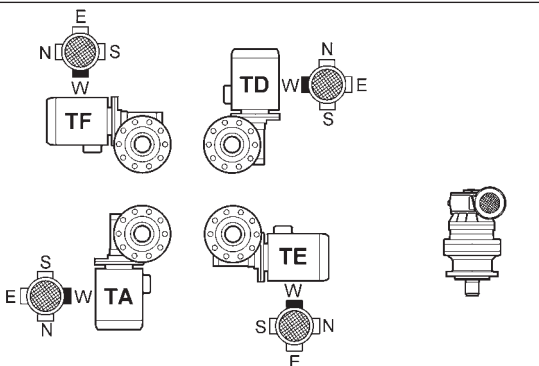
#### AA - AE - AF - AD



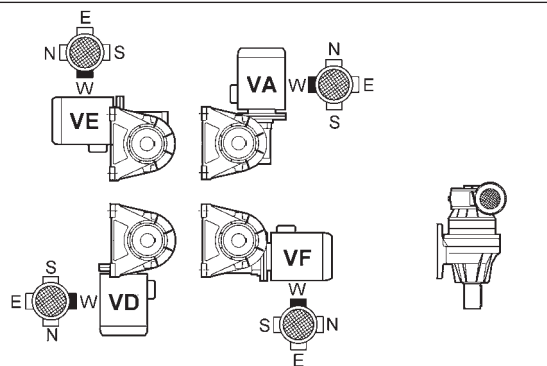
#### EA - EE - EF - ED



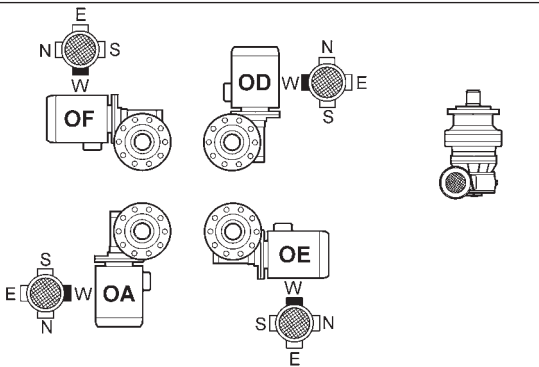
#### TA - TE - TF - TD



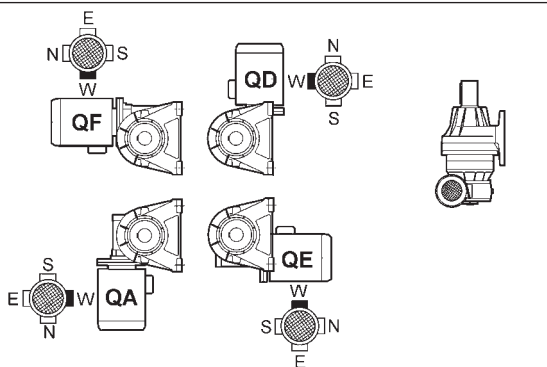
#### VA - VE - VF - VD



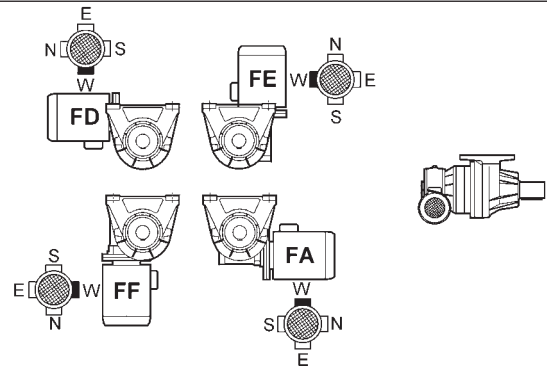
#### OA - OE - OF - OD



#### QA - QE - QF - QD



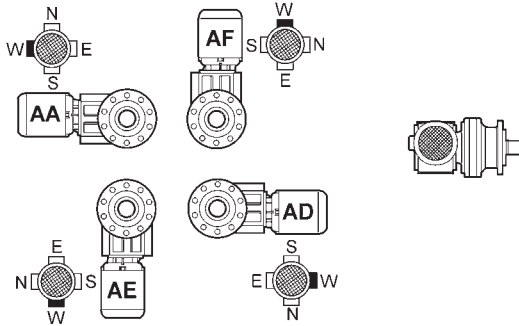
#### FA - FE - FF - FD



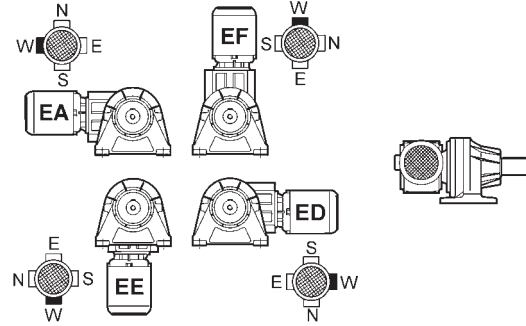
**3/A series**

(A14)

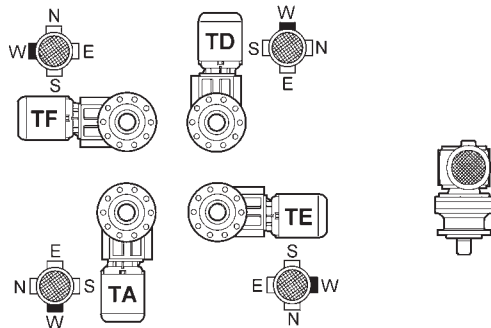
**AA - AE - AF - AD**



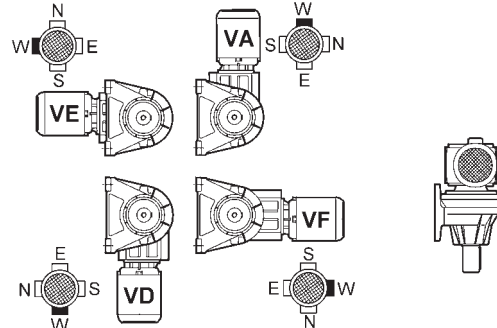
**EA - EE - EF - ED**



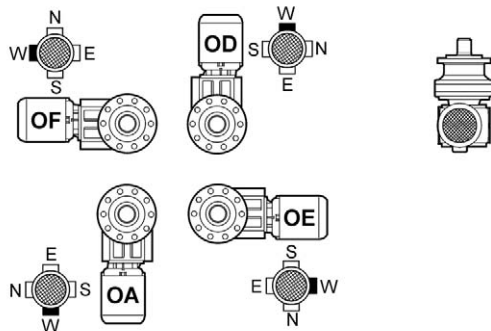
**TA - TE - TF - TD**



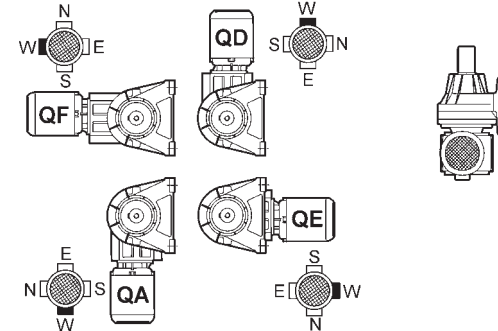
**VA - VE - VF - VD**



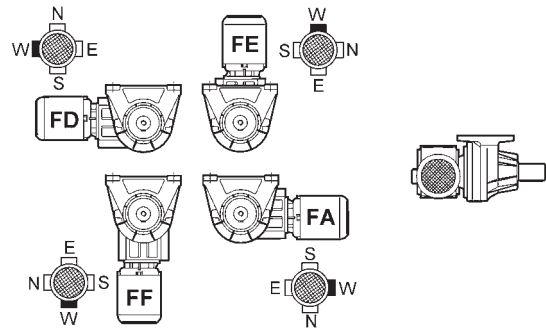
**OA - OE - OF - OD**

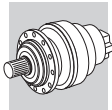


**QA - QE - QF - QD**



**FA - FE - FF - FD**





## 19.0 - LUBRICATION (prior to start-up)

Gear units are oil lubricated. For gearboxes specified for vertical installation, whereas the oil quantity may not be sufficient to ensure proper lubrication of the uppermost bearings, extra lubrication provisions (e.g. grease retainers) are used.

Prior to starting-up, fill the gearbox with the appropriate quantity of oil, selecting the viscosity as per table (A15). Gearboxes are generally provided with oil fill, level and drain plugs. As such, the mounting position needs always to be specified at the time the order for the gearbox is placed. The table (A15) lists the most common brands of lubricant and the types recommended for normal applications.

- Note: For applications with non-routine operating conditions, consult factory with complete information.
- Oil temperature must not exceed 185-195°F / 85-90°C in operation.
- Gear units are generally supplied unlubricated and feature fill, drain and level plugs, except for life-lubed combined gearboxes (series 3/V and 3/A) that are factory filled with synthetic oil.
- The oil quantities 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 at the time of the order to ensure the gearbox is properly filled.
- Should transmitted horsepower exceed the thermal capacity of the unit a supplementary cooling unit must be provided (see: Supplementary cooling systems).

NOTE: Planetary reductions, worm and helical-bevel gears that are part of combined gear units feature individual lubrication.

(A15)

T <sub>a</sub>	PLANETARY STAGES		
	ISO standard 3448 EP grade		
	-10...+30 °C / 15...85 °F	+10...+45 °C / 50...115 °F	-20...+60 °C / -5...140 °F
	ISO VG 150	ISO VG 220	ISO VG 150-220
<b>SHELL</b>	<b>OMALA EP150</b>	<b>OMALA EP220</b>	<b>TIVELA OIL S</b>
AGIP	BLASIA150	BLASIA 220	BLASIA SX220
ARAL	DEGOL BG 150	DEGOL BG 220	DEGOL PAS 150-220
BP	ENERGOL GR XP 150	ENERGOL GR XP 220	EVERSYN EXP 150-220
CASTROL	ALPHA SP 150	ALPHA SP 220	ALPHASYN EP 150-220
CEPSA	ENGRANAJES HP 150	ENGRANAJES HP 220	ENGRANAJES HPX 150-220
CHEVRON	N.L. GEAR COMPOUNDS EP 150	N.L. GEAR COMPOUNDS EP 220	TEGRA SYNTHETIC GEAR EP 150-200
ESSO	SPARTAN EP 150	SPARTAN EP 220	SPARTAN S EP 150-220
FUCHS	RENOLIN CKC 150	RENOLIN CKC 220	RENOLIN UNISYN CKC 150-220
KLUBER	KLUBEROIL GEM1-150	KLUBEROIL GEM1-220	KLUBERSYNT EG 4-150 / 4-220
Q8	GOYA 150	GOYA 220	EL GRECO 220
MOBIL	MOBILGEAR 600 XP 150	MOBILGEAR 600 XP 220	MOBILGEAR SHC XMP 150-220
MOLYCOTE	L-0115	L-0122	L-2115 / L-2122
REPSOL	SUPER TAURO 150	SUPER TAURO 220	SUPER TAURO SINTETICO 150-220
TOTAL	CARTER EP 1500	CARTER EP 2200	CARTER SH 150-220

The temperature of the gear case should never exceed 165-175°F / 75-80°C at the hottest point.

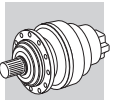
■ Polyalphaolefin synthetic oils (PAO)

WORM GEAR (3/V) - HELICAL BEVEL GEAR (3/A)					
Oil viscosity ISO VG					
	T <sub>a</sub> ≤ -20°	-20° < T <sub>a</sub> ≤ 10°	0° ≤ T <sub>a</sub> ≤ 30°	20° ≤ T <sub>a</sub> ≤ 40°	T <sub>a</sub> > 40°
<b>Mineral EP</b>	(*)	150	320	460	460 (*)
<b>PAO EP</b>	(*)	150	220	320	460 (*)
<b>PAG</b>	(*)	150	220	320	460 (*)

(\*) Consult Bonfiglioli Technical Service.

When filling bevel helical gear units of models **A 05** to **A 60** use exclusively a PAG (poly-glycol-based) synthetic oil with viscosity ISO VG 320.





## Oil plug arrangement

(A16)

### ALL UNITS

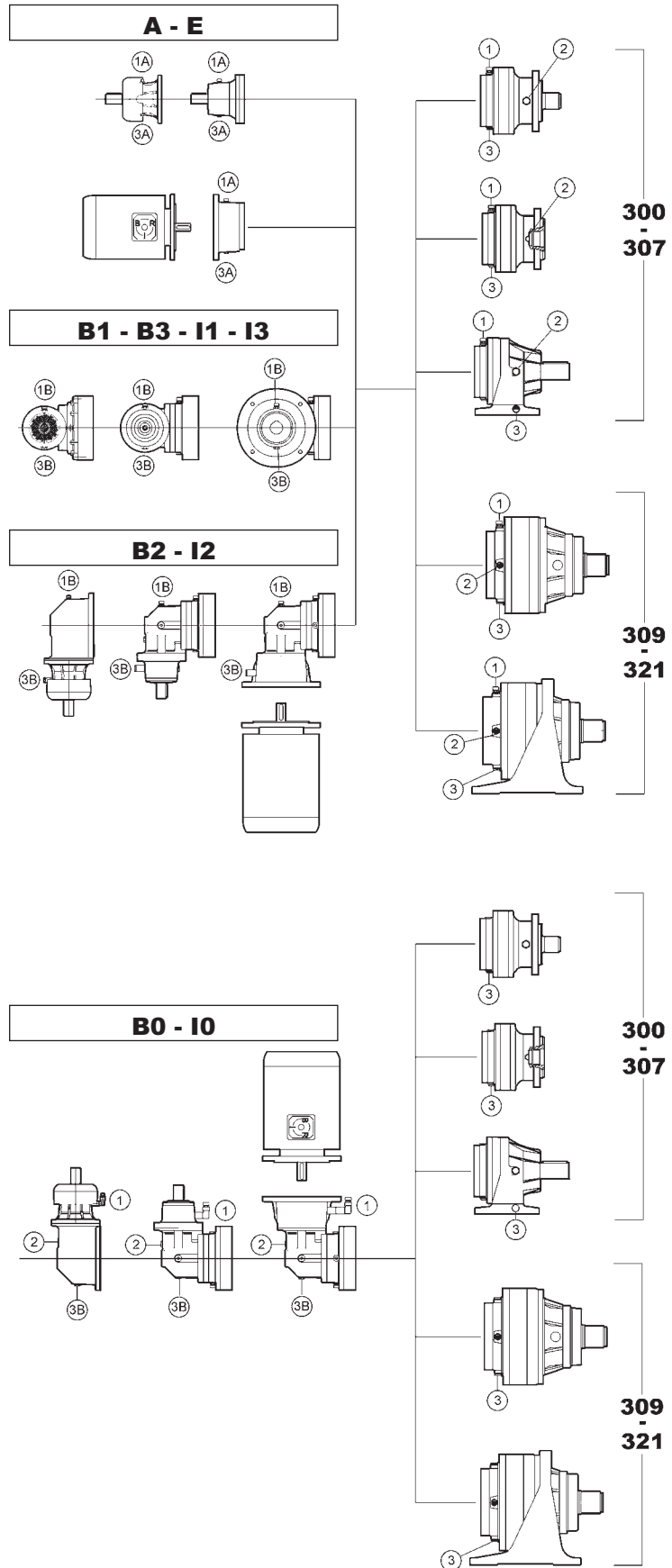
- 1 Vented filler plug
- 2 Level plug
- 3 Drain plug

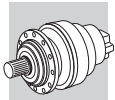
### 1-STAGE IN-LINE GEAR UNITS

- 1A Vented filler plug
- 3A Drain plug

### 2-STAGE RIGHT ANGLE GEAR UNITS

- 1B Vented filler plug
- 3B Drain plug

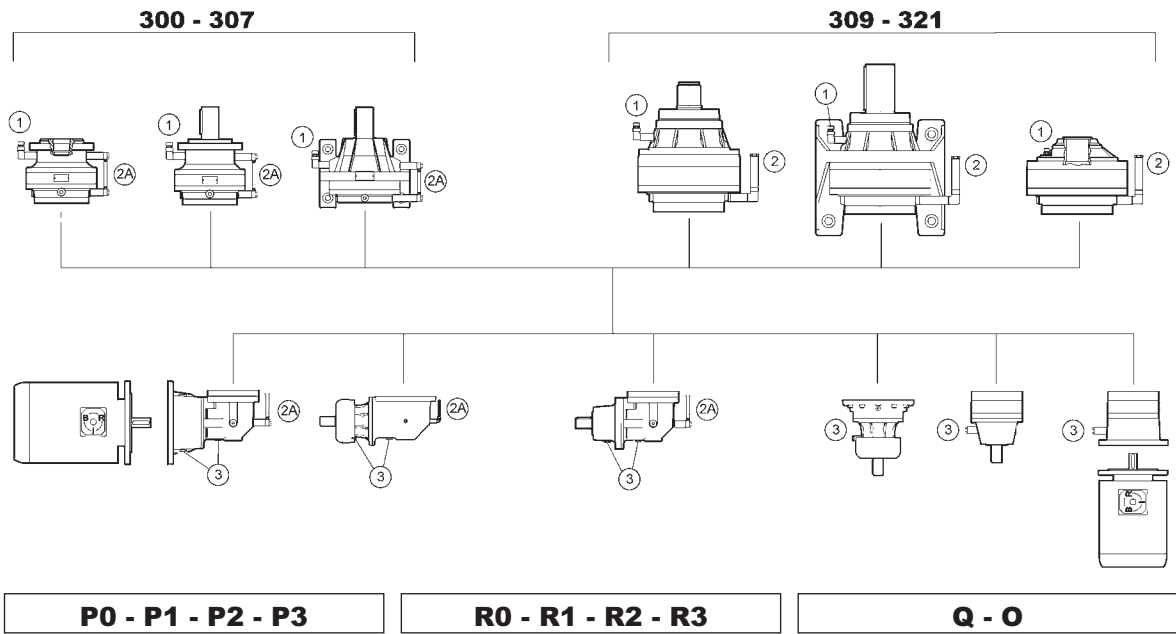




**3 L**

**3 R**

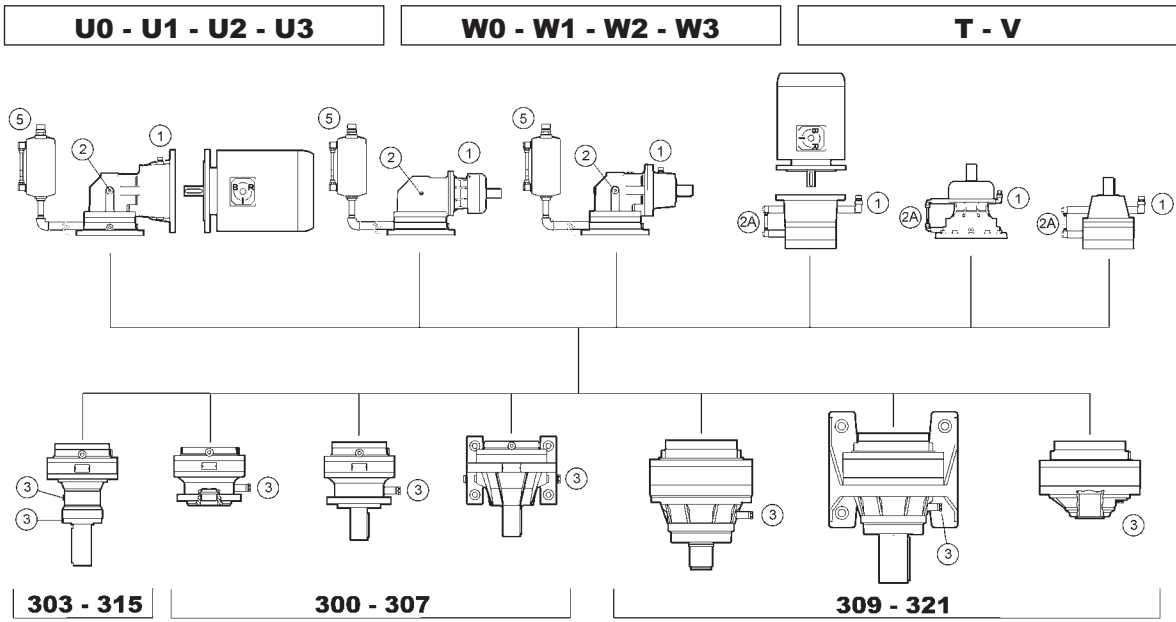
(A17)

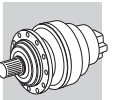


**ALL GEARBOXES**

- 1 Vented filler plug
- 2 Level plug
- 2A Transparent oil level pipe
- 3 Drain plug
- 5 Expansion tank for continuous duty

(A18)





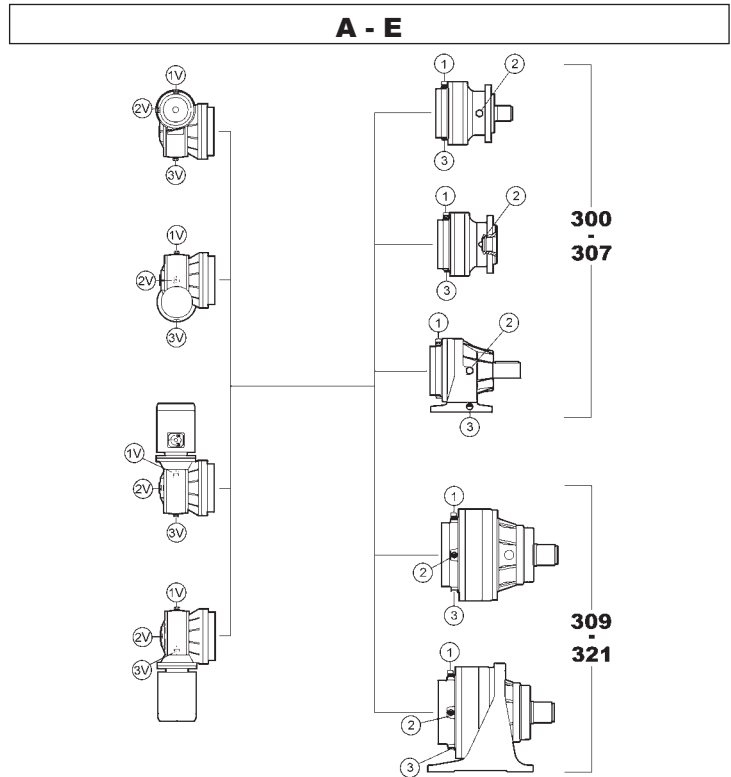
(A19)

**ALL GEARBOXES  
(planetary stages)**

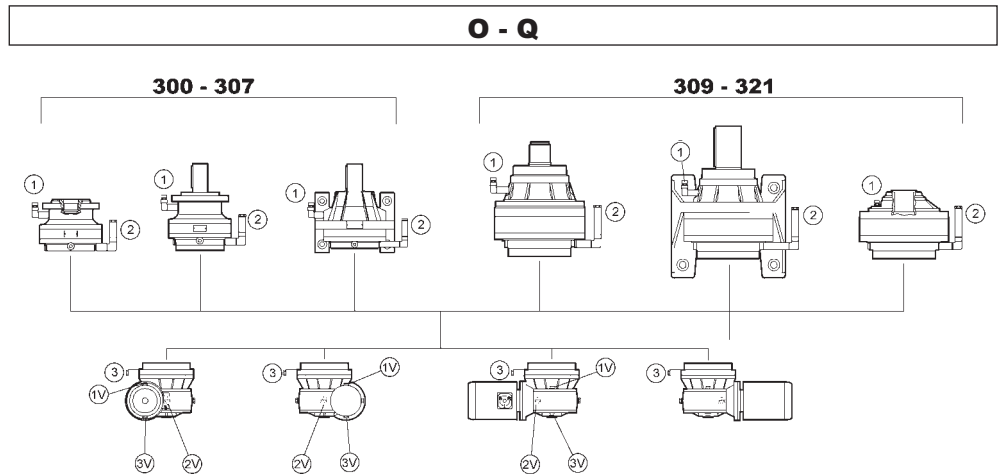
- 1 Vented filler plug
- 2 Level plug
- 3 Drain plug

**(worm gear unit)**

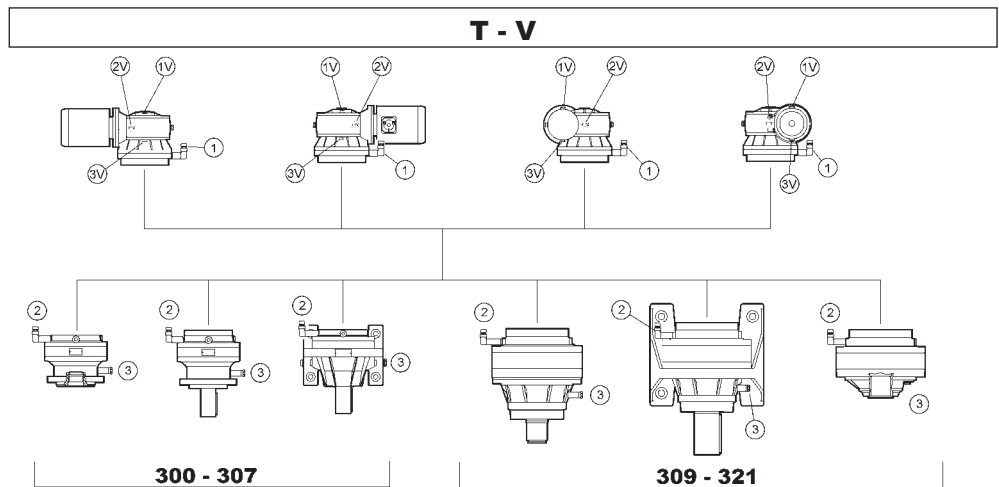
- 1V Vented filler plug
- 2V Level plug
- 3V Drain plug

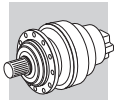


(A20)



(A21)





# 3/A □ L

(A22)

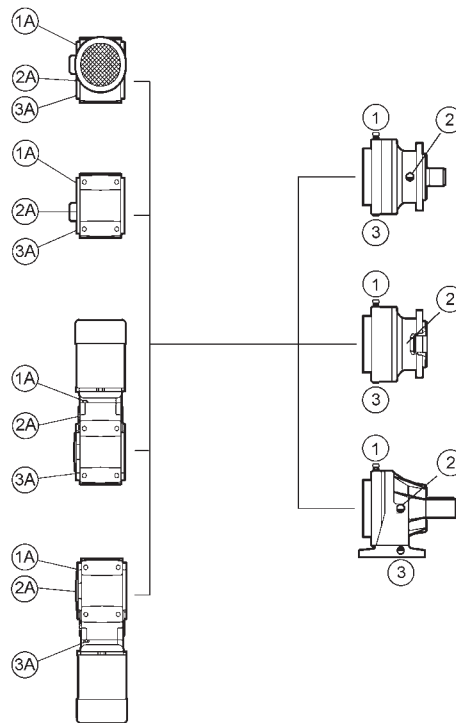
## ALL GEARBOXES (planetary stages)

- 1 Vented filler plug
- 2 Level plug
- 3 Drain plug

## (helical bevel gear unit)

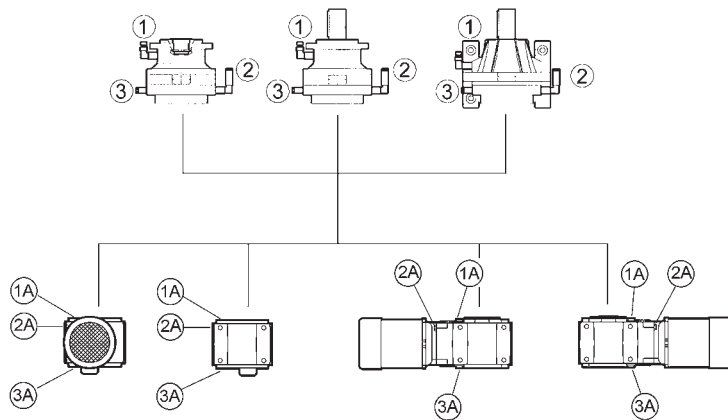
- 1A Vented filler plug
- 2A Level plug
- 3A Drain plug

### A - E



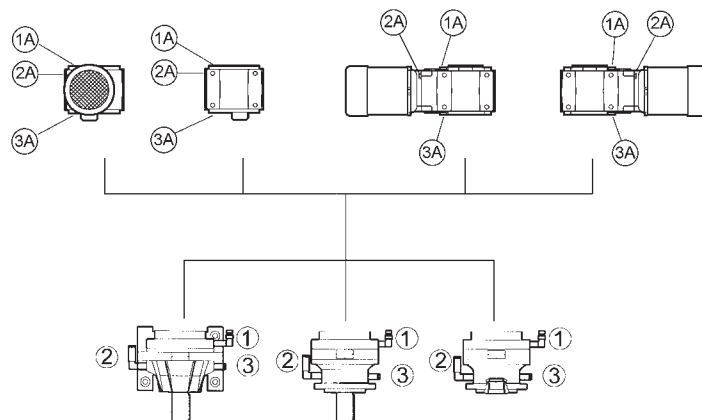
(A23)

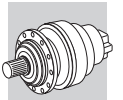
### O - Q



(A24)





### T - V



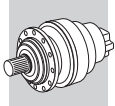


### Oil quantity [ liters ] - 1 liter = 1.056 US quart

(A25A)


		Mounting position 					Mounting position 		
		A	T	O			A	T	O
<b>300</b>	L1	0.6	1.0	0.9	<b>310</b>	L1	5.0	6.5	6.0
	L2	0.9	1.3	1.2		L2	6.3	7.8	7.3
	L3	1.2	1.6	1.5		L3	7.1	8.6	8.1
	L4	1.5	1.9	1.8		L4	7.4	8.9	8.4
<b>301</b>	L1	0.8	1.2	1.1	<b>311</b>	L1	7.0	12	10
	L2	1.1	1.5	1.4		L2	9.0	14	12
	L3	1.4	1.8	1.7		L3	10	15	13
	L4	1.7	2.1	2.0		L4	11	16	14
<b>303</b>	L1	1.3	2.3	2.0	<b>313</b>	L1	9.0	14	12
	L2	1.6	2.6	2.3		L2	12	17	15
	L3	1.9	2.9	2.6		L3	13	18	16
	L4	2.2	3.2	2.9		L4	13	18	16
<b>304</b>	L1	1.4	2.4	2.2	<b>314</b>	L2	17	25	21
	L2	1.9	2.9	2.7		L3	19	27	23
	L3	2.2	3.2	3.0		L4	20	28	24
	L4	2.5	3.5	3.3		L2	19	27	23
<b>305</b>	L1	1.6	2.6	2.4	<b>315</b>	L3	21	29	25
	L2	2.1	3.1	2.9		L4	22	30	26
	L3	2.4	3.4	3.2		L2	22	30	26
	L4	2.7	3.7	3.5		L3	24	32	28
<b>306</b>	L1	2.5	3.5	3.2	<b>316</b>	L4	25	33	29
	L2	3.3	4.3	4.0		L2	26	41	36
	L3	3.6	4.6	4.3		L3	29	44	39
	L4	3.9	4.9	4.6		L4	30	45	40
<b>307</b>	L1	3.5	5.0	4.5	<b>317</b>	L3	40	55	50
	L2	4.5	6.0	5.5		L4	43	58	53
	L3	5.0	6.5	6.0		L3	50	70	60
	L4	5.3	6.8	6.3		L4	53	73	63
<b>309</b>	L1	4.0	5.5	5.0	<b>318</b>	L4	60	80	70
	L2	5.0	6.5	6.0		L3	56	76	66
	L3	5.5	7.0	6.5		L4	60	80	70
	L4	5.8	7.3	6.8					



Quantities are indicative. Fill the gear unit up to the appropriate level plug.



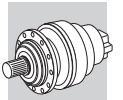
**Oil quantity [ liters ] - 1 liter = 1.056 US quart**

(A25B)

		Mounting position  27		
		B0	U_	P_
<b>300</b>	R2	1.2	1.7	1.5
	R3	1.5	2.0	1.8
	R4	1.8	2.3	2.1
<b>301</b>	R2	1.6	2.1	1.9
	R3	1.9	2.4	2.2
	R4	2.2	2.7	2.5
<b>303</b>	R2	2.2	2.8	2.6
	R3	2.5	3.1	2.9
	R4	2.8	3.4	3.2
<b>304</b>	R2	2.3	2.9	2.7
	R3	2.8	3.4	3.2
	R4	3.1	3.7	3.5
<b>305</b>	R2	2.5	3.1	2.9
	R3	3.0	3.6	3.4
	R4	3.3	3.9	3.7
<b>306</b>	R2	4.0	5.0	4.8
	R3	4.8	5.8	5.6
	R4	5.1	6.1	5.9
<b>307</b>	R2	6.0	8.0	7.0
	R3	7.0	9.0	8.0
	R4	7.5	9.5	8.5

		Mounting position  27		
		B0	U_	P_
<b>309</b>	R2	6.5	8.5	7.5
	R3	7.5	9.5	8.5
	R4	8.0	10	9.0
<b>310</b>	R2	13	15	14
	R3	11	13	12
	R4	12	14	13
<b>311</b>	R2	14	19	17
	R3	16	21	19
	R4	17	22	20
<b>313</b>	R2	16	21	19
	R3	19	24	22
	R4	20	25	23
<b>314</b>	R3	25	33	29
	R4	28	36	32
<b>315</b>	R3	27	35	31
	R4	30	38	34
<b>316</b>	R3	30	38	34
	R4	33	41	37
<b>317</b>	R3	38	52	48
	R4	42	56	52
<b>318</b>	R4	48	63	58

Quantities are indicative. Fill the gear unit up to the appropriate level plug.



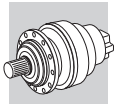
**Oil quantity [ liters ] - 1 liter = 1.056 US quart**

(A26A)

	[1]												
	AA - EA - FD			AF - EF - FE		AE - EE - FF		AD - ED - FA		TA - TE - TF - TD VA - VE - VF - VD		OA - OE - OF - OD QA - QE - QF - QD	
		input		input		input		input		input		input	
	P(IEC)	HS	P(IEC)	HS	P(IEC)	HS	P(IEC)	HS	P(IEC)	HS	P(IEC)	HS	
<b>3/V 00 L3</b>	0.9	0.12	0.12	0.9	0.12	0.9	0.12	0.9	0.12	1.3	0.12	1.2	0.12
<b>3/V 01 L3</b>	1.1			1.1		1.1		1.1		1.5		1.4	
<b>3/V 03 L3</b>	1.6	0.25	0.25	1.6	0.31	1.6	0.31	1.6	0.38	2.6	0.31	2.3	0.25
<b>3/V 04 L3</b>	1.9			1.9		1.9		1.9		2.9		2.7	
<b>3/V 05 L3</b>	2.1	0.38	0.38	2.1	0.43	2.1	0.43	2.1	0.52	3.1	0.52	2.9	0.38
<b>3/V 06 L3</b>	3.3			3.3		3.3		3.3		4.3		4	
<b>3/V 10 L4</b>	7.1	0.64	0.64	7.1	0.76	7.1	0.76	7.1	0.85	8.6	0.76	8.1	0.76
<b>3/V 07 L3</b>	4.5			4.5		4.5		4.5		6		5.5	
<b>3/V 11 L4</b>	10	2.4	2.8	10	2.6	10	2.6	10	1.7	15	1.9	13	1.9
<b>3/V 13 L4</b>	13			13		13		13		18		16	
<b>3/V 09 L3</b>	5			5		5.0		5		6.5		6	
<b>3/V 10 L3</b>	6.3			6.3		6.3		6.3		7.8		7.3	
<b>3/V 14 L4</b>	19	4.3	4.5	19	3.9	19	3.9	19	3.0	27	3.5	23	3.5
<b>3/V 15 L4</b>	21			21		21		21		29		25	
<b>3/V 16 L4</b>	24			24		24		24		32		28	
<b>3/V 11 L3</b>	9			9		9		9		14		12	
<b>3/V 13 L3</b>	12	7.8	9.6	12	6.7	12	6.7	12	5.0	17	5.5	15	5.5
<b>3/V 14 L3</b>	17			17		17		17		25		21	
<b>3/V 17 L4</b>	29			29		29		29		44		39	
<b>3/V 15 L3</b>	19			19		19		19		27		23	
<b>3/V 18 L4</b>	40	11	15	40	8.9	40	9.4	40	7.5	55	9.5	50	9.5
<b>3/V 19 L4</b>	50			50		50		50		70		60	
<b>3/V 16 L3</b>	22			22		22		22		30		26	
<b>3/V 17 L3</b>	26	23	28	26	16.8	26	17.5	26	10.7	41	17	36	17
<b>3/V 21 L4</b>	56			56		56		56		76		66	

■ Life lubricated














NOTE: Planetary reductions, worm and helical-bevel gears that are part of combined gear units feature individual lubrication.




**3/A □ L**

**Oil quantity [ liters ] - 1 liter = 1.056 US quart**

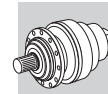
(A26B)

	 [!]											
	AA - EA - FD		TA - TE - TF - TD VA - VE - VF - VD		OA - OE - OF - OD QA - QE - QF - QD		AD - ED - FA		AF - EF - FE		AE - EE - FF	
												
<b>3/A 00 L2</b>	0.60	1.4	1.0	1.4	0.9	1.4	0.6	1.4	0.6	1.4	0.6	1.4
<b>3/A 01 L2</b>	0.80	2.3	1.2	2.3	1.1	2.3	0.8	2.3	0.8	2.3	0.8	2.3
<b>3/A 03 L2</b>	1.3	3.2	2.3	3.2	2.0	3.2	1.3	3.2	1.3	3.2	1.3	3.2
<b>3/A 04 L2</b>	1.4	3.8	2.4	3.9	2.2	3.9	1.4	4.5	1.4	5.0	1.4	4.2
<b>3/A 05 L2</b>	1.6	4.0	2.6	4.1	2.4	4.1	1.6	4.7	1.6	5.2	1.6	4.4
<b>3/A 06 L2</b>	2.5	4.9	3.5	8.1	3.2	4.7	2.5	8.4	2.5	11	2.5	9.2
<b>3/A 07 L2</b>	3.5	6.8	5.0	8.1	4.5	12	3.5	15	3.5	18	3.5	15

 Life lubricated

NOTE: Planetary reductions, worm and helical-bevel gears that are part of combined gear units feature individual lubrication.





## 20.0 - SPEED REDUCER RATING CHARTS: 300 L (in-line)

Reading the rating chart

300 L							8,850 in·lbs						
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in·lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]				
									NHC NPC	HZ PZ	FZ		
1750	300 L1	5.77	303	3680	18.3	9.1	71 to 132	N56C to N280TC	1480	1760	340	152	
	300 L1	7.20	243	3460	13.7	9.1	71 to 132	N56C to N280TC	1580	1880	360	152	
	300 L1	9.00	194	2680	8.5	9.1	71 to 132	N56C to N280TC	1690	2010	390	152	
	300 L2	12.1	145	5070	12.4	9.1	71 to 132	N56C to N280TC	1850	2190	430	152	
2	3	4	5	6	7	8	9	10	11	12			

- 1 Max. transmissible torque

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- 2 Gearbox drive speed

---

- 3 Frame size of the in-line gear unit

---

- 4 Gear ratio

---

- 5 Gearbox output speed

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- 6 Gearbox rated output torque

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- 7 Gearbox rated input power

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- 8 Gearbox thermal capacity

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- 9 Frame size of available IEC motor

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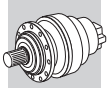
- 10 Frame size of available NEMA motor

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- 11 Permissible overhung load on output shaft

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- 12 Page showing installation drawings and dimensions

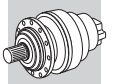


**3 L**

**300 L**

**8,850 in•lbs**

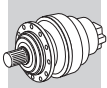
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	300 L1	5.77	303	3680	18.3	9.1	71 to 132	N56C to N280TC	1480	1760	340	152	
	300 L1	7.20	243	3460	13.7	9.1	71 to 132	N56C to N280TC	1580	1880	360	152	
	300 L1	9.00	194	2680	8.5	9.1	71 to 132	N56C to N280TC	1690	2010	390	152	
	300 L2	12.1	145	5070	12.4	9.1	71 to 132	N56C to N280TC	1850	2190	430	152	
	300 L2	14.8	118	5140	10.2	9.1	71 to 132	N56C to N280TC	1970	2330	460	152	
	300 L2	18.2	96	5460	8.9	9.1	71 to 132	N56C to N280TC	2090	2480	490	152	
	300 L2	20.1	87	5250	7.7	9.1	71 to 132	N56C to N280TC	2150	2550	510	152	
	300 L2	24.6	71	6010	7.2	9.1	71 to 132	N56C to N280TC	2290	2710	550	152	
	300 L2	30.7	57	6450	6.2	9.1	71 to 132	N56C to N280TC	2440	2900	590	152	
	300 L2	33.3	53	5710	5.1	9.1	71 to 132	N56C to N280TC	2500	2970	600	152	
	300 L2	38.4	46	6770	5.2	9.1	71 to 132	N56C to N280TC	2610	3100	630	152	
	300 L2	41.5	42	5750	4.1	9.1	71 to 132	N56C to N280TC	2680	3180	650	152	
	300 L2	51.9	34	5750	3.3	9.1	71 to 132	N56C to N280TC	2860	3400	700	152	
	300 L2	64.8	27.0	4870	2.2	9.1	71 to 132	N56C to N280TC	3060	3630	760	152	
		300 L3	51.6	34	6910	4.1	9.1	71 to 132	N56C to N280TC	2860	3390	700	152
		300 L3	63.2	27.7	7010	3.4	9.1	71 to 132	N56C to N280TC	3040	3600	750	152
		300 L3	69.9	25.0	5750	2.5	9.1	71 to 132	N56C to N280TC	3130	3710	770	152
		300 L3	77.5	22.6	7110	2.8	9.1	71 to 132	N56C to N280TC	3230	3830	800	152
		300 L3	85.6	20.4	7160	2.5	9.1	71 to 132	N56C to N280TC	3320	3950	830	152
		300 L3	105	16.7	7260	2.1	9.1	71 to 132	N56C to N280TC	3530	4190	890	152
		300 L3	116	15.1	5750	1.5	9.1	71 to 132	N56C to N280TC	3640	4320	920	152
300 L3		131	13.4	7370	1.7	9.1	71 to 132	N56C to N280TC	3780	4480	950	152	
300 L3		142	12.3	7410	1.6	9.1	71 to 132	N56C to N280TC	3870	4590	980	152	
300 L3		177	9.9	7530	1.3	9.1	71 to 132	N56C to N280TC	4130	4910	1060	152	
300 L3		192	9.1	5750	0.91	9.1	71 to 132	N56C to N280TC	4240	5030	1080	152	
300 L3		221	7.9	7640	1.1	9.1	71 to 132	N56C to N280TC	4420	5240	1140	152	
300 L3		240	7.3	5750	0.73	9.1	71 to 132	N56C to N280TC	4530	5370	1170	152	
300 L3		299	5.9	5750	0.59	9.1	71 to 132	N56C to N280TC	4840	5740	1260	152	
300 L3		374	4.7	5820	0.47	9.1	71 to 132	N56C to N280TC	5170	6140	1350	152	
		300 L4	330	5.3	7850	0.75	7.2	71 to 132	N56C to N280TC	4980	5920	1300	152
		300 L4	403	4.3	5890	0.46	7.2	71 to 132	N56C to N280TC	5290	6280	1390	152
		300 L4	447	3.9	8210	0.58	7.2	71 to 132	N56C to N280TC	5460	6480	1440	152
	300 L4	494	3.5	8350	0.53	7.2	71 to 132	N56C to N280TC	5620	6670	1490	152	
	300 L4	558	3.1	8520	0.48	7.2	71 to 132	N56C to N280TC	5830	6920	1550	152	
	300 L4	616	2.8	8660	0.44	7.2	71 to 132	N56C to N280TC	6010	7130	1600	152	
	300 L4	755	2.3	8850	0.37	7.2	71 to 132	N56C to N280TC	6390	7580	1710	152	
	300 L4	819	2.1	8850	0.34	7.2	71 to 132	N56C to N280TC	6540	7640	1760	152	
	300 L4	942	1.9	8850	0.29	7.2	71 to 132	N56C to N280TC	6830	7640	1800	152	
	300 L4	1022	1.7	8850	0.27	7.2	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1108	1.6	7010	0.20	7.2	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1275	1.4	8850	0.22	7.2	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1383	1.3	7300	0.17	7.2	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1591	1.1	8850	0.17	7.2	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1725	1.0	7590	0.14	7.2	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	2153	0.81	7610	0.11	7.2	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	2692	0.65	8850	0.10	7.2	71 to 132	N56C to N280TC	6970	7640	1800	152	
	<b>1450</b>	300 L1	4.26	340	3740	21	10.1	71 to 132	N56C to N280TC	1430	1700	320	152
300 L1		5.77	251	3890	16.0	10.1	71 to 132	N56C to N280TC	1570	1860	360	152	
300 L1		7.20	201	3660	12.1	10.1	71 to 132	N56C to N280TC	1670	1990	390	152	
300 L1		9.00	161	2840	7.5	10.1	71 to 132	N56C to N280TC	1790	2120	420	152	
	300 L2	12.1	120	5370	10.8	10.1	71 to 132	N56C to N280TC	1960	2320	460	152	
	300 L2	14.8	98	5440	9.0	10.1	71 to 132	N56C to N280TC	2080	2470	490	152	
	300 L2	18.2	80	5800	7.8	10.1	71 to 132	N56C to N280TC	2210	2620	530	152	
	300 L2	20.1	72	5420	6.6	10.1	71 to 132	N56C to N280TC	2280	2700	540	152	



**300 L**

**8,850 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1450</b>	300 L2	24.6	59	6380	6.3	10.1	71 to 132	N56C to N280TC	2420	2870	580	152
	300 L2	30.7	47	6750	5.4	10.1	71 to 132	N56C to N280TC	2590	3070	630	152
	300 L2	33.3	44	5750	4.2	10.1	71 to 132	N56C to N280TC	2650	3140	640	152
	300 L2	38.4	38	6860	4.4	10.1	71 to 132	N56C to N280TC	2760	3280	680	152
	300 L2	41.5	35	5750	3.4	10.1	71 to 132	N56C to N280TC	2830	3360	690	152
	300 L2	51.9	27.9	5750	2.7	10.1	71 to 132	N56C to N280TC	3030	3590	750	152
	300 L2	64.8	22.4	4870	1.8	10.1	71 to 132	N56C to N280TC	3240	3840	800	152
	300 L3	51.6	28.1	7000	3.4	10.1	71 to 132	N56C to N280TC	3020	3590	750	152
	300 L3	63.2	22.9	7100	2.8	10.1	71 to 132	N56C to N280TC	3210	3810	800	152
	300 L3	69.9	20.8	5750	2.1	10.1	71 to 132	N56C to N280TC	3310	3930	820	152
	300 L3	77.5	18.7	7200	2.3	10.1	71 to 132	N56C to N280TC	3410	4050	850	152
	300 L3	85.6	16.9	7250	2.1	10.1	71 to 132	N56C to N280TC	3520	4170	880	152
	300 L3	105	13.8	7360	1.8	10.1	71 to 132	N56C to N280TC	3740	4440	940	152
	300 L3	116	12.5	5750	1.3	10.1	71 to 132	N56C to N280TC	3850	4570	980	152
	300 L3	131	11.1	7470	1.4	10.1	71 to 132	N56C to N280TC	3990	4740	1020	152
	300 L3	142	10.2	7510	1.3	10.1	71 to 132	N56C to N280TC	4090	4860	1040	152
	300 L3	177	8.2	7620	1.1	10.1	71 to 132	N56C to N280TC	4370	5190	1120	152
	300 L3	192	7.6	5750	0.76	10.1	71 to 132	N56C to N280TC	4480	5320	1150	152
	300 L3	221	6.6	7740	0.88	10.1	71 to 132	N56C to N280TC	4680	5550	1210	152
	300 L3	240	6.1	5750	0.61	10.1	71 to 132	N56C to N280TC	4790	5680	1240	152
	300 L3	299	4.8	5780	0.49	10.1	71 to 132	N56C to N280TC	5120	6080	1340	152
	300 L3	374	3.9	6000	0.40	10.1	71 to 132	N56C to N280TC	5470	6500	1440	152
	300 L4	330	4.4	8050	0.63	8.0	71 to 132	N56C to N280TC	5270	6260	1380	152
	300 L4	403	3.6	6080	0.39	8.0	71 to 132	N56C to N280TC	5600	6640	1480	152
	300 L4	447	3.2	8470	0.49	8.0	71 to 132	N56C to N280TC	5780	6850	1530	152
	300 L4	494	2.9	8610	0.45	8.0	71 to 132	N56C to N280TC	5950	7060	1580	152
	300 L4	558	2.6	8790	0.41	8.0	71 to 132	N56C to N280TC	6170	7330	1650	152
	300 L4	616	2.4	8850	0.37	8.0	71 to 132	N56C to N280TC	6360	7550	1700	152
	300 L4	755	1.9	8850	0.30	8.0	71 to 132	N56C to N280TC	6760	7640	1800	152
	300 L4	819	1.8	8850	0.28	8.0	71 to 132	N56C to N280TC	6920	7640	1800	152
	300 L4	942	1.5	8850	0.24	8.0	71 to 132	N56C to N280TC	6970	7640	1800	152
	300 L4	1022	1.4	8850	0.23	8.0	71 to 132	N56C to N280TC	6970	7640	1800	152
	300 L4	1108	1.3	7250	0.17	8.0	71 to 132	N56C to N280TC	6970	7640	1800	152
	300 L4	1275	1.1	8850	0.18	8.0	71 to 132	N56C to N280TC	6970	7640	1800	152
	300 L4	1383	1.0	7550	0.14	8.0	71 to 132	N56C to N280TC	6970	7640	1800	152
	300 L4	1591	0.91	8850	0.14	8.0	71 to 132	N56C to N280TC	6970	7640	1800	152
	300 L4	1725	0.84	7610	0.11	8.0	71 to 132	N56C to N280TC	6970	7640	1800	152
	300 L4	2153	0.67	7610	0.09	8.0	71 to 132	N56C to N280TC	6970	7640	1800	152
	300 L4	2692	0.54	8850	0.09	8.0	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>1150</b>	300 L1	3.48	330	3960	21	11.6	71 to 132	N56C to N280TC	1440	1710	330
300 L1		4.26	270	4010	17.7	11.6	71 to 132	N56C to N280TC	1530	1820	350	152
300 L1		5.77	199	4170	13.6	11.6	71 to 132	N56C to N280TC	1680	1990	390	152
300 L1		7.20	160	3920	10.2	11.6	71 to 132	N56C to N280TC	1790	2130	420	152
300 L1		9.00	128	3040	6.4	11.6	71 to 132	N56C to N280TC	1920	2280	450	152
300 L2		12.1	95	5670	9.1	11.6	71 to 132	N56C to N280TC	2100	2490	500	152
300 L2		14.8	78	5850	7.7	11.6	71 to 132	N56C to N280TC	2230	2650	530	152
300 L2		18.2	63	6240	6.7	11.6	71 to 132	N56C to N280TC	2370	2810	570	152
300 L2		20.1	57	5630	5.4	11.6	71 to 132	N56C to N280TC	2440	2900	590	152
300 L2		24.6	47	6760	5.3	11.6	71 to 132	N56C to N280TC	2590	3080	630	152
300 L2		30.7	37	6860	4.3	11.6	71 to 132	N56C to N280TC	2770	3290	680	152
300 L2		33.3	35	5750	3.4	11.6	71 to 132	N56C to N280TC	2840	3370	700	152
300 L2		38.4	30.0	6970	3.5	11.6	71 to 132	N56C to N280TC	2960	3520	730	152
300 L2		41.5	27.7	5750	2.7	11.6	71 to 132	N56C to N280TC	3040	3600	750	152
300 L2		51.9	22.1	5750	2.1	11.6	71 to 132	N56C to N280TC	3250	3850	810	152
300 L2		64.8	17.7	4870	1.5	11.6	71 to 132	N56C to N280TC	3470	4120	870	152

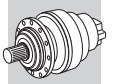


3 L

**300 L**

**8,850 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ		
<b>1150</b>	300 L3	51.6	22.3	7120	2.8	11.6	71 to 132	N56C to N280TC	3240	3850	810	152	
	300 L3	63.2	18.2	7220	2.3	11.6	71 to 132	N56C to N280TC	3440	4090	860	152	
	300 L3	69.9	16.5	5750	1.6	11.6	71 to 132	N56C to N280TC	3550	4210	890	152	
	300 L3	77.5	14.8	7320	1.9	11.6	71 to 132	N56C to N280TC	3660	4340	920	152	
	300 L3	85.6	13.4	7370	1.7	11.6	71 to 132	N56C to N280TC	3770	4470	950	152	
	300 L3	105	11.0	7470	1.4	11.6	71 to 132	N56C to N280TC	4010	4760	1020	152	
	300 L3	116	9.9	5750	0.99	11.6	71 to 132	N56C to N280TC	4130	4900	1050	152	
	300 L3	131	8.8	7590	1.2	11.6	71 to 132	N56C to N280TC	4280	5080	1100	152	
	300 L3	142	8.1	7630	1.1	11.6	71 to 132	N56C to N280TC	4390	5210	1130	152	
	300 L3	177	6.5	7740	0.87	11.6	71 to 132	N56C to N280TC	4690	5570	1210	152	
	300 L3	192	6.0	5750	0.60	11.6	71 to 132	N56C to N280TC	4800	5700	1250	152	
	300 L3	221	5.2	7860	0.71	11.6	71 to 132	N56C to N280TC	5010	5950	1310	152	
	300 L3	240	4.8	5790	0.48	11.6	71 to 132	N56C to N280TC	5140	6090	1340	152	
	300 L3	299	3.8	6010	0.40	11.6	71 to 132	N56C to N280TC	5490	6510	1450	152	
	300 L3	374	3.1	6240	0.33	11.6	71 to 132	N56C to N280TC	5870	6960	1560	152	
	300 L4	330	3.5	8370	0.52	9.3	71 to 132	N56C to N280TC	5650	6710	1500	152	
	300 L4	403	2.9	6320	0.32	9.3	71 to 132	N56C to N280TC	6000	7120	1600	152	
	300 L4	447	2.6	8810	0.41	9.3	71 to 132	N56C to N280TC	6190	7350	1650	152	
	300 L4	494	2.3	8850	0.37	9.3	71 to 132	N56C to N280TC	6380	7570	1710	152	
	300 L4	558	2.1	8850	0.33	9.3	71 to 132	N56C to N280TC	6620	7640	1780	152	
	300 L4	616	1.9	8850	0.30	9.3	71 to 132	N56C to N280TC	6820	7640	1800	152	
	300 L4	755	1.5	8850	0.24	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	819	1.4	8850	0.22	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	942	1.2	8850	0.19	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1022	1.1	8850	0.18	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1108	1.0	7560	0.14	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1275	0.90	8850	0.14	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1383	0.83	7610	0.11	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1591	0.72	8850	0.11	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	1725	0.67	7610	0.09	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	2153	0.53	7610	0.07	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	300 L4	2692	0.43	8850	0.07	9.3	71 to 132	N56C to N280TC	6970	7640	1800	152	
	<b>870</b>	300 L1	3.48	250	4300	17.6	13.1	71 to 132	N56C to N280TC	1570	1860	360	152
		300 L1	4.26	204	4360	14.6	13.1	71 to 132	N56C to N280TC	1670	1980	380	152
		300 L1	5.77	151	4540	11.2	13.1	71 to 132	N56C to N280TC	1830	2170	430	152
		300 L1	7.20	121	4260	8.4	13.1	71 to 132	N56C to N280TC	1950	2320	460	152
300 L1		9.00	97	3270	5.2	13.1	71 to 132	N56C to N280TC	2090	2480	490	152	
300 L2		12.1	72	5710	6.9	13.1	71 to 132	N56C to N280TC	2280	2710	550	152	
300 L2		14.8	59	6390	6.3	13.1	71 to 132	N56C to N280TC	2420	2880	580	152	
300 L2		18.2	48	6750	5.4	13.1	71 to 132	N56C to N280TC	2580	3060	620	152	
300 L2		20.1	43	5750	4.2	13.1	71 to 132	N56C to N280TC	2650	3150	650	152	
300 L2		24.6	35	6890	4.1	13.1	71 to 132	N56C to N280TC	2820	3350	690	152	
300 L2		30.7	28.3	7000	3.3	13.1	71 to 132	N56C to N280TC	3010	3580	740	152	
300 L2		33.3	26.1	5750	2.5	13.1	71 to 132	N56C to N280TC	3090	3670	760	152	
300 L2		38.4	22.7	7110	2.7	13.1	71 to 132	N56C to N280TC	3220	3820	800	152	
300 L2		41.5	20.9	5750	2.0	13.1	71 to 132	N56C to N280TC	3300	3920	820	152	
300 L2		51.9	16.8	5750	1.6	13.1	71 to 132	N56C to N280TC	3530	4190	890	152	
300 L2		64.8	13.4	4870	1.1	13.1	71 to 132	N56C to N280TC	3770	4480	950	152	
300 L3		51.6	16.9	7260	2.1	13.1	71 to 132	N56C to N280TC	3520	4180	880	152	
300 L3		63.2	13.8	7360	1.8	13.1	71 to 132	N56C to N280TC	3740	4440	950	152	
300 L3		69.9	12.5	5750	1.2	13.1	71 to 132	N56C to N280TC	3860	4580	980	152	
300 L3		77.5	11.2	7460	1.5	13.1	71 to 132	N56C to N280TC	3980	4720	1010	152	
300 L3		85.6	10.2	7510	1.3	13.1	71 to 132	N56C to N280TC	4100	4870	1050	152	
300 L3		105	8.3	7620	1.1	13.1	71 to 132	N56C to N280TC	4360	5170	1120	152	
300 L3		116	7.5	5750	0.75	13.1	71 to 132	N56C to N280TC	4490	5330	1160	152	



**300 L**

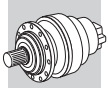
**8,850 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>870</b>	<b>300 L3</b>	<b>131</b>	6.6	7730	0.89	13.1	71 to 132	N56C to N280TC	4660	5530	1210	152
	<b>300 L3</b>	<b>142</b>	6.1	7770	0.83	13.1	71 to 132	N56C to N280TC	4770	5660	1240	152
	<b>300 L3</b>	<b>177</b>	4.9	7900	0.67	13.1	71 to 132	N56C to N280TC	5100	6050	1330	152
	<b>300 L3</b>	<b>192</b>	4.5	5850	0.46	13.1	71 to 132	N56C to N280TC	5220	6200	1370	152
	<b>300 L3</b>	<b>221</b>	3.9	8200	0.56	13.1	71 to 132	N56C to N280TC	5450	6470	1440	152
	<b>300 L3</b>	<b>240</b>	3.6	6070	0.38	13.1	71 to 132	N56C to N280TC	5580	6630	1470	152
	<b>300 L3</b>	<b>299</b>	2.9	6300	0.32	13.1	71 to 132	N56C to N280TC	5970	7080	1590	152
	<b>300 L3</b>	<b>374</b>	2.3	6540	0.26	13.1	71 to 132	N56C to N280TC	6380	7570	1710	152
	<b>300 L4</b>	<b>330</b>	2.6	8770	0.41	10.5	71 to 132	N56C to N280TC	6150	7300	1640	152
	<b>300 L4</b>	<b>403</b>	2.2	6630	0.26	10.5	71 to 132	N56C to N280TC	6530	7640	1750	152
	<b>300 L4</b>	<b>447</b>	1.9	8850	0.31	10.5	71 to 132	N56C to N280TC	6730	7640	1800	152
	<b>300 L4</b>	<b>494</b>	1.8	8850	0.28	10.5	71 to 132	N56C to N280TC	6940	7640	1800	152
	<b>300 L4</b>	<b>558</b>	1.6	8850	0.25	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>616</b>	1.4	8850	0.22	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>755</b>	1.2	8850	0.18	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>819</b>	1.1	8850	0.17	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>942</b>	0.92	8850	0.15	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>1022</b>	0.85	8850	0.14	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>1108</b>	0.79	7610	0.11	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>1275</b>	0.68	8850	0.11	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>1383</b>	0.63	7610	0.09	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>1591</b>	0.55	8850	0.09	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>1725</b>	0.50	7610	0.07	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>2153</b>	0.40	7610	0.06	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 L4</b>	<b>2692</b>	0.32	8850	0.05	10.5	71 to 132	N56C to N280TC	6970	7640	1800	152

**301 L**

**17,700 in•lbs**





n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1750</b>	<b>301 L1</b>	<b>5.77</b>	303	6660	33	9.1	71 to 132	N56C to N280TC	1480	1760	340	160
	<b>301 L1</b>	<b>7.20</b>	243	6370	25	9.1	71 to 132	N56C to N280TC	1580	1880	360	160
	<b>301 L1</b>	<b>9.00</b>	194	4790	15.2	9.1	71 to 132	N56C to N280TC	1690	2010	390	160
	<b>301 L2</b>	<b>12.1</b>	145	8720	21	9.1	71 to 132	N56C to N280TC	1850	2190	430	160
	<b>301 L2</b>	<b>14.8</b>	118	9270	18.4	9.1	71 to 132	N56C to N280TC	1970	2330	460	160
	<b>301 L2</b>	<b>18.2</b>	96	9850	16.0	9.1	71 to 132	N56C to N280TC	2090	2480	490	160
	<b>301 L2</b>	<b>20.1</b>	87	9700	14.3	9.1	71 to 132	N56C to N280TC	2150	2550	510	160
	<b>301 L2</b>	<b>24.6</b>	71	10800	12.9	9.1	71 to 132	N56C to N280TC	2290	2710	550	160
	<b>301 L2</b>	<b>30.7</b>	57	11500	11.1	9.1	71 to 132	N56C to N280TC	2440	2900	590	160
	<b>301 L2</b>	<b>33.3</b>	53	11300	10.0	9.1	71 to 132	N56C to N280TC	2500	2970	600	160
	<b>301 L2</b>	<b>38.4</b>	46	11200	8.6	9.1	71 to 132	N56C to N280TC	2610	3100	630	160
	<b>301 L2</b>	<b>41.5</b>	42	11500	8.2	9.1	71 to 132	N56C to N280TC	2680	3180	650	160
	<b>301 L2</b>	<b>51.9</b>	34	11500	6.5	9.1	71 to 132	N56C to N280TC	2860	3400	700	160
	<b>301 L2</b>	<b>64.8</b>	27.0	10200	4.6	9.1	71 to 132	N56C to N280TC	3060	3630	760	160
	<b>301 L3</b>	<b>51.6</b>	34	12600	7.4	9.1	71 to 132	N56C to N280TC	2860	3390	700	160

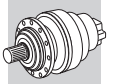


**3 L**

**301 L**





**17,700 in•lbs**

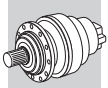
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	301 L3	63.2	27.7	13000	6.3	9.1	71 to 132	N56C to N280TC	3040	3600	750	160	
	301 L3	69.9	25.0	11500	5.0	9.1	71 to 132	N56C to N280TC	3130	3710	770	160	
	301 L3	77.5	22.6	13400	5.3	9.1	71 to 132	N56C to N280TC	3230	3830	800	160	
	301 L3	85.6	20.4	13600	4.8	9.1	71 to 132	N56C to N280TC	3320	3950	830	160	
	301 L3	105	16.7	14000	4.1	9.1	71 to 132	N56C to N280TC	3530	4190	890	160	
	301 L3	116	15.1	11500	3.0	9.1	71 to 132	N56C to N280TC	3640	4320	920	160	
	301 L3	131	13.4	14400	3.4	9.1	71 to 132	N56C to N280TC	3780	4480	950	160	
	301 L3	142	12.3	14600	3.1	9.1	71 to 132	N56C to N280TC	3870	4590	980	160	
	301 L3	177	9.9	15100	2.6	9.1	71 to 132	N56C to N280TC	4130	4910	1060	160	
	301 L3	192	9.1	11500	1.8	9.1	71 to 132	N56C to N280TC	4240	5030	1080	160	
	301 L3	221	7.9	15200	2.1	9.1	71 to 132	N56C to N280TC	4420	5240	1140	160	
	301 L3	240	7.3	11500	1.5	9.1	71 to 132	N56C to N280TC	4530	5370	1170	160	
	301 L3	299	5.9	11500	1.2	9.1	71 to 132	N56C to N280TC	4840	5740	1260	160	
	301 L3	374	4.7	11600	0.95	9.1	71 to 132	N56C to N280TC	5170	6140	1350	160	
	301 L4	330	5.3	15500	1.5	7.2	71 to 132	N56C to N280TC	4980	5920	1300	160	
	301 L4	403	4.3	11800	0.92	7.2	71 to 132	N56C to N280TC	5290	6280	1390	160	
	301 L4	447	3.9	16200	1.1	7.2	71 to 132	N56C to N280TC	5460	6480	1440	160	
	301 L4	494	3.5	16600	1.1	7.2	71 to 132	N56C to N280TC	5620	6670	1490	160	
	301 L4	558	3.1	16900	0.95	7.2	71 to 132	N56C to N280TC	5830	6920	1550	160	
	301 L4	616	2.8	17300	0.88	7.2	71 to 132	N56C to N280TC	6010	7130	1600	160	
	301 L4	755	2.3	17700	0.74	7.2	71 to 132	N56C to N280TC	6390	7580	1710	160	
	301 L4	819	2.1	17700	0.68	7.2	71 to 132	N56C to N280TC	6540	7640	1760	160	
	301 L4	942	1.9	17700	0.59	7.2	71 to 132	N56C to N280TC	6830	7640	1800	160	
	301 L4	1022	1.7	17700	0.54	7.2	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1108	1.6	13900	0.39	7.2	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1275	1.4	17700	0.44	7.2	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1383	1.3	14400	0.33	7.2	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1591	1.1	17700	0.35	7.2	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1725	1.0	15000	0.27	7.2	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	2153	0.81	15000	0.22	7.2	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	2692	0.65	15000	0.18	7.2	71 to 132	N56C to N280TC	6970	7640	1800	160	
	<b>1450</b>	301 L1	4.26	340	6740	38	10.1	71 to 132	N56C to N280TC	1430	1700	320	160
		301 L1	5.77	251	7050	29	10.1	71 to 132	N56C to N280TC	1570	1860	360	160
		301 L1	7.20	201	6740	22	10.1	71 to 132	N56C to N280TC	1670	1990	390	160
		301 L1	9.00	161	5060	13.3	10.1	71 to 132	N56C to N280TC	1790	2120	420	160
		301 L2	12.1	120	9220	18.6	10.1	71 to 132	N56C to N280TC	1960	2320	460	160
301 L2		14.8	98	9800	16.2	10.1	71 to 132	N56C to N280TC	2080	2470	490	160	
301 L2		18.2	80	10400	14.0	10.1	71 to 132	N56C to N280TC	2210	2620	530	160	
301 L2		20.1	72	10300	12.5	10.1	71 to 132	N56C to N280TC	2280	2700	540	160	
301 L2		24.6	59	11400	11.3	10.1	71 to 132	N56C to N280TC	2420	2870	580	160	
301 L2		30.7	47	12000	9.6	10.1	71 to 132	N56C to N280TC	2590	3070	630	160	
301 L2		33.3	44	11500	8.5	10.1	71 to 132	N56C to N280TC	2650	3140	640	160	
301 L2		38.4	38	11500	7.3	10.1	71 to 132	N56C to N280TC	2760	3280	680	160	
301 L2		41.5	35	11500	6.8	10.1	71 to 132	N56C to N280TC	2830	3360	690	160	
301 L2		51.9	27.9	11500	5.4	10.1	71 to 132	N56C to N280TC	3030	3590	750	160	
301 L2		64.8	22.4	10200	3.8	10.1	71 to 132	N56C to N280TC	3240	3840	800	160	
301 L3		51.6	28.1	13000	6.3	10.1	71 to 132	N56C to N280TC	3020	3590	750	160	
301 L3		63.2	22.9	13400	5.3	10.1	71 to 132	N56C to N280TC	3210	3810	800	160	
301 L3		69.9	20.8	11500	4.2	10.1	71 to 132	N56C to N280TC	3310	3930	820	160	
301 L3		77.5	18.7	13800	4.5	10.1	71 to 132	N56C to N280TC	3410	4050	850	160	
301 L3		85.6	16.9	14000	4.1	10.1	71 to 132	N56C to N280TC	3520	4170	880	160	
301 L3		105	13.8	14400	3.5	10.1	71 to 132	N56C to N280TC	3740	4440	940	160	
301 L3		116	12.5	11500	2.5	10.1	71 to 132	N56C to N280TC	3850	4570	980	160	
301 L3		131	11.1	14800	2.9	10.1	71 to 132	N56C to N280TC	3990	4740	1020	160	
301 L3		142	10.2	15000	2.7	10.1	71 to 132	N56C to N280TC	4090	4860	1040	160	



**301 L**

**17,700 in•lbs**





n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1450</b>	301 L3	177	8.2	15200	2.2	10.1	71 to 132	N56C to N280TC	4370	5190	1120	160	
	301 L3	192	7.6	11500	1.5	10.1	71 to 132	N56C to N280TC	4480	5320	1150	160	
	301 L3	221	6.6	15300	1.7	10.1	71 to 132	N56C to N280TC	4680	5550	1210	160	
	301 L3	240	6.1	11500	1.2	10.1	71 to 132	N56C to N280TC	4790	5680	1240	160	
	301 L3	299	4.8	11600	0.97	10.1	71 to 132	N56C to N280TC	5120	6080	1340	160	
	301 L3	374	3.9	12000	0.81	10.1	71 to 132	N56C to N280TC	5470	6500	1440	160	
	301 L4	330	4.4	15900	1.2	8.0	71 to 132	N56C to N280TC	5270	6260	1380	160	
	301 L4	403	3.6	12100	0.78	8.0	71 to 132	N56C to N280TC	5600	6640	1480	160	
	301 L4	447	3.2	16800	0.98	8.0	71 to 132	N56C to N280TC	5780	6850	1530	160	
	301 L4	494	2.9	17200	0.90	8.0	71 to 132	N56C to N280TC	5950	7060	1580	160	
	301 L4	558	2.6	17600	0.82	8.0	71 to 132	N56C to N280TC	6170	7330	1650	160	
	301 L4	616	2.4	17700	0.75	8.0	71 to 132	N56C to N280TC	6360	7550	1700	160	
	301 L4	755	1.9	17700	0.61	8.0	71 to 132	N56C to N280TC	6760	7640	1800	160	
	301 L4	819	1.8	17700	0.56	8.0	71 to 132	N56C to N280TC	6920	7640	1800	160	
	301 L4	942	1.5	17700	0.49	8.0	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1022	1.4	17700	0.45	8.0	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1108	1.3	14400	0.34	8.0	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1275	1.1	17700	0.36	8.0	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1383	1.0	14900	0.28	8.0	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1591	0.91	17700	0.29	8.0	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	1725	0.84	15000	0.23	8.0	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	2153	0.67	15000	0.18	8.0	71 to 132	N56C to N280TC	6970	7640	1800	160	
	301 L4	2692	0.54	15000	0.15	8.0	71 to 132	N56C to N280TC	6970	7640	1800	160	
	<b>1150</b>	301 L1	3.48	330	6800	37	11.6	71 to 132	N56C to N280TC	1440	1710	330	160
		301 L1	4.26	270	7230	32	11.6	71 to 132	N56C to N280TC	1530	1820	350	160
		301 L1	5.77	199	7560	25	11.6	71 to 132	N56C to N280TC	1680	1990	390	160
		301 L1	7.20	160	7230	18.9	11.6	71 to 132	N56C to N280TC	1790	2130	420	160
		301 L1	9.00	128	5430	11.3	11.6	71 to 132	N56C to N280TC	1920	2280	450	160
		301 L2	12.1	95	9860	15.8	11.6	71 to 132	N56C to N280TC	2100	2490	500	160
		301 L2	14.8	78	10500	13.7	11.6	71 to 132	N56C to N280TC	2230	2650	530	160
301 L2		18.2	63	11100	11.9	11.6	71 to 132	N56C to N280TC	2370	2810	570	160	
301 L2		20.1	57	11000	10.7	11.6	71 to 132	N56C to N280TC	2440	2900	590	160	
301 L2		24.6	47	12100	9.5	11.6	71 to 132	N56C to N280TC	2590	3080	630	160	
301 L2		30.7	37	12500	7.9	11.6	71 to 132	N56C to N280TC	2770	3290	680	160	
301 L2		33.3	35	11500	6.7	11.6	71 to 132	N56C to N280TC	2840	3370	700	160	
301 L2		38.4	30.0	11900	6.0	11.6	71 to 132	N56C to N280TC	2960	3520	730	160	
301 L2		41.5	27.7	11500	5.4	11.6	71 to 132	N56C to N280TC	3040	3600	750	160	
301 L2		51.9	22.1	11500	4.3	11.6	71 to 132	N56C to N280TC	3250	3850	810	160	
301 L2		64.8	17.7	10200	3.0	11.6	71 to 132	N56C to N280TC	3470	4120	870	160	
301 L3		51.6	22.3	13400	5.2	11.6	71 to 132	N56C to N280TC	3240	3850	810	160	
301 L3		63.2	18.2	13800	4.4	11.6	71 to 132	N56C to N280TC	3440	4090	860	160	
301 L3		69.9	16.5	11500	3.3	11.6	71 to 132	N56C to N280TC	3550	4210	890	160	
301 L3		77.5	14.8	14200	3.7	11.6	71 to 132	N56C to N280TC	3660	4340	920	160	
301 L3		85.6	13.4	14400	3.4	11.6	71 to 132	N56C to N280TC	3770	4470	950	160	
301 L3		105	11.0	14800	2.8	11.6	71 to 132	N56C to N280TC	4010	4760	1020	160	
301 L3		116	9.9	11500	2.0	11.6	71 to 132	N56C to N280TC	4130	4900	1050	160	
301 L3		131	8.8	15100	2.3	11.6	71 to 132	N56C to N280TC	4280	5080	1100	160	
301 L3		142	8.1	15200	2.1	11.6	71 to 132	N56C to N280TC	4390	5210	1130	160	
301 L3		177	6.5	15300	1.7	11.6	71 to 132	N56C to N280TC	4690	5570	1210	160	
301 L3		192	6.0	11500	1.2	11.6	71 to 132	N56C to N280TC	4800	5700	1250	160	
301 L3		221	5.2	15500	1.4	11.6	71 to 132	N56C to N280TC	5010	5950	1310	160	
301 L3		240	4.8	11600	0.97	11.6	71 to 132	N56C to N280TC	5140	6090	1340	160	
301 L3		299	3.8	12000	0.80	11.6	71 to 132	N56C to N280TC	5490	6510	1450	160	
301 L3	374	3.1	12400	0.66	11.6	71 to 132	N56C to N280TC	5870	6960	1560	160		



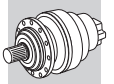
**3 L**

**301 L**

**17,700 in•lbs**





n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>1150</b>	301 L4	330	3.5	16600	1.0	9.3	71 to 132	N56C to N280TC	5650	6710	1500	160
	301 L4	403	2.9	12600	0.64	9.3	71 to 132	N56C to N280TC	6000	7120	1600	160
	301 L4	447	2.6	17600	0.81	9.3	71 to 132	N56C to N280TC	6190	7350	1650	160
	301 L4	494	2.3	17700	0.74	9.3	71 to 132	N56C to N280TC	6380	7570	1710	160
	301 L4	558	2.1	17700	0.65	9.3	71 to 132	N56C to N280TC	6620	7640	1780	160
	301 L4	616	1.9	17700	0.59	9.3	71 to 132	N56C to N280TC	6820	7640	1800	160
	301 L4	755	1.5	17700	0.48	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	819	1.4	17700	0.45	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	942	1.2	17700	0.39	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1022	1.1	17700	0.36	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1108	1.0	14900	0.28	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1275	0.90	17700	0.29	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1383	0.83	15000	0.22	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1591	0.72	17700	0.23	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1725	0.67	15000	0.18	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	2153	0.53	15000	0.14	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160
301 L4	2692	0.43	15000	0.12	9.3	71 to 132	N56C to N280TC	6970	7640	1800	160	
<b>870</b>	301 L1	3.48	250	7400	30	13.1	71 to 132	N56C to N280TC	1570	1860	360	160
	301 L1	4.26	204	7860	26	13.1	71 to 132	N56C to N280TC	1670	1980	380	160
	301 L1	5.77	151	8220	20	13.1	71 to 132	N56C to N280TC	1830	2170	430	160
	301 L1	7.20	121	7860	15.5	13.1	71 to 132	N56C to N280TC	1950	2320	460	160
	301 L1	9.00	97	5840	9.2	13.1	71 to 132	N56C to N280TC	2090	2480	490	160
	301 L2	12.1	72	10500	12.8	13.1	71 to 132	N56C to N280TC	2280	2710	550	160
	301 L2	14.8	59	11400	11.3	13.1	71 to 132	N56C to N280TC	2420	2880	580	160
	301 L2	18.2	48	12000	9.7	13.1	71 to 132	N56C to N280TC	2580	3060	620	160
	301 L2	20.1	43	11500	8.4	13.1	71 to 132	N56C to N280TC	2650	3150	650	160
	301 L2	24.6	35	12600	7.5	13.1	71 to 132	N56C to N280TC	2820	3350	690	160
	301 L2	30.7	28.3	13000	6.2	13.1	71 to 132	N56C to N280TC	3010	3580	740	160
	301 L2	33.3	26.1	11500	5.1	13.1	71 to 132	N56C to N280TC	3090	3670	760	160
	301 L2	38.4	22.7	12400	4.7	13.1	71 to 132	N56C to N280TC	3220	3820	800	160
	301 L2	41.5	20.9	11500	4.1	13.1	71 to 132	N56C to N280TC	3300	3920	820	160
	301 L2	51.9	16.8	11500	3.3	13.1	71 to 132	N56C to N280TC	3530	4190	890	160
	301 L2	64.8	13.4	10200	2.3	13.1	71 to 132	N56C to N280TC	3770	4480	950	160
	301 L3	51.6	16.9	14000	4.1	13.1	71 to 132	N56C to N280TC	3520	4180	880	160
	301 L3	63.2	13.8	14400	3.4	13.1	71 to 132	N56C to N280TC	3740	4440	950	160
	301 L3	69.9	12.5	11500	2.5	13.1	71 to 132	N56C to N280TC	3860	4580	980	160
	301 L3	77.5	11.2	14800	2.9	13.1	71 to 132	N56C to N280TC	3980	4720	1010	160
	301 L3	85.6	10.2	15000	2.7	13.1	71 to 132	N56C to N280TC	4100	4870	1050	160
	301 L3	105	8.3	15200	2.2	13.1	71 to 132	N56C to N280TC	4360	5170	1120	160
	301 L3	116	7.5	11500	1.5	13.1	71 to 132	N56C to N280TC	4490	5330	1160	160
	301 L3	131	6.6	15300	1.8	13.1	71 to 132	N56C to N280TC	4660	5530	1210	160
	301 L3	142	6.1	15400	1.6	13.1	71 to 132	N56C to N280TC	4770	5660	1240	160
	301 L3	177	4.9	15500	1.3	13.1	71 to 132	N56C to N280TC	5100	6050	1330	160
	301 L3	192	4.5	11700	0.92	13.1	71 to 132	N56C to N280TC	5220	6200	1370	160
	301 L3	221	3.9	16200	1.1	13.1	71 to 132	N56C to N280TC	5450	6470	1440	160
	301 L3	240	3.6	12100	0.76	13.1	71 to 132	N56C to N280TC	5580	6630	1470	160
	301 L3	299	2.9	12500	0.63	13.1	71 to 132	N56C to N280TC	5970	7080	1590	160
	301 L3	374	2.3	13000	0.53	13.1	71 to 132	N56C to N280TC	6380	7570	1710	160
	301 L4	330	2.6	17500	0.83	10.5	71 to 132	N56C to N280TC	6150	7300	1640	160
301 L4	403	2.2	13200	0.51	10.5	71 to 132	N56C to N280TC	6530	7640	1750	160	
301 L4	447	1.9	17700	0.62	10.5	71 to 132	N56C to N280TC	6730	7640	1800	160	
301 L4	494	1.8	17700	0.56	10.5	71 to 132	N56C to N280TC	6940	7640	1800	160	
301 L4	558	1.6	17700	0.49	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160	
301 L4	616	1.4	17700	0.45	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160	
301 L4	755	1.2	17700	0.37	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160	









**301 L**

**17,700 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	301 L4	819	1.1	17700	0.34	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	942	0.92	17700	0.29	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1022	0.85	17700	0.27	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1108	0.79	15000	0.21	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1275	0.68	17700	0.22	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1383	0.63	15000	0.17	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1591	0.55	17700	0.17	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	1725	0.50	15000	0.14	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	2153	0.40	15000	0.11	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160
	301 L4	2692	0.32	15000	0.09	10.5	71 to 132	N56C to N280TC	6970	7640	1800	160

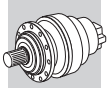
**303 L**

**25,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•bs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	303 L1	5.33	328	9990	54	13.3	132 to 200	N250TC to N280TC	2840	3670	990	168	
	303 L1	6.20	282	9080	42	13.3	132 to 200	N250TC to N280TC	2970	3840	1040	168	
	303 L1	7.50	233	10300	39	13.3	132 to 200	N250TC to N280TC	3150	4060	1100	168	
	303 L1	9.67	181	6370	18.9	13.3	132 to 200	N250TC to N280TC	3390	4380	1200	168	
303 L2	303 L2	12.5	140	11400	27	10.9	71 to 160	N56C to N280TC	3670	4740	1310	168	
	303 L2	15.3	114	12300	24	10.9	71 to 160	N56C to N280TC	3900	5040	1400	168	
	303 L2	18.1	97	14700	24	10.9	71 to 160	N56C to N280TC	4100	5290	1480	168	
	303 L2	20.8	84	13000	18.5	10.9	71 to 160	N56C to N280TC	4270	5510	1550	168	
	303 L2	22.7	77	16300	21	10.9	71 to 160	N56C to N280TC	4390	5670	1600	168	
	303 L2	24.5	71	15100	18.2	10.9	71 to 160	N56C to N280TC	4490	5800	1640	168	
	303 L2	26.4	66	14200	15.8	10.9	71 to 160	N56C to N280TC	4590	5930	1680	168	
	303 L2	30.8	57	17900	17.1	10.9	71 to 160	N56C to N280TC	4800	6200	1770	168	
	303 L2	35.8	49	15500	12.8	10.9	71 to 160	N56C to N280TC	5030	6490	1860	168	
	303 L2	38.4	46	17800	13.7	10.9	71 to 160	N56C to N280TC	5130	6630	1900	168	
	303 L2	44.6	39	15600	10.3	10.9	71 to 160	N56C to N280TC	5370	6940	2000	168	
	303 L2	55.8	31	15600	8.3	10.9	71 to 160	N56C to N280TC	5740	7420	2160	168	
	303 L3	303 L3	53.4	33	16600	9.4	9.1	71 to 160	N56C to N280TC	5670	7320	2120	168
		303 L3	63.1	27.8	20100	9.7	9.1	71 to 160	N56C to N280TC	5960	7690	2250	168
		303 L3	72.3	24.2	17600	7.4	9.1	71 to 160	N56C to N280TC	6210	8020	2350	168
		303 L3	77.2	22.7	20100	7.9	9.1	71 to 160	N56C to N280TC	6330	8180	2400	168
303 L3		90.2	19.4	17800	6.0	9.1	71 to 160	N56C to N280TC	6630	8570	2530	168	
303 L3		105	16.7	21200	6.2	9.1	71 to 160	N56C to N280TC	6930	8950	2660	168	
303 L3		113	15.5	15800	4.3	9.1	71 to 160	N56C to N280TC	7090	9160	2720	168	
303 L3		124	14.1	15800	3.9	9.1	71 to 160	N56C to N280TC	7310	9440	2820	168	
303 L3		141	12.4	22100	4.7	9.1	71 to 160	N56C to N280TC	7590	9810	2940	168	
303 L3		152	11.5	15900	3.2	9.1	71 to 160	N56C to N280TC	7770	10000	3010	168	
303 L3		164	10.7	19400	3.6	9.1	71 to 160	N56C to N280TC	7930	10200	3090	168	
303 L3		178	9.9	19500	3.3	9.1	71 to 160	N56C to N280TC	8130	10500	3170	168	
303 L3		190	9.2	15900	2.5	9.1	71 to 160	N56C to N280TC	8300	10700	3240	168	
303 L3		220	7.9	19900	2.7	9.1	71 to 160	N56C to N280TC	8670	11200	3410	168	
303 L3		258	6.8	15900	1.9	9.1	71 to 160	N56C to N280TC	9090	11700	3590	168	
303 L3		276	6.3	19500	2.1	9.1	71 to 160	N56C to N280TC	9280	12000	3670	168	









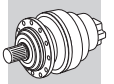


3 L

**303 L**





**25,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•bs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
1150	303 L4	413	2.8	21300	1.1	9.3	71 to 160	N56C to N280TC	11900	15300	4830	168
	303 L4	446	2.6	24300	1.1	9.3	71 to 160	N56C to N280TC	12200	15700	4960	168
	303 L4	492	2.3	23900	1.0	9.3	71 to 160	N56C to N280TC	12500	16200	5120	168
	303 L4	556	2.1	24600	0.91	9.3	71 to 160	N56C to N280TC	13000	16600	5340	168
	303 L4	649	1.8	19800	0.63	9.3	71 to 160	N56C to N280TC	13600	16600	5400	168
	303 L4	718	1.6	18900	0.54	9.3	71 to 160	N56C to N280TC	14000	16600	5400	168
	303 L4	816	1.4	24200	0.61	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	896	1.3	19600	0.45	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1018	1.1	24300	0.49	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1098	1.0	20200	0.38	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1278	0.90	25200	0.41	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1370	0.84	20400	0.31	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1586	0.72	19900	0.26	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1854	0.62	20400	0.23	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1991	0.58	25200	0.26	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	2243	0.51	17700	0.16	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168
303 L4	2799	0.41	17700	0.13	9.3	71 to 160	N56C to N280TC	14400	16600	5400	168	
870	303 L1	3.60	242	11900	47	19.2	132 to 200	N250TC to N280TC	3110	4020	1090	168
	303 L1	4.25	205	12500	42	19.2	132 to 200	N250TC to N280TC	3270	4230	1150	168
	303 L1	5.33	163	13000	35	19.2	132 to 200	N250TC to N280TC	3500	4520	1240	168
	303 L1	6.20	140	11200	26	19.2	132 to 200	N250TC to N280TC	3660	4730	1310	168
	303 L1	7.50	116	12700	24	19.2	132 to 200	N250TC to N280TC	3880	5010	1390	168
	303 L1	9.67	90	7610	11.2	19.2	132 to 200	N250TC to N280TC	4190	5410	1520	168
	303 L2	12.5	69	14800	17.4	15.7	71 to 160	N56C to N280TC	4530	5840	1650	168
	303 L2	15.3	57	15300	14.6	15.7	71 to 160	N56C to N280TC	4810	6210	1770	168
	303 L2	18.1	48	17800	14.4	15.7	71 to 160	N56C to N280TC	5060	6530	1870	168
	303 L2	20.8	42	15400	10.9	15.7	71 to 160	N56C to N280TC	5270	6800	1960	168
	303 L2	22.7	38	18700	12.1	15.7	71 to 160	N56C to N280TC	5410	6990	2020	168
	303 L2	24.5	35	18000	10.8	15.7	71 to 160	N56C to N280TC	5540	7150	2070	168
	303 L2	26.4	33	15600	8.7	15.7	71 to 160	N56C to N280TC	5660	7310	2120	168
	303 L2	30.8	28.3	18900	9.0	15.7	71 to 160	N56C to N280TC	5930	7650	2230	168
	303 L2	35.8	24.3	15700	6.4	15.7	71 to 160	N56C to N280TC	6200	8010	2350	168
	303 L2	38.4	22.7	18600	7.1	15.7	71 to 160	N56C to N280TC	6330	8180	2400	168
	303 L2	44.6	19.5	15700	5.2	15.7	71 to 160	N56C to N280TC	6630	8560	2530	168
	303 L2	55.8	15.6	15800	4.2	15.7	71 to 160	N56C to N280TC	7080	9150	2720	168
	303 L3	53.4	16.3	17700	5.0	13.1	71 to 160	N56C to N280TC	6990	9030	2680	168
	303 L3	63.1	13.8	22000	5.3	13.1	71 to 160	N56C to N280TC	7350	9490	2830	168
	303 L3	72.3	12.0	18400	3.8	13.1	71 to 160	N56C to N280TC	7660	9890	2970	168
	303 L3	77.2	11.3	22600	4.4	13.1	71 to 160	N56C to N280TC	7810	10100	3030	168
	303 L3	90.2	9.6	18600	3.1	13.1	71 to 160	N56C to N280TC	8180	10600	3190	168
	303 L3	105	8.3	23100	3.3	13.1	71 to 160	N56C to N280TC	8550	11000	3350	168
	303 L3	113	7.7	15900	2.1	13.1	71 to 160	N56C to N280TC	8750	11300	3440	168
	303 L3	124	7.0	15900	1.9	13.1	71 to 160	N56C to N280TC	9010	11600	3560	168
	303 L3	141	6.2	23300	2.5	13.1	71 to 160	N56C to N280TC	9360	12100	3710	168
	303 L3	152	5.7	15900	1.6	13.1	71 to 160	N56C to N280TC	9580	12400	3800	168
	303 L3	164	5.3	19500	1.8	13.1	71 to 160	N56C to N280TC	9780	12600	3900	168
	303 L3	178	4.9	19500	1.7	13.1	71 to 160	N56C to N280TC	10000	12900	4000	168
	303 L3	190	4.6	16100	1.3	13.1	71 to 160	N56C to N280TC	10200	13200	4100	168
	303 L3	220	3.9	19800	1.4	13.1	71 to 160	N56C to N280TC	10700	13800	4300	168
	303 L3	258	3.4	16900	0.99	13.1	71 to 160	N56C to N280TC	11200	14500	4530	168
	303 L3	276	3.1	20900	1.1	13.1	71 to 160	N56C to N280TC	11400	14800	4640	168
	303 L3	321	2.7	17500	0.82	13.1	71 to 160	N56C to N280TC	12000	15500	4880	168
	303 L3	389	2.2	15700	0.61	13.1	71 to 160	N56C to N280TC	12700	16400	5200	168
	303 L3	402	2.2	18100	0.68	13.1	71 to 160	N56C to N280TC	12800	16500	5250	168
	303 L4	413	2.1	22300	0.84	10.5	71 to 160	N56C to N280TC	12900	16600	5300	168







**303 L**

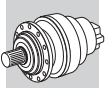
**25,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	303 L4	446	2.0	24700	0.86	10.5	71 to 160	N56C to N280TC	13200	16600	5400	168
	303 L4	492	1.8	24100	0.76	10.5	71 to 160	N56C to N280TC	13600	16600	5400	168
	303 L4	556	1.6	25000	0.70	10.5	71 to 160	N56C to N280TC	14100	16600	5400	168
	303 L4	649	1.3	20100	0.48	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	718	1.2	19800	0.43	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	816	1.1	24300	0.46	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	896	0.97	20400	0.35	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1018	0.85	24300	0.37	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1098	0.79	20400	0.29	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1278	0.68	25200	0.31	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1370	0.63	20400	0.23	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1586	0.55	19900	0.20	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1854	0.47	20400	0.17	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	1991	0.44	25200	0.20	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	2243	0.39	17700	0.12	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168
	303 L4	2799	0.31	17700	0.10	10.5	71 to 160	N56C to N280TC	14400	16600	5400	168

**304 L**

**32,000 in•lbs**





n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	304 L1	5.33	328	12500	67	14.5	132 to 200	N250TC to N280TC	2840	3670	990	176
	304 L1	6.57	266	14400	63	14.5	132 to 200	N250TC to N280TC	3020	3900	1060	176
	304 L2	12.5	140	17100	40	10.9	71 to 160	N56C to N280TC	3670	4740	1310	176
	304 L2	15.3	114	20900	40	10.9	71 to 160	N56C to N280TC	3900	5040	1400	176
	304 L2	18.1	97	22400	36	10.9	71 to 160	N56C to N280TC	4100	5290	1480	176
	304 L2	20.8	84	23600	34	10.9	71 to 160	N56C to N280TC	4270	5510	1550	176
	304 L2	22.7	77	22500	29	10.9	71 to 160	N56C to N280TC	4390	5670	1600	176
	304 L2	24.5	71	24500	29	10.9	71 to 160	N56C to N280TC	4490	5800	1640	176
	304 L2	30.8	57	23800	23	10.9	71 to 160	N56C to N280TC	4800	6200	1770	176
	304 L2	38.4	46	24400	18.7	10.9	71 to 160	N56C to N280TC	5130	6630	1900	176
	304 L2	47.3	37	20300	12.6	10.9	71 to 160	N56C to N280TC	5470	7060	2040	176
	304 L2	59.1	29.6	20300	10.1	10.9	71 to 160	N56C to N280TC	5850	7550	2200	176
	304 L3	43.6	40	28000	19.5	9.1	71 to 160	N56C to N280TC	5330	6890	1990	176
	304 L3	53.4	33	28300	16.1	9.1	71 to 160	N56C to N280TC	5670	7320	2120	176
	304 L3	63.1	27.8	28600	13.8	9.1	71 to 160	N56C to N280TC	5960	7690	2250	176
	304 L3	72.3	24.2	28900	12.1	9.1	71 to 160	N56C to N280TC	6210	8020	2350	176
	304 L3	77.2	22.7	29100	11.5	9.1	71 to 160	N56C to N280TC	6330	8180	2400	176
	304 L3	90.2	19.4	28100	9.5	9.1	71 to 160	N56C to N280TC	6630	8570	2530	176
	304 L3	105	16.7	29900	8.7	9.1	71 to 160	N56C to N280TC	6930	8950	2660	176
	304 L3	111	15.8	29600	8.2	9.1	71 to 160	N56C to N280TC	7050	9110	2710	176
	304 L3	130	13.4	30500	7.1	9.1	71 to 160	N56C to N280TC	7410	9570	2860	176
	304 L3	141	12.4	30700	6.6	9.1	71 to 160	N56C to N280TC	7590	9810	2940	176
	304 L3	150	11.7	30200	6.1	9.1	71 to 160	N56C to N280TC	7720	9970	2990	176
	304 L3	165	10.6	20300	3.7	9.1	71 to 160	N56C to N280TC	7950	10300	3090	176
	304 L3	178	9.9	24800	4.2	9.1	71 to 160	N56C to N280TC	8130	10500	3170	176
	304 L3	202	8.7	20300	3.1	9.1	71 to 160	N56C to N280TC	8450	10900	3310	176

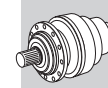


# 304 L

## 304 L

## 32,000 in·lbs

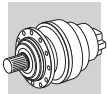
$n_1$ drive speed rpm		i gear ratio 1:	$n_2$ output speed rpm	$T_{n2}$ rated torque in·lbs	$P_{n1}$ rated power HP	$P_t$ thermal capacity HP	 IEC IEC input	 NEMA NEMA input	$R_{n2}$ [lbs] Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	304 L3	220	7.9	31700	4.4	9.1	71 to 160	N56C to N280TC	8670	11200	3410	176	
	304 L3	273	6.4	20300	2.3	9.1	71 to 160	N56C to N280TC	9250	11900	3660	176	
	304 L3	341	5.1	20300	1.8	9.1	71 to 160	N56C to N280TC	9890	12800	3940	176	
	304 L3	426	4.1	20500	1.5	9.1	71 to 160	N56C to N280TC	10600	13600	4240	176	
	304 L4	413	4.2	25400	1.9	7.2	71 to 160	N56C to N280TC	10500	13500	4200	176	
	304 L4	446	3.9	32500	2.3	7.2	71 to 160	N56C to N280TC	10700	13800	4310	176	
	304 L4	492	3.6	32600	2.1	7.2	71 to 160	N56C to N280TC	11000	14300	4450	176	
	304 L4	556	3.1	32700	1.8	7.2	71 to 160	N56C to N280TC	11400	14800	4640	176	
	304 L4	649	2.7	31100	1.5	7.2	71 to 160	N56C to N280TC	12000	15500	4890	176	
	304 L4	702	2.5	21300	0.95	7.2	71 to 160	N56C to N280TC	12300	15900	5010	176	
	304 L4	816	2.1	33200	1.3	7.2	71 to 160	N56C to N280TC	12800	16600	5270	176	
	304 L4	1018	1.7	33700	1.0	7.2	71 to 160	N56C to N280TC	13700	16600	5400	176	
	304 L4	1164	1.5	22900	0.62	7.2	71 to 160	N56C to N280TC	14300	16600	5400	176	
	304 L4	1271	1.4	34300	0.85	7.2	71 to 160	N56C to N280TC	14400	16600	5400	176	
	304 L4	1344	1.3	32300	0.75	7.2	71 to 160	N56C to N280TC	14400	16600	5400	176	
	304 L4	1586	1.1	34800	0.69	7.2	71 to 160	N56C to N280TC	14400	16600	5400	176	
	304 L4	1815	0.96	24300	0.42	7.2	71 to 160	N56C to N280TC	14400	16600	5400	176	
	304 L4	1991	0.88	31000	0.49	7.2	71 to 160	N56C to N280TC	14400	16600	5400	176	
	304 L4	2269	0.77	24300	0.34	7.2	71 to 160	N56C to N280TC	14400	16600	5400	176	
	304 L4	2453	0.71	24300	0.31	7.2	71 to 160	N56C to N280TC	14400	16600	5400	176	
	<b>1450</b>	304 L1	4.25	341	12000	67	16.1	132 to 200	N250TC to N280TC	2810	3620	970	176
		304 L1	5.33	272	15100	67	16.1	132 to 200	N250TC to N280TC	3000	3880	1050	176
		304 L1	6.57	221	15200	55	16.1	132 to 200	N250TC to N280TC	3200	4130	1120	176
		304 L2	12.5	116	20600	40	12.1	71 to 160	N56C to N280TC	3880	5010	1390	176
		304 L2	15.3	94	22800	36	12.1	71 to 160	N56C to N280TC	4130	5330	1490	176
		304 L2	18.1	80	23600	32	12.1	71 to 160	N56C to N280TC	4340	5600	1580	176
		304 L2	20.8	70	25000	29	12.1	71 to 160	N56C to N280TC	4520	5830	1650	176
		304 L2	22.7	64	23300	25	12.1	71 to 160	N56C to N280TC	4640	6000	1700	176
		304 L2	24.5	59	25900	26	12.1	71 to 160	N56C to N280TC	4750	6130	1740	176
		304 L2	30.8	47	24400	19.4	12.1	71 to 160	N56C to N280TC	5080	6560	1880	176
		304 L2	38.4	38	24400	15.5	12.1	71 to 160	N56C to N280TC	5430	7020	2030	176
		304 L2	47.3	31	20300	10.5	12.1	71 to 160	N56C to N280TC	5780	7470	2170	176
		304 L2	59.1	24.5	20300	8.4	12.1	71 to 160	N56C to N280TC	6180	7990	2340	176
		304 L3	43.6	33	28300	16.4	10.1	71 to 160	N56C to N280TC	5640	7290	2110	176
304 L3		53.4	27.1	28700	13.5	10.1	71 to 160	N56C to N280TC	6000	7750	2260	176	
304 L3		63.1	23.0	29100	11.6	10.1	71 to 160	N56C to N280TC	6300	8140	2390	176	
304 L3		72.3	20.1	29200	10.2	10.1	71 to 160	N56C to N280TC	6570	8480	2500	176	
304 L3		77.2	18.8	29600	9.7	10.1	71 to 160	N56C to N280TC	6700	8650	2560	176	
304 L3		90.2	16.1	28800	8.0	10.1	71 to 160	N56C to N280TC	7020	9060	2690	176	
304 L3		105	13.9	30400	7.3	10.1	71 to 160	N56C to N280TC	7340	9470	2830	176	
304 L3		111	13.1	29900	6.8	10.1	71 to 160	N56C to N280TC	7460	9630	2880	176	
304 L3		130	11.1	31000	6.0	10.1	71 to 160	N56C to N280TC	7840	10100	3050	176	
304 L3		141	10.3	31300	5.6	10.1	71 to 160	N56C to N280TC	8030	10400	3130	176	
304 L3		150	9.7	30500	5.1	10.1	71 to 160	N56C to N280TC	8170	10500	3190	176	
304 L3		165	8.8	20300	3.1	10.1	71 to 160	N56C to N280TC	8410	10900	3290	176	
304 L3		178	8.2	24800	3.5	10.1	71 to 160	N56C to N280TC	8600	11100	3380	176	
304 L3		202	7.2	20300	2.5	10.1	71 to 160	N56C to N280TC	8940	11500	3520	176	
304 L3		220	6.6	31900	3.7	10.1	71 to 160	N56C to N280TC	9180	11800	3630	176	
304 L3		273	5.3	20300	1.9	10.1	71 to 160	N56C to N280TC	9790	12600	3900	176	
304 L3		341	4.2	20500	1.5	10.1	71 to 160	N56C to N280TC	10500	13500	4200	176	
304 L3		426	3.4	20800	1.2	10.1	71 to 160	N56C to N280TC	11200	14400	4520	176	
304 L4		413	3.5	26000	1.6	8.0	71 to 160	N56C to N280TC	11100	14300	4470	176	
304 L4		446	3.3	32600	1.9	8.0	71 to 160	N56C to N280TC	11300	14600	4590	176	
304 L4		492	2.9	32700	1.7	8.0	71 to 160	N56C to N280TC	11700	15100	4740	176	



## 304 L

## 32,000 in·lbs

n <sub>1</sub> drive speed  rpm		i gear ratio  1:	n <sub>2</sub> output speed  rpm	Tn <sub>2</sub> rated torque  in·lbs	Pn <sub>1</sub> rated power  HP	P <sub>t</sub> thermal capacity  HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1450</b>	304 L4	556	2.6	32800	1.5	8.0	71 to 160	N56C to N280TC	12100	15600	4940	176
	304 L4	649	2.2	31400	1.3	8.0	71 to 160	N56C to N280TC	12700	16400	5200	176
	304 L4	702	2.1	21900	0.81	8.0	71 to 160	N56C to N280TC	13000	16600	5340	176
	304 L4	816	1.8	33600	1.1	8.0	71 to 160	N56C to N280TC	13600	16600	5400	176
	304 L4	1018	1.4	34200	0.87	8.0	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	1164	1.2	23600	0.53	8.0	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	1271	1.1	34700	0.71	8.0	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	1344	1.1	32700	0.63	8.0	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	1586	0.91	35000	0.57	8.0	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	1815	0.80	24300	0.35	8.0	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	1991	0.73	31000	0.40	8.0	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	2269	0.64	24300	0.28	8.0	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	2453	0.59	24300	0.26	8.0	71 to 160	N56C to N280TC	14400	16600	5400	176
	<b>1150</b>	304 L1	3.60	319	12800	67	18.5	132 to 200	N250TC to N280TC	2860	3700	990
304 L1		4.25	271	15100	67	18.5	132 to 200	N250TC to N280TC	3010	3890	1050	176
304 L1		5.33	216	17100	60	18.5	132 to 200	N250TC to N280TC	3220	4160	1130	176
304 L1		6.57	175	16300	47	18.5	132 to 200	N250TC to N280TC	3430	4430	1220	176
304 L2		12.5	92	23000	36	13.9	71 to 160	N56C to N280TC	4160	5370	1510	176
304 L2		15.3	75	24400	31	13.9	71 to 160	N56C to N280TC	4420	5710	1610	176
304 L2		18.1	63	25300	27	13.9	71 to 160	N56C to N280TC	4650	6000	1700	176
304 L2		20.8	55	26800	25	13.9	71 to 160	N56C to N280TC	4840	6250	1780	176
304 L2		22.7	51	24300	21	13.9	71 to 160	N56C to N280TC	4980	6430	1840	176
304 L2		24.5	47	27300	22	13.9	71 to 160	N56C to N280TC	5090	6570	1880	176
304 L2		30.8	37	24400	15.4	13.9	71 to 160	N56C to N280TC	5450	7040	2030	176
304 L2		38.4	29.9	24500	12.4	13.9	71 to 160	N56C to N280TC	5820	7520	2190	176
304 L2		47.3	24.3	20300	8.3	13.9	71 to 160	N56C to N280TC	6200	8010	2350	176
304 L2		59.1	19.4	20300	6.6	13.9	71 to 160	N56C to N280TC	6630	8560	2530	176
304 L3		43.6	26.4	28700	13.2	11.6	71 to 160	N56C to N280TC	6050	7810	2280	176
304 L3		53.4	21.5	29100	10.9	11.6	71 to 160	N56C to N280TC	6430	8300	2440	176
304 L3		63.1	18.2	29700	9.4	11.6	71 to 160	N56C to N280TC	6760	8730	2580	176
304 L3		72.3	15.9	29600	8.2	11.6	71 to 160	N56C to N280TC	7040	9090	2700	176
304 L3		77.2	14.9	30200	7.8	11.6	71 to 160	N56C to N280TC	7180	9280	2760	176
304 L3		90.2	12.7	29600	6.6	11.6	71 to 160	N56C to N280TC	7520	9720	2910	176
304 L3		105	11.0	31100	5.9	11.6	71 to 160	N56C to N280TC	7870	10200	3060	176
304 L3		111	10.4	30400	5.5	11.6	71 to 160	N56C to N280TC	8000	10300	3110	176
304 L3		130	8.8	31500	4.8	11.6	71 to 160	N56C to N280TC	8410	10900	3290	176
304 L3		141	8.1	31600	4.5	11.6	71 to 160	N56C to N280TC	8610	11100	3380	176
304 L3		150	7.7	30600	4.1	11.6	71 to 160	N56C to N280TC	8760	11300	3440	176
304 L3		165	7.0	20300	2.5	11.6	71 to 160	N56C to N280TC	9010	11600	3560	176
304 L3		178	6.5	24800	2.8	11.6	71 to 160	N56C to N280TC	9220	11900	3650	176
304 L3		202	5.7	20300	2.0	11.6	71 to 160	N56C to N280TC	9580	12400	3810	176
304 L3		220	5.2	32200	2.9	11.6	71 to 160	N56C to N280TC	9840	12700	3920	176
304 L3		273	4.2	20500	1.5	11.6	71 to 160	N56C to N280TC	10500	13500	4210	176
304 L3		341	3.4	20800	1.2	11.6	71 to 160	N56C to N280TC	11200	14500	4530	176
304 L3		426	2.7	21100	0.99	11.6	71 to 160	N56C to N280TC	12000	15500	4880	176
304 L4		413	2.8	26900	1.3	9.3	71 to 160	N56C to N280TC	11900	15300	4830	176
304 L4		446	2.6	32800	1.5	9.3	71 to 160	N56C to N280TC	12200	15700	4960	176
304 L4		492	2.3	33000	1.4	9.3	71 to 160	N56C to N280TC	12500	16200	5120	176
304 L4		556	2.1	33300	1.2	9.3	71 to 160	N56C to N280TC	13000	16600	5340	176
304 L4		649	1.8	31800	1.0	9.3	71 to 160	N56C to N280TC	13600	16600	5400	176
304 L4		702	1.6	22600	0.66	9.3	71 to 160	N56C to N280TC	13900	16600	5400	176
304 L4		816	1.4	34200	0.86	9.3	71 to 160	N56C to N280TC	14400	16600	5400	176
304 L4		1018	1.1	34700	0.70	9.3	71 to 160	N56C to N280TC	14400	16600	5400	176
304 L4		1164	0.99	24300	0.43	9.3	71 to 160	N56C to N280TC	14400	16600	5400	176
304 L4		1271	0.90	35000	0.57	9.3	71 to 160	N56C to N280TC	14400	16600	5400	176



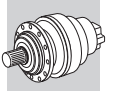
**3 L**





**304 L**

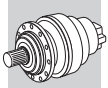
**32,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>1150</b>	304 L4	<b>1344</b>	0.86	32800	0.50	9.3	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	<b>1586</b>	0.72	35000	0.46	9.3	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	<b>1815</b>	0.63	24300	0.28	9.3	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	<b>1991</b>	0.58	31000	0.32	9.3	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	<b>2269</b>	0.51	24300	0.22	9.3	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	<b>2453</b>	0.47	24300	0.20	9.3	71 to 160	N56C to N280TC	14400	16600	5400	176
<b>870</b>	304 L1	<b>3.60</b>	242	17000	67	20.9	132 to 200	N250TC to N280TC	3110	4020	1090	176
	304 L1	<b>4.25</b>	205	17800	60	20.9	132 to 200	N250TC to N280TC	3270	4230	1150	176
	304 L1	<b>5.33</b>	163	18600	50	20.9	132 to 200	N250TC to N280TC	3500	4520	1240	176
	304 L1	<b>6.57</b>	132	17700	38	20.9	132 to 200	N250TC to N280TC	3730	4820	1330	176
	304 L2	<b>12.5</b>	69	25000	29	15.7	71 to 160	N56C to N280TC	4530	5840	1650	176
	304 L2	<b>15.3</b>	57	26600	25	15.7	71 to 160	N56C to N280TC	4810	6210	1770	176
	304 L2	<b>18.1</b>	48	27300	22	15.7	71 to 160	N56C to N280TC	5060	6530	1870	176
	304 L2	<b>20.8</b>	42	27900	19.7	15.7	71 to 160	N56C to N280TC	5270	6800	1960	176
	304 L2	<b>22.7</b>	38	24400	15.8	15.7	71 to 160	N56C to N280TC	5410	6990	2020	176
	304 L2	<b>24.5</b>	35	28000	16.8	15.7	71 to 160	N56C to N280TC	5540	7150	2070	176
	304 L2	<b>30.8</b>	28.3	24500	11.7	15.7	71 to 160	N56C to N280TC	5930	7650	2230	176
	304 L2	<b>38.4</b>	22.7	24600	9.4	15.7	71 to 160	N56C to N280TC	6330	8180	2400	176
	304 L2	<b>47.3</b>	18.4	20300	6.3	15.7	71 to 160	N56C to N280TC	6740	8710	2580	176
	304 L2	<b>59.1</b>	14.7	20300	5.0	15.7	71 to 160	N56C to N280TC	7210	9310	2770	176
	304 L3	<b>43.6</b>	20.0	29200	10.1	13.1	71 to 160	N56C to N280TC	6580	8500	2510	176
	304 L3	<b>53.4</b>	16.3	29600	8.4	13.1	71 to 160	N56C to N280TC	6990	9030	2680	176
	304 L3	<b>63.1</b>	13.8	30500	7.3	13.1	71 to 160	N56C to N280TC	7350	9490	2830	176
	304 L3	<b>72.3</b>	12.0	30100	6.3	13.1	71 to 160	N56C to N280TC	7660	9890	2970	176
	304 L3	<b>77.2</b>	11.3	31000	6.1	13.1	71 to 160	N56C to N280TC	7810	10100	3030	176
	304 L3	<b>90.2</b>	9.6	30500	5.1	13.1	71 to 160	N56C to N280TC	8180	10600	3190	176
	304 L3	<b>105</b>	8.3	31600	4.6	13.1	71 to 160	N56C to N280TC	8550	11000	3350	176
	304 L3	<b>111</b>	7.9	30600	4.2	13.1	71 to 160	N56C to N280TC	8700	11200	3420	176
	304 L3	<b>130</b>	6.7	31900	3.7	13.1	71 to 160	N56C to N280TC	9140	11800	3610	176
	304 L3	<b>141</b>	6.2	32000	3.4	13.1	71 to 160	N56C to N280TC	9360	12100	3710	176
	304 L3	<b>150</b>	5.8	30900	3.1	13.1	71 to 160	N56C to N280TC	9520	12300	3780	176
	304 L3	<b>165</b>	5.3	20300	1.9	13.1	71 to 160	N56C to N280TC	9800	12700	3900	176
	304 L3	<b>178</b>	4.9	24900	2.1	13.1	71 to 160	N56C to N280TC	10000	12900	4000	176
	304 L3	<b>202</b>	4.3	20500	1.5	13.1	71 to 160	N56C to N280TC	10400	13500	4180	176
	304 L3	<b>220</b>	3.9	32500	2.2	13.1	71 to 160	N56C to N280TC	10700	13800	4300	176
	304 L3	<b>273</b>	3.2	20900	1.2	13.1	71 to 160	N56C to N280TC	11400	14700	4620	176
	304 L3	<b>341</b>	2.5	21200	0.94	13.1	71 to 160	N56C to N280TC	12200	15700	4980	176
	304 L3	<b>426</b>	2.0	21900	0.78	13.1	71 to 160	N56C to N280TC	13000	16600	5360	176
	304 L4	<b>413</b>	2.1	27900	1.1	10.5	71 to 160	N56C to N280TC	12900	16600	5300	176
	304 L4	<b>446</b>	2.0	33400	1.2	10.5	71 to 160	N56C to N280TC	13200	16600	5400	176
	304 L4	<b>492</b>	1.8	33700	1.1	10.5	71 to 160	N56C to N280TC	13600	16600	5400	176
	304 L4	<b>556</b>	1.6	34000	0.95	10.5	71 to 160	N56C to N280TC	14100	16600	5400	176
	304 L4	<b>649</b>	1.3	32300	0.78	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	<b>702</b>	1.2	23600	0.52	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	<b>816</b>	1.1	34900	0.67	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	<b>1018</b>	0.85	35000	0.54	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176
	304 L4	<b>1164</b>	0.75	24300	0.33	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176
304 L4	<b>1271</b>	0.68	35000	0.43	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176	
304 L4	<b>1344</b>	0.65	32800	0.38	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176	
304 L4	<b>1586</b>	0.55	35000	0.34	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176	
304 L4	<b>1815</b>	0.48	24300	0.21	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176	
304 L4	<b>1991</b>	0.44	31000	0.24	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176	
304 L4	<b>2269</b>	0.38	24300	0.17	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176	
304 L4	<b>2453</b>	0.35	24300	0.15	10.5	71 to 160	N56C to N280TC	14400	16600	5400	176	





<b>305 L</b>														<b>49,000 in•lbs</b>			
$n_1$ drive speed rpm		$i$ gear ratio 1:	$n_2$ output speed rpm	$T_{n_2}$ rated torque in•lbs	$P_{n_1}$ rated power HP	$P_t$ thermal capacity HP			$Rn_2$ [lbs]								
									Permissible overhung loads				NHC NPC	HZ PZ	FZ		
<b>1750</b>	305 L1	5.33	328	15000	80	15.7	132 to 200	N250TC to N280TC	2840	3670	990	184					
	305 L1	6.20	282	17400	80	15.7	132 to 200	N250TC to N280TC	2970	3840	1040	184					
	305 L1	7.50	233	16500	63	15.7	132 to 200	N250TC to N280TC	3150	4060	1100	184					
	305 L2	12.5	140	17100	40	10.9	71 to 160	N56C to N280TC	3670	4740	1310	184					
	305 L2	15.3	114	20900	40	10.9	71 to 160	N56C to N280TC	3900	5040	1400	184					
	305 L2	18.1	97	24700	40	10.9	71 to 160	N56C to N280TC	4100	5290	1480	184					
	305 L2	20.8	84	23300	33	10.9	71 to 160	N56C to N280TC	4270	5510	1550	184					
	305 L2	22.7	77	28100	37	10.9	71 to 160	N56C to N280TC	4390	5670	1600	184					
	305 L2	24.5	71	27400	33	10.9	71 to 160	N56C to N280TC	4490	5800	1640	184					
	305 L2	26.4	66	28900	32	10.9	71 to 160	N56C to N280TC	4590	5930	1680	184					
	305 L2	30.8	57	30700	29	10.9	71 to 160	N56C to N280TC	4800	6200	1770	184					
	305 L2	35.8	49	31400	26	10.9	71 to 160	N56C to N280TC	5030	6490	1860	184					
	305 L2	38.4	46	32200	25	10.9	71 to 160	N56C to N280TC	5130	6630	1900	184					
	305 L2	44.6	39	31500	21	10.9	71 to 160	N56C to N280TC	5370	6940	2000	184					
	305 L2	55.8	31	27300	14.5	10.9	71 to 160	N56C to N280TC	5740	7420	2160	184					
	305 L3	53.4	33	30800	17.5	9.1	71 to 160	N56C to N280TC	5670	7320	2120	184					
	305 L3	63.1	27.8	36800	17.7	9.1	71 to 160	N56C to N280TC	5960	7690	2250	184					
	305 L3	72.3	24.2	32300	13.6	9.1	71 to 160	N56C to N280TC	6210	8020	2350	184					
	305 L3	77.2	22.7	38400	15.1	9.1	71 to 160	N56C to N280TC	6330	8180	2400	184					
	305 L3	90.2	19.4	33400	11.3	9.1	71 to 160	N56C to N280TC	6630	8570	2530	184					
	305 L3	105	16.7	41100	12.0	9.1	71 to 160	N56C to N280TC	6930	8950	2660	184					
	305 L3	113	15.5	31700	8.6	9.1	71 to 160	N56C to N280TC	7090	9160	2720	184					
	305 L3	124	14.1	31800	7.8	9.1	71 to 160	N56C to N280TC	7310	9440	2820	184					
	305 L3	141	12.4	43600	9.4	9.1	71 to 160	N56C to N280TC	7590	9810	2940	184					
	305 L3	152	11.5	31800	6.3	9.1	71 to 160	N56C to N280TC	7770	10000	3010	184					
	305 L3	164	10.7	38600	7.2	9.1	71 to 160	N56C to N280TC	7930	10200	3090	184					
	305 L3	178	9.9	38900	6.7	9.1	71 to 160	N56C to N280TC	8130	10500	3170	184					
	305 L3	190	9.2	31900	5.1	9.1	71 to 160	N56C to N280TC	8300	10700	3240	184					
	305 L3	220	7.9	42000	5.8	9.1	71 to 160	N56C to N280TC	8670	11200	3410	184					
	305 L3	258	6.8	31900	3.8	9.1	71 to 160	N56C to N280TC	9090	11700	3590	184					
	305 L3	276	6.3	38900	4.3	9.1	71 to 160	N56C to N280TC	9280	12000	3670	184					
	305 L3	321	5.4	31900	3.0	9.1	71 to 160	N56C to N280TC	9710	12500	3860	184					
	305 L3	389	4.5	27700	2.2	9.1	71 to 160	N56C to N280TC	10300	13300	4120	184					
	305 L3	402	4.4	32500	2.5	7.2	71 to 160	N56C to N280TC	10400	13400	4160	184					
	305 L4	413	4.2	40000	3.0	7.2	71 to 160	N56C to N280TC	10500	13500	4200	184					
	305 L4	446	3.9	47500	3.3	7.2	71 to 160	N56C to N280TC	10700	13800	4310	184					
	305 L4	492	3.6	47100	3.0	7.2	71 to 160	N56C to N280TC	11000	14300	4450	184					
	305 L4	556	3.1	48100	2.7	7.2	71 to 160	N56C to N280TC	11400	14800	4640	184					
	305 L4	649	2.7	39200	1.9	7.2	71 to 160	N56C to N280TC	12000	15500	4890	184					
	305 L4	718	2.4	35100	1.5	7.2	71 to 160	N56C to N280TC	12400	16000	5050	184					
	305 L4	816	2.1	47600	1.8	7.2	71 to 160	N56C to N280TC	12800	16600	5270	184					
	305 L4	896	2.0	36400	1.3	7.2	71 to 160	N56C to N280TC	13200	16600	5400	184					
	305 L4	1018	1.7	47900	1.5	7.2	71 to 160	N56C to N280TC	13700	16600	5400	184					
	305 L4	1098	1.6	37700	1.1	7.2	71 to 160	N56C to N280TC	14000	16600	5400	184					
	305 L4	1278	1.4	47300	1.2	7.2	71 to 160	N56C to N280TC	14400	16600	5400	184					
305 L4	1370	1.3	39100	0.89	7.2	71 to 160	N56C to N280TC	14400	16600	5400	184						
305 L4	1586	1.1	42000	0.83	7.2	71 to 160	N56C to N280TC	14400	16600	5400	184						
305 L4	1854	0.94	40700	0.69	7.2	71 to 160	N56C to N280TC	14400	16600	5400	184						
305 L4	1991	0.88	49600	0.78	7.2	71 to 160	N56C to N280TC	14400	16600	5400	184						
305 L4	2243	0.78	33600	0.47	7.2	71 to 160	N56C to N280TC	14400	16600	5400	184						
305 L4	2799	0.63	33600	0.38	7.2	71 to 160	N56C to N280TC	14400	16600	5400	184						
<b>1450</b>	305 L1	4.25	341	14400	80	17.4	132 to 200	N250TC to N280TC	2810	3620	970	184					
	305 L1	5.33	272	18100	80	17.4	132 to 200	N250TC to N280TC	3000	3880	1050	184					
	305 L1	6.20	234	19900	76	17.4	132 to 200	N250TC to N280TC	3140	4060	1100	184					
	305 L1	7.50	193	17400	55	17.4	132 to 200	N250TC to N280TC	3330	4300	1180	184					



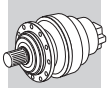
3 L

**305 L**

**49,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	IEC IEC input	NEMA NEMA input	R <sub>n2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>1450</b>	305 L2	12.5	116	20600	40	12.1	71 to 160	N56C to N280TC	3880	5010	1390	184
	305 L2	15.3	94	23900	38	12.1	71 to 160	N56C to N280TC	4130	5330	1490	184
	305 L2	18.1	80	28000	38	12.1	71 to 160	N56C to N280TC	4340	5600	1580	184
	305 L2	20.8	70	24700	29	12.1	71 to 160	N56C to N280TC	4520	5830	1650	184
	305 L2	22.7	64	29700	32	12.1	71 to 160	N56C to N280TC	4640	6000	1700	184
	305 L2	24.5	59	29000	29	12.1	71 to 160	N56C to N280TC	4750	6130	1740	184
	305 L2	26.4	55	30600	28	12.1	71 to 160	N56C to N280TC	4860	6270	1790	184
	305 L2	30.8	47	32100	26	12.1	71 to 160	N56C to N280TC	5080	6560	1880	184
	305 L2	35.8	41	31500	22	12.1	71 to 160	N56C to N280TC	5320	6870	1980	184
	305 L2	38.4	38	33000	21	12.1	71 to 160	N56C to N280TC	5430	7020	2030	184
	305 L2	44.6	32	31500	17.3	12.1	71 to 160	N56C to N280TC	5680	7340	2130	184
	305 L2	55.8	26.0	28000	12.3	12.1	71 to 160	N56C to N280TC	6080	7850	2300	184
	305 L3	53.4	27.1	31700	15.0	10.1	71 to 160	N56C to N280TC	6000	7750	2260	184
	305 L3	63.1	23.0	38300	15.3	10.1	71 to 160	N56C to N280TC	6300	8140	2390	184
	305 L3	72.3	20.1	33300	11.6	10.1	71 to 160	N56C to N280TC	6570	8480	2500	184
	305 L3	77.2	18.8	40100	13.1	10.1	71 to 160	N56C to N280TC	6700	8650	2560	184
	305 L3	90.2	16.1	34500	9.6	10.1	71 to 160	N56C to N280TC	7020	9060	2690	184
	305 L3	105	13.9	42800	10.3	10.1	71 to 160	N56C to N280TC	7340	9470	2830	184
	305 L3	113	12.9	31800	7.1	10.1	71 to 160	N56C to N280TC	7500	9690	2900	184
	305 L3	124	11.6	31800	6.4	10.1	71 to 160	N56C to N280TC	7730	9980	3000	184
	305 L3	141	10.3	45700	8.2	10.1	71 to 160	N56C to N280TC	8030	10400	3130	184
	305 L3	152	9.5	31900	5.3	10.1	71 to 160	N56C to N280TC	8220	10600	3210	184
	305 L3	164	8.9	38900	6.0	10.1	71 to 160	N56C to N280TC	8390	10800	3290	184
	305 L3	178	8.2	38900	5.5	10.1	71 to 160	N56C to N280TC	8600	11100	3380	184
	305 L3	190	7.6	31900	4.2	10.1	71 to 160	N56C to N280TC	8780	11300	3450	184
	305 L3	220	6.6	42000	4.8	10.1	71 to 160	N56C to N280TC	9180	11800	3630	184
	305 L3	258	5.6	31900	3.1	10.1	71 to 160	N56C to N280TC	9620	12400	3820	184
	305 L3	276	5.2	38900	3.6	10.1	71 to 160	N56C to N280TC	9820	12700	3910	184
	305 L3	321	4.5	32300	2.5	10.1	71 to 160	N56C to N280TC	10300	13300	4110	184
	305 L3	389	3.7	28200	1.8	10.1	71 to 160	N56C to N280TC	10900	14100	4380	184
	305 L3	402	3.6	33300	2.1	8.0	71 to 160	N56C to N280TC	11000	14200	4430	184
	305 L4	413	3.5	41100	2.6	8.0	71 to 160	N56C to N280TC	11100	14300	4470	184
	305 L4	446	3.3	48000	2.8	8.0	71 to 160	N56C to N280TC	11300	14600	4590	184
	305 L4	492	2.9	47200	2.5	8.0	71 to 160	N56C to N280TC	11700	15100	4740	184
	305 L4	556	2.6	48600	2.3	8.0	71 to 160	N56C to N280TC	12100	15600	4940	184
	305 L4	649	2.2	39700	1.6	8.0	71 to 160	N56C to N280TC	12700	16400	5200	184
305 L4	718	2.0	36200	1.3	8.0	71 to 160	N56C to N280TC	13100	16600	5380	184	
305 L4	816	1.8	47800	1.5	8.0	71 to 160	N56C to N280TC	13600	16600	5400	184	
305 L4	896	1.6	37600	1.1	8.0	71 to 160	N56C to N280TC	14000	16600	5400	184	
305 L4	1018	1.4	48200	1.2	8.0	71 to 160	N56C to N280TC	14400	16600	5400	184	
305 L4	1098	1.3	38900	0.92	8.0	71 to 160	N56C to N280TC	14400	16600	5400	184	
305 L4	1278	1.1	48700	0.99	8.0	71 to 160	N56C to N280TC	14400	16600	5400	184	
305 L4	1370	1.1	40300	0.76	8.0	71 to 160	N56C to N280TC	14400	16600	5400	184	
305 L4	1586	0.91	42000	0.69	8.0	71 to 160	N56C to N280TC	14400	16600	5400	184	
305 L4	1854	0.78	40700	0.57	8.0	71 to 160	N56C to N280TC	14400	16600	5400	184	
305 L4	1991	0.73	49600	0.65	8.0	71 to 160	N56C to N280TC	14400	16600	5400	184	
305 L4	2243	0.65	33600	0.39	8.0	71 to 160	N56C to N280TC	14400	16600	5400	184	
305 L4	2799	0.52	33600	0.31	8.0	71 to 160	N56C to N280TC	14400	16600	5400	184	
<b>1150</b>	305 L1	3.60	319	15400	80	20.0	132 to 200	N250TC to N280TC	2860	3700	990	184
	305 L1	4.25	271	18200	80	20.0	132 to 200	N250TC to N280TC	3010	3890	1050	184
	305 L1	5.33	216	20700	73	20.0	132 to 200	N250TC to N280TC	3220	4160	1130	184
	305 L1	6.20	185	21300	65	20.0	132 to 200	N250TC to N280TC	3370	4350	1190	184
	305 L1	7.50	153	18700	47	20.0	132 to 200	N250TC to N280TC	3570	4610	1270	184
	305 L2	12.5	92	24100	37	13.9	71 to 160	N56C to N280TC	4160	5370	1510	184
	305 L2	15.3	75	25500	32	13.9	71 to 160	N56C to N280TC	4420	5710	1610	184







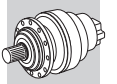


**3 L**

**305 L**

**49,000 in•lbs**

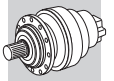
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	<b>305 L2</b>	<b>22.7</b>	38	32900	21	15.7	71 to 160	N56C to N280TC	5410	6990	2020	184
	<b>305 L2</b>	<b>24.5</b>	35	33300	19.9	15.7	71 to 160	N56C to N280TC	5540	7150	2070	184
	<b>305 L2</b>	<b>26.4</b>	33	31500	17.5	15.7	71 to 160	N56C to N280TC	5660	7310	2120	184
	<b>305 L2</b>	<b>30.8</b>	28.3	34200	16.3	15.7	71 to 160	N56C to N280TC	5930	7650	2230	184
	<b>305 L2</b>	<b>35.8</b>	24.3	31600	13.0	15.7	71 to 160	N56C to N280TC	6200	8010	2350	184
	<b>305 L2</b>	<b>38.4</b>	22.7	35200	13.4	15.7	71 to 160	N56C to N280TC	6330	8180	2400	184
	<b>305 L2</b>	<b>44.6</b>	19.5	31700	10.4	15.7	71 to 160	N56C to N280TC	6630	8560	2530	184
	<b>305 L2</b>	<b>55.8</b>	15.6	30000	7.9	15.7	71 to 160	N56C to N280TC	7080	9150	2720	184
	<b>305 L3</b>	<b>53.4</b>	16.3	34400	9.7	13.1	71 to 160	N56C to N280TC	6990	9030	2680	184
	<b>305 L3</b>	<b>63.1</b>	13.8	42900	10.3	13.1	71 to 160	N56C to N280TC	7350	9490	2830	184
	<b>305 L3</b>	<b>72.3</b>	12.0	36100	7.6	13.1	71 to 160	N56C to N280TC	7660	9890	2970	184
	<b>305 L3</b>	<b>77.2</b>	11.3	44800	8.8	13.1	71 to 160	N56C to N280TC	7810	10100	3030	184
	<b>305 L3</b>	<b>90.2</b>	9.6	37200	6.2	13.1	71 to 160	N56C to N280TC	8180	10600	3190	184
	<b>305 L3</b>	<b>105</b>	8.3	46300	6.7	13.1	71 to 160	N56C to N280TC	8550	11000	3350	184
	<b>305 L3</b>	<b>113</b>	7.7	31900	4.3	13.1	71 to 160	N56C to N280TC	8750	11300	3440	184
	<b>305 L3</b>	<b>124</b>	7.0	31900	3.9	13.1	71 to 160	N56C to N280TC	9010	11600	3560	184
	<b>305 L3</b>	<b>141</b>	6.2	46600	5.0	13.1	71 to 160	N56C to N280TC	9360	12100	3710	184
	<b>305 L3</b>	<b>152</b>	5.7	31900	3.2	13.1	71 to 160	N56C to N280TC	9580	12400	3800	184
	<b>305 L3</b>	<b>164</b>	5.3	38900	3.6	13.1	71 to 160	N56C to N280TC	9780	12600	3900	184
	<b>305 L3</b>	<b>178</b>	4.9	39100	3.3	13.1	71 to 160	N56C to N280TC	10000	12900	4000	184
	<b>305 L3</b>	<b>190</b>	4.6	32200	2.6	13.1	71 to 160	N56C to N280TC	10200	13200	4100	184
	<b>305 L3</b>	<b>220</b>	3.9	42000	2.9	13.1	71 to 160	N56C to N280TC	10700	13800	4300	184
	<b>305 L3</b>	<b>258</b>	3.4	33600	2.0	13.1	71 to 160	N56C to N280TC	11200	14500	4530	184
	<b>305 L3</b>	<b>276</b>	3.1	41800	2.3	13.1	71 to 160	N56C to N280TC	11400	14800	4640	184
	<b>305 L3</b>	<b>321</b>	2.7	34600	1.6	13.1	71 to 160	N56C to N280TC	12000	15500	4880	184
	<b>305 L3</b>	<b>389</b>	2.2	29700	1.2	13.1	71 to 160	N56C to N280TC	12700	16400	5200	184
	<b>305 L3</b>	<b>402</b>	2.2	35800	1.3	10.5	71 to 160	N56C to N280TC	12800	16500	5250	184
	<b>305 L4</b>	<b>413</b>	2.1	44500	1.7	10.5	71 to 160	N56C to N280TC	12900	16600	5300	184
	<b>305 L4</b>	<b>446</b>	2.0	49400	1.7	10.5	71 to 160	N56C to N280TC	13200	16600	5400	184
	<b>305 L4</b>	<b>492</b>	1.8	47800	1.5	10.5	71 to 160	N56C to N280TC	13600	16600	5400	184
	<b>305 L4</b>	<b>556</b>	1.6	50000	1.4	10.5	71 to 160	N56C to N280TC	14100	16600	5400	184
	<b>305 L4</b>	<b>649</b>	1.3	40900	0.98	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>718</b>	1.2	39400	0.86	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>816</b>	1.1	48600	0.93	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>896</b>	0.97	40700	0.71	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>1018</b>	0.85	48700	0.75	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>1098</b>	0.79	40700	0.58	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>1278</b>	0.68	49600	0.60	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>1370</b>	0.63	40700	0.46	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>1586</b>	0.55	42000	0.41	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>1854</b>	0.47	40700	0.34	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>1991</b>	0.44	49600	0.39	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>2243</b>	0.39	33600	0.23	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184
	<b>305 L4</b>	<b>2799</b>	0.31	33600	0.19	10.5	71 to 160	N56C to N280TC	14400	16600	5400	184



**306 L** **84,000 in·lbs**





n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in·lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1750</b>	306 L1	5.33	328	18700	101	22	160 to 250	N320TC to N360TC	4600	5810	1440	192
	306 L1	6.20	282	21800	101	22	160 to 250	N320TC to N360TC	4810	6070	1510	192
	306 L1	7.50	233	26400	101	22	160 to 250	N320TC to N360TC	5090	6430	1610	192
	306 L2	13.0	135	23600	54	15.7	132 to 200	N250TC to N280TC	6000	7580	1930	192
	306 L2	15.3	114	27800	54	15.7	132 to 200	N250TC to N280TC	6310	7970	2040	192
	306 L2	18.1	97	32800	54	15.7	132 to 200	N250TC to N280TC	6630	8370	2160	192
	306 L2	22.7	77	41200	54	15.7	132 to 200	N250TC to N280TC	7100	8960	2330	192
	306 L2	26.4	66	37700	42	15.7	132 to 200	N250TC to N280TC	7430	9380	2450	192
	306 L2	28.4	62	47300	49	15.7	132 to 200	N250TC to N280TC	7600	9590	2510	192
	306 L2	33.1	53	47000	42	15.7	132 to 200	N250TC to N280TC	7950	10000	2640	192
	306 L2	38.4	46	51300	39	15.7	132 to 200	N250TC to N280TC	8320	10500	2780	192
	306 L2	46.5	38	52000	33	15.7	132 to 200	N250TC to N280TC	8810	11100	2960	192
	306 L2	56.3	31	43600	23	15.7	132 to 200	N250TC to N280TC	9320	11800	3150	192
	306 L2	72.5	24.1	44700	18.2	15.7	132 to 200	N250TC to N280TC	10100	12700	3430	192
	306 L3	53.2	33	46900	27	9.1	71 to 160	N56C to N280TC	9170	11600	3090	192
	306 L3	65.2	26.8	50500	24	9.1	71 to 160	N56C to N280TC	9750	12300	3310	192
	306 L3	77.0	22.7	60400	24	9.1	71 to 160	N56C to N280TC	10200	12900	3500	192
	306 L3	81.9	21.4	54800	20	9.1	71 to 160	N56C to N280TC	10400	13200	3570	192
	306 L3	88.3	19.8	53300	18.4	9.1	71 to 160	N56C to N280TC	10700	13500	3660	192
	306 L3	104	16.8	62800	18.3	9.1	71 to 160	N56C to N280TC	11200	14200	3870	192
	306 L3	112	15.6	57500	15.6	9.1	71 to 160	N56C to N280TC	11500	14500	3970	192
	306 L3	121	14.4	64300	16.1	9.1	71 to 160	N56C to N280TC	11700	14800	4070	192
	306 L3	141	12.4	65700	14.2	9.1	71 to 160	N56C to N280TC	12300	15500	4280	192
	306 L3	152	11.5	62900	12.6	9.1	71 to 160	N56C to N280TC	12600	15900	4390	192
	306 L3	190	9.2	57500	9.2	9.1	71 to 160	N56C to N280TC	13400	17000	4730	192
	306 L3	205	8.5	69000	10.3	9.1	71 to 160	N56C to N280TC	13700	17300	4850	192
	306 L3	222	7.9	57500	7.9	9.1	71 to 160	N56C to N280TC	14100	17800	4980	192
	306 L3	238	7.4	69000	8.8	9.1	71 to 160	N56C to N280TC	14400	18100	5100	192
	306 L3	268	6.5	48700	5.5	9.1	71 to 160	N56C to N280TC	14900	18800	5310	192
	306 L3	288	6.1	48700	5.1	9.1	71 to 160	N56C to N280TC	15200	19200	5430	192
	306 L3	325	5.4	48700	4.6	9.1	71 to 160	N56C to N280TC	15800	19900	5650	192
	306 L3	405	4.3	49400	3.7	9.1	71 to 160	N56C to N280TC	16900	21300	6090	192
	306 L4	391	4.5	58500	4.7	7.2	71 to 160	N56C to N280TC	16700	21100	6020	192
	306 L4	444	3.9	83800	5.9	7.2	71 to 160	N56C to N280TC	17300	21900	6280	192
	306 L4	509	3.4	77000	4.7	7.2	71 to 160	N56C to N280TC	18100	22800	6570	192
	306 L4	589	3.0	73600	3.9	7.2	71 to 160	N56C to N280TC	18900	23800	6900	192
	306 L4	636	2.8	77000	3.8	7.2	71 to 160	N56C to N280TC	19300	24400	7070	192
	306 L4	700	2.5	75200	3.4	7.2	71 to 160	N56C to N280TC	19900	25100	7300	192
	306 L4	809	2.2	65600	2.5	7.2	71 to 160	N56C to N280TC	20700	26200	7660	192
	306 L4	877	2.0	65700	2.4	7.2	71 to 160	N56C to N280TC	21300	26800	7870	192
	306 L4	1015	1.7	78000	2.4	7.2	71 to 160	N56C to N280TC	22200	26800	7870	192
	306 L4	1095	1.6	65900	1.9	7.2	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	1279	1.4	71100	1.7	7.2	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	1475	1.2	82400	1.8	7.2	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	1597	1.1	74000	1.5	7.2	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	1843	0.95	84100	1.4	7.2	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	2074	0.84	62000	0.94	7.2	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	2337	0.75	62000	0.83	7.2	71 to 160	N56C to N280TC	22700	26800	7870	192
306 L4	2916	0.60	62000	0.67	7.2	71 to 160	N56C to N280TC	22700	26800	7870	192	
<b>1450</b>	306 L1	4.25	341	18000	101	24	160 to 250	N320TC to N360TC	4550	5740	1420	192
	306 L1	5.33	272	22600	101	24	160 to 250	N320TC to N360TC	4870	6140	1530	192
	306 L1	6.20	234	26300	101	24	160 to 250	N320TC to N360TC	5090	6430	1610	192
	306 L1	7.50	193	28000	88	24	160 to 250	N320TC to N360TC	5390	6810	1710	192
	306 L2	13.0	112	28400	54	17.4	132 to 200	N250TC to N280TC	6350	8020	2060	192

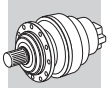




## 306 L

## 84,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1150</b>	306 L2	28.4	40	52600	36	20.0	132 to 200	N250TC to N280TC	8620	10900	2890	192	
	306 L2	33.1	35	51900	30	20.0	132 to 200	N250TC to N280TC	9020	11400	3040	192	
	306 L2	38.4	29.9	52900	27	20.0	132 to 200	N250TC to N280TC	9430	11900	3190	192	
	306 L2	46.5	24.7	53700	22	20.0	132 to 200	N250TC to N280TC	9990	12600	3400	192	
	306 L2	56.3	20.4	45400	15.7	20.0	132 to 200	N250TC to N280TC	10600	13400	3630	192	
	306 L2	72.5	15.9	46500	12.4	20.0	132 to 200	N250TC to N280TC	11400	14400	3950	192	
	306 L3	53.2		21.6	54700	21	11.6	71 to 160	N56C to N280TC	10400	13100	3560	192
	306 L3	65.2		17.6	56700	17.4	11.6	71 to 160	N56C to N280TC	11100	14000	3810	192
	306 L3	77.0		14.9	68400	17.8	11.6	71 to 160	N56C to N280TC	11600	14700	4030	192
	306 L3	81.9		14.0	60900	14.9	11.6	71 to 160	N56C to N280TC	11800	14900	4110	192
	306 L3	88.3		13.0	60500	13.7	11.6	71 to 160	N56C to N280TC	12100	15300	4210	192
	306 L3	104		11.0	71300	13.7	11.6	71 to 160	N56C to N280TC	12700	16100	4450	192
	306 L3	112		10.2	65000	11.6	11.6	71 to 160	N56C to N280TC	13000	16400	4570	192
	306 L3	121		9.5	69000	11.4	11.6	71 to 160	N56C to N280TC	13300	16800	4680	192
	306 L3	141		8.2	69000	9.8	11.6	71 to 160	N56C to N280TC	13900	17600	4920	192
	306 L3	152		7.6	65500	8.6	11.6	71 to 160	N56C to N280TC	14300	18000	5050	192
	306 L3	190		6.1	57500	6.1	11.6	71 to 160	N56C to N280TC	15200	19200	5440	192
	306 L3	205		5.6	69000	6.7	11.6	71 to 160	N56C to N280TC	15600	19700	5580	192
	306 L3	222		5.2	57500	5.2	11.6	71 to 160	N56C to N280TC	16000	20200	5730	192
	306 L3	238		4.8	69300	5.8	11.6	71 to 160	N56C to N280TC	16300	20600	5860	192
	306 L3	268		4.3	49400	3.7	11.6	71 to 160	N56C to N280TC	16900	21300	6100	192
	306 L3	288		4.0	49800	3.5	11.6	71 to 160	N56C to N280TC	17300	21800	6250	192
	306 L3	325		3.5	50400	3.1	11.6	71 to 160	N56C to N280TC	17900	22600	6500	192
	306 L3	405		2.8	51600	2.5	11.6	71 to 160	N56C to N280TC	19100	24100	7000	192
	306 L4	391		2.9	62200	3.3	9.3	71 to 160	N56C to N280TC	18900	23900	6920	192
	306 L4	444		2.6	84900	3.9	9.3	71 to 160	N56C to N280TC	19700	24800	7220	192
	306 L4	509		2.3	77200	3.1	9.3	71 to 160	N56C to N280TC	20500	25900	7560	192
	306 L4	589		2.0	77500	2.7	9.3	71 to 160	N56C to N280TC	21400	26800	7870	192
306 L4	636		1.8	77600	2.5	9.3	71 to 160	N56C to N280TC	21900	26800	7870	192	
306 L4	700		1.6	79200	2.3	9.3	71 to 160	N56C to N280TC	22500	26800	7870	192	
306 L4	809		1.4	66000	1.7	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	877		1.3	66100	1.6	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	1015		1.1	81300	1.7	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	1095		1.1	66300	1.2	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	1279		0.90	75200	1.2	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	1475		0.78	84100	1.2	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	1597		0.72	75200	0.97	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	1843		0.62	84100	0.94	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	2074		0.55	62000	0.62	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	2337		0.49	62000	0.55	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	2916		0.39	62000	0.44	9.3	71 to 160	N56C to N280TC	22700	26800	7870	192	
<b>870</b>	306 L1	3.60	242	25400	101	31	160 to 250	N320TC to N360TC	5040	6360	1590	192	
	306 L1	4.25	205	30000	101	31	160 to 250	N320TC to N360TC	5300	6690	1680	192	
	306 L1	5.33	163	35200	94	31	160 to 250	N320TC to N360TC	5670	7160	1810	192	
	306 L1	6.20	140	37200	85	31	160 to 250	N320TC to N360TC	5930	7490	1910	192	
	306 L1	7.50	116	32600	62	31	160 to 250	N320TC to N360TC	6280	7930	2030	192	
	306 L2	13.0		67	41400	47	22.7	132 to 200	N250TC to N280TC	7400	9350	2440	192
	306 L2	15.3		57	43400	42	22.7	132 to 200	N250TC to N280TC	7780	9820	2580	192
	306 L2	18.1		48	51900	42	22.7	132 to 200	N250TC to N280TC	8180	10300	2720	192
	306 L2	22.7		38	54500	35	22.7	132 to 200	N250TC to N280TC	8750	11100	2940	192
	306 L2	26.4		33	46400	26	22.7	132 to 200	N250TC to N280TC	9160	11600	3090	192
	306 L2	28.4		31	55500	29	22.7	132 to 200	N250TC to N280TC	9370	11800	3170	192
	306 L2	33.1		26.3	55300	25	22.7	132 to 200	N250TC to N280TC	9810	12400	3330	192
	306 L2	38.4		22.6	54100	21	22.7	132 to 200	N250TC to N280TC	10300	13000	3500	192
	306 L2	46.5		18.7	54800	17.3	22.7	132 to 200	N250TC to N280TC	10900	13700	3730	192



## 306 L

### 306 L

### 84,000 in•lbs

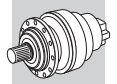
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
870	306 L2	56.3	15.5	46600	12.2	22.7	132 to 200	N250TC to N280TC	11500	14500	3980	192
	306 L2	72.5	12.0	47800	9.7	22.7	132 to 200	N250TC to N280TC	12400	15700	4330	192
	306 L3	53.2	16.3	58700	16.7	13.1	71 to 160	N56C to N280TC	11300	14300	3910	192
	306 L3	65.2	13.3	61300	14.2	13.1	71 to 160	N56C to N280TC	12000	15200	4180	192
	306 L3	77.0	11.3	74300	14.6	13.1	71 to 160	N56C to N280TC	12600	16000	4420	192
	306 L3	81.9	10.6	65400	12.1	13.1	71 to 160	N56C to N280TC	12900	16200	4510	192
	306 L3	88.3	9.9	65700	11.3	13.1	71 to 160	N56C to N280TC	13200	16600	4620	192
	306 L3	104	8.3	75900	11.0	13.1	71 to 160	N56C to N280TC	13800	17500	4890	192
	306 L3	112	7.7	65500	8.8	13.1	71 to 160	N56C to N280TC	14200	17900	5010	192
	306 L3	121	7.2	69000	8.6	13.1	71 to 160	N56C to N280TC	14500	18300	5140	192
	306 L3	141	6.2	69000	7.4	13.1	71 to 160	N56C to N280TC	15100	19100	5400	192
	306 L3	152	5.7	65500	6.5	13.1	71 to 160	N56C to N280TC	15500	19600	5540	192
	306 L3	190	4.6	58300	4.6	13.1	71 to 160	N56C to N280TC	16600	20900	5970	192
	306 L3	205	4.2	70400	5.2	13.1	71 to 160	N56C to N280TC	16900	21400	6120	192
	306 L3	222	3.9	59600	4.1	13.1	71 to 160	N56C to N280TC	17400	21900	6290	192
	306 L3	238	3.7	71800	4.6	13.1	71 to 160	N56C to N280TC	17700	22400	6440	192
	306 L3	268	3.2	50900	2.9	13.1	71 to 160	N56C to N280TC	18400	23200	6700	192
	306 L3	288	3.0	51200	2.7	13.1	71 to 160	N56C to N280TC	18800	23700	6860	192
	306 L3	325	2.7	51900	2.4	13.1	71 to 160	N56C to N280TC	19500	24600	7140	192
	306 L3	405	2.1	53700	2.0	13.1	71 to 160	N56C to N280TC	20800	26200	7680	192
	306 L4	391	2.2	65100	2.6	10.5	71 to 160	N56C to N280TC	20600	26000	7590	192
	306 L4	444	2.0	85900	3.0	10.5	71 to 160	N56C to N280TC	21400	26800	7870	192
	306 L4	509	1.7	77700	2.4	10.5	71 to 160	N56C to N280TC	22300	26800	7870	192
	306 L4	589	1.5	80200	2.1	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	636	1.4	78200	1.9	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	700	1.2	81900	1.8	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	809	1.1	66300	1.3	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	877	0.99	66400	1.2	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	1015	0.86	82300	1.3	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	1095	0.79	66400	0.95	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192
	306 L4	1279	0.68	75200	0.92	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192
306 L4	1475	0.59	84100	0.89	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	1597	0.54	75200	0.73	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	1843	0.47	84100	0.71	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	2074	0.42	62000	0.47	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	2337	0.37	62000	0.41	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192	
306 L4	2916	0.30	62000	0.33	10.5	71 to 160	N56C to N280TC	22700	26800	7870	192	





### 307 L

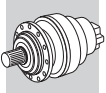
### 125,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
1750	307 L1	5.25	333	28300	154	27	180 to 250	N320TC to N360TC	5210	7000	1840	200
	307 L1	6.23	281	33600	154	27	180 to 250	N320TC to N360TC	5480	7370	1950	200
	307 L2	12.3	142	33700	80	22	132 to 200	N250TC to N280TC	6730	9040	2440	200
	307 L2	14.7	119	40200	80	22	132 to 200	N250TC to N280TC	7100	9530	2590	200



**307 L****125,000 in•lbs**

$n_1$ drive speed rpm		$i$ gear ratio 1:	$n_2$ output speed rpm	$T_{n_2}$ rated torque in•lbs	$P_{n_1}$ rated power HP	$P_t$ thermal capacity HP	 IEC IEC input	 NEMA NEMA input	$R_{n_2}$ [lbs]				
									Permissible overhung loads				NHC NPC
<b>1750</b>	307 L2	17.4	101	47400	80	22	132 to 200	N250TC to N280TC	7460	10000	2740	200	
	307 L2	21.8	80	59500	80	22	132 to 200	N250TC to N280TC	7990	10700	2960	200	
	307 L2	25.4	69	63400	74	22	132 to 200	N250TC to N280TC	8360	11200	3110	200	
	307 L2	28.0	63	63600	67	22	132 to 200	N250TC to N280TC	8610	11600	3210	200	
	307 L2	30.7	57	66300	64	22	132 to 200	N250TC to N280TC	8850	11900	3310	200	
	307 L2	32.6	54	66600	60	22	132 to 200	N250TC to N280TC	9010	12100	3380	200	
	307 L2	38.6	45	68700	52	22	132 to 200	N250TC to N280TC	9480	12700	3580	200	
	307 L2	46.7	37	69700	44	22	132 to 200	N250TC to N280TC	10000	13500	3810	200	
	307 L3	51.3	34	67800	40	13.3	71 to 160	N56C to N280TC	10300	13900	3930	200	
	307 L3	60.5	28.9	80000	40	13.3	71 to 160	N56C to N280TC	10800	14600	4150	200	
	307 L3	74.1	23.6	86600	36	13.3	71 to 160	N56C to N280TC	11500	15500	4440	200	
	307 L3	80.6	21.7	80000	30	13.3	71 to 160	N56C to N280TC	11800	15900	4570	200	
	307 L3	93.0	18.8	92400	30	13.3	71 to 160	N56C to N280TC	12300	16600	4790	200	
	307 L3	100	17.4	94400	29	13.3	71 to 160	N56C to N280TC	12600	17000	4910	200	
	307 L3	113	15.4	85500	23	13.3	71 to 160	N56C to N280TC	13100	17600	5120	200	
	307 L3	126	13.9	100700	24	13.3	71 to 160	N56C to N280TC	13500	18100	5300	200	
	307 L3	139	12.6	88900	19.5	13.3	71 to 160	N56C to N280TC	13900	18700	5480	200	
	307 L3	146	12.0	105100	22	13.3	71 to 160	N56C to N280TC	14100	19000	5570	200	
	307 L3	162	10.8	91500	17.2	13.3	71 to 160	N56C to N280TC	14600	19600	5760	200	
	307 L3	177	9.9	108900	18.7	13.3	71 to 160	N56C to N280TC	15000	20100	5940	200	
	307 L3	202	8.7	93300	14.1	13.3	71 to 160	N56C to N280TC	15600	20900	6200	200	
	307 L3	221	7.9	111800	15.4	13.3	71 to 160	N56C to N280TC	16000	21500	6390	200	
	307 L3	239	7.3	77000	9.8	13.3	71 to 160	N56C to N280TC	16400	22000	6570	200	
	307 L3	284	6.2	94200	10.1	13.3	71 to 160	N56C to N280TC	17200	23200	6950	200	
	307 L3	336	5.2	77000	7.0	13.3	71 to 160	N56C to N280TC	18100	24400	7360	200	
	307 L4	349	5.0	114200	10.3	9.1	71 to 160	N56C to N280TC	18300	24600	7450	200	
	307 L4	406	4.3	97000	7.5	9.1	71 to 160	N56C to N280TC	19200	25800	7830	200	
	307 L4	465	3.8	99300	6.7	9.1	71 to 160	N56C to N280TC	20000	26900	8190	200	
	307 L4	509	3.4	118400	7.3	9.1	71 to 160	N56C to N280TC	20600	27600	8450	200	
	307 L4	579	3.0	119900	6.5	9.1	71 to 160	N56C to N280TC	21400	28700	8810	200	
	307 L4	654	2.7	105000	5.0	9.1	71 to 160	N56C to N280TC	22100	29700	9180	200	
	307 L4	722	2.4	122500	5.3	9.1	71 to 160	N56C to N280TC	22800	30600	9490	200	
	307 L4	801	2.2	108600	4.3	9.1	71 to 160	N56C to N280TC	23500	31600	9820	200	
	307 L4	906	1.9	125000	4.3	9.1	71 to 160	N56C to N280TC	24400	32600	10100	200	
	307 L4	999	1.8	112800	3.5	9.1	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	1157	1.5	115600	3.1	9.1	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	1274	1.4	108900	2.7	9.1	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	1408	1.2	130200	2.9	9.1	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	1591	1.1	131600	2.6	9.1	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	1767	0.99	132800	2.4	9.1	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	2041	0.86	123900	1.9	9.1	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	2423	0.72	97400	1.3	9.1	71 to 160	N56C to N280TC	24500	32600	10100	200	
	<b>1450</b>	307 L1	5.25	276	34100	154	30	180 to 250	N320TC to N360TC	5510	7400	1960	200
		307 L1	6.23	233	40500	154	30	180 to 250	N320TC to N360TC	5800	7790	2070	200
307 L2		12.3	117	40600	80	24	132 to 200	N250TC to N280TC	7120	9570	2600	200	
307 L2		14.7	98	48500	80	24	132 to 200	N250TC to N280TC	7510	10100	2760	200	
307 L2		17.4	83	57200	80	24	132 to 200	N250TC to N280TC	7890	10600	2920	200	
307 L2		21.8	66	64100	72	24	132 to 200	N250TC to N280TC	8450	11300	3150	200	
307 L2		25.4	57	67100	65	24	132 to 200	N250TC to N280TC	8840	11900	3310	200	
307 L2		28.0	52	67400	59	24	132 to 200	N250TC to N280TC	9110	12200	3420	200	
307 L2		30.7	47	70100	56	24	132 to 200	N250TC to N280TC	9360	12600	3530	200	
307 L2		32.6	45	69700	52	24	132 to 200	N250TC to N280TC	9530	12800	3600	200	
307 L2		38.6	38	69600	44	24	132 to 200	N250TC to N280TC	10000	13500	3810	200	
307 L2		46.7	31	70700	37	24	132 to 200	N250TC to N280TC	10600	14300	4060	200	





**3 L****307 L****125,000 in•lbs**

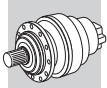
<b>n<sub>1</sub></b> drive speed rpm		<b>i</b> gear ratio 1:	<b>n<sub>2</sub></b> output speed rpm	<b>Tn<sub>2</sub></b> rated torque in•lbs	<b>Pn<sub>1</sub></b> rated power HP	<b>P<sub>t</sub></b> thermal capacity HP			<b>Rn<sub>2</sub> [lbs]</b>			
									Permissible overhung loads	<b>NHC NPC</b>	<b>HZ PZ</b>	
<b>1450</b>	<b>307 L3</b>	<b>51.3</b>	28.3	81800	40	14.8	71 to 160	N56C to N280TC	10900	14700	4180	200
	<b>307 L3</b>	<b>60.5</b>	24.0	86200	36	14.8	71 to 160	N56C to N280TC	11500	15400	4420	200
	<b>307 L3</b>	<b>74.1</b>	19.6	91400	31	14.8	71 to 160	N56C to N280TC	12200	16400	4730	200
	<b>307 L3</b>	<b>80.6</b>	18.0	83000	26	14.8	71 to 160	N56C to N280TC	12500	16800	4860	200
	<b>307 L3</b>	<b>93.0</b>	15.6	97500	26	14.8	71 to 160	N56C to N280TC	13100	17500	5100	200
	<b>307 L3</b>	<b>100</b>	14.5	99600	25	14.8	71 to 160	N56C to N280TC	13400	17900	5230	200
	<b>307 L3</b>	<b>113</b>	12.8	88600	19.7	14.8	71 to 160	N56C to N280TC	13900	18600	5450	200
	<b>307 L3</b>	<b>126</b>	11.5	106300	21	14.8	71 to 160	N56C to N280TC	14300	19200	5640	200
	<b>307 L3</b>	<b>139</b>	10.4	92100	16.7	14.8	71 to 160	N56C to N280TC	14700	19800	5830	200
	<b>307 L3</b>	<b>146</b>	9.9	110700	19.1	14.8	71 to 160	N56C to N280TC	15000	20100	5930	200
	<b>307 L3</b>	<b>162</b>	9.0	93200	14.5	14.8	71 to 160	N56C to N280TC	15400	20700	6130	200
	<b>307 L3</b>	<b>177</b>	8.2	108900	15.5	14.8	71 to 160	N56C to N280TC	15800	21300	6320	200
	<b>307 L3</b>	<b>202</b>	7.2	93800	11.7	14.8	71 to 160	N56C to N280TC	16500	22100	6600	200
	<b>307 L3</b>	<b>221</b>	6.6	112800	12.9	14.8	71 to 160	N56C to N280TC	16900	22700	6810	200
	<b>307 L3</b>	<b>239</b>	6.1	77000	8.1	14.8	71 to 160	N56C to N280TC	17300	23300	6990	200
	<b>307 L3</b>	<b>284</b>	5.1	94600	8.4	14.8	71 to 160	N56C to N280TC	18200	24500	7400	200
	<b>307 L3</b>	<b>336</b>	4.3	78600	5.9	14.8	71 to 160	N56C to N280TC	19200	25800	7830	200
	<b>307 L4</b>	<b>349</b>	4.2	116300	8.7	10.1	71 to 160	N56C to N280TC	19400	26100	7930	200
	<b>307 L4</b>	<b>406</b>	3.6	100100	6.4	10.1	71 to 160	N56C to N280TC	20300	27300	8340	200
	<b>307 L4</b>	<b>465</b>	3.1	102400	5.7	10.1	71 to 160	N56C to N280TC	21200	28400	8720	200
	<b>307 L4</b>	<b>509</b>	2.8	120600	6.2	10.1	71 to 160	N56C to N280TC	21700	29200	8990	200
	<b>307 L4</b>	<b>579</b>	2.5	122100	5.5	10.1	71 to 160	N56C to N280TC	22600	30300	9380	200
	<b>307 L4</b>	<b>654</b>	2.2	108400	4.3	10.1	71 to 160	N56C to N280TC	23400	31500	9770	200
	<b>307 L4</b>	<b>722</b>	2.0	124600	4.5	10.1	71 to 160	N56C to N280TC	24100	32400	10100	200
	<b>307 L4</b>	<b>801</b>	1.8	112100	3.6	10.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>906</b>	1.6	127200	3.6	10.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>999</b>	1.5	116400	3.0	10.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>1157</b>	1.3	119300	2.7	10.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>1274</b>	1.1	108900	2.2	10.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>1408</b>	1.0	132400	2.4	10.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>1591</b>	0.91	132800	2.2	10.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>1767</b>	0.82	132800	2.0	10.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>2041</b>	0.71	123900	1.6	10.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>2423</b>	0.60	97400	1.0	10.1	71 to 160	N56C to N280TC	24500	32600	10100	200
<b>1150</b>	<b>307 L1</b>	<b>3.43</b>	335	28100	154	34	180 to 250	N320TC to N360TC	5200	6980	1830	200
	<b>307 L1</b>	<b>4.09</b>	281	33500	154	34	180 to 250	N320TC to N360TC	5480	7360	1950	200
	<b>307 L1</b>	<b>5.25</b>	219	43000	154	34	180 to 250	N320TC to N360TC	5910	7940	2110	200
	<b>307 L1</b>	<b>6.23</b>	185	45700	138	34	180 to 250	N320TC to N360TC	6220	8350	2240	200
	<b>307 L2</b>	<b>12.3</b>	93	51200	80	28	132 to 200	N250TC to N280TC	7640	10300	2810	200
	<b>307 L2</b>	<b>14.7</b>	78	61100	80	28	132 to 200	N250TC to N280TC	8050	10800	2980	200
	<b>307 L2</b>	<b>17.4</b>	66	64200	72	28	132 to 200	N250TC to N280TC	8460	11400	3150	200
	<b>307 L2</b>	<b>21.8</b>	53	68800	61	28	132 to 200	N250TC to N280TC	9060	12200	3400	200
	<b>307 L2</b>	<b>25.4</b>	45	71900	55	28	132 to 200	N250TC to N280TC	9480	12700	3570	200
	<b>307 L2</b>	<b>28.0</b>	41	70800	49	28	132 to 200	N250TC to N280TC	9760	13100	3690	200
	<b>307 L2</b>	<b>30.7</b>	37	74900	47	28	132 to 200	N250TC to N280TC	10000	13500	3810	200
	<b>307 L2</b>	<b>32.6</b>	35	72900	43	28	132 to 200	N250TC to N280TC	10200	13700	3880	200
	<b>307 L2</b>	<b>38.6</b>	29.8	70900	36	28	132 to 200	N250TC to N280TC	10800	14400	4110	200
	<b>307 L2</b>	<b>46.7</b>	24.6	71900	30	28	132 to 200	N250TC to N280TC	11400	15300	4380	200
	<b>307 L3</b>	<b>51.3</b>	22.4	87900	34	17.0	71 to 160	N56C to N280TC	11700	15700	4520	200
	<b>307 L3</b>	<b>60.5</b>	19.0	92100	30	17.0	71 to 160	N56C to N280TC	12300	16500	4780	200
	<b>307 L3</b>	<b>74.1</b>	15.5	97600	26	17.0	71 to 160	N56C to N280TC	13100	17600	5110	200
	<b>307 L3</b>	<b>80.6</b>	14.3	86800	22	17.0	71 to 160	N56C to N280TC	13400	18000	5250	200
	<b>307 L3</b>	<b>93.0</b>	12.4	104100	22	17.0	71 to 160	N56C to N280TC	14000	18800	5510	200
	<b>307 L3</b>	<b>100</b>	11.5	106400	21	17.0	71 to 160	N56C to N280TC	14300	19200	5650	200
	<b>307 L3</b>	<b>113</b>	10.2	92700	16.4	17.0	71 to 160	N56C to N280TC	14800	19900	5890	200



# 307 L

# 125,000 in•lbs

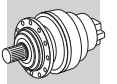
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1150</b>	307 L3	126	9.1	111100	17.6	17.0	71 to 160	N56C to N280TC	15300	20600	6100	200	
	307 L3	139	8.3	93400	13.5	17.0	71 to 160	N56C to N280TC	15800	21200	6300	200	
	307 L3	146	7.9	111900	15.3	17.0	71 to 160	N56C to N280TC	16000	21500	6410	200	
	307 L3	162	7.1	93800	11.6	17.0	71 to 160	N56C to N280TC	16500	22200	6630	200	
	307 L3	177	6.5	108900	12.3	17.0	71 to 160	N56C to N280TC	17000	22800	6830	200	
	307 L3	202	5.7	94400	9.4	17.0	71 to 160	N56C to N280TC	17700	23700	7130	200	
	307 L3	221	5.2	114000	10.3	17.0	71 to 160	N56C to N280TC	18100	24400	7350	200	
	307 L3	239	4.8	77400	6.5	17.0	71 to 160	N56C to N280TC	18600	25000	7550	200	
	307 L3	284	4.1	98000	6.9	17.0	71 to 160	N56C to N280TC	19600	26300	7990	200	
	307 L3	336	3.4	81300	4.8	17.0	71 to 160	N56C to N280TC	20600	27600	8460	200	
	307 L4	349	3.3	118900	7.0	11.6	71 to 160	N56C to N280TC	20800	28000	8570	200	
	307 L4	406	2.8	104000	5.3	11.6	71 to 160	N56C to N280TC	21800	29200	9000	200	
	307 L4	465	2.5	106400	4.7	11.6	71 to 160	N56C to N280TC	22700	30500	9420	200	
	307 L4	509	2.3	123300	5.0	11.6	71 to 160	N56C to N280TC	23300	31300	9710	200	
	307 L4	579	2.0	124700	4.4	11.6	71 to 160	N56C to N280TC	24200	32500	10100	200	
	307 L4	654	1.8	112700	3.6	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	722	1.6	127300	3.6	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	801	1.4	116600	3.0	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	906	1.3	129900	3.0	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	999	1.2	121000	2.5	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	1157	0.99	123900	2.2	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	1274	0.90	108900	1.8	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	1408	0.82	132800	1.9	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	1591	0.72	132800	1.7	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	1767	0.65	132800	1.5	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	2041	0.56	123900	1.3	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	307 L4	2423	0.47	97400	0.83	11.6	71 to 160	N56C to N280TC	24500	32600	10100	200	
	<b>870</b>	307 L1	3.43	254	37200	154	38	180 to 250	N320TC to N360TC	5650	7590	2010	200
		307 L1	4.09	213	44300	154	38	180 to 250	N320TC to N360TC	5960	8010	2140	200
		307 L1	5.25	166	47200	128	38	180 to 250	N320TC to N360TC	6420	8630	2320	200
		307 L1	6.23	140	49600	113	38	180 to 250	N320TC to N360TC	6760	9080	2460	200
		307 L2	12.3	70	63900	76	31	132 to 200	N250TC to N280TC	8300	11200	3090	200
		307 L2	14.7	59	66500	66	31	132 to 200	N250TC to N280TC	8750	11800	3270	200
		307 L2	17.4	50	69900	59	31	132 to 200	N250TC to N280TC	9200	12400	3460	200
		307 L2	21.8	40	74600	50	31	132 to 200	N250TC to N280TC	9850	13200	3730	200
307 L2		25.4	34	77900	45	31	132 to 200	N250TC to N280TC	10300	13800	3920	200	
307 L2		28.0	31	74700	39	31	132 to 200	N250TC to N280TC	10600	14300	4050	200	
307 L2		30.7	28.4	81100	39	31	132 to 200	N250TC to N280TC	10900	14700	4180	200	
307 L2		32.6	26.7	76900	35	31	132 to 200	N250TC to N280TC	11100	14900	4260	200	
307 L2		38.6	22.5	72400	27	31	132 to 200	N250TC to N280TC	11700	15700	4510	200	
307 L2		46.7	18.6	73500	23	31	132 to 200	N250TC to N280TC	12400	16600	4810	200	
307 L3		51.3	17.0	95100	28	19.2	71 to 160	N56C to N280TC	12700	17100	4960	200	
307 L3		60.5	14.4	99800	25	19.2	71 to 160	N56C to N280TC	13400	18000	5240	200	
307 L3		74.1	11.7	105700	22	19.2	71 to 160	N56C to N280TC	14200	19100	5610	200	
307 L3		80.6	10.8	91600	17.2	19.2	71 to 160	N56C to N280TC	14600	19600	5770	200	
307 L3		93.0	9.4	111000	18.0	19.2	71 to 160	N56C to N280TC	15200	20400	6050	200	
307 L3		100	8.7	111400	16.8	19.2	71 to 160	N56C to N280TC	15600	20900	6200	200	
307 L3		113	7.7	93600	12.5	19.2	71 to 160	N56C to N280TC	16100	21700	6460	200	
307 L3		126	6.9	112500	13.5	19.2	71 to 160	N56C to N280TC	16700	22400	6690	200	
307 L3		139	6.3	94100	10.3	19.2	71 to 160	N56C to N280TC	17200	23000	6910	200	
307 L3		146	5.9	113300	11.7	19.2	71 to 160	N56C to N280TC	17400	23400	7040	200	
307 L3		162	5.4	94500	8.8	19.2	71 to 160	N56C to N280TC	18000	24100	7270	200	
307 L3		177	4.9	108900	9.3	19.2	71 to 160	N56C to N280TC	18500	24800	7500	200	
307 L3		202	4.3	97000	7.3	19.2	71 to 160	N56C to N280TC	19200	25800	7830	200	
307 L3		221	3.9	116900	8.0	19.2	71 to 160	N56C to N280TC	19700	26500	8070	200	

**3 L****307 L****125,000 in•lbs**

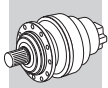
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	<b>307 L3</b>	<b>239</b>	3.6	80600	5.1	19.2	71 to 160	N56C to N280TC	20200	27100	8290	200
	<b>307 L3</b>	<b>284</b>	3.1	102700	5.5	19.2	71 to 160	N56C to N280TC	21300	28600	8770	200
	<b>307 L3</b>	<b>336</b>	2.6	84600	3.8	19.2	71 to 160	N56C to N280TC	22400	30100	9290	200
	<b>307 L4</b>	<b>349</b>	2.5	122200	5.5	13.1	71 to 160	N56C to N280TC	22600	30400	9400	200
	<b>307 L4</b>	<b>406</b>	2.1	109000	4.2	13.1	71 to 160	N56C to N280TC	23700	31800	9880	200
	<b>307 L4</b>	<b>465</b>	1.9	111500	3.7	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>509</b>	1.7	126400	3.9	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>579</b>	1.5	127900	3.4	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>654</b>	1.3	118100	2.8	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>722</b>	1.2	130500	2.8	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>801</b>	1.1	122200	2.4	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>906</b>	0.96	132800	2.3	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>999</b>	0.87	123900	1.9	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>1157</b>	0.75	123900	1.7	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>1274</b>	0.68	108900	1.3	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>1408</b>	0.62	132800	1.5	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>1591</b>	0.55	132800	1.3	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>1767</b>	0.49	132800	1.2	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>2041</b>	0.43	123900	0.95	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200
	<b>307 L4</b>	<b>2423</b>	0.36	97400	0.63	13.1	71 to 160	N56C to N280TC	24500	32600	10100	200

**309 L****180,000 in•lbs**

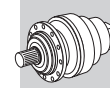
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	<b>309 L1</b>	<b>5.25</b>	333	36900	201	30	180 to 250	N320TC to N360TC	5210	7000	1470	208
	<b>309 L1</b>	<b>6.23</b>	281	43800	201	30	180 to 250	N320TC to N360TC	5480	7370	1560	208
	<b>309 L2</b>	<b>12.3</b>	142	33700	80	22	132 to 200	N250TC to N280TC	6730	9040	1960	208
	<b>309 L2</b>	<b>14.7</b>	119	40200	80	22	132 to 200	N250TC to N280TC	7100	9530	2070	208
	<b>309 L2</b>	<b>17.4</b>	101	47400	80	22	132 to 200	N250TC to N280TC	7460	10000	2190	208
	<b>309 L2</b>	<b>21.8</b>	80	59500	80	22	132 to 200	N250TC to N280TC	7990	10700	2360	208
	<b>309 L2</b>	<b>25.4</b>	69	69200	80	22	132 to 200	N250TC to N280TC	8360	11200	2490	208
	<b>309 L2</b>	<b>28.0</b>	63	76300	80	22	132 to 200	N250TC to N280TC	8610	11600	2570	208
	<b>309 L2</b>	<b>32.6</b>	54	88700	80	22	132 to 200	N250TC to N280TC	9010	12100	2700	208
	<b>309 L2</b>	<b>38.6</b>	45	93300	71	22	132 to 200	N250TC to N280TC	9480	12700	2860	208
	<b>309 L2</b>	<b>46.7</b>	37	95800	61	22	132 to 200	N250TC to N280TC	10000	13500	3050	208
	<b>309 L3</b>	<b>51.3</b>	34	67800	40	13.3	71 to 160	N56C to N280TC	10300	13900	3140	208
	<b>309 L3</b>	<b>60.5</b>	28.9	80000	40	13.3	71 to 160	N56C to N280TC	10800	14600	3320	208
	<b>309 L3</b>	<b>74.1</b>	23.6	98000	40	13.3	71 to 160	N56C to N280TC	11500	15500	3550	208
	<b>309 L3</b>	<b>80.6</b>	21.7	106500	40	13.3	71 to 160	N56C to N280TC	11800	15900	3650	208
	<b>309 L3</b>	<b>93.0</b>	18.8	111400	36	13.3	71 to 160	N56C to N280TC	12300	16600	3830	208
	<b>309 L3</b>	<b>100</b>	17.4	109300	33	13.3	71 to 160	N56C to N280TC	12600	17000	3930	208
	<b>309 L3</b>	<b>113</b>	15.4	127000	34	13.3	71 to 160	N56C to N280TC	13100	17600	4090	208
	<b>309 L3</b>	<b>126</b>	13.9	121900	29	13.3	71 to 160	N56C to N280TC	13500	18100	4240	208
	<b>309 L3</b>	<b>139</b>	12.6	133600	29	13.3	71 to 160	N56C to N280TC	13900	18700	4380	208
<b>309 L3</b>	<b>162</b>	10.8	138800	26	13.3	71 to 160	N56C to N280TC	14600	19600	4610	208	



<b>309 L</b>				<b>180,000 in•lbs</b>									
<b>n<sub>1</sub></b> drive speed  rpm	<b>i</b> gear ratio  1:	<b>n<sub>2</sub></b> output speed  rpm	<b>T<sub>n2</sub></b> rated torque  in•lbs	<b>P<sub>n1</sub></b> rated power  HP	<b>P<sub>t</sub></b> thermal capacity  HP	<b>IEC</b>  IEC input	<b>NEMA</b>  NEMA input	<b>Rn<sub>2</sub></b> [lbs]					
								Permissible overhung loads					
										<b>NHC</b>	<b>HZ</b>	<b>FZ</b>	
										<b>NPC</b>	<b>PZ</b>		
<b>1750</b>	<b>309 L3</b>	<b>183</b>	9.6	126600	21	13.3	71 to 160	N56C to N280TC	15100	20300	4800	208	
	<b>309 L3</b>	<b>202</b>	8.7	142000	21	13.3	71 to 160	N56C to N280TC	15600	20900	4960	208	
	<b>309 L3</b>	<b>223</b>	7.9	115100	15.7	13.3	71 to 160	N56C to N280TC	16000	21500	5130	208	
	<b>309 L3</b>	<b>239</b>	7.3	115100	14.6	13.3	71 to 160	N56C to N280TC	16400	22000	5250	208	
	<b>309 L3</b>	<b>284</b>	6.2	137700	14.8	13.3	71 to 160	N56C to N280TC	17200	23200	5560	208	
	<b>309 L3</b>	<b>336</b>	5.2	115100	10.4	13.3	71 to 160	N56C to N280TC	18100	24400	5890	208	
	<b>309 L4</b>	<b>349</b>	5.0	168000	15.1	9.1	71 to 160	N56C to N280TC	18300	24600	5960	208	
	<b>309 L4</b>	<b>406</b>	4.3	146800	11.4	9.1	71 to 160	N56C to N280TC	19200	25800	6260	208	
	<b>309 L4</b>	<b>465</b>	3.8	150000	10.1	9.1	71 to 160	N56C to N280TC	20000	26900	6550	208	
	<b>309 L4</b>	<b>509</b>	3.4	126600	7.8	9.1	71 to 160	N56C to N280TC	20600	27600	6760	208	
	<b>309 L4</b>	<b>579</b>	3.0	175700	9.5	9.1	71 to 160	N56C to N280TC	21400	28700	7050	208	
	<b>309 L4</b>	<b>654</b>	2.7	158400	7.6	9.1	71 to 160	N56C to N280TC	22100	29700	7340	208	
	<b>309 L4</b>	<b>722</b>	2.4	182500	7.9	9.1	71 to 160	N56C to N280TC	22800	30600	7590	208	
	<b>309 L4</b>	<b>801</b>	2.2	160500	6.3	9.1	71 to 160	N56C to N280TC	23500	31600	7860	208	
	<b>309 L4</b>	<b>906</b>	1.9	156100	5.4	9.1	71 to 160	N56C to N280TC	24400	32600	8090	208	
	<b>309 L4</b>	<b>999</b>	1.8	160900	5.1	9.1	71 to 160	N56C to N280TC	24700	32600	8090	208	
	<b>309 L4</b>	<b>1149</b>	1.5	139400	3.8	9.1	71 to 160	N56C to N280TC	24700	32600	8090	208	
	<b>309 L4</b>	<b>1286</b>	1.4	142300	3.5	9.1	71 to 160	N56C to N280TC	24700	32600	8090	208	
	<b>309 L4</b>	<b>1380</b>	1.3	144100	3.3	9.1	71 to 160	N56C to N280TC	24700	32600	8090	208	
	<b>309 L4</b>	<b>1605</b>	1.1	148100	2.9	9.1	71 to 160	N56C to N280TC	24700	32600	8090	208	
	<b>309 L4</b>	<b>1723</b>	1.0	150000	2.7	9.1	71 to 160	N56C to N280TC	24700	32600	8090	208	
	<b>309 L4</b>	<b>2003</b>	0.87	150500	2.4	9.1	71 to 160	N56C to N280TC	24700	32600	8090	208	
	<b>309 L4</b>	<b>2423</b>	0.72	150500	1.9	9.1	71 to 160	N56C to N280TC	24700	32600	8090	208	
<b>1450</b>	<b>309 L1</b>	<b>5.25</b>	276	44500	201	34	180 to 250	N320TC to N360TC	5510	7400	1570	208	
	<b>309 L1</b>	<b>6.23</b>	233	52800	201	34	180 to 250	N320TC to N360TC	5800	7790	1660	208	
	<b>309 L2</b>	<b>12.3</b>	117	40600	80	24	132 to 200	N250TC to N280TC	7120	9570	2080	208	
	<b>309 L2</b>	<b>14.7</b>	98	48500	80	24	132 to 200	N250TC to N280TC	7510	10100	2210	208	
	<b>309 L2</b>	<b>17.4</b>	83	57200	80	24	132 to 200	N250TC to N280TC	7890	10600	2330	208	
	<b>309 L2</b>	<b>21.8</b>	66	71800	80	24	132 to 200	N250TC to N280TC	8450	11300	2520	208	
	<b>309 L2</b>	<b>25.4</b>	57	78300	75	24	132 to 200	N250TC to N280TC	8840	11900	2650	208	
	<b>309 L2</b>	<b>28.0</b>	52	92100	80	24	132 to 200	N250TC to N280TC	9110	12200	2740	208	
	<b>309 L2</b>	<b>32.6</b>	45	97500	73	24	132 to 200	N250TC to N280TC	9530	12800	2880	208	
	<b>309 L2</b>	<b>38.6</b>	38	95800	61	24	132 to 200	N250TC to N280TC	10000	13500	3050	208	
	<b>309 L2</b>	<b>46.7</b>	31	98300	51	24	132 to 200	N250TC to N280TC	10600	14300	3240	208	
	<b>309 L3</b>	<b>51.3</b>	28.3	81800	40	14.8	71 to 160	N56C to N280TC	10900	14700	3350	208	
	<b>309 L3</b>	<b>60.5</b>	24.0	96600	40	14.8	71 to 160	N56C to N280TC	11500	15400	3540	208	
	<b>309 L3</b>	<b>74.1</b>	19.6	111900	38	14.8	71 to 160	N56C to N280TC	12200	16400	3780	208	
	<b>309 L3</b>	<b>80.6</b>	18.0	119300	37	14.8	71 to 160	N56C to N280TC	12500	16800	3890	208	
	<b>309 L3</b>	<b>93.0</b>	15.6	117800	32	14.8	71 to 160	N56C to N280TC	13100	17500	4080	208	
	<b>309 L3</b>	<b>100</b>	14.5	115700	29	14.8	71 to 160	N56C to N280TC	13400	17900	4190	208	
	<b>309 L3</b>	<b>113</b>	12.8	133100	30	14.8	71 to 160	N56C to N280TC	13900	18600	4360	208	
	<b>309 L3</b>	<b>126</b>	11.5	129000	26	14.8	71 to 160	N56C to N280TC	14300	19200	4510	208	
	<b>309 L3</b>	<b>139</b>	10.4	140100	25	14.8	71 to 160	N56C to N280TC	14700	19800	4660	208	
	<b>309 L3</b>	<b>162</b>	9.0	141900	22	14.8	71 to 160	N56C to N280TC	15400	20700	4910	208	
	<b>309 L3</b>	<b>183</b>	7.9	126600	17.5	14.8	71 to 160	N56C to N280TC	16000	21500	5110	208	
	<b>309 L3</b>	<b>202</b>	7.2	142500	17.8	14.8	71 to 160	N56C to N280TC	16500	22100	5280	208	
	<b>309 L3</b>	<b>223</b>	6.5	115100	13.0	14.8	71 to 160	N56C to N280TC	17000	22800	5460	208	
	<b>309 L3</b>	<b>239</b>	6.1	115100	12.1	14.8	71 to 160	N56C to N280TC	17300	23300	5590	208	
	<b>309 L3</b>	<b>284</b>	5.1	139600	12.4	14.8	71 to 160	N56C to N280TC	18200	24500	5920	208	
	<b>309 L3</b>	<b>336</b>	4.3	117600	8.8	14.8	71 to 160	N56C to N280TC	19200	25800	6270	208	
	<b>309 L4</b>	<b>349</b>	4.2	171800	12.8	10.1	71 to 160	N56C to N280TC	19400	26100	6340	208	
	<b>309 L4</b>	<b>406</b>	3.6	151300	9.7	10.1	71 to 160	N56C to N280TC	20300	27300	6670	208	
	<b>309 L4</b>	<b>465</b>	3.1	154600	8.6	10.1	71 to 160	N56C to N280TC	21200	28400	6980	208	
	<b>309 L4</b>	<b>509</b>	2.8	126600	6.5	10.1	71 to 160	N56C to N280TC	21700	29200	7190	208	





**3** **L****309 L****180,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>1450</b>	309 L4	579	2.5	182200	8.2	10.1	71 to 160	N56C to N280TC	22600	30300	7510	208
	309 L4	654	2.2	160400	6.4	10.1	71 to 160	N56C to N280TC	23400	31500	7820	208
	309 L4	722	2.0	183800	6.6	10.1	71 to 160	N56C to N280TC	24100	32400	8080	208
	309 L4	801	1.8	160800	5.2	10.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	906	1.6	157000	4.5	10.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	999	1.5	161200	4.2	10.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	1149	1.3	144300	3.3	10.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	1286	1.1	147200	3.0	10.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	1380	1.1	149100	2.8	10.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	1605	0.90	150500	2.4	10.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	1723	0.84	150500	2.3	10.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	2003	0.72	150500	2.0	10.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	2423	0.60	150500	1.6	10.1	71 to 160	N56C to N280TC	24700	32600	8090	208
<b>1150</b>	309 L1	3.43	335	36700	201	39	180 to 250	N320TC to N360TC	5200	6980	1470	208
	309 L1	4.09	281	43700	201	39	180 to 250	N320TC to N360TC	5480	7360	1560	208
	309 L1	5.25	219	56100	201	39	180 to 250	N320TC to N360TC	5910	7940	1690	208
	309 L1	6.23	185	62600	189	39	180 to 250	N320TC to N360TC	6220	8350	1790	208
	309 L2	12.3	93	51200	80	28	132 to 200	N250TC to N280TC	7640	10300	2250	208
	309 L2	14.7	78	61100	80	28	132 to 200	N250TC to N280TC	8050	10800	2390	208
	309 L2	17.4	66	72100	80	28	132 to 200	N250TC to N280TC	8460	11400	2520	208
	309 L2	21.8	53	81900	73	28	132 to 200	N250TC to N280TC	9060	12200	2720	208
	309 L2	25.4	45	83600	64	28	132 to 200	N250TC to N280TC	9480	12700	2860	208
	309 L2	28.0	41	99500	69	28	132 to 200	N250TC to N280TC	9760	13100	2960	208
	309 L2	32.6	35	103300	62	28	132 to 200	N250TC to N280TC	10200	13700	3110	208
	309 L2	38.6	29.8	98900	50	28	132 to 200	N250TC to N280TC	10800	14400	3290	208
	309 L2	46.7	24.6	101600	42	28	132 to 200	N250TC to N280TC	11400	15300	3510	208
	309 L3	51.3	22.4	95800	37	17.0	71 to 160	N56C to N280TC	11700	15700	3620	208
	309 L3	60.5	19.0	112800	37	17.0	71 to 160	N56C to N280TC	12300	16500	3820	208
	309 L3	74.1	15.5	120000	32	17.0	71 to 160	N56C to N280TC	13100	17600	4090	208
	309 L3	80.6	14.3	127600	32	17.0	71 to 160	N56C to N280TC	13400	18000	4200	208
	309 L3	93.0	12.4	126300	27	17.0	71 to 160	N56C to N280TC	14000	18800	4410	208
	309 L3	100	11.5	124000	25	17.0	71 to 160	N56C to N280TC	14300	19200	4520	208
	309 L3	113	10.2	141100	25	17.0	71 to 160	N56C to N280TC	14800	19900	4710	208
	309 L3	126	9.1	137000	22	17.0	71 to 160	N56C to N280TC	15300	20600	4880	208
	309 L3	139	8.3	142100	20	17.0	71 to 160	N56C to N280TC	15800	21200	5040	208
	309 L3	162	7.1	142500	17.6	17.0	71 to 160	N56C to N280TC	16500	22200	5300	208
	309 L3	183	6.3	126600	13.9	17.0	71 to 160	N56C to N280TC	17100	23000	5520	208
	309 L3	202	5.7	143000	14.2	17.0	71 to 160	N56C to N280TC	17700	23700	5710	208
	309 L3	223	5.2	115100	10.3	17.0	71 to 160	N56C to N280TC	18200	24400	5900	208
	309 L3	239	4.8	115700	9.7	17.0	71 to 160	N56C to N280TC	18600	25000	6040	208
	309 L3	284	4.1	139800	9.9	17.0	71 to 160	N56C to N280TC	19600	26300	6390	208
	309 L3	336	3.4	121700	7.2	17.0	71 to 160	N56C to N280TC	20600	27600	6770	208
	309 L4	349	3.3	176500	10.4	11.6	71 to 160	N56C to N280TC	20800	28000	6850	208
	309 L4	406	2.8	157000	8.0	11.6	71 to 160	N56C to N280TC	21800	29200	7200	208
	309 L4	465	2.5	160500	7.1	11.6	71 to 160	N56C to N280TC	22700	30500	7540	208
	309 L4	509	2.3	126800	5.1	11.6	71 to 160	N56C to N280TC	23300	31300	7770	208
	309 L4	579	2.0	183900	6.5	11.6	71 to 160	N56C to N280TC	24200	32500	8090	208
	309 L4	654	1.8	160900	5.1	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	722	1.6	185300	5.3	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	801	1.4	161300	4.2	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	906	1.3	158200	3.6	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	999	1.2	161700	3.3	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	1149	1.0	150400	2.7	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	1286	0.89	150500	2.4	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	1380	0.83	150500	2.2	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208



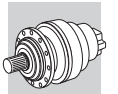
**309 L**

**180,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	IEC  IEC input	NEMA  NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1150</b>	309 L4	<b>1605</b>	0.72	150500	1.9	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>1723</b>	0.67	150500	1.8	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>2003</b>	0.57	150500	1.5	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>2423</b>	0.47	150500	1.3	11.6	71 to 160	N56C to N280TC	24700	32600	8090	208
<b>870</b>	309 L1	<b>3.43</b>	254	48500	201	44	180 to 250	N320TC to N360TC	5650	7590	1610	208
	309 L1	<b>4.09</b>	213	57800	201	44	180 to 250	N320TC to N360TC	5960	8010	1710	208
	309 L1	<b>5.25</b>	166	66200	179	44	180 to 250	N320TC to N360TC	6420	8630	1860	208
	309 L1	<b>6.23</b>	140	68100	155	44	180 to 250	N320TC to N360TC	6760	9080	1970	208
	309 L2	<b>12.3</b>	70	67700	80	31	132 to 200	N250TC to N280TC	8300	11200	2470	208
	309 L2	<b>14.7</b>	59	71500	71	31	132 to 200	N250TC to N280TC	8750	11800	2620	208
	309 L2	<b>17.4</b>	50	84900	72	31	132 to 200	N250TC to N280TC	9200	12400	2770	208
	309 L2	<b>21.8</b>	40	89000	60	31	132 to 200	N250TC to N280TC	9850	13200	2980	208
	309 L2	<b>25.4</b>	34	90300	52	31	132 to 200	N250TC to N280TC	10300	13800	3140	208
	309 L2	<b>28.0</b>	31	106700	56	31	132 to 200	N250TC to N280TC	10600	14300	3240	208
	309 L2	<b>32.6</b>	26.7	110800	50	31	132 to 200	N250TC to N280TC	11100	14900	3410	208
	309 L2	<b>38.6</b>	22.5	102800	39	31	132 to 200	N250TC to N280TC	11700	15700	3610	208
	309 L2	<b>46.7</b>	18.6	105600	33	31	132 to 200	N250TC to N280TC	12400	16600	3850	208
	309 L3	<b>51.3</b>	17.0	104200	31	19.2	71 to 160	N56C to N280TC	12700	17100	3970	208
	309 L3	<b>60.5</b>	14.4	122800	31	19.2	71 to 160	N56C to N280TC	13400	18000	4190	208
	309 L3	<b>74.1</b>	11.7	130700	27	19.2	71 to 160	N56C to N280TC	14200	19100	4490	208
	309 L3	<b>80.6</b>	10.8	138500	26	19.2	71 to 160	N56C to N280TC	14600	19600	4610	208
	309 L3	<b>93.0</b>	9.4	136400	22	19.2	71 to 160	N56C to N280TC	15200	20400	4840	208
	309 L3	<b>100</b>	8.7	134900	20	19.2	71 to 160	N56C to N280TC	15600	20900	4960	208
	309 L3	<b>113</b>	7.7	142300	19.0	19.2	71 to 160	N56C to N280TC	16100	21700	5170	208
	309 L3	<b>126</b>	6.9	145000	17.4	19.2	71 to 160	N56C to N280TC	16700	22400	5350	208
	309 L3	<b>139</b>	6.3	142800	15.6	19.2	71 to 160	N56C to N280TC	17200	23000	5530	208
	309 L3	<b>162</b>	5.4	143200	13.4	19.2	71 to 160	N56C to N280TC	18000	24100	5820	208
	309 L3	<b>183</b>	4.8	126600	10.5	19.2	71 to 160	N56C to N280TC	18600	25000	6060	208
	309 L3	<b>202</b>	4.3	146800	11.0	19.2	71 to 160	N56C to N280TC	19200	25800	6260	208
	309 L3	<b>223</b>	3.9	119300	8.1	19.2	71 to 160	N56C to N280TC	19800	26600	6480	208
	309 L3	<b>239</b>	3.6	120600	7.6	19.2	71 to 160	N56C to N280TC	20200	27100	6630	208
	309 L3	<b>284</b>	3.1	139800	7.5	19.2	71 to 160	N56C to N280TC	21300	28600	7020	208
	309 L3	<b>336</b>	2.6	126800	5.7	19.2	71 to 160	N56C to N280TC	22400	30100	7430	208
	309 L4	<b>349</b>	2.5	182300	8.1	13.1	71 to 160	N56C to N280TC	22600	30400	7520	208
	309 L4	<b>406</b>	2.1	164200	6.3	13.1	71 to 160	N56C to N280TC	23700	31800	7910	208
	309 L4	<b>465</b>	1.9	167900	5.6	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>509</b>	1.7	127300	3.9	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>579</b>	1.5	185700	5.0	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>654</b>	1.3	161400	3.9	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>722</b>	1.2	187200	4.0	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>801</b>	1.1	161800	3.2	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>906</b>	0.96	159300	2.7	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>999</b>	0.87	162000	2.5	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>1149</b>	0.76	150500	2.0	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>1286</b>	0.68	150500	1.8	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>1380</b>	0.63	150500	1.7	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>1605</b>	0.54	150500	1.5	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>1723</b>	0.51	150500	1.4	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>2003</b>	0.43	150500	1.2	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208
	309 L4	<b>2423</b>	0.36	150500	0.97	13.1	71 to 160	N56C to N280TC	24700	32600	8090	208







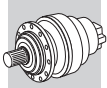




**310 L**

**250,000 in•lbs**

$n_1$ drive speed rpm		$i$ gear ratio 1:	$n_2$ output speed rpm	$T_{n2}$ rated torque in•lbs	$P_{n1}$ rated power HP	$P_t$ thermal capacity HP	 IEC	 NEMA	$R_{n2}$ [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1450</b>	<b>310 L2</b>	<b>46.7</b>	31	123500	65	30	160 to 250	N320TC to N360TC	12800	16500	5860	218
	<b>310 L3</b>	<b>53.0</b>	27.3	112800	54	24	132 to 200	N250TC to N280TC	13300	17100	6110	218
	<b>310 L3</b>	<b>62.6</b>	23.2	133200	54	24	132 to 200	N250TC to N280TC	14000	18000	6460	218
	<b>310 L3</b>	<b>73.9</b>	19.6	153800	52	24	132 to 200	N250TC to N280TC	14700	18900	6830	218
	<b>310 L3</b>	<b>80.3</b>	18.1	152200	48	24	132 to 200	N250TC to N280TC	15100	19400	7020	218
	<b>310 L3</b>	<b>91.3</b>	15.9	133900	37	24	132 to 200	N250TC to N280TC	15600	20100	7320	218
	<b>310 L3</b>	<b>101</b>	14.4	162800	41	24	132 to 200	N250TC to N280TC	16100	20800	7570	218
	<b>310 L3</b>	<b>110</b>	13.1	149300	34	24	132 to 200	N250TC to N280TC	16600	21300	7800	218
	<b>310 L3</b>	<b>119</b>	12.2	171100	36	24	132 to 200	N250TC to N280TC	16900	21800	8000	218
	<b>310 L3</b>	<b>130</b>	11.1	175800	34	24	132 to 200	N250TC to N280TC	17400	22400	8250	218
	<b>310 L3</b>	<b>142</b>	10.2	180200	32	24	132 to 200	N250TC to N280TC	17800	23000	8480	218
	<b>310 L3</b>	<b>164</b>	8.9	195500	30	24	132 to 200	N250TC to N280TC	18600	24000	8900	218
	<b>310 L3</b>	<b>177</b>	8.2	158300	23	24	132 to 200	N250TC to N280TC	19100	24600	9140	218
	<b>310 L3</b>	<b>202</b>	7.2	190500	24	24	132 to 200	N250TC to N280TC	19800	25600	9540	218
	<b>310 L3</b>	<b>230</b>	6.3	187200	21	24	132 to 200	N250TC to N280TC	20600	26600	9970	218
	<b>310 L3</b>	<b>249</b>	5.8	159600	16.1	24	132 to 200	N250TC to N280TC	21100	27200	10200	218
	<b>310 L3</b>	<b>295</b>	4.9	201500	17.2	24	132 to 200	N250TC to N280TC	22200	28600	10800	218
	<b>310 L3</b>	<b>350</b>	4.1	167300	12.0	24	132 to 200	N250TC to N280TC	23400	30200	11500	218
	<b>310 L4</b>	<b>392</b>	3.7	171600	11.4	14.8	71 to 160	N56C to N280TC	24200	31200	11900	218
	<b>310 L4</b>	<b>451</b>	3.2	211000	12.2	14.8	71 to 160	N56C to N280TC	25200	32500	12500	218
	<b>310 L4</b>	<b>507</b>	2.9	220000	11.3	14.8	71 to 160	N56C to N280TC	26200	33700	13000	218
	<b>310 L4</b>	<b>556</b>	2.6	238000	11.1	14.8	71 to 160	N56C to N280TC	26900	34600	13400	218
	<b>310 L4</b>	<b>637</b>	2.3	228300	9.3	14.8	71 to 160	N56C to N280TC	28000	36100	14000	218
	<b>310 L4</b>	<b>726</b>	2.0	233200	8.4	14.8	71 to 160	N56C to N280TC	29100	37300	14600	218
	<b>310 L4</b>	<b>818</b>	1.8	237200	7.5	14.8	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 L4</b>	<b>939</b>	1.5	239000	6.6	14.8	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 L4</b>	<b>1021</b>	1.4	245500	6.3	14.8	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 L4</b>	<b>1164</b>	1.2	251900	5.6	14.8	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 L4</b>	<b>1259</b>	1.2	244100	5.0	14.8	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 L4</b>	<b>1438</b>	1.0	229700	4.2	14.8	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 L4</b>	<b>1672</b>	0.87	230100	3.6	14.8	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 L4</b>	<b>1794</b>	0.81	230100	3.3	14.8	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 L4</b>	<b>2022</b>	0.72	230100	3.0	14.8	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 L4</b>	<b>2523</b>	0.57	230100	2.4	14.8	71 to 160	N56C to N280TC	29900	37300	14600	218
<b>1150</b>	<b>310 L1</b>	<b>4.09</b>	281	51000	235	54	200 to 250	N320TC to N360TC	6600	8510	2810	218
	<b>310 L1</b>	<b>5.25</b>	219	65500	235	54	200 to 250	N320TC to N360TC	7120	9170	3050	218
	<b>310 L1</b>	<b>6.23</b>	185	75100	227	54	200 to 250	N320TC to N360TC	7490	9650	3230	218
	<b>310 L2</b>	<b>14.7</b>	78	76400	101	34	160 to 250	N320TC to N360TC	9700	12500	4310	218
	<b>310 L2</b>	<b>17.4</b>	66	90200	101	34	160 to 250	N320TC to N360TC	10200	13100	4550	218
	<b>310 L2</b>	<b>21.8</b>	53	113200	101	34	160 to 250	N320TC to N360TC	10900	14100	4910	218
	<b>310 L2</b>	<b>25.4</b>	45	119400	91	34	160 to 250	N320TC to N360TC	11400	14700	5160	218
	<b>310 L2</b>	<b>28.0</b>	41	119200	83	34	160 to 250	N320TC to N360TC	11800	15100	5340	218
	<b>310 L2</b>	<b>30.7</b>	37	118700	75	34	160 to 250	N320TC to N360TC	12100	15600	5500	218
	<b>310 L2</b>	<b>32.6</b>	35	124600	74	34	160 to 250	N320TC to N360TC	12300	15800	5610	218
	<b>310 L2</b>	<b>38.6</b>	29.8	124700	63	34	160 to 250	N320TC to N360TC	13000	16700	5940	218
	<b>310 L2</b>	<b>46.7</b>	24.6	129900	54	34	160 to 250	N320TC to N360TC	13700	17700	6330	218
	<b>310 L3</b>	<b>53.0</b>	21.7	142200	54	28	132 to 200	N250TC to N280TC	14200	18300	6600	218
	<b>310 L3</b>	<b>62.6</b>	18.4	156900	50	28	132 to 200	N250TC to N280TC	15000	19300	6980	218
	<b>310 L3</b>	<b>73.9</b>	15.6	164900	45	28	132 to 200	N250TC to N280TC	15700	20300	7370	218
	<b>310 L3</b>	<b>80.3</b>	14.3	163100	41	28	132 to 200	N250TC to N280TC	16100	20800	7580	218
	<b>310 L3</b>	<b>91.3</b>	12.6	143600	31	28	132 to 200	N250TC to N280TC	16800	21600	7910	218
	<b>310 L3</b>	<b>101</b>	11.4	174500	35	28	132 to 200	N250TC to N280TC	17300	22200	8180	218
	<b>310 L3</b>	<b>110</b>	10.4	160000	29	28	132 to 200	N250TC to N280TC	17800	22900	8430	218
	<b>310 L3</b>	<b>119</b>	9.7	182400	31	28	132 to 200	N250TC to N280TC	18200	23400	8640	218

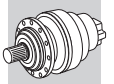


3 L

**310 L**

**250,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			R <sub>n2</sub> [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1150</b>	310 L3	130	8.8	188500	29	28	132 to 200	N250TC to N280TC	18700	24000	8910	218	
	310 L3	142	8.1	187100	26	28	132 to 200	N250TC to N280TC	19100	24600	9160	218	
	310 L3	164	7.0	209500	26	28	132 to 200	N250TC to N280TC	20000	25700	9610	218	
	310 L3	177	6.5	159200	18.0	28	132 to 200	N250TC to N280TC	20500	26400	9870	218	
	310 L3	202	5.7	197100	19.5	28	132 to 200	N250TC to N280TC	21300	27400	10300	218	
	310 L3	230	5.0	192900	16.8	28	132 to 200	N250TC to N280TC	22100	28500	10800	218	
	310 L3	249	4.6	163200	13.1	28	132 to 200	N250TC to N280TC	22700	29200	11100	218	
	310 L3	295	3.9	209200	14.2	28	132 to 200	N250TC to N280TC	23800	30700	11700	218	
	310 L3	350	3.3	176400	10.1	28	132 to 200	N250TC to N280TC	25100	32300	12400	218	
	310 L4	392	2.9	180900	9.5	17.0	71 to 160	N56C to N280TC	26000	33400	12900	218	
	310 L4	451	2.6	226100	10.3	17.0	71 to 160	N56C to N280TC	27100	34900	13500	218	
	310 L4	507	2.3	228400	9.3	17.0	71 to 160	N56C to N280TC	28000	36100	14000	218	
	310 L4	556	2.1	239000	8.9	17.0	71 to 160	N56C to N280TC	28800	37100	14400	218	
	310 L4	637	1.8	237100	7.7	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	726	1.6	242200	6.9	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	818	1.4	245900	6.2	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	939	1.2	239000	5.2	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	1021	1.1	254500	5.1	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	1164	0.99	261100	4.6	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	1259	0.91	247800	4.1	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	1438	0.80	230100	3.3	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	1672	0.69	230100	2.8	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	1794	0.64	230100	2.6	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	2022	0.57	230100	2.3	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 L4	2523	0.46	230100	1.9	17.0	71 to 160	N56C to N280TC	29900	37300	14600	218	
	<b>870</b>	310 L1	4.09	213	67500	235	61	200 to 250	N320TC to N360TC	7180	9250	3080	218
		310 L1	5.25	166	78300	212	61	200 to 250	N320TC to N360TC	7740	9970	3350	218
		310 L1	6.23	140	81700	187	61	200 to 250	N320TC to N360TC	8150	10500	3550	218
		310 L2	14.7	59	101000	101	38	160 to 250	N320TC to N360TC	10500	13600	4730	218
		310 L2	17.4	50	115900	98	38	160 to 250	N320TC to N360TC	11100	14300	5000	218
		310 L2	21.8	40	124100	83	38	160 to 250	N320TC to N360TC	11900	15300	5390	218
		310 L2	25.4	34	129900	75	38	160 to 250	N320TC to N360TC	12400	16000	5670	218
		310 L2	28.0	31	129500	68	38	160 to 250	N320TC to N360TC	12800	16500	5860	218
310 L2		30.7	28.4	129000	62	38	160 to 250	N320TC to N360TC	13100	16900	6040	218	
310 L2		32.6	26.7	135400	61	38	160 to 250	N320TC to N360TC	13400	17200	6160	218	
310 L2		38.6	22.5	132300	50	38	160 to 250	N320TC to N360TC	14100	18100	6520	218	
310 L2		46.7	18.6	137900	43	38	160 to 250	N320TC to N360TC	14900	19200	6950	218	
310 L3		53.0	16.4	162300	46	31	132 to 200	N250TC to N280TC	15500	19900	7250	218	
310 L3		62.6	13.9	170700	41	31	132 to 200	N250TC to N280TC	16300	21000	7660	218	
310 L3		73.9	11.8	179400	37	31	132 to 200	N250TC to N280TC	17100	22000	8090	218	
310 L3		80.3	10.8	177200	33	31	132 to 200	N250TC to N280TC	17500	22600	8320	218	
310 L3		91.3	9.5	156200	26	31	132 to 200	N250TC to N280TC	18200	23500	8680	218	
310 L3		101	8.6	185400	28	31	132 to 200	N250TC to N280TC	18800	24200	8980	218	
310 L3		110	7.9	173900	24	31	132 to 200	N250TC to N280TC	19300	24900	9250	218	
310 L3		119	7.3	190000	24	31	132 to 200	N250TC to N280TC	19700	25400	9490	218	
310 L3		130	6.7	205200	24	31	132 to 200	N250TC to N280TC	20300	26100	9780	218	
310 L3		142	6.1	194900	21	31	132 to 200	N250TC to N280TC	20800	26800	10100	218	
310 L3		164	5.3	227700	21	31	132 to 200	N250TC to N280TC	21700	28000	10500	218	
310 L3		177	4.9	160900	13.7	31	132 to 200	N250TC to N280TC	22200	28700	10800	218	
310 L3		202	4.3	205800	15.4	31	132 to 200	N250TC to N280TC	23100	29800	11300	218	
310 L3		230	3.8	192900	12.7	31	132 to 200	N250TC to N280TC	24100	31000	11800	218	
310 L3		249	3.5	173900	10.6	31	132 to 200	N250TC to N280TC	24600	31700	12100	218	
310 L3		295	2.9	218900	11.2	31	132 to 200	N250TC to N280TC	25900	33400	12800	218	
310 L3		350	2.5	187900	8.1	31	132 to 200	N250TC to N280TC	27300	35200	13600	218	



**310 L**

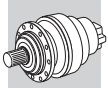
**250,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>870</b>	310 L4	392	2.2	192600	7.7	19.2	71 to 160	N56C to N280TC	28200	36300	14100	218
	310 L4	451	1.9	237600	8.2	19.2	71 to 160	N56C to N280TC	29400	37300	14600	218
	310 L4	507	1.7	239100	7.3	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	556	1.6	239000	6.7	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	637	1.4	248100	6.1	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	726	1.2	253500	5.4	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	818	1.1	256800	4.9	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	939	0.93	239000	4.0	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	1021	0.85	259300	4.0	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	1164	0.75	261100	3.5	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	1259	0.69	247800	3.1	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	1438	0.61	230100	2.5	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	1672	0.52	230100	2.1	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	1794	0.48	230100	2.0	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	2022	0.43	230100	1.8	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218
	310 L4	2523	0.34	230100	1.4	19.2	71 to 160	N56C to N280TC	29900	37300	14600	218

**311 L**

**400,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1750</b>	311 L1	5.25	333	49200	268	42			7420	9460	2660	226
	311 L1	6.23	281	58400	268	42			7810	9960	2810	226
	311 L2	14.0	125	73300	154	31	180 to 250	N320TC to N360TC	9970	12700	3680	226
	311 L2	16.7	105	87500	154	31	180 to 250	N320TC to N360TC	10500	13400	3910	226
	311 L2	18.0	97	94100	154	31	180 to 250	N320TC to N360TC	10700	13700	4000	226
	311 L2	21.5	81	112200	154	31	180 to 250	N320TC to N360TC	11300	14400	4250	226
	311 L2	25.5	69	133200	154	31	180 to 250	N320TC to N360TC	11900	15200	4500	226
	311 L2	27.6	63	144000	154	31	180 to 250	N320TC to N360TC	12200	15600	4610	226
	311 L2	32.7	53	170900	154	31	180 to 250	N320TC to N360TC	12800	16400	4890	226
	311 L2	38.8	45	168600	128	31	180 to 250	N320TC to N360TC	13500	17200	5170	226
	311 L3	50.5	35	133500	80	22	132 to 200	N250TC to N280TC	14600	18700	5650	226
	311 L3	60.2	29.0	159300	80	22	132 to 200	N250TC to N280TC	15400	19700	5990	226
	311 L3	71.1	24.6	188100	80	22	132 to 200	N250TC to N280TC	16200	20700	6330	226
	311 L3	77.3	22.6	204500	80	22	132 to 200	N250TC to N280TC	16600	21200	6510	226
	311 L3	89.3	19.6	219100	75	22	132 to 200	N250TC to N280TC	17400	22100	6830	226
	311 L3	104	16.9	229300	67	22	132 to 200	N250TC to N280TC	18200	23200	7180	226
311 L3	115	15.3	236200	63	22	132 to 200	N250TC to N280TC	18700	23900	7420	226	
311 L3	126	13.9	242700	59	22	132 to 200	N250TC to N280TC	19200	24500	7650	226	
311 L3	133	13.1	247100	56	22	132 to 200	N250TC to N280TC	19600	25000	7800	226	
311 L3	147	11.9	268700	56	22	132 to 200	N250TC to N280TC	20200	25700	8060	226	
311 L3	161	10.9	261600	49	22	132 to 200	N250TC to N280TC	20700	26400	8310	226	
311 L3	171	10.2	281200	50	22	132 to 200	N250TC to N280TC	21100	26900	8480	226	
311 L3	191	9.2	272700	43	22	132 to 200	N250TC to N280TC	21800	27800	8800	226	
311 L3	203	8.6	283800	43	22	132 to 200	N250TC to N280TC	22200	28300	8980	226	
311 L3	245	7.1	284500	35	22	132 to 200	N250TC to N280TC	23500	30000	9560	226	
311 L3	291	6.0	239000	25	22	132 to 200	N250TC to N280TC	24800	31600	10100	226	
311 L4	348	5.0	330300	30	13.3	71 to 160	N56C to N280TC	26100	33300	10700	226	

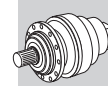


**3 L**

**311 L**







**400,000 in•lbs**

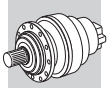
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	<b>311 L4</b>	<b>410</b>	4.3	345400	26	13.3	71 to 160	N56C to N280TC	27400	35000	11400	226
	<b>311 L4</b>	<b>512</b>	3.4	366400	22	13.3	71 to 160	N56C to N280TC	29300	37400	12200	226
	<b>311 L4</b>	<b>568</b>	3.1	357100	19.7	13.3	71 to 160	N56C to N280TC	30200	38600	12700	226
	<b>311 L4</b>	<b>627</b>	2.8	316800	15.9	13.3	71 to 160	N56C to N280TC	31200	39700	13100	226
	<b>311 L4</b>	<b>724</b>	2.4	398300	17.3	13.3	71 to 160	N56C to N280TC	32500	41500	13700	226
	<b>311 L4</b>	<b>825</b>	2.1	372800	14.2	13.3	71 to 160	N56C to N280TC	33800	43100	14300	226
	<b>311 L4</b>	<b>904</b>	1.9	398300	13.8	13.3	71 to 160	N56C to N280TC	34800	43800	14600	226
	<b>311 L4</b>	<b>986</b>	1.8	343500	10.9	13.3	71 to 160	N56C to N280TC	35300	43800	14600	226
	<b>311 L4</b>	<b>1058</b>	1.7	347800	10.3	13.3	71 to 160	N56C to N280TC	35300	43800	14600	226
	<b>311 L4</b>	<b>1230</b>	1.4	357300	9.1	13.3	71 to 160	N56C to N280TC	35300	43800	14600	226
	<b>311 L4</b>	<b>1415</b>	1.2	366400	8.1	13.3	71 to 160	N56C to N280TC	35300	43800	14600	226
	<b>311 L4</b>	<b>1680</b>	1.0	299000	5.6	13.3	71 to 160	N56C to N280TC	35300	43800	14600	226
	<b>311 L4</b>	<b>1766</b>	0.99	380600	6.8	13.3	71 to 160	N56C to N280TC	35300	43800	14600	226
	<b>311 L4</b>	<b>2096</b>	0.83	300900	4.5	13.3	71 to 160	N56C to N280TC	35300	43800	14600	226
	<b>1450</b>	<b>311 L1</b>	<b>5.25</b>	276	59400	268	47			7850	10000	2830
<b>311 L1</b>		<b>6.23</b>	233	70500	268	47	8270			10500	2990	226
<b>311 L2</b>		<b>14.0</b>	103	88500	154	35	180 to 250	N320TC to N360TC	10500	13400	3920	226
<b>311 L2</b>		<b>16.7</b>	87	105600	154	35	180 to 250	N320TC to N360TC	11100	14200	4160	226
<b>311 L2</b>		<b>18.0</b>	81	113500	154	35	180 to 250	N320TC to N360TC	11400	14500	4260	226
<b>311 L2</b>		<b>21.5</b>	68	135500	154	35	180 to 250	N320TC to N360TC	12000	15300	4520	226
<b>311 L2</b>		<b>25.5</b>	57	159200	153	35	180 to 250	N320TC to N360TC	12600	16100	4790	226
<b>311 L2</b>		<b>27.6</b>	53	171700	152	35	180 to 250	N320TC to N360TC	12900	16500	4910	226
<b>311 L2</b>		<b>32.7</b>	44	180800	135	35	180 to 250	N320TC to N360TC	13600	17300	5200	226
<b>311 L2</b>		<b>38.8</b>	37	176100	111	35	180 to 250	N320TC to N360TC	14300	18200	5510	226
<b>311 L3</b>		<b>50.5</b>	28.7	161200	80	24	132 to 200	N250TC to N280TC	15500	19700	6010	226
<b>311 L3</b>		<b>60.2</b>	24.1	192300	80	24	132 to 200	N250TC to N280TC	16300	20800	6380	226
<b>311 L3</b>		<b>71.1</b>	20.4	216600	77	24	132 to 200	N250TC to N280TC	17200	21900	6740	226
<b>311 L3</b>		<b>77.3</b>	18.8	222100	72	24	132 to 200	N250TC to N280TC	17600	22400	6930	226
<b>311 L3</b>		<b>89.3</b>	16.2	231900	65	24	132 to 200	N250TC to N280TC	18400	23400	7270	226
<b>311 L3</b>		<b>104</b>	14.0	242600	59	24	132 to 200	N250TC to N280TC	19200	24500	7640	226
<b>311 L3</b>		<b>115</b>	12.7	249900	55	24	132 to 200	N250TC to N280TC	19800	25200	7900	226
<b>311 L3</b>		<b>126</b>	11.6	256800	52	24	132 to 200	N250TC to N280TC	20400	25900	8140	226
<b>311 L3</b>		<b>133</b>	10.9	261400	49	24	132 to 200	N250TC to N280TC	20700	26400	8310	226
<b>311 L3</b>		<b>147</b>	9.9	283300	49	24	132 to 200	N250TC to N280TC	21300	27200	8580	226
<b>311 L3</b>		<b>161</b>	9.0	276900	43	24	132 to 200	N250TC to N280TC	21900	28000	8850	226
<b>311 L3</b>		<b>171</b>	8.5	283900	42	24	132 to 200	N250TC to N280TC	22300	28500	9030	226
<b>311 L3</b>		<b>191</b>	7.6	282400	37	24	132 to 200	N250TC to N280TC	23100	29400	9370	226
<b>311 L3</b>		<b>203</b>	7.1	284500	35	24	132 to 200	N250TC to N280TC	23500	30000	9560	226
<b>311 L3</b>		<b>245</b>	5.9	285200	29	24	132 to 200	N250TC to N280TC	24900	31700	10200	226
<b>311 L3</b>		<b>291</b>	5.0	239100	21	24	132 to 200	N250TC to N280TC	26200	33400	10800	226
<b>311 L4</b>		<b>348</b>	4.2	347400	26	14.8	71 to 160	N56C to N280TC	27600	35200	11400	226
<b>311 L4</b>		<b>410</b>	3.5	363100	23	14.8	71 to 160	N56C to N280TC	29000	37000	12100	226
<b>311 L4</b>		<b>512</b>	2.8	385300	19.6	14.8	71 to 160	N56C to N280TC	31000	39600	13000	226
<b>311 L4</b>		<b>568</b>	2.6	367800	16.8	14.8	71 to 160	N56C to N280TC	32000	40800	13500	226
<b>311 L4</b>		<b>627</b>	2.3	327600	13.6	14.8	71 to 160	N56C to N280TC	33000	42000	13900	226
<b>311 L4</b>		<b>724</b>	2.0	398300	14.3	14.8	71 to 160	N56C to N280TC	34400	43800	14600	226
<b>311 L4</b>		<b>825</b>	1.8	377100	11.9	14.8	71 to 160	N56C to N280TC	35300	43800	14600	226
<b>311 L4</b>		<b>904</b>	1.6	398300	11.5	14.8	71 to 160	N56C to N280TC	35300	43800	14600	226
<b>311 L4</b>		<b>986</b>	1.5	355200	9.4	14.8	71 to 160	N56C to N280TC	35300	43800	14600	226
<b>311 L4</b>		<b>1058</b>	1.4	359700	8.8	14.8	71 to 160	N56C to N280TC	35300	43800	14600	226
<b>311 L4</b>		<b>1230</b>	1.2	369600	7.8	14.8	71 to 160	N56C to N280TC	35300	43800	14600	226
<b>311 L4</b>		<b>1415</b>	1.0	378900	7.0	14.8	71 to 160	N56C to N280TC	35300	43800	14600	226
<b>311 L4</b>		<b>1680</b>	0.86	300900	4.7	14.8	71 to 160	N56C to N280TC	35300	43800	14600	226
<b>311 L4</b>		<b>1766</b>	0.82	380600	5.6	14.8	71 to 160	N56C to N280TC	35300	43800	14600	226
<b>311 L4</b>		<b>2096</b>	0.69	300900	3.7	14.8	71 to 160	N56C to N280TC	35300	43800	14600	226



## 311 L

400,000 in•lbs

$n_1$ drive speed rpm		i gear ratio 1:	$n_2$ output speed rpm	$Tn_2$ rated torque in•lbs	$Pn_1$ rated power HP	$P_t$ thermal capacity HP	 IEC IEC input	 NEMA NEMA input	$Rn_2$ [lbs] Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
1150	311 L1	4.09	281	58300	268	54			7810	9960	2810	226	
	311 L1	5.25	219	74900	268	54			8420	10700	3050	226	
	311 L1	6.23	185	88800	268	54			8860	11300	3230	226	
	311 L2	14.0	82	111500	154	40	180 to 250	N320TC to N360TC	11300	14400	4240	226	
	311 L2	16.7	69	133100	154	40	180 to 250	N320TC to N360TC	11900	15200	4490	226	
	311 L2	18.0	64	143100	154	40	180 to 250	N320TC to N360TC	12200	15500	4610	226	
	311 L2	21.5	54	162200	146	40	180 to 250	N320TC to N360TC	12800	16400	4880	226	
	311 L2	25.5	45	170700	130	40	180 to 250	N320TC to N360TC	13500	17200	5170	226	
	311 L2	27.6	42	184100	130	40	180 to 250	N320TC to N360TC	13800	17700	5310	226	
	311 L2	32.7	35	193900	115	40	180 to 250	N320TC to N360TC	14600	18600	5620	226	
	311 L2	38.8	29.6	185800	93	40	180 to 250	N320TC to N360TC	15300	19600	5950	226	
	311 L3	50.5	22.8	203200	80	28	132 to 200	N250TC to N280TC	16600	21200	6500	226	
	311 L3	60.2	19.1	220900	73	28	132 to 200	N250TC to N280TC	17500	22300	6890	226	
	311 L3	71.1	16.2	232200	65	28	132 to 200	N250TC to N280TC	18400	23500	7280	226	
	311 L3	77.3	14.9	238100	62	28	132 to 200	N250TC to N280TC	18900	24100	7490	226	
	311 L3	89.3	12.9	248600	56	28	132 to 200	N250TC to N280TC	19700	25100	7850	226	
	311 L3	104	11.1	260000	50	28	132 to 200	N250TC to N280TC	20600	26300	8260	226	
	311 L3	115	10.0	267900	47	28	132 to 200	N250TC to N280TC	21200	27100	8530	226	
	311 L3	126	9.2	275400	44	28	132 to 200	N250TC to N280TC	21800	27800	8800	226	
	311 L3	133	8.6	280400	42	28	132 to 200	N250TC to N280TC	22200	28300	8970	226	
	311 L3	147	7.8	284200	39	28	132 to 200	N250TC to N280TC	22900	29200	9270	226	
	311 L3	161	7.1	297100	37	28	132 to 200	N250TC to N280TC	23500	30000	9560	226	
	311 L3	171	6.7	284700	33	28	132 to 200	N250TC to N280TC	23900	30500	9750	226	
	311 L3	191	6.0	295000	31	28	132 to 200	N250TC to N280TC	24800	31600	10100	226	
	311 L3	203	5.7	285400	28	28	132 to 200	N250TC to N280TC	25200	32100	10300	226	
	311 L3	245	4.7	289200	24	28	132 to 200	N250TC to N280TC	26700	34000	11000	226	
	311 L3	291	3.9	246300	16.9	28	132 to 200	N250TC to N280TC	28100	35800	11600	226	
	311 L4	348	3.3	369600	22	17.0	71 to 160	N56C to N280TC	29600	37800	12400	226	
	311 L4	410	2.8	386300	19.4	17.0	71 to 160	N56C to N280TC	31100	39700	13100	226	
	311 L4	512	2.2	398300	16.0	17.0	71 to 160	N56C to N280TC	33300	42400	14100	226	
	311 L4	568	2.0	373800	13.6	17.0	71 to 160	N56C to N280TC	34300	43700	14600	226	
	311 L4	627	1.8	341400	11.2	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	311 L4	724	1.6	398300	11.3	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	311 L4	825	1.4	382500	9.6	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	311 L4	904	1.3	398300	9.1	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	311 L4	986	1.2	370200	7.7	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	311 L4	1058	1.1	375000	7.3	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	311 L4	1230	0.93	380600	6.4	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	311 L4	1415	0.81	380600	5.5	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	311 L4	1680	0.68	300900	3.7	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	311 L4	1766	0.65	380600	4.4	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	311 L4	2096	0.55	300900	3.0	17.0	71 to 160	N56C to N280TC	35300	43800	14600	226	
	870	311 L1	4.09	213	77100	268	61			8490	10800	3080	226
		311 L1	5.25	166	98900	268	61			9150	11700	3350	226
		311 L1	6.23	140	117400	268	61			9640	12300	3550	226
		311 L2	14.0	62	147400	154	45	180 to 250	N320TC to N360TC	12300	15700	4650	226
		311 L2	16.7	52	163600	143	45	180 to 250	N320TC to N360TC	13000	16500	4930	226
		311 L2	18.0	48	176200	144	45	180 to 250	N320TC to N360TC	13200	16900	5050	226
		311 L2	21.5	41	176300	120	45	180 to 250	N320TC to N360TC	14000	17800	5360	226
311 L2		25.5	34	185600	107	45	180 to 250	N320TC to N360TC	14700	18700	5680	226	
311 L2		27.6	32	200300	107	45	180 to 250	N320TC to N360TC	15100	19200	5830	226	
311 L2		32.7	26.6	210900	95	45	180 to 250	N320TC to N360TC	15800	20200	6170	226	
311 L2		38.8	22.4	198200	75	45	180 to 250	N320TC to N360TC	16700	21300	6530	226	



# 3 L

## 311 L

## 400,000 in•lbs

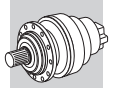
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
870	311 L3	50.5	17.2	227800	68	31	132 to 200	N250TC to N280TC	18100	23000	7130	226
	311 L3	60.2	14.4	240200	60	31	132 to 200	N250TC to N280TC	19000	24300	7560	226
	311 L3	71.1	12.2	252500	54	31	132 to 200	N250TC to N280TC	20000	25500	7990	226
	311 L3	77.3	11.3	258900	51	31	132 to 200	N250TC to N280TC	20500	26200	8220	226
	311 L3	89.3	9.7	270300	46	31	132 to 200	N250TC to N280TC	21400	27300	8620	226
	311 L3	104	8.4	282900	41	31	132 to 200	N250TC to N280TC	22400	28600	9060	226
	311 L3	115	7.6	291500	38	31	132 to 200	N250TC to N280TC	23100	29400	9370	226
	311 L3	126	6.9	299800	36	31	132 to 200	N250TC to N280TC	23700	30200	9660	226
	311 L3	133	6.5	305200	35	31	132 to 200	N250TC to N280TC	24100	30800	9850	226
	311 L3	147	5.9	285200	29	31	132 to 200	N250TC to N280TC	24900	31700	10200	226
	311 L3	161	5.4	323400	30	31	132 to 200	N250TC to N280TC	25600	32600	10500	226
	311 L3	171	5.1	285800	25	31	132 to 200	N250TC to N280TC	26000	33200	10700	226
	311 L3	191	4.6	305400	24	31	132 to 200	N250TC to N280TC	26900	34300	11100	226
	311 L3	203	4.3	293700	22	31	132 to 200	N250TC to N280TC	27400	34900	11300	226
	311 L3	245	3.5	303700	18.7	31	132 to 200	N250TC to N280TC	29000	37000	12100	226
	311 L3	291	3.0	255200	13.3	31	132 to 200	N250TC to N280TC	30500	38900	12800	226
	311 L4	348	2.5	398200	17.9	19.2	71 to 160	N56C to N280TC	32200	41100	13600	226
	311 L4	410	2.1	398300	15.1	19.2	71 to 160	N56C to N280TC	33800	43100	14300	226
	311 L4	512	1.7	398300	12.1	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	568	1.5	380300	10.4	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	627	1.4	358900	8.9	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	724	1.2	398300	8.6	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	825	1.1	389000	7.4	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	904	0.96	398300	6.9	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	986	0.88	380600	6.0	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	1058	0.82	380600	5.6	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	1230	0.71	380600	4.8	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	1415	0.61	380600	4.2	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	1680	0.52	300900	2.8	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	1766	0.49	380600	3.4	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226
	311 L4	2096	0.41	300900	2.2	19.2	71 to 160	N56C to N280TC	35300	43800	14600	226

## 313 L

## 485,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
1750	313 L2	14.2	123	96800	201	36	180 to 250	N320TC to N360TC	12000	15000	4550	234
	313 L2	16.9	103	115500	201	36	180 to 250	N320TC to N360TC	12700	15800	4830	234
	313 L2	18.5	95	126200	201	36	180 to 250	N320TC to N360TC	13000	16200	4970	234
	313 L2	21.8	80	148300	201	36	180 to 250	N320TC to N360TC	13700	17000	5250	234
	313 L2	25.8	68	175900	201	36	180 to 250	N320TC to N360TC	14400	17900	5560	234
	313 L2	28.4	62	193200	201	36	180 to 250	N320TC to N360TC	14800	18400	5730	234
	313 L2	33.6	52	229300	201	36	180 to 250	N320TC to N360TC	15600	19400	6070	234
	313 L2	40.5	43	252900	184	36	180 to 250	N320TC to N360TC	16500	20500	6460	234
	313 L3	51.1	34	135200	80	22	132 to 200	N250TC to N280TC	17700	22000	6980	234
	313 L3	61.0	28.7	161400	80	22	132 to 200	N250TC to N280TC	18600	23200	7400	234
	313 L3	72.0	24.3	190500	80	22	132 to 200	N250TC to N280TC	19600	24400	7820	234

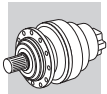
3 □ L



## 313 L

## 485,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP		NEMA NEMA input	Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
								NHC NPC	HZ PZ	FZ			
<b>1750</b>	313 L3	78.3	22.3	207100	80	22	132 to 200	N250TC to N280TC	20100	25000	8040	234	
	313 L3	92.4	18.9	244500	80	22	132 to 200	N250TC to N280TC	21100	26300	8500	234	
	313 L3	110	16.0	290100	80	22	132 to 200	N250TC to N280TC	22200	27600	9000	234	
	313 L3	120	14.5	318700	80	22	132 to 200	N250TC to N280TC	22800	28400	9290	234	
	313 L3	135	13.0	356600	80	22	132 to 200	N250TC to N280TC	23600	29400	9640	234	
	313 L3	143	12.2	374900	80	22	132 to 200	N250TC to N280TC	24000	29900	9830	234	
	313 L3	151	11.6	381200	77	22	132 to 200	N250TC to N280TC	24400	30400	10000	234	
	313 L3	163	10.7	358700	67	22	132 to 200	N250TC to N280TC	25000	31100	10300	234	
	313 L3	176	10.0	398300	69	22	132 to 200	N250TC to N280TC	25600	31800	10500	234	
	313 L3	182	9.6	345200	58	22	132 to 200	N250TC to N280TC	25800	32200	10700	234	
	313 L3	194	9.0	401400	63	22	132 to 200	N250TC to N280TC	26300	32800	10900	234	
	313 L3	209	8.4	398300	58	22	132 to 200	N250TC to N280TC	26900	33500	11200	234	
	313 L3	252	6.9	398300	48	22	132 to 200	N250TC to N280TC	28500	35500	11900	234	
	313 L3	304	5.8	345200	35	22	132 to 200	N250TC to N280TC	30100	37500	12600	234	
	313 L4	352	5.0	373300	33	13.3	71 to 160	N56C to N280TC	31500	39200	13300	234	
	313 L4	394	4.4	486800	39	13.3	71 to 160	N56C to N280TC	32600	40600	13800	234	
	313 L4	452	3.9	458300	32	13.3	71 to 160	N56C to N280TC	33900	42300	14400	234	
	313 L4	514	3.4	413700	25	13.3	71 to 160	N56C to N280TC	35300	43900	15100	234	
	313 L4	564	3.1	455000	25	13.3	71 to 160	N56C to N280TC	36300	45200	15500	234	
	313 L4	633	2.8	460200	23	13.3	71 to 160	N56C to N280TC	37600	46800	16100	234	
	313 L4	695	2.5	426300	19.2	13.3	71 to 160	N56C to N280TC	38600	48100	16700	234	
	313 L4	790	2.2	461200	18.3	13.3	71 to 160	N56C to N280TC	40100	50000	17400	234	
	313 L4	889	2.0	441600	15.6	13.3	71 to 160	N56C to N280TC	41600	51800	18000	234	
	313 L4	1014	1.7	450000	13.9	13.3	71 to 160	N56C to N280TC	43200	51900	18000	234	
	313 L4	1117	1.6	463800	13.0	13.3	71 to 160	N56C to N280TC	43200	51900	18000	234	
	313 L4	1266	1.4	464600	11.5	13.3	71 to 160	N56C to N280TC	43200	51900	18000	234	
	313 L4	1394	1.3	465600	10.5	13.3	71 to 160	N56C to N280TC	43200	51900	18000	234	
	313 L4	1502	1.2	476200	9.9	13.3	71 to 160	N56C to N280TC	43200	51900	18000	234	
	313 L4	1817	0.96	486800	8.4	13.3	71 to 160	N56C to N280TC	43200	51900	18000	234	
	313 L4	2187	0.80	433700	6.2	13.3	71 to 160	N56C to N280TC	43200	51900	18000	234	
	<b>1450</b>	313 L2	14.2	102	116800	201	40	180 to 250	N320TC to N360TC	12700	15800	4850	234
		313 L2	16.9	86	139400	201	40	180 to 250	N320TC to N360TC	13400	16700	5140	234
		313 L2	18.5	78	152300	201	40	180 to 250	N320TC to N360TC	13800	17200	5300	234
		313 L2	21.8	67	178900	201	40	180 to 250	N320TC to N360TC	14500	18000	5590	234
		313 L2	25.8	56	212400	201	40	180 to 250	N320TC to N360TC	15200	19000	5920	234
		313 L2	28.4	51	233200	201	40	180 to 250	N320TC to N360TC	15700	19500	6100	234
		313 L2	33.6	43	257200	187	40	180 to 250	N320TC to N360TC	16500	20500	6460	234
		313 L2	40.5	36	263200	159	40	180 to 250	N320TC to N360TC	17400	21700	6880	234
		313 L3	51.1	28.4	163200	80	24	132 to 200	N250TC to N280TC	18700	23300	7430	234
		313 L3	61.0	23.8	194700	80	24	132 to 200	N250TC to N280TC	19700	24500	7880	234
		313 L3	72.0	20.1	229900	80	24	132 to 200	N250TC to N280TC	20700	25800	8330	234
		313 L3	78.3	18.5	249900	80	24	132 to 200	N250TC to N280TC	21200	26400	8560	234
		313 L3	92.4	15.7	295000	80	24	132 to 200	N250TC to N280TC	22300	27800	9050	234
		313 L3	110	13.2	350200	80	24	132 to 200	N250TC to N280TC	23500	29300	9580	234
		313 L3	120	12.0	376800	79	24	132 to 200	N250TC to N280TC	24200	30100	9890	234
313 L3		135	10.8	393200	73	24	132 to 200	N250TC to N280TC	25000	31100	10300	234	
313 L3		143	10.1	396600	70	24	132 to 200	N250TC to N280TC	25400	31700	10500	234	
313 L3		151	9.6	398300	66	24	132 to 200	N250TC to N280TC	25900	32200	10700	234	
313 L3		163	8.9	379500	59	24	132 to 200	N250TC to N280TC	26500	33000	10900	234	
313 L3		176	8.2	398300	57	24	132 to 200	N250TC to N280TC	27100	33700	11200	234	
313 L3		182	8.0	345200	48	24	132 to 200	N250TC to N280TC	27300	34100	11300	234	
313 L3		194	7.5	419200	55	24	132 to 200	N250TC to N280TC	27900	34700	11600	234	
313 L3		209	7.0	398300	48	24	132 to 200	N250TC to N280TC	28500	35500	11900	234	
313 L3		252	5.7	398300	40	24	132 to 200	N250TC to N280TC	30200	37600	12700	234	
313 L3		304	4.8	347100	29	24	132 to 200	N250TC to N280TC	31900	39700	13500	234	



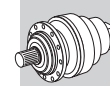
# 3 L

## 313 L

## 485,000 in•lbs






n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP		IEC input		NEMA input	Rn <sub>2</sub> [lbs]			
											NHC NPC	HZ PZ	FZ	
<b>1450</b>	313 L4	352	4.1	394800	29	14.8		71 to 160		N56C to N280TC	33300	41500	14100	234
	313 L4	394	3.7	486800	32	14.8		71 to 160		N56C to N280TC	34500	42900	14700	234
	313 L4	452	3.2	470300	27	14.8		71 to 160		N56C to N280TC	35900	44700	15400	234
	313 L4	514	2.8	421500	21	14.8		71 to 160		N56C to N280TC	37300	46500	16000	234
	313 L4	564	2.6	482500	22	14.8		71 to 160		N56C to N280TC	38400	47800	16500	234
	313 L4	633	2.3	460900	18.9	14.8		71 to 160		N56C to N280TC	39700	49500	17200	234
	313 L4	695	2.1	437900	16.4	14.8		71 to 160		N56C to N280TC	40900	50900	17700	234
	313 L4	790	1.8	462600	15.2	14.8		71 to 160		N56C to N280TC	42500	51900	18000	234
	313 L4	889	1.6	453700	13.3	14.8		71 to 160		N56C to N280TC	43200	51900	18000	234
	313 L4	1014	1.4	462400	11.8	14.8		71 to 160		N56C to N280TC	43200	51900	18000	234
	313 L4	1117	1.3	465300	10.8	14.8		71 to 160		N56C to N280TC	43200	51900	18000	234
	313 L4	1266	1.1	477300	9.8	14.8		71 to 160		N56C to N280TC	43200	51900	18000	234
	313 L4	1394	1.0	467000	8.7	14.8		71 to 160		N56C to N280TC	43200	51900	18000	234
	313 L4	1502	0.97	486800	8.4	14.8		71 to 160		N56C to N280TC	43200	51900	18000	234
	313 L4	1817	0.80	486800	7.0	14.8		71 to 160		N56C to N280TC	43200	51900	18000	234
	313 L4	2187	0.66	433700	5.2	14.8		71 to 160		N56C to N280TC	43200	51900	18000	234
<b>1150</b>	313 L1	4.14	278	73800	335	60					9420	11700	3470	234
	313 L1	5.40	213	96200	335	60					10200	12700	3790	234
	313 L1	6.50	177	115800	335	60					10800	13400	4040	234
	313 L2	14.2	81	147300	201	46		180 to 250		N320TC to N360TC	13600	17000	5240	234
	313 L2	16.9	68	175800	201	46		180 to 250		N320TC to N360TC	14400	17900	5560	234
	313 L2	18.5	62	192000	201	46		180 to 250		N320TC to N360TC	14800	18400	5720	234
	313 L2	21.8	53	225600	201	46		180 to 250		N320TC to N360TC	15500	19300	6040	234
	313 L2	25.8	45	251000	189	46		180 to 250		N320TC to N360TC	16300	20300	6390	234
	313 L2	28.4	41	261900	179	46		180 to 250		N320TC to N360TC	16800	20900	6590	234
	313 L2	33.6	34	275700	159	46		180 to 250		N320TC to N360TC	17700	22000	6980	234
	313 L2	40.5	28.4	276500	132	46		180 to 250		N320TC to N360TC	18700	23300	7430	234
	313 L3	51.1	22.5	205800	80	28		132 to 200		N250TC to N280TC	20000	24900	8030	234
	313 L3	61.0	18.8	245500	80	28		132 to 200		N250TC to N280TC	21100	26300	8510	234
	313 L3	72.0	16.0	289900	80	28		132 to 200		N250TC to N280TC	22200	27600	9000	234
	313 L3	78.3	14.7	315100	80	28		132 to 200		N250TC to N280TC	22800	28300	9250	234
	313 L3	92.4	12.4	372000	80	28		132 to 200		N250TC to N280TC	23900	29800	9780	234
	313 L3	110	10.5	386600	70	28		132 to 200		N250TC to N280TC	25200	31400	10400	234
	313 L3	120	9.5	398300	66	28		132 to 200		N250TC to N280TC	25900	32300	10700	234
	313 L3	135	8.5	419900	62	28		132 to 200		N250TC to N280TC	26800	33400	11100	234
	313 L3	143	8.0	398300	56	28		132 to 200		N250TC to N280TC	27300	34000	11300	234
	313 L3	151	7.6	398300	53	28		132 to 200		N250TC to N280TC	27700	34500	11500	234
	313 L3	163	7.0	406700	50	28		132 to 200		N250TC to N280TC	28400	35300	11800	234
	313 L3	176	6.5	398300	45	28		132 to 200		N250TC to N280TC	29000	36100	12100	234
	313 L3	182	6.3	345200	38	28		132 to 200		N250TC to N280TC	29300	36500	12300	234
	313 L3	194	5.9	442300	46	28		132 to 200		N250TC to N280TC	29900	37200	12500	234
	313 L3	209	5.5	398300	38	28		132 to 200		N250TC to N280TC	30500	38000	12800	234
	313 L3	252	4.6	402000	32	28		132 to 200		N250TC to N280TC	32300	40300	13700	234
	313 L3	304	3.8	357000	23	28		132 to 200		N250TC to N280TC	34200	42600	14500	234
	313 L4	352	3.3	423200	25	17.0		71 to 160		N56C to N280TC	35700	44500	15300	234
	313 L4	394	2.9	486800	25	17.0		71 to 160		N56C to N280TC	37000	46000	15900	234
	313 L4	452	2.5	485600	22	17.0		71 to 160		N56C to N280TC	38500	47900	16600	234
	313 L4	514	2.2	433400	17.4	17.0		71 to 160		N56C to N280TC	40000	49800	17300	234
313 L4	564	2.0	486800	17.8	17.0		71 to 160		N56C to N280TC	41100	51200	17900	234	
313 L4	633	1.8	462700	15.1	17.0		71 to 160		N56C to N280TC	42600	51900	18000	234	
313 L4	695	1.7	452700	13.4	17.0		71 to 160		N56C to N280TC	43200	51900	18000	234	
313 L4	790	1.5	464400	12.1	17.0		71 to 160		N56C to N280TC	43200	51900	18000	234	
313 L4	889	1.3	469100	10.9	17.0		71 to 160		N56C to N280TC	43200	51900	18000	234	
313 L4	1014	1.1	478100	9.7	17.0		71 to 160		N56C to N280TC	43200	51900	18000	234	
313 L4	1117	1.0	467100	8.6	17.0		71 to 160		N56C to N280TC	43200	51900	18000	234	

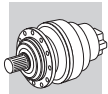




**313 L**

**485,000 in•lbs**

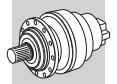
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1150</b>	313 L4	1266	0.91	486800	7.9	17.0	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	1394	0.83	467300	6.9	17.0	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	1502	0.77	486800	6.7	17.0	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	1817	0.63	486800	5.5	17.0	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	2187	0.53	433700	4.1	17.0	71 to 160	N56C to N280TC	43200	51900	18000	234
<b>870</b>	313 L1	4.14	210	97600	335	70			10200	12800	3810	234
	313 L1	5.40	161	127200	335	70			11100	13800	4160	234
	313 L1	6.50	134	153100	335	70			11700	14600	4430	234
	313 L2	14.2	61	194700	201	52			180 to 250	N320TC to N360TC	14800	18500
	313 L2	16.9	51	232400	201	52	180 to 250	N320TC to N360TC	15600	19500	6100	234
	313 L2	18.5	47	250700	199	52	180 to 250	N320TC to N360TC	16100	20000	6280	234
	313 L2	21.8	40	265000	179	52	180 to 250	N320TC to N360TC	16800	21000	6630	234
	313 L2	25.8	34	272800	155	52	180 to 250	N320TC to N360TC	17700	22100	7010	234
	313 L2	28.4	31	284800	147	52	180 to 250	N320TC to N360TC	18200	22700	7240	234
	313 L2	33.6	25.9	299700	131	52	180 to 250	N320TC to N360TC	19200	23900	7660	234
	313 L2	40.5	21.5	293400	106	52	180 to 250	N320TC to N360TC	20300	25300	8150	234
	313 L3	51.1	17.0	272000	80	31	132 to 200	N250TC to N280TC	21800	27100	8810	234
	313 L3	61.0	14.3	324600	80	31	132 to 200	N250TC to N280TC	23000	28600	9340	234
	313 L3	72.0	12.1	341300	72	31	132 to 200	N250TC to N280TC	24100	30100	9880	234
	313 L3	78.3	11.1	389300	75	31	132 to 200	N250TC to N280TC	24700	30800	10200	234
	313 L3	92.4	9.4	408600	67	31	132 to 200	N250TC to N280TC	26000	32400	10700	234
	313 L3	110	7.9	413700	57	31	132 to 200	N250TC to N280TC	27400	34100	11400	234
	313 L3	120	7.2	398300	50	31	132 to 200	N250TC to N280TC	28200	35100	11700	234
	313 L3	135	6.5	453600	51	31	132 to 200	N250TC to N280TC	29100	36300	12200	234
	313 L3	143	6.1	398300	42	31	132 to 200	N250TC to N280TC	29600	36900	12400	234
	313 L3	151	5.8	398300	40	31	132 to 200	N250TC to N280TC	30100	37500	12600	234
	313 L3	163	5.3	441900	41	31	132 to 200	N250TC to N280TC	30800	38400	13000	234
	313 L3	176	4.9	398700	34	31	132 to 200	N250TC to N280TC	31500	39300	13300	234
	313 L3	182	4.8	347100	29	31	132 to 200	N250TC to N280TC	31900	39700	13500	234
	313 L3	194	4.5	460200	36	31	132 to 200	N250TC to N280TC	32500	40400	13700	234
	313 L3	209	4.2	405500	29	31	132 to 200	N250TC to N280TC	33200	41300	14100	234
	313 L3	252	3.4	413200	25	31	132 to 200	N250TC to N280TC	35200	43800	15000	234
	313 L3	304	2.9	369200	18.4	31	132 to 200	N250TC to N280TC	37200	46300	16000	234
	313 L4	352	2.5	458800	20	19.2	71 to 160	N56C to N280TC	38800	48400	16800	234
	313 L4	394	2.2	486800	19.3	19.2	71 to 160	N56C to N280TC	40200	50000	17400	234
	313 L4	452	1.9	486800	16.8	19.2	71 to 160	N56C to N280TC	41900	51900	18000	234
	313 L4	514	1.7	451200	13.7	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	564	1.5	486800	13.5	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	633	1.4	464800	11.5	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	695	1.3	471300	10.6	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	790	1.1	466600	9.2	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	889	0.98	486800	8.5	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	1014	0.86	486800	7.5	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	1117	0.78	467300	6.5	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	1266	0.69	486800	6.0	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	1394	0.62	467300	5.2	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	1502	0.58	486800	5.1	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	1817	0.48	486800	4.2	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 L4	2187	0.40	433700	3.1	19.2	71 to 160	N56C to N280TC	43200	51900	18000	234







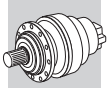
### 314 L

### 710,000 in•lbs

<b>314 L</b>				<b>710,000 in•lbs</b>									
$n_1$ drive speed rpm		i gear ratio 1:	$n_2$ output speed rpm	$Tn_2$ rated torque in•lbs	$Pn_1$ rated power HP	$P_t$ thermal capacity HP	 IEC input	 NEMA input	$Rn_2$ [lbs]				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	<b>314 L3</b>	<b>62.6</b>	28.0	206900	101	30	160 to 250	N320TC to N360TC	20600	24700	8400	242	
	<b>314 L3</b>	<b>73.9</b>	23.7	244300	101	30	160 to 250	N320TC to N360TC	21700	26000	8880	242	
	<b>314 L3</b>	<b>92.7</b>	18.9	306500	101	30	160 to 250	N320TC to N360TC	23200	27800	9570	242	
	<b>314 L3</b>	<b>108</b>	16.2	356400	101	30	160 to 250	N320TC to N360TC	24300	29100	10100	242	
	<b>314 L3</b>	<b>138</b>	12.7	457300	101	30	160 to 250	N320TC to N360TC	26200	31400	10900	242	
	<b>314 L3</b>	<b>164</b>	10.7	541900	100	30	160 to 250	N320TC to N360TC	27500	33000	11600	242	
	<b>314 L3</b>	<b>174</b>	10.1	551000	97	30	160 to 250	N320TC to N360TC	28000	33600	11800	242	
	<b>314 L3</b>	<b>206</b>	8.5	553900	82	30	160 to 250	N320TC to N360TC	29500	35400	12500	242	
	<b>314 L3</b>	<b>240</b>	7.3	460200	58	30	160 to 250	N320TC to N360TC	30800	37000	13100	242	
	<b>314 L4</b>	<b>314</b>	5.6	537100	54	18	132 to 200	N250TC to N280TC	33400	40100	14400	242	
	<b>314 L4</b>	<b>388</b>	4.5	663700	54	18	132 to 200	N250TC to N280TC	35600	42800	15400	242	
	<b>314 L4</b>	<b>458</b>	3.8	695000	48	18	132 to 200	N250TC to N280TC	37500	45000	16300	242	
	<b>314 L4</b>	<b>495</b>	3.5	697300	44	18	132 to 200	N250TC to N280TC	38300	46000	16700	242	
	<b>314 L4</b>	<b>554</b>	3.2	700800	40	18	132 to 200	N250TC to N280TC	39700	47600	17400	242	
	<b>314 L4</b>	<b>588</b>	3.0	702700	37	18	132 to 200	N250TC to N280TC	40400	48500	17700	242	
	<b>314 L4</b>	<b>668</b>	2.6	706600	33	18	132 to 200	N250TC to N280TC	41900	50400	18500	242	
	<b>314 L4</b>	<b>738</b>	2.4	710000	30	18	132 to 200	N250TC to N280TC	43200	51900	19100	242	
	<b>314 L4</b>	<b>858</b>	2.0	715800	26	18	132 to 200	N250TC to N280TC	45200	54300	20100	242	
	<b>314 L4</b>	<b>926</b>	1.9	640800	22	18	132 to 200	N250TC to N280TC	46300	54600	20200	242	
	<b>314 L4</b>	<b>1038</b>	1.7	723100	22	18	132 to 200	N250TC to N280TC	46300	54600	20200	242	
	<b>314 L4</b>	<b>1099</b>	1.6	656500	18.7	18	132 to 200	N250TC to N280TC	46300	54600	20200	242	
	<b>314 L4</b>	<b>1277</b>	1.4	670500	16.5	18	132 to 200	N250TC to N280TC	46300	54600	20200	242	
	<b>314 L4</b>	<b>1485</b>	1.2	553100	11.7	18	132 to 200	N250TC to N280TC	46300	54600	20200	242	
	<b>314 L4</b>	<b>1796</b>	0.97	566400	9.9	18	132 to 200	N250TC to N280TC	46300	54600	20200	242	
	<b>1450</b>	<b>314 L2</b>	<b>17.4</b>	83	166900	235	54	200 to 250	N320TC to N360TC	14900	17800	5830	242
		<b>314 L2</b>	<b>22.3</b>	65	214100	235	54	200 to 250	N320TC to N360TC	16000	19200	6340	242
		<b>314 L2</b>	<b>26.5</b>	55	254200	235	54	200 to 250	N320TC to N360TC	16800	20200	6710	242
		<b>314 L2</b>	<b>28.0</b>	52	268700	235	54	200 to 250	N320TC to N360TC	17100	20600	6840	242
<b>314 L2</b>		<b>33.2</b>	44	318900	235	54	200 to 250	N320TC to N360TC	18000	21700	7240	242	
<b>314 L2</b>		<b>38.6</b>	38	315100	199	54	200 to 250	N320TC to N360TC	18900	22700	7610	242	
<b>314 L3</b>		<b>62.6</b>	23.2	249700	101	34	160 to 250	N320TC to N360TC	21800	26200	8940	242	
<b>314 L3</b>		<b>73.9</b>	19.6	294800	101	34	160 to 250	N320TC to N360TC	22900	27500	9450	242	
<b>314 L3</b>		<b>92.7</b>	15.6	370000	101	34	160 to 250	N320TC to N360TC	24500	29500	10200	242	
<b>314 L3</b>		<b>108</b>	13.5	430100	101	34	160 to 250	N320TC to N360TC	25700	30800	10700	242	
<b>314 L3</b>		<b>138</b>	10.5	551900	101	34	160 to 250	N320TC to N360TC	27700	33200	11600	242	
<b>314 L3</b>		<b>164</b>	8.8	574300	88	34	160 to 250	N320TC to N360TC	29100	35000	12300	242	
<b>314 L3</b>		<b>174</b>	8.4	554100	80	34	160 to 250	N320TC to N360TC	29600	35600	12600	242	
<b>314 L3</b>		<b>206</b>	7.0	555900	68	34	160 to 250	N320TC to N360TC	31200	37400	13300	242	
<b>314 L3</b>		<b>240</b>	6.1	460200	48	34	160 to 250	N320TC to N360TC	32600	39200	14000	242	
<b>314 L4</b>		<b>314</b>	4.6	648200	54	20.0	132 to 200	N250TC to N280TC	35400	42500	15300	242	
<b>314 L4</b>		<b>388</b>	3.7	695700	47	20.0	132 to 200	N250TC to N280TC	37700	45300	16400	242	
<b>314 L4</b>		<b>458</b>	3.2	700800	40	20.0	132 to 200	N250TC to N280TC	39600	47600	17400	242	
<b>314 L4</b>		<b>495</b>	2.9	703100	37	20.0	132 to 200	N250TC to N280TC	40500	48700	17800	242	
<b>314 L4</b>		<b>554</b>	2.6	706600	33	20.0	132 to 200	N250TC to N280TC	42000	50400	18500	242	
<b>314 L4</b>		<b>588</b>	2.5	708600	31	20.0	132 to 200	N250TC to N280TC	42700	51300	18900	242	
<b>314 L4</b>		<b>668</b>	2.2	713400	28	20.0	132 to 200	N250TC to N280TC	44400	53300	19700	242	
<b>314 L4</b>		<b>738</b>	2.0	717200	25	20.0	132 to 200	N250TC to N280TC	45700	54600	20200	242	
<b>314 L4</b>		<b>858</b>	1.7	723000	22	20.0	132 to 200	N250TC to N280TC	46300	54600	20200	242	
<b>314 L4</b>		<b>926</b>	1.6	658000	18.5	20.0	132 to 200	N250TC to N280TC	46300	54600	20200	242	
<b>314 L4</b>		<b>1038</b>	1.4	730300	18.3	20.0	132 to 200	N250TC to N280TC	46300	54600	20200	242	
<b>314 L4</b>		<b>1099</b>	1.3	674100	15.9	20.0	132 to 200	N250TC to N280TC	46300	54600	20200	242	
<b>314 L4</b>		<b>1277</b>	1.1	688600	14.0	20.0	132 to 200	N250TC to N280TC	46300	54600	20200	242	
<b>314 L4</b>		<b>1485</b>	0.98	566400	9.9	20.0	132 to 200	N250TC to N280TC	46300	54600	20200	242	
<b>314 L4</b>		<b>1796</b>	0.81	566400	8.2	20.0	132 to 200	N250TC to N280TC	46300	54600	20200	242	

**314 L****710,000 in•lbs**

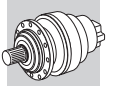
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1150</b>	314 L2	17.4	66	210400	235	62	200 to 250	N320TC to N360TC	15900	19100	6300	242	
	314 L2	22.3	52	270000	235	62	200 to 250	N320TC to N360TC	17200	20600	6850	242	
	314 L2	26.5	43	320500	235	62	200 to 250	N320TC to N360TC	18100	21700	7250	242	
	314 L2	28.0	41	338800	235	62	200 to 250	N320TC to N360TC	18400	22100	7390	242	
	314 L2	33.2	35	384600	224	62	200 to 250	N320TC to N360TC	19300	23200	7820	242	
	314 L2	38.6	29.8	336800	169	62	200 to 250	N320TC to N360TC	20200	24300	8230	242	
	314 L3	62.6		18.4	314900	101	39	160 to 250	N320TC to N360TC	23400	28100	9660	242
	314 L3	73.9		15.6	371700	101	39	160 to 250	N320TC to N360TC	24600	29500	10200	242
	314 L3	92.7		12.4	466500	101	39	160 to 250	N320TC to N360TC	26300	31600	11000	242
	314 L3	108		10.7	542300	101	39	160 to 250	N320TC to N360TC	27500	33000	11600	242
	314 L3	138		8.3	612600	89	39	160 to 250	N320TC to N360TC	29700	35600	12600	242
	314 L3	164		7.0	617700	75	39	160 to 250	N320TC to N360TC	31200	37500	13300	242
	314 L3	174		6.6	556500	64	39	160 to 250	N320TC to N360TC	31800	38100	13600	242
	314 L3	206		5.6	558200	54	39	160 to 250	N320TC to N360TC	33400	40100	14400	242
	314 L3	240		4.8	462200	39	39	160 to 250	N320TC to N360TC	35000	42000	15100	242
	314 L4	314		3.7	696300	46	23	132 to 200	N250TC to N280TC	37900	45500	16500	242
	314 L4	388		3.0	702800	37	23	132 to 200	N250TC to N280TC	40400	48500	17700	242
	314 L4	458		2.5	707900	32	23	132 to 200	N250TC to N280TC	42500	51000	18800	242
	314 L4	495		2.3	710800	30	23	132 to 200	N250TC to N280TC	43500	52200	19200	242
	314 L4	554		2.1	715100	27	23	132 to 200	N250TC to N280TC	45000	54000	20000	242
	314 L4	588		2.0	717400	25	23	132 to 200	N250TC to N280TC	45800	54600	20200	242
	314 L4	668		1.7	722300	22	23	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	738		1.6	726100	20	23	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	858		1.3	731900	17.6	23	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	926		1.2	679900	15.1	23	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	1038		1.1	739400	14.7	23	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	1099		1.0	696500	13.1	23	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	1277		0.90	701000	11.3	23	132 to 200	N250TC to N280TC	46300	54600	20200	242
314 L4	1485		0.77	566400	7.9	23	132 to 200	N250TC to N280TC	46300	54600	20200	242	
314 L4	1796		0.64	566400	6.5	23	132 to 200	N250TC to N280TC	46300	54600	20200	242	
<b>870</b>	314 L2	17.4	50	278100	235	70	200 to 250	N320TC to N360TC	17300	20800	6920	242	
	314 L2	22.3	39	356900	235	70	200 to 250	N320TC to N360TC	18700	22400	7520	242	
	314 L2	26.5	33	388100	215	70	200 to 250	N320TC to N360TC	19600	23600	7960	242	
	314 L2	28.0	31	396900	208	70	200 to 250	N320TC to N360TC	20000	24000	8110	242	
	314 L2	33.2	26.2	417200	184	70	200 to 250	N320TC to N360TC	21000	25200	8580	242	
	314 L2	38.6	22.5	364800	139	70	200 to 250	N320TC to N360TC	22000	26400	9030	242	
	314 L3	62.6		13.9	416200	101	44	160 to 250	N320TC to N360TC	25400	30500	10600	242
	314 L3	73.9		11.8	491400	101	44	160 to 250	N320TC to N360TC	26700	32100	11200	242
	314 L3	92.7		9.4	570000	93	44	160 to 250	N320TC to N360TC	28600	34300	12100	242
	314 L3	108		8.1	596000	84	44	160 to 250	N320TC to N360TC	29900	35900	12700	242
	314 L3	138		6.3	652300	71	44	160 to 250	N320TC to N360TC	32300	38700	13800	242
	314 L3	164		5.3	674400	62	44	160 to 250	N320TC to N360TC	34000	40800	14600	242
	314 L3	174		5.0	559300	49	44	160 to 250	N320TC to N360TC	34500	41400	14900	242
	314 L3	206		4.2	572700	42	44	160 to 250	N320TC to N360TC	36300	43600	15800	242
	314 L3	240		3.6	476200	30	44	160 to 250	N320TC to N360TC	38000	45600	16600	242
	314 L4	314		2.8	704900	35	26	132 to 200	N250TC to N280TC	41200	49500	18200	242
	314 L4	388		2.2	712200	29	26	132 to 200	N250TC to N280TC	43900	52800	19500	242
	314 L4	458		1.9	718500	24	26	132 to 200	N250TC to N280TC	46200	54600	20200	242
	314 L4	495		1.8	721400	23	26	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	554		1.6	725800	20	26	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	588		1.5	728100	19.3	26	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	668		1.3	733100	17.1	26	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	738		1.2	737000	15.6	26	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	858		1.0	742900	13.5	26	132 to 200	N250TC to N280TC	46300	54600	20200	242

**3 L****314 L****710,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	314 L4	<b>926</b>	0.94	701000	11.8	26	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	<b>1038</b>	0.84	743500	11.2	26	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	<b>1099</b>	0.79	701000	9.9	26	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	<b>1277</b>	0.68	701000	8.6	26	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	<b>1485</b>	0.59	566400	5.9	26	132 to 200	N250TC to N280TC	46300	54600	20200	242
	314 L4	<b>1796</b>	0.48	566400	4.9	26	132 to 200	N250TC to N280TC	46300	54600	20200	242







**315 L****900,000 in•lbs**

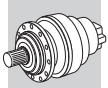
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	R <sub>n2</sub> [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	315 L3	<b>59.6</b>	29.4	302200	154	36	180 to 250	N320TC to N360TC	20300	24400	8260	250	
	315 L3	<b>71.1</b>	24.6	360500	154	36	180 to 250	N320TC to N360TC	21400	25700	8760	250	
	315 L3	<b>91.3</b>	19.2	462700	154	36	180 to 250	N320TC to N360TC	23100	27700	9520	250	
	315 L3	<b>108</b>	16.2	549100	154	36	180 to 250	N320TC to N360TC	24300	29200	10100	250	
	315 L3	<b>139</b>	12.6	685200	150	36	180 to 250	N320TC to N360TC	26200	31400	11000	250	
	315 L3	<b>165</b>	10.6	678400	125	36	180 to 250	N320TC to N360TC	27600	33100	11600	250	
	315 L3	<b>174</b>	10.0	689700	120	36	180 to 250	N320TC to N360TC	28000	33700	11800	250	
	315 L3	<b>207</b>	8.5	692500	102	36	180 to 250	N320TC to N360TC	29500	35400	12500	250	
	315 L3	<b>241</b>	7.3	575300	73	36	180 to 250	N320TC to N360TC	30900	37100	13200	250	
	315 L4	<b>302</b>	5.8	775500	80	22	132 to 200	N250TC to N280TC	33100	39700	14200	250	
	315 L4	<b>370</b>	4.7	860600	73	22	132 to 200	N250TC to N280TC	35100	42200	15200	250	
	315 L4	<b>441</b>	4.0	867300	62	22	132 to 200	N250TC to N280TC	37000	44500	16100	250	
	315 L4	<b>487</b>	3.6	871100	56	22	132 to 200	N250TC to N280TC	38100	45800	16600	250	
	315 L4	<b>533</b>	3.3	874600	51	22	132 to 200	N250TC to N280TC	39200	47100	17200	250	
	315 L4	<b>591</b>	3.0	878500	47	22	132 to 200	N250TC to N280TC	40400	48500	17800	250	
	315 L4	<b>672</b>	2.6	883500	41	22	132 to 200	N250TC to N280TC	42000	50400	18500	250	
	315 L4	<b>741</b>	2.4	887800	38	22	132 to 200	N250TC to N280TC	43300	52000	19100	250	
	315 L4	<b>862</b>	2.0	894900	33	22	132 to 200	N250TC to N280TC	45300	54400	20100	250	
	315 L4	<b>930</b>	1.9	801500	27	22	132 to 200	N250TC to N280TC	46300	54600	20200	250	
	315 L4	<b>1043</b>	1.7	904100	27	22	132 to 200	N250TC to N280TC	46300	54600	20200	250	
	315 L4	<b>1104</b>	1.6	821100	23	22	132 to 200	N250TC to N280TC	46300	54600	20200	250	
	315 L4	<b>1284</b>	1.4	838800	20	22	132 to 200	N250TC to N280TC	46300	54600	20200	250	
	315 L4	<b>1492</b>	1.2	691800	14.5	22	132 to 200	N250TC to N280TC	46300	54600	20200	250	
	315 L4	<b>1805</b>	0.97	708100	12.3	22	132 to 200	N250TC to N280TC	46300	54600	20200	250	
	<b>1450</b>	315 L3	<b>59.6</b>	24.3	364700	154	40	180 to 250	N320TC to N360TC	21500	25800	8800	250
		315 L3	<b>71.1</b>	20.4	435100	154	40	180 to 250	N320TC to N360TC	22700	27200	9330	250
315 L3		<b>91.3</b>	15.9	558400	154	40	180 to 250	N320TC to N360TC	24400	29300	10100	250	
315 L3		<b>108</b>	13.4	640500	149	40	180 to 250	N320TC to N360TC	25700	30900	10700	250	
315 L3		<b>139</b>	10.4	725300	132	40	180 to 250	N320TC to N360TC	27700	33300	11700	250	
315 L3		<b>165</b>	8.8	719000	110	40	180 to 250	N320TC to N360TC	29200	35000	12400	250	
315 L3		<b>174</b>	8.3	692700	100	40	180 to 250	N320TC to N360TC	29700	35600	12600	250	
315 L3		<b>207</b>	7.0	694900	85	40	180 to 250	N320TC to N360TC	31200	37500	13300	250	
315 L3		<b>241</b>	6.0	575300	60	40	180 to 250	N320TC to N360TC	32700	39200	14000	250	
315 L4		<b>302</b>	4.8	860100	74	24	132 to 200	N250TC to N280TC	35000	42000	15100	250	
315 L4		<b>370</b>	3.9	867700	61	24	132 to 200	N250TC to N280TC	37200	44600	16200	250	







# 315 L





# 900,000 in•lbs

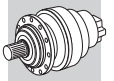
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC	 NEMA	Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1450</b>	315 L4	441	3.3	874500	52	24	132 to 200	N250TC to N280TC	39200	47000	17100	250
	315 L4	487	3.0	878300	47	24	132 to 200	N250TC to N280TC	40400	48400	17700	250
	315 L4	533	2.7	881800	43	24	132 to 200	N250TC to N280TC	41500	49800	18300	250
	315 L4	591	2.5	885900	39	24	132 to 200	N250TC to N280TC	42800	51300	18900	250
	315 L4	672	2.2	892000	35	24	132 to 200	N250TC to N280TC	44400	53400	19700	250
	315 L4	741	2.0	896700	31	24	132 to 200	N250TC to N280TC	45800	54600	20200	250
	315 L4	862	1.7	903900	27	24	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	930	1.6	823100	23	24	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1043	1.4	913200	23	24	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1104	1.3	843200	19.8	24	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1284	1.1	861300	17.4	24	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1492	0.97	708100	12.3	24	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1805	0.80	708100	10.2	24	132 to 200	N250TC to N280TC	46300	54600	20200	250
<b>1150</b>	315 L2	17.4	66	240500	268	69			15900	19100	6300	250
	315 L2	22.3	52	308600	268	69			17200	20600	6850	250
	315 L2	26.5	43	366200	268	69			18100	21700	7250	250
	315 L2	28.0	41	387200	268	69			18400	22100	7390	250
	315 L2	33.2	35	459600	268	69			19300	23200	7820	250
	315 L2	38.6	29.8	421000	211	69			20200	24300	8230	250
	315 L3	59.6	19.3	459800	154	46	180 to 250	N320TC to N360TC	23000	27700	9500	250
	315 L3	71.1	16.2	548600	154	46	180 to 250	N320TC to N360TC	24300	29200	10100	250
	315 L3	91.3	12.6	652300	143	46	180 to 250	N320TC to N360TC	26200	31400	11000	250
	315 L3	108	10.6	686800	127	46	180 to 250	N320TC to N360TC	27600	33100	11600	250
	315 L3	139	8.3	766600	110	46	180 to 250	N320TC to N360TC	29700	35700	12600	250
	315 L3	165	7.0	773400	94	46	180 to 250	N320TC to N360TC	31300	37500	13300	250
	315 L3	174	6.6	695700	80	46	180 to 250	N320TC to N360TC	31800	38200	13600	250
	315 L3	207	5.6	697900	67	46	180 to 250	N320TC to N360TC	33500	40200	14400	250
	315 L3	241	4.8	578100	48	46	180 to 250	N320TC to N360TC	35000	42000	15100	250
	315 L4	302	3.8	868900	59	28	132 to 200	N250TC to N280TC	37500	45000	16300	250
	315 L4	370	3.1	876600	49	28	132 to 200	N250TC to N280TC	39800	47800	17500	250
	315 L4	441	2.6	883400	41	28	132 to 200	N250TC to N280TC	42000	50400	18500	250
	315 L4	487	2.4	887700	38	28	132 to 200	N250TC to N280TC	43300	51900	19100	250
	315 L4	533	2.2	892100	34	28	132 to 200	N250TC to N280TC	44500	53400	19700	250
	315 L4	591	1.9	897000	31	28	132 to 200	N250TC to N280TC	45900	54600	20200	250
	315 L4	672	1.7	903100	28	28	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	741	1.6	907900	25	28	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	862	1.3	915200	22	28	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	930	1.2	850400	18.8	28	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1043	1.1	924500	18.3	28	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1104	1.0	871200	16.3	28	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1284	0.90	876200	14.1	28	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1492	0.77	708100	9.8	28	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1805	0.64	708100	8.1	28	132 to 200	N250TC to N280TC	46300	54600	20200	250
<b>870</b>	315 L2	17.4	50	317800	268	78			17300	20800	6920	250
	315 L2	22.3	39	407900	268	78			18700	22400	7520	250
	315 L2	26.5	33	484100	268	78			19600	23600	7960	250
	315 L2	28.0	31	496100	260	78			20000	24000	8110	250
	315 L2	33.2	26.2	521500	230	78			21000	25200	8580	250
	315 L2	38.6	22.5	456000	173	78			22000	26400	9030	250
	315 L3	59.6	14.6	607800	154	52	180 to 250	N320TC to N360TC	25100	30100	10400	250
	315 L3	71.1	12.2	658100	140	52	180 to 250	N320TC to N360TC	26400	31700	11100	250
	315 L3	91.3	9.5	709200	118	52	180 to 250	N320TC to N360TC	28500	34200	12000	250
	315 L3	108	8.0	746100	104	52	180 to 250	N320TC to N360TC	30000	36000	12700	250

**3 L****315 L****900,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	315 L3	139	6.3	816300	89	52	180 to 250	N320TC to N360TC	32300	38800	13800	250
	315 L3	165	5.3	844300	77	52	180 to 250	N320TC to N360TC	34000	40800	14600	250
	315 L3	174	5.0	699500	61	52	180 to 250	N320TC to N360TC	34600	41500	14900	250
	315 L3	207	4.2	716300	52	52	180 to 250	N320TC to N360TC	36400	43700	15800	250
	315 L3	241	3.6	595600	37	52	180 to 250	N320TC to N360TC	38100	45700	16600	250
	315 L4	302	2.9	879600	45	31	132 to 200	N250TC to N280TC	40800	49000	17900	250
	315 L4	370	2.4	887900	37	31	132 to 200	N250TC to N280TC	43300	52000	19200	250
	315 L4	441	2.0	896300	32	31	132 to 200	N250TC to N280TC	45700	54600	20200	250
	315 L4	487	1.8	901000	29	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	533	1.6	905400	26	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	591	1.5	910400	24	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	672	1.3	916600	21	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	741	1.2	921500	19.4	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	862	1.0	928900	16.8	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	930	0.94	876200	14.7	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1043	0.83	929300	13.9	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1104	0.79	876200	12.4	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1284	0.68	876200	10.6	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1492	0.58	708100	7.4	31	132 to 200	N250TC to N280TC	46300	54600	20200	250
	315 L4	1805	0.48	708100	6.1	31	132 to 200	N250TC to N280TC	46300	54600	20200	250

**316 L****1,100,000 in•lbs**

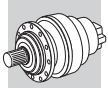
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	316 L3	59.6	29.4	302200	154	42	180 to 250	N320TC to N360TC	34500	38400	13800	258
	316 L3	71.1	24.6	360500	154	42	180 to 250	N320TC to N360TC	36400	40500	14600	258
	316 L3	76.5	22.9	387800	154	42	180 to 250	N320TC to N360TC	37200	41400	15000	258
	316 L3	91.3	19.2	462700	154	42	180 to 250	N320TC to N360TC	39200	43600	15900	258
	316 L3	108	16.2	549100	154	42	180 to 250	N320TC to N360TC	41300	45900	16800	258
	316 L3	117	14.9	593800	154	42	180 to 250	N320TC to N360TC	42300	47000	17300	258
	316 L3	139	12.6	691300	151	42	180 to 250	N320TC to N360TC	44500	49500	18300	258
	316 L3	165	10.6	692300	128	42	180 to 250	N320TC to N360TC	46900	52100	19300	258
	316 L4	215	8.2	550500	80	22	132 to 200	N250TC to N280TC	50700	56400	21100	258
	316 L4	256	6.8	656900	80	22	132 to 200	N250TC to N280TC	53500	59500	22400	258
	316 L4	302	5.8	775500	80	22	132 to 200	N250TC to N280TC	56200	62500	23700	258
	316 L4	329	5.3	843000	80	22	132 to 200	N250TC to N280TC	57600	64100	24300	258
	316 L4	370	4.7	926200	79	22	132 to 200	N250TC to N280TC	59700	66400	25300	258
	316 L4	441	4.0	975000	69	22	132 to 200	N250TC to N280TC	63000	70000	26800	258
	316 L4	487	3.6	1003400	65	22	132 to 200	N250TC to N280TC	64800	72100	27700	258
	316 L4	533	3.3	1030500	61	22	132 to 200	N250TC to N280TC	66700	74100	28600	258
	316 L4	566	3.1	1048300	58	22	132 to 200	N250TC to N280TC	67800	75500	29200	258
	316 L4	591	3.0	1029600	55	22	132 to 200	N250TC to N280TC	68700	76400	29600	258
	316 L4	625	2.8	1085700	55	22	132 to 200	N250TC to N280TC	69900	77700	30100	258
	316 L4	685	2.6	1108000	51	22	132 to 200	N250TC to N280TC	71800	79900	31100	258
316 L4	726	2.4	1118300	48	22	132 to 200	N250TC to N280TC	73100	81300	31700	258	
316 L4	741	2.4	1076800	46	22	132 to 200	N250TC to N280TC	73600	81800	31900	258	



**316 L**

**1,100,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ		
<b>1750</b>	316 L4	812	2.2	1086200	42	22	132 to 200	N250TC to N280TC	75600	84100	32900	258	
	316 L4	862	2.0	1092300	40	22	132 to 200	N250TC to N280TC	77000	85600	33600	258	
	316 L4	1043	1.7	1112200	33	22	132 to 200	N250TC to N280TC	77600	86600	33700	258	
	316 L4	1237	1.4	1066700	27	22	132 to 200	N250TC to N280TC	77600	86600	33700	258	
<b>1450</b>	316 L3	59.6	24.3	364700	154	47	180 to 250	N320TC to N360TC	36500	40600	14700	258	
	316 L3	71.1	20.4	435100	154	47	180 to 250	N320TC to N360TC	38500	42900	15600	258	
	316 L3	76.5	19.0	468000	154	47	180 to 250	N320TC to N360TC	39400	43800	15900	258	
	316 L3	91.3	15.9	558400	154	47	180 to 250	N320TC to N360TC	41500	46200	16900	258	
	316 L3	108	13.4	662700	154	47	180 to 250	N320TC to N360TC	43700	48600	17900	258	
	316 L3	117	12.4	709300	153	47	180 to 250	N320TC to N360TC	44800	49800	18400	258	
	316 L3	139	10.4	731500	133	47	180 to 250	N320TC to N360TC	47100	52400	19400	258	
	316 L3	165	8.8	732500	112	47	180 to 250	N320TC to N360TC	49600	55200	20600	258	
	316 L4	215	6.8	664400	80	24	132 to 200	N250TC to N280TC	53700	59700	22500	258	
	316 L4	256	5.7	792800	80	24	132 to 200	N250TC to N280TC	56600	62900	23800	258	
	316 L4	302	4.8	922700	79	24	132 to 200	N250TC to N280TC	59500	66100	25200	258	
	316 L4	329	4.4	945400	75	24	132 to 200	N250TC to N280TC	61000	67800	25900	258	
	316 L4	370	3.9	978200	69	24	132 to 200	N250TC to N280TC	63200	70300	26900	258	
	316 L4	441	3.3	1029800	61	24	132 to 200	N250TC to N280TC	66600	74100	28600	258	
	316 L4	487	3.0	1059800	57	24	132 to 200	N250TC to N280TC	68600	76300	29500	258	
	316 L4	533	2.7	1088400	53	24	132 to 200	N250TC to N280TC	70500	78400	30400	258	
	316 L4	566	2.6	1107300	51	24	132 to 200	N250TC to N280TC	71800	79800	31000	258	
	316 L4	591	2.5	1072800	47	24	132 to 200	N250TC to N280TC	72700	80900	31500	258	
	316 L4	625	2.3	1121500	47	24	132 to 200	N250TC to N280TC	73900	82200	32100	258	
	316 L4	685	2.1	1129200	43	24	132 to 200	N250TC to N280TC	76000	84500	33100	258	
	316 L4	726	2.0	1134200	41	24	132 to 200	N250TC to N280TC	77400	86000	33700	258	
	316 L4	741	2.0	1096200	38	24	132 to 200	N250TC to N280TC	77600	86600	33700	258	
	316 L4	812	1.8	1105800	35	24	132 to 200	N250TC to N280TC	77600	86600	33700	258	
	316 L4	862	1.7	1112000	34	24	132 to 200	N250TC to N280TC	77600	86600	33700	258	
	316 L4	1043	1.4	1132300	28	24	132 to 200	N250TC to N280TC	77600	86600	33700	258	
	316 L4	1237	1.2	1083300	23	24	132 to 200	N250TC to N280TC	77600	86600	33700	258	
	<b>1150</b>	316 L2	17.4	66	240500	268	77			27100	30100	10500	258
		316 L2	22.3	52	308600	268	77			29200	32400	11400	258
		316 L2	26.5	43	366200	268	77			30700	34200	12100	258
		316 L3	59.6	19.3	459800	154	54	180 to 250	N320TC to N360TC	39200	43600	15800	258
		316 L3	71.1	16.2	548600	154	54	180 to 250	N320TC to N360TC	41300	45900	16800	258
		316 L3	76.5	15.0	590100	154	54	180 to 250	N320TC to N360TC	42200	47000	17200	258
		316 L3	91.3	12.6	691100	151	54	180 to 250	N320TC to N360TC	44500	49500	18300	258
		316 L3	108	10.6	727600	134	54	180 to 250	N320TC to N360TC	46900	52100	19300	258
		316 L3	117	9.8	759500	130	54	180 to 250	N320TC to N360TC	48000	53400	19800	258
		316 L3	139	8.3	784100	113	54	180 to 250	N320TC to N360TC	50500	56200	21000	258
		316 L3	165	7.0	785500	95	54	180 to 250	N320TC to N360TC	53200	59100	22200	258
		316 L4	215	5.4	837700	80	28	132 to 200	N250TC to N280TC	57500	64000	24300	258
		316 L4	256	4.5	940500	76	28	132 to 200	N250TC to N280TC	60700	67500	25800	258
		316 L4	302	3.8	987000	67	28	132 to 200	N250TC to N280TC	63800	70900	27200	258
		316 L4	329	3.5	1011300	63	28	132 to 200	N250TC to N280TC	65400	72700	28000	258
		316 L4	370	3.1	1046400	58	28	132 to 200	N250TC to N280TC	67700	75300	29100	258
		316 L4	441	2.6	1101600	51	28	132 to 200	N250TC to N280TC	71400	79400	30900	258
		316 L4	487	2.4	1120000	47	28	132 to 200	N250TC to N280TC	73600	81800	31900	258
		316 L4	533	2.2	1127700	44	28	132 to 200	N250TC to N280TC	75600	84100	32900	258
		316 L4	566	2.0	1132700	41	28	132 to 200	N250TC to N280TC	77000	85600	33500	258
		316 L4	591	1.9	1096700	38	28	132 to 200	N250TC to N280TC	77600	86600	33700	258
316 L4		625	1.8	1141200	38	28	132 to 200	N250TC to N280TC	77600	86600	33700	258	
316 L4		685	1.7	1149100	35	28	132 to 200	N250TC to N280TC	77600	86600	33700	258	
316 L4		726	1.6	1154200	33	28	132 to 200	N250TC to N280TC	77600	86600	33700	258	

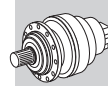
**3 L****316 L****1,100,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	R <sub>n2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>1150</b>	316 L4	<b>741</b>	1.6	1120600	31	28	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>812</b>	1.4	1130400	29	28	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>862</b>	1.3	1136700	27	28	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>1043</b>	1.1	1157500	23	28	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>1237</b>	0.93	1097500	18.3	28	132 to 200	N250TC to N280TC	77600	86600	33700	258
<b>870</b>	316 L2	<b>17.4</b>	50	317800	268	87			29400	32700	11500	258
	316 L2	<b>22.3</b>	39	407900	268	87			31700	35300	12500	258
	316 L2	<b>26.5</b>	33	484100	268	87			33400	37100	13300	258
	316 L3	<b>59.6</b>	14.6	607800	154	61	180 to 250	N320TC to N360TC	42600	47400	17400	258
	316 L3	<b>71.1</b>	12.2	697300	148	61	180 to 250	N320TC to N360TC	44900	49900	18400	258
	316 L3	<b>76.5</b>	11.4	727100	144	61	180 to 250	N320TC to N360TC	45900	51100	18900	258
	316 L3	<b>91.3</b>	9.5	751500	125	61	180 to 250	N320TC to N360TC	48400	53800	20000	258
	316 L3	<b>108</b>	8.0	791100	110	61	180 to 250	N320TC to N360TC	51000	56700	21200	258
	316 L3	<b>117</b>	7.4	832100	107	61	180 to 250	N320TC to N360TC	52200	58000	21800	258
	316 L3	<b>139</b>	6.3	852400	93	61	180 to 250	N320TC to N360TC	54900	61100	23100	258
	316 L3	<b>165</b>	5.3	854500	78	61	180 to 250	N320TC to N360TC	57800	64300	24400	258
	316 L4	<b>215</b>	4.1	968900	70	31	132 to 200	N250TC to N280TC	62500	69600	26600	258
	316 L4	<b>256</b>	3.4	1020000	62	31	132 to 200	N250TC to N280TC	66000	73400	28300	258
	316 L4	<b>302</b>	2.9	1070400	55	31	132 to 200	N250TC to N280TC	69300	77100	29900	258
	316 L4	<b>329</b>	2.6	1096800	52	31	132 to 200	N250TC to N280TC	71100	79100	30700	258
	316 L4	<b>370</b>	2.4	1120300	47	31	132 to 200	N250TC to N280TC	73600	81900	31900	258
	316 L4	<b>441</b>	2.0	1135300	40	31	132 to 200	N250TC to N280TC	77600	86300	33700	258
	316 L4	<b>487</b>	1.8	1143700	37	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>533</b>	1.6	1151600	34	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>566</b>	1.5	1156800	32	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>591</b>	1.5	1126200	30	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>625</b>	1.4	1165400	29	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>685</b>	1.3	1173500	27	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>726</b>	1.2	1178700	25	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>741</b>	1.2	1150700	24	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>812</b>	1.1	1160700	22	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>862</b>	1.0	1167300	21	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>1043</b>	0.83	1168300	17.5	31	132 to 200	N250TC to N280TC	77600	86600	33700	258
	316 L4	<b>1237</b>	0.70	1097500	13.8	31	132 to 200	N250TC to N280TC	77600	86600	33700	258

**317 L****1,500,000 in•lbs**





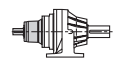
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	R <sub>n2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	317 L3	<b>58.1</b>	30	384200	201	42	180 to 250	N320TC to N360TC	44100	46900	13700	266
	317 L3	<b>69.3</b>	25.2	458400	201	42	180 to 250	N320TC to N360TC	46500	49500	14500	266
	317 L3	<b>89.0</b>	19.7	588300	201	42	180 to 250	N320TC to N360TC	50100	53300	15700	266
	317 L3	<b>106</b>	16.6	698200	201	42	180 to 250	N320TC to N360TC	52700	56100	16700	266
	317 L3	<b>116</b>	15.1	766800	201	42	180 to 250	N320TC to N360TC	54200	57700	17200	266
	317 L3	<b>138</b>	12.7	910100	201	42	180 to 250	N320TC to N360TC	57100	60800	18200	266
	317 L3	<b>166</b>	10.6	1018600	187	42	180 to 250	N320TC to N360TC	60300	64200	19400	266

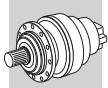




## 317 L

1,500,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC	 NEMA	Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	317 L3	179	9.8	1153800	196	42	180 to 250	N320TC to N360TC	61800	65800	19900	266	
	317 L3	213	8.2	1177200	168	42	180 to 250	N320TC to N360TC	65000	69200	21000	266	
	317 L3	252	6.9	1017800	123	42	180 to 250	N320TC to N360TC	68500	72900	22300	266	
	317 L4	310	5.6	795000	80	22	132 to 200	N250TC to N280TC	72800	77500	23900	266	
	317 L4	360	4.9	924200	80	22	132 to 200	N250TC to N280TC	76200	81100	25100	266	
	317 L4	449	3.9	1151300	80	22	132 to 200	N250TC to N280TC	81400	86600	27000	266	
	317 L4	493	3.6	1264500	80	22	132 to 200	N250TC to N280TC	83700	89100	27800	266	
	317 L4	552	3.2	1415200	80	22	132 to 200	N250TC to N280TC	86600	92200	28900	266	
	317 L4	619	2.8	1509900	77	22	132 to 200	N250TC to N280TC	89600	95400	30000	266	
	317 L4	719	2.4	1567100	68	22	132 to 200	N250TC to N280TC	93700	99800	31600	266	
	317 L4	792	2.2	1554800	62	22	132 to 200	N250TC to N280TC	96500	102700	32600	266	
	317 L4	904	1.9	1394500	48	22	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	1032	1.7	1574100	48	22	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	1134	1.5	1431400	40	22	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	1318	1.3	714700	17.0	22	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	1595	1.1	1178600	23	22	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	1893	0.92	1283400	21	22	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	<b>1450</b>	317 L3	58.1	25.0	463700	201	47	180 to 250	N320TC to N360TC	46600	49600	14500	266
		317 L3	69.3	20.9	553300	201	47	180 to 250	N320TC to N360TC	49200	52300	15400	266
		317 L3	89.0	16.3	710000	201	47	180 to 250	N320TC to N360TC	53000	56400	16800	266
317 L3		106	13.7	842700	201	47	180 to 250	N320TC to N360TC	55800	59400	17700	266	
317 L3		116	12.5	925500	201	47	180 to 250	N320TC to N360TC	57400	61100	18300	266	
317 L3		138	10.5	1019400	187	47	180 to 250	N320TC to N360TC	60400	64300	19400	266	
317 L3		166	8.8	1077700	164	47	180 to 250	N320TC to N360TC	63800	68000	20600	266	
317 L3		179	8.1	1179500	166	47	180 to 250	N320TC to N360TC	65400	69600	21200	266	
317 L3		213	6.8	1203400	143	47	180 to 250	N320TC to N360TC	68800	73300	22400	266	
317 L3		252	5.7	1017800	102	47	180 to 250	N320TC to N360TC	72400	77100	23700	266	
317 L4		310	4.7	959500	80	24	132 to 200	N250TC to N280TC	77000	82000	25400	266	
317 L4		360	4.0	1055800	76	24	132 to 200	N250TC to N280TC	80600	85800	26700	266	
317 L4		449	3.2	1389500	80	24	132 to 200	N250TC to N280TC	86100	91700	28700	266	
317 L4		493	2.9	1492500	79	24	132 to 200	N250TC to N280TC	88500	94300	29700	266	
317 L4		552	2.6	1560300	74	24	132 to 200	N250TC to N280TC	91600	97500	30800	266	
317 L4		619	2.3	1567800	66	24	132 to 200	N250TC to N280TC	94800	100900	32000	266	
317 L4		719	2.0	1570700	57	24	132 to 200	N250TC to N280TC	99200	105600	33600	266	
317 L4		792	1.8	1563800	51	24	132 to 200	N250TC to N280TC	99400	105700	33700	266	
317 L4		904	1.6	1425000	41	24	132 to 200	N250TC to N280TC	99400	105700	33700	266	
317 L4		1032	1.4	1577700	40	24	132 to 200	N250TC to N280TC	99400	105700	33700	266	
317 L4	1134	1.3	1462700	34	24	132 to 200	N250TC to N280TC	99400	105700	33700	266		
317 L4	1318	1.1	1171500	23	24	132 to 200	N250TC to N280TC	99400	105700	33700	266		
317 L4	1595	0.91	1504600	25	24	132 to 200	N250TC to N280TC	99400	105700	33700	266		
317 L4	1893	0.77	1283400	17.6	24	132 to 200	N250TC to N280TC	99400	105700	33700	266		
<b>1150</b>	317 L2	16.9	68	293000	335	74			34500	36800	10400	266	
	317 L2	22.1	52	381900	335	74		37400	39800	11400	266		
	317 L2	26.6	43	459700	335	74		39500	42100	12100	266		
	317 L2	28.4	41	490100	335	74		40300	42900	12400	266		
	317 L2	34.1	34	589900	335	74		42600	45400	13200	266		
	317 L2	40.5	28.4	700100	335	74		44900	47800	13900	266		
	317 L3	58.1	19.8	584600	201	54		180 to 250	N320TC to N360TC	50000	53200	15700	266
	317 L3	69.3	16.6	697600	201	54		180 to 250	N320TC to N360TC	52700	56100	16700	266
	317 L3	89.0	12.9	895200	201	54		180 to 250	N320TC to N360TC	56800	60500	18100	266
	317 L3	106	10.9	992200	188	54		180 to 250	N320TC to N360TC	59800	63700	19200	266
	317 L3	116	9.9	1038200	179	54		180 to 250	N320TC to N360TC	61500	65500	19800	266
	317 L3	138	8.4	1092800	159	54		180 to 250	N320TC to N360TC	64700	68900	20900	266
317 L3	166	6.9	1155200	139	54	180 to 250	N320TC to N360TC	68400	72900	22300	266		

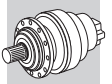


**3** □ **L**

# 317 L

## 1,500,000 in·lbs

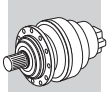
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in·lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1150</b>	317 L3	179	6.4	1212000	135	54	180 to 250	N320TC to N360TC	70100	74600	22900	266	
	317 L3	213	5.4	1236500	116	54	180 to 250	N320TC to N360TC	73800	78500	24200	266	
	317 L3	252	4.6	1030400	82	54	180 to 250	N320TC to N360TC	77700	82700	25600	266	
	317 L4	310	3.7	1093300	73	28	132 to 200	N250TC to N280TC	82600	87900	27400	266	
	317 L4	360	3.2	1129400	65	28	132 to 200	N250TC to N280TC	86400	92000	28900	266	
	317 L4	449	2.6	1537400	71	28	132 to 200	N250TC to N280TC	92300	98300	31000	266	
	317 L4	493	2.3	1567900	66	28	132 to 200	N250TC to N280TC	94900	101100	32000	266	
	317 L4	552	2.1	1586000	59	28	132 to 200	N250TC to N280TC	98200	104500	33300	266	
	317 L4	619	1.9	1572300	52	28	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	719	1.6	1575200	45	28	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	792	1.5	1575000	41	28	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	904	1.3	1463500	33	28	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	1032	1.1	1582200	32	28	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	1134	1.0	1502200	27	28	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	1318	0.87	1504600	24	28	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	1595	0.72	1504600	19.4	28	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	317 L4	1893	0.61	1283400	14.0	28	132 to 200	N250TC to N280TC	99400	105700	33700	266	
	<b>870</b>	317 L2	16.9	51	387300	335	85			37600	40000	11400	266
		317 L2	22.1	39	504800	335	85			40700	43300	12500	266
		317 L2	26.6	33	607600	335	85			43000	45800	13300	266
317 L2		28.4	31	647800	335	85	43800			46700	13600	266	
317 L2		34.1	25.5	779800	335	85	46300			49300	14400	266	
317 L2		40.5	21.5	846400	307	85	48800			51900	15300	266	
317 L3		58.1	15.0	772800	201	61	180 to 250	N320TC to N360TC	54300	57900	17200	266	
317 L3		69.3	12.5	922100	201	61	180 to 250	N320TC to N360TC	57300	61000	18300	266	
317 L3		89.0	9.8	1051400	179	61	180 to 250	N320TC to N360TC	61800	65800	19900	266	
317 L3		106	8.2	1079600	155	61	180 to 250	N320TC to N360TC	65000	69200	21000	266	
317 L3		116	7.5	1128700	147	61	180 to 250	N320TC to N360TC	66900	71200	21700	266	
317 L3		138	6.3	1188100	131	61	180 to 250	N320TC to N360TC	70400	74900	23000	266	
317 L3		166	5.3	1255900	115	61	180 to 250	N320TC to N360TC	74400	79200	24400	266	
317 L3		179	4.9	1252300	106	61	180 to 250	N320TC to N360TC	76200	81100	25100	266	
317 L3		213	4.1	1277800	91	61	180 to 250	N320TC to N360TC	80200	85400	26600	266	
317 L3		252	3.4	1068900	64	61	180 to 250	N320TC to N360TC	84400	89900	28100	266	
317 L4		310	2.8	1188400	60	31	132 to 200	N250TC to N280TC	89800	95600	30100	266	
317 L4		360	2.4	1225100	53	31	132 to 200	N250TC to N280TC	93900	100000	31700	266	
317 L4		449	1.9	1561000	54	31	132 to 200	N250TC to N280TC	99400	105700	33700	266	
317 L4		493	1.8	1573300	50	31	132 to 200	N250TC to N280TC	99400	105700	33700	266	
317 L4		552	1.6	1588700	45	31	132 to 200	N250TC to N280TC	99400	105700	33700	266	
317 L4		619	1.4	1577700	40	31	132 to 200	N250TC to N280TC	99400	105700	33700	266	
317 L4	719	1.2	1580600	34	31	132 to 200	N250TC to N280TC	99400	105700	33700	266		
317 L4	792	1.1	1588500	31	31	132 to 200	N250TC to N280TC	99400	105700	33700	266		
317 L4	904	0.96	1504600	26	31	132 to 200	N250TC to N280TC	99400	105700	33700	266		
317 L4	1032	0.84	1584300	24	31	132 to 200	N250TC to N280TC	99400	105700	33700	266		
317 L4	1134	0.77	1504600	21	31	132 to 200	N250TC to N280TC	99400	105700	33700	266		
317 L4	1318	0.66	1504600	17.8	31	132 to 200	N250TC to N280TC	99400	105700	33700	266		
317 L4	1595	0.55	1504600	14.7	31	132 to 200	N250TC to N280TC	99400	105700	33700	266		
317 L4	1893	0.46	1283400	10.6	31	132 to 200	N250TC to N280TC	99400	105700	33700	266		



**318 L**

**2,200,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			R <sub>n2</sub> [lbs]				
									Permissible overhung loads				
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ		
<b>1750</b>	318 L4	262	6.7	1289600	154	27	180 to 250	N320TC to N360TC	86900	88700	30100	274	
	318 L4	313	5.6	1538800	154	27	180 to 250	N320TC to N360TC	91600	93500	31900	274	
	318 L4	337	5.2	1655000	154	27	180 to 250	N320TC to N360TC	93600	95600	32700	274	
	318 L4	402	4.4	1946100	152	27	180 to 250	N320TC to N360TC	98700	100800	34700	274	
	318 L4	422	4.1	1968900	146	27	180 to 250	N320TC to N360TC	100200	102300	35300	274	
	318 L4	477	3.7	2024700	133	27	180 to 250	N320TC to N360TC	103900	106100	36700	274	
	318 L4	515	3.4	2061600	125	27	180 to 250	N320TC to N360TC	106400	108600	37700	274	
	318 L4	612	2.9	2144800	110	27	180 to 250	N320TC to N360TC	112000	114300	39900	274	
	318 L4	647	2.7	2172600	105	27	180 to 250	N320TC to N360TC	113100	116300	40700	274	
	318 L4	726	2.4	2212700	96	27	180 to 250	N320TC to N360TC	113100	120400	42200	274	
	318 L4	768	2.3	2212700	90	27	180 to 250	N320TC to N360TC	113100	122400	43000	274	
	318 L4	911	1.9	2212700	76	27	180 to 250	N320TC to N360TC	113100	127000	45000	274	
	318 L4	1059	1.7	1983900	59	27	180 to 250	N320TC to N360TC	113100	127000	45000	274	
<b>1450</b>	318 L3	76.5	19.0	813900	268	54			63500	64800	21200	274	
	318 L3	98.2	14.8	1044500	268	54			68500	69900	23100	274	
	318 L3	117	12.4	1239700	268	54			72100	73600	24400	274	
	318 L3	123	11.8	1310800	268	54			73300	74800	24900	274	
	318 L3	146	9.9	1535000	265	54			77200	78700	26400	274	
	318 L3	170	8.5	1599000	237	54			80700	82400	27700	274	
	318 L4	262	5.5	1556500	154	30			180 to 250	N320TC to N360TC	91900	93800	32000
	318 L4	313	4.6	1857100	154	30	180 to 250	N320TC to N360TC	96900	98900	34000	274	
	318 L4	337	4.3	1951300	151	30	180 to 250	N320TC to N360TC	99100	101100	34800	274	
	318 L4	402	3.6	2032500	132	30	180 to 250	N320TC to N360TC	104500	106600	36900	274	
	318 L4	422	3.4	2056400	127	30	180 to 250	N320TC to N360TC	106100	108200	37600	274	
	318 L4	477	3.0	2114600	115	30	180 to 250	N320TC to N360TC	110000	112200	39100	274	
	318 L4	515	2.8	2153100	109	30	180 to 250	N320TC to N360TC	112600	114900	40100	274	
	318 L4	612	2.4	2212700	94	30	180 to 250	N320TC to N360TC	113100	121000	42500	274	
	318 L4	647	2.2	2212700	89	30	180 to 250	N320TC to N360TC	113100	123000	43300	274	
	318 L4	726	2.0	2212700	79	30	180 to 250	N320TC to N360TC	113100	127000	45000	274	
	318 L4	768	1.9	2212700	75	30	180 to 250	N320TC to N360TC	113100	127000	45000	274	
	318 L4	911	1.6	2212700	63	30	180 to 250	N320TC to N360TC	113100	127000	45000	274	
	318 L4	1059	1.4	2047900	50	30	180 to 250	N320TC to N360TC	113100	127000	45000	274	
	<b>1150</b>	318 L3	76.5	15.0	1026300	268	62			68100	69500	23000	274
		318 L3	98.2	11.7	1317000	268	62			73400	74900	24900	274
		318 L3	117	9.9	1537200	264	62			77300	78800	26400	274
		318 L3	123	9.3	1563200	254	62			78600	80200	26900	274
318 L3		146	7.9	1645600	225	62	82700			84400	28500	274	
318 L3		170	6.8	1703400	200	62	86500			88300	30000	274	
318 L4		262	4.4	1943300	153	34	180 to 250	N320TC to N360TC	98600	100600	34600	274	
318 L4		313	3.7	2024300	133	34	180 to 250	N320TC to N360TC	103900	106100	36700	274	
318 L4		337	3.4	2058600	126	34	180 to 250	N320TC to N360TC	106200	108400	37600	274	
318 L4		402	2.9	2144400	110	34	180 to 250	N320TC to N360TC	112000	114300	39900	274	
318 L4		422	2.7	2169500	106	34	180 to 250	N320TC to N360TC	113100	116000	40600	274	
318 L4		477	2.4	2212700	96	34	180 to 250	N320TC to N360TC	113100	120300	42200	274	
318 L4		515	2.2	2212700	88	34	180 to 250	N320TC to N360TC	113100	123200	43400	274	
318 L4		612	1.9	2212700	75	34	180 to 250	N320TC to N360TC	113100	127000	45000	274	
318 L4		647	1.8	2212700	71	34	180 to 250	N320TC to N360TC	113100	127000	45000	274	
318 L4		726	1.6	2212700	63	34	180 to 250	N320TC to N360TC	113100	127000	45000	274	
318 L4		768	1.5	2212700	59	34	180 to 250	N320TC to N360TC	113100	127000	45000	274	
318 L4		911	1.3	2212700	50	34	180 to 250	N320TC to N360TC	113100	127000	45000	274	
318 L4		1059	1.1	2129700	41	34	180 to 250	N320TC to N360TC	113100	127000	45000	274	
<b>870</b>		318 L3	76.5	11.4	1356500	268	70			74000	75600	25200	274
	318 L3	98.2	8.9	1587700	245	70	79800			81400	27400	274	
	318 L3	117	7.5	1671500	217	70	84000			85700	29000	274	



# 3 L

## 318 L

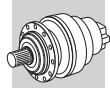
### 2,200,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads					
									NHC NPC	HZ PZ	FZ			
870	318 L3	123	7.1	1699700	209	70			85400	87200	29500	274		
	318 L3	146	6.0	1789300	185	70			89900	91800	31300	274		
	318 L3	170	5.1	1838000	164	70			94100	96000	32900	274		
	318 L4	262	3.3	2072700	123	38			180 to 250	N320TC to N360TC	107200	109400	38000	274
	318 L4	313	2.8	2159100	108	38			180 to 250	N320TC to N360TC	113000	115300	40300	274
	318 L4	337	2.6	2195700	102	38			180 to 250	N320TC to N360TC	113100	117900	41300	274
	318 L4	402	2.2	2212700	86	38	180 to 250	N320TC to N360TC	113100	124300	43800	274		
	318 L4	422	2.1	2212700	82	38	180 to 250	N320TC to N360TC	113100	126200	44500	274		
	318 L4	477	1.8	2212700	72	38	180 to 250	N320TC to N360TC	113100	127000	45000	274		
	318 L4	515	1.7	2212700	67	38	180 to 250	N320TC to N360TC	113100	127000	45000	274		
	318 L4	612	1.4	2212700	56	38	180 to 250	N320TC to N360TC	113100	127000	45000	274		
	318 L4	647	1.3	2212700	53	38	180 to 250	N320TC to N360TC	113100	127000	45000	274		
	318 L4	726	1.2	2212700	48	38	180 to 250	N320TC to N360TC	113100	127000	45000	274		
	318 L4	768	1.1	2212700	45	38	180 to 250	N320TC to N360TC	113100	127000	45000	274		
	318 L4	911	0.95	2212700	38	38	180 to 250	N320TC to N360TC	113100	127000	45000	274		
	318 L4	1059	0.82	2159600	32	38	180 to 250	N320TC to N360TC	113100	127000	45000	274		

## 319 L







### 3,000,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
1750	319 L4	347	5.0	889500	80	36	180 to 250	N320TC to N360TC	108600	119600	33000	282	
	319 L4	445	3.9	1141500	80	36	180 to 250	N320TC to N360TC	117000	128900	35900	282	
	319 L4	528	3.3	1354800	80	36	180 to 250	N320TC to N360TC	123200	135700	38000	282	
	319 L4	571	3.1	1465000	80	36	180 to 250	N320TC to N360TC	126100	139000	39000	282	
	319 L4	678	2.6	1738700	80	36	180 to 250	N320TC to N360TC	132800	146300	41300	282	
	319 L4	717	2.4	1838400	80	36	180 to 250	N320TC to N360TC	135000	148800	42100	282	
	319 L4	850	2.1	2181800	80	36	180 to 250	N320TC to N360TC	142100	156600	44500	282	
	319 L4	912	1.9	2338900	80	36	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 L4	1007	1.7	2582100	80	36	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 L4	1195	1.5	2824300	74	36	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 L4	1389	1.3	2895800	65	36	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	1450	319 L4	347	4.2	1073500	80	40	180 to 250	N320TC to N360TC	114900	126600	35200	282
		319 L4	445	3.3	1377700	80	40	180 to 250	N320TC to N360TC	123800	136400	38200	282
319 L4		528	2.7	1635100	80	40	180 to 250	N320TC to N360TC	130400	143600	40500	282	
319 L4		571	2.5	1768100	80	40	180 to 250	N320TC to N360TC	133400	147000	41500	282	
319 L4		678	2.1	2098400	80	40	180 to 250	N320TC to N360TC	140500	154800	44000	282	
319 L4		717	2.0	2218800	80	40	180 to 250	N320TC to N360TC	142900	157400	44800	282	
319 L4		850	1.7	2633300	80	40	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		912	1.6	2786100	79	40	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		1007	1.4	2832200	73	40	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		1195	1.2	2913900	63	40	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		1389	1.0	2987700	56	40	180 to 250	N320TC to N360TC	143400	157800	45000	282	
1150	319 L3	84.8	13.6	653800	154	77			80700	88900	23800	282	
	319 L3	109	10.6	839000	154	77			87000	95800	25800	282	
	319 L3	129	8.9	995800	154	77			91600	100900	27300	282	

**3** L





# 319 L

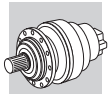
**3,000,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC input	 NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1150</b>	319 L3	137	8.4	1052900	154	77			93100	102600	27800	282	
	319 L3	162	7.1	1246100	154	77			97900	107900	29400	282	
	319 L3	188	6.1	1452700	154	77			102600	113000	31000	282	
	319 L3	223	5.2	1719200	154	77			107900	118900	32800	282	
	319 L4	347	3.3	1353600	80	46	180 to 250	N320TC to N360TC	123200	135700	38000	282	
	319 L4	445	2.6	1737100	80	46	180 to 250	N320TC to N360TC	132700	146300	41300	282	
	319 L4	528	2.2	2061600	80	46	180 to 250	N320TC to N360TC	139700	154000	43700	282	
	319 L4	571	2.0	2229300	80	46	180 to 250	N320TC to N360TC	143100	157600	44900	282	
	319 L4	678	1.7	2645800	80	46	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 L4	717	1.6	2797600	80	46	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 L4	850	1.4	3091900	75	46	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 L4	912	1.3	2895400	65	46	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 L4	1007	1.1	2943400	60	46	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 L4	1195	0.96	3009300	52	46	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 L4	1389	0.83	3009300	45	46	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	<b>870</b>	319 L3	84.8	10.3	864200	154	87			87800	96700	26100	282
		319 L3	109	8.0	1109100	154	87			94600	104200	28300	282
		319 L3	129	6.7	1316300	154	87			99600	109700	30000	282
		319 L3	137	6.4	1391800	154	87			101300	111600	30600	282
319 L3		162	5.4	1647100	154	87	106500	117300	32300	282			
319 L3		188	4.6	1920200	154	87	111500	122900	34000	282			
319 L3		223	3.9	2272400	154	87	117300	129200	36000	282			
319 L4		347	2.5	1789200	80	52	180 to 250	N320TC to N360TC	133900	147600	41700	282	
319 L4		445	2.0	2296200	80	52	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		528	1.6	2725200	80	52	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		571	1.5	2946800	80	52	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		678	1.3	3092900	71	52	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		717	1.2	3094000	67	52	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		850	1.0	3097300	57	52	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		912	0.95	3009300	51	52	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		1007	0.86	3009300	47	52	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		1195	0.73	3009300	39	52	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 L4		1389	0.63	3009300	34	52	180 to 250	N320TC to N360TC	143400	157800	45000	282	

# 321 L

**4,500,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC input	 NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	321 L4	258	6.8	1656300	201	42	180 to 250	N320TC to N360TC	121900	144600	179600	290
	321 L4	308	5.7	1976300	201	42	180 to 250	N320TC to N360TC	128600	152500	190500	290
	321 L4	395	4.4	2536200	201	42	180 to 250	N320TC to N360TC	138600	164300	207000	290
	321 L4	469	3.7	3010000	201	42	180 to 250	N320TC to N360TC	145900	173000	219200	290
	321 L4	515	3.4	3305800	201	42	180 to 250	N320TC to N360TC	150000	177900	226100	290
	321 L4	612	2.9	3923400	201	42	180 to 250	N320TC to N360TC	158000	187300	239400	290
	321 L4	736	2.4	4158200	177	42	180 to 250	N320TC to N360TC	167000	198000	254700	290
	321 L4	796	2.2	4164200	164	42	180 to 250	N320TC to N360TC	171000	202700	261400	290

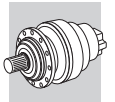


**3 L**

**321 L**

**4,500,000 in•lbs**

$n_1$ drive speed rpm		$i$ gear ratio 1:	$n_2$ output speed rpm	$Tn_2$ rated torque in•lbs	$Pn_1$ rated power HP	$P_t$ thermal capacity HP	 IEC IEC input	 NEMA NEMA input	$Rn_2$ [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	321 L4	945	1.9	4290900	142	42	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	321 L4	1122	1.6	4267800	119	42	180 to 250	N320TC to N360TC	175100	207500	269800	290	
<b>1450</b>	321 L4	258	5.6	1999000	201	47	180 to 250	N320TC to N360TC	129000	153000	191200	290	
	321 L4	308	4.7	2385100	201	47	180 to 250	N320TC to N360TC	136000	161300	202800	290	
	321 L4	395	3.7	3060900	201	47	180 to 250	N320TC to N360TC	146600	173900	220400	290	
	321 L4	469	3.1	3632800	201	47	180 to 250	N320TC to N360TC	154300	183000	233400	290	
	321 L4	515	2.8	3989800	201	47	180 to 250	N320TC to N360TC	158800	188300	240800	290	
	321 L4	612	2.4	4160000	177	47	180 to 250	N320TC to N360TC	167100	198200	254900	290	
	321 L4	736	2.0	4285900	151	47	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	321 L4	796	1.8	4303500	140	47	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	321 L4	945	1.5	4434400	122	47	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	321 L4	1122	1.3	4326400	100	47	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	<b>1150</b>	321 L3	75.3	15.3	1263100	335	80			95600	113300	137000	290
321 L3		98.2	11.7	1646400	335	80	103500			122700	149700	290	
321 L3		118	9.7	1981800	335	80	109400			129700	159200	290	
321 L3		126	9.1	2112900	335	80	111500			132300	162600	290	
321 L3		152	7.6	2543300	335	80	117900			139800	173000	290	
321 L3		180	6.4	3018400	335	80	124100	147200	183200	290			
321 L4		258	4.5	2520500	201	54	180 to 250	N320TC to N360TC	138300	164000	206600	290	
321 L4		308	3.7	3007400	201	54	180 to 250	N320TC to N360TC	145800	173000	219100	290	
321 L4		395	2.9	3859400	201	54	180 to 250	N320TC to N360TC	157200	186400	238100	290	
321 L4		469	2.5	4137800	182	54	180 to 250	N320TC to N360TC	165500	196200	252100	290	
321 L4		515	2.2	4200700	168	54	180 to 250	N320TC to N360TC	170200	201800	260100	290	
321 L4		612	1.9	4318000	145	54	180 to 250	N320TC to N360TC	175100	207500	269800	290	
321 L4		736	1.6	4448700	125	54	180 to 250	N320TC to N360TC	175100	207500	269800	290	
321 L4		796	1.4	4481600	116	54	180 to 250	N320TC to N360TC	175100	207500	269800	290	
321 L4		945	1.2	4618000	101	54	180 to 250	N320TC to N360TC	175100	207500	269800	290	
321 L4		1122	1.0	4399700	81	54	180 to 250	N320TC to N360TC	175100	207500	269800	290	
<b>870</b>		321 L3	75.3	11.6	1669600	335	93			103900	123200	150400	290
		321 L3	98.2	8.9	2176300	335	93			112500	133400	164300	290
		321 L3	118	7.4	2619600	335	93			119000	141100	174700	290
		321 L3	126	6.9	2792900	335	93			121300	143800	178500	290
	321 L3	152	5.7	3361800	335	93	128200			152000	189900	290	
	321 L3	180	4.8	3693900	310	93	135000	160000	201000	290			
	321 L4	258	3.4	3331600	201	61	180 to 250	N320TC to N360TC	150400	178300	226700	290	
	321 L4	308	2.8	3975200	201	61	180 to 250	N320TC to N360TC	158600	188100	240500	290	
	321 L4	395	2.2	4210100	166	61	180 to 250	N320TC to N360TC	170900	202700	261300	290	
	321 L4	469	1.9	4327700	144	61	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	321 L4	515	1.7	4393500	133	61	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	321 L4	612	1.4	4516200	115	61	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	321 L4	736	1.2	4652900	99	61	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	321 L4	796	1.1	4705900	92	61	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	321 L4	945	0.92	4779400	79	61	180 to 250	N320TC to N360TC	175100	207500	269800	290	
	321 L4	1122	0.78	4407700	61	61	180 to 250	N320TC to N360TC	175100	207500	269800	290	



## 21.0 - SPEED REDUCER RATING CHARTS: 300 R (right angle)

Reading the rating chart

310 R							265,000 in•lbs						
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]				
									NHC NPC	HZ PZ	FZ		
1750	310 R3	37.7	46	46200	37	27	71 to 160	N56C to N280TC	11300	14600	5120	218	
	310 R3	44.6	39	55200	38	27	71 to 160	N56C to N280TC	11900	15400	5420	218	
	310 R3	55.9	31	69200	38	27	71 to 160	N56C to N280TC	12800	16400	5840	218	
	310 R3	65.0	26.9	80000	37	27	71 to 160	N56C to N280TC	13300	17200	6140	218	
	310 R3	71.8	24.4	88800	38	27	71 to 160	N56C to N280TC	13800	17700	6350	218	

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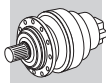
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- 1 Max. transmissible torque
- 2 Gearbox drive speed
- 3 Frame size of the right-angle gear unit  
NOTE: Suffix (B) or (C) alongside the frame size refers to different bevel gear sets.  
See installation drawings for reference
- 4 Gear ratio
- 5 Gearbox output speed
- 6 Gearbox rated output torque
- 7 Gearbox rated input power
- 8 Gearbox thermal capacity
- 9 Frame size of available IEC motor
- 10 Frame size of available NEMA motor
- 11 Permissible overhung load on output shaft
- 12 Page showing installation drawings and dimensions



# 3 R

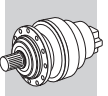
## 300 R

## 8,850 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
1750	300 R2	7.13	245	4330	17.9	14.5	71 to 132	N56C to N280TC	1580	1870	360	152
	300 R2	8.74	200	4380	14.8	14.5	71 to 132	N56C to N280TC	1680	1990	390	152
	300 R2	11.8	148	4560	11.4	14.5	71 to 132	N56C to N280TC	1840	2180	430	152
	300 R2	14.8	119	4290	8.6	14.5	71 to 132	N56C to N280TC	1960	2330	460	152
	300 R2	18.5	95	3270	5.2	14.5	71 to 132	N56C to N280TC	2100	2490	500	152
	300 R3	24.8	70	5710	7.0	14.5	71 to 100	N56C to N280TC	2290	2720	550	152
	300 R3	30.4	58	6430	6.4	14.5	71 to 100	N56C to N280TC	2440	2890	590	152
	300 R3	37.3	47	6760	5.5	14.5	71 to 100	N56C to N280TC	2590	3070	630	152
	300 R3	41.2	43	5750	4.3	14.5	71 to 100	N56C to N280TC	2670	3170	650	152
	300 R3	50.4	35	6900	4.2	14.5	71 to 100	N56C to N280TC	2840	3370	690	152
	300 R3	62.9	27.8	7010	3.4	14.5	71 to 100	N56C to N280TC	3030	3600	750	152
	300 R3	68.2	25.6	5750	2.6	14.5	71 to 100	N56C to N280TC	3110	3690	770	152
	300 R3	78.7	22.2	7120	2.8	14.5	71 to 100	N56C to N280TC	3240	3850	810	152
	300 R3	85.2	20.6	5750	2.1	14.5	71 to 100	N56C to N280TC	3320	3940	830	152
	300 R3	106	16.4	5750	1.6	14.5	71 to 100	N56C to N280TC	3550	4210	890	152
	300 R3	133	13.2	4870	1.1	14.5	71 to 100	N56C to N280TC	3790	4500	960	152
	300 R4	106	16.5	7260	2.2	12.1	71 to 132	N56C to N280TC	3540	4200	890	152
	300 R4	130	13.5	7370	1.8	12.1	71 to 132	N56C to N280TC	3770	4470	950	152
	300 R4	143	12.2	5750	1.3	12.1	71 to 132	N56C to N280TC	3880	4600	980	152
	300 R4	159	11.0	7470	1.5	12.1	71 to 132	N56C to N280TC	4000	4750	1020	152
	300 R4	175	10.0	7520	1.3	12.1	71 to 132	N56C to N280TC	4120	4890	1050	152
	300 R4	215	8.1	7630	1.1	12.1	71 to 132	N56C to N280TC	4380	5200	1130	152
	300 R4	237	7.4	5750	0.76	12.1	71 to 132	N56C to N280TC	4510	5360	1160	152
	300 R4	268	6.5	7740	0.90	12.1	71 to 132	N56C to N280TC	4680	5560	1210	152
	300 R4	291	6.0	7780	0.84	12.1	71 to 132	N56C to N280TC	4800	5690	1250	152
	300 R4	363	4.8	7930	0.68	12.1	71 to 132	N56C to N280TC	5130	6090	1340	152
	300 R4	394	4.4	5870	0.47	12.1	71 to 132	N56C to N280TC	5250	6240	1380	152
	300 R4	453	3.9	8230	0.57	12.1	71 to 132	N56C to N280TC	5480	6500	1440	152
	300 R4	491	3.6	6090	0.39	12.1	71 to 132	N56C to N280TC	5620	6660	1480	152
	300 R4	613	2.9	6320	0.32	12.1	71 to 132	N56C to N280TC	6000	7120	1600	152
	300 R4	766	2.3	6570	0.27	12.1	71 to 132	N56C to N280TC	6420	7620	1720	152
	1450	300 R2	7.13	203	4580	15.7	16.1	71 to 132	N56C to N280TC	1670	1980	390
300 R2		8.74	166	4640	13.0	16.1	71 to 132	N56C to N280TC	1770	2110	410	152
300 R2		11.8	123	4830	10.0	16.1	71 to 132	N56C to N280TC	1940	2310	460	152
300 R2		14.8	98	4520	7.5	16.1	71 to 132	N56C to N280TC	2080	2460	490	152
300 R2		18.5	79	3270	4.3	16.1	71 to 132	N56C to N280TC	2220	2630	530	152
300 R3		24.8	58	5730	5.8	16.1	71 to 100	N56C to N280TC	2430	2880	580	152
300 R3		30.4	48	6750	5.6	16.1	71 to 100	N56C to N280TC	2580	3060	620	152
300 R3		37.3	39	6840	4.6	16.1	71 to 100	N56C to N280TC	2740	3250	670	152
300 R3		41.2	35	5750	3.5	16.1	71 to 100	N56C to N280TC	2820	3350	690	152
300 R3		50.4	28.8	6990	3.5	16.1	71 to 100	N56C to N280TC	3000	3560	740	152
300 R3		62.9	23.0	7100	2.8	16.1	71 to 100	N56C to N280TC	3210	3810	800	152
300 R3		68.2	21.3	5750	2.1	16.1	71 to 100	N56C to N280TC	3290	3900	820	152
300 R3		78.7	18.4	7210	2.3	16.1	71 to 100	N56C to N280TC	3430	4070	860	152
300 R3		85.2	17.0	5750	1.7	16.1	71 to 100	N56C to N280TC	3510	4170	880	152
300 R3		106	13.6	5750	1.4	16.1	71 to 100	N56C to N280TC	3760	4460	950	152
300 R3		133	10.9	4870	0.92	16.1	71 to 100	N56C to N280TC	4010	4760	1020	152
300 R4		106	13.7	7360	1.8	13.4	71 to 132	N56C to N280TC	3750	4450	950	152
300 R4		130	11.2	7460	1.5	13.4	71 to 132	N56C to N280TC	3980	4730	1010	152
300 R4		143	10.1	5750	1.0	13.4	71 to 132	N56C to N280TC	4100	4870	1050	152
300 R4		159	9.1	7570	1.2	13.4	71 to 132	N56C to N280TC	4230	5030	1080	152
300 R4		175	8.3	7620	1.1	13.4	71 to 132	N56C to N280TC	4360	5180	1120	152
300 R4		215	6.7	7720	0.93	13.4	71 to 132	N56C to N280TC	4640	5500	1200	152
300 R4		237	6.1	5750	0.63	13.4	71 to 132	N56C to N280TC	4780	5670	1240	152



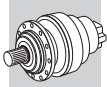
# 3 □ R



## 300 R

## 8,850 in·lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in·lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP		IEC IEC input		NEMA NEMA input	Rn <sub>2</sub> [lbs]			
											Permissible overhung loads			
										NHC NPC	HZ PZ	FZ		
<b>1450</b>	300 R4	268	5.4	7840	0.76	13.4	71 to 132	N56C to N280TC	4950	5880	1290	152		
	300 R4	291	5.0	7880	0.70	13.4	71 to 132	N56C to N280TC	5080	6030	1330	152		
	300 R4	363	4.0	8180	0.59	13.4	71 to 132	N56C to N280TC	5430	6440	1430	152		
	300 R4	394	3.7	6060	0.40	13.4	71 to 132	N56C to N280TC	5560	6600	1470	152		
	300 R4	453	3.2	8490	0.49	13.4	71 to 132	N56C to N280TC	5800	6880	1540	152		
	300 R4	491	3.0	6280	0.33	13.4	71 to 132	N56C to N280TC	5940	7050	1580	152		
	300 R4	613	2.4	6530	0.28	13.4	71 to 132	N56C to N280TC	6350	7540	1700	152		
	300 R4	766	1.9	6790	0.23	13.4	71 to 132	N56C to N280TC	6790	7640	1800	152		
<b>1150</b>	300 R2	7.13	161	4910	13.3	18.5	71 to 132	N56C to N280TC	1790	2120	420	152		
	300 R2	8.74	132	4970	11.0	18.5	71 to 132	N56C to N280TC	1900	2260	450	152		
	300 R2	11.8	97	5160	8.5	18.5	71 to 132	N56C to N280TC	2080	2470	490	152		
	300 R2	14.8	78	4640	6.1	18.5	71 to 132	N56C to N280TC	2230	2640	530	152		
	300 R2	18.5	62	3270	3.4	18.5	71 to 132	N56C to N280TC	2380	2820	570	152		
	300 R3	24.8	46	5750	4.6	18.5	71 to 100	N56C to N280TC	2600	3090	630	152		
	300 R3	30.4	38	6860	4.5	18.5	71 to 100	N56C to N280TC	2760	3280	680	152		
	300 R3	37.3	31	6960	3.7	18.5	71 to 100	N56C to N280TC	2940	3490	720	152		
	300 R3	41.2	27.9	5750	2.8	18.5	71 to 100	N56C to N280TC	3030	3590	750	152		
	300 R3	50.4	22.8	7100	2.8	18.5	71 to 100	N56C to N280TC	3220	3820	800	152		
	300 R3	62.9	18.3	7210	2.3	18.5	71 to 100	N56C to N280TC	3440	4080	860	152		
	300 R3	68.2	16.9	5750	1.7	18.5	71 to 100	N56C to N280TC	3520	4180	880	152		
	300 R3	78.7	14.6	7330	1.9	18.5	71 to 100	N56C to N280TC	3680	4360	930	152		
	300 R3	85.2	13.5	5750	1.4	18.5	71 to 100	N56C to N280TC	3760	4470	950	152		
	300 R3	106	10.8	5750	1.1	18.5	71 to 100	N56C to N280TC	4030	4780	1020	152		
	300 R3	133	8.7	4870	0.73	18.5	71 to 100	N56C to N280TC	4300	5110	1100	152		
	300 R4	106	10.9	7480	1.5	15.4	71 to 132	N56C to N280TC	4020	4770	1020	152		
	300 R4	130	8.9	7580	1.2	15.4	71 to 132	N56C to N280TC	4270	5070	1090	152		
	300 R4	143	8.0	5750	0.83	15.4	71 to 132	N56C to N280TC	4400	5220	1130	152		
	300 R4	159	7.2	7690	1.00	15.4	71 to 132	N56C to N280TC	4540	5390	1170	152		
	300 R4	175	6.6	7740	0.91	15.4	71 to 132	N56C to N280TC	4680	5550	1210	152		
	300 R4	215	5.4	7840	0.75	15.4	71 to 132	N56C to N280TC	4970	5900	1300	152		
	300 R4	237	4.8	5780	0.50	15.4	71 to 132	N56C to N280TC	5120	6080	1340	152		
	300 R4	268	4.3	8080	0.62	15.4	71 to 132	N56C to N280TC	5310	6300	1390	152		
	300 R4	291	4.0	8190	0.58	15.4	71 to 132	N56C to N280TC	5440	6460	1430	152		
	300 R4	363	3.2	8510	0.48	15.4	71 to 132	N56C to N280TC	5820	6900	1540	152		
	300 R4	394	2.9	6290	0.33	15.4	71 to 132	N56C to N280TC	5960	7070	1590	152		
	300 R4	453	2.5	8830	0.40	15.4	71 to 132	N56C to N280TC	6220	7380	1660	152		
	300 R4	491	2.3	6540	0.27	15.4	71 to 132	N56C to N280TC	6370	7560	1710	152		
	300 R4	613	1.9	6800	0.23	15.4	71 to 132	N56C to N280TC	6810	7640	1800	152		
	300 R4	766	1.5	7080	0.19	15.4	71 to 132	N56C to N280TC	6970	7640	1800	152		
	<b>870</b>	300 R2	7.13	122	5340	11.0	20.9	71 to 132	N56C to N280TC	1950	2310	460	152	
		300 R2	8.74	100	5410	9.1	20.9	71 to 132	N56C to N280TC	2070	2450	490	152	
		300 R2	11.8	74	5400	6.7	20.9	71 to 132	N56C to N280TC	2260	2690	540	152	
		300 R2	14.8	59	4780	4.8	20.9	71 to 132	N56C to N280TC	2420	2870	580	152	
		300 R2	18.5	47	3270	2.6	20.9	71 to 132	N56C to N280TC	2590	3070	630	152	
		300 R3	24.8	35	5750	3.5	20.9	71 to 100	N56C to N280TC	2830	3360	690	152	
		300 R3	30.4	28.6	6990	3.5	20.9	71 to 100	N56C to N280TC	3010	3570	740	152	
		300 R3	37.3	23.4	7090	2.9	20.9	71 to 100	N56C to N280TC	3190	3790	790	152	
		300 R3	41.2	21.1	5750	2.1	20.9	71 to 100	N56C to N280TC	3290	3910	820	152	
		300 R3	50.4	17.3	7240	2.2	20.9	71 to 100	N56C to N280TC	3500	4150	880	152	
		300 R3	62.9	13.8	7360	1.8	20.9	71 to 100	N56C to N280TC	3740	4440	940	152	
300 R3		68.2	12.8	5750	1.3	20.9	71 to 100	N56C to N280TC	3830	4550	970	152		
300 R3		78.7	11.1	7470	1.4	20.9	71 to 100	N56C to N280TC	4000	4740	1020	152		
300 R3		85.2	10.2	5750	1.0	20.9	71 to 100	N56C to N280TC	4090	4860	1040	152		
300 R3		106	8.2	5750	0.82	20.9	71 to 100	N56C to N280TC	4380	5190	1120	152		



# 3 R

## 300 R

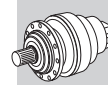
## 8,850 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC input	 NEMA input	Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	<b>300 R3</b>	<b>133</b>	6.5	4870	0.55	20.9	71 to 100	N56C to N280TC	4680	5550	1210	152
	<b>300 R4</b>	<b>106</b>	8.2	7620	1.1	17.4	71 to 132	N56C to N280TC	4370	5190	1120	152
	<b>300 R4</b>	<b>130</b>	6.7	7720	0.93	17.4	71 to 132	N56C to N280TC	4640	5510	1200	152
	<b>300 R4</b>	<b>143</b>	6.1	5750	0.63	17.4	71 to 132	N56C to N280TC	4780	5680	1240	152
	<b>300 R4</b>	<b>159</b>	5.5	7830	0.77	17.4	71 to 132	N56C to N280TC	4940	5860	1290	152
	<b>300 R4</b>	<b>175</b>	5.0	7890	0.70	17.4	71 to 132	N56C to N280TC	5080	6030	1330	152
	<b>300 R4</b>	<b>215</b>	4.0	8160	0.59	17.4	71 to 132	N56C to N280TC	5400	6410	1420	152
	<b>300 R4</b>	<b>237</b>	3.7	6060	0.40	17.4	71 to 132	N56C to N280TC	5570	6610	1470	152
	<b>300 R4</b>	<b>268</b>	3.2	8470	0.49	17.4	71 to 132	N56C to N280TC	5780	6850	1530	152
	<b>300 R4</b>	<b>291</b>	3.0	8590	0.46	17.4	71 to 132	N56C to N280TC	5920	7020	1570	152
	<b>300 R4</b>	<b>363</b>	2.4	8850	0.38	17.4	71 to 132	N56C to N280TC	6320	7510	1690	152
	<b>300 R4</b>	<b>394</b>	2.2	6610	0.26	17.4	71 to 132	N56C to N280TC	6480	7640	1740	152
	<b>300 R4</b>	<b>453</b>	1.9	8850	0.30	17.4	71 to 132	N56C to N280TC	6760	7640	1800	152
	<b>300 R4</b>	<b>491</b>	1.8	6870	0.22	17.4	71 to 132	N56C to N280TC	6930	7640	1800	152
	<b>300 R4</b>	<b>613</b>	1.4	7150	0.18	17.4	71 to 132	N56C to N280TC	6970	7640	1800	152
	<b>300 R4</b>	<b>766</b>	1.1	7440	0.15	17.4	71 to 132	N56C to N280TC	6970	7640	1800	152

## 301 R

## 17,000 in•lbs

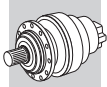
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC input	 NEMA input	Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	<b>301 R2</b>	<b>7.13</b>	245	4860	20	14.5	71 to 132	N56C to N280TC	1580	1870	360	160
	<b>301 R2</b>	<b>8.74</b>	200	5960	20	14.5	71 to 132	N56C to N280TC	1680	1990	390	160
	<b>301 R2</b>	<b>11.8</b>	148	8060	20	14.5	71 to 132	N56C to N280TC	1840	2180	430	160
	<b>301 R2</b>	<b>14.8</b>	119	7910	15.8	14.5	71 to 132	N56C to N280TC	1960	2330	460	160
	<b>301 R2</b>	<b>18.5</b>	95	5840	9.3	14.5	71 to 132	N56C to N280TC	2100	2490	500	160
	<b>301 R3</b>	<b>24.8</b>	70	10600	13.0	14.5	71 to 100	N56C to N280TC	2290	2720	550	160
	<b>301 R3</b>	<b>30.4</b>	58	11500	11.5	14.5	71 to 100	N56C to N280TC	2440	2890	590	160
	<b>301 R3</b>	<b>37.3</b>	47	12100	9.8	14.5	71 to 100	N56C to N280TC	2590	3070	630	160
	<b>301 R3</b>	<b>41.2</b>	43	11500	8.5	14.5	71 to 100	N56C to N280TC	2670	3170	650	160
	<b>301 R3</b>	<b>50.4</b>	35	12600	7.6	14.5	71 to 100	N56C to N280TC	2840	3370	690	160
	<b>301 R3</b>	<b>62.9</b>	27.8	13000	6.3	14.5	71 to 100	N56C to N280TC	3030	3600	750	160
	<b>301 R3</b>	<b>68.2</b>	25.6	11500	5.1	14.5	71 to 100	N56C to N280TC	3110	3690	770	160
	<b>301 R3</b>	<b>78.7</b>	22.2	12800	4.9	14.5	71 to 100	N56C to N280TC	3240	3850	810	160
	<b>301 R3</b>	<b>85.2</b>	20.6	11500	4.1	14.5	71 to 100	N56C to N280TC	3320	3940	830	160
	<b>301 R3</b>	<b>106</b>	16.4	11500	3.3	14.5	71 to 100	N56C to N280TC	3550	4210	890	160
	<b>301 R3</b>	<b>133</b>	13.2	10200	2.3	14.5	71 to 100	N56C to N280TC	3790	4500	960	160
	<b>301 R4</b>	<b>106</b>	16.5	14000	4.1	12.1	71 to 132	N56C to N280TC	3540	4200	890	160
<b>301 R4</b>	<b>130</b>	13.5	14400	3.5	12.1	71 to 132	N56C to N280TC	3770	4470	950	160	
<b>301 R4</b>	<b>143</b>	12.2	11500	2.5	12.1	71 to 132	N56C to N280TC	3880	4600	980	160	
<b>301 R4</b>	<b>159</b>	11.0	14800	2.9	12.1	71 to 132	N56C to N280TC	4000	4750	1020	160	
<b>301 R4</b>	<b>175</b>	10.0	15000	2.7	12.1	71 to 132	N56C to N280TC	4120	4890	1050	160	
<b>301 R4</b>	<b>215</b>	8.1	15200	2.2	12.1	71 to 132	N56C to N280TC	4380	5200	1130	160	
<b>301 R4</b>	<b>237</b>	7.4	11500	1.5	12.1	71 to 132	N56C to N280TC	4510	5360	1160	160	
<b>301 R4</b>	<b>268</b>	6.5	15300	1.8	12.1	71 to 132	N56C to N280TC	4680	5560	1210	160	
<b>301 R4</b>	<b>291</b>	6.0	15400	1.7	12.1	71 to 132	N56C to N280TC	4800	5690	1250	160	



# 301 R

# 17,000 in·lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in·lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC input	 NEMA input	R <sub>n2</sub> [lbs]				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	301 R4	363	4.8	15600	1.3	12.1	71 to 132	N56C to N280TC	5130	6090	1340	160	
	301 R4	394	4.4	11700	0.93	12.1	71 to 132	N56C to N280TC	5250	6240	1380	160	
	301 R4	453	3.9	16300	1.1	12.1	71 to 132	N56C to N280TC	5480	6500	1440	160	
	301 R4	491	3.6	12100	0.77	12.1	71 to 132	N56C to N280TC	5620	6660	1480	160	
	301 R4	613	2.9	12600	0.64	12.1	71 to 132	N56C to N280TC	6000	7120	1600	160	
	301 R4	766	2.3	13000	0.53	12.1	71 to 132	N56C to N280TC	6420	7620	1720	160	
<b>1450</b>	301 R2	7.13	203	5870	20	16.1	71 to 132	N56C to N280TC	1670	1980	390	160	
	301 R2	8.74	166	7190	20	16.1	71 to 132	N56C to N280TC	1770	2110	410	160	
	301 R2	11.8	123	8740	18.1	16.1	71 to 132	N56C to N280TC	1940	2310	460	160	
	301 R2	14.8	98	8360	13.9	16.1	71 to 132	N56C to N280TC	2080	2460	490	160	
	301 R2	18.5	79	5840	7.7	16.1	71 to 132	N56C to N280TC	2220	2630	530	160	
	301 R3	24.8	58	11100	11.3	16.1	71 to 100	N56C to N280TC	2430	2880	580	160	
	301 R3	30.4	48	12000	10.0	16.1	71 to 100	N56C to N280TC	2580	3060	620	160	
	301 R3	37.3	39	12400	8.4	16.1	71 to 100	N56C to N280TC	2740	3250	670	160	
	301 R3	41.2	35	11500	7.0	16.1	71 to 100	N56C to N280TC	2820	3350	690	160	
	301 R3	50.4	28.8	12900	6.5	16.1	71 to 100	N56C to N280TC	3000	3560	740	160	
	301 R3	62.9	23.0	13400	5.3	16.1	71 to 100	N56C to N280TC	3210	3810	800	160	
	301 R3	68.2	21.3	11500	4.3	16.1	71 to 100	N56C to N280TC	3290	3900	820	160	
	301 R3	78.7	18.4	13100	4.2	16.1	71 to 100	N56C to N280TC	3430	4070	860	160	
	301 R3	85.2	17.0	11500	3.4	16.1	71 to 100	N56C to N280TC	3510	4170	880	160	
	301 R3	106	13.6	11500	2.7	16.1	71 to 100	N56C to N280TC	3760	4460	950	160	
	301 R3	133	10.9	10200	1.9	16.1	71 to 100	N56C to N280TC	4010	4760	1020	160	
	301 R4	106	13.7	14400	3.5	13.4	71 to 132	N56C to N280TC	3750	4450	950	160	
	301 R4	130	11.2	14800	3.0	13.4	71 to 132	N56C to N280TC	3980	4730	1010	160	
	301 R4	143	10.1	11500	2.1	13.4	71 to 132	N56C to N280TC	4100	4870	1050	160	
	301 R4	159	9.1	15100	2.5	13.4	71 to 132	N56C to N280TC	4230	5030	1080	160	
	301 R4	175	8.3	15200	2.2	13.4	71 to 132	N56C to N280TC	4360	5180	1120	160	
	301 R4	215	6.7	15300	1.8	13.4	71 to 132	N56C to N280TC	4640	5500	1200	160	
	301 R4	237	6.1	11500	1.3	13.4	71 to 132	N56C to N280TC	4780	5670	1240	160	
	301 R4	268	5.4	15400	1.5	13.4	71 to 132	N56C to N280TC	4950	5880	1290	160	
	301 R4	291	5.0	15500	1.4	13.4	71 to 132	N56C to N280TC	5080	6030	1330	160	
	301 R4	363	4.0	16200	1.2	13.4	71 to 132	N56C to N280TC	5430	6440	1430	160	
	301 R4	394	3.7	12100	0.80	13.4	71 to 132	N56C to N280TC	5560	6600	1470	160	
	301 R4	453	3.2	16900	0.97	13.4	71 to 132	N56C to N280TC	5800	6880	1540	160	
	301 R4	491	3.0	12500	0.66	13.4	71 to 132	N56C to N280TC	5940	7050	1580	160	
	301 R4	613	2.4	13000	0.55	13.4	71 to 132	N56C to N280TC	6350	7540	1700	160	
	301 R4	766	1.9	13500	0.46	13.4	71 to 132	N56C to N280TC	6790	7640	1800	160	
	<b>1150</b>	301 R2	7.13	161	6830	18.6	18.5	71 to 132	N56C to N280TC	1790	2120	420	160
		301 R2	8.74	132	8560	19.0	18.5	71 to 132	N56C to N280TC	1900	2260	450	160
		301 R2	11.8	97	9370	15.4	18.5	71 to 132	N56C to N280TC	2080	2470	490	160
		301 R2	14.8	78	8950	11.8	18.5	71 to 132	N56C to N280TC	2230	2640	530	160
		301 R2	18.5	62	5840	6.1	18.5	71 to 132	N56C to N280TC	2380	2820	570	160
		301 R3	24.8	46	11500	9.3	18.5	71 to 100	N56C to N280TC	2600	3090	630	160
301 R3		30.4	38	12400	8.2	18.5	71 to 100	N56C to N280TC	2760	3280	680	160	
301 R3		37.3	31	12800	6.9	18.5	71 to 100	N56C to N280TC	2940	3490	720	160	
301 R3		41.2	27.9	11500	5.6	18.5	71 to 100	N56C to N280TC	3030	3590	750	160	
301 R3		50.4	22.8	13400	5.3	18.5	71 to 100	N56C to N280TC	3220	3820	800	160	
301 R3		62.9	18.3	13800	4.4	18.5	71 to 100	N56C to N280TC	3440	4080	860	160	
301 R3		68.2	16.9	11500	3.4	18.5	71 to 100	N56C to N280TC	3520	4180	880	160	
301 R3		78.7	14.6	13500	3.4	18.5	71 to 100	N56C to N280TC	3680	4360	930	160	
301 R3		85.2	13.5	11500	2.7	18.5	71 to 100	N56C to N280TC	3760	4470	950	160	
301 R3		106	10.8	11500	2.2	18.5	71 to 100	N56C to N280TC	4030	4780	1020	160	
301 R3		133	8.7	10200	1.5	18.5	71 to 100	N56C to N280TC	4300	5110	1100	160	

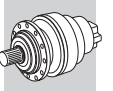






# 3 R

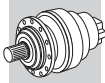
## 301 R

### 17,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1150</b>	301 R4	106	10.9	14900	2.9	15.4	71 to 132	N56C to N280TC	4020	4770	1020	160
	301 R4	130	8.9	15100	2.4	15.4	71 to 132	N56C to N280TC	4270	5070	1090	160
	301 R4	143	8.0	11500	1.7	15.4	71 to 132	N56C to N280TC	4400	5220	1130	160
	301 R4	159	7.2	15300	2.0	15.4	71 to 132	N56C to N280TC	4540	5390	1170	160
	301 R4	175	6.6	15300	1.8	15.4	71 to 132	N56C to N280TC	4680	5550	1210	160
	301 R4	215	5.4	15400	1.5	15.4	71 to 132	N56C to N280TC	4970	5900	1300	160
	301 R4	237	4.8	11600	1.0	15.4	71 to 132	N56C to N280TC	5120	6080	1340	160
	301 R4	268	4.3	16000	1.2	15.4	71 to 132	N56C to N280TC	5310	6300	1390	160
	301 R4	291	4.0	16200	1.1	15.4	71 to 132	N56C to N280TC	5440	6460	1430	160
	301 R4	363	3.2	16900	0.96	15.4	71 to 132	N56C to N280TC	5820	6900	1540	160
	301 R4	394	2.9	12500	0.66	15.4	71 to 132	N56C to N280TC	5960	7070	1590	160
	301 R4	453	2.5	17600	0.80	15.4	71 to 132	N56C to N280TC	6220	7380	1660	160
	301 R4	491	2.3	13000	0.54	15.4	71 to 132	N56C to N280TC	6370	7560	1710	160
	301 R4	613	1.9	13500	0.45	15.4	71 to 132	N56C to N280TC	6810	7640	1800	160
	301 R4	766	1.5	14000	0.38	15.4	71 to 132	N56C to N280TC	6970	7640	1800	160
	<b>870</b>	301 R2	7.13	122	7420	15.3	20.9	71 to 132	N56C to N280TC	1950	2310	460
301 R2		8.74	100	9300	15.6	20.9	71 to 132	N56C to N280TC	2070	2450	490	160
301 R2		11.8	74	10200	12.7	20.9	71 to 132	N56C to N280TC	2260	2690	540	160
301 R2		14.8	59	9700	9.6	20.9	71 to 132	N56C to N280TC	2420	2870	580	160
301 R2		18.5	47	5840	4.6	20.9	71 to 132	N56C to N280TC	2590	3070	630	160
301 R3		24.8	35	11500	7.0	20.9	71 to 100	N56C to N280TC	2830	3360	690	160
301 R3		30.4	28.6	12900	6.4	20.9	71 to 100	N56C to N280TC	3010	3570	740	160
301 R3		37.3	23.4	13300	5.4	20.9	71 to 100	N56C to N280TC	3190	3790	790	160
301 R3		41.2	21.1	11500	4.2	20.9	71 to 100	N56C to N280TC	3290	3910	820	160
301 R3		50.4	17.3	13900	4.2	20.9	71 to 100	N56C to N280TC	3500	4150	880	160
301 R3		62.9	13.8	14400	3.5	20.9	71 to 100	N56C to N280TC	3740	4440	940	160
301 R3		68.2	12.8	11500	2.6	20.9	71 to 100	N56C to N280TC	3830	4550	970	160
301 R3		78.7	11.1	14000	2.7	20.9	71 to 100	N56C to N280TC	4000	4740	1020	160
301 R3		85.2	10.2	11500	2.0	20.9	71 to 100	N56C to N280TC	4090	4860	1040	160
301 R3		106	8.2	11500	1.6	20.9	71 to 100	N56C to N280TC	4380	5190	1120	160
301 R3		133	6.5	10200	1.2	20.9	71 to 100	N56C to N280TC	4680	5550	1210	160
301 R4		106	8.2	15200	2.2	17.4	71 to 132	N56C to N280TC	4370	5190	1120	160
301 R4		130	6.7	15300	1.8	17.4	71 to 132	N56C to N280TC	4640	5510	1200	160
301 R4		143	6.1	11500	1.3	17.4	71 to 132	N56C to N280TC	4780	5680	1240	160
301 R4		159	5.5	15400	1.5	17.4	71 to 132	N56C to N280TC	4940	5860	1290	160
301 R4		175	5.0	15500	1.4	17.4	71 to 132	N56C to N280TC	5080	6030	1330	160
301 R4		215	4.0	16100	1.2	17.4	71 to 132	N56C to N280TC	5400	6410	1420	160
301 R4		237	3.7	12100	0.79	17.4	71 to 132	N56C to N280TC	5570	6610	1470	160
301 R4		268	3.2	16800	0.98	17.4	71 to 132	N56C to N280TC	5780	6850	1530	160
301 R4		291	3.0	17100	0.92	17.4	71 to 132	N56C to N280TC	5920	7020	1570	160
301 R4		363	2.4	17700	0.76	17.4	71 to 132	N56C to N280TC	6320	7510	1690	160
301 R4		394	2.2	13100	0.52	17.4	71 to 132	N56C to N280TC	6480	7640	1740	160
301 R4		453	1.9	17700	0.61	17.4	71 to 132	N56C to N280TC	6760	7640	1800	160
301 R4		491	1.8	13600	0.43	17.4	71 to 132	N56C to N280TC	6930	7640	1800	160
301 R4		613	1.4	14200	0.36	17.4	71 to 132	N56C to N280TC	6970	7640	1800	160
301 R4		766	1.1	14700	0.30	17.4	71 to 132	N56C to N280TC	6970	7640	1800	160

**303 R****23,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs] Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	303 R2	<b>9.23</b>	190	11700	37	22	71 to 132	N56C to N280TC	3350	4320	1180	168
	303 R2	<b>10.9</b>	161	13400	36	22	71 to 132	N56C to N280TC	3520	4540	1250	168
	303 R2	<b>13.7</b>	128	14000	30	22	71 to 132	N56C to N280TC	3770	4860	1350	168
	303 R2	<b>15.9</b>	110	12000	22	22	71 to 132	N56C to N280TC	3940	5090	1420	168
	303 R2	<b>19.2</b>	91	13400	21	22	71 to 132	N56C to N280TC	4170	5390	1510	168
	303 R2	<b>24.8</b>	71	7610	9.1	22	71 to 132	N56C to N280TC	4500	5810	1640	168
	303 R3	<b>25.7</b>	68	14900	17.7	16.9	71 to 132	N56C to N280TC	4550	5880	1660	168
	303 R3	<b>31.5</b>	56	15400	14.9	16.9	71 to 132	N56C to N280TC	4840	6250	1780	168
	303 R3	<b>37.1</b>	47	17900	14.6	16.9	71 to 132	N56C to N280TC	5080	6570	1880	168
	303 R3	<b>42.6</b>	41	15400	11.0	16.9	71 to 132	N56C to N280TC	5300	6840	1970	168
	303 R3	<b>46.6</b>	38	18700	12.2	16.9	71 to 132	N56C to N280TC	5440	7030	2030	168
	303 R3	<b>50.3</b>	35	18000	10.9	16.9	71 to 132	N56C to N280TC	5570	7190	2080	168
	303 R3	<b>54.2</b>	32	15600	8.8	16.9	71 to 132	N56C to N280TC	5690	7350	2130	168
	303 R3	<b>63.1</b>	27.7	18900	9.1	16.9	71 to 132	N56C to N280TC	5960	7700	2250	168
	303 R3	<b>73.3</b>	23.9	15700	6.5	16.9	71 to 132	N56C to N280TC	6230	8050	2360	168
	303 R3	<b>78.7</b>	22.2	18600	7.2	16.9	71 to 132	N56C to N280TC	6370	8220	2420	168
	303 R3	<b>91.5</b>	19.1	15800	5.2	16.9	71 to 132	N56C to N280TC	6660	8600	2540	168
	303 R3	<b>114</b>	15.3	15800	4.2	16.9	71 to 132	N56C to N280TC	7120	9200	2740	168
	303 R4	<b>129</b>	13.5	22100	5.4	14.5	71 to 132	N56C to N280TC	7390	9540	2850	168
	303 R4	<b>148</b>	11.8	18300	3.9	14.5	71 to 132	N56C to N280TC	7700	9940	2980	168
	303 R4	<b>158</b>	11.1	22600	4.5	14.5	71 to 132	N56C to N280TC	7850	10100	3050	168
	303 R4	<b>185</b>	9.5	18600	3.2	14.5	71 to 132	N56C to N280TC	8230	10600	3210	168
	303 R4	<b>214</b>	8.2	23100	3.4	14.5	71 to 132	N56C to N280TC	8600	11100	3380	168
	303 R4	<b>231</b>	7.6	15900	2.2	14.5	71 to 132	N56C to N280TC	8800	11400	3460	168
	303 R4	<b>255</b>	6.9	15900	2.0	14.5	71 to 132	N56C to N280TC	9060	11700	3580	168
	303 R4	<b>290</b>	6.0	23300	2.5	14.5	71 to 132	N56C to N280TC	9420	12200	3730	168
	303 R4	<b>313</b>	5.6	15900	1.6	14.5	71 to 132	N56C to N280TC	9630	12400	3830	168
	303 R4	<b>336</b>	5.2	19500	1.8	14.5	71 to 132	N56C to N280TC	9840	12700	3920	168
	303 R4	<b>364</b>	4.8	19600	1.7	14.5	71 to 132	N56C to N280TC	10100	13000	4030	168
	303 R4	<b>390</b>	4.5	16200	1.3	14.5	71 to 132	N56C to N280TC	10300	13300	4120	168
	303 R4	<b>452</b>	3.9	19900	1.4	14.5	71 to 132	N56C to N280TC	10800	13900	4330	168
	303 R4	<b>528</b>	3.3	17000	1.0	14.5	71 to 132	N56C to N280TC	11300	14600	4560	168
	303 R4	<b>567</b>	3.1	21000	1.2	14.5	71 to 132	N56C to N280TC	11500	14900	4670	168
	303 R4	<b>659</b>	2.7	17500	0.83	14.5	71 to 132	N56C to N280TC	12000	15600	4910	168
303 R4	<b>797</b>	2.2	15800	0.62	14.5	71 to 132	N56C to N280TC	12800	16500	5230	168	
303 R4	<b>824</b>	2.1	18100	0.69	14.5	71 to 132	N56C to N280TC	12900	16600	5290	168	
<b>1450</b>	303 R2	<b>9.23</b>	157	12400	33	24	71 to 132	N56C to N280TC	3540	4570	1260	168
	303 R2	<b>10.9</b>	133	14200	32	24	71 to 132	N56C to N280TC	3720	4810	1330	168
	303 R2	<b>13.7</b>	106	14800	26	24	71 to 132	N56C to N280TC	3990	5150	1440	168
	303 R2	<b>15.9</b>	91	12800	19.6	24	71 to 132	N56C to N280TC	4170	5380	1510	168
	303 R2	<b>19.2</b>	75	13800	17.6	24	71 to 132	N56C to N280TC	4410	5700	1610	168
	303 R2	<b>24.8</b>	59	7610	7.5	24	71 to 132	N56C to N280TC	4760	6150	1750	168
	303 R3	<b>25.7</b>	56	15800	15.5	18.8	71 to 132	N56C to N280TC	4820	6220	1770	168
	303 R3	<b>31.5</b>	46	16100	12.9	18.8	71 to 132	N56C to N280TC	5120	6610	1900	168
	303 R3	<b>37.1</b>	39	18400	12.5	18.8	71 to 132	N56C to N280TC	5380	6950	2000	168
	303 R3	<b>42.6</b>	34	15800	9.4	18.8	71 to 132	N56C to N280TC	5600	7240	2100	168
	303 R3	<b>46.6</b>	31	18800	10.2	18.8	71 to 132	N56C to N280TC	5760	7440	2160	168
	303 R3	<b>50.3</b>	28.8	18700	9.4	18.8	71 to 132	N56C to N280TC	5890	7610	2220	168
	303 R3	<b>54.2</b>	26.8	15700	7.3	18.8	71 to 132	N56C to N280TC	6020	7780	2270	168
	303 R3	<b>63.1</b>	23.0	19000	7.6	18.8	71 to 132	N56C to N280TC	6310	8140	2390	168
	303 R3	<b>73.3</b>	19.8	15700	5.4	18.8	71 to 132	N56C to N280TC	6600	8520	2510	168
	303 R3	<b>78.7</b>	18.4	18800	6.0	18.8	71 to 132	N56C to N280TC	6740	8700	2570	168
	303 R3	<b>91.5</b>	15.8	15800	4.4	18.8	71 to 132	N56C to N280TC	7050	9100	2710	168
	303 R3	<b>114</b>	12.7	15900	3.5	18.8	71 to 132	N56C to N280TC	7540	9730	2920	168

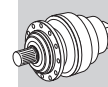


**3 R**

**303 R**





**23,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>N2</sub> rated torque in•lbs	P <sub>N1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	IEC IEC input	NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1450</b>	<b>303 R4</b>	<b>129</b>	11.2	22700	4.6	16.1	71 to 132	N56C to N280TC	7820	10100	3040	168
	<b>303 R4</b>	<b>148</b>	9.8	18600	3.3	16.1	71 to 132	N56C to N280TC	8150	10500	3180	168
	<b>303 R4</b>	<b>158</b>	9.2	23100	3.8	16.1	71 to 132	N56C to N280TC	8310	10700	3250	168
	<b>303 R4</b>	<b>185</b>	7.8	18700	2.6	16.1	71 to 132	N56C to N280TC	8710	11200	3420	168
	<b>303 R4</b>	<b>214</b>	6.8	23300	2.8	16.1	71 to 132	N56C to N280TC	9100	11800	3590	168
	<b>303 R4</b>	<b>231</b>	6.3	15900	1.8	16.1	71 to 132	N56C to N280TC	9310	12000	3690	168
	<b>303 R4</b>	<b>255</b>	5.7	15900	1.6	16.1	71 to 132	N56C to N280TC	9590	12400	3810	168
	<b>303 R4</b>	<b>290</b>	5.0	23500	2.1	16.1	71 to 132	N56C to N280TC	9960	12900	3980	168
	<b>303 R4</b>	<b>313</b>	4.6	16100	1.3	16.1	71 to 132	N56C to N280TC	10200	13200	4080	168
	<b>303 R4</b>	<b>336</b>	4.3	19900	1.5	16.1	71 to 132	N56C to N280TC	10400	13400	4170	168
	<b>303 R4</b>	<b>364</b>	4.0	20200	1.4	16.1	71 to 132	N56C to N280TC	10700	13800	4290	168
	<b>303 R4</b>	<b>390</b>	3.7	16700	1.1	16.1	71 to 132	N56C to N280TC	10900	14100	4390	168
	<b>303 R4</b>	<b>452</b>	3.2	19900	1.1	16.1	71 to 132	N56C to N280TC	11400	14700	4610	168
	<b>303 R4</b>	<b>528</b>	2.7	17500	0.86	16.1	71 to 132	N56C to N280TC	11900	15400	4850	168
	<b>303 R4</b>	<b>567</b>	2.6	21600	0.99	16.1	71 to 132	N56C to N280TC	12200	15700	4970	168
	<b>303 R4</b>	<b>659</b>	2.2	18000	0.71	16.1	71 to 132	N56C to N280TC	12700	16500	5230	168
	<b>303 R4</b>	<b>797</b>	1.8	16200	0.53	16.1	71 to 132	N56C to N280TC	13500	16600	5400	168
	<b>303 R4</b>	<b>824</b>	1.8	18700	0.59	16.1	71 to 132	N56C to N280TC	13600	16600	5400	168
<b>1150</b>	<b>303 R2</b>	<b>9.23</b>	125	13300	28	28	71 to 132	N56C to N280TC	3800	4900	1360	168
	<b>303 R2</b>	<b>10.9</b>	106	15200	27	28	71 to 132	N56C to N280TC	3990	5150	1440	168
	<b>303 R2</b>	<b>13.7</b>	84	15900	23	28	71 to 132	N56C to N280TC	4270	5520	1550	168
	<b>303 R2</b>	<b>15.9</b>	72	13700	16.8	28	71 to 132	N56C to N280TC	4470	5770	1630	168
	<b>303 R2</b>	<b>19.2</b>	60	14200	14.4	28	71 to 132	N56C to N280TC	4730	6110	1740	168
	<b>303 R2</b>	<b>24.8</b>	46	7610	6.0	28	71 to 132	N56C to N280TC	5110	6590	1890	168
	<b>303 R3</b>	<b>25.7</b>	45	16500	12.9	21.6	71 to 132	N56C to N280TC	5160	6670	1910	168
	<b>303 R3</b>	<b>31.5</b>	37	16400	10.4	21.6	71 to 132	N56C to N280TC	5490	7080	2050	168
	<b>303 R3</b>	<b>37.1</b>	31	19100	10.3	21.6	71 to 132	N56C to N280TC	5770	7450	2160	168
	<b>303 R3</b>	<b>42.6</b>	27.0	16300	7.7	21.6	71 to 132	N56C to N280TC	6010	7760	2270	168
	<b>303 R3</b>	<b>46.6</b>	24.7	19000	8.1	21.6	71 to 132	N56C to N280TC	6170	7970	2340	168
	<b>303 R3</b>	<b>50.3</b>	22.9	19600	7.8	21.6	71 to 132	N56C to N280TC	6310	8150	2390	168
	<b>303 R3</b>	<b>54.2</b>	21.2	15700	5.8	21.6	71 to 132	N56C to N280TC	6460	8340	2460	168
	<b>303 R3</b>	<b>63.1</b>	18.2	19100	6.1	21.6	71 to 132	N56C to N280TC	6760	8730	2580	168
	<b>303 R3</b>	<b>73.3</b>	15.7	15800	4.3	21.6	71 to 132	N56C to N280TC	7070	9130	2720	168
	<b>303 R3</b>	<b>78.7</b>	14.6	19000	4.8	21.6	71 to 132	N56C to N280TC	7220	9330	2780	168
	<b>303 R3</b>	<b>91.5</b>	12.6	15900	3.5	21.6	71 to 132	N56C to N280TC	7560	9760	2920	168
	<b>303 R3</b>	<b>114</b>	10.1	15900	2.8	21.6	71 to 132	N56C to N280TC	8080	10400	3150	168
	<b>303 R4</b>	<b>129</b>	8.9	23100	3.7	18.5	71 to 132	N56C to N280TC	8380	10800	3280	168
	<b>303 R4</b>	<b>148</b>	7.8	18700	2.6	18.5	71 to 132	N56C to N280TC	8730	11300	3430	168
	<b>303 R4</b>	<b>158</b>	7.3	23200	3.0	18.5	71 to 132	N56C to N280TC	8910	11500	3510	168
	<b>303 R4</b>	<b>185</b>	6.2	18900	2.1	18.5	71 to 132	N56C to N280TC	9330	12100	3700	168
	<b>303 R4</b>	<b>214</b>	5.4	23400	2.3	18.5	71 to 132	N56C to N280TC	9760	12600	3880	168
	<b>303 R4</b>	<b>231</b>	5.0	15900	1.4	18.5	71 to 132	N56C to N280TC	9980	12900	3980	168
	<b>303 R4</b>	<b>255</b>	4.5	16200	1.3	18.5	71 to 132	N56C to N280TC	10300	13300	4120	168
	<b>303 R4</b>	<b>290</b>	4.0	23600	1.7	18.5	71 to 132	N56C to N280TC	10700	13800	4290	168
	<b>303 R4</b>	<b>313</b>	3.7	16700	1.1	18.5	71 to 132	N56C to N280TC	10900	14100	4400	168
	<b>303 R4</b>	<b>336</b>	3.4	20600	1.3	18.5	71 to 132	N56C to N280TC	11200	14400	4510	168
	<b>303 R4</b>	<b>364</b>	3.2	20900	1.2	18.5	71 to 132	N56C to N280TC	11400	14800	4630	168
	<b>303 R4</b>	<b>390</b>	2.9	17300	0.91	18.5	71 to 132	N56C to N280TC	11700	15100	4740	168
	<b>303 R4</b>	<b>452</b>	2.5	19900	0.91	18.5	71 to 132	N56C to N280TC	12200	15800	4980	168
	<b>303 R4</b>	<b>528</b>	2.2	18100	0.71	18.5	71 to 132	N56C to N280TC	12800	16500	5240	168
	<b>303 R4</b>	<b>567</b>	2.0	22400	0.82	18.5	71 to 132	N56C to N280TC	13100	16600	5370	168
	<b>303 R4</b>	<b>659</b>	1.7	18700	0.58	18.5	71 to 132	N56C to N280TC	13700	16600	5400	168
	<b>303 R4</b>	<b>797</b>	1.4	16800	0.43	18.5	71 to 132	N56C to N280TC	14400	16600	5400	168
	<b>303 R4</b>	<b>824</b>	1.4	19300	0.48	18.5	71 to 132	N56C to N280TC	14400	16600	5400	168
<b>870</b>	<b>303 R2</b>	<b>9.23</b>	94	14400	23	31	71 to 132	N56C to N280TC	4130	5330	1490	168







**303 R**

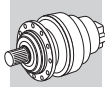
**23,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	<b>303 R2</b>	<b>10.9</b>	80	16600	22	31	71 to 132	N56C to N280TC	4340	5600	1580	168
	<b>303 R2</b>	<b>13.7</b>	64	17300	18.5	31	71 to 132	N56C to N280TC	4640	6000	1700	168
	<b>303 R2</b>	<b>15.9</b>	55	15000	13.9	31	71 to 132	N56C to N280TC	4860	6280	1790	168
	<b>303 R2</b>	<b>19.2</b>	45	14600	11.1	31	71 to 132	N56C to N280TC	5150	6640	1910	168
	<b>303 R2</b>	<b>24.8</b>	35	7610	4.5	31	71 to 132	N56C to N280TC	5550	7170	2080	168
	<b>303 R3</b>	<b>25.7</b>	34	16900	9.9	24.4	71 to 132	N56C to N280TC	5610	7250	2100	168
	<b>303 R3</b>	<b>31.5</b>	27.7	16900	8.1	24.4	71 to 132	N56C to N280TC	5970	7700	2250	168
	<b>303 R3</b>	<b>37.1</b>	23.4	20000	8.2	24.4	71 to 132	N56C to N280TC	6270	8100	2380	168
	<b>303 R3</b>	<b>42.6</b>	20.4	16900	6.0	24.4	71 to 132	N56C to N280TC	6530	8430	2490	168
	<b>303 R3</b>	<b>46.6</b>	18.7	19100	6.2	24.4	71 to 132	N56C to N280TC	6710	8670	2560	168
	<b>303 R3</b>	<b>50.3</b>	17.3	20700	6.2	24.4	71 to 132	N56C to N280TC	6870	8870	2630	168
	<b>303 R3</b>	<b>54.2</b>	16.1	15800	4.4	24.4	71 to 132	N56C to N280TC	7020	9070	2690	168
	<b>303 R3</b>	<b>63.1</b>	13.8	19300	4.6	24.4	71 to 132	N56C to N280TC	7350	9490	2830	168
	<b>303 R3</b>	<b>73.3</b>	11.9	15900	3.3	24.4	71 to 132	N56C to N280TC	7690	9930	2980	168
	<b>303 R3</b>	<b>78.7</b>	11.1	19400	3.7	24.4	71 to 132	N56C to N280TC	7850	10100	3050	168
	<b>303 R3</b>	<b>91.5</b>	9.5	15900	2.6	24.4	71 to 132	N56C to N280TC	8220	10600	3210	168
	<b>303 R3</b>	<b>114</b>	7.6	15900	2.1	24.4	71 to 132	N56C to N280TC	8790	11300	3460	168
	<b>303 R4</b>	<b>129</b>	6.7	23300	2.8	20.9	71 to 132	N56C to N280TC	9110	11800	3600	168
	<b>303 R4</b>	<b>148</b>	5.9	18900	2.0	20.9	71 to 132	N56C to N280TC	9500	12300	3770	168
	<b>303 R4</b>	<b>158</b>	5.5	23400	2.3	20.9	71 to 132	N56C to N280TC	9690	12500	3850	168
	<b>303 R4</b>	<b>185</b>	4.7	19100	1.6	20.9	71 to 132	N56C to N280TC	10100	13100	4060	168
	<b>303 R4</b>	<b>214</b>	4.1	23700	1.7	20.9	71 to 132	N56C to N280TC	10600	13700	4260	168
	<b>303 R4</b>	<b>231</b>	3.8	16600	1.1	20.9	71 to 132	N56C to N280TC	10800	14000	4370	168
	<b>303 R4</b>	<b>255</b>	3.4	16900	1.0	20.9	71 to 132	N56C to N280TC	11200	14400	4520	168
	<b>303 R4</b>	<b>290</b>	3.0	23800	1.3	20.9	71 to 132	N56C to N280TC	11600	15000	4710	168
	<b>303 R4</b>	<b>313</b>	2.8	17400	0.87	20.9	71 to 132	N56C to N280TC	11900	15300	4830	168
	<b>303 R4</b>	<b>336</b>	2.6	21600	1.0	20.9	71 to 132	N56C to N280TC	12100	15700	4950	168
	<b>303 R4</b>	<b>364</b>	2.4	21800	0.94	20.9	71 to 132	N56C to N280TC	12400	16100	5080	168
	<b>303 R4</b>	<b>390</b>	2.2	18000	0.72	20.9	71 to 132	N56C to N280TC	12700	16400	5200	168
	<b>303 R4</b>	<b>452</b>	1.9	19900	0.69	20.9	71 to 132	N56C to N280TC	13300	16600	5400	168
	<b>303 R4</b>	<b>528</b>	1.6	18900	0.56	20.9	71 to 132	N56C to N280TC	13900	16600	5400	168
	<b>303 R4</b>	<b>567</b>	1.5	23500	0.65	20.9	71 to 132	N56C to N280TC	14200	16600	5400	168
	<b>303 R4</b>	<b>659</b>	1.3	19500	0.46	20.9	71 to 132	N56C to N280TC	14400	16600	5400	168
	<b>303 R4</b>	<b>797</b>	1.1	17500	0.34	20.9	71 to 132	N56C to N280TC	14400	16600	5400	168
<b>303 R4</b>	<b>824</b>	1.1	20200	0.38	20.9	71 to 132	N56C to N280TC	14400	16600	5400	168	

**304 R**

**32,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	<b>304 R2</b>	<b>9.23</b>	190	12200	39	22	71 to 132	N56C to N280TC	3350	4320	1180	176
	<b>304 R2</b>	<b>10.9</b>	161	14400	39	22	71 to 132	N56C to N280TC	3520	4540	1250	176
	<b>304 R2</b>	<b>13.7</b>	128	18000	39	22	71 to 132	N56C to N280TC	3770	4860	1350	176
	<b>304 R2</b>	<b>16.8</b>	104	19100	33	22	71 to 132	N56C to N280TC	4010	5180	1450	176
	<b>304 R3</b>	<b>25.7</b>	68	17000	20	16.9	71 to 132	N56C to N280TC	4550	5880	1660	176
	<b>304 R3</b>	<b>31.5</b>	56	20800	20	16.9	71 to 132	N56C to N280TC	4840	6250	1780	176



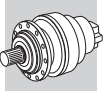
# 3 R

## 304 R

## 32,000 in·lbs

$n_1$ drive speed rpm		$i$ gear ratio 1:	$n_2$ output speed rpm	$T_{n_2}$ rated torque in·lbs	$P_{n_1}$ rated power HP	$P_t$ thermal capacity HP			$R_{n_2}$ [lbs]			
									Permissible overhung loads			
								NHC NPC	HZ PZ	FZ		
<b>1750</b>	304 R3	37.1	47	24600	20	16.9	71 to 132	N56C to N280TC	5080	6570	1880	176
	304 R3	42.6	41	27900	20.0	16.9	71 to 132	N56C to N280TC	5300	6840	1970	176
	304 R3	46.6	38	24400	15.9	16.9	71 to 132	N56C to N280TC	5440	7030	2030	176
	304 R3	50.3	35	28100	17.0	16.9	71 to 132	N56C to N280TC	5570	7190	2080	176
	304 R3	63.1	27.7	24500	11.8	16.9	71 to 132	N56C to N280TC	5960	7700	2250	176
	304 R3	78.7	22.2	24600	9.5	16.9	71 to 132	N56C to N280TC	6370	8220	2420	176
	304 R3	97.0	18.0	20300	6.4	16.9	71 to 132	N56C to N280TC	6780	8760	2590	176
	304 R3	121	14.4	20300	5.1	16.9	71 to 132	N56C to N280TC	7250	9360	2790	176
	304 R4	89.4	19.6	29200	10.3	14.5	71 to 132	N56C to N280TC	6620	8540	2520	176
	304 R4	109	16.0	29600	8.5	14.5	71 to 132	N56C to N280TC	7030	9080	2700	176
	304 R4	129	13.5	30500	7.4	14.5	71 to 132	N56C to N280TC	7390	9540	2850	176
	304 R4	148	11.8	30100	6.4	14.5	71 to 132	N56C to N280TC	7700	9940	2980	176
	304 R4	158	11.1	31100	6.2	14.5	71 to 132	N56C to N280TC	7850	10100	3050	176
	304 R4	185	9.5	30500	5.2	14.5	71 to 132	N56C to N280TC	8230	10600	3210	176
	304 R4	214	8.2	31600	4.6	14.5	71 to 132	N56C to N280TC	8600	11100	3380	176
	304 R4	227	7.7	30600	4.2	14.5	71 to 132	N56C to N280TC	8750	11300	3440	176
	304 R4	267	6.5	31900	3.7	14.5	71 to 132	N56C to N280TC	9190	11900	3630	176
	304 R4	290	6.0	32000	3.5	14.5	71 to 132	N56C to N280TC	9420	12200	3730	176
	304 R4	307	5.7	30900	3.2	14.5	71 to 132	N56C to N280TC	9580	12400	3800	176
	304 R4	338	5.2	20300	1.9	14.5	71 to 132	N56C to N280TC	9860	12700	3930	176
304 R4	364	4.8	24900	2.1	14.5	71 to 132	N56C to N280TC	10100	13000	4030	176	
304 R4	414	4.2	20500	1.6	14.5	71 to 132	N56C to N280TC	10500	13500	4200	176	
304 R4	452	3.9	32500	2.3	14.5	71 to 132	N56C to N280TC	10800	13900	4330	176	
304 R4	560	3.1	20900	1.2	14.5	71 to 132	N56C to N280TC	11500	14800	4650	176	
304 R4	699	2.5	21200	0.95	14.5	71 to 132	N56C to N280TC	12300	15800	5010	176	
<b>1450</b>	304 R2	9.23	157	12900	34	24	71 to 132	N56C to N280TC	3540	4570	1260	176
	304 R2	10.9	133	15200	34	24	71 to 132	N56C to N280TC	3720	4810	1330	176
	304 R2	13.7	106	19000	34	24	71 to 132	N56C to N280TC	3990	5150	1440	176
	304 R2	16.8	86	19500	28	24	71 to 132	N56C to N280TC	4240	5480	1540	176
	304 R3	25.7	56	20500	20	18.8	71 to 132	N56C to N280TC	4820	6220	1770	176
	304 R3	31.5	46	25100	20	18.8	71 to 132	N56C to N280TC	5120	6610	1900	176
	304 R3	37.1	39	27800	18.8	18.8	71 to 132	N56C to N280TC	5380	6950	2000	176
	304 R3	42.6	34	28300	16.7	18.8	71 to 132	N56C to N280TC	5600	7240	2100	176
	304 R3	46.6	31	24500	13.2	18.8	71 to 132	N56C to N280TC	5760	7440	2160	176
	304 R3	50.3	28.8	28500	14.3	18.8	71 to 132	N56C to N280TC	5890	7610	2220	176
	304 R3	63.1	23.0	24600	9.8	18.8	71 to 132	N56C to N280TC	6310	8140	2390	176
	304 R3	78.7	18.4	24600	7.9	18.8	71 to 132	N56C to N280TC	6740	8700	2570	176
	304 R3	97.0	14.9	20300	5.3	18.8	71 to 132	N56C to N280TC	7170	9260	2760	176
	304 R3	121	12.0	20300	4.2	18.8	71 to 132	N56C to N280TC	7670	9910	2970	176
	304 R4	89.4	16.2	29600	8.6	16.1	71 to 132	N56C to N280TC	7000	9040	2690	176
	304 R4	109	13.2	29900	7.1	16.1	71 to 132	N56C to N280TC	7440	9610	2870	176
	304 R4	129	11.2	31000	6.2	16.1	71 to 132	N56C to N280TC	7820	10100	3040	176
	304 R4	148	9.8	30500	5.3	16.1	71 to 132	N56C to N280TC	8150	10500	3180	176
	304 R4	158	9.2	31500	5.2	16.1	71 to 132	N56C to N280TC	8310	10700	3250	176
304 R4	185	7.8	30600	4.3	16.1	71 to 132	N56C to N280TC	8710	11200	3420	176	
304 R4	214	6.8	31900	3.9	16.1	71 to 132	N56C to N280TC	9100	11800	3590	176	
304 R4	227	6.4	30800	3.5	16.1	71 to 132	N56C to N280TC	9250	11900	3660	176	
304 R4	267	5.4	32200	3.1	16.1	71 to 132	N56C to N280TC	9730	12600	3870	176	
304 R4	290	5.0	32300	2.9	16.1	71 to 132	N56C to N280TC	9960	12900	3980	176	
304 R4	307	4.7	31000	2.6	16.1	71 to 132	N56C to N280TC	10100	13100	4050	176	
304 R4	338	4.3	20500	1.6	16.1	71 to 132	N56C to N280TC	10400	13500	4180	176	
304 R4	364	4.0	25600	1.8	16.1	71 to 132	N56C to N280TC	10700	13800	4290	176	
304 R4	414	3.5	20800	1.3	16.1	71 to 132	N56C to N280TC	11100	14300	4470	176	
304 R4	452	3.2	32600	1.9	16.1	71 to 132	N56C to N280TC	11400	14700	4610	176	
304 R4	560	2.6	21200	0.98	16.1	71 to 132	N56C to N280TC	12100	15700	4950	176	

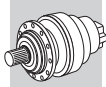




## 304 R

## 32,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1450</b>	<b>304 R4</b>	<b>699</b>	2.1	21800	0.81	16.1	71 to 132	N56C to N280TC	13000	16600	5330	176
<b>1150</b>	<b>304 R2</b>	<b>9.23</b>	125	13800	29	28	71 to 132	N56C to N280TC	3800	4900	1360	176
	<b>304 R2</b>	<b>10.9</b>	106	16300	29	28	71 to 132	N56C to N280TC	3990	5150	1440	176
	<b>304 R2</b>	<b>13.7</b>	84	20400	29	28	71 to 132	N56C to N280TC	4270	5520	1550	176
	<b>304 R2</b>	<b>16.8</b>	68	19800	23	28	71 to 132	N56C to N280TC	4550	5870	1660	176
	<b>304 R3</b>	<b>25.7</b>	45	22900	17.8	21.6	71 to 132	N56C to N280TC	5160	6670	1910	176
	<b>304 R3</b>	<b>31.5</b>	37	26600	16.9	21.6	71 to 132	N56C to N280TC	5490	7080	2050	176
	<b>304 R3</b>	<b>37.1</b>	31	28300	15.3	21.6	71 to 132	N56C to N280TC	5770	7450	2160	176
	<b>304 R3</b>	<b>42.6</b>	27.0	28700	13.5	21.6	71 to 132	N56C to N280TC	6010	7760	2270	176
	<b>304 R3</b>	<b>46.6</b>	24.7	24500	10.5	21.6	71 to 132	N56C to N280TC	6170	7970	2340	176
	<b>304 R3</b>	<b>50.3</b>	22.9	29100	11.6	21.6	71 to 132	N56C to N280TC	6310	8150	2390	176
	<b>304 R3</b>	<b>63.1</b>	18.2	24600	7.8	21.6	71 to 132	N56C to N280TC	6760	8730	2580	176
	<b>304 R3</b>	<b>78.7</b>	14.6	24700	6.3	21.6	71 to 132	N56C to N280TC	7220	9330	2780	176
	<b>304 R3</b>	<b>97.0</b>	11.9	20300	4.2	21.6	71 to 132	N56C to N280TC	7690	9930	2980	176
	<b>304 R3</b>	<b>121</b>	9.5	20300	3.3	21.6	71 to 132	N56C to N280TC	8220	10600	3210	176
	<b>304 R4</b>	<b>89.4</b>	12.9	30000	6.9	18.5	71 to 132	N56C to N280TC	7500	9690	2900	176
	<b>304 R4</b>	<b>109</b>	10.5	30400	5.7	18.5	71 to 132	N56C to N280TC	7980	10300	3100	176
	<b>304 R4</b>	<b>129</b>	8.9	31500	5.0	18.5	71 to 132	N56C to N280TC	8380	10800	3280	176
	<b>304 R4</b>	<b>148</b>	7.8	30600	4.3	18.5	71 to 132	N56C to N280TC	8730	11300	3430	176
	<b>304 R4</b>	<b>158</b>	7.3	31800	4.1	18.5	71 to 132	N56C to N280TC	8910	11500	3510	176
	<b>304 R4</b>	<b>185</b>	6.2	30800	3.4	18.5	71 to 132	N56C to N280TC	9330	12100	3700	176
	<b>304 R4</b>	<b>214</b>	5.4	32200	3.1	18.5	71 to 132	N56C to N280TC	9760	12600	3880	176
	<b>304 R4</b>	<b>227</b>	5.1	31000	2.8	18.5	71 to 132	N56C to N280TC	9920	12800	3960	176
	<b>304 R4</b>	<b>267</b>	4.3	32400	2.5	18.5	71 to 132	N56C to N280TC	10400	13500	4180	176
	<b>304 R4</b>	<b>290</b>	4.0	32500	2.3	18.5	71 to 132	N56C to N280TC	10700	13800	4290	176
	<b>304 R4</b>	<b>307</b>	3.8	31100	2.1	18.5	71 to 132	N56C to N280TC	10900	14000	4370	176
	<b>304 R4</b>	<b>338</b>	3.4	20800	1.3	18.5	71 to 132	N56C to N280TC	11200	14400	4520	176
	<b>304 R4</b>	<b>364</b>	3.2	26400	1.5	18.5	71 to 132	N56C to N280TC	11400	14800	4630	176
	<b>304 R4</b>	<b>414</b>	2.8	21100	1.1	18.5	71 to 132	N56C to N280TC	11900	15300	4830	176
	<b>304 R4</b>	<b>452</b>	2.5	32800	1.5	18.5	71 to 132	N56C to N280TC	12200	15800	4980	176
	<b>304 R4</b>	<b>560</b>	2.1	21900	0.81	18.5	71 to 132	N56C to N280TC	13000	16600	5350	176
<b>304 R4</b>	<b>699</b>	1.6	22600	0.67	18.5	71 to 132	N56C to N280TC	13900	16600	5400	176	
<b>870</b>	<b>304 R2</b>	<b>9.23</b>	94	15000	24	31	71 to 132	N56C to N280TC	4130	5330	1490	176
	<b>304 R2</b>	<b>10.9</b>	80	17700	24	31	71 to 132	N56C to N280TC	4340	5600	1580	176
	<b>304 R2</b>	<b>13.7</b>	64	22200	24	31	71 to 132	N56C to N280TC	4640	6000	1700	176
	<b>304 R2</b>	<b>16.8</b>	52	20200	17.6	31	71 to 132	N56C to N280TC	4950	6390	1830	176
	<b>304 R3</b>	<b>25.7</b>	34	24100	14.2	24.4	71 to 132	N56C to N280TC	5610	7250	2100	176
	<b>304 R3</b>	<b>31.5</b>	27.7	27400	13.2	24.4	71 to 132	N56C to N280TC	5970	7700	2250	176
	<b>304 R3</b>	<b>37.1</b>	23.4	29100	11.8	24.4	71 to 132	N56C to N280TC	6270	8100	2380	176
	<b>304 R3</b>	<b>42.6</b>	20.4	29200	10.4	24.4	71 to 132	N56C to N280TC	6530	8430	2490	176
	<b>304 R3</b>	<b>46.6</b>	18.7	24600	8.0	24.4	71 to 132	N56C to N280TC	6710	8670	2560	176
	<b>304 R3</b>	<b>50.3</b>	17.3	29800	9.0	24.4	71 to 132	N56C to N280TC	6870	8870	2630	176
	<b>304 R3</b>	<b>63.1</b>	13.8	24700	5.9	24.4	71 to 132	N56C to N280TC	7350	9490	2830	176
	<b>304 R3</b>	<b>78.7</b>	11.1	24800	4.8	24.4	71 to 132	N56C to N280TC	7850	10100	3050	176
	<b>304 R3</b>	<b>97.0</b>	9.0	20300	3.2	24.4	71 to 132	N56C to N280TC	8360	10800	3270	176
	<b>304 R3</b>	<b>121</b>	7.2	20300	2.5	24.4	71 to 132	N56C to N280TC	8940	11500	3520	176
	<b>304 R4</b>	<b>89.4</b>	9.7	30500	5.3	20.9	71 to 132	N56C to N280TC	8160	10500	3180	176
	<b>304 R4</b>	<b>109</b>	7.9	30600	4.4	20.9	71 to 132	N56C to N280TC	8670	11200	3410	176
	<b>304 R4</b>	<b>129</b>	6.7	31900	3.8	20.9	71 to 132	N56C to N280TC	9110	11800	3600	176
	<b>304 R4</b>	<b>148</b>	5.9	30900	3.2	20.9	71 to 132	N56C to N280TC	9500	12300	3770	176
	<b>304 R4</b>	<b>158</b>	5.5	32200	3.2	20.9	71 to 132	N56C to N280TC	9690	12500	3850	176
	<b>304 R4</b>	<b>185</b>	4.7	31000	2.6	20.9	71 to 132	N56C to N280TC	10100	13100	4060	176
	<b>304 R4</b>	<b>214</b>	4.1	32500	2.4	20.9	71 to 132	N56C to N280TC	10600	13700	4260	176



# 3 R

## 304 R

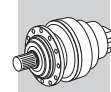
### 32,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
870	304 R4	227	3.8	31000	2.1	20.9	71 to 132	N56C to N280TC	10800	13900	4340	176
	304 R4	267	3.3	32600	1.9	20.9	71 to 132	N56C to N280TC	11300	14600	4590	176
	304 R4	290	3.0	32700	1.8	20.9	71 to 132	N56C to N280TC	11600	15000	4710	176
	304 R4	307	2.8	31100	1.6	20.9	71 to 132	N56C to N280TC	11800	15300	4800	176
	304 R4	338	2.6	21200	0.98	20.9	71 to 132	N56C to N280TC	12200	15700	4960	176
	304 R4	364	2.4	27400	1.2	20.9	71 to 132	N56C to N280TC	12400	16100	5080	176
	304 R4	414	2.1	21800	0.82	20.9	71 to 132	N56C to N280TC	12900	16600	5310	176
	304 R4	452	1.9	33500	1.2	20.9	71 to 132	N56C to N280TC	13300	16600	5400	176
	304 R4	560	1.6	22800	0.64	20.9	71 to 132	N56C to N280TC	14100	16600	5400	176
	304 R4	699	1.2	23600	0.53	20.9	71 to 132	N56C to N280TC	14400	16600	5400	176

## 305 R





### 47,000 in•lbs

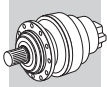
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
1750	305 R2	9.23	190	11700	37	22	71 to 132	N56C to N280TC	3350	4320	1180	184
	305 R2	10.9	161	13800	37	22	71 to 132	N56C to N280TC	3520	4540	1250	184
	305 R2	13.7	128	17300	37	22	71 to 132	N56C to N280TC	3770	4860	1350	184
	305 R2	15.9	110	20200	38	22	71 to 132	N56C to N280TC	3940	5090	1420	184
	305 R2	19.2	91	21900	34	22	71 to 132	N56C to N280TC	4170	5390	1510	184
	305 R3	25.7	68	17000	20	16.9	71 to 132	N56C to N280TC	4550	5880	1660	184
	305 R3	31.5	56	20800	20	16.9	71 to 132	N56C to N280TC	4840	6250	1780	184
	305 R3	37.1	47	24600	20	16.9	71 to 132	N56C to N280TC	5080	6570	1880	184
	305 R3	42.6	41	28200	20	16.9	71 to 132	N56C to N280TC	5300	6840	1970	184
	305 R3	46.6	38	30800	20	16.9	71 to 132	N56C to N280TC	5440	7030	2030	184
	305 R3	50.3	35	33200	20	16.9	71 to 132	N56C to N280TC	5570	7190	2080	184
	305 R3	54.2	32	31500	17.7	16.9	71 to 132	N56C to N280TC	5690	7350	2130	184
	305 R3	63.1	27.7	34300	16.5	16.9	71 to 132	N56C to N280TC	5960	7700	2250	184
	305 R3	73.3	23.9	31600	13.1	16.9	71 to 132	N56C to N280TC	6230	8050	2360	184
	305 R3	78.7	22.2	35300	13.6	16.9	71 to 132	N56C to N280TC	6370	8220	2420	184
	305 R3	91.5	19.1	31700	10.5	16.9	71 to 132	N56C to N280TC	6660	8600	2540	184
	305 R3	114	15.3	30100	8.0	16.9	71 to 132	N56C to N280TC	7120	9200	2740	184
	305 R4	129	13.5	43100	10.4	14.5	71 to 132	N56C to N280TC	7390	9540	2850	184
	305 R4	148	11.8	36200	7.7	14.5	71 to 132	N56C to N280TC	7700	9940	2980	184
	305 R4	158	11.1	45000	8.9	14.5	71 to 132	N56C to N280TC	7850	10100	3050	184
	305 R4	185	9.5	37200	6.3	14.5	71 to 132	N56C to N280TC	8230	10600	3210	184
	305 R4	214	8.2	46300	6.8	14.5	71 to 132	N56C to N280TC	8600	11100	3380	184
	305 R4	231	7.6	31900	4.3	14.5	71 to 132	N56C to N280TC	8800	11400	3460	184
	305 R4	255	6.9	31900	3.9	14.5	71 to 132	N56C to N280TC	9060	11700	3580	184
	305 R4	290	6.0	46700	5.0	14.5	71 to 132	N56C to N280TC	9420	12200	3730	184
	305 R4	313	5.6	31900	3.2	14.5	71 to 132	N56C to N280TC	9630	12400	3830	184
	305 R4	336	5.2	38900	3.6	14.5	71 to 132	N56C to N280TC	9840	12700	3920	184
	305 R4	364	4.8	39200	3.4	14.5	71 to 132	N56C to N280TC	10100	13000	4030	184
	305 R4	390	4.5	32300	2.6	14.5	71 to 132	N56C to N280TC	10300	13300	4120	184
	305 R4	452	3.9	42000	2.9	14.5	71 to 132	N56C to N280TC	10800	13900	4330	184
	305 R4	528	3.3	33700	2.0	14.5	71 to 132	N56C to N280TC	11300	14600	4560	184
	305 R4	567	3.1	42000	2.3	14.5	71 to 132	N56C to N280TC	11500	14900	4670	184
	305 R4	659	2.7	34700	1.7	14.5	71 to 132	N56C to N280TC	12000	15600	4910	184



### 305 R

### 47,000 in·lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in·lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	305 R4	797	2.2	29800	1.2	14.5	71 to 132	N56C to N280TC	12800	16500	5230	184
	305 R4	824	2.1	35900	1.4	14.5	71 to 132	N56C to N280TC	12900	16600	5290	184
<b>1450</b>	305 R2	9.23	157	12400	33	24	71 to 132	N56C to N280TC	3540	4570	1260	184
	305 R2	10.9	133	14600	33	24	71 to 132	N56C to N280TC	3720	4810	1330	184
	305 R2	13.7	106	18300	33	24	71 to 132	N56C to N280TC	3990	5150	1440	184
	305 R2	15.9	91	21400	33	24	71 to 132	N56C to N280TC	4170	5380	1510	184
	305 R2	19.2	75	23300	30	24	71 to 132	N56C to N280TC	4410	5700	1610	184
	305 R3	25.7	56	20500	20	18.8	71 to 132	N56C to N280TC	4820	6220	1770	184
	305 R3	31.5	46	25100	20	18.8	71 to 132	N56C to N280TC	5120	6610	1900	184
	305 R3	37.1	39	29600	20	18.8	71 to 132	N56C to N280TC	5380	6950	2000	184
	305 R3	42.6	34	29500	17.5	18.8	71 to 132	N56C to N280TC	5600	7240	2100	184
	305 R3	46.6	31	33800	18.3	18.8	71 to 132	N56C to N280TC	5760	7440	2160	184
	305 R3	50.3	28.8	35100	17.6	18.8	71 to 132	N56C to N280TC	5890	7610	2220	184
	305 R3	54.2	26.8	31600	14.7	18.8	71 to 132	N56C to N280TC	6020	7780	2270	184
	305 R3	63.1	23.0	35100	14.0	18.8	71 to 132	N56C to N280TC	6310	8140	2390	184
	305 R3	73.3	19.8	31700	10.9	18.8	71 to 132	N56C to N280TC	6600	8520	2510	184
	305 R3	78.7	18.4	36100	11.6	18.8	71 to 132	N56C to N280TC	6740	8700	2570	184
	305 R3	91.5	15.8	31700	8.7	18.8	71 to 132	N56C to N280TC	7050	9100	2710	184
	305 R3	114	12.7	30900	6.8	18.8	71 to 132	N56C to N280TC	7540	9730	2920	184
	305 R4	129	11.2	44900	9.0	16.1	71 to 132	N56C to N280TC	7820	10100	3040	184
	305 R4	148	9.8	37200	6.5	16.1	71 to 132	N56C to N280TC	8150	10500	3180	184
	305 R4	158	9.2	46100	7.6	16.1	71 to 132	N56C to N280TC	8310	10700	3250	184
305 R4	185	7.8	37500	5.3	16.1	71 to 132	N56C to N280TC	8710	11200	3420	184	
305 R4	214	6.8	46500	5.6	16.1	71 to 132	N56C to N280TC	9100	11800	3590	184	
305 R4	231	6.3	31900	3.6	16.1	71 to 132	N56C to N280TC	9310	12000	3690	184	
305 R4	255	5.7	31900	3.2	16.1	71 to 132	N56C to N280TC	9590	12400	3810	184	
305 R4	290	5.0	46900	4.2	16.1	71 to 132	N56C to N280TC	9960	12900	3980	184	
305 R4	313	4.6	32200	2.7	16.1	71 to 132	N56C to N280TC	10200	13200	4080	184	
305 R4	336	4.3	39800	3.1	16.1	71 to 132	N56C to N280TC	10400	13400	4170	184	
305 R4	364	4.0	40300	2.9	16.1	71 to 132	N56C to N280TC	10700	13800	4290	184	
305 R4	390	3.7	33200	2.2	16.1	71 to 132	N56C to N280TC	10900	14100	4390	184	
305 R4	452	3.2	42000	2.4	16.1	71 to 132	N56C to N280TC	11400	14700	4610	184	
305 R4	528	2.7	34500	1.7	16.1	71 to 132	N56C to N280TC	11900	15400	4850	184	
305 R4	567	2.6	43200	2.0	16.1	71 to 132	N56C to N280TC	12200	15700	4970	184	
305 R4	659	2.2	35700	1.4	16.1	71 to 132	N56C to N280TC	12700	16500	5230	184	
305 R4	797	1.8	30700	1.0	16.1	71 to 132	N56C to N280TC	13500	16600	5400	184	
305 R4	824	1.8	37100	1.2	16.1	71 to 132	N56C to N280TC	13600	16600	5400	184	
<b>1150</b>	305 R2	9.23	125	13300	28	28	71 to 132	N56C to N280TC	3800	4900	1360	184
	305 R2	10.9	106	15700	28	28	71 to 132	N56C to N280TC	3990	5150	1440	184
	305 R2	13.7	84	19600	28	28	71 to 132	N56C to N280TC	4270	5520	1550	184
	305 R2	15.9	72	22900	28	28	71 to 132	N56C to N280TC	4470	5770	1630	184
	305 R2	19.2	60	25100	25	28	71 to 132	N56C to N280TC	4730	6110	1740	184
	305 R3	25.7	45	23800	18.5	21.6	71 to 132	N56C to N280TC	5160	6670	1910	184
	305 R3	31.5	37	28300	18.0	21.6	71 to 132	N56C to N280TC	5490	7080	2050	184
	305 R3	37.1	31	34200	18.4	21.6	71 to 132	N56C to N280TC	5770	7450	2160	184
	305 R3	42.6	27.0	30800	14.5	21.6	71 to 132	N56C to N280TC	6010	7760	2270	184
	305 R3	46.6	24.7	34800	14.9	21.6	71 to 132	N56C to N280TC	6170	7970	2340	184
	305 R3	50.3	22.9	37300	14.8	21.6	71 to 132	N56C to N280TC	6310	8150	2390	184
	305 R3	54.2	21.2	31700	11.7	21.6	71 to 132	N56C to N280TC	6460	8340	2460	184
	305 R3	63.1	18.2	36100	11.5	21.6	71 to 132	N56C to N280TC	6760	8730	2580	184
	305 R3	73.3	15.7	31700	8.7	21.6	71 to 132	N56C to N280TC	7070	9130	2720	184
	305 R3	78.7	14.6	37100	9.4	21.6	71 to 132	N56C to N280TC	7220	9330	2780	184
	305 R3	91.5	12.6	31800	6.9	21.6	71 to 132	N56C to N280TC	7560	9760	2920	184
	305 R3	114	10.1	31800	5.6	21.6	71 to 132	N56C to N280TC	8080	10400	3150	184

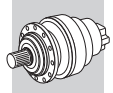


# 3 R

## 305 R

## 47,000 in•lbs

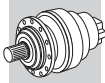
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			R <sub>n2</sub> [lbs]				
									Permissible overhung loads				
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ		
<b>1150</b>	305 R4	129	8.9	46200	7.4	18.5	71 to 132	N56C to N280TC	8380	10800	3280	184	
	305 R4	148	7.8	37500	5.2	18.5	71 to 132	N56C to N280TC	8730	11300	3430	184	
	305 R4	158	7.3	46400	6.0	18.5	71 to 132	N56C to N280TC	8910	11500	3510	184	
	305 R4	185	6.2	37800	4.2	18.5	71 to 132	N56C to N280TC	9330	12100	3700	184	
	305 R4	214	5.4	46800	4.5	18.5	71 to 132	N56C to N280TC	9760	12600	3880	184	
	305 R4	231	5.0	31900	2.8	18.5	71 to 132	N56C to N280TC	9980	12900	3980	184	
	305 R4	255	4.5	32300	2.6	18.5	71 to 132	N56C to N280TC	10300	13300	4120	184	
	305 R4	290	4.0	47200	3.4	18.5	71 to 132	N56C to N280TC	10700	13800	4290	184	
	305 R4	313	3.7	33200	2.2	18.5	71 to 132	N56C to N280TC	10900	14100	4400	184	
	305 R4	336	3.4	41300	2.5	18.5	71 to 132	N56C to N280TC	11200	14400	4510	184	
	305 R4	364	3.2	41800	2.4	18.5	71 to 132	N56C to N280TC	11400	14800	4630	184	
	305 R4	390	2.9	34200	1.8	18.5	71 to 132	N56C to N280TC	11700	15100	4740	184	
	305 R4	452	2.5	42000	1.9	18.5	71 to 132	N56C to N280TC	12200	15800	4980	184	
	305 R4	528	2.2	35800	1.4	18.5	71 to 132	N56C to N280TC	12800	16500	5240	184	
	305 R4	567	2.0	44700	1.6	18.5	71 to 132	N56C to N280TC	13100	16600	5370	184	
	305 R4	659	1.7	37100	1.2	18.5	71 to 132	N56C to N280TC	13700	16600	5400	184	
	305 R4	797	1.4	31800	0.82	18.5	71 to 132	N56C to N280TC	14400	16600	5400	184	
	305 R4	824	1.4	38500	0.96	18.5	71 to 132	N56C to N280TC	14400	16600	5400	184	
	<b>870</b>	305 R2	9.23	94	14400	23	31	71 to 132	N56C to N280TC	4130	5330	1490	184
		305 R2	10.9	80	17000	23	31	71 to 132	N56C to N280TC	4340	5600	1580	184
305 R2		13.7	64	21400	23	31	71 to 132	N56C to N280TC	4640	6000	1700	184	
305 R2		15.9	55	25000	23	31	71 to 132	N56C to N280TC	4860	6280	1790	184	
305 R2		19.2	45	26600	20	31	71 to 132	N56C to N280TC	5150	6640	1910	184	
305 R3		25.7	34	25800	15.2	24.4	71 to 132	N56C to N280TC	5610	7250	2100	184	
305 R3		31.5	27.7	30100	14.4	24.4	71 to 132	N56C to N280TC	5970	7700	2250	184	
305 R3		37.1	23.4	36800	15.0	24.4	71 to 132	N56C to N280TC	6270	8100	2380	184	
305 R3		42.6	20.4	32500	11.5	24.4	71 to 132	N56C to N280TC	6530	8430	2490	184	
305 R3		46.6	18.7	36000	11.7	24.4	71 to 132	N56C to N280TC	6710	8670	2560	184	
305 R3		50.3	17.3	40000	12.0	24.4	71 to 132	N56C to N280TC	6870	8870	2630	184	
305 R3		54.2	16.1	31700	8.9	24.4	71 to 132	N56C to N280TC	7020	9070	2690	184	
305 R3		63.1	13.8	37400	9.0	24.4	71 to 132	N56C to N280TC	7350	9490	2830	184	
305 R3		73.3	11.9	31800	6.6	24.4	71 to 132	N56C to N280TC	7690	9930	2980	184	
305 R3		78.7	11.1	38500	7.4	24.4	71 to 132	N56C to N280TC	7850	10100	3050	184	
305 R3		91.5	9.5	31900	5.3	24.4	71 to 132	N56C to N280TC	8220	10600	3210	184	
305 R3		114	7.6	31900	4.2	24.4	71 to 132	N56C to N280TC	8790	11300	3460	184	
305 R4		129	6.7	46500	5.6	20.9	71 to 132	N56C to N280TC	9110	11800	3600	184	
305 R4		148	5.9	37900	4.0	20.9	71 to 132	N56C to N280TC	9500	12300	3770	184	
305 R4		158	5.5	46800	4.6	20.9	71 to 132	N56C to N280TC	9690	12500	3850	184	
305 R4		185	4.7	38200	3.2	20.9	71 to 132	N56C to N280TC	10100	13100	4060	184	
305 R4		214	4.1	47400	3.5	20.9	71 to 132	N56C to N280TC	10600	13700	4260	184	
305 R4		231	3.8	33100	2.2	20.9	71 to 132	N56C to N280TC	10800	14000	4370	184	
305 R4		255	3.4	33500	2.0	20.9	71 to 132	N56C to N280TC	11200	14400	4520	184	
305 R4		290	3.0	47600	2.6	20.9	71 to 132	N56C to N280TC	11600	15000	4710	184	
305 R4		313	2.8	34500	1.7	20.9	71 to 132	N56C to N280TC	11900	15300	4830	184	
305 R4		336	2.6	43100	2.0	20.9	71 to 132	N56C to N280TC	12100	15700	4950	184	
305 R4		364	2.4	43700	1.9	20.9	71 to 132	N56C to N280TC	12400	16100	5080	184	
305 R4		390	2.2	35600	1.4	20.9	71 to 132	N56C to N280TC	12700	16400	5200	184	
305 R4		452	1.9	42000	1.5	20.9	71 to 132	N56C to N280TC	13300	16600	5400	184	
305 R4		528	1.6	37500	1.1	20.9	71 to 132	N56C to N280TC	13900	16600	5400	184	
305 R4		567	1.5	46600	1.3	20.9	71 to 132	N56C to N280TC	14200	16600	5400	184	
305 R4		659	1.3	38900	0.92	20.9	71 to 132	N56C to N280TC	14400	16600	5400	184	
305 R4		797	1.1	33200	0.65	20.9	71 to 132	N56C to N280TC	14400	16600	5400	184	
305 R4		824	1.1	40300	0.76	20.9	71 to 132	N56C to N280TC	14400	16600	5400	184	



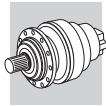
## 306 R

## 83,000 in·lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in·lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	IEC 	NEMA 	Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	<b>306 R2</b>	<b>9.23</b>	190	11700	37	22	71 to 160	N56C to N280TC	5420	6840	1730	192	
	<b>306 R2</b>	<b>10.9</b>	161	13800	37	22	71 to 160	N56C to N280TC	5700	7190	1820	192	
	<b>306 R2</b>	<b>13.7</b>	128	17300	37	22	71 to 160	N56C to N280TC	6100	7700	1970	192	
	<b>306 R2</b>	<b>15.9</b>	110	20200	38	22	71 to 160	N56C to N280TC	6380	8060	2070	192	
	<b>306 R2</b>	<b>19.2</b>	91	24600	38	22	71 to 160	N56C to N280TC	6760	8530	2200	192	
	<b>306 R3</b>	<b>33.2</b>	53	40900	37	16.9	71 to 160	N56C to N280TC	7960	10100	2640	192	
	<b>306 R3</b>	<b>39.2</b>	45	46400	36	16.9	71 to 160	N56C to N280TC	8370	10600	2790	192	
	<b>306 R3</b>	<b>46.3</b>	38	55700	37	16.9	71 to 160	N56C to N280TC	8790	11100	2950	192	
	<b>306 R3</b>	<b>58.1</b>	30	58500	31	16.9	71 to 160	N56C to N280TC	9410	11900	3190	192	
	<b>306 R3</b>	<b>67.5</b>	25.9	49400	22	16.9	71 to 160	N56C to N280TC	9850	12400	3350	192	
	<b>306 R3</b>	<b>72.9</b>	24.0	58200	24	16.9	71 to 160	N56C to N280TC	10100	12700	3440	192	
	<b>306 R3</b>	<b>84.7</b>	20.7	58500	21	16.9	71 to 160	N56C to N280TC	10500	13300	3610	192	
	<b>306 R3</b>	<b>98.5</b>	17.8	54900	17.0	16.9	71 to 160	N56C to N280TC	11000	13900	3800	192	
	<b>306 R3</b>	<b>119</b>	14.7	55800	14.2	16.9	71 to 160	N56C to N280TC	11700	14700	4050	192	
	<b>306 R3</b>	<b>144</b>	12.1	47800	10.1	16.9	71 to 160	N56C to N280TC	12400	15600	4310	192	
	<b>306 R4</b>	<b>158</b>	11.1	75500	15.0	14.5	71 to 160	N56C to N280TC	12700	16000	4450	192	
	<b>306 R4</b>	<b>168</b>	10.4	65700	12.3	14.5	71 to 160	N56C to N280TC	12900	16300	4540	192	
	<b>306 R4</b>	<b>181</b>	9.7	66000	11.4	14.5	71 to 160	N56C to N280TC	13200	16700	4650	192	
	<b>306 R4</b>	<b>214</b>	8.2	76100	11.2	14.5	71 to 160	N56C to N280TC	13900	17600	4920	192	
	<b>306 R4</b>	<b>230</b>	7.6	65500	8.9	14.5	71 to 160	N56C to N280TC	14200	18000	5040	192	
	<b>306 R4</b>	<b>249</b>	7.0	69000	8.7	14.5	71 to 160	N56C to N280TC	14600	18400	5170	192	
	<b>306 R4</b>	<b>289</b>	6.1	69000	7.5	14.5	71 to 160	N56C to N280TC	15200	19200	5440	192	
	<b>306 R4</b>	<b>312</b>	5.6	65500	6.6	14.5	71 to 160	N56C to N280TC	15600	19700	5580	192	
	<b>306 R4</b>	<b>389</b>	4.5	58400	4.7	14.5	71 to 160	N56C to N280TC	16700	21000	6000	192	
	<b>306 R4</b>	<b>420</b>	4.2	70600	5.3	14.5	71 to 160	N56C to N280TC	17000	21500	6160	192	
	<b>306 R4</b>	<b>455</b>	3.8	59800	4.1	14.5	71 to 160	N56C to N280TC	17500	22000	6330	192	
	<b>306 R4</b>	<b>488</b>	3.6	71900	4.6	14.5	71 to 160	N56C to N280TC	17800	22500	6480	192	
	<b>306 R4</b>	<b>550</b>	3.2	61500	3.5	14.5	71 to 160	N56C to N280TC	18500	23300	6740	192	
	<b>306 R4</b>	<b>590</b>	3.0	73700	3.9	14.5	71 to 160	N56C to N280TC	18900	23800	6900	192	
	<b>306 R4</b>	<b>665</b>	2.6	52000	2.4	14.5	71 to 160	N56C to N280TC	19600	24700	7180	192	
	<b>306 R4</b>	<b>830</b>	2.1	53900	2.0	14.5	71 to 160	N56C to N280TC	20900	26400	7730	192	
	<b>1450</b>	<b>306 R2</b>	<b>9.23</b>	157	12400	33	24	71 to 160	N56C to N280TC	5740	7240	1840	192
		<b>306 R2</b>	<b>10.9</b>	133	14600	33	24	71 to 160	N56C to N280TC	6030	7610	1940	192
		<b>306 R2</b>	<b>13.7</b>	106	18300	33	24	71 to 160	N56C to N280TC	6450	8150	2090	192
		<b>306 R2</b>	<b>15.9</b>	91	21400	33	24	71 to 160	N56C to N280TC	6750	8520	2200	192
		<b>306 R2</b>	<b>19.2</b>	75	25900	33	24	71 to 160	N56C to N280TC	7150	9020	2350	192
		<b>306 R3</b>	<b>33.2</b>	44	43200	33	18.8	71 to 160	N56C to N280TC	8420	10600	2820	192
		<b>306 R3</b>	<b>39.2</b>	37	48500	31	18.8	71 to 160	N56C to N280TC	8850	11200	2980	192
<b>306 R3</b>		<b>46.3</b>	31	58900	32	18.8	71 to 160	N56C to N280TC	9300	11700	3140	192	
<b>306 R3</b>		<b>58.1</b>	25.0	61700	27	18.8	71 to 160	N56C to N280TC	9960	12600	3390	192	
<b>306 R3</b>		<b>67.5</b>	21.5	52300	19.5	18.8	71 to 160	N56C to N280TC	10400	13200	3570	192	
<b>306 R3</b>		<b>72.9</b>	19.9	60400	21	18.8	71 to 160	N56C to N280TC	10700	13500	3660	192	
<b>306 R3</b>		<b>84.7</b>	17.1	61100	18.2	18.8	71 to 160	N56C to N280TC	11200	14100	3850	192	
<b>306 R3</b>		<b>98.5</b>	14.7	55700	14.3	18.8	71 to 160	N56C to N280TC	11700	14700	4040	192	
<b>306 R3</b>		<b>119</b>	12.2	56600	12.0	18.8	71 to 160	N56C to N280TC	12400	15600	4310	192	
<b>306 R3</b>		<b>144</b>	10.1	48700	8.5	18.8	71 to 160	N56C to N280TC	13100	16500	4590	192	
<b>306 R4</b>		<b>158</b>	9.2	78500	12.9	16.1	71 to 160	N56C to N280TC	13400	17000	4730	192	
<b>306 R4</b>		<b>168</b>	8.6	66700	10.3	16.1	71 to 160	N56C to N280TC	13700	17300	4830	192	
<b>306 R4</b>		<b>181</b>	8.0	69000	9.9	16.1	71 to 160	N56C to N280TC	14000	17700	4950	192	
<b>306 R4</b>		<b>214</b>	6.8	78800	9.6	16.1	71 to 160	N56C to N280TC	14700	18600	5240	192	
<b>306 R4</b>		<b>230</b>	6.3	65500	7.4	16.1	71 to 160	N56C to N280TC	15100	19000	5370	192	
<b>306 R4</b>		<b>249</b>	5.8	69000	7.2	16.1	71 to 160	N56C to N280TC	15400	19500	5510	192	
<b>306 R4</b>		<b>289</b>	5.0	69000	6.2	16.1	71 to 160	N56C to N280TC	16100	20400	5790	192	
<b>306 R4</b>		<b>312</b>	4.7	65500	5.5	16.1	71 to 160	N56C to N280TC	16500	20800	5940	192	

**3 R****306 R****83,000 in•lbs**

<b>n<sub>1</sub></b> drive speed rpm		<b>i</b> gear ratio 1:	<b>n<sub>2</sub></b> output speed rpm	<b>T<sub>n2</sub></b> rated torque in•lbs	<b>P<sub>n1</sub></b> rated power HP	<b>P<sub>t</sub></b> thermal capacity HP			<b>Rn<sub>2</sub> [lbs]</b> Permissible overhung loads				
									<b>NHC NPC</b>	<b>HZ PZ</b>	<b>FZ</b>		
<b>1450</b>	<b>306 R4</b>	<b>389</b>	3.7	60100	4.0	16.1	71 to 160	N56C to N280TC	17600	22200	6390	192	
	<b>306 R4</b>	<b>420</b>	3.5	72300	4.5	16.1	71 to 160	N56C to N280TC	18000	22800	6560	192	
	<b>306 R4</b>	<b>455</b>	3.2	61500	3.5	16.1	71 to 160	N56C to N280TC	18500	23300	6730	192	
	<b>306 R4</b>	<b>488</b>	3.0	73600	3.9	16.1	71 to 160	N56C to N280TC	18900	23800	6900	192	
	<b>306 R4</b>	<b>550</b>	2.6	63200	3.0	16.1	71 to 160	N56C to N280TC	19600	24700	7180	192	
	<b>306 R4</b>	<b>590</b>	2.5	75400	3.3	16.1	71 to 160	N56C to N280TC	20000	25200	7350	192	
	<b>306 R4</b>	<b>665</b>	2.2	53600	2.1	16.1	71 to 160	N56C to N280TC	20700	26100	7650	192	
	<b>306 R4</b>	<b>830</b>	1.7	55800	1.7	16.1	71 to 160	N56C to N280TC	22100	26800	7870	192	
<b>1150</b>	<b>306 R2</b>	<b>9.23</b>	125	13300	28	28	71 to 160	N56C to N280TC	6150	7760	1980	192	
	<b>306 R2</b>	<b>10.9</b>	106	15700	28	28	71 to 160	N56C to N280TC	6460	8160	2100	192	
	<b>306 R2</b>	<b>13.7</b>	84	19600	28	28	71 to 160	N56C to N280TC	6920	8730	2260	192	
	<b>306 R2</b>	<b>15.9</b>	72	22900	28	28	71 to 160	N56C to N280TC	7240	9140	2380	192	
	<b>306 R2</b>	<b>19.2</b>	60	27700	28	28	71 to 160	N56C to N280TC	7660	9670	2530	192	
	<b>306 R3</b>	<b>33.2</b>	35	46000	28	21.6	71 to 160	N56C to N280TC	9030	11400	3040	192	
	<b>306 R3</b>	<b>39.2</b>	29.3	51300	26	21.6	71 to 160	N56C to N280TC	9490	12000	3210	192	
	<b>306 R3</b>	<b>46.3</b>	24.8	63000	27	21.6	71 to 160	N56C to N280TC	9970	12600	3400	192	
	<b>306 R3</b>	<b>58.1</b>	19.8	66000	23	21.6	71 to 160	N56C to N280TC	10700	13500	3660	192	
	<b>306 R3</b>	<b>67.5</b>	17.0	56000	16.6	21.6	71 to 160	N56C to N280TC	11200	14100	3850	192	
	<b>306 R3</b>	<b>72.9</b>	15.8	63200	17.3	21.6	71 to 160	N56C to N280TC	11400	14400	3950	192	
	<b>306 R3</b>	<b>84.7</b>	13.6	64400	15.2	21.6	71 to 160	N56C to N280TC	12000	15100	4160	192	
	<b>306 R3</b>	<b>98.5</b>	11.7	56800	11.5	21.6	71 to 160	N56C to N280TC	12500	15800	4370	192	
	<b>306 R3</b>	<b>119</b>	9.7	57500	9.7	21.6	71 to 160	N56C to N280TC	13200	16700	4660	192	
	<b>306 R3</b>	<b>144</b>	8.0	48700	6.8	21.6	71 to 160	N56C to N280TC	14000	17700	4960	192	
	<b>306 R4</b>	<b>158</b>	7.3	80300	10.5	18.5	71 to 160	N56C to N280TC	14400	18200	5110	192	
	<b>306 R4</b>	<b>168</b>	6.9	67300	8.3	18.5	71 to 160	N56C to N280TC	14700	18500	5220	192	
	<b>306 R4</b>	<b>181</b>	6.4	72800	8.3	18.5	71 to 160	N56C to N280TC	15000	19000	5350	192	
	<b>306 R4</b>	<b>214</b>	5.4	82100	7.9	18.5	71 to 160	N56C to N280TC	15800	19900	5660	192	
	<b>306 R4</b>	<b>230</b>	5.0	65500	5.9	18.5	71 to 160	N56C to N280TC	16100	20400	5800	192	
	<b>306 R4</b>	<b>249</b>	4.6	69700	5.8	18.5	71 to 160	N56C to N280TC	16500	20900	5950	192	
	<b>306 R4</b>	<b>289</b>	4.0	71000	5.1	18.5	71 to 160	N56C to N280TC	17300	21800	6260	192	
	<b>306 R4</b>	<b>312</b>	3.7	65500	4.3	18.5	71 to 160	N56C to N280TC	17700	22300	6420	192	
	<b>306 R4</b>	<b>389</b>	3.0	62200	3.3	18.5	71 to 160	N56C to N280TC	18900	23900	6910	192	
	<b>306 R4</b>	<b>420</b>	2.7	74400	3.7	18.5	71 to 160	N56C to N280TC	19300	24400	7090	192	
	<b>306 R4</b>	<b>455</b>	2.5	63600	2.9	18.5	71 to 160	N56C to N280TC	19800	25000	7280	192	
	<b>306 R4</b>	<b>488</b>	2.4	75700	3.2	18.5	71 to 160	N56C to N280TC	20200	25500	7450	192	
	<b>306 R4</b>	<b>550</b>	2.1	65800	2.5	18.5	71 to 160	N56C to N280TC	21000	26500	7750	192	
	<b>306 R4</b>	<b>590</b>	1.9	77500	2.7	18.5	71 to 160	N56C to N280TC	21400	26800	7870	192	
	<b>306 R4</b>	<b>665</b>	1.7	55900	1.7	18.5	71 to 160	N56C to N280TC	22200	26800	7870	192	
	<b>306 R4</b>	<b>830</b>	1.4	58300	1.4	18.5	71 to 160	N56C to N280TC	22700	26800	7870	192	
	<b>870</b>	<b>306 R2</b>	<b>9.23</b>	94	14400	23	31	71 to 160	N56C to N280TC	6690	8440	2180	192
		<b>306 R2</b>	<b>10.9</b>	80	17000	23	31	71 to 160	N56C to N280TC	7030	8870	2300	192
		<b>306 R2</b>	<b>13.7</b>	64	21400	23	31	71 to 160	N56C to N280TC	7520	9500	2480	192
		<b>306 R2</b>	<b>15.9</b>	55	25000	23	31	71 to 160	N56C to N280TC	7870	9940	2610	192
		<b>306 R2</b>	<b>19.2</b>	45	30100	23	31	71 to 160	N56C to N280TC	8330	10500	2780	192
		<b>306 R3</b>	<b>33.2</b>	26.2	49600	23	24.4	71 to 160	N56C to N280TC	9820	12400	3340	192
		<b>306 R3</b>	<b>39.2</b>	22.2	54800	21	24.4	71 to 160	N56C to N280TC	10300	13000	3530	192
		<b>306 R3</b>	<b>46.3</b>	18.8	68400	22	24.4	71 to 160	N56C to N280TC	10800	13700	3730	192
		<b>306 R3</b>	<b>58.1</b>	15.0	71600	18.6	24.4	71 to 160	N56C to N280TC	11600	14700	4020	192
		<b>306 R3</b>	<b>67.5</b>	12.9	60800	13.6	24.4	71 to 160	N56C to N280TC	12100	15300	4230	192
		<b>306 R3</b>	<b>72.9</b>	11.9	66700	13.8	24.4	71 to 160	N56C to N280TC	12400	15700	4340	192
		<b>306 R3</b>	<b>84.7</b>	10.3	68600	12.2	24.4	71 to 160	N56C to N280TC	13000	16400	4560	192
		<b>306 R3</b>	<b>98.5</b>	8.8	57500	8.8	24.4	71 to 160	N56C to N280TC	13600	17200	4800	192
		<b>306 R3</b>	<b>119</b>	7.3	57500	7.3	24.4	71 to 160	N56C to N280TC	14400	18200	5110	192
		<b>306 R3</b>	<b>144</b>	6.0	48700	5.1	24.4	71 to 160	N56C to N280TC	15200	19300	5440	192



**306 R**

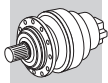
**83,000 in·lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in·lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	<b>306 R4</b>	<b>158</b>	5.5	82400	8.1	20.9	71 to 160	N56C to N280TC	15700	19800	5610	192
	<b>306 R4</b>	<b>168</b>	5.2	68100	6.3	20.9	71 to 160	N56C to N280TC	16000	20200	5730	192
	<b>306 R4</b>	<b>181</b>	4.8	77000	6.6	20.9	71 to 160	N56C to N280TC	16300	20600	5870	192
	<b>306 R4</b>	<b>214</b>	4.1	83700	6.1	20.9	71 to 160	N56C to N280TC	17200	21700	6210	192
	<b>306 R4</b>	<b>230</b>	3.8	65500	4.4	20.9	71 to 160	N56C to N280TC	17600	22200	6370	192
	<b>306 R4</b>	<b>249</b>	3.5	72200	4.5	20.9	71 to 160	N56C to N280TC	18000	22700	6530	192
	<b>306 R4</b>	<b>289</b>	3.0	73500	4.0	20.9	71 to 160	N56C to N280TC	18800	23700	6870	192
	<b>306 R4</b>	<b>312</b>	2.8	65500	3.3	20.9	71 to 160	N56C to N280TC	19200	24300	7040	192
	<b>306 R4</b>	<b>389</b>	2.2	65000	2.6	20.9	71 to 160	N56C to N280TC	20500	25900	7580	192
	<b>306 R4</b>	<b>420</b>	2.1	77000	2.9	20.9	71 to 160	N56C to N280TC	21000	26500	7780	192
	<b>306 R4</b>	<b>455</b>	1.9	66900	2.3	20.9	71 to 160	N56C to N280TC	21500	26800	7870	192
	<b>306 R4</b>	<b>488</b>	1.8	77800	2.5	20.9	71 to 160	N56C to N280TC	22000	26800	7870	192
	<b>306 R4</b>	<b>550</b>	1.6	69200	2.0	20.9	71 to 160	N56C to N280TC	22700	26800	7870	192
	<b>306 R4</b>	<b>590</b>	1.5	80200	2.1	20.9	71 to 160	N56C to N280TC	22700	26800	7870	192
	<b>306 R4</b>	<b>665</b>	1.3	58900	1.4	20.9	71 to 160	N56C to N280TC	22700	26800	7870	192
	<b>306 R4</b>	<b>830</b>	1.0	61400	1.2	20.9	71 to 160	N56C to N280TC	22700	26800	7870	192

**307 R**

**115,000 in·lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in·lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	<b>307 R2</b>	<b>13.0</b>	135	34400	78	42	132 to 200	N280TC	6830	9170	2480	200
	<b>307 R2</b>	<b>15.5</b>	113	41400	79	42	132 to 200	N280TC	7200	9670	2630	200
	<b>307 R2</b>	<b>19.8</b>	88	52500	78	42	132 to 200	N280TC	7760	10400	2860	200
	<b>307 R2</b>	<b>23.5</b>	74	60200	75	42	132 to 200	N280TC	8170	11000	3030	200
	<b>307 R3</b>	<b>31.6</b>	55	39100	38	27	71 to 160	N56C to N280TC	8930	12000	3340	200
	<b>307 R3</b>	<b>37.7</b>	46	46200	37	27	71 to 160	N56C to N280TC	9410	12600	3550	200
	<b>307 R3</b>	<b>44.6</b>	39	55200	38	27	71 to 160	N56C to N280TC	9900	13300	3750	200
	<b>307 R3</b>	<b>55.9</b>	31	69200	38	27	71 to 160	N56C to N280TC	10600	14200	4040	200
	<b>307 R3</b>	<b>65.0</b>	26.9	80000	37	27	71 to 160	N56C to N280TC	11100	14900	4250	200
	<b>307 R3</b>	<b>71.8</b>	24.4	78300	33	27	71 to 160	N56C to N280TC	11400	15300	4400	200
	<b>307 R3</b>	<b>78.6</b>	22.3	86800	34	27	71 to 160	N56C to N280TC	11700	15800	4530	200
	<b>307 R3</b>	<b>83.4</b>	21.0	80600	29	27	71 to 160	N56C to N280TC	11900	16000	4620	200
	<b>307 R3</b>	<b>99.0</b>	17.7	73700	23	27	71 to 160	N56C to N280TC	12600	16900	4890	200
	<b>307 R3</b>	<b>120</b>	14.6	74800	19.0	27	71 to 160	N56C to N280TC	13300	17900	5210	200
	<b>307 R4</b>	<b>152</b>	11.5	97500	20	18	71 to 160	N56C to N280TC	14300	19200	5640	200
	<b>307 R4</b>	<b>165</b>	10.6	91900	17.5	18	71 to 160	N56C to N280TC	14700	19700	5800	200
	<b>307 R4</b>	<b>191</b>	9.2	111100	18.3	18	71 to 160	N56C to N280TC	15300	20600	6090	200
<b>307 R4</b>	<b>206</b>	8.5	111400	17.0	18	71 to 160	N56C to N280TC	15700	21000	6240	200	
<b>307 R4</b>	<b>232</b>	7.5	93700	12.6	18	71 to 160	N56C to N280TC	16200	21800	6500	200	
<b>307 R4</b>	<b>258</b>	6.8	112600	13.7	18	71 to 160	N56C to N280TC	16800	22500	6730	200	
<b>307 R4</b>	<b>284</b>	6.2	94200	10.4	18	71 to 160	N56C to N280TC	17300	23200	6960	200	
<b>307 R4</b>	<b>300</b>	5.8	113400	11.9	18	71 to 160	N56C to N280TC	17500	23500	7080	200	
<b>307 R4</b>	<b>331</b>	5.3	94600	9.0	18	71 to 160	N56C to N280TC	18100	24300	7320	200	
<b>307 R4</b>	<b>363</b>	4.8	108900	9.4	18	71 to 160	N56C to N280TC	18600	24900	7540	200	
<b>307 R4</b>	<b>413</b>	4.2	97300	7.4	18	71 to 160	N56C to N280TC	19300	25900	7880	200	
<b>307 R4</b>	<b>453</b>	3.9	117100	8.1	18	71 to 160	N56C to N280TC	19800	26600	8120	200	



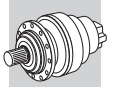
3 R

307 R

115,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>N2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	R <sub>n2</sub> [lbs]				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	307 R4	490	3.6	80800	5.2	18	71 to 160	N56C to N280TC	20300	27300	8340	200	
	307 R4	581	3.0	103000	5.6	18	71 to 160	N56C to N280TC	21400	28700	8830	200	
	307 R4	690	2.5	84800	3.9	18	71 to 160	N56C to N280TC	22500	30200	9350	200	
<b>1450</b>	307 R2	13.0	112	36400	69	47	132 to 200	N280TC	7230	9710	2640	200	
	307 R2	15.5	94	43700	69	47	132 to 200	N280TC	7620	10200	2800	200	
	307 R2	19.8	73	55700	69	47	132 to 200	N280TC	8210	11000	3050	200	
	307 R2	23.5	62	63800	66	47	132 to 200	N280TC	8650	11600	3230	200	
	307 R3	31.6	46	41300	33	30	71 to 160	N56C to N280TC	9450	12700	3560	200	
	307 R3	37.7	38	48900	33	30	71 to 160	N56C to N280TC	9960	13400	3780	200	
	307 R3	44.6	33	58400	33	30	71 to 160	N56C to N280TC	10500	14100	3990	200	
	307 R3	55.9	25.9	73200	33	30	71 to 160	N56C to N280TC	11200	15100	4310	200	
	307 R3	65.0	22.3	84700	33	30	71 to 160	N56C to N280TC	11700	15700	4530	200	
	307 R3	71.8	20.2	81100	29	30	71 to 160	N56C to N280TC	12100	16200	4680	200	
	307 R3	78.6	18.4	91500	29	30	71 to 160	N56C to N280TC	12400	16700	4820	200	
	307 R3	83.4	17.4	83500	25	30	71 to 160	N56C to N280TC	12600	17000	4920	200	
	307 R3	99.0	14.6	74800	19.0	30	71 to 160	N56C to N280TC	13300	17900	5210	200	
	307 R3	120	12.1	75900	16.0	30	71 to 160	N56C to N280TC	14100	18900	5550	200	
	307 R4	152	9.5	110900	19.0	20	71 to 160	N56C to N280TC	15100	20300	6010	200	
	307 R4	165	8.8	93300	14.7	20	71 to 160	N56C to N280TC	15500	20800	6180	200	
	307 R4	191	7.6	112000	15.3	20	71 to 160	N56C to N280TC	16200	21700	6480	200	
	307 R4	206	7.1	112400	14.2	20	71 to 160	N56C to N280TC	16600	22200	6650	200	
	307 R4	232	6.2	94100	10.5	20	71 to 160	N56C to N280TC	17200	23100	6920	200	
	307 R4	258	5.6	113600	11.4	20	71 to 160	N56C to N280TC	17700	23800	7170	200	
	307 R4	284	5.1	94700	8.6	20	71 to 160	N56C to N280TC	18300	24500	7410	200	
	307 R4	300	4.8	114600	9.9	20	71 to 160	N56C to N280TC	18600	24900	7540	200	
	307 R4	331	4.4	96800	7.6	20	71 to 160	N56C to N280TC	19100	25700	7790	200	
	307 R4	363	4.0	108900	7.8	20	71 to 160	N56C to N280TC	19600	26400	8030	200	
	307 R4	413	3.5	100400	6.3	20	71 to 160	N56C to N280TC	20400	27400	8390	200	
	307 R4	453	3.2	119200	6.8	20	71 to 160	N56C to N280TC	21000	28200	8650	200	
	307 R4	490	3.0	83000	4.4	20	71 to 160	N56C to N280TC	21500	28900	8880	200	
	307 R4	581	2.5	106200	4.8	20	71 to 160	N56C to N280TC	22600	30400	9400	200	
	307 R4	690	2.1	87200	3.3	20	71 to 160	N56C to N280TC	23800	32000	9950	200	
	<b>1150</b>	307 R2	13.0	89	39100	58	54	132 to 200	N280TC	7750	10400	2860	200
		307 R2	15.5	74	46700	59	54	132 to 200	N280TC	8170	11000	3030	200
		307 R2	19.8	58	60000	59	54	132 to 200	N280TC	8800	11800	3290	200
		307 R2	23.5	49	68300	56	54	132 to 200	N280TC	9270	12400	3490	200
		307 R3	31.6	36	44300	28	34	71 to 160	N56C to N280TC	10100	13600	3850	200
		307 R3	37.7	30	52400	28	34	71 to 160	N56C to N280TC	10700	14300	4080	200
		307 R3	44.6	25.8	62600	28	34	71 to 160	N56C to N280TC	11200	15100	4310	200
307 R3		55.9	20.6	78500	28	34	71 to 160	N56C to N280TC	12000	16100	4650	200	
307 R3		65.0	17.7	90900	28	34	71 to 160	N56C to N280TC	12600	16900	4890	200	
307 R3		71.8	16.0	84900	24	34	71 to 160	N56C to N280TC	12900	17400	5060	200	
307 R3		78.6	14.6	97800	25	34	71 to 160	N56C to N280TC	13300	17900	5210	200	
307 R3		83.4	13.8	87400	21	34	71 to 160	N56C to N280TC	13500	18200	5320	200	
307 R3		99.0	11.6	76100	15.4	34	71 to 160	N56C to N280TC	14300	19200	5630	200	
307 R3		120	9.6	77000	12.9	34	71 to 160	N56C to N280TC	15100	20300	6000	200	
307 R4		152	7.6	112000	15.2	23	71 to 160	N56C to N280TC	16200	21800	6490	200	
307 R4		165	7.0	93900	11.7	23	71 to 160	N56C to N280TC	16600	22300	6680	200	
307 R4		191	6.0	113200	12.2	23	71 to 160	N56C to N280TC	17400	23300	7000	200	
307 R4		206	5.6	113600	11.4	23	71 to 160	N56C to N280TC	17800	23800	7180	200	
307 R4		232	5.0	94900	8.4	23	71 to 160	N56C to N280TC	18400	24700	7480	200	
307 R4		258	4.5	115500	9.2	23	71 to 160	N56C to N280TC	19000	25500	7750	200	
307 R4		284	4.0	98100	7.1	23	71 to 160	N56C to N280TC	19600	26300	8000	200	





**307 R**

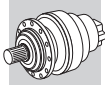
**115,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1150</b>	307 R4	300	3.8	117200	8.1	23	71 to 160	N56C to N280TC	19900	26700	8140	200
	307 R4	331	3.5	100600	6.3	23	71 to 160	N56C to N280TC	20500	27500	8420	200
	307 R4	363	3.2	108900	6.2	23	71 to 160	N56C to N280TC	21100	28300	8680	200
	307 R4	413	2.8	104300	5.2	23	71 to 160	N56C to N280TC	21900	29400	9060	200
	307 R4	453	2.5	122000	5.6	23	71 to 160	N56C to N280TC	22500	30200	9340	200
	307 R4	490	2.3	85800	3.6	23	71 to 160	N56C to N280TC	23000	31000	9590	200
	307 R4	581	2.0	110500	3.9	23	71 to 160	N56C to N280TC	24300	32600	10100	200
	307 R4	690	1.7	90200	2.7	23	71 to 160	N56C to N280TC	24500	32600	10100	200
<b>870</b>	307 R2	13.0	67	42700	48	61	132 to 200	N280TC	8420	11300	3140	200
	307 R2	15.5	56	50500	48	61	132 to 200	N280TC	8880	11900	3330	200
	307 R2	19.8	44	64500	48	61	132 to 200	N280TC	9570	12900	3610	200
	307 R2	23.5	37	69700	43	61	132 to 200	N280TC	10100	13500	3830	200
	307 R3	31.6	27.5	48200	23	38	71 to 160	N56C to N280TC	11000	14800	4220	200
	307 R3	37.7	23.1	57100	23	38	71 to 160	N56C to N280TC	11600	15600	4480	200
	307 R3	44.6	19.5	68100	23	38	71 to 160	N56C to N280TC	12200	16400	4730	200
	307 R3	55.9	15.6	85300	23	38	71 to 160	N56C to N280TC	13100	17500	5110	200
	307 R3	65.0	13.4	98900	23	38	71 to 160	N56C to N280TC	13700	18400	5370	200
	307 R3	71.8	12.1	89500	18.9	38	71 to 160	N56C to N280TC	14100	18900	5550	200
	307 R3	78.6	11.1	105800	20	38	71 to 160	N56C to N280TC	14500	19400	5720	200
	307 R3	83.4	10.4	92200	16.7	38	71 to 160	N56C to N280TC	14700	19800	5830	200
	307 R3	99.0	8.8	77000	11.8	38	71 to 160	N56C to N280TC	15500	20800	6180	200
	307 R3	120	7.3	77000	9.7	38	71 to 160	N56C to N280TC	16400	22000	6580	200
	307 R4	152	5.7	113500	11.6	26	71 to 160	N56C to N280TC	17600	23700	7120	200
	307 R4	165	5.3	94600	8.9	26	71 to 160	N56C to N280TC	18100	24300	7330	200
	307 R4	191	4.6	115200	9.4	26	71 to 160	N56C to N280TC	18900	25300	7680	200
	307 R4	206	4.2	116000	8.8	26	71 to 160	N56C to N280TC	19300	25900	7880	200
	307 R4	232	3.7	99300	6.7	26	71 to 160	N56C to N280TC	20000	26900	8210	200
	307 R4	258	3.4	118600	7.2	26	71 to 160	N56C to N280TC	20700	27800	8500	200
	307 R4	284	3.1	102700	5.6	26	71 to 160	N56C to N280TC	21300	28600	8780	200
	307 R4	300	2.9	120400	6.3	26	71 to 160	N56C to N280TC	21600	29000	8940	200
	307 R4	331	2.6	105300	5.0	26	71 to 160	N56C to N280TC	22300	29900	9240	200
	307 R4	363	2.4	108900	4.7	26	71 to 160	N56C to N280TC	22900	30700	9520	200
	307 R4	413	2.1	109300	4.1	26	71 to 160	N56C to N280TC	23800	32000	9950	200
	307 R4	453	1.9	125100	4.3	26	71 to 160	N56C to N280TC	24500	32600	10100	200
	307 R4	490	1.8	89400	2.8	26	71 to 160	N56C to N280TC	24500	32600	10100	200
	307 R4	581	1.5	115800	3.1	26	71 to 160	N56C to N280TC	24500	32600	10100	200
	307 R4	690	1.3	94100	2.1	26	71 to 160	N56C to N280TC	24500	32600	10100	200

**309 R**

**170,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1750</b>	309 R2	13.0	135	34800	79	42	132 to 200	N280TC	6830	9170	1990	208
	309 R2	15.5	113	40900	78	42	132 to 200	N280TC	7200	9670	2110	208
	309 R2	19.8	88	52500	78	42	132 to 200	N280TC	7760	10400	2290	208
	309 R2	23.5	74	62900	79	42	132 to 200	N280TC	8170	11000	2420	208

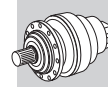


# 3 R

## 309 R





**170,000 in·lbs**

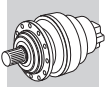
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in·lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC input	 NEMA input	R <sub>n2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
1750	309 R3	31.6	55	39100	38	27	71 to 160	N56C to N280TC	8930	12000	2680	208
	309 R3	37.7	46	46200	37	27	71 to 160	N56C to N280TC	9410	12600	2840	208
	309 R3	44.6	39	55200	38	27	71 to 160	N56C to N280TC	9900	13300	3000	208
	309 R3	55.9	31	69200	38	27	71 to 160	N56C to N280TC	10600	14200	3240	208
	309 R3	65.0	26.9	80000	37	27	71 to 160	N56C to N280TC	11100	14900	3400	208
	309 R3	71.8	24.4	88800	38	27	71 to 160	N56C to N280TC	11400	15300	3520	208
	309 R3	83.4	21.0	103000	38	27	71 to 160	N56C to N280TC	11900	16000	3700	208
	309 R3	99.0	17.7	105200	32	27	71 to 160	N56C to N280TC	12600	16900	3910	208
	309 R3	120	14.6	109200	28	27	71 to 160	N56C to N280TC	13300	17900	4170	208
	309 R4	152	11.5	97500	20	18	71 to 160	N56C to N280TC	14300	19200	4520	208
	309 R4	165	10.6	105900	20	18	71 to 160	N56C to N280TC	14700	19700	4640	208
	309 R4	191	9.2	122300	20	18	71 to 160	N56C to N280TC	15300	20600	4870	208
	309 R4	206	8.5	131900	20	18	71 to 160	N56C to N280TC	15700	21000	4990	208
	309 R4	232	7.5	142300	19.2	18	71 to 160	N56C to N280TC	16200	21800	5200	208
	309 R4	258	6.8	145600	17.7	18	71 to 160	N56C to N280TC	16800	22500	5390	208
	309 R4	284	6.2	142900	15.8	18	71 to 160	N56C to N280TC	17300	23200	5560	208
	309 R4	331	5.3	143200	13.6	18	71 to 160	N56C to N280TC	18100	24300	5850	208
	309 R4	374	4.7	126600	10.6	18	71 to 160	N56C to N280TC	18700	25200	6100	208
	309 R4	413	4.2	147200	11.2	18	71 to 160	N56C to N280TC	19300	25900	6300	208
309 R4	457	3.8	119700	8.2	18	71 to 160	N56C to N280TC	19900	26700	6520	208	
309 R4	490	3.6	120900	7.7	18	71 to 160	N56C to N280TC	20300	27300	6670	208	
309 R4	581	3.0	139800	7.5	18	71 to 160	N56C to N280TC	21400	28700	7060	208	
309 R4	690	2.5	127200	5.8	18	71 to 160	N56C to N280TC	22500	30200	7480	208	
1450	309 R2	13.0	112	36800	69	47	132 to 200	N280TC	7230	9710	2120	208
	309 R2	15.5	94	43300	69	47	132 to 200	N280TC	7620	10200	2240	208
	309 R2	19.8	73	55700	69	47	132 to 200	N280TC	8210	11000	2440	208
	309 R2	23.5	62	66500	69	47	132 to 200	N280TC	8650	11600	2580	208
	309 R3	31.6	46	41300	33	30	71 to 160	N56C to N280TC	9450	12700	2850	208
	309 R3	37.7	38	48900	33	30	71 to 160	N56C to N280TC	9960	13400	3020	208
	309 R3	44.6	33	58400	33	30	71 to 160	N56C to N280TC	10500	14100	3190	208
	309 R3	55.9	25.9	73200	33	30	71 to 160	N56C to N280TC	11200	15100	3440	208
	309 R3	65.0	22.3	84700	33	30	71 to 160	N56C to N280TC	11700	15700	3620	208
	309 R3	71.8	20.2	94000	33	30	71 to 160	N56C to N280TC	12100	16200	3740	208
	309 R3	83.4	17.4	108900	33	30	71 to 160	N56C to N280TC	12600	17000	3940	208
	309 R3	99.0	14.6	108400	28	30	71 to 160	N56C to N280TC	13300	17900	4170	208
	309 R3	120	12.1	112000	24	30	71 to 160	N56C to N280TC	14100	18900	4440	208
	309 R4	152	9.5	117600	20	20	71 to 160	N56C to N280TC	15100	20300	4810	208
	309 R4	165	8.8	127900	20	20	71 to 160	N56C to N280TC	15500	20800	4940	208
	309 R4	191	7.6	142200	19.4	20	71 to 160	N56C to N280TC	16200	21700	5190	208
	309 R4	206	7.1	143600	18.1	20	71 to 160	N56C to N280TC	16600	22200	5320	208
	309 R4	232	6.2	142800	16.0	20	71 to 160	N56C to N280TC	17200	23100	5540	208
	309 R4	258	5.6	151300	15.2	20	71 to 160	N56C to N280TC	17700	23800	5740	208
309 R4	284	5.1	143300	13.1	20	71 to 160	N56C to N280TC	18300	24500	5920	208	
309 R4	331	4.4	146500	11.5	20	71 to 160	N56C to N280TC	19100	25700	6230	208	
309 R4	374	3.9	126600	8.8	20	71 to 160	N56C to N280TC	19800	26600	6490	208	
309 R4	413	3.5	151700	9.5	20	71 to 160	N56C to N280TC	20400	27400	6710	208	
309 R4	457	3.2	123000	7.0	20	71 to 160	N56C to N280TC	21000	28300	6940	208	
309 R4	490	3.0	124300	6.6	20	71 to 160	N56C to N280TC	21500	28900	7100	208	
309 R4	581	2.5	139800	6.3	20	71 to 160	N56C to N280TC	22600	30400	7520	208	
309 R4	690	2.1	131500	5.0	20	71 to 160	N56C to N280TC	23800	32000	7960	208	
1150	309 R2	13.0	89	39400	59	54	132 to 200	N280TC	7750	10400	2290	208
	309 R2	15.5	74	46400	58	54	132 to 200	N280TC	8170	11000	2420	208
	309 R2	19.8	58	60000	59	54	132 to 200	N280TC	8800	11800	2630	208
	309 R2	23.5	49	71100	59	54	132 to 200	N280TC	9270	12400	2790	208



**309 R**

**170,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1150</b>	<b>309 R3</b>	<b>31.6</b>	36	44300	28	34	71 to 160	N56C to N280TC	10100	13600	3080	208
	<b>309 R3</b>	<b>37.7</b>	30	52400	28	34	71 to 160	N56C to N280TC	10700	14300	3260	208
	<b>309 R3</b>	<b>44.6</b>	25.8	62600	28	34	71 to 160	N56C to N280TC	11200	15100	3450	208
	<b>309 R3</b>	<b>55.9</b>	20.6	78500	28	34	71 to 160	N56C to N280TC	12000	16100	3720	208
	<b>309 R3</b>	<b>65.0</b>	17.7	90900	28	34	71 to 160	N56C to N280TC	12600	16900	3910	208
	<b>309 R3</b>	<b>71.8</b>	16.0	100700	28	34	71 to 160	N56C to N280TC	12900	17400	4040	208
	<b>309 R3</b>	<b>83.4</b>	13.8	116700	28	34	71 to 160	N56C to N280TC	13500	18200	4250	208
	<b>309 R3</b>	<b>99.0</b>	11.6	112400	23	34	71 to 160	N56C to N280TC	14300	19200	4500	208
	<b>309 R3</b>	<b>120</b>	9.6	115100	19.2	34	71 to 160	N56C to N280TC	15100	20300	4800	208
	<b>309 R4</b>	<b>152</b>	7.6	140600	19.1	23	71 to 160	N56C to N280TC	16200	21800	5190	208
	<b>309 R4</b>	<b>165</b>	7.0	138600	17.3	23	71 to 160	N56C to N280TC	16600	22300	5340	208
	<b>309 R4</b>	<b>191</b>	6.0	149100	16.1	23	71 to 160	N56C to N280TC	17400	23300	5600	208
	<b>309 R4</b>	<b>206</b>	5.6	154000	15.4	23	71 to 160	N56C to N280TC	17800	23800	5740	208
	<b>309 R4</b>	<b>232</b>	5.0	143600	12.7	23	71 to 160	N56C to N280TC	18400	24700	5980	208
	<b>309 R4</b>	<b>258</b>	4.5	154900	12.4	23	71 to 160	N56C to N280TC	19000	25500	6200	208
	<b>309 R4</b>	<b>284</b>	4.0	148300	10.7	23	71 to 160	N56C to N280TC	19600	26300	6400	208
	<b>309 R4</b>	<b>331</b>	3.5	152000	9.5	23	71 to 160	N56C to N280TC	20500	27500	6730	208
	<b>309 R4</b>	<b>374</b>	3.1	126600	7.0	23	71 to 160	N56C to N280TC	21300	28500	7010	208
	<b>309 R4</b>	<b>413</b>	2.8	157500	7.9	23	71 to 160	N56C to N280TC	21900	29400	7250	208
	<b>309 R4</b>	<b>457</b>	2.5	127300	5.7	23	71 to 160	N56C to N280TC	22600	30300	7500	208
<b>309 R4</b>	<b>490</b>	2.3	128900	5.4	23	71 to 160	N56C to N280TC	23000	31000	7680	208	
<b>309 R4</b>	<b>581</b>	2.0	139800	5.0	23	71 to 160	N56C to N280TC	24300	32600	8090	208	
<b>309 R4</b>	<b>690</b>	1.7	137200	4.1	23	71 to 160	N56C to N280TC	24700	32600	8090	208	
<b>870</b>	<b>309 R2</b>	<b>13.0</b>	67	42900	49	61	132 to 200	N280TC	8420	11300	2510	208
	<b>309 R2</b>	<b>15.5</b>	56	50400	48	61	132 to 200	N280TC	8880	11900	2660	208
	<b>309 R2</b>	<b>19.8</b>	44	64500	48	61	132 to 200	N280TC	9570	12900	2890	208
	<b>309 R2</b>	<b>23.5</b>	37	75400	47	61	132 to 200	N280TC	10100	13500	3060	208
	<b>309 R3</b>	<b>31.6</b>	27.5	48200	23	38	71 to 160	N56C to N280TC	11000	14800	3380	208
	<b>309 R3</b>	<b>37.7</b>	23.1	57100	23	38	71 to 160	N56C to N280TC	11600	15600	3580	208
	<b>309 R3</b>	<b>44.6</b>	19.5	68100	23	38	71 to 160	N56C to N280TC	12200	16400	3790	208
	<b>309 R3</b>	<b>55.9</b>	15.6	85300	23	38	71 to 160	N56C to N280TC	13100	17500	4080	208
	<b>309 R3</b>	<b>65.0</b>	13.4	98900	23	38	71 to 160	N56C to N280TC	13700	18400	4290	208
	<b>309 R3</b>	<b>71.8</b>	12.1	109500	23	38	71 to 160	N56C to N280TC	14100	18900	4440	208
	<b>309 R3</b>	<b>83.4</b>	10.4	126700	23	38	71 to 160	N56C to N280TC	14700	19800	4670	208
	<b>309 R3</b>	<b>99.0</b>	8.8	115100	17.6	38	71 to 160	N56C to N280TC	15500	20800	4940	208
	<b>309 R3</b>	<b>120</b>	7.3	115100	14.5	38	71 to 160	N56C to N280TC	16400	22000	5260	208
	<b>309 R4</b>	<b>152</b>	5.7	152900	15.7	26	71 to 160	N56C to N280TC	17600	23700	5700	208
	<b>309 R4</b>	<b>165</b>	5.3	142600	13.5	26	71 to 160	N56C to N280TC	18100	24300	5860	208
	<b>309 R4</b>	<b>191</b>	4.6	154900	12.7	26	71 to 160	N56C to N280TC	18900	25300	6150	208
	<b>309 R4</b>	<b>206</b>	4.2	164600	12.5	26	71 to 160	N56C to N280TC	19300	25900	6300	208
	<b>309 R4</b>	<b>232</b>	3.7	150200	10.1	26	71 to 160	N56C to N280TC	20000	26900	6570	208
	<b>309 R4</b>	<b>258</b>	3.4	154900	9.4	26	71 to 160	N56C to N280TC	20700	27800	6800	208
	<b>309 R4</b>	<b>284</b>	3.1	155100	8.5	26	71 to 160	N56C to N280TC	21300	28600	7020	208
<b>309 R4</b>	<b>331</b>	2.6	158900	7.5	26	71 to 160	N56C to N280TC	22300	29900	7390	208	
<b>309 R4</b>	<b>374</b>	2.3	126700	5.3	26	71 to 160	N56C to N280TC	23100	31000	7700	208	
<b>309 R4</b>	<b>413</b>	2.1	164700	6.2	26	71 to 160	N56C to N280TC	23800	32000	7960	208	
<b>309 R4</b>	<b>457</b>	1.9	133900	4.6	26	71 to 160	N56C to N280TC	24500	32600	8090	208	
<b>309 R4</b>	<b>490</b>	1.8	135600	4.3	26	71 to 160	N56C to N280TC	24700	32600	8090	208	
<b>309 R4</b>	<b>581</b>	1.5	139800	3.8	26	71 to 160	N56C to N280TC	24700	32600	8090	208	
<b>309 R4</b>	<b>690</b>	1.3	144300	3.3	26	71 to 160	N56C to N280TC	24700	32600	8090	208	

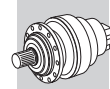


# 3 R

## 310 R

### 265,000 in•lbs

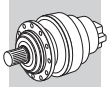
$n_1$ drive speed rpm		$i$ gear ratio 1:	$n_2$ output speed rpm	$Tn_2$ rated torque in•lbs	$Pn_1$ rated power HP	$P_t$ thermal capacity HP	 IEC IEC input	 NEMA NEMA input	$Rn_2$ [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	310 R3	37.7	46	46200	37	27	71 to 160	N56C to N280TC	11300	14600	5120	218
	310 R3	44.6	39	55200	38	27	71 to 160	N56C to N280TC	11900	15400	5420	218
	310 R3	55.9	31	69200	38	27	71 to 160	N56C to N280TC	12800	16400	5840	218
	310 R3	65.0	26.9	80000	37	27	71 to 160	N56C to N280TC	13300	17200	6140	218
	310 R3	71.8	24.4	88800	38	27	71 to 160	N56C to N280TC	13800	17700	6350	218
	310 R3	78.6	22.3	96900	37	27	71 to 160	N56C to N280TC	14100	18200	6540	218
	310 R3	83.4	21.0	103000	38	27	71 to 160	N56C to N280TC	14400	18500	6680	218
	310 R3	99.0	17.7	122300	38	27	71 to 160	N56C to N280TC	15100	19500	7070	218
	310 R3	120	14.6	142100	36	27	71 to 160	N56C to N280TC	16000	20700	7530	218
	310 R4	136	12.9	162400	37	18	71 to 160	N56C to N280TC	16700	21500	7850	218
	310 R4	160	10.9	183600	36	18	71 to 160	N56C to N280TC	17500	22500	8300	218
	310 R4	189	9.2	193000	32	18	71 to 160	N56C to N280TC	18400	23700	8770	218
	310 R4	206	8.5	185800	28	18	71 to 160	N56C to N280TC	18900	24300	9020	218
	310 R4	234	7.5	168000	23	18	71 to 160	N56C to N280TC	19600	25300	9410	218
	310 R4	258	6.8	192100	23	18	71 to 160	N56C to N280TC	20200	26000	9730	218
	310 R4	283	6.2	186900	21	18	71 to 160	N56C to N280TC	20800	26700	10000	218
	310 R4	305	5.7	196900	20	18	71 to 160	N56C to N280TC	21200	27300	10300	218
	310 R4	334	5.2	220800	21	18	71 to 160	N56C to N280TC	21800	28100	10600	218
	310 R4	363	4.8	202100	17.5	18	71 to 160	N56C to N280TC	22400	28800	10900	218
	310 R4	419	4.2	240200	18.0	18	71 to 160	N56C to N280TC	23400	30100	11400	218
	310 R4	454	3.9	170000	11.7	18	71 to 160	N56C to N280TC	23900	30800	11700	218
	310 R4	517	3.4	214000	13.0	18	71 to 160	N56C to N280TC	24900	32000	12300	218
	310 R4	590	3.0	192900	10.3	18	71 to 160	N56C to N280TC	25900	33300	12800	218
	310 R4	639	2.7	183800	9.0	18	71 to 160	N56C to N280TC	26500	34100	13200	218
	310 R4	757	2.3	226700	9.4	18	71 to 160	N56C to N280TC	27900	35900	13900	218
	310 R4	898	1.9	198300	6.9	18	71 to 160	N56C to N280TC	29300	37300	14600	218
<b>1450</b>	310 R2 (B)	12.0	121	85700	174	74	180 to 225	N320TC to N360TC	8510	11000	3730	218
	310 R2 (B)	15.4	94	92900	147	74	180 to 225	N320TC to N360TC	9170	11800	4050	218
	310 R2 (B)	18.3	79	96900	129	74	180 to 225	N320TC to N360TC	9660	12400	4290	218
	310 R2 (C)	16.6	87	94000	138	74	180 to 250	N320TC to N360TC	9380	12100	4150	218
	310 R2 (C)	21.3	68	102500	117	74	180 to 250	N320TC to N360TC	10100	13000	4510	218
	310 R2 (C)	25.3	57	107000	103	74	180 to 250	N320TC to N360TC	10600	13700	4780	218
	310 R3	37.7	38	48900	33	30	71 to 160	N56C to N280TC	12000	15500	5460	218
	310 R3	44.6	33	58400	33	30	71 to 160	N56C to N280TC	12600	16200	5770	218
	310 R3	55.9	25.9	73200	33	30	71 to 160	N56C to N280TC	13500	17400	6220	218
	310 R3	65.0	22.3	84700	33	30	71 to 160	N56C to N280TC	14100	18200	6540	218
	310 R3	71.8	20.2	94000	33	30	71 to 160	N56C to N280TC	14500	18700	6760	218
	310 R3	78.6	18.4	102500	33	30	71 to 160	N56C to N280TC	15000	19300	6970	218
	310 R3	83.4	17.4	108900	33	30	71 to 160	N56C to N280TC	15200	19600	7110	218
	310 R3	99.0	14.6	129400	33	30	71 to 160	N56C to N280TC	16000	20600	7520	218
	310 R3	120	12.1	149600	31	30	71 to 160	N56C to N280TC	17000	21900	8020	218
	310 R4	136	10.7	171800	33	20	71 to 160	N56C to N280TC	17600	22700	8360	218
	310 R4	160	9.0	194300	31	20	71 to 160	N56C to N280TC	18500	23900	8840	218
	310 R4	189	7.7	204200	28	20	71 to 160	N56C to N280TC	19500	25100	9340	218
	310 R4	206	7.0	191000	24	20	71 to 160	N56C to N280TC	20000	25700	9600	218
	310 R4	234	6.2	177700	19.7	20	71 to 160	N56C to N280TC	20700	26700	10000	218
	310 R4	258	5.6	197500	19.9	20	71 to 160	N56C to N280TC	21400	27500	10400	218
	310 R4	283	5.1	197700	18.2	20	71 to 160	N56C to N280TC	22000	28300	10700	218
	310 R4	305	4.8	202600	17.3	20	71 to 160	N56C to N280TC	22500	28900	10900	218
	310 R4	334	4.3	226900	17.6	20	71 to 160	N56C to N280TC	23100	29700	11300	218
	310 R4	363	4.0	208400	14.9	20	71 to 160	N56C to N280TC	23700	30500	11600	218
	310 R4	419	3.5	249200	15.4	20	71 to 160	N56C to N280TC	24700	31800	12200	218
	310 R4	454	3.2	177500	10.2	20	71 to 160	N56C to N280TC	25300	32600	12500	218
	310 R4	517	2.8	220700	11.1	20	71 to 160	N56C to N280TC	26300	33900	13100	218
	310 R4	590	2.5	192900	8.5	20	71 to 160	N56C to N280TC	27400	35300	13600	218



## 310 R

## 265,000 in·lbs

$n_1$ drive speed rpm		i gear ratio 1:	$n_2$ output speed rpm	$T_{n_2}$ rated torque in·lbs	$P_{n_1}$ rated power HP	$P_t$ thermal capacity HP			$R_{n_2}$ [lbs]				
									Permissible overhung loads				
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ		
<b>1450</b>	310 R4	<b>639</b>	2.3	191700	7.8	20	71 to 160	N56C to N280TC	28000	36100	14000	218	
	310 R4	<b>757</b>	1.9	231300	7.9	20	71 to 160	N56C to N280TC	29500	37300	14600	218	
	310 R4	<b>898</b>	1.6	206800	6.0	20	71 to 160	N56C to N280TC	29900	37300	14600	218	
<b>1150</b>	310 R2 (B)	<b>12.0</b>	96	95900	155	85	180 to 225	N320TC to N360TC	9120	11800	4030	218	
	310 R2 (B)	<b>15.4</b>	75	99600	125	85	180 to 225	N320TC to N360TC	9830	12700	4370	218	
	310 R2 (B)	<b>18.3</b>	63	104000	110	85	180 to 225	N320TC to N360TC	10400	13300	4630	218	
	310 R2 (C)	<b>16.6</b>	69	100600	117	85	180 to 250	N320TC to N360TC	10100	13000	4490	218	
	310 R2 (C)	<b>21.3</b>	54	109900	100	85	180 to 250	N320TC to N360TC	10800	14000	4870	218	
	310 R2 (C)	<b>25.3</b>	45	113900	87	85	180 to 250	N320TC to N360TC	11400	14700	5160	218	
	310 R3	<b>37.7</b>	30	52400	28	34	71 to 160	N56C to N280TC	12900	16600	5890	218	
	310 R3	<b>44.6</b>	25.8	62600	28	34	71 to 160	N56C to N280TC	13500	17400	6230	218	
	310 R3	<b>55.9</b>	20.6	78500	28	34	71 to 160	N56C to N280TC	14500	18600	6720	218	
	310 R3	<b>65.0</b>	17.7	90900	28	34	71 to 160	N56C to N280TC	15100	19500	7070	218	
	310 R3	<b>71.8</b>	16.0	100700	28	34	71 to 160	N56C to N280TC	15600	20100	7300	218	
	310 R3	<b>78.6</b>	14.6	109800	28	34	71 to 160	N56C to N280TC	16000	20600	7530	218	
	310 R3	<b>83.4</b>	13.8	116700	28	34	71 to 160	N56C to N280TC	16300	21000	7680	218	
	310 R3	<b>99.0</b>	11.6	138700	28	34	71 to 160	N56C to N280TC	17200	22100	8130	218	
	310 R3	<b>120</b>	9.6	157700	26	34	71 to 160	N56C to N280TC	18200	23400	8660	218	
	310 R4	<b>136</b>	8.5	184300	28	23	71 to 160	N56C to N280TC	18900	24300	9030	218	
	310 R4	<b>160</b>	7.2	208200	27	23	71 to 160	N56C to N280TC	19900	25600	9550	218	
	310 R4	<b>189</b>	6.1	218800	24	23	71 to 160	N56C to N280TC	20900	26900	10100	218	
	310 R4	<b>206</b>	5.6	197700	19.8	23	71 to 160	N56C to N280TC	21400	27600	10400	218	
	310 R4	<b>234</b>	4.9	190100	16.7	23	71 to 160	N56C to N280TC	22200	28600	10800	218	
	310 R4	<b>258</b>	4.5	204700	16.3	23	71 to 160	N56C to N280TC	22900	29500	11200	218	
	310 R4	<b>283</b>	4.1	200200	14.6	23	71 to 160	N56C to N280TC	23500	30300	11500	218	
	310 R4	<b>305</b>	3.8	210300	14.2	23	71 to 160	N56C to N280TC	24100	31000	11800	218	
	310 R4	<b>334</b>	3.4	231900	14.3	23	71 to 160	N56C to N280TC	24700	31900	12200	218	
	310 R4	<b>363</b>	3.2	216400	12.3	23	71 to 160	N56C to N280TC	25400	32700	12500	218	
	310 R4	<b>419</b>	2.7	260800	12.8	23	71 to 160	N56C to N280TC	26500	34100	13200	218	
	310 R4	<b>454</b>	2.5	187100	8.5	23	71 to 160	N56C to N280TC	27100	34900	13500	218	
	310 R4	<b>517</b>	2.2	229100	9.1	23	71 to 160	N56C to N280TC	28200	36300	14100	218	
	310 R4	<b>590</b>	2.0	192900	6.7	23	71 to 160	N56C to N280TC	29300	37300	14600	218	
	310 R4	<b>639</b>	1.8	201900	6.5	23	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 R4	<b>757</b>	1.5	237000	6.5	23	71 to 160	N56C to N280TC	29900	37300	14600	218	
	310 R4	<b>898</b>	1.3	217800	5.0	23	71 to 160	N56C to N280TC	29900	37300	14600	218	
	<b>870</b>	310 R2 (B)	<b>12.0</b>	72	104100	127	96	180 to 225	N320TC to N360TC	9920	12800	4420	218
		310 R2 (B)	<b>15.4</b>	56	108400	103	96	180 to 225	N320TC to N360TC	10700	13800	4800	218
		310 R2 (B)	<b>18.3</b>	48	112700	90	96	180 to 225	N320TC to N360TC	11300	14500	5080	218
		310 R2 (C)	<b>16.6</b>	52	109200	96	96	180 to 250	N320TC to N360TC	10900	14100	4920	218
		310 R2 (C)	<b>21.3</b>	41	119500	82	96	180 to 250	N320TC to N360TC	11800	15200	5350	218
		310 R2 (C)	<b>25.3</b>	34	120900	70	96	180 to 250	N320TC to N360TC	12400	16000	5660	218
		310 R3	<b>37.7</b>	23.1	57100	23	38	71 to 160	N56C to N280TC	14000	18000	6470	218
310 R3		<b>44.6</b>	19.5	68100	23	38	71 to 160	N56C to N280TC	14700	18900	6840	218	
310 R3		<b>55.9</b>	15.6	85300	23	38	71 to 160	N56C to N280TC	15700	20300	7370	218	
310 R3		<b>65.0</b>	13.4	98900	23	38	71 to 160	N56C to N280TC	16500	21200	7750	218	
310 R3		<b>71.8</b>	12.1	109500	23	38	71 to 160	N56C to N280TC	17000	21800	8010	218	
310 R3		<b>78.6</b>	11.1	119400	23	38	71 to 160	N56C to N280TC	17400	22500	8260	218	
310 R3		<b>83.4</b>	10.4	126700	23	38	71 to 160	N56C to N280TC	17700	22900	8430	218	
310 R3		<b>99.0</b>	8.8	147800	23	38	71 to 160	N56C to N280TC	18700	24100	8920	218	
310 R3		<b>120</b>	7.3	158800	20	38	71 to 160	N56C to N280TC	19800	25500	9510	218	
310 R4		<b>136</b>	6.4	200400	23	26	71 to 160	N56C to N280TC	20500	26500	9910	218	
310 R4		<b>160</b>	5.4	226300	22	26	71 to 160	N56C to N280TC	21600	27800	10500	218	
310 R4		<b>189</b>	4.6	235800	19.4	26	71 to 160	N56C to N280TC	22700	29200	11100	218	



# 3 R

## 310 R

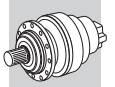
### 265,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	<b>310 R4</b>	<b>206</b>	4.2	206500	15.6	26	71 to 160	N56C to N280TC	23300	30000	11400	218
	<b>310 R4</b>	<b>234</b>	3.7	202100	13.5	26	71 to 160	N56C to N280TC	24200	31100	11900	218
	<b>310 R4</b>	<b>258</b>	3.4	214200	12.9	26	71 to 160	N56C to N280TC	24900	32100	12300	218
	<b>310 R4</b>	<b>283</b>	3.1	201600	11.1	26	71 to 160	N56C to N280TC	25600	33000	12700	218
	<b>310 R4</b>	<b>305</b>	2.9	220000	11.3	26	71 to 160	N56C to N280TC	26200	33700	13000	218
	<b>310 R4</b>	<b>334</b>	2.6	238100	11.1	26	71 to 160	N56C to N280TC	26900	34700	13400	218
	<b>310 R4</b>	<b>363</b>	2.4	226300	9.7	26	71 to 160	N56C to N280TC	27600	35500	13800	218
	<b>310 R4</b>	<b>419</b>	2.1	265500	9.9	26	71 to 160	N56C to N280TC	28800	37100	14400	218
	<b>310 R4</b>	<b>454</b>	1.9	199100	6.8	26	71 to 160	N56C to N280TC	29500	37300	14600	218
	<b>310 R4</b>	<b>517</b>	1.7	239800	7.2	26	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 R4</b>	<b>590</b>	1.5	192900	5.1	26	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 R4</b>	<b>639</b>	1.4	214800	5.2	26	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 R4</b>	<b>757</b>	1.1	244200	5.0	26	71 to 160	N56C to N280TC	29900	37300	14600	218
	<b>310 R4</b>	<b>898</b>	0.97	230100	4.0	26	71 to 160	N56C to N280TC	29900	37300	14600	218

## 311 R





### 398,000 in•lbs

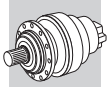
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	<b>311 R3</b>	<b>53.0</b>	33	137200	79	48	132 to 200	N280TC	14900	18900	5740	226
	<b>311 R3</b>	<b>63.2</b>	27.7	163500	79	48	132 to 200	N280TC	15700	20000	6090	226
	<b>311 R3</b>	<b>68.0</b>	25.7	176000	79	48	132 to 200	N280TC	16000	20400	6240	226
	<b>311 R3</b>	<b>81.1</b>	21.6	209500	79	48	132 to 200	N280TC	16900	21500	6610	226
	<b>311 R3</b>	<b>96.3</b>	18.2	224200	71	48	132 to 200	N280TC	17800	22600	7000	226
	<b>311 R3</b>	<b>104</b>	16.8	242200	71	48	132 to 200	N280TC	18200	23200	7190	226
	<b>311 R3</b>	<b>124</b>	14.2	255000	63	48	132 to 200	N280TC	19100	24400	7610	226
	<b>311 R3</b>	<b>147</b>	11.9	229400	48	48	132 to 200	N280TC	20200	25700	8060	226
	<b>311 R4</b>	<b>154</b>	11.3	185000	38	27	71 to 160	N56C to N280TC	20500	26100	8200	226
	<b>311 R4</b>	<b>182</b>	9.6	217700	37	27	71 to 160	N56C to N280TC	21500	27400	8660	226
	<b>311 R4</b>	<b>198</b>	8.8	236900	38	27	71 to 160	N56C to N280TC	22100	28100	8910	226
	<b>311 R4</b>	<b>229</b>	7.7	290600	40	27	71 to 160	N56C to N280TC	23000	29400	9340	226
	<b>311 R4</b>	<b>266</b>	6.6	304000	36	27	71 to 160	N56C to N280TC	24100	30700	9820	226
	<b>311 R4</b>	<b>294</b>	6.0	313200	33	27	71 to 160	N56C to N280TC	24800	31600	10200	226
	<b>311 R4</b>	<b>322</b>	5.4	321900	31	27	71 to 160	N56C to N280TC	25500	32500	10500	226
	<b>311 R4</b>	<b>341</b>	5.1	327600	30	27	71 to 160	N56C to N280TC	26000	33100	10700	226
	<b>311 R4</b>	<b>413</b>	4.2	339000	26	27	71 to 160	N56C to N280TC	27500	35000	11400	226
	<b>311 R4</b>	<b>438</b>	4.0	297400	21	27	71 to 160	N56C to N280TC	28000	35700	11600	226
	<b>311 R4</b>	<b>490</b>	3.6	305400	19.6	27	71 to 160	N56C to N280TC	28900	36900	12000	226
	<b>311 R4</b>	<b>520</b>	3.4	306500	18.5	27	71 to 160	N56C to N280TC	29500	37600	12300	226
	<b>311 R4</b>	<b>629</b>	2.8	317000	15.8	27	71 to 160	N56C to N280TC	31200	39800	13100	226
	<b>311 R4</b>	<b>746</b>	2.3	263700	11.1	27	71 to 160	N56C to N280TC	32800	41900	13900	226
<b>1450</b>	<b>311 R2 (B)</b>	<b>12.0</b>	121	98900	201	101	180 to 250	N320TC to N360TC	10100	12800	3730	226
	<b>311 R2 (B)</b>	<b>15.4</b>	94	126900	201	101	180 to 250	N320TC to N360TC	10800	13800	4050	226
	<b>311 R2 (B)</b>	<b>18.3</b>	79	143300	192	101	180 to 250	N320TC to N360TC	11400	14600	4290	226
	<b>311 R2 (C)</b>	<b>16.6</b>	87	90100	132	121	180 to 250	N320TC to N360TC	11100	14200	4150	226
	<b>311 R2 (C)</b>	<b>21.3</b>	68	114900	132	121	180 to 250	N320TC to N360TC	12000	15300	4510	226
	<b>311 R2 (C)</b>	<b>25.3</b>	57	136000	131	121	180 to 250	N320TC to N360TC	12600	16100	4780	226



## 311 R

398,000 in•lbs

n <sub>1</sub> drive speed  rpm		i gear ratio  1:	n <sub>2</sub> output speed  rpm	T <sub>n2</sub> rated torque  in•lbs	P <sub>n1</sub> rated power  HP	P <sub>t</sub> thermal capacity  HP	 IEC  IEC input	 NEMA  NEMA input	R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1450</b>	311 R3	53.0	27.4	145000	69	54	132 to 200	N280TC	15700	20000	6110	226
	311 R3	63.2	22.9	172900	69	54	132 to 200	N280TC	16600	21100	6480	226
	311 R3	68.0	21.3	186200	69	54	132 to 200	N280TC	16900	21600	6640	226
	311 R3	81.1	17.9	221600	69	54	132 to 200	N280TC	17900	22800	7040	226
	311 R3	96.3	15.1	237200	62	54	132 to 200	N280TC	18800	24000	7460	226
	311 R3	104	13.9	256300	62	54	132 to 200	N280TC	19200	24500	7650	226
	311 R3	124	11.7	269900	55	54	132 to 200	N280TC	20300	25800	8100	226
	311 R3	147	9.9	239000	41	54	132 to 200	N280TC	21300	27200	8580	226
	311 R4	154	9.4	195700	33	30	71 to 160	N56C to N280TC	21700	27600	8730	226
	311 R4	182	8.0	230300	33	30	71 to 160	N56C to N280TC	22800	29000	9220	226
	311 R4	198	7.3	250500	33	30	71 to 160	N56C to N280TC	23300	29800	9480	226
	311 R4	229	6.3	307500	35	30	71 to 160	N56C to N280TC	24400	31100	9950	226
	311 R4	266	5.5	321600	31	30	71 to 160	N56C to N280TC	25500	32500	10500	226
	311 R4	294	4.9	330800	29	30	71 to 160	N56C to N280TC	26300	33500	10800	226
	311 R4	322	4.5	339500	27	30	71 to 160	N56C to N280TC	27000	34400	11100	226
	311 R4	341	4.2	338900	26	30	71 to 160	N56C to N280TC	27500	35000	11400	226
	311 R4	413	3.5	349400	22	30	71 to 160	N56C to N280TC	29100	37100	12100	226
	311 R4	438	3.3	307400	18.2	30	71 to 160	N56C to N280TC	29600	37700	12400	226
	311 R4	490	3.0	305400	16.2	30	71 to 160	N56C to N280TC	30600	39000	12800	226
	311 R4	520	2.8	316900	15.8	30	71 to 160	N56C to N280TC	31200	39700	13100	226
	311 R4	629	2.3	327700	13.5	30	71 to 160	N56C to N280TC	33000	42100	13900	226
311 R4	746	1.9	271500	9.5	30	71 to 160	N56C to N280TC	34700	43800	14600	226	
<b>1150</b>	311 R2 (B)	12.0	96	114000	184	116	180 to 250	N320TC to N360TC	10800	13800	4030	226
	311 R2 (B)	15.4	75	147800	186	116	180 to 250	N320TC to N360TC	11600	14800	4370	226
	311 R2 (B)	18.3	63	153700	163	116	180 to 250	N320TC to N360TC	12200	15600	4630	226
	311 R2 (C)	16.6	69	96200	112	139	180 to 250	N320TC to N360TC	11900	15200	4490	226
	311 R2 (C)	21.3	54	123600	112	139	180 to 250	N320TC to N360TC	12800	16300	4870	226
	311 R2 (C)	25.3	45	145800	112	139	180 to 250	N320TC to N360TC	13500	17200	5160	226
	311 R3	53.0	21.7	155400	59	62	132 to 200	N280TC	16800	21500	6600	226
	311 R3	63.2	18.2	185200	59	62	132 to 200	N280TC	17800	22600	7000	226
	311 R3	68.0	16.9	199600	59	62	132 to 200	N280TC	18200	23100	7170	226
	311 R3	81.1	14.2	237600	59	62	132 to 200	N280TC	19100	24400	7610	226
	311 R3	96.3	11.9	254300	53	62	132 to 200	N280TC	20100	25700	8050	226
	311 R3	104	11.0	274900	53	62	132 to 200	N280TC	20600	26300	8270	226
	311 R3	124	9.3	283500	46	62	132 to 200	N280TC	21700	27700	8750	226
	311 R3	147	7.8	239000	33	62	132 to 200	N280TC	22900	29100	9270	226
	311 R4	154	7.4	209800	28	34	71 to 160	N56C to N280TC	23200	29600	9430	226
	311 R4	182	6.3	246800	28	34	71 to 160	N56C to N280TC	24400	31100	9960	226
	311 R4	198	5.8	268400	28	34	71 to 160	N56C to N280TC	25000	31900	10200	226
	311 R4	229	5.0	329600	30	34	71 to 160	N56C to N280TC	26100	33300	10700	226
	311 R4	266	4.3	343400	27	34	71 to 160	N56C to N280TC	27300	34800	11300	226
	311 R4	294	3.9	343300	24	34	71 to 160	N56C to N280TC	28100	35900	11700	226
	311 R4	322	3.6	361500	23	34	71 to 160	N56C to N280TC	28900	36900	12000	226
311 R4	341	3.4	351800	21	34	71 to 160	N56C to N280TC	29500	37500	12300	226	
311 R4	413	2.8	362700	18.1	34	71 to 160	N56C to N280TC	31200	39800	13100	226	
311 R4	438	2.6	320300	15.1	34	71 to 160	N56C to N280TC	31700	40500	13300	226	
311 R4	490	2.3	305800	12.9	34	71 to 160	N56C to N280TC	32800	41800	13900	226	
311 R4	520	2.2	330200	13.1	34	71 to 160	N56C to N280TC	33400	42600	14100	226	
311 R4	629	1.8	341600	11.2	34	71 to 160	N56C to N280TC	35300	43800	14600	226	
311 R4	746	1.5	281400	7.8	34	71 to 160	N56C to N280TC	35300	43800	14600	226	
<b>870</b>	311 R2 (B)	12.0	72	124800	152	131	180 to 250	N320TC to N360TC	11700	15000	4420	226
	311 R2 (B)	15.4	56	160500	153	131	180 to 250	N320TC to N360TC	12600	16100	4800	226
	311 R2 (B)	18.3	48	166600	134	131	180 to 250	N320TC to N360TC	13300	17000	5080	226
	311 R2 (C)	16.6	52	104000	92	157	180 to 250	N320TC to N360TC	12900	16500	4920	226



# 3 R

## 311 R

### 398,000 in•lbs

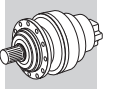
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>870</b>	<b>311 R2 (C)</b>	<b>21.3</b>	41	134400	92	157	180 to 250	N320TC to N360TC	13900	17800	5350	226
	<b>311 R2 (C)</b>	<b>25.3</b>	34	158600	92	157	180 to 250	N320TC to N360TC	14700	18700	5660	226
	<b>311 R3</b>	<b>53.0</b>	16.4	168800	48	70	132 to 200	N280TC	18300	23300	7240	226
	<b>311 R3</b>	<b>63.2</b>	13.8	201300	48	70	132 to 200	N280TC	19300	24600	7680	226
	<b>311 R3</b>	<b>68.0</b>	12.8	217000	48	70	132 to 200	N280TC	19700	25200	7870	226
	<b>311 R3</b>	<b>81.1</b>	10.7	258300	48	70	132 to 200	N280TC	20800	26500	8350	226
	<b>311 R3</b>	<b>96.3</b>	9.0	273300	43	70	132 to 200	N280TC	21900	27900	8840	226
	<b>311 R3</b>	<b>104</b>	8.4	283900	41	70	132 to 200	N280TC	22400	28600	9070	226
	<b>311 R3</b>	<b>124</b>	7.0	284600	35	70	132 to 200	N280TC	23600	30100	9610	226
	<b>311 R3</b>	<b>147</b>	5.9	239000	25	70	132 to 200	N280TC	24900	31700	10200	226
	<b>311 R4</b>	<b>154</b>	5.6	228000	23	38	71 to 160	N56C to N280TC	25200	32200	10300	226
	<b>311 R4</b>	<b>182</b>	4.8	268400	23	38	71 to 160	N56C to N280TC	26500	33800	10900	226
	<b>311 R4</b>	<b>198</b>	4.4	291800	23	38	71 to 160	N56C to N280TC	27200	34700	11200	226
	<b>311 R4</b>	<b>229</b>	3.8	355500	24	38	71 to 160	N56C to N280TC	28400	36200	11800	226
	<b>311 R4</b>	<b>266</b>	3.3	370300	22	38	71 to 160	N56C to N280TC	29700	37900	12400	226
	<b>311 R4</b>	<b>294</b>	3.0	359100	19.1	38	71 to 160	N56C to N280TC	30600	39000	12800	226
	<b>311 R4</b>	<b>322</b>	2.7	389900	18.9	38	71 to 160	N56C to N280TC	31500	40100	13200	226
	<b>311 R4</b>	<b>341</b>	2.5	367900	16.8	38	71 to 160	N56C to N280TC	32000	40800	13500	226
	<b>311 R4</b>	<b>413</b>	2.1	372900	14.1	38	71 to 160	N56C to N280TC	33900	43200	14400	226
	<b>311 R4</b>	<b>438</b>	2.0	336600	12.0	38	71 to 160	N56C to N280TC	34500	43800	14600	226
	<b>311 R4</b>	<b>490</b>	1.8	307600	9.8	38	71 to 160	N56C to N280TC	35300	43800	14600	226
	<b>311 R4</b>	<b>520</b>	1.7	347100	10.4	38	71 to 160	N56C to N280TC	35300	43800	14600	226
	<b>311 R4</b>	<b>629</b>	1.4	359100	8.9	38	71 to 160	N56C to N280TC	35300	43800	14600	226
	<b>311 R4</b>	<b>746</b>	1.2	293800	6.1	38	71 to 160	N56C to N280TC	35300	43800	14600	226

## 313 R

### 485,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			R <sub>n2</sub> [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1750</b>	<b>313 R3</b>	<b>53.7</b>	33	138700	79	48	132 to 200	N280TC	17900	22300	7090	234
	<b>313 R3</b>	<b>64.0</b>	27.3	165500	79	48	132 to 200	N280TC	18900	23500	7520	234
	<b>313 R3</b>	<b>69.9</b>	25.0	180800	79	48	132 to 200	N280TC	19400	24200	7750	234
	<b>313 R3</b>	<b>82.2</b>	21.3	212500	79	48	132 to 200	N280TC	20400	25400	8170	234
	<b>313 R3</b>	<b>97.5</b>	17.9	251700	79	48	132 to 200	N280TC	21400	26700	8650	234
	<b>313 R3</b>	<b>107</b>	16.3	276400	79	48	132 to 200	N280TC	22000	27500	8930	234
	<b>313 R3</b>	<b>127</b>	13.8	328100	79	48	132 to 200	N280TC	23200	28900	9450	234
	<b>313 R3</b>	<b>153</b>	11.4	335500	67	48	132 to 200	N280TC	24500	30600	10100	234
	<b>313 R4</b>	<b>185</b>	9.5	220400	37	27	71 to 160	N56C to N280TC	26000	32300	10700	234
	<b>313 R4</b>	<b>201</b>	8.7	239700	37	27	71 to 160	N56C to N280TC	26600	33100	11000	234
	<b>313 R4</b>	<b>237</b>	7.4	283200	37	27	71 to 160	N56C to N280TC	28000	34800	11600	234
	<b>313 R4</b>	<b>281</b>	6.2	336200	38	27	71 to 160	N56C to N280TC	29400	36700	12300	234
	<b>313 R4</b>	<b>309</b>	5.7	369100	37	27	71 to 160	N56C to N280TC	30300	37700	12700	234
	<b>313 R4</b>	<b>346</b>	5.1	413500	38	27	71 to 160	N56C to N280TC	31300	39000	13200	234
	<b>313 R4</b>	<b>387</b>	4.5	402300	33	27	71 to 160	N56C to N280TC	32400	40400	13700	234
	<b>313 R4</b>	<b>450</b>	3.9	408400	28	27	71 to 160	N56C to N280TC	33900	42200	14400	234
	<b>313 R4</b>	<b>496</b>	3.5	461100	29	27	71 to 160	N56C to N280TC	34900	43500	14900	234

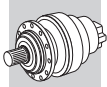




### 313 R

### 485,000 in•lbs

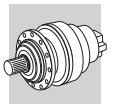
n <sub>1</sub> drive speed  rpm		i gear ratio  1:	n <sub>2</sub> output speed  rpm	Tn <sub>2</sub> rated torque  in•lbs	Pn <sub>1</sub> rated power  HP	P <sub>t</sub> thermal capacity  HP		NEMA  NEMA input	Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ		
<b>1750</b>	<b>313 R4</b>	<b>535</b>	3.3	415400	24	27	71 to 160	N56C to N280TC	35700	44500	15300	234	
	<b>313 R4</b>	<b>647</b>	2.7	423300	21	27	71 to 160	N56C to N280TC	37800	47100	16300	234	
	<b>313 R4</b>	<b>778</b>	2.2	381600	15.4	27	71 to 160	N56C to N280TC	40000	49800	17300	234	
<b>1450</b>	<b>313 R2 (B)</b>	<b>12.2</b>	119	100100	201	101	180 to 250	N320TC to N360TC	12100	15100	4600	234	
	<b>313 R2 (B)</b>	<b>15.9</b>	91	130500	201	101	180 to 250	N320TC to N360TC	13100	16400	5030	234	
	<b>313 R2 (B)</b>	<b>19.1</b>	76	157100	201	101	180 to 250	N320TC to N360TC	13900	17300	5350	234	
	<b>313 R2 (C)</b>	<b>16.8</b>	86	91300	133	121	180 to 250	N320TC to N360TC	13400	16700	5130	234	
	<b>313 R2 (C)</b>	<b>22.0</b>	66	117700	131	121	180 to 250	N320TC to N360TC	14500	18100	5610	234	
	<b>313 R2 (C)</b>	<b>26.4</b>	55	141000	130	121	180 to 250	N320TC to N360TC	15300	19100	5960	234	
	<b>313 R3</b>	<b>53.7</b>	27.0	146700	69	54	132 to 200	N280TC	19000	23600	7550	234	
	<b>313 R3</b>	<b>64.0</b>	22.6	175200	69	54	132 to 200	N280TC	20000	24900	8010	234	
	<b>313 R3</b>	<b>69.9</b>	20.7	191300	69	54	132 to 200	N280TC	20500	25600	8250	234	
	<b>313 R3</b>	<b>82.2</b>	17.6	224800	69	54	132 to 200	N280TC	21500	26800	8700	234	
	<b>313 R3</b>	<b>97.5</b>	14.9	266300	69	54	132 to 200	N280TC	22700	28200	9210	234	
	<b>313 R3</b>	<b>107</b>	13.5	292500	69	54	132 to 200	N280TC	23300	29000	9510	234	
	<b>313 R3</b>	<b>127</b>	11.4	347100	69	54	132 to 200	N280TC	24600	30600	10100	234	
	<b>313 R3</b>	<b>153</b>	9.5	345200	57	54	132 to 200	N280TC	26000	32300	10700	234	
	<b>313 R4</b>	<b>185</b>	7.9	233200	33	30	71 to 160	N56C to N280TC	27500	34200	11400	234	
	<b>313 R4</b>	<b>201</b>	7.2	253600	33	30	71 to 160	N56C to N280TC	28200	35100	11700	234	
	<b>313 R4</b>	<b>237</b>	6.1	299700	33	30	71 to 160	N56C to N280TC	29600	36900	12400	234	
	<b>313 R4</b>	<b>281</b>	5.2	356000	33	30	71 to 160	N56C to N280TC	31200	38800	13100	234	
	<b>313 R4</b>	<b>309</b>	4.7	387000	33	30	71 to 160	N56C to N280TC	32000	39900	13500	234	
	<b>313 R4</b>	<b>346</b>	4.2	432200	33	30	71 to 160	N56C to N280TC	33100	41300	14000	234	
	<b>313 R4</b>	<b>387</b>	3.7	409900	27	30	71 to 160	N56C to N280TC	34300	42700	14600	234	
	<b>313 R4</b>	<b>450</b>	3.2	416000	24	30	71 to 160	N56C to N280TC	35900	44700	15300	234	
	<b>313 R4</b>	<b>496</b>	2.9	460600	24	30	71 to 160	N56C to N280TC	36900	46000	15800	234	
	<b>313 R4</b>	<b>535</b>	2.7	423200	21	30	71 to 160	N56C to N280TC	37800	47000	16200	234	
	<b>313 R4</b>	<b>647</b>	2.2	433300	17.4	30	71 to 160	N56C to N280TC	40000	49800	17300	234	
	<b>313 R4</b>	<b>778</b>	1.9	393100	13.1	30	71 to 160	N56C to N280TC	42300	51900	18000	234	
	<b>1150</b>	<b>313 R2 (B)</b>	<b>12.2</b>	94	116300	185	116	180 to 250	N320TC to N360TC	13000	16200	4970	234
		<b>313 R2 (B)</b>	<b>15.9</b>	72	150400	184	116	180 to 250	N320TC to N360TC	14100	17600	5430	234
		<b>313 R2 (B)</b>	<b>19.1</b>	60	184300	187	116	180 to 250	N320TC to N360TC	14900	18600	5780	234
		<b>313 R2 (C)</b>	<b>16.8</b>	68	97400	112	139	180 to 250	N320TC to N360TC	14400	17900	5540	234
		<b>313 R2 (C)</b>	<b>22.0</b>	52	125800	111	139	180 to 250	N320TC to N360TC	15500	19400	6060	234
		<b>313 R2 (C)</b>	<b>26.4</b>	44	151300	111	139	180 to 250	N320TC to N360TC	16400	20500	6440	234
		<b>313 R3</b>	<b>53.7</b>	21.4	157200	59	62	132 to 200	N280TC	20300	25300	8160	234
		<b>313 R3</b>	<b>64.0</b>	18.0	187800	59	62	132 to 200	N280TC	21400	26700	8650	234
		<b>313 R3</b>	<b>69.9</b>	16.4	205100	59	62	132 to 200	N280TC	22000	27400	8910	234
		<b>313 R3</b>	<b>82.2</b>	14.0	240900	59	62	132 to 200	N280TC	23100	28800	9400	234
		<b>313 R3</b>	<b>97.5</b>	11.8	285500	59	62	132 to 200	N280TC	24300	30300	9950	234
		<b>313 R3</b>	<b>107</b>	10.7	313600	59	62	132 to 200	N280TC	25000	31100	10300	234
		<b>313 R3</b>	<b>127</b>	9.0	366300	58	62	132 to 200	N280TC	26300	32800	10900	234
		<b>313 R3</b>	<b>153</b>	7.5	345200	45	62	132 to 200	N280TC	27800	34700	11600	234
		<b>313 R4</b>	<b>185</b>	6.2	250100	28	34	71 to 160	N56C to N280TC	29400	36700	12300	234
<b>313 R4</b>		<b>201</b>	5.7	271900	28	34	71 to 160	N56C to N280TC	30200	37600	12700	234	
<b>313 R4</b>		<b>237</b>	4.9	321400	28	34	71 to 160	N56C to N280TC	31700	39500	13400	234	
<b>313 R4</b>		<b>281</b>	4.1	381500	28	34	71 to 160	N56C to N280TC	33400	41600	14200	234	
<b>313 R4</b>		<b>309</b>	3.7	401100	27	34	71 to 160	N56C to N280TC	34300	42800	14600	234	
<b>313 R4</b>		<b>346</b>	3.3	455800	27	34	71 to 160	N56C to N280TC	35500	44200	15200	234	
<b>313 R4</b>		<b>387</b>	3.0	419400	22	34	71 to 160	N56C to N280TC	36800	45800	15800	234	
<b>313 R4</b>		<b>450</b>	2.6	425700	19.5	34	71 to 160	N56C to N280TC	38500	47900	16600	234	
<b>313 R4</b>		<b>496</b>	2.3	461000	19.2	34	71 to 160	N56C to N280TC	39600	49300	17100	234	
<b>313 R4</b>		<b>535</b>	2.2	435900	16.8	34	71 to 160	N56C to N280TC	40500	50400	17600	234	

**3 R****313 R****485,000 in•lbs**

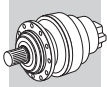
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>1150</b>	313 R4	647	1.8	448100	14.3	34	71 to 160	N56C to N280TC	42900	51900	18000	234
	313 R4	778	1.5	407800	10.8	34	71 to 160	N56C to N280TC	43200	51900	18000	234
<b>870</b>	313 R2 (B)	12.2	71	127100	153	131	180 to 250	N320TC to N360TC	14200	17600	5460	234
	313 R2 (B)	15.9	55	162900	151	131	180 to 250	N320TC to N360TC	15300	19100	5960	234
	313 R2 (B)	19.1	46	201200	155	131	180 to 250	N320TC to N360TC	16200	20200	6340	234
	313 R2 (C)	16.8	52	105300	92	157	180 to 250	N320TC to N360TC	15600	19400	6080	234
	313 R2 (C)	22.0	40	136400	91	157	180 to 250	N320TC to N360TC	16900	21000	6650	234
	313 R2 (C)	26.4	33	164400	91	157	180 to 250	N320TC to N360TC	17900	22200	7070	234
	313 R3	53.7	16.2	170900	48	70	132 to 200	N280TC	22100	27500	8950	234
	313 R3	64.0	13.6	204200	48	70	132 to 200	N280TC	23300	29000	9500	234
	313 R3	69.9	12.4	223000	48	70	132 to 200	N280TC	23900	29800	9780	234
	313 R3	82.2	10.6	261900	48	70	132 to 200	N280TC	25100	31300	10300	234
	313 R3	97.5	8.9	310600	48	70	132 to 200	N280TC	26400	32900	10900	234
	313 R3	107	8.1	341100	48	70	132 to 200	N280TC	27200	33900	11300	234
	313 R3	127	6.8	381000	45	70	132 to 200	N280TC	28600	35600	11900	234
	313 R3	153	5.7	345200	34	70	132 to 200	N280TC	30300	37700	12700	234
	313 R4	185	4.7	272100	23	38	71 to 160	N56C to N280TC	32000	39900	13500	234
	313 R4	201	4.3	295600	23	38	71 to 160	N56C to N280TC	32800	40900	13900	234
	313 R4	237	3.7	349400	23	38	71 to 160	N56C to N280TC	34500	43000	14700	234
	313 R4	281	3.1	414500	23	38	71 to 160	N56C to N280TC	36300	45200	15500	234
	313 R4	309	2.8	418800	21	38	71 to 160	N56C to N280TC	37300	46500	16000	234
	313 R4	346	2.5	486000	22	38	71 to 160	N56C to N280TC	38600	48100	16700	234
	313 R4	387	2.2	433300	17.4	38	71 to 160	N56C to N280TC	40000	49800	17300	234
	313 R4	450	1.9	442800	15.3	38	71 to 160	N56C to N280TC	41800	51900	18000	234
	313 R4	496	1.8	463600	14.6	38	71 to 160	N56C to N280TC	43100	51900	18000	234
	313 R4	535	1.6	453800	13.2	38	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 R4	647	1.3	466400	11.2	38	71 to 160	N56C to N280TC	43200	51900	18000	234
	313 R4	778	1.1	426100	8.5	38	71 to 160	N56C to N280TC	43200	51900	18000	234

**314 R****700,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	314 R4	160	10.9	240000	47	27	71 to 160	N56C to N280TC	27300	32800	11500	242
	314 R4	189	9.2	283400	47	27	71 to 160	N56C to N280TC	28700	34500	12100	242
	314 R4	238	7.4	355600	47	27	71 to 160	N56C to N280TC	30800	36900	13100	242
	314 R4	276	6.3	413400	47	27	71 to 160	N56C to N280TC	32200	38600	13800	242
	314 R4	354	4.9	530500	47	27	71 to 160	N56C to N280TC	34700	41600	15000	242
	314 R4	421	4.2	629600	47	27	71 to 160	N56C to N280TC	36500	43800	15900	242
	314 R4	445	3.9	578300	41	27	71 to 160	N56C to N280TC	37100	44600	16100	242
	314 R4	528	3.3	592300	35	27	71 to 160	N56C to N280TC	39100	46900	17100	242
	314 R4	614	2.9	488700	25	27	71 to 160	N56C to N280TC	40900	49100	18000	242
<b>1450</b>	314 R3 (B)	51.1	28.4	334100	165	74	180 to 225	N320TC to N360TC	20500	24600	8360	242
	314 R3 (B)	65.5	22.1	444800	171	74	180 to 225	N320TC to N360TC	22100	26500	9080	242
	314 R3 (B)	77.8	18.6	460600	149	74	180 to 225	N320TC to N360TC	23300	27900	9610	242

**314 R****700,000 in•lbs**

$n_1$ drive speed rpm		i gear ratio 1:	$n_2$ output speed rpm	$Tn_2$ rated torque in•lbs	$Pn_1$ rated power HP	$P_t$ thermal capacity HP			$Rn_2$ [lbs]			
									Permissible overhung loads			
							IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1450</b>	314 R3 (B)	82.3	17.6	468200	143	74	180 to 225	N320TC to N360TC	23700	28400	9790	242
	314 R3 (B)	97.6	14.9	492100	127	74	180 to 225	N320TC to N360TC	24900	29900	10400	242
	314 R3 (B)	113	12.8	429000	95	74	180 to 225	N320TC to N360TC	26100	31300	10900	242
	314 R3 (C)	70.7	20.5	319400	114	74	180 to 250	N320TC to N360TC	22600	27200	9310	242
	314 R3 (C)	90.7	16.0	348100	97	74	180 to 250	N320TC to N360TC	24400	29300	10100	242
	314 R3 (C)	108	13.5	360100	84	74	180 to 250	N320TC to N360TC	25700	30800	10700	242
	314 R3 (C)	114	12.7	437200	97	74	180 to 250	N320TC to N360TC	26100	31300	10900	242
	314 R3 (C)	135	10.7	456800	85	74	180 to 250	N320TC to N360TC	27500	33000	11600	242
	314 R3 (C)	157	9.2	460200	74	74	180 to 250	N320TC to N360TC	28700	34500	12200	242
	314 R4	160	9.0	289700	47	30	71 to 160	N56C to N280TC	28900	34700	12200	242
	314 R4	189	7.7	342000	47	30	71 to 160	N56C to N280TC	30400	36500	12900	242
	314 R4	238	6.1	429100	47	30	71 to 160	N56C to N280TC	32500	39100	13900	242
	314 R4	276	5.2	498900	47	30	71 to 160	N56C to N280TC	34000	40900	14700	242
	314 R4	354	4.1	640200	47	30	71 to 160	N56C to N280TC	36700	44100	15900	242
	314 R4	421	3.4	698100	43	30	71 to 160	N56C to N280TC	38600	46400	16900	242
	314 R4	445	3.3	593700	35	30	71 to 160	N56C to N280TC	39300	47200	17200	242
	314 R4	528	2.7	608000	30	30	71 to 160	N56C to N280TC	41400	49600	18200	242
	314 R4	614	2.4	499700	21	30	71 to 160	N56C to N280TC	43300	51900	19100	242
<b>1150</b>	314 R3 (B)	51.1	22.5	360100	141	85	180 to 225	N320TC to N360TC	22000	26400	9030	242
	314 R3 (B)	65.5	17.5	478700	146	85	180 to 225	N320TC to N360TC	23700	28500	9810	242
	314 R3 (B)	77.8	14.8	492800	127	85	180 to 225	N320TC to N360TC	25000	30000	10400	242
	314 R3 (B)	82.3	14.0	500900	122	85	180 to 225	N320TC to N360TC	25400	30500	10600	242
	314 R3 (B)	97.6	11.8	526500	108	85	180 to 225	N320TC to N360TC	26700	32100	11200	242
	314 R3 (B)	113	10.1	458500	81	85	180 to 225	N320TC to N360TC	28000	33600	11800	242
	314 R3 (C)	70.7	16.3	342500	97	85	180 to 250	N320TC to N360TC	24300	29100	10100	242
	314 R3 (C)	90.7	12.7	373200	82	85	180 to 250	N320TC to N360TC	26100	31400	10900	242
	314 R3 (C)	108	10.7	385500	72	85	180 to 250	N320TC to N360TC	27500	33000	11600	242
	314 R3 (C)	114	10.1	468800	82	85	180 to 250	N320TC to N360TC	28000	33600	11800	242
	314 R3 (C)	135	8.5	483700	72	85	180 to 250	N320TC to N360TC	29500	35400	12500	242
	314 R3 (C)	157	7.3	460200	59	85	180 to 250	N320TC to N360TC	30800	37000	13100	242
	314 R4	160	7.2	365200	47	34	71 to 160	N56C to N280TC	31000	37200	13200	242
	314 R4	189	6.1	431200	47	34	71 to 160	N56C to N280TC	32600	39100	14000	242
	314 R4	238	4.8	541100	47	34	71 to 160	N56C to N280TC	34900	41900	15100	242
	314 R4	276	4.2	629000	47	34	71 to 160	N56C to N280TC	36500	43800	15800	242
	314 R4	354	3.2	700000	41	34	71 to 160	N56C to N280TC	39300	47200	17200	242
	314 R4	421	2.7	705300	35	34	71 to 160	N56C to N280TC	41400	49700	18200	242
314 R4	445	2.6	613100	28	34	71 to 160	N56C to N280TC	42100	50600	18600	242	
314 R4	528	2.2	628100	25	34	71 to 160	N56C to N280TC	44300	53200	19700	242	
314 R4	614	1.9	516900	17.4	34	71 to 160	N56C to N280TC	46300	54600	20200	242	
<b>870</b>	314 R3 (B)	51.1	17.0	394000	117	96	180 to 225	N320TC to N360TC	23900	28700	9910	242
	314 R3 (B)	65.5	13.3	523000	121	96	180 to 225	N320TC to N360TC	25800	30900	10800	242
	314 R3 (B)	77.8	11.2	534600	104	96	180 to 225	N320TC to N360TC	27100	32600	11400	242
	314 R3 (B)	82.3	10.6	543300	100	96	180 to 225	N320TC to N360TC	27600	33100	11600	242
	314 R3 (B)	97.6	8.9	553500	86	96	180 to 225	N320TC to N360TC	29000	34900	12300	242
	314 R3 (B)	113	7.7	460200	61	96	180 to 225	N320TC to N360TC	30400	36500	12900	242
	314 R3 (C)	70.7	12.3	372500	80	96	180 to 250	N320TC to N360TC	26400	31700	11000	242
	314 R3 (C)	90.7	9.6	405800	68	96	180 to 250	N320TC to N360TC	28400	34100	12000	242
	314 R3 (C)	108	8.1	411200	58	96	180 to 250	N320TC to N360TC	29900	35900	12700	242
	314 R3 (C)	114	7.6	503000	67	96	180 to 250	N320TC to N360TC	30400	36500	12900	242
	314 R3 (C)	135	6.4	514700	58	96	180 to 250	N320TC to N360TC	32000	38400	13700	242
	314 R3 (C)	157	5.5	460200	44	96	180 to 250	N320TC to N360TC	33500	40200	14400	242
	314 R4	160	5.4	482800	47	38	71 to 160	N56C to N280TC	33700	40500	14500	242
	314 R4	189	4.6	570000	47	38	71 to 160	N56C to N280TC	35400	42500	15300	242
	314 R4	238	3.7	688300	45	38	71 to 160	N56C to N280TC	37900	45500	16500	242



# 3 R

## 314 R

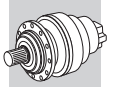
## 700,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	314 R4	276	3.1	700900	40	38	71 to 160	N56C to N280TC	39700	47600	17400	242
	314 R4	354	2.5	708800	31	38	71 to 160	N56C to N280TC	42800	51300	18900	242
	314 R4	421	2.1	715300	27	38	71 to 160	N56C to N280TC	45000	54100	20000	242
	314 R4	445	2.0	637700	22	38	71 to 160	N56C to N280TC	45800	54600	20200	242
	314 R4	528	1.6	653300	19.3	38	71 to 160	N56C to N280TC	46300	54600	20200	242
	314 R4	614	1.4	538400	13.7	38	71 to 160	N56C to N280TC	46300	54600	20200	242

## 315 R





## 900,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	315 R4	225	7.8	552500	77	48	132 to 200	N280TC	30300	36300	12900	250	
	315 R4	269	6.5	654200	76	48	132 to 200	N280TC	31900	38300	13700	250	
	315 R4	345	5.1	837300	76	48	132 to 200	N280TC	34400	41300	14800	250	
	315 R4	409	4.3	864400	66	48	132 to 200	N280TC	36200	43500	15700	250	
	315 R4	525	3.3	874000	52	48	132 to 200	N280TC	39000	46800	17100	250	
	315 R4	623	2.8	880600	44	48	132 to 200	N280TC	41100	49300	18100	250	
	315 R4	659	2.7	763600	36	48	132 to 200	N280TC	41800	50100	18400	250	
	315 R4	782	2.2	782200	31	48	132 to 200	N280TC	44000	52800	19500	250	
	315 R4	909	1.9	643600	22	48	132 to 200	N280TC	46000	54600	20200	250	
<b>1450</b>	315 R3 (B)	51.1	28.4	407500	201	101	180 to 250	N320TC to N360TC	20500	24600	8360	250	
	315 R3 (B)	65.5	22.1	523000	201	101	180 to 250	N320TC to N360TC	22100	26500	9080	250	
	315 R3 (B)	77.8	18.6	575800	187	101	180 to 250	N320TC to N360TC	23300	27900	9610	250	
	315 R3 (B)	82.3	17.6	585200	179	101	180 to 250	N320TC to N360TC	23700	28400	9790	250	
	315 R3 (B)	97.6	14.9	615200	159	101	180 to 250	N320TC to N360TC	24900	29900	10400	250	
	315 R3 (B)	113	12.8	536300	119	101	180 to 250	N320TC to N360TC	26100	31300	10900	250	
	315 R3 (C)	70.7	20.5	354400	126	121	180 to 250	N320TC to N360TC	22600	27200	9310	250	
	315 R3 (C)	90.7	16.0	460600	128	121	180 to 250	N320TC to N360TC	24400	29300	10100	250	
	315 R3 (C)	108	13.5	541700	127	121	180 to 250	N320TC to N360TC	25700	30800	10700	250	
	315 R3 (C)	114	12.7	578000	128	121	180 to 250	N320TC to N360TC	26100	31300	10900	250	
	315 R3 (C)	135	10.7	676300	126	121	180 to 250	N320TC to N360TC	27500	33000	11600	250	
	315 R3 (C)	157	9.2	575300	92	121	180 to 250	N320TC to N360TC	28700	34500	12200	250	
	315 R4	225	6.4	583700	67	54	132 to 200	N280TC	32000	38400	13700	250	
	315 R4	269	5.4	692100	67	54	132 to 200	N280TC	33800	40500	14500	250	
	315 R4	345	4.2	851700	64	54	132 to 200	N280TC	36400	43700	15800	250	
	315 R4	409	3.5	871600	55	54	132 to 200	N280TC	38300	46000	16700	250	
	315 R4	525	2.8	881200	44	54	132 to 200	N280TC	41300	49600	18200	250	
	315 R4	623	2.3	888500	37	54	132 to 200	N280TC	43500	52200	19200	250	
	315 R4	659	2.2	784000	31	54	132 to 200	N280TC	44200	53100	19600	250	
	315 R4	782	1.9	803200	27	54	132 to 200	N280TC	46300	54600	20200	250	
	315 R4	909	1.6	661500	18.9	54	132 to 200	N280TC	46300	54600	20200	250	
	<b>1150</b>	315 R3 (B)	51.1	22.5	450100	176	116	180 to 250	N320TC to N360TC	22000	26400	9030	250
		315 R3 (B)	65.5	17.5	598400	183	116	180 to 250	N320TC to N360TC	23700	28500	9810	250
		315 R3 (B)	77.8	14.8	616000	158	116	180 to 250	N320TC to N360TC	25000	30000	10400	250
315 R3 (B)		82.3	14.0	626100	152	116	180 to 250	N320TC to N360TC	25400	30500	10600	250	
315 R3 (B)		97.6	11.8	658200	135	116	180 to 250	N320TC to N360TC	26700	32100	11200	250	







**315 R**

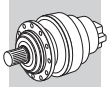
**900,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1150</b>	315 R3 (B)	113	10.1	573100	101	116	180 to 250	N320TC to N360TC	28000	33600	11800	250	
	315 R3 (C)	70.7	16.3	379700	107	139	180 to 250	N320TC to N360TC	24300	29100	10100	250	
	315 R3 (C)	90.7	12.7	492500	109	139	180 to 250	N320TC to N360TC	26100	31400	10900	250	
	315 R3 (C)	108	10.7	581900	108	139	180 to 250	N320TC to N360TC	27500	33000	11600	250	
	315 R3 (C)	114	10.1	617800	108	139	180 to 250	N320TC to N360TC	28000	33600	11800	250	
	315 R3 (C)	135	8.5	692400	102	139	180 to 250	N320TC to N360TC	29500	35400	12500	250	
	315 R3 (C)	157	7.3	575300	73	139	180 to 250	N320TC to N360TC	30800	37000	13100	250	
	315 R4	225	5.1	624500	57	62	132 to 200	N280TC	34300	41200	14800	250	
	315 R4	269	4.3	742700	57	62	132 to 200	N280TC	36200	43500	15700	250	
	315 R4	345	3.3	866400	52	62	132 to 200	N280TC	39000	46800	17100	250	
	315 R4	409	2.8	880500	44	62	132 to 200	N280TC	41100	49300	18100	250	
	315 R4	525	2.2	891300	35	62	132 to 200	N280TC	44300	53100	19600	250	
	315 R4	623	1.8	899500	30	62	132 to 200	N280TC	46300	54600	20200	250	
	315 R4	659	1.7	810100	25	62	132 to 200	N280TC	46300	54600	20200	250	
	315 R4	782	1.5	829900	22	62	132 to 200	N280TC	46300	54600	20200	250	
	315 R4	909	1.3	684200	15.5	62	132 to 200	N280TC	46300	54600	20200	250	
	<b>870</b>	315 R3 (B)	51.1	17.0	492500	146	131	180 to 250	N320TC to N360TC	23900	28700	9910	250
		315 R3 (B)	65.5	13.3	653700	151	131	180 to 250	N320TC to N360TC	25800	30900	10800	250
315 R3 (B)		77.8	11.2	668200	130	131	180 to 250	N320TC to N360TC	27100	32600	11400	250	
315 R3 (B)		82.3	10.6	679200	125	131	180 to 250	N320TC to N360TC	27600	33100	11600	250	
315 R3 (B)		97.6	8.9	691800	107	131	180 to 250	N320TC to N360TC	29000	34900	12300	250	
315 R3 (B)		113	7.7	575300	77	131	180 to 250	N320TC to N360TC	30400	36500	12900	250	
315 R3 (C)		70.7	12.3	412700	88	157	180 to 250	N320TC to N360TC	26400	31700	11000	250	
315 R3 (C)		90.7	9.6	534300	89	157	180 to 250	N320TC to N360TC	28400	34100	12000	250	
315 R3 (C)		108	8.1	618800	87	157	180 to 250	N320TC to N360TC	29900	35900	12700	250	
315 R3 (C)		114	7.6	649300	86	157	180 to 250	N320TC to N360TC	30400	36500	12900	250	
315 R3 (C)		135	6.4	696000	78	157	180 to 250	N320TC to N360TC	32000	38400	13700	250	
315 R3 (C)		157	5.5	575300	55	157	180 to 250	N320TC to N360TC	33500	40200	14400	250	
315 R4		225	3.9	677800	47	70	132 to 200	N280TC	37300	44800	16200	250	
315 R4		269	3.2	809300	47	70	132 to 200	N280TC	39400	47300	17200	250	
315 R4		345	2.5	884500	40	70	132 to 200	N280TC	42400	50900	18700	250	
315 R4		409	2.1	892700	34	70	132 to 200	N280TC	44700	53600	19800	250	
315 R4		525	1.7	904700	27	70	132 to 200	N280TC	46300	54600	20200	250	
315 R4		623	1.4	913000	23	70	132 to 200	N280TC	46300	54600	20200	250	
315 R4	659	1.3	842600	19.9	70	132 to 200	N280TC	46300	54600	20200	250		
315 R4	782	1.1	863200	17.2	70	132 to 200	N280TC	46300	54600	20200	250		
315 R4	909	0.96	708100	12.1	70	132 to 200	N280TC	46300	54600	20200	250		

**316 R**

**1,150,000 in•lbs**





n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1750</b>	316 R4	225	7.8	798900	111	54	132 to 200	N280TC	51500	57200	21400	258
	316 R4	269	6.5	842300	98	54	132 to 200	N280TC	54300	60300	22800	258
	316 R4	289	6.1	889500	97	54	132 to 200	N280TC	55500	61700	23300	258
	316 R4	345	5.1	907600	83	54	132 to 200	N280TC	58500	65000	24700	258



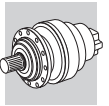
**3 R**

**316 R**

**1,150,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	316 R4	409	4.3	945400	72	54	132 to 200	N280TC	61600	68500	26200	258	
	316 R4	443	4.0	1000900	71	54	132 to 200	N280TC	63000	70100	26900	258	
	316 R4	525	3.3	1001800	60	54	132 to 200	N280TC	66300	73800	28400	258	
	316 R4	623	2.8	991100	50	54	132 to 200	N280TC	69800	77700	30100	258	
<b>1450</b>	316 R3 (B)	51.1	28.4	407500	201	101	180 to 250	N320TC to N360TC	34900	38800	13900	258	
	316 R3 (B)	65.5	22.1	523000	201	101	180 to 250	N320TC to N360TC	37600	41800	15100	258	
	316 R3 (B)	77.8	18.6	585800	190	101	180 to 250	N320TC to N360TC	39600	44000	16000	258	
	316 R3 (C)	70.7	20.5	373600	133	121	180 to 250	N320TC to N360TC	38500	42800	15500	258	
	316 R3 (C)	90.7	16.0	479200	133	121	180 to 250	N320TC to N360TC	41400	46100	16900	258	
	316 R3 (C)	108	13.5	574100	134	121	180 to 250	N320TC to N360TC	43600	48500	17900	258	
	316 R4	225	6.4	845200	98	60	132 to 200	N280TC	54400	60600	22800	258	
	316 R4	269	5.4	891000	86	60	132 to 200	N280TC	57400	63800	24200	258	
	316 R4	289	5.0	946000	85	60	132 to 200	N280TC	58700	65300	24800	258	
	316 R4	345	4.2	958700	72	60	132 to 200	N280TC	61900	68800	26300	258	
	316 R4	409	3.5	987600	63	60	132 to 200	N280TC	65100	72400	27900	258	
	316 R4	443	3.3	1046300	61	60	132 to 200	N280TC	66700	74200	28600	258	
	316 R4	525	2.8	1046500	52	60	132 to 200	N280TC	70200	78100	30300	258	
	316 R4	623	2.3	1023900	43	60	132 to 200	N280TC	73900	82200	32100	258	
	<b>1150</b>	316 R3 (B)	51.1	22.5	481600	189	116	180 to 250	N320TC to N360TC	37400	41600	15000	258
		316 R3 (B)	65.5	17.5	613500	187	116	180 to 250	N320TC to N360TC	40300	44800	16400	258
		316 R3 (B)	77.8	14.8	627400	161	116	180 to 250	N320TC to N360TC	42400	47200	17300	258
		316 R3 (C)	70.7	16.3	400800	113	139	180 to 250	N320TC to N360TC	41200	45900	16800	258
		316 R3 (C)	90.7	12.7	512000	113	139	180 to 250	N320TC to N360TC	44400	49400	18200	258
316 R3 (C)		108	10.7	615300	114	139	180 to 250	N320TC to N360TC	46800	52000	19300	258	
316 R4		225	5.1	905900	83	69	132 to 200	N280TC	58400	64900	24700	258	
316 R4		269	4.3	953800	73	69	132 to 200	N280TC	61500	68400	26200	258	
316 R4		289	4.0	999400	71	69	132 to 200	N280TC	62900	70000	26800	258	
316 R4		345	3.3	1025600	61	69	132 to 200	N280TC	66300	73800	28400	258	
316 R4		409	2.8	1042200	52	69	132 to 200	N280TC	69800	77700	30100	258	
316 R4		443	2.6	1105100	51	69	132 to 200	N280TC	71500	79500	30900	258	
316 R4		525	2.2	1084500	43	69	132 to 200	N280TC	75200	83700	32700	258	
316 R4		623	1.8	1043600	35	69	132 to 200	N280TC	77600	86600	33700	258	
<b>870</b>		316 R3 (B)	51.1	17.0	525900	156	131	180 to 250	N320TC to N360TC	40700	45200	16500	258
		316 R3 (B)	65.5	13.3	669300	154	131	180 to 250	N320TC to N360TC	43800	48700	17900	258
		316 R3 (B)	77.8	11.2	681500	133	131	180 to 250	N320TC to N360TC	46100	51300	19000	258
		316 R3 (C)	70.7	12.3	436300	93	157	180 to 250	N320TC to N360TC	44800	49900	18400	258
		316 R3 (C)	90.7	9.6	555700	93	157	180 to 250	N320TC to N360TC	48300	53700	20000	258
	316 R3 (C)	108	8.1	666900	94	157	180 to 250	N320TC to N360TC	50900	56600	21200	258	
	316 R4	225	3.9	982600	68	78	132 to 200	N280TC	63500	70600	27100	258	
	316 R4	269	3.2	1034400	60	78	132 to 200	N280TC	66900	74400	28700	258	
	316 R4	289	3.0	1067400	58	78	132 to 200	N280TC	68400	76100	29400	258	
	316 R4	345	2.5	1112200	50	78	132 to 200	N280TC	72100	80200	31200	258	
	316 R4	409	2.1	1087600	41	78	132 to 200	N280TC	75900	84400	33000	258	
	316 R4	443	2.0	1135600	40	78	132 to 200	N280TC	77600	86400	33700	258	
	316 R4	525	1.7	1113600	33	78	132 to 200	N280TC	77600	86600	33700	258	
	316 R4	623	1.4	1067800	27	78	132 to 200	N280TC	77600	86600	33700	258	

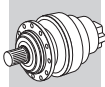
# 3 R



## 317 R

## 1,500,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	T <sub>n2</sub> rated torque in•lbs	P <sub>n1</sub> rated power HP	P <sub>t</sub> thermal capacity HP		NEMA NEMA input	Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1750</b>	317 R4	<b>220</b>	8.0	548400	78	60	132 to 200	N280TC	65700	69900	21300	266	
	317 R4	<b>262</b>	6.7	658100	79	60	132 to 200	N280TC	69200	73700	22600	266	
	317 R4	<b>336</b>	5.2	839400	78	60	132 to 200	N280TC	74600	79400	24500	266	
	317 R4	<b>399</b>	4.4	1003100	79	60	132 to 200	N280TC	78500	83600	26000	266	
	317 R4	<b>438</b>	4.0	1098700	79	60	132 to 200	N280TC	80800	86000	26800	266	
	317 R4	<b>520</b>	3.4	1304400	79	60	132 to 200	N280TC	85000	90500	28400	266	
	317 R4	<b>626</b>	2.8	1355700	68	60	132 to 200	N280TC	89900	95700	30200	266	
	317 R4	<b>677</b>	2.6	1348800	63	60	132 to 200	N280TC	92000	98000	31000	266	
	317 R4	<b>803</b>	2.2	1375800	54	60	132 to 200	N280TC	96900	103200	32800	266	
	317 R4	<b>953</b>	1.8	1169300	38	60	132 to 200	N280TC	99400	105700	33700	266	
<b>1450</b>	317 R4	<b>220</b>	6.6	579400	69	67	132 to 200	N280TC	69500	74000	22600	266	
	317 R4	<b>262</b>	5.5	695700	69	67	132 to 200	N280TC	73200	78000	24000	266	
	317 R4	<b>336</b>	4.3	889400	69	67	132 to 200	N280TC	78900	84000	26100	266	
	317 R4	<b>399</b>	3.6	1060900	69	67	132 to 200	N280TC	83100	88500	27600	266	
	317 R4	<b>438</b>	3.3	1162900	69	67	132 to 200	N280TC	85500	91000	28500	266	
	317 R4	<b>520</b>	2.8	1379400	69	67	132 to 200	N280TC	90000	95800	30200	266	
	317 R4	<b>626</b>	2.3	1371900	57	67	132 to 200	N280TC	95100	101300	32100	266	
	317 R4	<b>677</b>	2.1	1378400	53	67	132 to 200	N280TC	97400	103700	33000	266	
	317 R4	<b>803</b>	1.8	1405800	45	67	132 to 200	N280TC	99400	105700	33700	266	
	317 R4	<b>953</b>	1.5	1203500	33	67	132 to 200	N280TC	99400	105700	33700	266	
	<b>1150</b>	317 R3 (B)	<b>49.8</b>	23.1	438500	176	139	180 to 250	N320TC to N360TC	47700	50800	14900	266
		317 R3 (B)	<b>64.9</b>	17.7	571200	176	139	180 to 250	N320TC to N360TC	51700	55000	16300	266
317 R3 (B)		<b>78.1</b>	14.7	723100	185	139	180 to 250	N320TC to N360TC	54600	58200	17300	266	
317 R3 (B)		<b>83.3</b>	13.8	769900	185	139	180 to 250	N320TC to N360TC	55700	59300	17700	266	
317 R3 (B)		<b>100</b>	11.5	925600	185	139	180 to 250	N320TC to N360TC	58900	62700	18800	266	
317 R3 (B)		<b>119</b>	9.7	1017800	171	139	180 to 250	N320TC to N360TC	62000	66000	19900	266	
317 R3 (C)		<b>68.9</b>	16.7	417300	121	154	180 to 250	N320TC to N360TC	52600	56000	16600	266	
317 R3 (C)		<b>89.8</b>	12.8	544000	121	154	180 to 250	N320TC to N360TC	57000	60600	18200	266	
317 R3 (C)		<b>108</b>	10.6	621500	115	154	180 to 250	N320TC to N360TC	60200	64100	19300	266	
317 R3 (C)		<b>115</b>	10.0	637800	111	154	180 to 250	N320TC to N360TC	61400	65400	19700	266	
317 R3 (C)		<b>139</b>	8.3	778400	112	154	180 to 250	N320TC to N360TC	64900	69100	21000	266	
317 R3 (C)		<b>165</b>	7.0	917400	111	154	180 to 250	N320TC to N360TC	68300	72700	22200	266	
317 R4		<b>220</b>	5.2	619900	58	77	132 to 200	N280TC	74500	79300	24500	266	
317 R4		<b>262</b>	4.4	745800	59	77	132 to 200	N280TC	78500	83600	25900	266	
317 R4		<b>336</b>	3.4	955700	59	77	132 to 200	N280TC	84600	90100	28200	266	
317 R4		<b>399</b>	2.9	1136700	59	77	132 to 200	N280TC	89100	94900	29900	266	
317 R4		<b>438</b>	2.6	1247200	59	77	132 to 200	N280TC	91600	97600	30800	266	
317 R4		<b>520</b>	2.2	1445300	57	77	132 to 200	N280TC	96500	102700	32600	266	
317 R4		<b>626</b>	1.8	1371900	45	77	132 to 200	N280TC	99400	105700	33700	266	
317 R4		<b>677</b>	1.7	1415600	43	77	132 to 200	N280TC	99400	105700	33700	266	
317 R4		<b>803</b>	1.4	1443800	37	77	132 to 200	N280TC	99400	105700	33700	266	
317 R4		<b>953</b>	1.2	1247000	27	77	132 to 200	N280TC	99400	105700	33700	266	
<b>870</b>		317 R3 (B)	<b>49.8</b>	17.5	476800	145	157	180 to 250	N320TC to N360TC	51900	55200	16400	266
	317 R3 (B)	<b>64.9</b>	13.4	621000	145	157	180 to 250	N320TC to N360TC	56200	59800	17900	266	
	317 R3 (B)	<b>78.1</b>	11.1	791500	153	157	180 to 250	N320TC to N360TC	59400	63200	19000	266	
	317 R3 (B)	<b>83.3</b>	10.4	838400	152	157	180 to 250	N320TC to N360TC	60500	64500	19400	266	
	317 R3 (B)	<b>100</b>	8.7	1009000	152	157	180 to 250	N320TC to N360TC	64000	68100	20700	266	
	317 R3 (B)	<b>119</b>	7.3	1017800	129	157	180 to 250	N320TC to N360TC	67400	71700	21900	266	
	317 R3 (C)	<b>68.9</b>	12.6	453900	100	174	180 to 250	N320TC to N360TC	57200	60900	18200	266	
	317 R3 (C)	<b>89.8</b>	9.7	591600	100	174	180 to 250	N320TC to N360TC	61900	65900	19900	266	
	317 R3 (C)	<b>108</b>	8.0	673000	94	174	180 to 250	N320TC to N360TC	65500	69700	21200	266	
	317 R3 (C)	<b>115</b>	7.5	695800	91	174	180 to 250	N320TC to N360TC	66700	71100	21700	266	
	317 R3 (C)	<b>139</b>	6.3	840700	92	174	180 to 250	N320TC to N360TC	70600	75100	23000	266	
	317 R3 (C)	<b>165</b>	5.3	995500	91	174	180 to 250	N320TC to N360TC	74300	79100	24400	266	



# 3 R

## 317 R

**1,500,000 in•lbs**

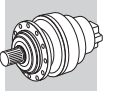
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	317 R4	220	4.0	675300	48	87	132 to 200	N280TC	81000	86200	26800	266
	317 R4	262	3.3	811800	48	87	132 to 200	N280TC	85400	90900	28500	266
	317 R4	336	2.6	1042000	48	87	132 to 200	N280TC	92000	98000	30900	266
	317 R4	399	2.2	1231000	48	87	132 to 200	N280TC	96900	103100	32800	266
	317 R4	438	2.0	1339100	48	87	132 to 200	N280TC	99400	105700	33700	266
	317 R4	520	1.7	1492700	45	87	132 to 200	N280TC	99400	105700	33700	266
	317 R4	626	1.4	1371900	34	87	132 to 200	N280TC	99400	105700	33700	266
	317 R4	677	1.3	1461800	34	87	132 to 200	N280TC	99400	105700	33700	266
	317 R4	803	1.1	1490900	29	87	132 to 200	N280TC	99400	105700	33700	266
	317 R4	953	0.91	1283400	21	87	132 to 200	N280TC	99400	105700	33700	266

## 318 R

**2,200,000 in•lbs**





n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP			Rn <sub>2</sub> [lbs]				
									Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1450</b>	318 R4 (B)	225	6.5	1739400	201	121	180 to 250	N320TC to N360TC	87800	89600	30400	274	
	318 R4 (B)	288	5.0	1882100	170	121	180 to 250	N320TC to N360TC	94600	96500	33100	274	
	318 R4 (B)	342	4.2	1958800	149	121	180 to 250	N320TC to N360TC	99600	101600	35000	274	
	318 R4 (B)	362	4.0	1984200	142	121	180 to 250	N320TC to N360TC	101300	103300	35700	274	
	318 R4 (B)	430	3.4	2064300	125	121	180 to 250	N320TC to N360TC	106600	108800	37800	274	
	318 R4 (B)	499	2.9	1849800	96	121	180 to 250	N320TC to N360TC	111500	113800	39700	274	
	318 R4 (C)	311	4.7	1519600	127	148	180 to 250	N320TC to N360TC	96800	98800	33900	274	
	318 R4 (C)	399	3.6	1960400	128	148	180 to 250	N320TC to N360TC	104300	106400	36900	274	
	318 R4 (C)	474	3.1	2111700	116	148	180 to 250	N320TC to N360TC	109800	112000	39000	274	
	318 R4 (C)	501	2.9	2139100	111	148	180 to 250	N320TC to N360TC	111600	113900	39800	274	
	318 R4 (C)	595	2.4	2212700	97	148	180 to 250	N320TC to N360TC	113100	119900	42100	274	
	318 R4 (C)	691	2.1	1905500	72	148	180 to 250	N320TC to N360TC	113100	125500	44300	274	
	<b>1150</b>	318 R4 (B)	225	5.1	1872100	172	139	180 to 250	N320TC to N360TC	94100	96000	32900	274
		318 R4 (B)	288	4.0	1986400	142	139	180 to 250	N320TC to N360TC	101400	103500	35700	274
318 R4 (B)		342	3.4	2066600	124	139	180 to 250	N320TC to N360TC	106700	108900	37800	274	
318 R4 (B)		362	3.2	2093400	119	139	180 to 250	N320TC to N360TC	108500	110800	38500	274	
318 R4 (B)		430	2.7	2177900	105	139	180 to 250	N320TC to N360TC	113100	116600	40800	274	
318 R4 (B)		499	2.3	1875600	77	139	180 to 250	N320TC to N360TC	113100	122000	42900	274	
318 R4 (C)		311	3.7	1632600	108	170	180 to 250	N320TC to N360TC	103700	105900	36600	274	
318 R4 (C)		399	2.9	2091300	108	170	180 to 250	N320TC to N360TC	111800	114100	39800	274	
318 R4 (C)		474	2.4	2212700	96	170	180 to 250	N320TC to N360TC	113100	120100	42200	274	
318 R4 (C)		501	2.3	2212700	91	170	180 to 250	N320TC to N360TC	113100	122100	42900	274	
318 R4 (C)		595	1.9	2212700	77	170	180 to 250	N320TC to N360TC	113100	127000	45000	274	
318 R4 (C)		691	1.7	1981600	59	170	180 to 250	N320TC to N360TC	113100	127000	45000	274	
<b>870</b>		318 R4 (B)	225	3.9	2000000	139	157	180 to 250	N320TC to N360TC	102300	104400	36100	274
		318 R4 (B)	288	3.0	2118700	115	157	180 to 250	N320TC to N360TC	110300	112500	39200	274
	318 R4 (B)	342	2.5	2204200	100	157	180 to 250	N320TC to N360TC	113100	118400	41500	274	
	318 R4 (B)	362	2.4	2212700	95	157	180 to 250	N320TC to N360TC	113100	120400	42300	274	
	318 R4 (B)	430	2.0	2212700	80	157	180 to 250	N320TC to N360TC	113100	126800	44800	274	
	318 R4 (B)	499	1.7	1966200	61	157	180 to 250	N320TC to N360TC	113100	127000	45000	274	
	318 R4 (C)	311	2.8	1779900	89	192	180 to 250	N320TC to N360TC	112800	115100	40200	274	
	318 R4 (C)	399	2.2	2181000	85	192	180 to 250	N320TC to N360TC	113100	124000	43700	274	









## 318 R

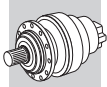
### 2,200,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	318 R4 (C)	474	1.8	2212700	73	192	180 to 250	N320TC to N360TC	113100	127000	45000	274
	318 R4 (C)	501	1.7	2212700	69	192	180 to 250	N320TC to N360TC	113100	127000	45000	274
	318 R4 (C)	595	1.5	2212700	58	192	180 to 250	N320TC to N360TC	113100	127000	45000	274
	318 R4 (C)	691	1.3	2077300	47	192	180 to 250	N320TC to N360TC	113100	127000	45000	274

## 319 R

### 3,000,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads				
									NHC NPC	HZ PZ	FZ		
<b>1450</b>	319 R4 (B)	249	5.8	1927200	201	127	180 to 250	N320TC to N360TC	104000	114600	31500	282	
	319 R4 (B)	320	4.5	2473200	201	127	180 to 250	N320TC to N360TC	112100	123500	34200	282	
	319 R4 (B)	379	3.8	2719300	186	127	180 to 250	N320TC to N360TC	118000	130000	36200	282	
	319 R4 (B)	401	3.6	2774500	180	127	180 to 250	N320TC to N360TC	120000	132200	36900	282	
	319 R4 (B)	475	3.1	2499000	137	127	180 to 250	N320TC to N360TC	126200	139100	39000	282	
	319 R4 (B)	563	2.6	2571700	119	127	180 to 250	N320TC to N360TC	132900	146400	41300	282	
	319 R4 (B)	655	2.2	2636900	105	127	180 to 250	N320TC to N360TC	139000	153200	43500	282	
	319 R4 (C)	345	4.2	1698900	128	154	180 to 250	N320TC to N360TC	114700	126400	35100	282	
	319 R4 (C)	442	3.3	2152200	126	154	180 to 250	N320TC to N360TC	123600	136200	38100	282	
	319 R4 (C)	525	2.8	2582700	128	154	180 to 250	N320TC to N360TC	130100	143400	40400	282	
	319 R4 (C)	555	2.6	2736500	128	154	180 to 250	N320TC to N360TC	132300	145800	41100	282	
	319 R4 (C)	657	2.2	2638400	104	154	180 to 250	N320TC to N360TC	139200	153300	43500	282	
	319 R4 (C)	780	1.9	2714600	90	154	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 R4 (C)	906	1.6	2783300	80	154	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	<b>1150</b>	319 R4 (B)	249	4.6	2108800	175	147	180 to 250	N320TC to N360TC	111500	122900	34000	282
		319 R4 (B)	320	3.6	2756100	178	147	180 to 250	N320TC to N360TC	120200	132400	37000	282
		319 R4 (B)	379	3.0	2910500	158	147	180 to 250	N320TC to N360TC	126500	139400	39100	282
		319 R4 (B)	401	2.9	2962600	152	147	180 to 250	N320TC to N360TC	128700	141800	39900	282
		319 R4 (B)	475	2.4	2597800	113	147	180 to 250	N320TC to N360TC	135300	149100	42200	282
		319 R4 (B)	563	2.0	2672800	98	147	180 to 250	N320TC to N360TC	142500	157000	44700	282
319 R4 (B)		655	1.8	2740400	86	147	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 R4 (C)		345	3.3	1818100	109	177	180 to 250	N320TC to N360TC	123000	135500	37900	282	
319 R4 (C)		442	2.6	2301500	107	177	180 to 250	N320TC to N360TC	132500	146000	41200	282	
319 R4 (C)		525	2.2	2720300	107	177	180 to 250	N320TC to N360TC	139500	153700	43600	282	
319 R4 (C)		555	2.1	2834500	105	177	180 to 250	N320TC to N360TC	141800	156300	44400	282	
319 R4 (C)		657	1.8	2742000	86	177	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 R4 (C)		780	1.5	2821100	75	177	180 to 250	N320TC to N360TC	143400	157800	45000	282	
319 R4 (C)		906	1.3	2892600	66	177	180 to 250	N320TC to N360TC	143400	157800	45000	282	
<b>870</b>	319 R4 (B)	249	3.5	2302200	144	166	180 to 250	N320TC to N360TC	121300	133600	37300	282	
	319 R4 (B)	320	2.7	2981100	145	166	180 to 250	N320TC to N360TC	130700	144000	40600	282	
	319 R4 (B)	379	2.3	3081700	127	166	180 to 250	N320TC to N360TC	137600	151600	43000	282	
	319 R4 (B)	401	2.2	3082800	120	166	180 to 250	N320TC to N360TC	139900	154100	43800	282	
	319 R4 (B)	475	1.8	2721000	89	166	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 R4 (B)	563	1.5	2799500	78	166	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 R4 (B)	655	1.3	2870400	68	166	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 R4 (C)	345	2.5	1972600	89	200	180 to 250	N320TC to N360TC	133700	147300	41600	282	
	319 R4 (C)	442	2.0	2508600	88	200	180 to 250	N320TC to N360TC	143400	157800	45000	282	
	319 R4 (C)	525	1.7	2849000	85	200	180 to 250	N320TC to N360TC	143400	157800	45000	282	



# 3 R

## 319 R

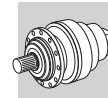
**3,000,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>870</b>	319 R4 (C)	555	1.6	2932600	82	200	180 to 250	N320TC to N360TC	143400	157800	45000	282
	319 R4 (C)	657	1.3	2872100	68	200	180 to 250	N320TC to N360TC	143400	157800	45000	282
	319 R4 (C)	780	1.1	2954900	59	200	180 to 250	N320TC to N360TC	143400	157800	45000	282
	319 R4 (C)	906	0.96	3009300	52	200	180 to 250	N320TC to N360TC	143400	157800	45000	282

## 321 R

**4,200,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	P <sub>t</sub> thermal capacity HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs]			
									Permissible overhung loads			
									NHC NPC	HZ PZ	FZ	
<b>1150</b>	321 R4 (B)	221	5.2	1979400	184	162	180 to 250	N320TC to N360TC	132000	156600	196200	290
	321 R4 (B)	288	4.0	2567100	183	162	180 to 250	N320TC to N360TC	143000	169600	214300	290
	321 R4 (B)	347	3.3	3070200	182	162	180 to 250	N320TC to N360TC	151200	179300	228000	290
	321 R4 (B)	370	3.1	3299500	184	162	180 to 250	N320TC to N360TC	154100	182700	232900	290
	321 R4 (B)	446	2.6	3824800	177	162	180 to 250	N320TC to N360TC	162900	193200	247800	290
	321 R4 (B)	529	2.2	4120800	161	162	180 to 250	N320TC to N360TC	171500	203400	262300	290
	321 R4 (C)	306	3.8	1854600	125	193	180 to 250	N320TC to N360TC	145600	172600	218700	290
	321 R4 (C)	399	2.9	2417600	125	193	180 to 250	N320TC to N360TC	157600	186900	238900	290
	321 R4 (C)	481	2.4	2617700	112	193	180 to 250	N320TC to N360TC	166600	197600	254100	290
	321 R4 (C)	512	2.2	2752200	111	193	180 to 250	N320TC to N360TC	169900	201500	259600	290
	321 R4 (C)	617	1.9	3298000	110	193	180 to 250	N320TC to N360TC	175100	207500	269800	290
	321 R4 (C)	732	1.6	3987900	112	193	180 to 250	N320TC to N360TC	175100	207500	269800	290
	<b>870</b>	321 R4 (B)	221	3.9	2160500	152	183	180 to 250	N320TC to N360TC	143600	170300	215300
321 R4 (B)		288	3.0	2823400	153	183	180 to 250	N320TC to N360TC	155500	184400	235200	290
321 R4 (B)		347	2.5	3335200	150	183	180 to 250	N320TC to N360TC	164400	194900	250200	290
321 R4 (B)		370	2.4	3624900	153	183	180 to 250	N320TC to N360TC	167500	198700	255600	290
321 R4 (B)		446	2.0	4085300	143	183	180 to 250	N320TC to N360TC	175100	207500	269800	290
321 R4 (B)		529	1.6	4221600	124	183	180 to 250	N320TC to N360TC	175100	207500	269800	290
321 R4 (C)		306	2.8	2016400	103	218	180 to 250	N320TC to N360TC	158300	187700	240000	290
321 R4 (C)		399	2.2	2628500	103	218	180 to 250	N320TC to N360TC	171400	203300	262200	290
321 R4 (C)		481	1.8	2846400	92	218	180 to 250	N320TC to N360TC	175100	207500	269800	290
321 R4 (C)		512	1.7	2968300	90	218	180 to 250	N320TC to N360TC	175100	207500	269800	290
321 R4 (C)		617	1.4	3572300	90	218	180 to 250	N320TC to N360TC	175100	207500	269800	290
321 R4 (C)		732	1.2	4242200	90	218	180 to 250	N320TC to N360TC	175100	207500	269800	290



## 22.0 - SPEED REDUCER RATING CHARTS: 3/V (worm/planetary)

Reading the rating chart

3/V 00 L3				8,200 in•lbs							
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rate power HP			Rn <sub>2</sub> [lbs]			
								NHC NPC	HZ PZ	FZ	
1750	3/V 00 L3	415	4.2	8110	0.81	63 to 80	N56C	5340	6340	1400	152
	3/V 00 L3	436	4.0	6200	0.63	63 to 71	N56C	5420	6430	1430	152
	3/V 00 L3	509	3.4	8390	0.69	63 to 80	N56C	5670	6730	1500	152
	3/V 00 L3	562	3.1	6230	0.46	63 to 80	N56C	5850	6940	1550	152

2 ↑

3 ↑

4 ↑

5 ↑

6 ↑

7 ↑

8 ↑

9 ↑

10 ↑

11 ↑

- 1 Gearbox max. transmissible torque

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- 2 Gearbox drive speed

---

- 3 Frame size of combined worm + planetary gearbox

---

- 4 Gear ratio

---

- 5 Gearbox output speed

---

- 6 Gearbox rated output torque

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- 7 Gearbox rated input power

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- 8 Frame size of available IEC motor

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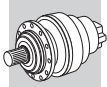
- 9 Frame size of available NEMA motor

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- 10 Permissible overhung load on output shaft

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- 11 Page showing installation drawings and dimensions.



**3/V □ L**





**3/V 00 L3**

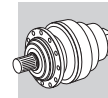
**8,200 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rate power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 00 L3	<b>415</b>	4.2	8110	0.81	63 to 80	N56C	5340	6340	1400	152
	3/V 00 L3	<b>436</b>	4.0	6200	0.63	63 to 71	N56C	5420	6430	1430	152
	3/V 00 L3	<b>509</b>	3.4	8390	0.69	63 to 80	N56C	5670	6730	1500	152
	3/V 00 L3	<b>562</b>	3.1	6230	0.46	63 to 80	N56C	5850	6940	1550	152
	3/V 00 L3	<b>654</b>	2.7	8750	0.59	63 to 71	N56C	6120	7260	1630	152
	3/V 00 L3	<b>689</b>	2.5	8830	0.53	63 to 80	N56C	6210	7370	1660	152
	3/V 00 L3	<b>818</b>	2.1	8850	0.51	63 to 71	N56C	6540	7640	1760	152
	3/V 00 L3	<b>903</b>	1.9	6760	0.35	63 to 71	N56C	6740	7640	1800	152
	3/V 00 L3	<b>997</b>	1.8	6880	0.27	63 to 80	N56C	6940	7640	1800	152
	3/V 00 L3	<b>1107</b>	1.6	8850	0.37	63 to 71	N56C	6970	7640	1800	152
	3/V 00 L3	<b>1198</b>	1.5	7110	0.26	63 to 71	N56C	6970	7640	1800	152
	3/V 00 L3	<b>1381</b>	1.3	8850	0.30	63 to 71	N56C	6970	7640	1800	152
	3/V 00 L3	<b>1495</b>	1.2	7400	0.22	63 to 71	N56C	6970	7640	1800	152
	3/V 00 L3	<b>1869</b>	0.94	7610	0.19	63 to 71	N56C	6970	7640	1800	152
	3/V 00 L3	<b>2337</b>	0.75	7610	0.15	63 to 71	N56C	6970	7640	1800	152

**3/V 01 L3**

**16,500 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 01 L3	<b>430</b>	4.1	16100	1.4	63 to 80	N56C	5390	6400	1420	160
	3/V 01 L3	<b>443</b>	4.0	12100	1.0	63 to 80	N56C	5440	6460	1430	160
	3/V 01 L3	<b>509</b>	3.4	11200	0.91	63 to 80	N56C	5670	6730	1500	160
	3/V 01 L3	<b>562</b>	3.1	12400	0.91	63 to 80	N56C	5850	6940	1550	160
	3/V 01 L3	<b>654</b>	2.7	10400	0.70	63 to 71	N56C	6120	7260	1630	160
	3/V 01 L3	<b>689</b>	2.5	15200	0.91	63 to 80	N56C	6210	7370	1660	160
	3/V 01 L3	<b>799</b>	2.2	13100	0.65	63 to 80	N56C	6500	7640	1740	160
	3/V 01 L3	<b>903</b>	1.9	10900	0.56	63 to 71	N56C	6740	7640	1800	160
	3/V 01 L3	<b>997</b>	1.8	13600	0.54	63 to 80	N56C	6940	7640	1800	160
	3/V 01 L3	<b>1105</b>	1.6	17600	0.70	63 to 71	N56C	6970	7640	1800	160
	3/V 01 L3	<b>1198</b>	1.5	14100	0.52	63 to 71	N56C	6970	7640	1800	160
	3/V 01 L3	<b>1381</b>	1.3	16600	0.56	63 to 71	N56C	6970	7640	1800	160
	3/V 01 L3	<b>1495</b>	1.2	14600	0.43	63 to 71	N56C	6970	7640	1800	160
	3/V 01 L3	<b>1869</b>	0.94	15000	0.38	63 to 71	N56C	6970	7640	1800	160
	3/V 01 L3	<b>2337</b>	0.75	15000	0.30	63 to 71	N56C	6970	7640	1800	160



**3/V 03 L3**

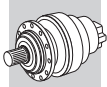
**23,400 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 03 L3	395	4.4	19100	1.8	71 to 90	N56C to N140TC	10300	13300	4140	168
	3/V 03 L3	460	3.8	19200	1.7	71 to 90	N56C to N140TC	10800	14000	4360	168
	3/V 03 L3	502	3.5	16800	1.2	71 to 90	N56C to N140TC	11100	14300	4480	168
	3/V 03 L3	544	3.2	24000	1.8	71 to 90	N56C to N140TC	11400	14700	4600	168
	3/V 03 L3	623	2.8	19400	1.2	71 to 90	N56C to N140TC	11800	15300	4820	168
	3/V 03 L3	736	2.4	23900	1.3	71 to 90	N56C to N140TC	12500	16100	5090	168
	3/V 03 L3	793	2.2	18000	0.91	71 to 90	N56C to N140TC	12700	16400	5220	168
	3/V 03 L3	923	1.9	22700	0.98	71 to 90	N56C to N140TC	13300	16600	5400	168
	3/V 03 L3	1023	1.7	23100	0.99	71 to 80	N56C	13700	16600	5400	168
	3/V 03 L3	1189	1.5	19200	0.71	71 to 80	N56C	14400	16600	5400	168
	3/V 03 L3	1385	1.3	24300	0.77	71 to 80	N56C	14400	16600	5400	168
	3/V 03 L3	1610	1.1	20100	0.55	71 to 80	N56C	14400	16600	5400	168
	3/V 03 L3	1728	1.0	25200	0.64	71 to 80	N56C	14400	16600	5400	168
	3/V 03 L3	2009	0.87	20400	0.45	71 to 80	N56C	14400	16600	5400	168
	3/V 03 L3	2511	0.70	20400	0.36	71 to 80	N56C	14400	16600	5400	168

**3/V 04 L3**

**32,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 04 L3	384	4.6	31000	3.0	71 to 112	N56C to N180TC	10200	13200	4100	176
	3/V 04 L3	453	3.9	32500	2.6	71 to 112	N56C to N180TC	10800	13900	4330	176
	3/V 04 L3	501	3.5	26600	2.2	71 to 112	N56C to N180TC	11100	14300	4480	176
	3/V 04 L3	568	3.1	26500	1.7	71 to 112	N56C to N180TC	11500	14900	4670	176
	3/V 04 L3	623	2.8	31100	1.9	71 to 112	N56C to N180TC	11800	15300	4820	176
	3/V 04 L3	710	2.5	21300	1.0	71 to 112	N56C to N180TC	12300	15900	5030	176
	3/V 04 L3	769	2.3	27600	1.3	71 to 112	N56C to N180TC	12600	16300	5170	176
	3/V 04 L3	887	2.0	22000	0.86	71 to 112	N56C to N180TC	13200	16600	5400	176
	3/V 04 L3	981	1.8	33600	1.4	71 to 112	N56C to N180TC	13600	16600	5400	176
	3/V 04 L3	1152	1.5	29200	0.97	71 to 112	N56C to N180TC	14200	16600	5400	176
	3/V 04 L3	1231	1.4	29500	0.98	71 to 112	N56C to N180TC	14400	16600	5400	176
	3/V 04 L3	1419	1.2	23600	0.64	71 to 112	N56C to N180TC	14400	16600	5400	176
	3/V 04 L3	1536	1.1	30400	0.81	71 to 112	N56C to N180TC	14400	16600	5400	176
	3/V 04 L3	1774	0.99	24300	0.53	71 to 112	N56C to N180TC	14400	16600	5400	176
	3/V 04 L3	1893	0.92	24300	0.53	71 to 112	N56C to N180TC	14400	16600	5400	176
	3/V 04 L3	2366	0.74	24300	0.42	71 to 112	N56C to N180TC	14400	16600	5400	176



3/V □ L

**3/V 05 L3**

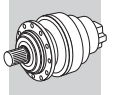
**45,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 05 L3	396	4.4	32400	2.8	71 to 112	N56C to N180TC	10300	13400	4140	184
	3/V 05 L3	462	3.8	40700	3.1	71 to 112	N56C to N180TC	10800	14000	4360	184
	3/V 05 L3	529	3.3	33700	2.3	71 to 112	N56C to N180TC	11300	14600	4560	184
	3/V 05 L3	576	3.0	42100	2.5	71 to 112	N56C to N180TC	11600	14900	4690	184
	3/V 05 L3	623	2.8	39200	2.4	71 to 112	N56C to N180TC	11800	15300	4820	184
	3/V 05 L3	715	2.4	35100	1.7	71 to 112	N56C to N180TC	12300	15900	5050	184
	3/V 05 L3	793	2.2	35700	1.7	71 to 112	N56C to N180TC	12700	16400	5220	184
	3/V 05 L3	894	2.0	36400	1.5	71 to 112	N56C to N180TC	13200	16600	5400	184
	3/V 05 L3	1057	1.7	37400	1.5	71 to 112	N56C to N180TC	13900	16600	5400	184
	3/V 05 L3	1116	1.6	37800	1.2	71 to 112	N56C to N180TC	14100	16600	5400	184
	3/V 05 L3	1231	1.4	47100	1.6	71 to 112	N56C to N180TC	14400	16600	5400	184
	3/V 05 L3	1431	1.2	39400	1.1	71 to 112	N56C to N180TC	14400	16600	5400	184
	3/V 05 L3	1674	1.0	36200	0.83	71 to 112	N56C to N180TC	14400	16600	5400	184
	3/V 05 L3	1786	0.98	40700	0.93	71 to 112	N56C to N180TC	14400	16600	5400	184
	3/V 05 L3	2232	0.78	36300	0.67	71 to 112	N56C to N180TC	14400	16600	5400	184

**3/V 06 L3**





**75,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 06 L3	395	4.4	65500	5.8	71 to 112	N56C to N180TC	16700	21100	6040	192
	3/V 06 L3	427	4.1	70800	5.8	71 to 112	N56C to N180TC	17100	21600	6190	192
	3/V 06 L3	527	3.3	65500	4.4	71 to 112	N56C to N180TC	18200	23000	6640	192
	3/V 06 L3	569	3.1	73300	4.5	71 to 112	N56C to N180TC	18700	23600	6820	192
	3/V 06 L3	661	2.6	74700	4.0	71 to 112	N56C to N180TC	19500	24700	7170	192
	3/V 06 L3	698	2.5	63700	3.2	71 to 112	N56C to N180TC	19800	25100	7300	192
	3/V 06 L3	791	2.2	65600	3.2	71 to 112	N56C to N180TC	20600	26000	7610	192
	3/V 06 L3	930	1.9	67100	2.5	71 to 112	N56C to N180TC	21600	26800	7870	192
	3/V 06 L3	992	1.8	77900	3.0	71 to 112	N56C to N180TC	22100	26800	7870	192
	3/V 06 L3	1153	1.5	69800	2.3	71 to 112	N56C to N180TC	22700	26800	7870	192
	3/V 06 L3	1212	1.4	66000	2.2	71 to 112	N56C to N180TC	22700	26800	7870	192
	3/V 06 L3	1395	1.3	72200	2.0	71 to 112	N56C to N180TC	22700	26800	7870	192
	3/V 06 L3	1768	0.99	75200	1.7	71 to 112	N56C to N180TC	22700	26800	7870	192
	3/V 06 L3	2139	0.82	75200	1.4	71 to 112	N56C to N180TC	22700	26800	7870	192
	3/V 06 L3	2588	0.68	62000	0.97	71 to 112	N56C to N180TC	22700	26800	7870	192







### 3/V 07 L3

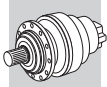
### 116,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								Permissible overhung loads			
						IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 07 L3	386	4.5	78100	6.9	80 to 132	N140TC to N210TC	18900	25400	7700	200
	3/V 07 L3	460	3.8	108900	8.3	80 to 132	N140TC to N210TC	19900	26800	8170	200
	3/V 07 L3	507	3.4	118400	8.2	80 to 132	N140TC to N210TC	20500	27600	8440	200
	3/V 07 L3	655	2.7	121300	7.1	80 to 132	N140TC to N210TC	22200	29800	9180	200
	3/V 07 L3	761	2.3	122700	6.2	80 to 132	N140TC to N210TC	23200	31100	9660	200
	3/V 07 L3	773	2.3	86200	3.9	80 to 132	N140TC to N210TC	23300	31300	9710	200
	3/V 07 L3	920	1.9	108900	4.5	80 to 132	N140TC to N210TC	24500	32600	10100	200
	3/V 07 L3	1015	1.7	124600	4.8	80 to 132	N140TC to N210TC	24500	32600	10100	200
	3/V 07 L3	1159	1.5	91600	3.0	80 to 132	N140TC to N210TC	24500	32600	10100	200
	3/V 07 L3	1288	1.4	117700	3.6	80 to 132	N140TC to N210TC	24500	32600	10100	200
	3/V 07 L3	1411	1.2	108900	3.1	80 to 132	N140TC to N210TC	24500	32600	10100	200
	3/V 07 L3	1545	1.1	95600	2.4	80 to 132	N140TC to N210TC	24500	32600	10100	200
	3/V 07 L3	1964	0.89	108900	2.3	80 to 132	N140TC to N210TC	24500	32600	10100	200
	3/V 07 L3	2150	0.81	97400	1.8	80 to 132	N140TC to N210TC	24500	32600	10100	200
	3/V 07 L3	2472	0.71	97400	1.7	80 to 132	N140TC to N210TC	24500	32600	10100	200

### 3/V 09 L3

### 170,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								Permissible overhung loads			
						IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 09 L3	370	4.7	115100	11.5	100 to 132	—	18700	25100	6080	208
	3/V 09 L3	442	4.0	147800	12.3	100 to 132	—	19700	26400	6440	208
	3/V 09 L3	507	3.4	126600	8.8	132 to 160	—	20500	27600	6750	208
	3/V 09 L3	655	2.7	154900	8.7	100 to 132	—	22200	29800	7350	208
	3/V 09 L3	761	2.3	126700	6.1	100 to 132	—	23200	31100	7720	208
	3/V 09 L3	800	2.2	183200	8.8	100 to 132	—	23500	31600	7850	208
	3/V 09 L3	840	2.1	165000	7.2	100 to 132	—	23900	32100	7980	208
	3/V 09 L3	1004	1.7	156600	6.0	100 to 132	—	24700	32600	8090	208
	3/V 09 L3	1159	1.5	139600	4.4	100 to 132	—	24700	32600	8090	208
	3/V 09 L3	1288	1.4	176900	5.3	100 to 132	—	24700	32600	8090	208
	3/V 09 L3	1497	1.2	161700	4.1	100 to 132	—	24700	32600	8090	208
	3/V 09 L3	1623	1.1	128200	3.2	100 to 112	—	24700	32600	8090	208
	3/V 09 L3	1792	0.98	185900	4.3	100 to 112	—	24700	32600	8090	208
	3/V 09 L3	2150	0.81	150500	2.7	100 to 132	—	24700	32600	8090	208
	3/V 09 L3	2472	0.71	150500	2.5	100 to 112	—	24700	32600	8090	208



**3/V □ L**

**3/V 10 L3**

**246,000 in•lbs**

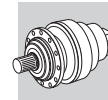
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 10 L3	<b>436</b>	4.0	236200	19.0	132 to 160	—	23600	30400	11600	218
	3/V 10 L3	<b>507</b>	3.4	228300	15.8	132 to 160	—	24700	31800	12200	218
	3/V 10 L3	<b>560</b>	3.1	216800	13.6	132 to 160	—	25500	32800	12600	218
	3/V 10 L3	<b>614</b>	2.9	192900	11.0	132 to 160	—	26200	33700	13000	218
	3/V 10 L3	<b>701</b>	2.5	187700	9.1	132 to 160	—	27200	35100	13600	218
	3/V 10 L3	<b>773</b>	2.3	191800	8.7	132 to 160	—	28100	36100	14000	218
	3/V 10 L3	<b>920</b>	1.9	192900	7.7	100 to 132	—	29600	37300	14600	218
	3/V 10 L3	<b>1004</b>	1.7	265500	10.1	100 to 132	—	29900	37300	14600	218
	3/V 10 L3	<b>1120</b>	1.6	242700	8.3	100 to 132	—	29900	37300	14600	218
	3/V 10 L3	<b>1227</b>	1.4	192900	6.0	100 to 132	—	29900	37300	14600	218
3/V 10 L3	<b>1411</b>	1.2	192900	5.2	100 to 132	—	29900	37300	14600	218	

**3/V 10 L4**

**246,000 in•lbs**





n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 10 L4	<b>1657</b>	1.1	202700	4.4	71 to 112	N56C to N180TC	29900	37300	14600	218
	3/V 10 L4	<b>1826</b>	0.96	220400	4.4	71 to 112	N56C to N180TC	29900	37300	14600	218
	3/V 10 L4	<b>2016</b>	0.87	260500	4.7	71 to 112	N56C to N180TC	29900	37300	14600	218
	3/V 10 L4	<b>2209</b>	0.79	202700	3.3	71 to 112	N56C to N180TC	29900	37300	14600	218
	3/V 10 L4	<b>2455</b>	0.71	265500	3.9	71 to 112	N56C to N180TC	29900	37300	14600	218
	3/V 10 L4	<b>2835</b>	0.62	259300	3.3	71 to 112	N56C to N180TC	29900	37300	14600	218
	3/V 10 L4	<b>3273</b>	0.53	265500	2.9	71 to 112	N56C to N180TC	29900	37300	14600	218
	3/V 10 L4	<b>3570</b>	0.49	261100	2.9	71 to 112	N56C to N180TC	29900	37300	14600	218
	3/V 10 L4	<b>4036</b>	0.43	261100	2.3	71 to 112	N56C to N180TC	29900	37300	14600	218
	3/V 10 L4	<b>4637</b>	0.38	261100	2.3	71 to 112	N56C to N180TC	29900	37300	14600	218
3/V 10 L4	<b>5081</b>	0.34	202700	1.7	71 to 112	N56C to N180TC	29900	37300	14600	218	









**3/V 11 L3**

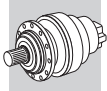
**340,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
1750	3/V 11 L3	430	4.1	341800	28	160 to 180	—	27800	35500	11500	226
	3/V 11 L3	510	3.4	305400	21	160 to 180	—	29300	37300	12200	226
	3/V 11 L3	551	3.2	309700	19.5	160 to 180	—	30000	38200	12500	226
	3/V 11 L3	644	2.7	354100	19.5	132 to 160	—	31400	40100	13200	226
	3/V 11 L3	720	2.4	324700	17.1	132 to 160	—	32500	41400	13700	226
	3/V 11 L3	827	2.1	332800	14.3	132 to 160	—	33900	43200	14300	226
	3/V 11 L3	900	1.9	337900	14.6	100 to 132	—	34700	43800	14600	226
	3/V 11 L3	1004	1.7	316300	12.6	100 to 132	—	35300	43800	14600	226
	3/V 11 L3	1103	1.6	350400	12.0	132 to 160	—	35300	43800	14600	226
	3/V 11 L3	1274	1.4	309400	9.4	100 to 132	—	35300	43800	14600	226
	3/V 11 L3	1378	1.3	364700	10.3	100 to 132	—	35300	43800	14600	226
	3/V 11 L3	1636	1.1	376000	8.9	100 to 132	—	35300	43800	14600	226
	3/V 11 L3	1963	0.89	380600	7.7	100 to 132	—	35300	43800	14600	226
	3/V 11 L3	2329	0.75	300900	5.2	100 to 132	—	35300	43800	14600	k3/V 1L3

**3/V 11 L4**

**370,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
1750	3/V 11 L4	2510	0.70	398300	5.7	80 to 132	N140TC to N210TC	35300	43800	14600	226
	3/V 11 L4	2887	0.61	398300	5.1	80 to 132	N140TC to N210TC	35300	43800	14600	226
	3/V 11 L4	3222	0.54	390300	4.4	80 to 132	N140TC to N210TC	35300	43800	14600	226
	3/V 11 L4	3557	0.49	374700	4.3	80 to 132	N140TC to N210TC	35300	43800	14600	226
	3/V 11 L4	4106	0.43	398300	4.0	80 to 132	N140TC to N210TC	35300	43800	14600	226
	3/V 11 L4	4410	0.40	380600	3.4	80 to 132	N140TC to N210TC	35300	43800	14600	226
	3/V 11 L4	5021	0.35	398300	3.2	80 to 132	N140TC to N210TC	35300	43800	14600	226


**3/V □ L**

### 3/V 13 L3

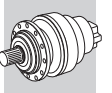
**450,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
1750	3/V 13 L3	370	4.7	350000	33	160 to 180	—	32000	39800	13500	234
	3/V 13 L3	425	4.1	406000	32	160 to 180	—	33300	41500	14100	234
	3/V 13 L3	516	3.4	460200	31	160 to 180	—	35300	44000	15100	234
	3/V 13 L3	567	3.1	417800	26	160 to 180	—	36300	45300	15600	234
	3/V 13 L3	673	2.6	424900	22	160 to 180	—	38300	47600	16500	234
	3/V 13 L3	741	2.4	405500	21	132 to 160	—	39400	49000	17000	234
	3/V 13 L3	810	2.2	384000	16.5	160 to 180	—	40400	50400	17500	234
	3/V 13 L3	870	2.0	476300	21	132 to 160	—	41300	51500	18000	234
	3/V 13 L3	1009	1.7	449700	15.8	132 to 160	—	43200	51900	18000	234
	3/V 13 L3	1088	1.6	452800	16.2	100 to 132	—	43200	51900	18000	234
	3/V 13 L3	1291	1.4	466100	14.0	100 to 132	—	43200	51900	18000	234
	3/V 13 L3	1418	1.2	472200	12.9	100 to 132	—	43200	51900	18000	234
	3/V 13 L3	1620	1.1	428400	10.0	132 to 160	—	43200	51900	18000	234
	3/V 13 L3	1682	1.0	484000	11.2	100 to 132	—	43200	51900	18000	234
	3/V 13 L3	2019	0.87	486800	9.6	100 to 132	—	43200	51900	18000	234
	3/V 13 L3	2430	0.72	433700	7.1	100 to 132	—	43200	51900	18000	234

### 3/V 13 L4





**450,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
1750	3/V 13 L4	2773	0.63	486800	6.9	80 to 132	N140TC to N210TC	43200	51900	18000	234
	3/V 13 L4	3263	0.54	486800	5.4	80 to 132	N140TC to N210TC	43200	51900	18000	234
	3/V 13 L4	3515	0.50	486800	5.0	80 to 132	N140TC to N210TC	43200	51900	18000	234
	3/V 13 L4	4046	0.43	486800	4.8	80 to 132	N140TC to N210TC	43200	51900	18000	234
	3/V 13 L4	4536	0.39	486800	4.2	80 to 132	N140TC to N210TC	43200	51900	18000	234
	3/V 13 L4	5046	0.35	469100	3.8	80 to 132	N140TC to N210TC	43200	51900	18000	234







**3/V 14 L3**

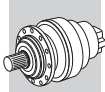
**500,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
1750	3/V 14 L3	397	4.4	407900	34	160 to 180	—	35900	43100	15500	242
	3/V 14 L3	446	3.9	421800	33	160 to 180	—	37200	44600	16200	242
	3/V 14 L3	498	3.5	511900	34	160 to 180	—	38400	46100	16800	242
	3/V 14 L3	579	3.0	485700	28	160 to 180	—	40200	48200	17600	242
	3/V 14 L3	665	2.6	611600	32	160 to 180	—	41900	50300	18500	242
	3/V 14 L3	695	2.5	380800	21	132 to 160	—	42500	51000	18700	242
	3/V 14 L3	794	2.2	436600	19.5	132 to 160	—	44200	53000	19600	242
	3/V 14 L3	893	2.0	488700	21	132 to 160	—	45700	54600	20200	242
	3/V 14 L3	997	1.8	547900	19.5	132 to 160	—	46300	54600	20200	242
	3/V 14 L3	1116	1.6	464500	16.2	100 to 132	—	46300	54600	20200	242
	3/V 14 L3	1324	1.3	551300	16.2	100 to 132	—	46300	54600	20200	242
	3/V 14 L3	1339	1.3	421800	12.6	100 to 132	—	46300	54600	20200	242
	3/V 14 L3	1589	1.1	500600	12.6	100 to 132	—	46300	54600	20200	242
	3/V 14 L3	1662	1.1	691800	16.2	100 to 132	—	46300	54600	20200	242
	3/V 14 L3	1994	0.88	628200	12.6	100 to 132	—	46300	54600	20200	242
	3/V 14 L3	2318	0.76	566400	9.7	100 to 132	—	46300	54600	20200	242

**3/V 14 L4**

**740,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
1750	3/V 14 L4	2504	0.70	743500	11.7	100 to 132	—	46300	54600	20200	242
	3/V 14 L4	2782	0.63	743500	10.2	100 to 132	—	46300	54600	20200	242
	3/V 14 L4	3182	0.55	743500	8.6	100 to 132	—	46300	54600	20200	242
	3/V 14 L4	3472	0.50	701000	7.3	132 to 160	—	46300	54600	20200	242
	3/V 14 L4	3993	0.44	701000	6.4	100 to 132	—	46300	54600	20200	242
	3/V 14 L4	4312	0.41	743500	6.8	100 to 132	—	46300	54600	20200	242
	3/V 14 L4	4959	0.35	743500	5.9	100 to 132	—	46300	54600	20200	242

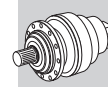
**3/V □ L****3/V 15 L3****800,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 15 L3	<b>386</b>	4.5	581400	50	132 to 225	—	35600	42700	15400	250
	3/V 15 L3	<b>446</b>	3.9	576000	45	132 to 225	—	37200	44600	16200	250
	3/V 15 L3	<b>498</b>	3.5	734500	49	132 to 225	—	38400	46100	16800	250
	3/V 15 L3	<b>560</b>	3.1	722800	45	132 to 225	—	39800	47800	17400	250
	3/V 15 L3	<b>665</b>	2.6	764500	40	132 to 225	—	41900	50300	18500	250
	3/V 15 L3	<b>840</b>	2.1	711100	30	132 to 225	—	44900	53900	20000	250
	3/V 15 L3	<b>997</b>	1.8	809400	29	132 to 225	—	46300	54600	20200	250
	3/V 15 L3	<b>1120</b>	1.6	816000	28	132 to 225	—	46300	54600	20200	250
	3/V 15 L3	<b>1329</b>	1.3	842900	24	132 to 225	—	46300	54600	20200	250
	3/V 15 L3	<b>1400</b>	1.3	769400	21	132 to 225	—	46300	54600	20200	250
	3/V 15 L3	<b>1662</b>	1.1	869800	20	132 to 225	—	46300	54600	20200	250
	3/V 15 L3	<b>1994</b>	0.88	834300	16.9	132 to 225	—	46300	54600	20200	250
	3/V 15 L3	<b>2318</b>	0.76	708100	12.3	132 to 225	—	46300	54600	20200	250

**3/V 15 L4****860,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 15 L4	<b>2780</b>	0.63	929300	12.1	132 to 160	—	46300	54600	20200	250
	3/V 15 L4	<b>3300</b>	0.53	929300	10.2	132 to 160	—	46300	54600	20200	250
	3/V 15 L4	<b>3489</b>	0.50	876200	9.1	132 to 160	—	46300	54600	20200	250
	3/V 15 L4	<b>4171</b>	0.42	929300	8.5	100 to 132	—	46300	54600	20200	250
	3/V 15 L4	<b>4950</b>	0.35	929300	7.1	100 to 132	—	46300	54600	20200	250
	3/V 15 L4	<b>5234</b>	0.33	876200	6.4	100 to 132	—	46300	54600	20200	250

3/V □ L



### 3/V 16 L3

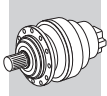
1,000,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								Permissible overhung loads			
						IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
1750	3/V 16 L3	397	4.4	882000	74	132 to 225	—	61000	67900	25900	258
	3/V 16 L3	446	3.9	826800	64	132 to 225	—	63200	70300	26900	258
	3/V 16 L3	530	3.3	954800	62	132 to 225	—	66500	74000	28500	258
	3/V 16 L3	669	2.6	743200	39	132 to 225	—	71300	79400	30800	258
	3/V 16 L3	794	2.2	882000	39	132 to 225	—	75100	83500	32700	258
	3/V 16 L3	893	2.0	891800	37	132 to 225	—	77600	86500	33700	258
	3/V 16 L3	1059	1.7	1053100	37	132 to 225	—	77600	86600	33700	258
	3/V 16 L3	1324	1.3	992300	29	132 to 225	—	77600	86600	33700	258
	3/V 16 L3	1589	1.1	992300	24	132 to 225	—	77600	86600	33700	258

### 3/V 16 L4

1,086,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								Permissible overhung loads			
						IEC input	NEMA input	NHC NPC	HZ PZ	FZ	
1750	3/V 16 L4	1826	0.96	958500	19.0	132 to 160	—	77600	86600	33700	258
	3/V 16 L4	2167	0.81	1137500	19.0	132 to 160	—	77600	86600	33700	258
	3/V 16 L4	2343	0.75	1194900	18.5	132 to 160	—	77600	86600	33700	258
	3/V 16 L4	2738	0.64	1010100	14.0	100 to 132	—	77600	86600	33700	258
	3/V 16 L4	3250	0.54	1168300	13.7	100 to 132	—	77600	86600	33700	258
	3/V 16 L4	3514	0.50	1194900	12.9	100 to 132	—	77600	86600	33700	258
	3/V 16 L4	4171	0.42	1168300	10.7	100 to 132	—	77600	86600	33700	258
	3/V 16 L4	4950	0.35	1097500	8.4	100 to 132	—	77600	86600	33700	258



**3/V □ L**

**3/V 17 L3**

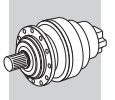
**1,300,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP		IEC IEC input		NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
										NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 17 L3	405	4.3	1037600	84	132 to 225	—	78900	84000	26100	266		
	3/V 17 L3	425	4.1	944300	74	132 to 225	—	80100	85200	26500	266		
	3/V 17 L3	512	3.4	1136600	74	132 to 225	—	84600	90100	28200	266		
	3/V 17 L3	567	3.1	1050500	64	132 to 225	—	87300	92900	29200	266		
	3/V 17 L3	608	2.9	1094600	60	132 to 225	—	89100	94900	29900	266		
	3/V 17 L3	683	2.6	1264500	64	132 to 225	—	92300	98200	31000	266		
	3/V 17 L3	810	2.2	1140400	48	132 to 225	—	97100	103400	32900	266		
	3/V 17 L3	851	2.1	944300	39	132 to 225	—	98600	104900	33400	266		
	3/V 17 L3	1024	1.7	1136600	39	132 to 225	—	99400	105700	33700	266		
	3/V 17 L3	1134	1.5	1133100	37	132 to 225	—	99400	105700	33700	266		
	3/V 17 L3	1215	1.4	1213600	35	132 to 225	—	99400	105700	33700	266		
	3/V 17 L3	1365	1.3	1364000	37	132 to 225	—	99400	105700	33700	266		

**3/V 17 L4**





**1,480,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP		IEC IEC input		NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
										NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 17 L4	1780	0.98	1593100	32	132 to 225	—	99400	105700	33700	266		
	3/V 17 L4	2065	0.85	1584300	27	132 to 225	—	99400	105700	33700	266		
	3/V 17 L4	2485	0.70	1371900	19.1	132 to 225	—	99400	105700	33700	266		
	3/V 17 L4	2773	0.63	1472900	21	132 to 225	—	99400	105700	33700	266		
	3/V 17 L4	3168	0.55	1593100	18.4	132 to 225	—	99400	105700	33700	266		
	3/V 17 L4	3583	0.49	1504600	15.0	132 to 225	—	99400	105700	33700	266		
	3/V 17 L4	4129	0.42	1584300	14.1	132 to 225	—	99400	105700	33700	266		
	3/V 17 L4	4449	0.39	1593100	14.3	132 to 225	—	99400	105700	33700	266		
	3/V 17 L4	4970	0.35	1371900	10.1	132 to 225	—	99400	105700	33700	266		







### 3/V 18 L4

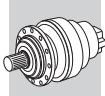
### 2,000,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 18 L4	<b>765</b>	2.3	1637500	73	132 to 225	—	113100	122300	43000	274
	3/V 18 L4	<b>982</b>	1.8	2101400	73	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>1165</b>	1.5	2212700	65	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>1232</b>	1.4	2212700	61	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>1473</b>	1.2	2212700	52	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>1748</b>	1.0	2212700	44	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>1848</b>	0.95	2212700	41	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>2295</b>	0.76	1884600	30	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>2464</b>	0.71	2212700	32	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>2945</b>	0.59	2212700	28	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>3495</b>	0.50	2212700	23	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>3696</b>	0.47	2212700	22	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>4386</b>	0.40	2212700	18.5	132 to 225	—	113100	127000	45000	274
	3/V 18 L4	<b>5099</b>	0.34	2159600	15.5	132 to 225	—	113100	127000	45000	274

### 3/V 19 L4

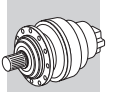
### 2,800,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/V 19 L4	<b>2582</b>	0.68	3097800	43	132 to 225	—	143400	157800	45000	282
	3/V 19 L4	<b>3231</b>	0.54	3009300	33	132 to 225	—	143400	157800	45000	282
	3/V 19 L4	<b>4095</b>	0.43	3097800	28	132 to 225	—	143400	157800	45000	282
	3/V 19 L4	<b>4457</b>	0.39	3009300	24	132 to 225	—	143400	157800	45000	282
	3/V 19 L4	<b>5164</b>	0.34	3097800	23	132 to 225	—	143400	157800	45000	282

**3/V □ L****3/V 21 L4****4,200,000 in•lbs**

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP		IEC IEC input		NEMA NEMA input	Rn <sub>2</sub> [lbs]			
										Permissible overhung loads			
										NHC NPC	HZ PZ	FZ	
<b>1750</b>	<b>3/V 21 L4</b>	<b>1062</b>	1.6	3920200	123	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>1260</b>	1.4	3765600	101	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>1517</b>	1.2	4532700	101	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>1800</b>	0.97	4407700	83	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>1890</b>	0.93	4070900	74	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>2275</b>	0.77	4779400	73	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>2520</b>	0.69	4528900	64	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>2700</b>	0.65	4407700	56	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>3600</b>	0.49	4407700	43	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>3780</b>	0.46	4070900	39	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>4550</b>	0.38	4779400	38	132 to 225	—	175100	207500	269800	290		
	<b>3/V 21 L4</b>	<b>5040</b>	0.35	4779400	37	132 to 225	—	175100	207500	269800	290		





## 23.0 - SPEED REDUCER RATING CHARTS: 3/A (bevel helical/planetary)

Reading the rating chart

3/A 00 L2							5,500 in•lbs				
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	IEC IEC input	NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
1750	3/A 00 L2	19.1	91	2190	3.5	63 to 112	N56C to N180TC	2120	2520	500	152
	3/A 00 L2	23.4	75	2690	3.5	63 to 112	N56C to N180TC	2250	2680	540	152
	3/A 00 L2	31.7	55	3640	3.5	63 to 112	N56C to N180TC	2470	2930	600	152
	3/A 00 L2	39.6	44	4540	3.5	63 to 112	N56C to N180TC	2640	3130	640	152
	3/A 00 L2	41.5	42	4590	3.4	63 to 112	N56C to N180TC	2680	3180	650	152

- 1 Gearbox max. transmissible torque

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- 2 Gearbox drive speed

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- 3 Frame size of combined planetary+bevel helical unit

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- 4 Gear ratio

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- 5 Gearbox output speed

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- 6 Gearbox rated output torque

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- 7 Gearbox rated input power

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- 8 Frame size of available IEC motor

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- 9 Frame size of available NEMA motor

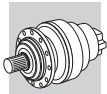
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- 10 Permissible overhung load on output shaft

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- 11 Page showing installation drawings and dimensions.





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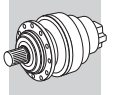


**3/A □ L**

**3/A 00 L2**





**5,500 in·lbs**

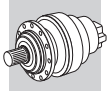
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in·lbs	Pn <sub>1</sub> rate power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/A 00 L2	<b>19.1</b>	91	2190	3.5	63 to 112	N56C to N180TC	2120	2520	500	152
	3/A 00 L2	<b>23.4</b>	75	2690	3.5	63 to 112	N56C to N180TC	2250	2680	540	152
	3/A 00 L2	<b>31.7</b>	55	3640	3.5	63 to 112	N56C to N180TC	2470	2930	600	152
	3/A 00 L2	<b>39.6</b>	44	4540	3.5	63 to 112	N56C to N180TC	2640	3130	640	152
	3/A 00 L2	<b>41.5</b>	42	4590	3.4	63 to 112	N56C to N180TC	2680	3180	650	152
	3/A 00 L2	<b>51.8</b>	34	4870	2.9	63 to 112	N56C to N180TC	2860	3390	700	152
	3/A 00 L2	<b>61.2</b>	28.6	5750	2.9	63 to 112	N56C to N180TC	3010	3570	740	152
	3/A 00 L2	<b>71.0</b>	24.7	5750	2.5	63 to 112	N56C to N180TC	3140	3730	780	152
	3/A 00 L2	<b>80.2</b>	21.8	5750	2.2	63 to 112	N56C to N180TC	3260	3870	810	152
	3/A 00 L2	<b>88.6</b>	19.8	4870	1.7	63 to 112	N56C to N180TC	3360	3990	840	152
	3/A 00 L2	<b>100</b>	17.5	4870	1.5	63 to 112	N56C to N180TC	3480	4130	870	152
	3/A 00 L2	<b>107</b>	16.3	5750	1.6	63 to 112	N56C to N180TC	3560	4220	890	152
	3/A 00 L2	<b>134</b>	13.1	4870	1.1	63 to 112	N56C to N180TC	3800	4510	960	152
	3/A 00 L2	<b>171</b>	10.2	4870	0.87	63 to 112	N56C to N180TC	4090	4860	1040	152
	3/A 00 L2	<b>203</b>	8.6	5750	0.87	63 to 112	N56C to N180TC	4300	5110	1100	152
	3/A 00 L2	<b>219</b>	8.0	5500	0.77	63 to 112	N56C to N180TC	4400	5230	1130	152
	3/A 00 L2	<b>253</b>	6.9	4870	0.59	63 to 112	N56C to N180TC	4600	5460	1190	152
	3/A 00 L2	<b>296</b>	5.9	5750	0.59	63 to 112	N56C to N180TC	4820	5720	1250	152
	3/A 00 L2	<b>319</b>	5.5	3880	0.37	63 to 71	N56C	4930	5850	1280	152
	3/A 00 L2	<b>369</b>	4.7	4900	0.40	63 to 112	N56C to N180TC	5150	6120	1350	152
	3/A 00 L2	<b>391</b>	4.5	4760	0.37	63 to 71	N56C	5240	6220	1370	152
	3/A 00 L2	<b>441</b>	4.0	5980	0.41	63 to 71	N56C	5440	6450	1430	152
	3/A 00 L2	<b>550</b>	3.2	5150	0.29	63 to 71	N56C	5810	6890	1540	152
	3/A 00 L2	<b>660</b>	2.7	5270	0.24	63 to 71	N56C	6130	7280	1640	152







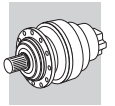
## 3/A 01 L2

11,000 in•lbs

n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/A 01 L2	18.8	93	3410	5.5	80 to 112	N140TC to N180TC	2110	2500	500	160
	3/A 01 L2	23.0	76	4180	5.5	80 to 112	N140TC to N180TC	2240	2660	530	160
	3/A 01 L2	31.2	56	5650	5.5	80 to 112	N140TC to N180TC	2450	2910	590	160
	3/A 01 L2	35.8	49	6720	5.7	80 to 112	N140TC to N180TC	2560	3040	620	160
	3/A 01 L2	40.1	44	5290	4.0	63 to 112	N56C to N180TC	2650	3140	640	160
	3/A 01 L2	43.9	40	8230	5.7	80 to 112	N140TC to N180TC	2720	3230	660	160
	3/A 01 L2	49.1	36	7330	4.5	63 to 112	N56C to N180TC	2810	3340	690	160
	3/A 01 L2	54.2	32	7160	4.0	63 to 112	N56C to N180TC	2900	3440	710	160
	3/A 01 L2	59.4	29.4	11100	5.7	80 to 112	N140TC to N180TC	2980	3540	730	160
	3/A 01 L2	74.2	23.6	10200	4.2	80 to 112	N140TC to N180TC	3180	3780	790	160
	3/A 01 L2	81.3	21.5	11500	4.3	63 to 112	N56C to N180TC	3270	3890	810	160
	3/A 01 L2	102	17.2	10200	3.1	63 to 112	N56C to N180TC	3500	4150	880	160
	3/A 01 L2	133	13.1	11500	2.6	63 to 112	N56C to N180TC	3800	4510	960	160
	3/A 01 L2	166	10.5	10200	1.9	63 to 112	N56C to N180TC	4060	4820	1030	160
	3/A 01 L2	184	9.5	9140	1.5	63 to 112	N56C to N180TC	4180	4960	1070	160
	3/A 01 L2	204	8.6	11500	1.7	63 to 112	N56C to N180TC	4320	5120	1110	160
	3/A 01 L2	220	8.0	7330	1.0	63 to 112	N56C to N180TC	4410	5230	1130	160
	3/A 01 L2	255	6.9	10200	1.2	63 to 112	N56C to N180TC	4610	5470	1190	160
	3/A 01 L2	269	6.5	8970	1.0	63 to 112	N56C to N180TC	4690	5560	1210	160
	3/A 01 L2	311	5.6	10200	1.00	63 to 112	N56C to N180TC	4900	5810	1270	160
3/A 01 L2	364	4.8	11600	0.97	63 to 112	N56C to N180TC	5130	6090	1340	160	
3/A 01 L2	393	4.4	7320	0.57	63 to 71	N56C	5250	6230	1380	160	
3/A 01 L2	454	3.9	10200	0.68	63 to 112	N56C to N180TC	5490	6510	1450	160	
3/A 01 L2	533	3.3	9910	0.57	63 to 71	N56C	5750	6830	1520	160	
3/A 01 L2	665	2.6	10200	0.47	63 to 71	N56C	6150	7300	1640	160	





**3/A □ L****3/A 03 L2****17,500 in•lbs**

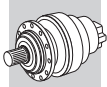
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	<b>3/A 03 L2</b>	<b>19.4</b>	90	6810	10.7	80 to 112	N140TC to N180TC	4190	5410	1520	168
	<b>3/A 03 L2</b>	<b>23.0</b>	76	8040	10.7	80 to 112	N140TC to N180TC	4400	5680	1600	168
	<b>3/A 03 L2</b>	<b>28.8</b>	61	10100	10.7	80 to 112	N140TC to N180TC	4710	6080	1730	168
	<b>3/A 03 L2</b>	<b>33.5</b>	52	11700	10.7	80 to 112	N140TC to N180TC	4930	6360	1820	168
	<b>3/A 03 L2</b>	<b>40.5</b>	43	14200	10.7	80 to 112	N140TC to N180TC	5220	6740	1940	168
	<b>3/A 03 L2</b>	<b>43.4</b>	40	13100	9.2	80 to 112	N140TC to N180TC	5330	6880	1980	168
	<b>3/A 03 L2</b>	<b>52.5</b>	33	14600	8.5	80 to 112	N140TC to N180TC	5640	7280	2110	168
	<b>3/A 03 L2</b>	<b>52.5</b>	33	14600	8.5	80 to 112	N140TC to N180TC	5640	7280	2110	168
	<b>3/A 03 L2</b>	<b>62.9</b>	27.8	13300	6.4	63 to 112	N56C to N180TC	5960	7690	2240	168
	<b>3/A 03 L2</b>	<b>73.2</b>	23.9	15500	6.4	63 to 112	N56C to N180TC	6230	8050	2360	168
	<b>3/A 03 L2</b>	<b>88.5</b>	19.8	14600	5.0	63 to 112	N56C to N180TC	6600	8520	2510	168
	<b>3/A 03 L2</b>	<b>96.9</b>	18.1	15000	4.7	63 to 112	N56C to N180TC	6780	8750	2590	168
	<b>3/A 03 L2</b>	<b>182</b>	9.6	15900	2.7	63 to 112	N56C to N180TC	8180	10600	3190	168
	<b>3/A 03 L2</b>	<b>220</b>	8.0	14600	2.0	63 to 112	N56C to N180TC	8670	11200	3400	168
	<b>3/A 03 L2</b>	<b>269</b>	6.5	15900	1.8	63 to 112	N56C to N180TC	9210	11900	3640	168
	<b>3/A 03 L2</b>	<b>269</b>	6.5	15900	1.8	63 to 112	N56C to N180TC	9210	11900	3640	168
	<b>3/A 03 L2</b>	<b>326</b>	5.4	14600	1.4	63 to 112	N56C to N180TC	9750	12600	3880	168
	<b>3/A 03 L2</b>	<b>352</b>	5.0	17800	1.5	63 to 112	N56C to N180TC	9980	12900	3980	168
	<b>3/A 03 L2</b>	<b>409</b>	4.3	16300	1.2	63 to 112	N56C to N180TC	10400	13500	4190	168
	<b>3/A 03 L2</b>	<b>495</b>	3.5	15000	0.93	63 to 112	N56C to N180TC	11100	14300	4460	168
	<b>3/A 03 L2</b>	<b>574</b>	3.1	15200	0.81	63 to 112	N56C to N180TC	11600	14900	4690	168
	<b>3/A 03 L2</b>	<b>605</b>	2.9	16000	0.81	63 to 112	N56C to N180TC	11700	15200	4770	168
	<b>3/A 03 L2</b>	<b>731</b>	2.4	15600	0.65	63 to 112	N56C to N180TC	12400	16100	5080	168



**3/A 04 L2**

**25,000 in·lbs**

n <sub>1</sub> drive speed  rpm		i gear ratio  1:	n <sub>2</sub> output speed  rpm	Tn <sub>2</sub> rated torque  in·lbs	Pn <sub>1</sub> rated power  HP	 IEC  IEC input	 NEMA  NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/A 04 L2	18.7	93	17000	28	80 to 132	N140TC to N210TC	4140	5350	1500	176
	3/A 04 L2	22.1	79	20100	28	80 to 132	N140TC to N210TC	4350	5620	1580	176
	3/A 04 L2	25.6	68	17000	20	80 to 132	N140TC to N210TC	4540	5870	1660	176
	3/A 04 L2	27.7	63	23300	26	80 to 132	N140TC to N210TC	4660	6010	1710	176
	3/A 04 L2	30.2	58	20100	20	80 to 132	N140TC to N210TC	4780	6170	1760	176
	3/A 04 L2	35.3	50	20100	17.3	80 to 132	N140TC to N210TC	5010	6460	1850	176
	3/A 04 L2	39.1	45	20100	15.6	80 to 132	N140TC to N210TC	5160	6670	1910	176
	3/A 04 L2	44.3	40	20100	13.8	80 to 132	N140TC to N210TC	5360	6920	2000	176
	3/A 04 L2	49.7	35	20100	12.3	63 to 132	N56C to N210TC	5550	7170	2070	176
	3/A 04 L2	54.5	32	20100	11.2	80 to 132	N140TC to N210TC	5700	7370	2140	176
	3/A 04 L2	62.4	28.0	24500	12.0	63 to 132	N56C to N210TC	5940	7670	2240	176
	3/A 04 L2	68.4	25.6	25200	11.2	63 to 132	N56C to N210TC	6110	7890	2310	176
	3/A 04 L2	81.7	21.4	21000	7.8	63 to 132	N56C to N210TC	6440	8320	2450	176
	3/A 04 L2	90.7	19.3	20300	6.8	80 to 132	N56C to N210TC	6640	8580	2530	176
	3/A 04 L2	102	17.2	22600	6.7	63 to 132	N56C to N210TC	6880	8890	2630	176
	3/A 04 L2	117	15.0	20300	5.3	63 to 132	N56C to N210TC	7170	9260	2760	176
	3/A 04 L2	129	13.5	24100	5.7	63 to 132	N56C to N210TC	7390	9540	2850	176
	3/A 04 L2	149	11.7	20300	4.1	63 to 132	N56C to N210TC	7720	9960	2990	176
	3/A 04 L2	162	10.8	25700	4.8	63 to 132	N56C to N210TC	7910	10200	3080	176
	3/A 04 L2	174	10.1	25700	4.5	63 to 112	N56C to N180TC	8080	10400	3150	176
	3/A 04 L2	205	8.5	25700	3.8	63 to 112	N56C to N180TC	8490	11000	3330	176
	3/A 04 L2	226	7.8	31000	4.2	63 to 112	N56C to N180TC	8740	11300	3430	176
	3/A 04 L2	250	7.0	31000	3.8	63 to 112	N56C to N180TC	9010	11600	3550	176
	3/A 04 L2	283	6.2	24800	2.7	63 to 112	N56C to N180TC	9350	12100	3700	176
	3/A 04 L2	317	5.5	20300	1.9	63 to 112	N56C to N180TC	9680	12500	3850	176
	3/A 04 L2	349	5.0	20300	1.8	63 to 112	N56C to N180TC	9960	12900	3970	176
	3/A 04 L2	386	4.5	20400	1.6	63 to 112	N56C to N180TC	10300	13300	4110	176
	3/A 04 L2	469	3.7	20700	1.3	63 to 112	N56C to N180TC	10900	14000	4380	176
	3/A 04 L2	520	3.4	20800	1.2	63 to 112	N56C to N180TC	11200	14500	4540	176

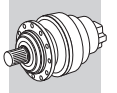


3/A  L

**3/A 05 L2**





**35,000 in•lbs**

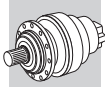
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP			Rn <sub>2</sub> [lbs]			
								Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/A 05 L2	18.7	93	17000	28	80 to 132	N140TC to N210TC	4140	5350	1500	184
	3/A 05 L2	22.1	79	20100	28	80 to 132	N140TC to N210TC	4350	5620	1580	184
	3/A 05 L2	27.7	63	25200	28	80 to 132	N140TC to N210TC	4660	6010	1710	184
	3/A 05 L2	32.2	54	29300	28	80 to 132	N140TC to N210TC	4870	6290	1800	184
	3/A 05 L2	39.0	45	26600	21	80 to 132	N140TC to N210TC	5160	6660	1910	184
	3/A 05 L2	44.0	40	29300	20	80 to 132	N140TC to N210TC	5350	6910	1990	184
	3/A 05 L2	53.3	33	26800	15.3	80 to 132	N140TC to N210TC	5660	7310	2120	184
	3/A 05 L2	57.0	31	29300	15.6	80 to 132	N140TC to N210TC	5780	7470	2170	184
	3/A 05 L2	62.6	27.9	28400	13.8	80 to 132	N140TC to N210TC	5950	7680	2240	184
	3/A 05 L2	72.5	24.1	29300	12.3	63 to 132	N56C to N210TC	6210	8030	2350	184
	3/A 05 L2	75.8	23.1	27000	10.8	80 to 132	N140TC to N210TC	6300	8130	2390	184
	3/A 05 L2	85.6	20.5	31200	11.1	80 to 132	N140TC to N210TC	6530	8430	2490	184
	3/A 05 L2	104	16.9	27100	8.0	80 to 132	N140TC to N210TC	6910	8930	2650	184
	3/A 05 L2	121	14.5	31100	7.8	63 to 132	N56C to N210TC	7250	9360	2790	184
	3/A 05 L2	141	12.4	31800	6.9	63 to 132	N56C to N210TC	7580	9790	2930	184
	3/A 05 L2	162	10.8	25700	4.8	63 to 132	N56C to N210TC	7910	10200	3080	184
	3/A 05 L2	175	10.0	31900	5.5	63 to 132	N56C to N210TC	8100	10500	3160	184
	3/A 05 L2	212	8.2	27400	3.9	63 to 132	N56C to N210TC	8580	11100	3360	184
	3/A 05 L2	212	8.2	27400	3.9	63 to 132	N56C to N210TC	8580	11100	3360	184
	3/A 05 L2	241	7.3	38000	4.8	63 to 132	N56C to N210TC	8900	11500	3510	184
	3/A 05 L2	280	6.3	31900	3.5	63 to 132	N56C to N210TC	9320	12000	3690	184
	3/A 05 L2	329	5.3	31900	2.9	63 to 112	N56C to N180TC	9780	12600	3900	184
	3/A 05 L2	398	4.4	27800	2.1	63 to 112	N56C to N180TC	10400	13400	4150	184
	3/A 05 L2	422	4.1	36600	2.6	63 to 112	N56C to N180TC	10500	13600	4230	184
	3/A 05 L2	491	3.6	33300	2.1	63 to 112	N56C to N180TC	11000	14200	4450	184
	3/A 05 L2	594	2.9	28800	1.5	63 to 112	N56C to N180TC	11700	15100	4740	184



**3/A 06 L2**

**63,000 in·lbs**





n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in·lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/A 06 L2	27.7	63	21700	24	80 to 180	N140TC to N280TC	7540	9520	2490	192
	3/A 06 L2	32.7	53	25600	24	80 to 180	N140TC to N280TC	7930	10000	2630	192
	3/A 06 L2	34.9	50	23200	20	80 to 180	N140TC to N280TC	8080	10200	2690	192
	3/A 06 L2	41.1	43	32100	24	80 to 180	N140TC to N280TC	8480	10700	2840	192
	3/A 06 L2	47.2	37	23200	15.0	80 to 180	N140TC to N280TC	8840	11200	2970	192
	3/A 06 L2	51.7	34	34300	20	80 to 180	N140TC to N280TC	9090	11500	3070	192
	3/A 06 L2	55.7	31	27400	15.0	80 to 180	N140TC to N280TC	9300	11700	3140	192
	3/A 06 L2	60.1	29.1	39900	20	80 to 180	N140TC to N280TC	9510	12000	3220	192
	3/A 06 L2	69.9	25.0	34300	15.0	80 to 180	N140TC to N280TC	9950	12600	3390	192
	3/A 06 L2	81.2	21.5	39900	15.0	80 to 180	N140TC to N280TC	10400	13100	3560	192
	3/A 06 L2	88.5	19.8	36600	12.6	80 to 180	N140TC to N280TC	10700	13500	3670	192
	3/A 06 L2	98.3	17.8	46000	14.3	80 to 180	N140TC to N280TC	11000	13900	3800	192
	3/A 06 L2	112	15.6	54800	15.4	80 to 180	N140TC to N280TC	11500	14500	3970	192
	3/A 06 L2	125	14.1	47100	11.5	80 to 180	N140TC to N280TC	11800	14900	4110	192
	3/A 06 L2	141	12.4	66200	14.8	80 to 180	N140TC to N280TC	12300	15500	4280	192
	3/A 06 L2	164	10.7	57200	11.0	80 to 180	N140TC to N280TC	12800	16200	4500	192
	3/A 06 L2	190	9.2	68800	11.4	80 to 180	N140TC to N280TC	13400	17000	4730	192
	3/A 06 L2	198	8.8	48700	7.7	80 to 180	N140TC to N280TC	13600	17200	4790	192
	3/A 06 L2	221	7.9	57500	8.2	80 to 180	N140TC to N280TC	14100	17700	4970	192
	3/A 06 L2	267	6.6	48700	5.7	80 to 180	N140TC to N280TC	14900	18800	5300	192
	3/A 06 L2	276	6.3	68800	7.8	63 to 180	N56C to N280TC	15000	19000	5350	192
	3/A 06 L2	321	5.5	57500	5.6	63 to 180	N56C to N280TC	15700	19800	5630	192
	3/A 06 L2	388	4.5	49200	4.0	63 to 180	N56C to N280TC	16600	21000	6000	192
	3/A 06 L2	380	4.6	54800	4.5	63 to 180	N56C to N280TC	16500	20900	5960	192
	3/A 06 L2	435	4.0	68800	5.0	63 to 180	N56C to N280TC	17200	21700	6230	192
	3/A 06 L2	505	3.5	60700	3.8	63 to 180	N56C to N280TC	18000	22700	6550	192
	3/A 06 L2	555	3.2	61600	3.5	63 to 180	N56C to N280TC	18500	23400	6760	192
	3/A 06 L2	611	2.9	51500	2.7	63 to 180	N56C to N280TC	19100	24100	6980	192
	3/A 06 L2	671	2.6	52000	2.4	63 to 180	N56C to N280TC	19600	24800	7200	192



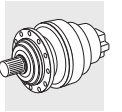
**3/A □ L**

**3/A 07 L2**

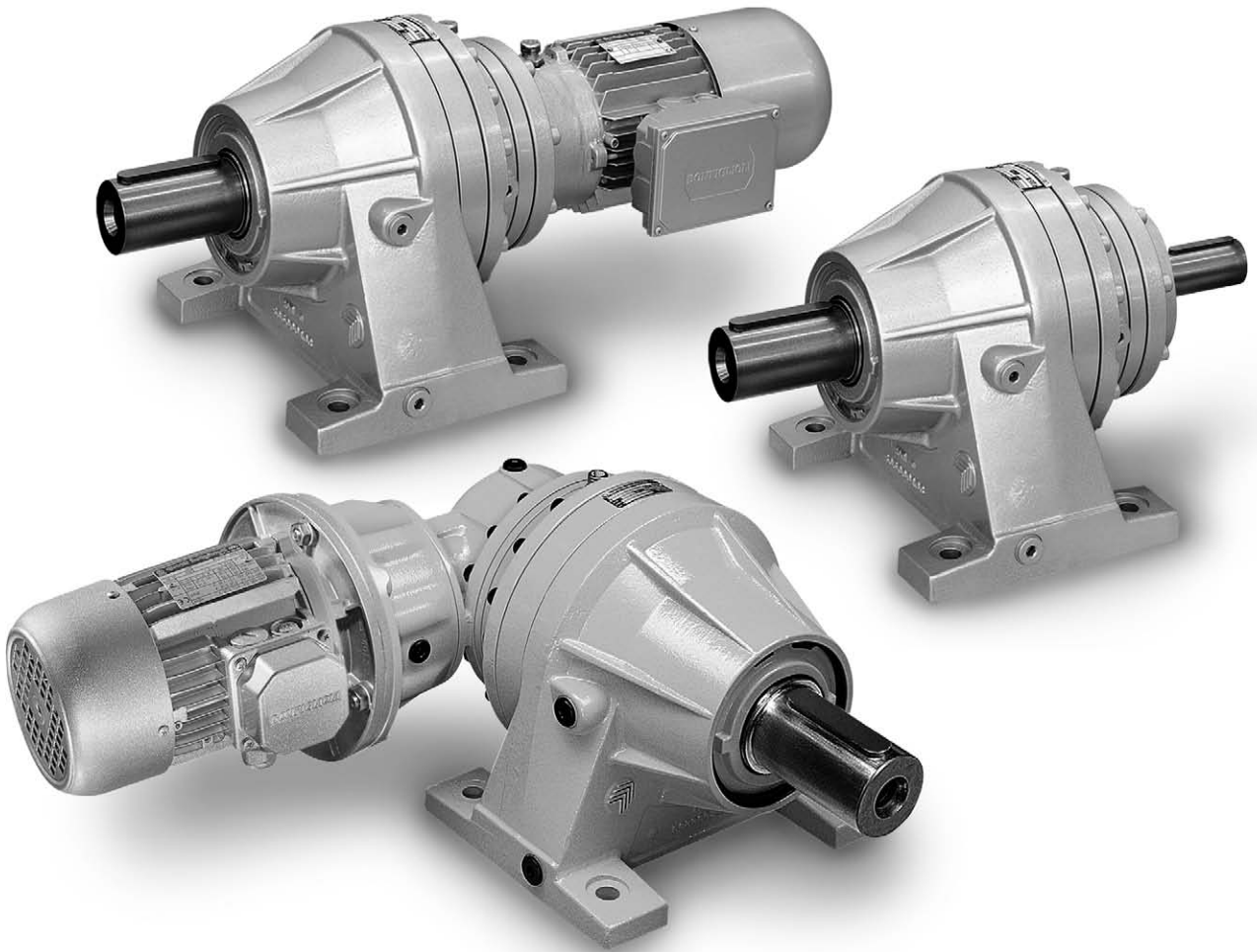
**91,000 in•lbs**

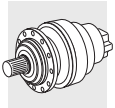
n <sub>1</sub> drive speed rpm		i gear ratio 1:	n <sub>2</sub> output speed rpm	Tn <sub>2</sub> rated torque in•lbs	Pn <sub>1</sub> rated power HP	 IEC IEC input	 NEMA NEMA input	Rn <sub>2</sub> [lbs] Permissible overhung loads			
								NHC NPC	HZ PZ	FZ	
<b>1750</b>	3/A 07 L2	27.1	65	35300	40	132 to 180	N210TC to N280TC	8520	11400	3180	200
	3/A 07 L2	32.3	54	42100	40	132 to 180	N210TC to N280TC	8990	12100	3370	200
	3/A 07 L2	41.5	42	54000	40	132 to 180	N210TC to N280TC	9680	13000	3660	200
	3/A 07 L2	49.2	36	64100	40	132 to 180	N210TC to N280TC	10200	13700	3880	200
	3/A 07 L2	57.3	31	38200	20	80 to 180	N140TC to N280TC	10700	14300	4080	200
	3/A 07 L2	68.3	25.6	45600	20	80 to 180	N140TC to N280TC	11200	15100	4320	200
	3/A 07 L2	87.7	20.0	58600	20	80 to 180	N140TC to N280TC	12100	16300	4700	200
	3/A 07 L2	109	16.1	76900	22	80 to 180	N140TC to N280TC	12900	17400	5050	200
	3/A 07 L2	130	13.5	98400	24	80 to 180	N140TC to N280TC	13600	18300	5350	200
	3/A 07 L2	140	12.5	98400	22	80 to 180	N140TC to N280TC	14000	18700	5500	200
	3/A 07 L2	155	11.3	79000	16.0	80 to 180	N140TC to N280TC	14400	19300	5680	200
	3/A 07 L2	180	9.7	93000	16.2	80 to 180	N140TC to N280TC	15000	20200	5970	200
	3/A 07 L2	198	8.9	77000	12.3	80 to 180	N140TC to N280TC	15500	20800	6160	200
	3/A 07 L2	223	7.9	79700	11.2	80 to 180	N140TC to N280TC	16000	21500	6410	200
	3/A 07 L2	241	7.3	79700	10.4	80 to 180	N140TC to N280TC	16400	22100	6590	200
	3/A 07 L2	282	6.2	77000	8.6	80 to 180	N140TC to N280TC	17200	23100	6930	200
	3/A 07 L2	341	5.1	94600	8.7	80 to 180	N140TC to N280TC	18200	24500	7390	200
	3/A 07 L2	405	4.3	78600	6.1	80 to 180	N140TC to N280TC	19200	25800	7830	200
3/A 07 L2	439	4.0	79500	5.7	80 to 180	N140TC to N280TC	19700	26400	8040	200	





## 24.0 - INSTALLATION DRAWINGS





300

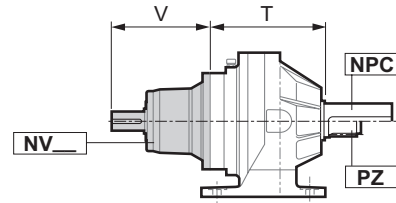
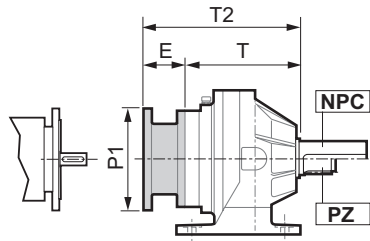
NPC

PZ

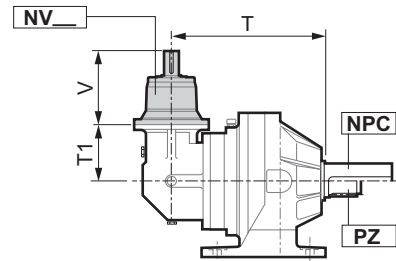
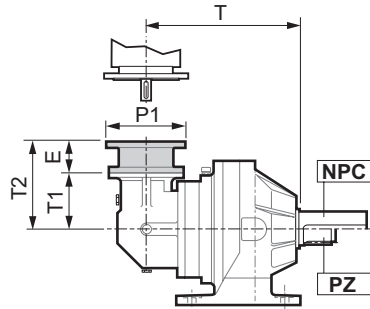
NEMA input

Solid input shaft

300 L



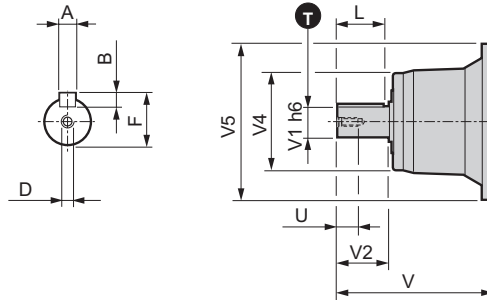
300 R



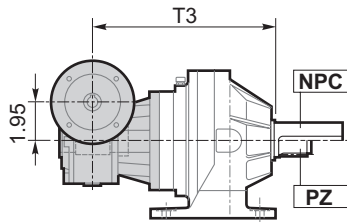
300 L1, L2, L3, L4 300 R2, R3, R4		
Solid input shaft		
	NV01A	NV01B
V	6.00	6.44
V1	1.125	1.625
V2	2.00	2.50
V4	4.72	4.72
V5	7.32	7.32
A	0.250	0.375
B	0.250	0.375
F	1.236	1.791
L	1.75	2.00
D	3/8 - 16UNC	1/2 - 13UNC
U	0.87	1.10
Lbs	13.2	15.4

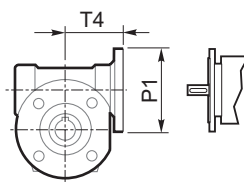
(mm)	inch	T
—	1.125 h6	<sup>0</sup> / <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> / <sub>-0.00063</sub>



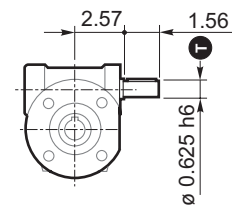
3/V 00 L3



NEMA input

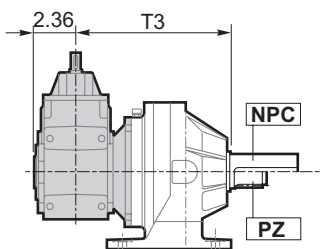


Solid input shaft

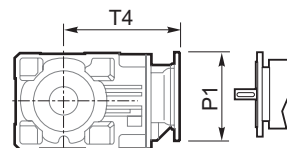


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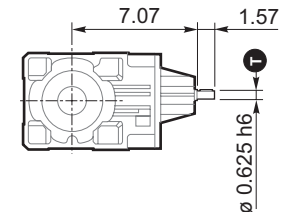
3/A 00 L2



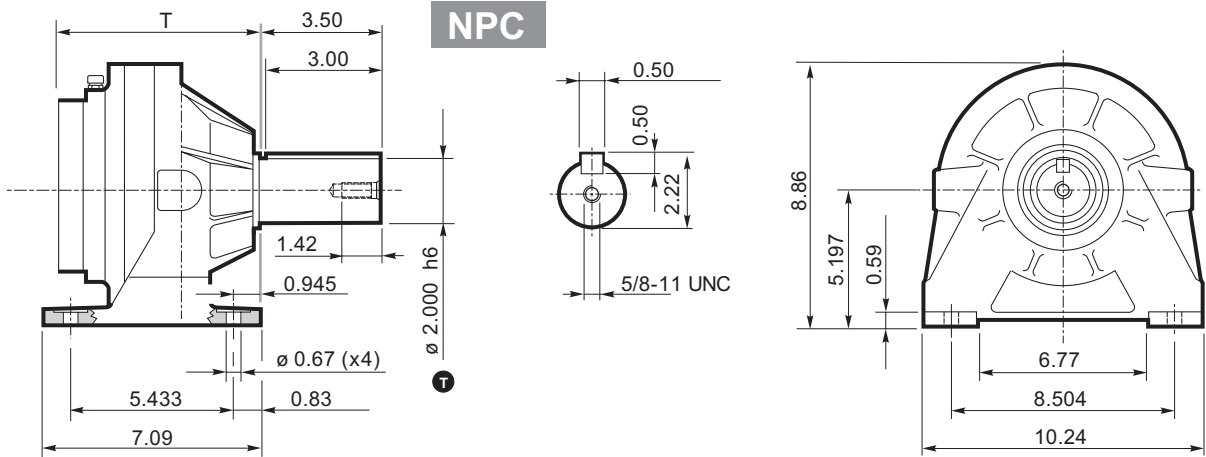
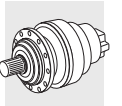
NEMA input



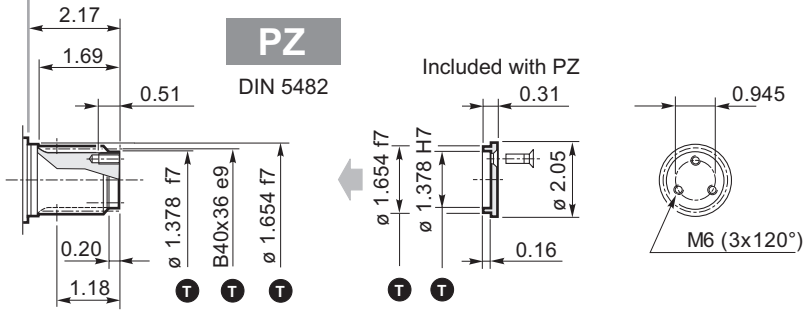
Solid input shaft



298



(mm)	inch	T
—	0.625 h6	0 -0.00043
—	0.750 h6	0 -0.00051
(35)	1.378 f7	-0.00098 -0.00197
(35)	1.378 H7	+0.00098 0
(42)	1.654 f7	-0.00098 -0.00197
—	2.000 h6	0 -0.00075
B40x36 e9		DIN 5482



		300 L1	300 L2	300 L3	300 L4	300 R2	300 R3	300 R4
T		4.77	6.85	8.94	11.03	8.39	10.47	12.56
T1		—	—	—	—	4.80	4.80	4.80
Lbs		50.7	59.5	68.4	77.2	81.6	90.4	99.2

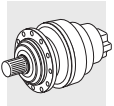
  

NEMA Input									
	P1	E	T2						
N56C	9.84	4.51	9.27	11.36	13.45	15.53	9.31	9.31	9.31
N140TC	9.84	4.51	9.27	11.36	13.45	15.53	9.31	9.31	9.31
N180TC	8.82	5.22	9.98	12.07	14.16	16.24	10.02	10.02	10.02
N210TC	8.82	5.22	9.98	12.07	14.16	16.24	10.02	10.02	10.02
N250TC	8.82	5.22	9.98	12.07	14.16	16.24	10.02	10.02	10.02
N280TC	11.81	6.28	11.05	13.13	15.22	17.31	11.08	11.08	11.08

		3/V 00 L3	3/A 00 L2
T3			
		11.66	9.21
Lbs		66.2	94.8

	P1	T4	P1	T4
	6.54	3.48	6.50	9.15
	—	—	6.50	9.15
	—	—	9.00	9.90
	—	—	—	—
	—	—	—	—
	—	—	—	—



**300**

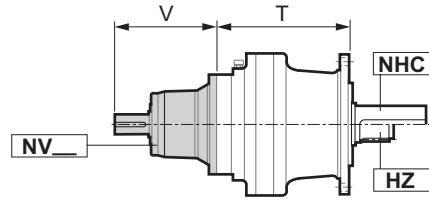
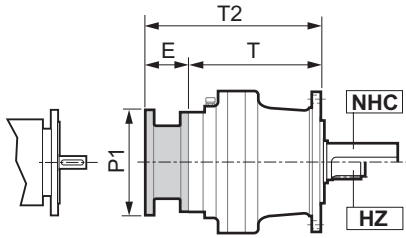
**NHC**

**HZ**

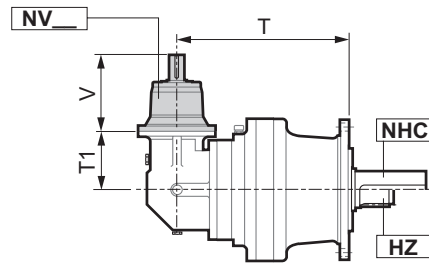
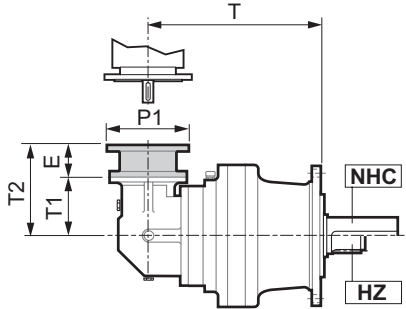
**NEMA input**

**Solid input shaft**

**300 L**



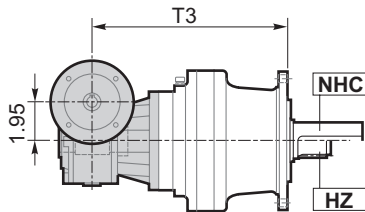
**300 R**



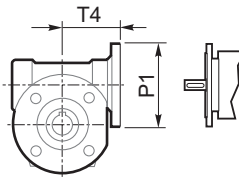
300 L1, L2, L3, L4 300 R2, R3, R4 Solid input shaft		
	NV01A	NV01B
V	6.00	6.44
V1	1.125	1.625
V2	2.00	2.50
V4	4.72	4.72
V5	7.32	7.32
A	0.250	0.375
B	0.250	0.375
F	1.236	1.791
L	1.75	2.00
D	3/8 - 16UNC	1/2 - 13UNC
U	0.87	1.10
Lbs	13.2	15.4

(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>

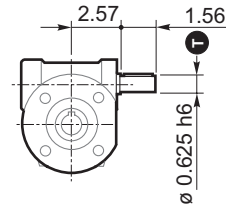
**3/V 00 L3**



**NEMA input**

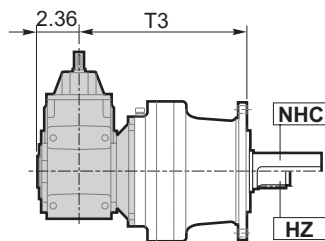


**Solid input shaft**

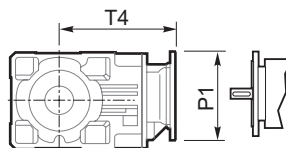


298

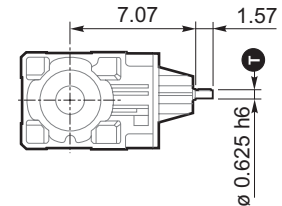
**3/A 00 L2**



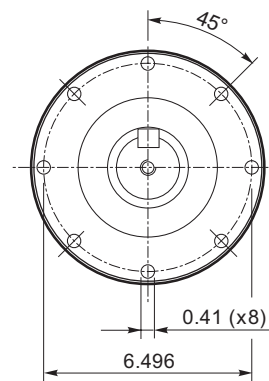
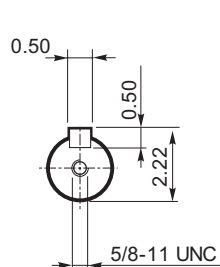
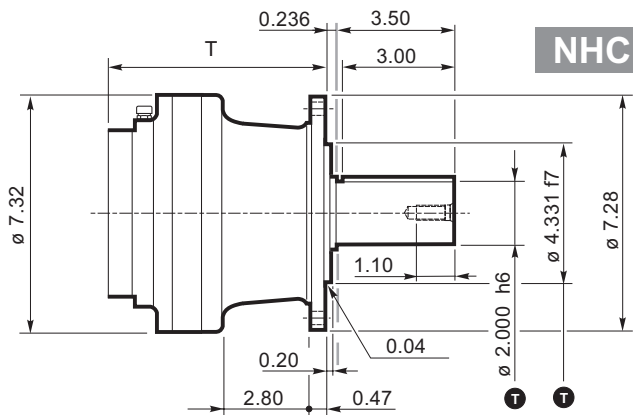
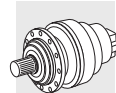
**NEMA input**



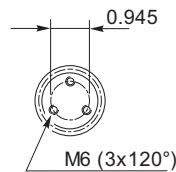
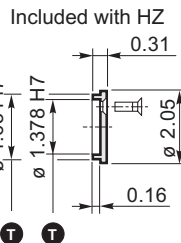
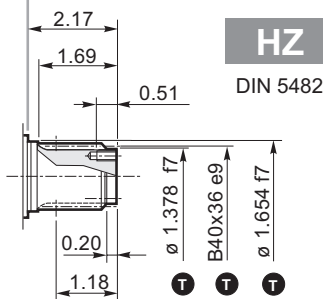
**Solid input shaft**



298



(mm)	inch	T
—	0.625 h6	$\begin{matrix} 0 \\ -0.00043 \end{matrix}$
(35)	1.378 f7	$\begin{matrix} -0.00098 \\ -0.00197 \end{matrix}$
(35)	1.378 H7	$\begin{matrix} +0.00098 \\ 0 \end{matrix}$
(42)	1.654 f7	$\begin{matrix} -0.000988 \\ -0.00197 \end{matrix}$
—	2.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	4.331 f7	$\begin{matrix} -0.00142 \\ -0.00280 \end{matrix}$
B40x36 e9		DIN 5482

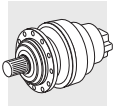


	300 L1	300 L2	300 L3	300 L4	300 R2	300 R3	300 R4
T	4.53	6.61	8.70	10.79	8.15	10.24	12.32
T1	—	—	—	—	4.80	4.80	4.80
Lbs	44.1	52.9	61.7	70.6	75.0	83.8	92.6

	3/V 00 L3	3/A 00 L2
T3		
	11.42	8.98
Lbs	59.5	88.2

NEMA Input									
	P1	E	T2						
N56C	9.84	4.51	9.04	11.12	13.21	15.30	9.31	9.31	9.31
N140TC	9.84	4.51	9.04	11.12	13.21	15.30	9.31	9.31	9.31
N180TC	8.82	5.22	9.74	11.83	13.92	16.00	10.02	10.02	10.02
N210TC	8.82	5.22	9.74	11.83	13.92	16.00	10.02	10.02	10.02
N250TC	8.82	5.22	9.74	11.83	13.92	16.00	10.02	10.02	10.02
N280TC	11.81	6.28	10.81	12.89	14.98	17.07	11.08	11.08	11.08

	P1	T4	P1	T4
	6.54	3.48	6.50	9.15
	—	—	6.50	9.15
	—	—	9.00	9.90
	—	—	—	—
	—	—	—	—
	—	—	—	—



300

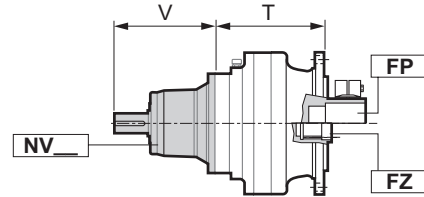
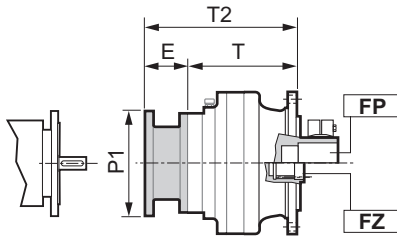
FP

FZ

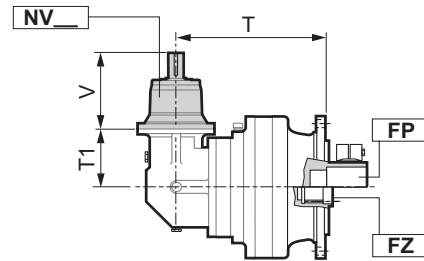
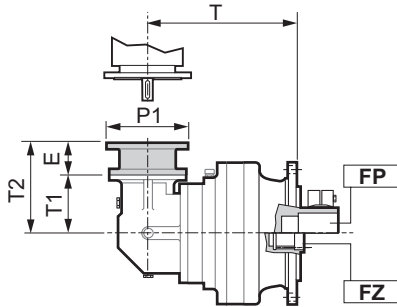
NEMA input

Solid input shaft

300 L



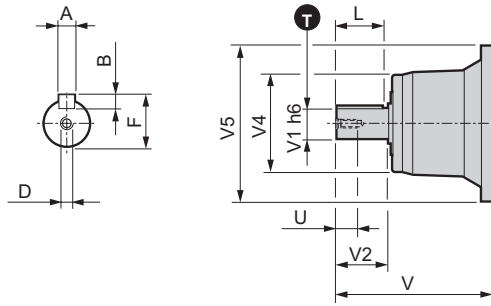
300 R



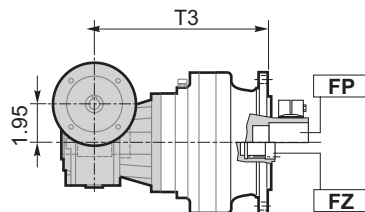
300 L1, L2, L3, L4 300 R2, R3, R4 Solid input shaft		
	NV01A	NV01B
V	6.00	6.44
V1	1.125	1.625
V2	2.00	2.50
V4	4.72	4.72
V5	7.32	7.32
A	0.250	0.375
B	0.250	0.375
F	1.236	1.791
L	1.75	2.00
D	3/8 - 16UNC	1/2 - 13UNC
U	0.87	1.10
Lbs	13.2	15.4

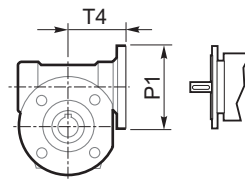
(mm)	inch	T
—	1.125 h6	$\begin{matrix} 0 \\ -0.00051 \end{matrix}$
—	1.625 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$



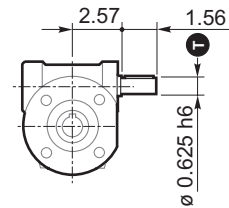
3/V 00 L3



NEMA input

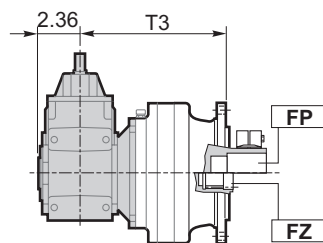


Solid input shaft

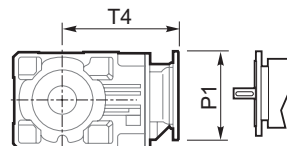


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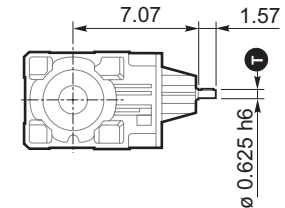
3/A 00 L2



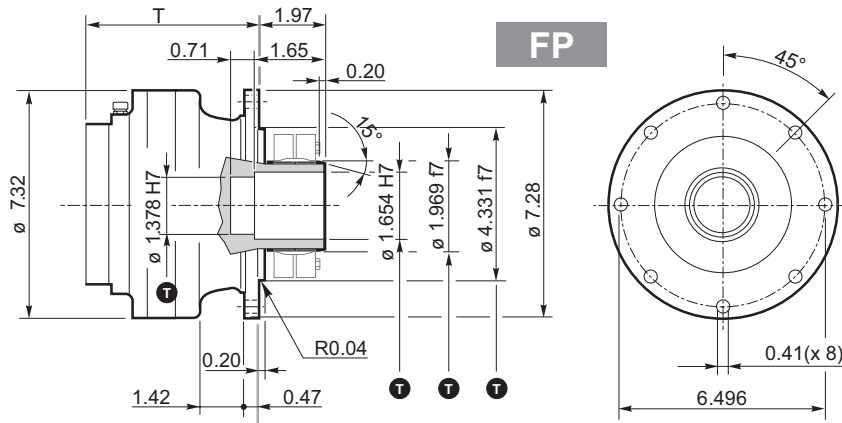
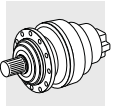
NEMA input



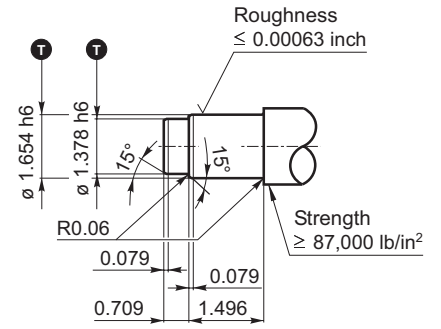
Solid input shaft



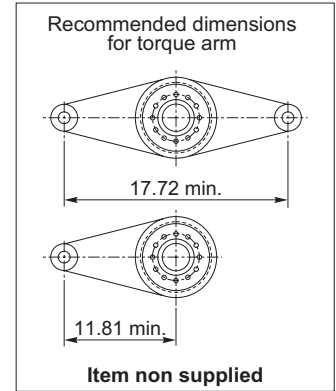
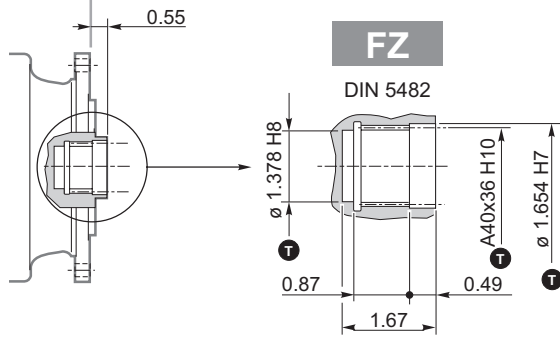
298



FP T<sub>2max</sub> = 10,600 in.lbs



(mm)	inch	T
—	0.625 h6	0 -0.00043
(35)	1.378 h6	-0.00098 -0.00161
(35)	1.378 H7	+0.00098 0
(42)	1.654 h6	0 -0.00063
(42)	1.654 H7	+0.00098 0
(50)	1.969 f7	-0.00098 -0.00197
(110)	4.331 f7	-0.00142 -0.00280
A40x36 H10 DIN 5482		

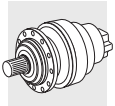


	300 L1	300 L2	300 L3	300 L4	300 R2	300 R3	300 R4
T	3.15	5.24	7.32	9.41	6.77	8.86	10.94
T1	—	—	—	—	4.80	4.80	4.80
Lbs	35.3	44.1	52.9	61.7	66.2	75.0	83.8

	3/V 00 L3	3/A 00 L2
T3		
	10.04	7.60
Lbs	66.2	94.8

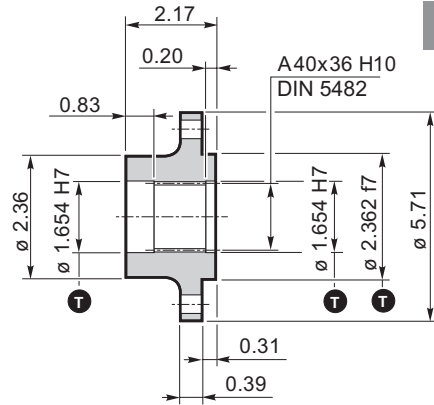
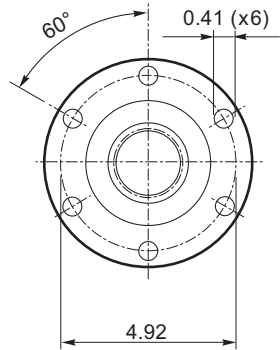
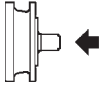
NEMA Input			T2						
	P1	E							
N56C	9.84	4.51	7.66	9.74	11.83	13.92	9.31	9.31	9.31
N140TC	9.84	4.51	7.66	9.74	11.83	13.92	9.31	9.31	9.31
N180TC	8.82	5.22	8.37	10.45	12.54	14.63	10.02	10.02	10.02
N210TC	8.82	5.22	8.37	10.45	12.54	14.63	10.02	10.02	10.02
N250TC	8.82	5.22	8.37	10.45	12.54	14.63	10.02	10.02	10.02
N280TC	11.81	6.28	9.43	11.52	13.60	15.69	11.08	11.08	11.08

	P1	T4	P1	T4
	6.54	3.48	6.50	9.15
	—	—	6.50	9.15
	—	—	9.00	9.90
	—	—	—	—
	—	—	—	—
	—	—	—	—



**300**

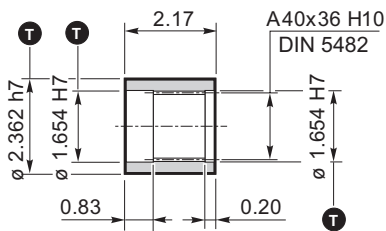
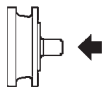
**Flange**



**WOA**

Material : Steel AISI 1040

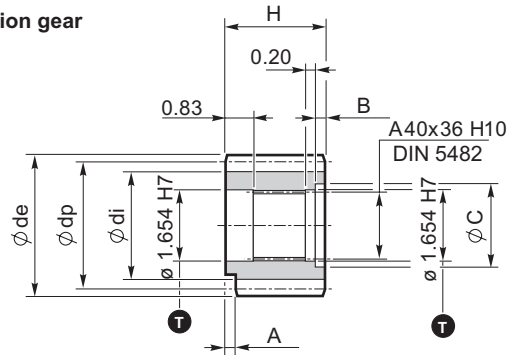
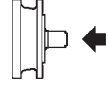
**Sleeve coupling**



**MOA**

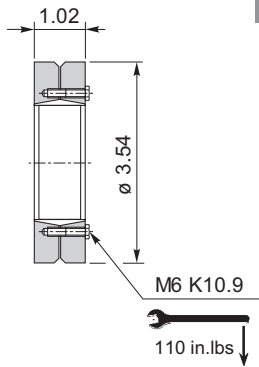
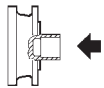
Material : Steel SAE 8620

**Output pinion gear**



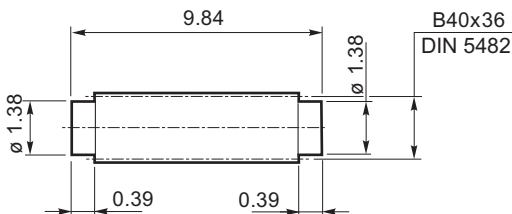
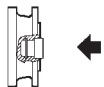
**P...**

**Shrink disc**



**GOA**

**Splined bar**



**BOA**

Case hardening Steel SAE 4320 must be case hardened to 50-55 HRC

Code	m	z	x	dp	di	de	H	A	B	C	☆
PBE	4.5	14	0.507	63	56	75.5	55	0	0	0	□
PCE	5	14	0.500	70	62.5	84.8	65	0	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	0	10	54	□

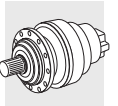
⚠ Dimensions of pinion gears are in mm

☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

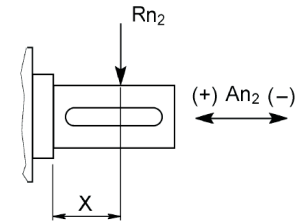
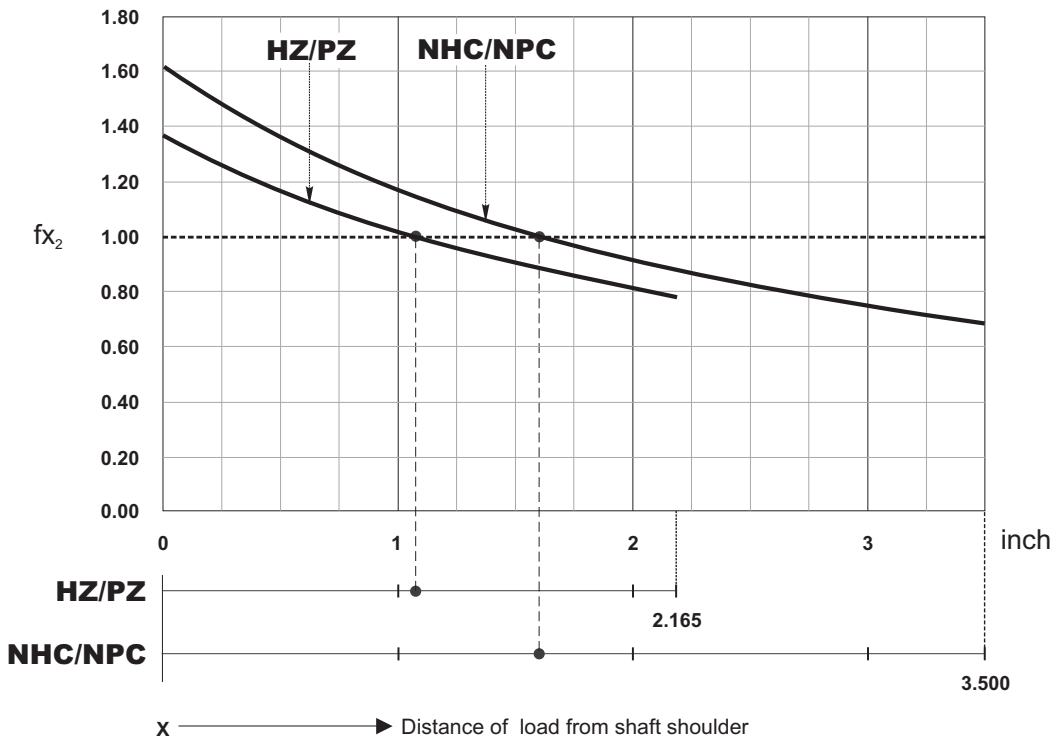
m = module  
z = number of teeth  
x = addendum modification  
dp = generated pitch diameter  
di = root diameter  
de = outside diameter

(mm)	inch	T
(42)	1.654 H7	+0.00098 0
(60)	2.362 f7	-0.00118 -0.00236
(60)	2.362 h7	0 -0.00118



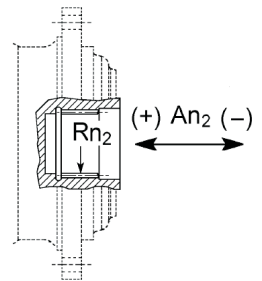


Load application factor for calculation of admissible overhung load on output shaft



$$R_{x_2} = R_{n_2} \cdot f_{x_2}$$

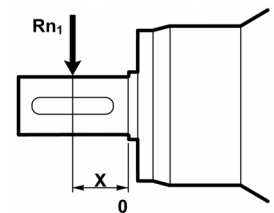
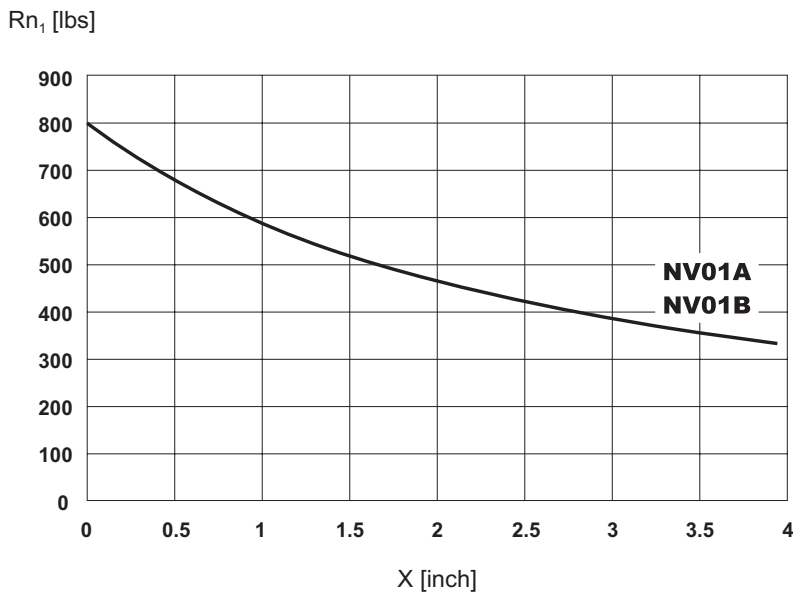
$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

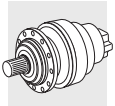


$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
FZ	1.04	1.04

Permitted overhung load on input shaft

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





**301**

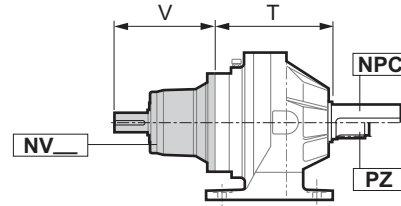
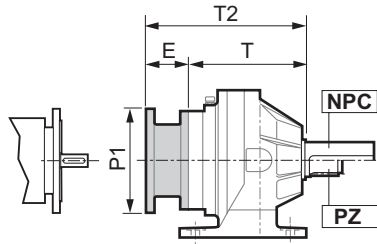
**NPC**

**PZ**

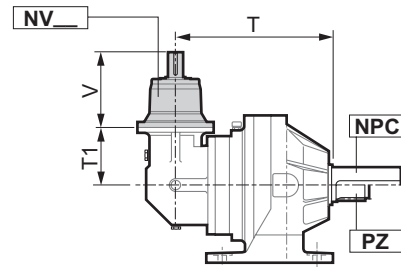
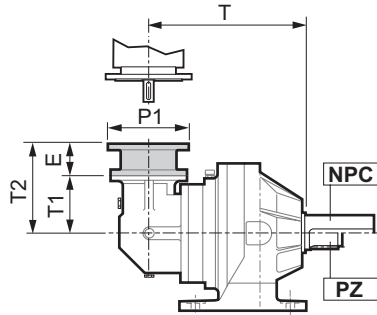
**NEMA input**

**Solid input shaft**

**301 L**



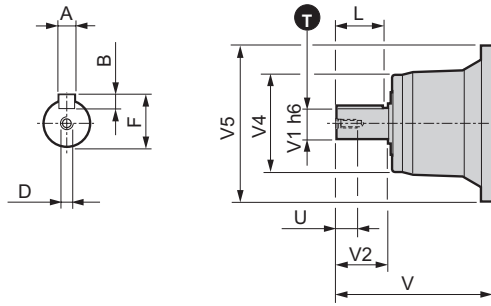
**301 R**



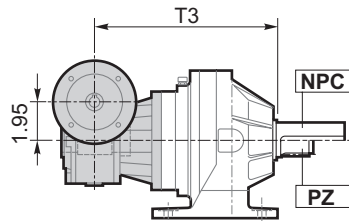
301 L1, L2, L3, L4 301 R2, R3, R4		
Solid input shaft		
	NV01A	NV01B
V	6.00	6.44
V1	1.125	1.625
V2	2.00	2.50
V4	4.72	4.72
V5	7.32	7.32
A	0.250	0.375
B	0.250	0.375
F	1.236	1.791
L	1.75	2.00
D	3/8 - 16UNC	1/2 - 13UNC
U	0.87	1.10
Lbs	13.2	15.4

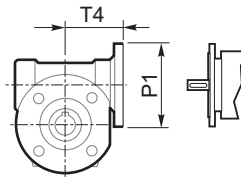
(mm)	inch	T
—	1.125 h6	0 -0.00051
—	1.625 h6	0 -0.00063



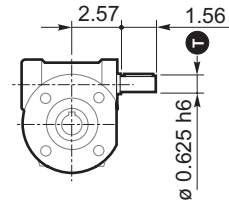
**3/V 01 L3**



**NEMA input**

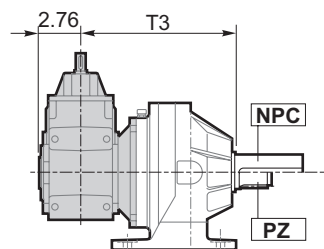


**Solid input shaft**

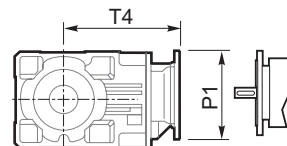


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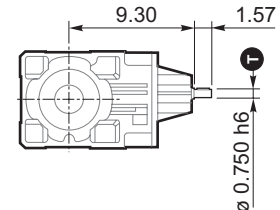
**3/A 01 L2**



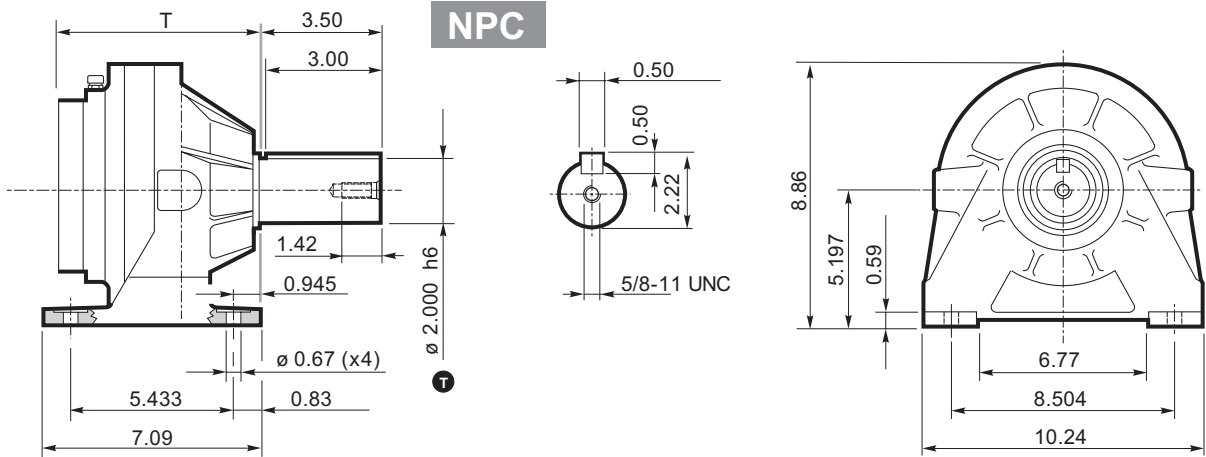
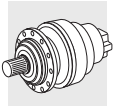
**NEMA input**



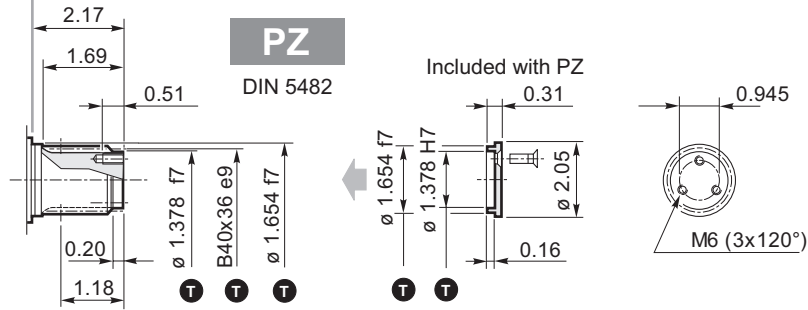
**Solid input shaft**



298



(mm)	inch	T
—	0.625 h6	<sup>0</sup> / <sub>-0.00043</sub>
—	0.750 h6	<sup>0</sup> / <sub>-0.00051</sub>
(35)	1.378 f7	<sup>-0.00098</sup> / <sub>-0.00197</sub>
(35)	1.378 H7	<sup>+0.00098</sup> / <sub>0</sub>
(42)	1.654 f7	<sup>-0.00098</sup> / <sub>-0.00197</sub>
—	2.000 h6	<sup>0</sup> / <sub>-0.00075</sub>
B40x36 e9		DIN 5482

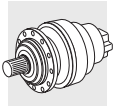


	301 L1	301 L2	301 L3	301 L4	301 R2	301 R3	301 R4
<b>T</b>	5.20	7.28	9.37	11.46	8.86	10.94	13.03
<b>T1</b>	—	—	—	—	4.80	4.80	4.80
<b>Lbs</b>	57.3	66.2	75.0	83.8	92.6	101.4	110.3

	3/V 01 L3	3/A 01 L2
<b>T3</b>	12.13	8.19
<b>Lbs</b>	77.2	101.4

NEMA Input									
	P1	E	T2						
<b>N56C</b>	9.84	4.51	9.70	11.79	13.88	15.96	9.31	9.31	9.31
<b>N140TC</b>	9.84	4.51	9.70	11.79	13.88	15.96	9.31	9.31	9.31
<b>N180TC</b>	8.82	5.22	10.41	12.50	14.59	16.67	10.02	10.02	10.02
<b>N210TC</b>	8.82	5.22	10.41	12.50	14.59	16.67	10.02	10.02	10.02
<b>N250TC</b>	8.82	5.22	10.41	12.50	14.59	16.67	10.02	10.02	10.02
<b>N280TC</b>	11.81	6.28	11.48	13.56	15.65	17.74	11.08	11.08	11.08

	P1	T4	P1	T4
	6.54	3.48	6.50	9.69
	—	—	6.50	9.69
	—	—	9.00	10.43
	—	—	—	—
	—	—	—	—
	—	—	—	—



**301**

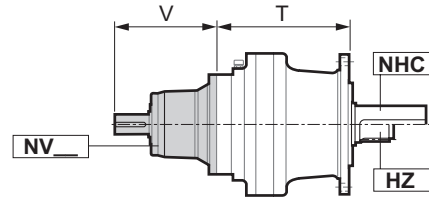
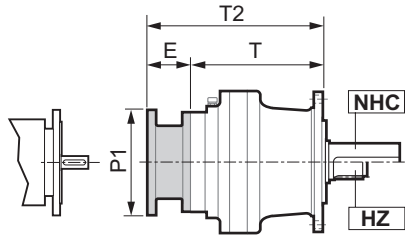
**NHC**

**HZ**

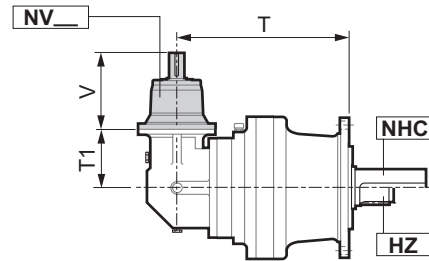
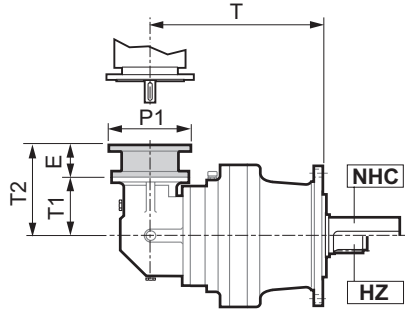
**NEMA input**

**Solid input shaft**

**301 L**



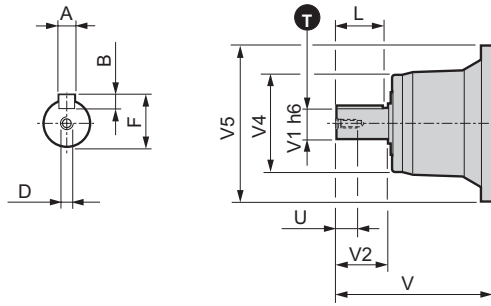
**301 R**



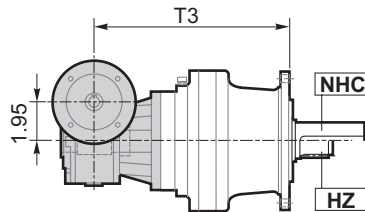
301 L1, L2, L3, L4 301 R2, R3, R4		
Solid input shaft		
	NV01A	NV01B
V	6.00	6.44
V1	1.125	1.625
V2	2.00	2.50
V4	4.72	4.72
V5	7.32	7.32
A	0.250	0.375
B	0.250	0.375
F	1.236	1.791
L	1.75	2.00
D	3/8 - 16UNC	1/2 - 13UNC
U	0.87	1.10
Lbs	13.2	15.4

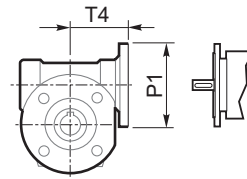
(mm)	inch	
—	1.125 h6	$\begin{matrix} 0 \\ -0.00051 \end{matrix}$
—	1.625 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$



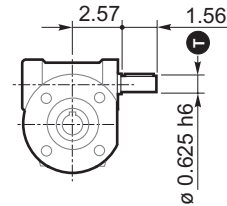
**3/V 01 L3**



**NEMA input**

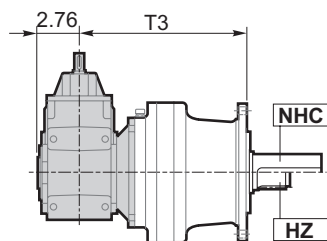


**Solid input shaft**

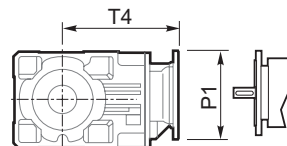


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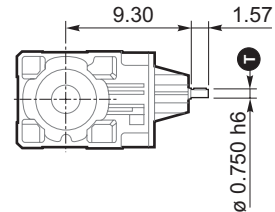
**3/A 01 L2**



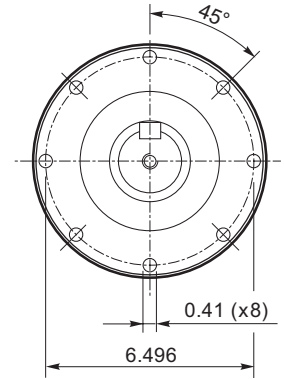
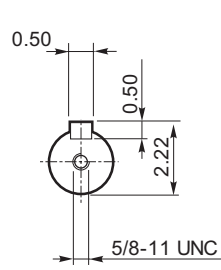
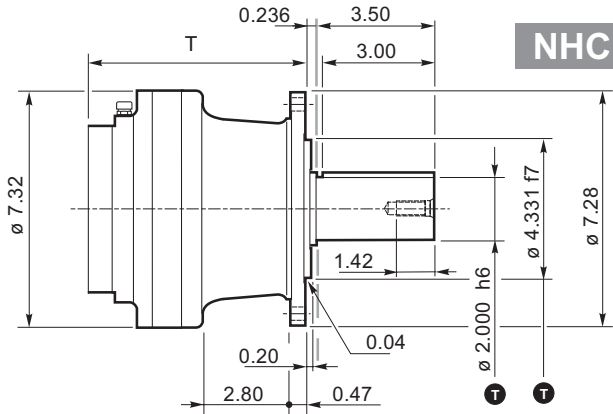
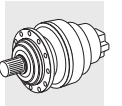
**NEMA input**



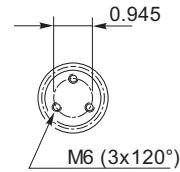
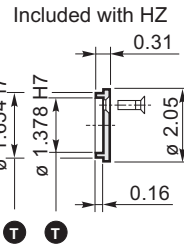
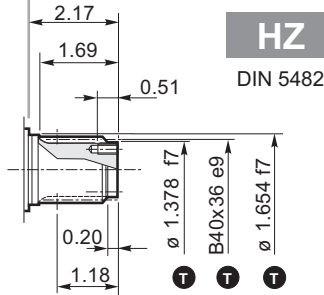
**Solid input shaft**



298



(mm)	inch	T
—	0.625 h6	<sup>0</sup> <sub>-0.00043</sub>
—	0.750 h6	<sup>0</sup> <sub>-0.00051</sub>
(35)	1.378 f7	<sup>-0.00098</sup> <sub>-0.00197</sub>
(35)	1.378 H7	<sup>+0.00098</sup> <sub>0</sub>
(42)	1.654 f7	<sup>-0.000988</sup> <sub>-0.00197</sub>
—	2.000 h6	<sup>0</sup> <sub>-0.00075</sub>
—	4.331 f7	<sup>-0.00142</sup> <sub>-0.00280</sub>
B40x36 e9		DIN 5482

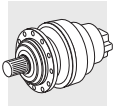


	301 L1	301 L2	301 L3	301 L4	301 R2	301 R3	301 R4
<b>T</b>	4.96	6.93	9.13	11.22	8.62	10.71	12.80
<b>T1</b>	—	—	—	—	4.80	4.80	4.80
<b>Lbs</b>	50.7	59.5	68.4	77.2	81.6	90.4	99.2

	3/V 01 L3	3/A 01 L2
<b>T3</b>	11.89	9.33
<b>Lbs</b>	66.2	94.8

NEMA Input			T2						
	P1	E							
<b>N56C</b>	9.84	4.51	9.47	11.44	13.64	15.73	9.31	9.31	9.31
<b>N140TC</b>	9.84	4.51	9.47	11.44	13.64	15.73	9.31	9.31	9.31
<b>N180TC</b>	8.82	5.22	10.18	12.15	14.35	16.44	10.02	10.02	10.02
<b>N210TC</b>	8.82	5.22	10.18	12.15	14.35	16.44	10.02	10.02	10.02
<b>N250TC</b>	8.82	5.22	10.18	12.15	14.35	16.44	10.02	10.02	10.02
<b>N280TC</b>	11.81	6.28	11.24	13.21	15.41	17.50	11.08	11.08	11.08

	P1	T4	P1	T4
	6.54	3.48	6.50	9.69
	—	—	6.50	9.69
	—	—	9.00	10.43
	—	—	—	—
	—	—	—	—
	—	—	—	—



**301**

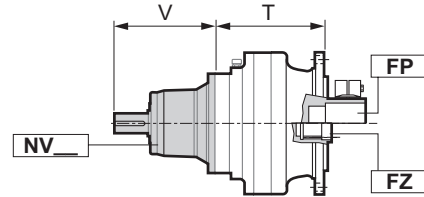
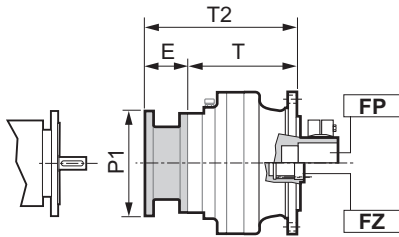
**FP**

**FZ**

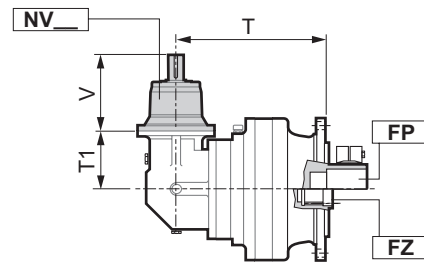
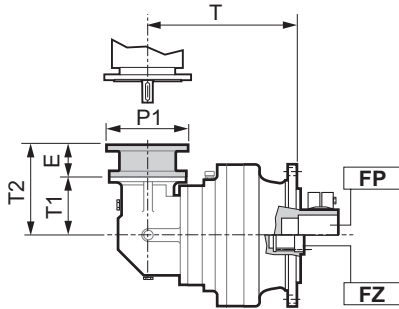
**NEMA input**

**Solid input shaft**

**301 L**



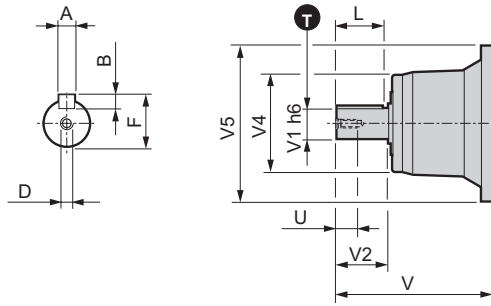
**301 R**



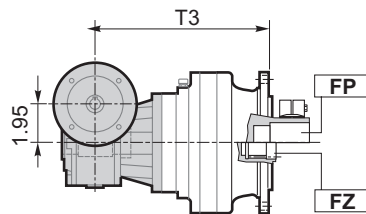
301 L1, L2, L3, L4 301 R2, R3, R4		
Solid input shaft		
	NV01A	NV01B
V	6.00	6.44
V1	1.125	1.625
V2	2.00	2.50
V4	4.72	4.72
V5	7.32	7.32
A	0.250	0.375
B	0.250	0.375
F	1.236	1.791
L	1.75	2.00
D	3/8 - 16UNC	1/2 - 13UNC
U	0.87	1.10
Lbs	13.2	15.4

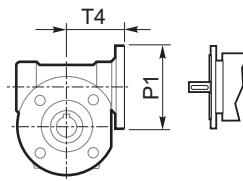
(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>



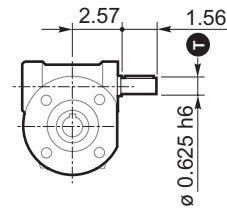
**3/V 01 L3**



**NEMA input**

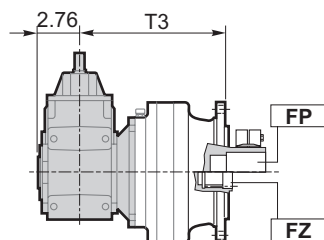


**Solid input shaft**

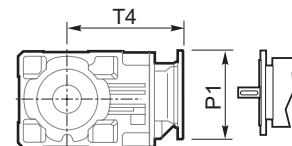


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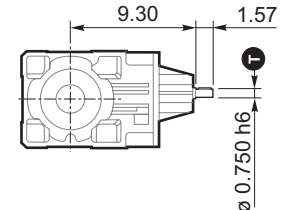
**3/A 01 L2**



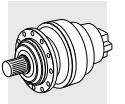
**NEMA input**



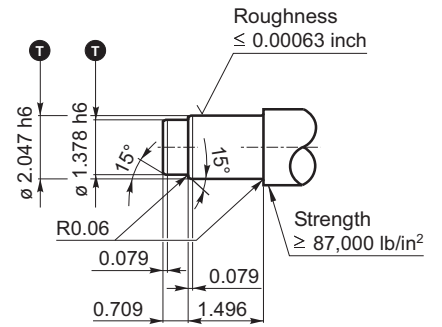
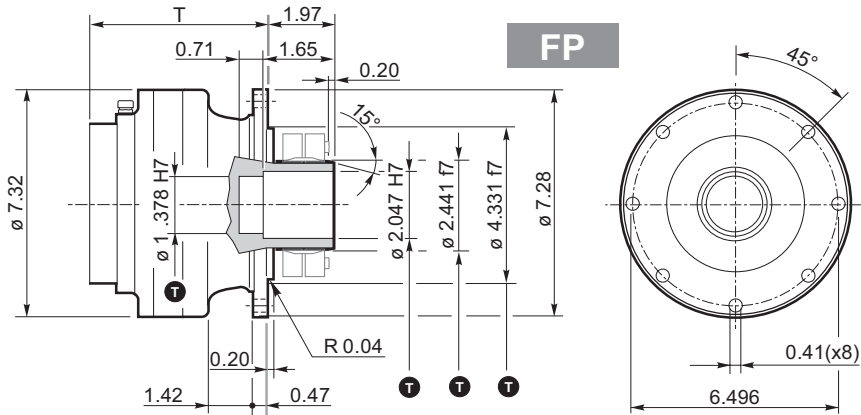
**Solid input shaft**



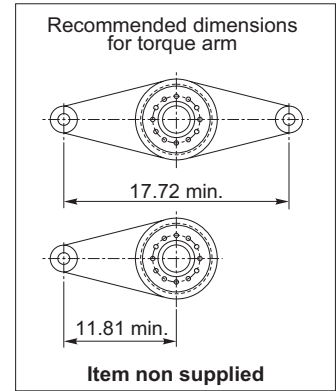
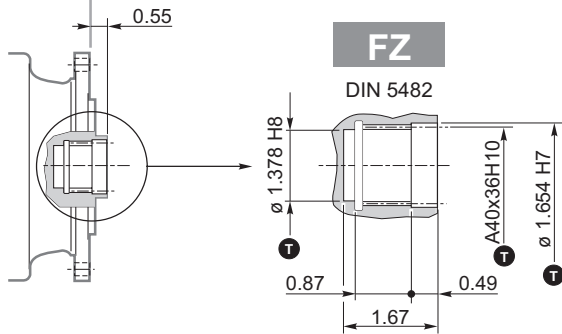
298



**FP**  $T_{2max} = 21,250 \text{ in. lbs}$



(mm)	inch	T
—	0.625 h6	$\begin{matrix} 0 \\ -0.00043 \end{matrix}$
—	0.750 h6	$\begin{matrix} 0 \\ -0.00051 \end{matrix}$
(35)	1.378 h6	$\begin{matrix} -0.00098 \\ -0.00161 \end{matrix}$
(35)	1.378 H7	$\begin{matrix} +0.00118 \\ 0 \end{matrix}$
(52)	2.047 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
(52)	2.047 H7	$\begin{matrix} +0.00118 \\ 0 \end{matrix}$
(62)	2.441 f7	$\begin{matrix} -0.00118 \\ -0.00236 \end{matrix}$
(110)	4.331 f7	$\begin{matrix} -0.00142 \\ -0.00280 \end{matrix}$
A40x36 H10		DIN 5482

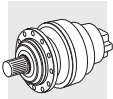


	301 L1	301 L2	301 L3	301 L4	301 R2	301 R3	301 R4
<b>T</b>	3.62	5.71	7.80	9.88	7.24	9.33	11.42
<b>T1</b>	—	—	—	—	4.80	4.80	4.80
<b>Lbs</b>	41.9	50.7	59.5	68.4	72.8	81.6	90.4

	3/V 01 L3	3/A 01 L2
<b>T3</b>		
	10.51	7.95
<b>Lbs</b>	57.3	88.2

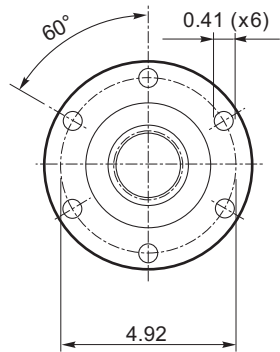
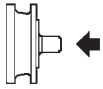
NEMA Input			T2						
	P1	E							
<b>N56C</b>	9.84	4.51	8.13	10.22	12.30	14.39	9.31	9.31	9.31
<b>N140TC</b>	9.84	4.51	8.13	10.22	12.30	14.39	9.31	9.31	9.31
<b>N180TC</b>	8.82	5.22	8.84	10.93	13.01	15.10	10.02	10.02	10.02
<b>N210TC</b>	8.82	5.22	8.84	10.93	13.01	15.10	10.02	10.02	10.02
<b>N250TC</b>	8.82	5.22	8.84	10.93	13.01	15.10	10.02	10.02	10.02
<b>N280TC</b>	11.81	6.28	9.90	11.99	14.07	16.16	11.08	11.08	11.08

	P1	T4	P1	T4
	6.54	3.48	6.50	9.69
	—	—	6.50	9.69
	—	—	9.00	10.43
	—	—	—	—
	—	—	—	—

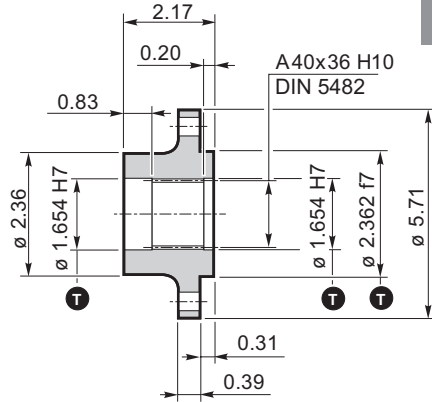


**301**

**Flange**

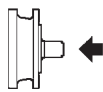


**WOA**

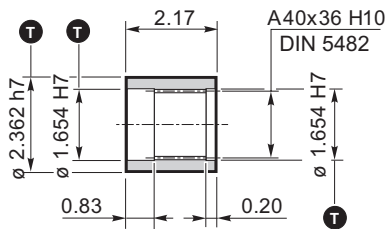


Material : Steel AISI 1040

**Sleeve coupling**

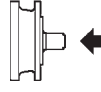


**MOA**

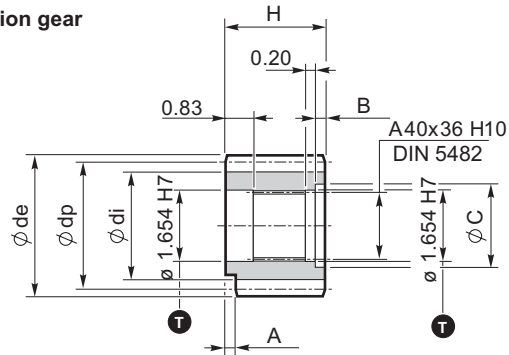


Material : Steel SAE 8620

**Output pinion gear**



**P...**



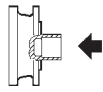
Code	m	z	x	dp	di	de	H	A	B	C	☆
PBE	4.5	14	0.507	63	56	75.5	55	0	0	0	□
PCE	5	14	0.500	70	62.5	84.8	65	0	10	53	□
PDC	6	12	0.250	72	61	84.8	59	14	4	54	□
PDE	6	14	0.500	84	73	99.6	65	0	10	54	□

⚠ Dimensions of pinion gears are in mm

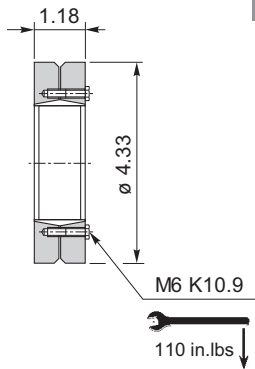
☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

m = module  
 z = number of teeth  
 x = addendum modification  
 dp = generated pitch diameter  
 di = root diameter  
 de = outside diameter

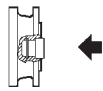
**Shrink disc**



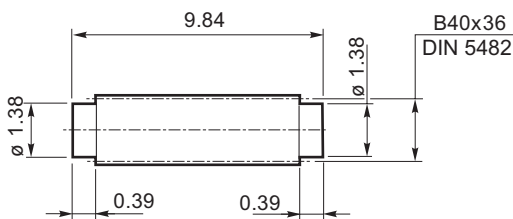
**GOA**



**Splined bar**



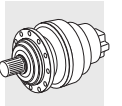
**BOA**



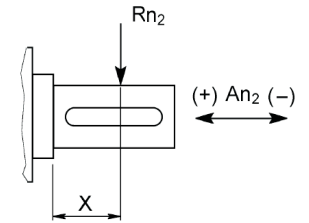
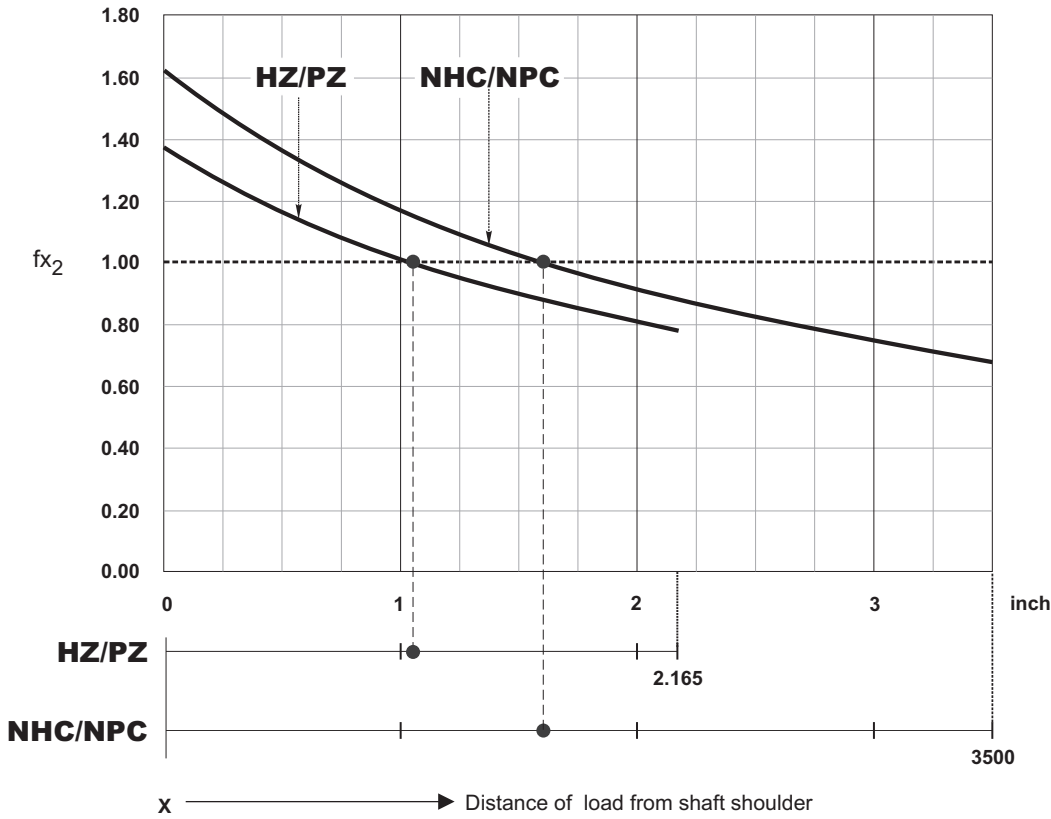
Case hardening Steel SAE 4320 must be case hardened to 50-55 HRC

(mm)	inch	T
(42)	1.654 H7	+0.00098 0
(60)	2.362 f7	-0.00118 -0.00236
(60)	2.362 h7	0 -0.00118



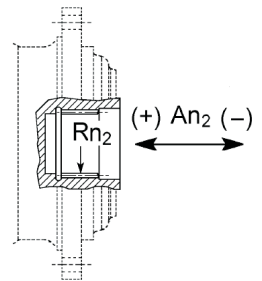


**Load application factor for calculation of admissible overhung load on output shaft**



$$R_{x2} = R_{n2} \cdot f_{x2}$$

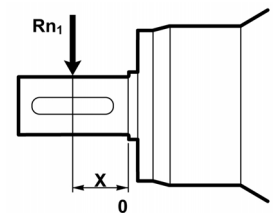
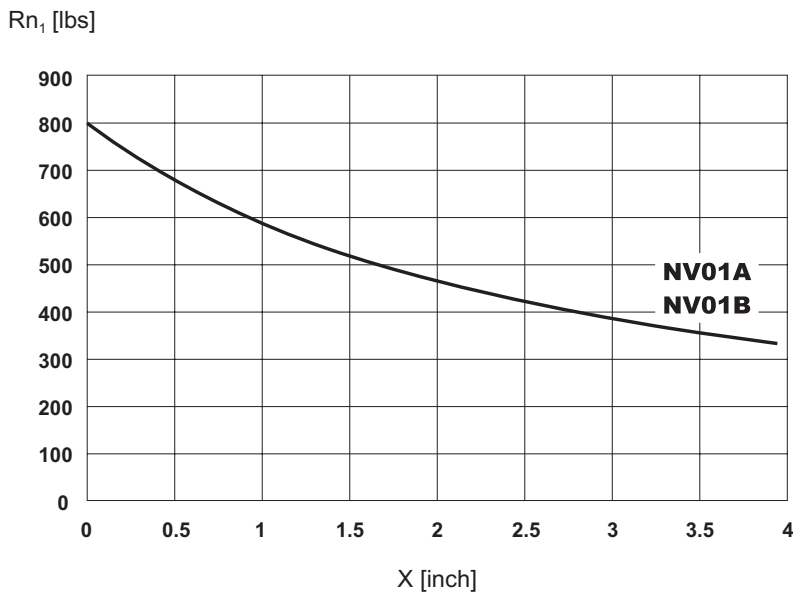
$A_{n2} (\pm) = R_{n2} \cdot f_{a2} (\pm)$		
	$f_{a2} (+)$	$f_{a2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

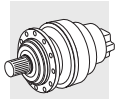


$A_{n2} (\pm) = R_{n2} \cdot f_{a2} (\pm)$		
	$f_{a2} (+)$	$f_{a2} (-)$
FZ	1.04	1.04

**Permitted overhung load on input shaft**

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





**303**

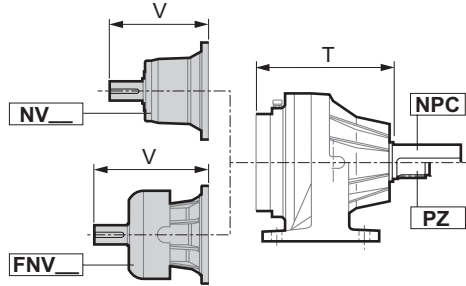
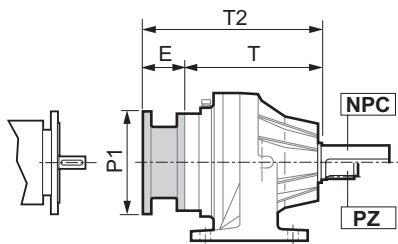
**NPC**

**PZ**

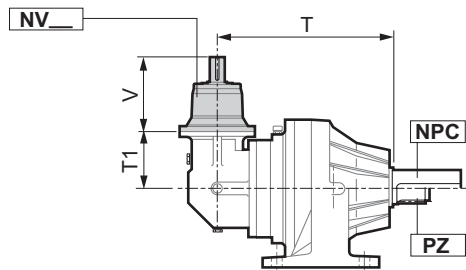
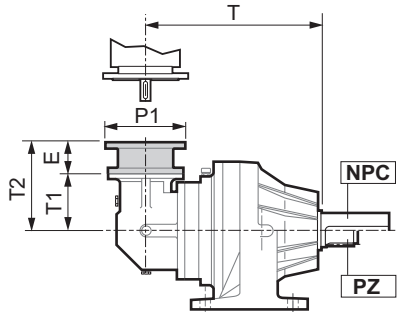
**NEMA input**

**Solid input shaft**

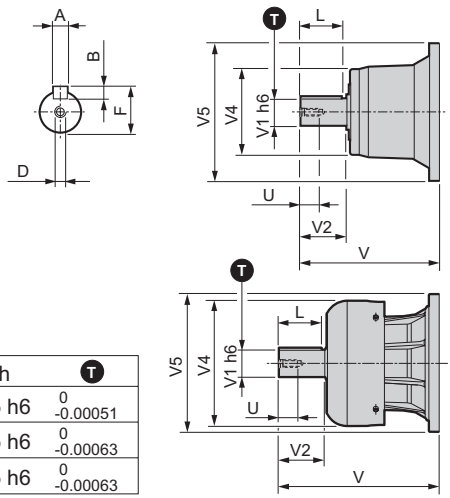
**303 L**



**303 R**

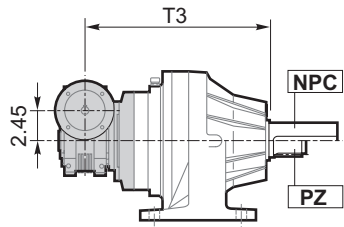


	303 L1		303 L2, L3, L4 303 R2, R3, R4	
	Solid input shaft			
	NV05B	FNV05B	NV01A	NV01B
V	9.68	11.06	6.00	6.44
V1	1.875	1.875	1.125	1.625
V2	3.50	3.50	2.00	2.50
V4	6.10	8.70	4.72	4.72
V5	9.65	9.65	7.32	7.32
A	0.500	0.500	0.250	0.375
B	0.500	0.500	0.250	0.375
F	2.091	2.091	1.236	1.791
L	3.00	3.00	1.75	2.00
D	5/8 - 11UNC	5/8 - 11UNC	3/8 - 16UNC	1/2 - 13UNC
U	1.42	1.42	0.87	1.10
Lbs	33.1	38	13.2	15.4

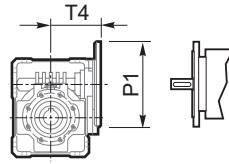


(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> <sub>-0.00063</sub>

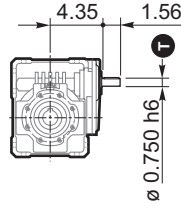
**3/V 03 L3**



**NEMA input**

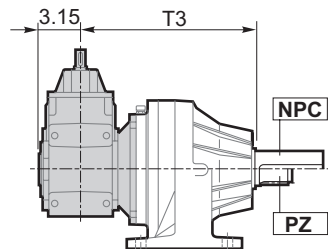


**Solid input shaft**

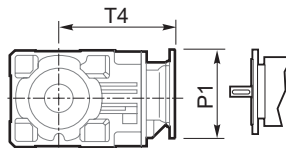


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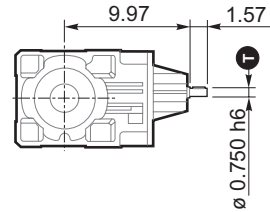
**3/A 03 L2**



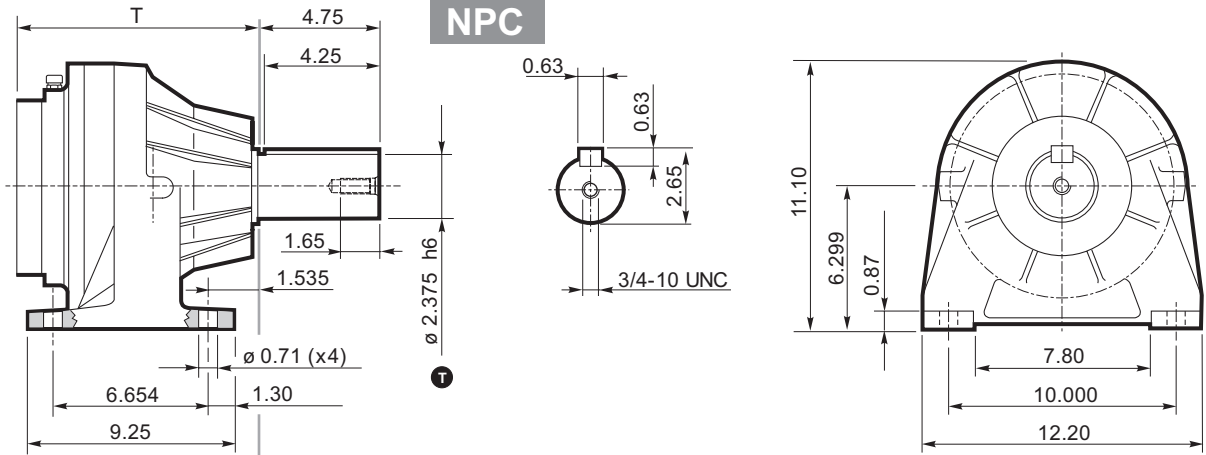
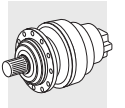
**NEMA input**



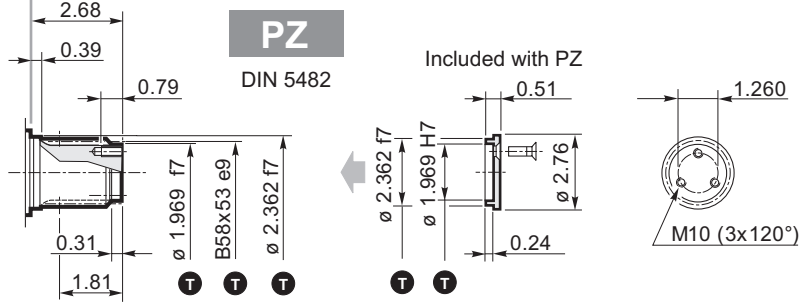
**Solid input shaft**



298



(mm)	inch	T
—	0.750 h6	0 -0.00051
(50)	1.969 f7	-0.00098 -0.00197
(50)	1.969 H7	+0.00098 0
(60)	2.362 f7	-0.00118 -0.00236
—	2.375 h6	0 -0.00075
B58x53 e9		DIN 5482

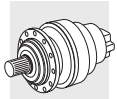


	303 L1	303 L2	303 L3	303 L4	303 R2	303 R3	303 R4
<b>T</b>	6.50	8.58	10.67	12.76	10.12	12.20	14.29
<b>T1</b>	—	—	—	—	5.51	4.80	4.80
<b>Lbs</b>	88.2	97.0	105.8	114.7	132.3	127.9	136.7

	3/V 03 L3	3/A 03 L2
<b>T3</b>	12.99	11.22
<b>Lbs</b>	112.5	156.6

NEMA Input			T2						
	P1	E							
<b>N56C</b>	9.84	4.51	—	13.09	15.18	17.26	10.02	9.31	9.31
<b>N140TC</b>	9.84	4.51	—	13.09	15.18	17.26	10.02	9.31	9.31
<b>N180TC</b>	8.82	5.22	—	13.80	15.89	17.97	10.73	10.02	10.02
<b>N210TC</b>	8.82	5.22	—	13.80	15.89	17.97	10.73	10.02	10.02
<b>N250TC</b>	8.82	5.22	—	13.80	15.89	17.97	10.73	10.02	10.02
<b>N250TC</b>	11.81	5.41	11.91	—	—	—	—	—	—
<b>N280TC</b>	11.81	6.42	12.91	15.00	17.09	19.17	11.93	11.22	11.22

	P1	T4	P1	T4
	6.54	4.19	6.50	10.35
	6.54	4.19	6.50	10.35
	—	—	8.98	11.10
	—	—	—	—
	—	—	—	—
	—	—	—	—



303

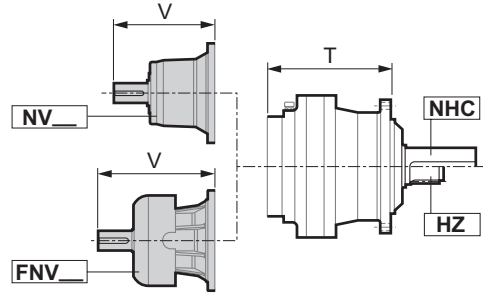
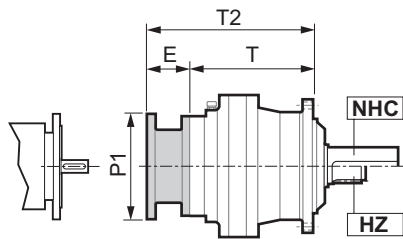
NHC

HZ

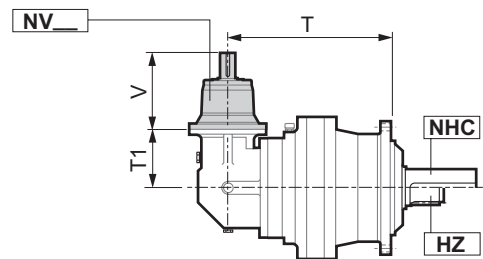
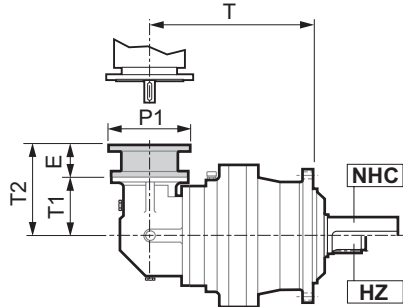
NEMA input

Solid input shaft

303 L



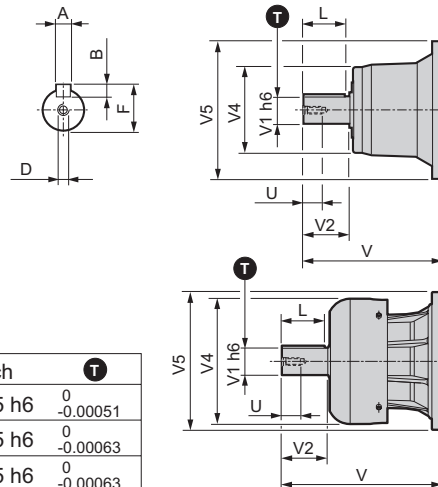
303 R



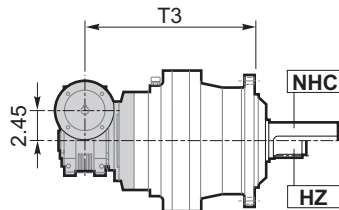
	303 L1		303 L2, L3, L4 303 R2, R3, R4	
	Solid input shaft			
	NV05B	FNV05B	NV01A	NV01B
<b>V</b>	9.68	11.06	6.00	6.44
<b>V1</b>	1.875	1.875	1.125	1.625
<b>V2</b>	3.50	3.50	2.00	2.50
<b>V4</b>	6.10	8.70	4.72	4.72
<b>V5</b>	9.65	9.65	7.32	7.32
<b>A</b>	0.500	0.500	0.250	0.375
<b>B</b>	0.500	0.500	0.250	0.375
<b>F</b>	2.091	2.091	1.236	1.791
<b>L</b>	3.00	3.00	1.75	2.00
<b>D</b>	5/8 - 11UNC	5/8 - 11UNC	3/8 - 16UNC	1/2 - 13UNC
<b>U</b>	1.42	1.42	0.87	1.10
<b>Lbs</b>	33.1	38	13.2	15.4

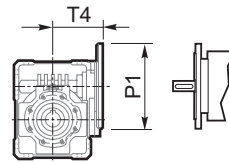
(mm)	inch	T
—	1.125 h6	<sup>0</sup> / <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> / <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> / <sub>-0.00063</sub>



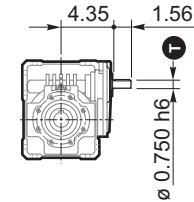
3/V 03 L3



NEMA input

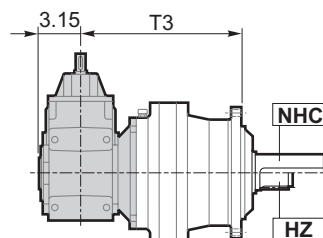


Solid input shaft

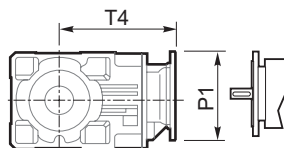


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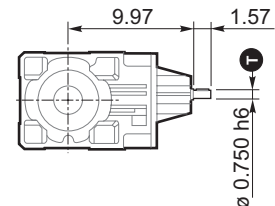
3/A 03 L2



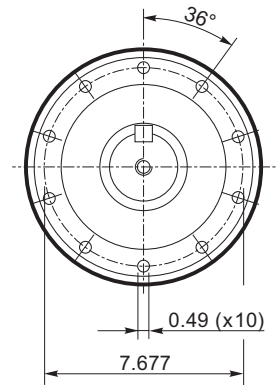
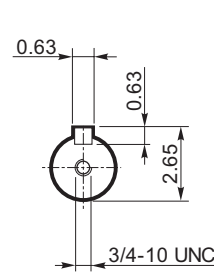
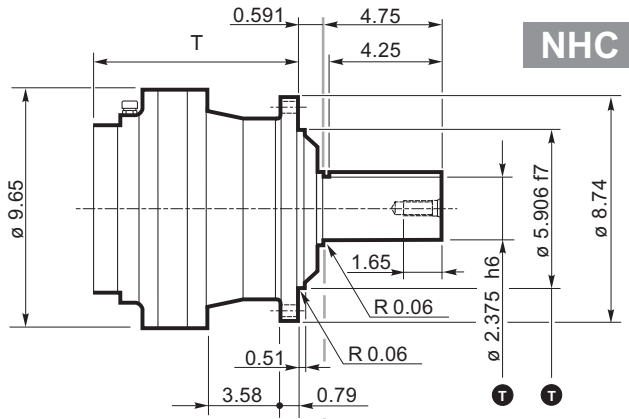
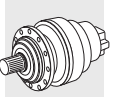
NEMA input



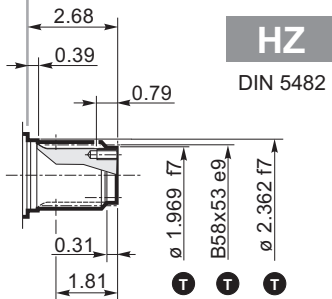
Solid input shaft



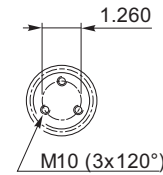
298



(mm)	inch	T
—	0.750 h6	<sup>0</sup> <sub>-0.00051</sub>
(50)	1.969 f7	<sup>-0.00098</sup> <sub>-0.00197</sub>
(50)	1.969 H7	<sup>+0.00098</sup> <sub>0</sub>
(60)	2.362 f7	<sup>-0.00118</sup> <sub>-0.00236</sub>
—	2.375 h6	<sup>0</sup> <sub>-0.00075</sub>
(150)	5.906 f7	<sup>-0.00169</sup> <sub>-0.00327</sub>
B58x53 e9		DIN 5482

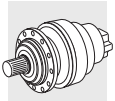


Included with HZ



		303 L1	303 L2	303 L3	303 L4	303 R2	303 R3	303 R4	
<b>T</b>		5.91	7.99	10.08	12.17	9.53	11.61	13.70	
<b>T1</b>		—	—	—	—	5.51	4.80	4.80	
<b>Lbs</b>		77.2	86.0	94.8	103.6	121.3	116.9	125.7	
NEMA Input									
	P1	E	T2						
N56C	9.84	4.51	—	12.50	14.59	16.67	10.02	9.31	9.31
N140TC	9.84	4.51	—	12.50	14.59	16.67	10.02	9.31	9.31
N180TC	8.82	5.22	—	13.21	15.30	17.38	10.73	10.02	10.02
N210TC	8.82	5.22	—	13.21	15.30	17.38	10.73	10.02	10.02
N250TC	8.82	5.22	—	13.21	15.30	17.38	10.73	10.02	10.02
N250TC	11.81	5.41	11.32	—	—	—	—	—	—
N280TC	11.81	6.42	12.32	14.41	16.50	18.58	11.93	11.22	11.22

		3/V 03 L3	3/A 03 L2
<b>T3</b>			
		12.40	10.63
<b>Lbs</b>		99.2	143.3
P1	T4	P1	T4
6.54	4.19	6.50	10.35
6.54	4.19	6.50	10.35
—	—	8.98	11.10
—	—	—	—
—	—	—	—
—	—	—	—



303

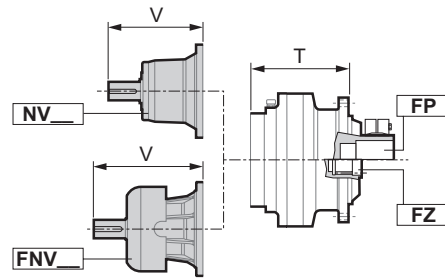
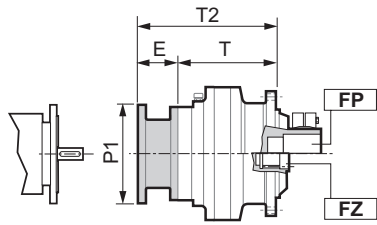
FP

FZ

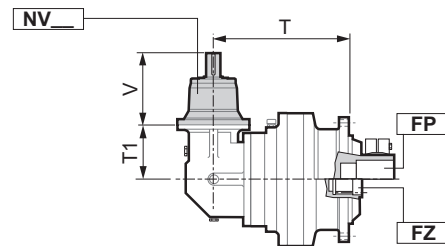
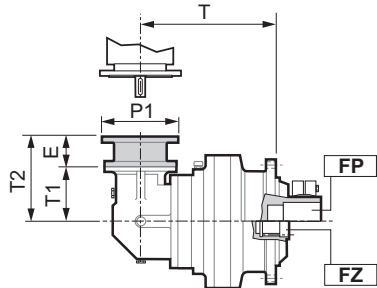
NEMA input

Solid input shaft

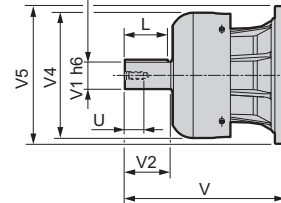
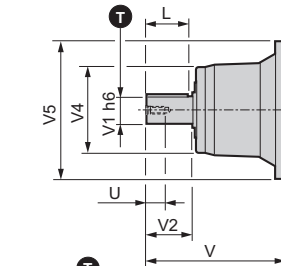
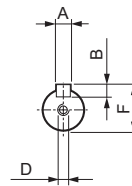
303 L



303 R

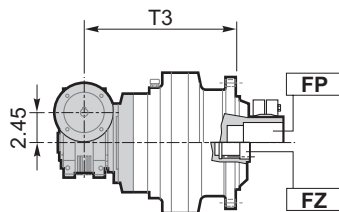


	303 L1		303 L2, L3, L4 303 R2, R3, R4	
	Solid input shaft			
	NV05B	FNV05B	NV01A	NV01B
V	9.68	11.06	6.00	6.44
V1	1.875	1.875	1.125	1.625
V2	3.50	3.50	2.00	2.50
V4	6.10	8.70	4.72	4.72
V5	9.65	9.65	7.32	7.32
A	0.500	0.500	0.250	0.375
B	0.500	0.500	0.250	0.375
F	2.091	2.091	1.236	1.791
L	3.00	3.00	1.75	2.00
D	5/8 - 11UNC	5/8 - 11UNC	3/8 - 16UNC	1/2 - 13UNC
U	1.42	1.42	0.87	1.10
Lbs	33.1	38	13.2	15.4

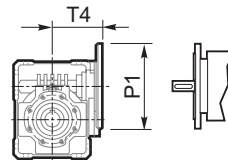


(mm)	inch	$\text{T}$
—	1.125 h6	$\begin{matrix} 0 \\ -0.00051 \end{matrix}$
—	1.625 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$

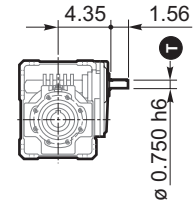
3/V 03 L3



NEMA input

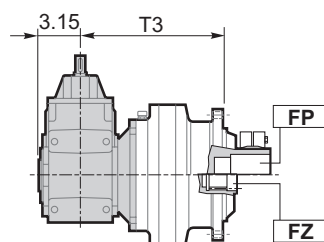


Solid input shaft

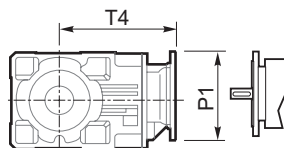


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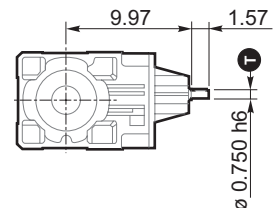
3/A 03 L2



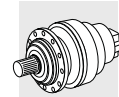
NEMA input



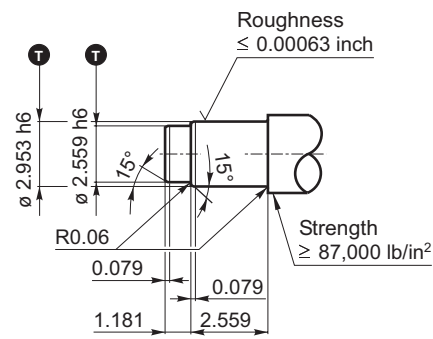
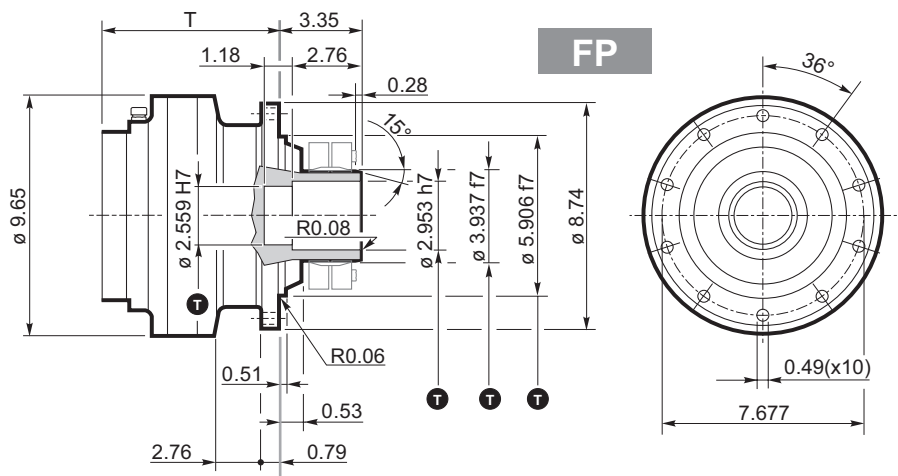
Solid input shaft



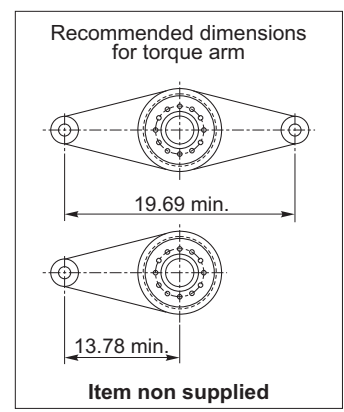
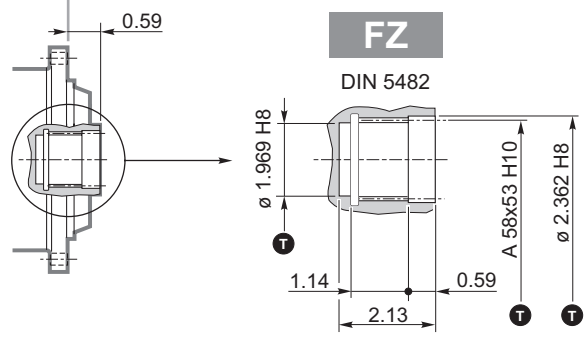
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FP T<sub>max</sub> = 31,000 in.lbs



(mm)	inch	T
—	0.750 h6	0 -0.00051
(50)	1.969 H8	+0.00154 0
(60)	2.362 H8	+0.00181 0
(65)	2.559 h6	-0.00118 -0.00193
(65)	2.559 H7	+0.00118 0
(75)	2.953 h6	0 -0.00075
(75)	2.953 H7	+0.00118 0
(100)	3.937 f7	-0.00142 -0.00280
(150)	5.906 f7	-0.00169 -0.00327
A58x53 H10		DIN 5482

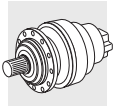


	303 L1	303 L2	303 L3	303 L4	303 R2	303 R3	303 R4
T	4.92	7.01	9.09	11.18	8.54	10.63	12.72
T1	—	—	—	—	5.51	4.80	4.80
Lbs	68.4	77.2	86.0	94.8	112.5	108.0	116.9

	3/V 03 L3	3/A 03 L2
T3		
	10.63	8.86
Lbs	90.4	132.3

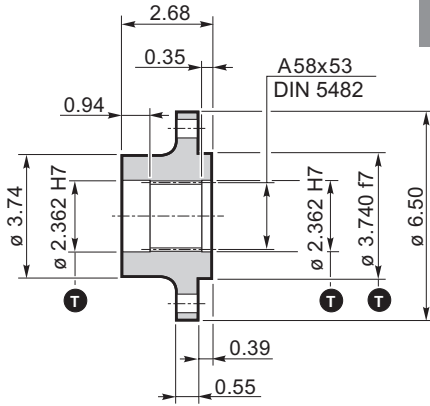
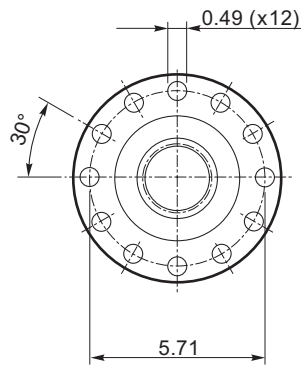
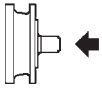
NEMA Input			T2						
	P1	E							
N56C	9.84	4.51	—	11.52	13.60	15.69	10.02	9.31	9.31
N140TC	9.84	4.51	—	11.52	13.60	15.69	10.02	9.31	9.31
N180TC	8.82	5.22	—	12.22	14.31	16.40	10.73	10.02	10.02
N210TC	8.82	5.22	—	12.22	14.31	16.40	10.73	10.02	10.02
N250TC	8.82	5.22	—	12.22	14.31	16.40	10.73	10.02	10.02
N250TC	11.81	5.41	10.33	—	—	—	—	—	—
N280TC	11.81	6.42	11.34	13.43	15.51	17.60	11.93	11.22	11.22

	P1	T4	P1	T4
	6.54	4.19	6.50	10.35
	6.54	4.19	6.50	10.35
	—	—	8.98	11.10
	—	—	—	—
	—	—	—	—
	—	—	—	—



303

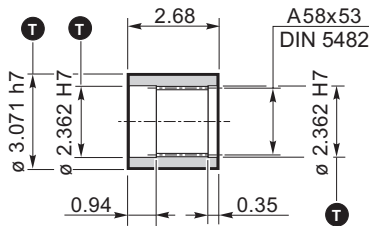
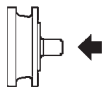
Flange



WOA

Material : Steel AISI 1040

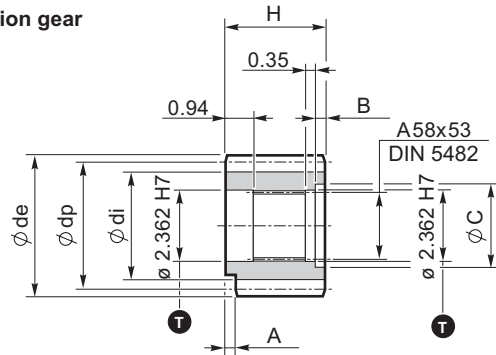
Sleeve coupling



MOA

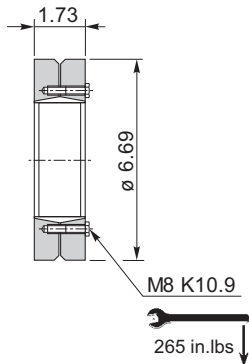
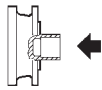
Material : Steel SAE 8620

Output pinion gear



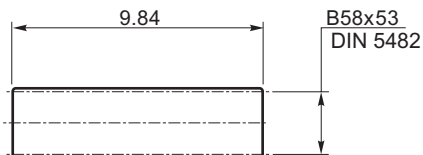
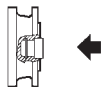
P...

Shrink disc



GOA

Splined bar



BOA

Case hardening steel SAE 4320 must be case hardened to 50-55 HRC

Code	m	z	x	dp	di	de	H	A	B	C	☆
PCL1	5	19	0	95	82	104	77	12	9	72	□
PCL2	5	19	0	95	82	104	68	0	0	0	□
PCM	5	20	0	100	87.5	110	68	18	0	0	■
PCP	5	22	0	110	97.5	120	68	18	0	0	■
PDE	6	14	0.500	84	75	99.6	68	0	0	0	□
PDI	6	18	0.500	108	99	123.6	68	0	0	0	□
PDM	6	20	0.833	120	115	140	68	0	0	0	□
PFD	8	13	0.675	104	95	127.6	68	0	0	0	■
PFE1	8	14	0	112	92	126	68	0	0	0	■
PFE2	8	14	0	112	92	126	80	0	12	72	■
PFF	8	15	0	120	100	136	68	0	0	0	□
PFP	8	22	0	176	156	190	77	12	10	71	□
PHG	10	16	0.500	160	145	188	75	0	7	72	□

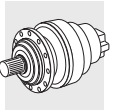
⚠ Dimensions of pinion gears are in mm

☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

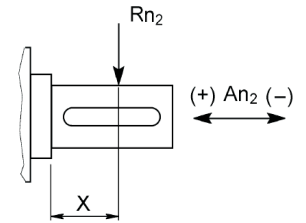
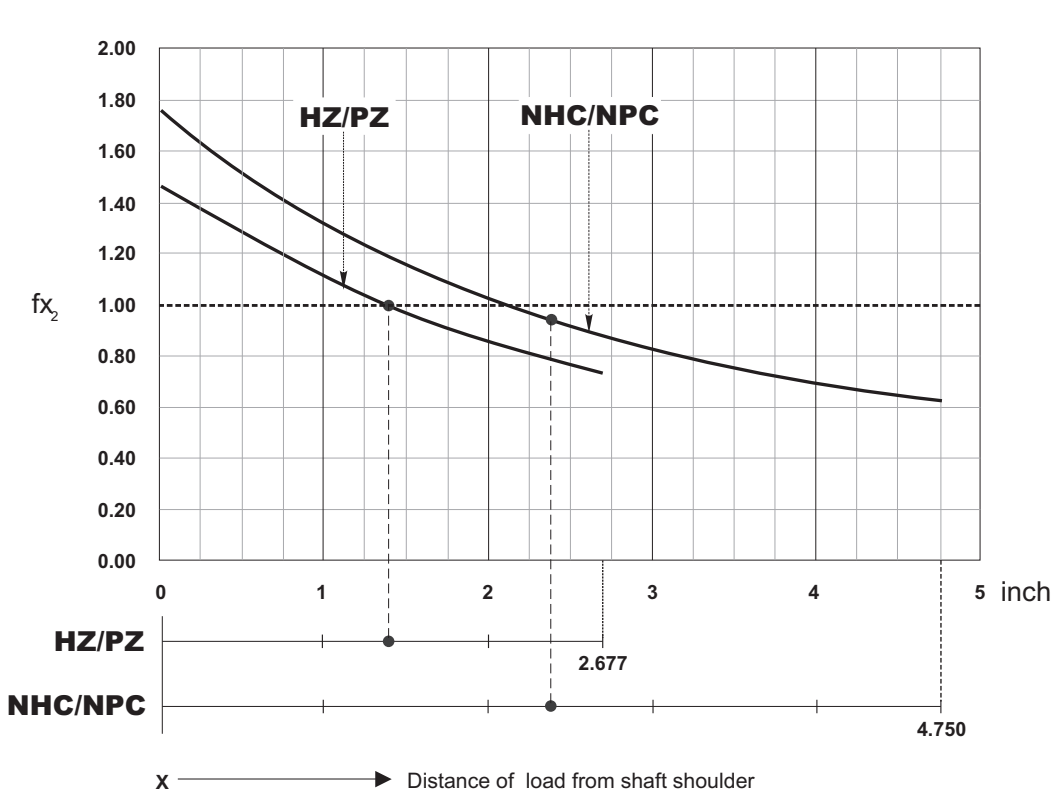
m = module  
z = number of teeth  
x = addendum modification  
dp = generated pitch diameter  
di = root diameter  
de = outside diameter

(mm)	inch	Ⓣ
(60)	2.362 H7	+0.00118 0
(78)	3.071 h7	0 -0.00118
(95)	3.740 f7	-0.00142 -0.00280



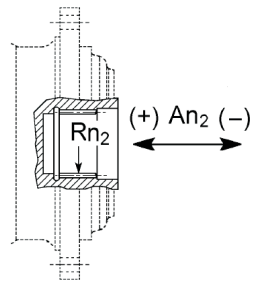


Load application factor for calculation of admissible overhung load on output shaft



$$R_{x_2} = R_{n_2} \cdot f_{x_2}$$

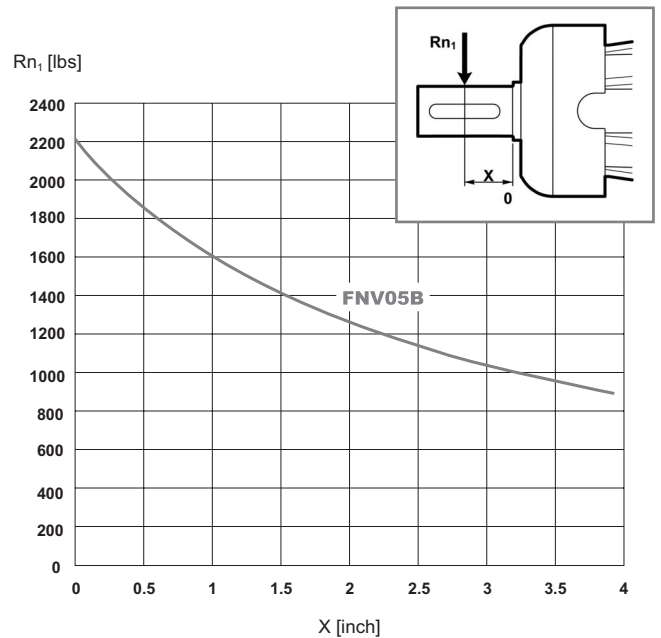
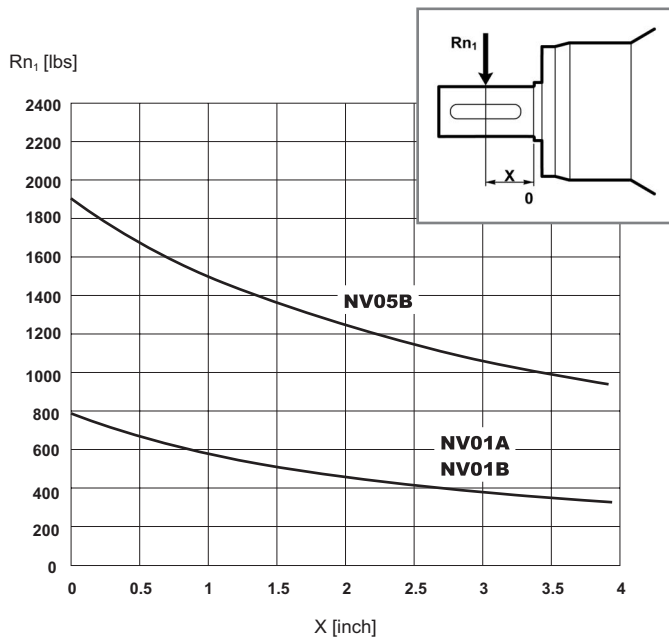
$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

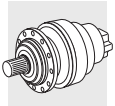


$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
FZ	1.04	1.04

Permitted overhung load on input shaft

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 (c<sub>2</sub>).





304

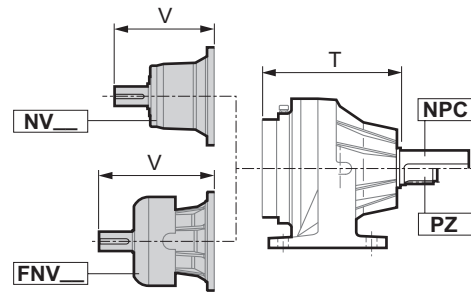
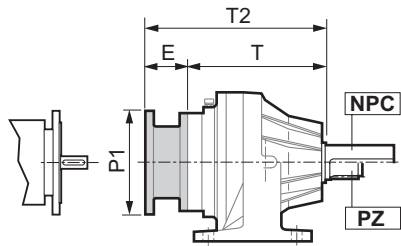
NPC

PZ

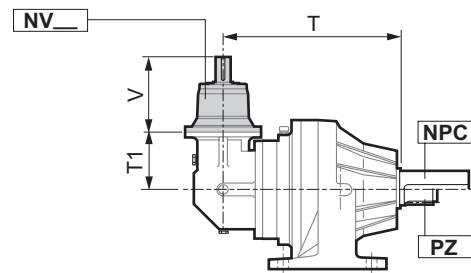
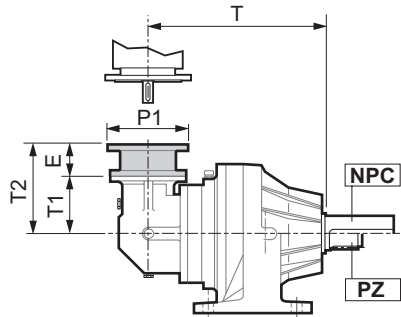
NEMA input

Solid input shaft

304 L



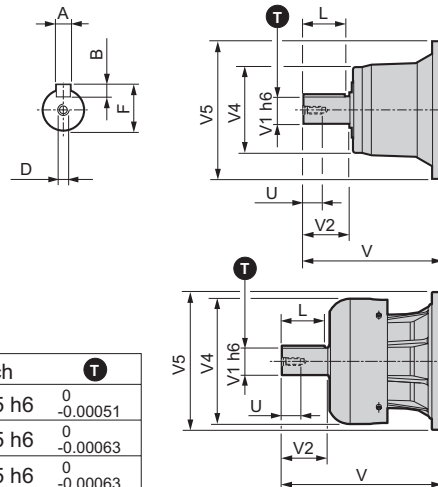
304 R



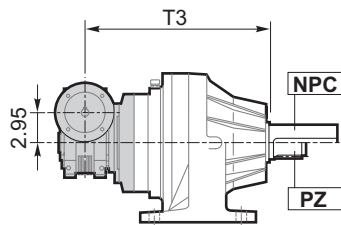
	304 L1		304 L2, L3, L4 304 R2, R3, R4	
	Solid input shaft			
	NV05B	FNV05B	NV01A	NV01B
V	9.68	11.06	6.00	6.44
V1	1.875	1.875	1.125	1.625
V2	3.50	3.50	2.00	2.50
V4	6.10	8.70	4.72	4.72
V5	9.65	9.65	7.32	7.32
A	0.500	0.500	0.250	0.375
B	0.500	0.500	0.250	0.375
F	2.091	2.091	1.236	1.791
L	3.00	3.00	1.75	2.00
D	5/8 - 11UNC	5/8 - 11UNC	3/8 - 16UNC	1/2 - 13UNC
U	1.42	1.42	0.87	1.10
Lbs	33.1	38	13.2	15.4

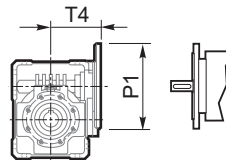
(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> <sub>-0.00063</sub>



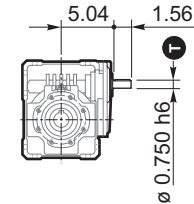
3/V 04 L3



NEMA input

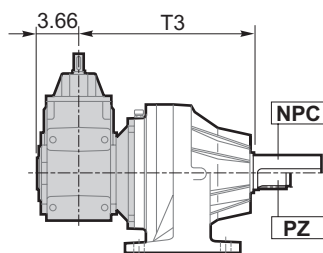


Solid input shaft

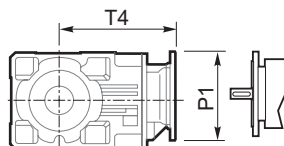


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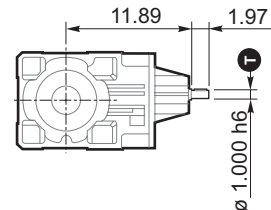
3/A 04 L2



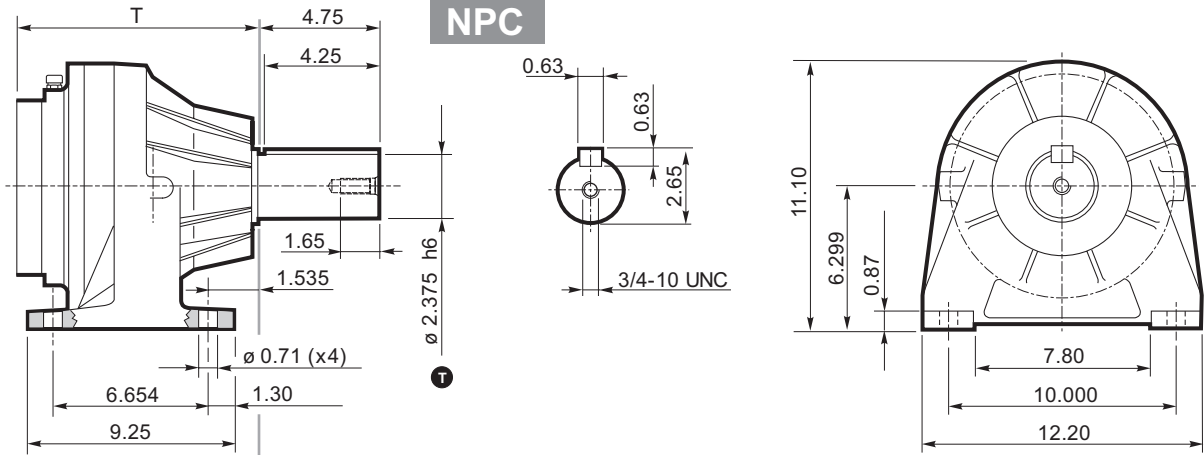
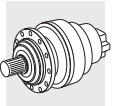
NEMA input



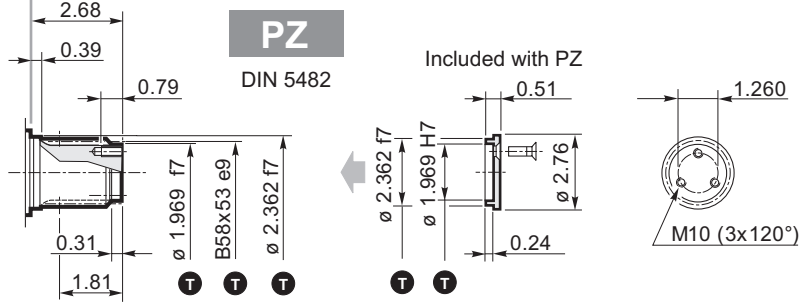
Solid input shaft



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(mm)	inch	Tolerance
—	0.750 h6	0 -0.00051
(50)	1.969 f7	-0.00098 -0.00197
(50)	1.969 H7	+0.00098 0
(60)	2.362 f7	-0.00118 -0.00236
—	2.375 h6	0 -0.00075
B58x53 e9		DIN 5482

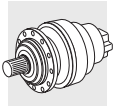


	304 L1	304 L2	304 L3	304 L4	304 R2	304 R3	304 R4
T	6.50	9.05	11.14	13.23	10.12	12.67	14.76
T1	—	—	—	—	5.51	4.80	4.80
Lbs	88.2	103.6	112.4	121.3	132.3	134.5	143.3

3/V 04 L3	3/A 04 L2
<b>T3</b>	
13.58	11.73
Lbs 122.3	210

NEMA Input									
	P1	E	T2						
N56C	9.84	4.51	—	13.56	15.65	17.73	10.02	9.78	9.78
N140TC	9.84	4.51	—	13.56	15.65	17.73	10.02	9.78	9.78
N180TC	8.82	5.22	—	14.27	16.36	18.44	10.73	10.49	10.49
N210TC	8.82	5.22	—	14.27	16.36	18.44	10.73	10.49	10.49
N250TC	8.82	5.22	—	14.27	16.36	18.44	10.73	10.49	10.49
N250TC	11.81	5.41	11.91	—	—	—	—	—	—
N280TC	11.81	6.42	12.91	15.47	17.56	19.64	11.93	11.69	11.69

P1	T4	P1	T4
6.54	4.19	6.50	10.35
6.54	4.19	6.50	10.35
—	—	8.98	11.10
—	—	—	—
—	—	—	—
—	—	—	—



304

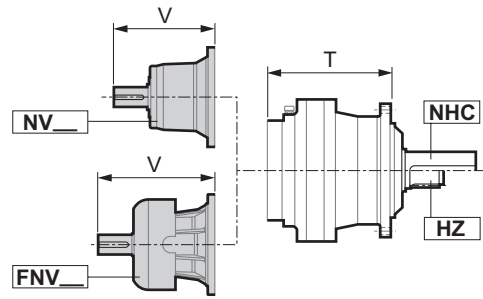
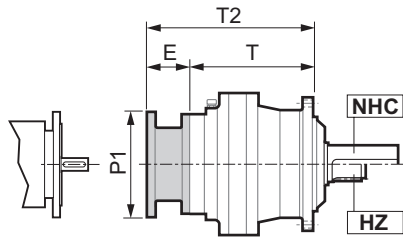
NHC

HZ

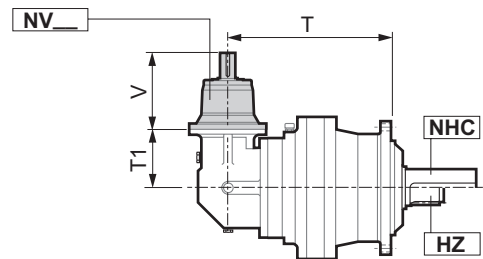
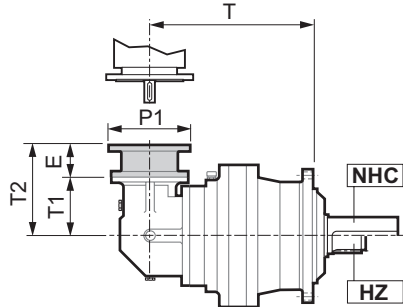
NEMA input

Solid input shaft

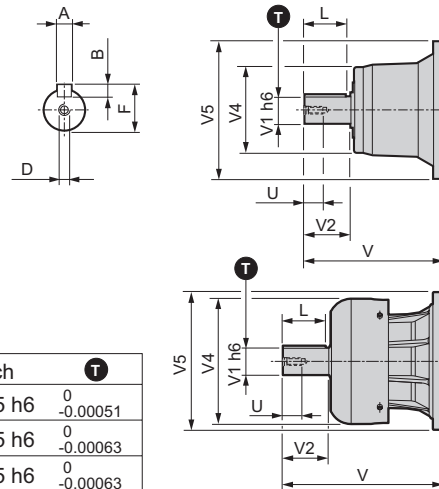
304 L



304 R

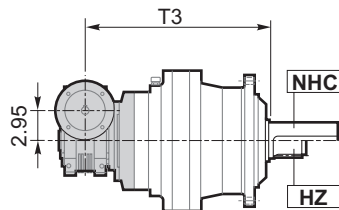


	304 L1		304 L2, L3, L4 304 R2, R3, R4	
	NV05B	FNV05B	NV01A	NV01B
V	9.68	11.06	6.00	6.44
V1	1.875	1.875	1.125	1.625
V2	3.50	3.50	2.00	2.50
V4	6.10	8.70	4.72	4.72
V5	9.65	9.65	7.32	7.32
A	0.500	0.500	0.250	0.375
B	0.500	0.500	0.250	0.375
F	2.091	2.091	1.236	1.791
L	3.00	3.00	1.75	2.00
D	5/8 - 11UNC	5/8 - 11UNC	3/8 - 16UNC	1/2 - 13UNC
U	1.42	1.42	0.87	1.10
Lbs	33.1	38	13.2	15.4

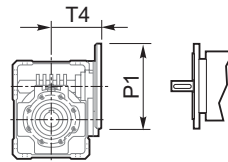


(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> <sub>-0.00063</sub>

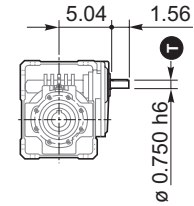
3/V 04 L3



NEMA input

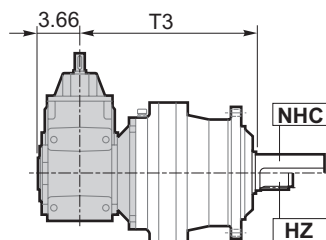


Solid input shaft

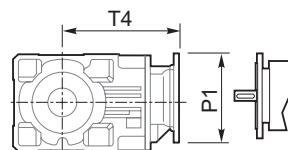


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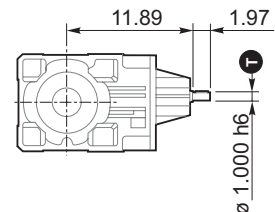
3/A 04 L2



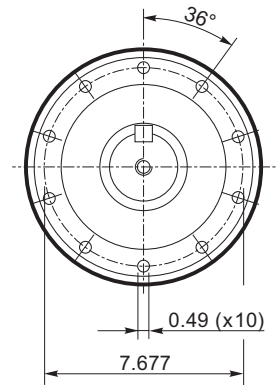
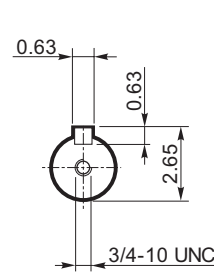
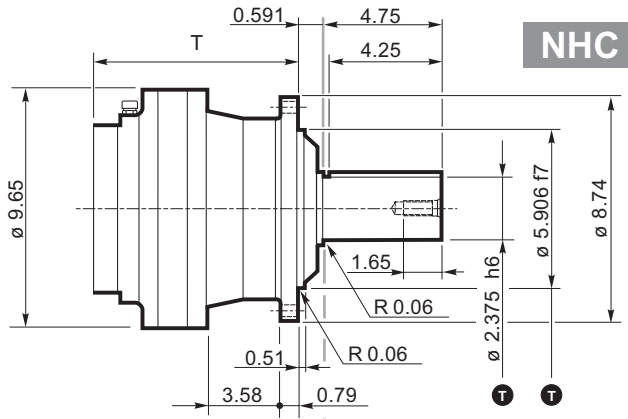
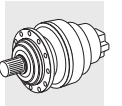
NEMA input



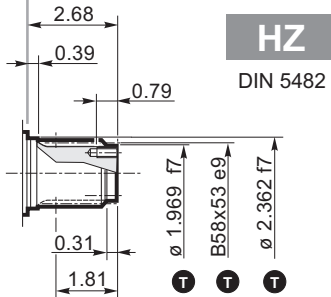
Solid input shaft



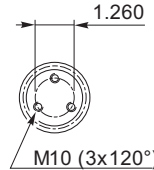
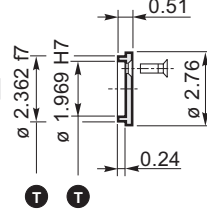
298



(mm)	inch	T
—	0.750 h6	0 -0.00051
(50)	1.969 f7	-0.00098 -0.00197
(50)	1.969 H7	+0.00098 0
(60)	2.362 f7	-0.00118 -0.00236
—	2.375 h6	0 -0.00075
(150)	5.906 f7	-0.00169 -0.00327
B58x53 e9		DIN 5482



Included with HZ

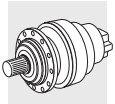


	304 L1	304 L2	304 L3	304 L4	304 R2	304 R3	304 R4
<b>T</b>	5.91	8.46	10.55	12.64	9.53	12.08	14.17
<b>T1</b>	—	—	—	—	5.51	4.80	4.80
<b>Lbs</b>	77.2	92.6	101.4	110.2	121.3	123.5	132.3

	3/V 04 L3	3/A 04 L2
<b>T3</b>	12.99	11.14
<b>Lbs</b>	109.3	200

NEMA Input			T2						
	P1	E							
<b>N56C</b>	9.84	4.51	—	12.97	15.06	17.14	10.02	9.78	9.78
<b>N140TC</b>	9.84	4.51	—	12.97	15.06	17.14	10.02	9.78	9.78
<b>N180TC</b>	8.82	5.22	—	13.68	15.77	17.85	10.73	10.49	10.49
<b>N210TC</b>	8.82	5.22	—	13.68	15.77	17.85	10.73	10.49	10.49
<b>N250TC</b>	8.82	5.22	—	13.68	15.77	17.85	10.73	10.49	10.49
<b>N250TC</b>	11.81	5.41	11.32	—	—	—	—	—	—
<b>N280TC</b>	11.81	6.42	12.32	14.88	16.97	19.05	11.93	11.69	11.69

	P1	T4	P1	T4
	6.54	4.19	6.50	10.35
	6.54	4.19	6.50	10.35
	—	—	8.98	11.10
	—	—	—	—
	—	—	—	—
	—	—	—	—



304

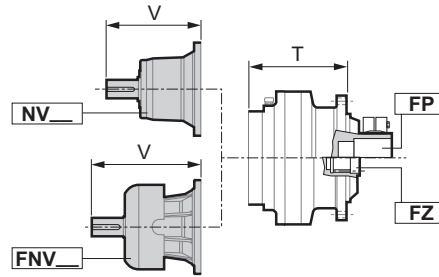
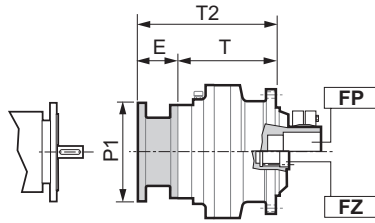
FP

FZ

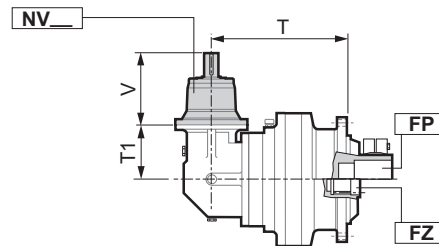
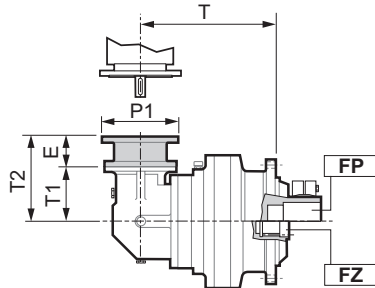
NEMA input

Solid input shaft

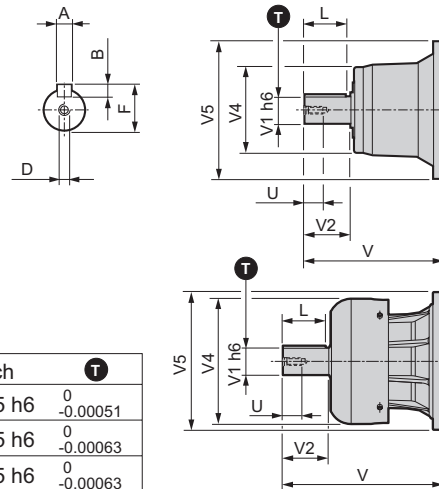
304 L



304 R

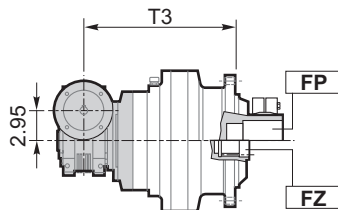


	304 L1		304 L2, L3, L4 304 R2, R3, R4	
	Solid input shaft			
	NV05B	FNV05B	NV01A	NV01B
V	9.68	11.06	6.00	6.44
V1	1.875	1.875	1.125	1.625
V2	3.50	3.50	2.00	2.50
V4	6.10	8.70	4.72	4.72
V5	9.65	9.65	7.32	7.32
A	0.500	0.500	0.250	0.375
B	0.500	0.500	0.250	0.375
F	2.091	2.091	1.236	1.791
L	3.00	3.00	1.75	2.00
D	5/8 - 11UNC	5/8 - 11UNC	3/8 - 16UNC	1/2 - 13UNC
U	1.42	1.42	0.87	1.10
Lbs	33.1	38	13.2	15.4

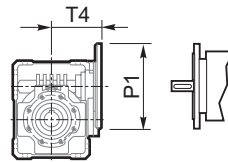


(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> <sub>-0.00063</sub>

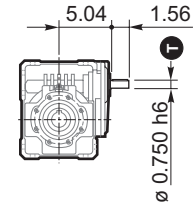
3/V 04 L3



NEMA input

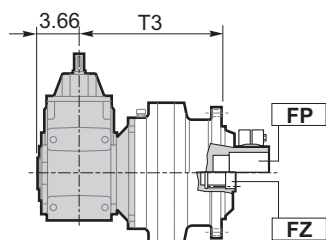


Solid input shaft

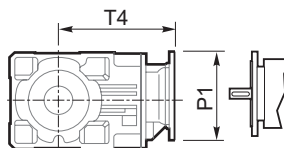


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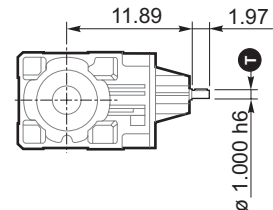
3/A 04 L2



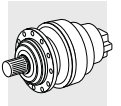
NEMA input



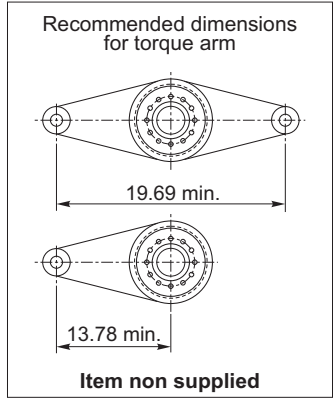
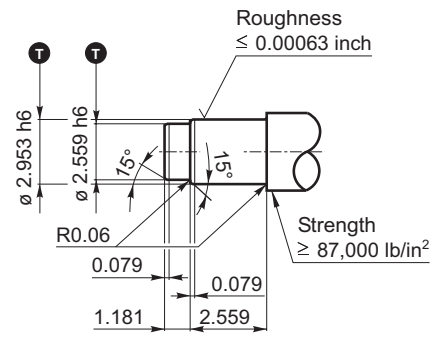
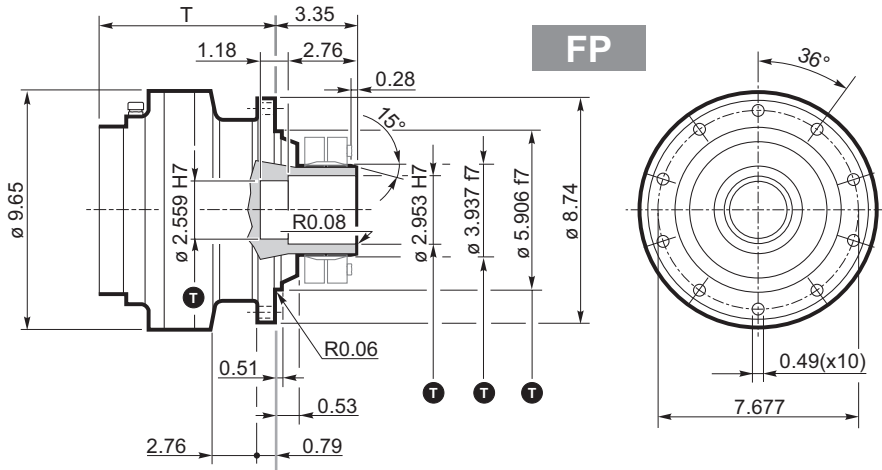
Solid input shaft



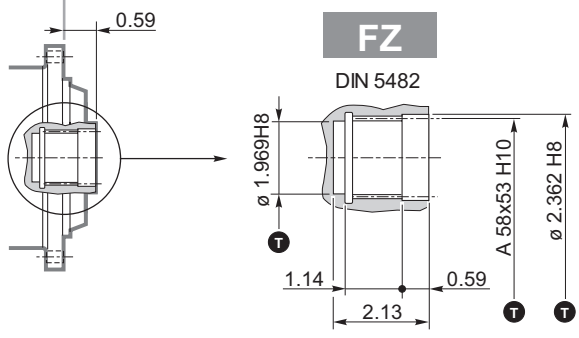
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**FP**  $T_{max} = 31,000 \text{ in.lbs}$



(mm)	inch	T
—	0.750 h6	$0$ $-0.00051$
(50)	1.969 H8	$+0.00154$ $0$
(60)	2.362 H8	$+0.00181$ $0$
(65)	2.559 h6	$-0.00118$ $-0.00193$
(65)	2.559 H7	$+0.00118$ $0$
(75)	2.953 h6	$0$ $-0.00075$
(75)	2.953 H7	$+0.00118$ $0$
(100)	3.937 f7	$-0.00142$ $-0.00280$
(150)	5.906 f7	$-0.00169$ $-0.00327$
A58x53 H10		DIN 5482

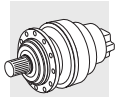


	304 L1	304 L2	304 L3	304 L4	304 R2	304 R3	304 R4
<b>T</b>	4.92	7.48	9.56	11.65	8.54	11.10	13.19
<b>T1</b>	—	—	—	—	5.51	4.80	4.80
<b>Lbs</b>	68.4	83.8	92.6	101.4	112.5	114.6	123.5

	3/V 04 L3	3/A 04 L2
<b>T3</b>		
	12.01	10.16
<b>Lbs</b>	101.3	185

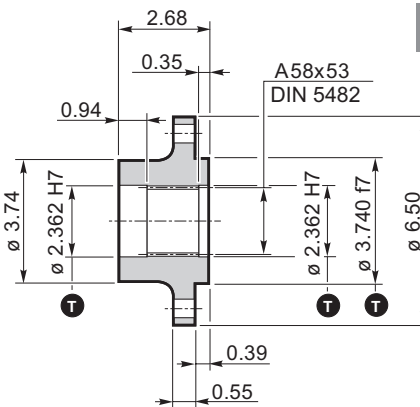
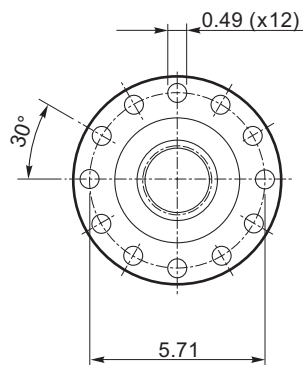
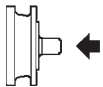
NEMA Input			T2						
	P1	E							
<b>N56C</b>	9.84	4.51	—	11.99	14.07	16.16	10.02	9.78	9.78
<b>N140TC</b>	9.84	4.51	—	11.99	14.07	16.16	10.02	9.78	9.78
<b>N180TC</b>	8.82	5.22	—	12.69	14.78	16.87	10.73	10.49	10.49
<b>N210TC</b>	8.82	5.22	—	12.69	14.78	16.87	10.73	10.49	10.49
<b>N250TC</b>	8.82	5.22	—	12.69	14.78	16.87	10.73	10.49	10.49
<b>N250TC</b>	11.81	5.41	10.33	—	—	—	—	—	—
<b>N280TC</b>	11.81	6.42	11.34	13.90	15.98	18.07	11.93	11.69	11.69

	P1	T4	P1	T4
	6.54	4.19	6.50	10.35
	6.54	4.19	6.50	10.35
	—	—	8.98	11.10
	—	—	—	—
	—	—	—	—
	—	—	—	—



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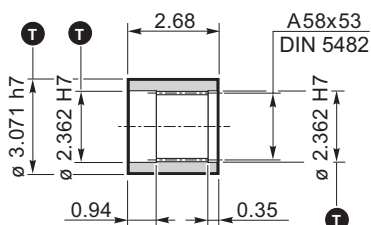
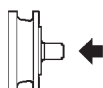
Flange



WOA

Material : Steel AISI 1040

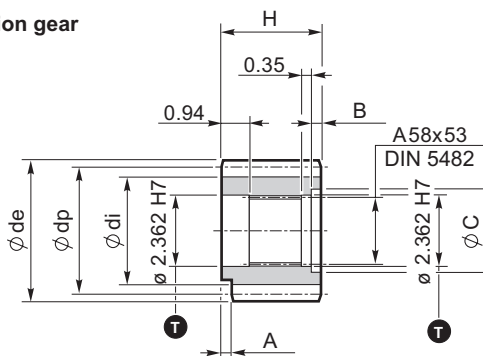
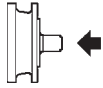
Sleeve coupling



MOA

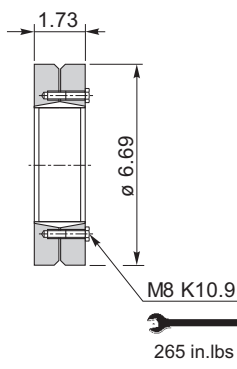
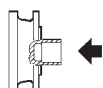
Material : Steel SAE 8620

Output pinion gear



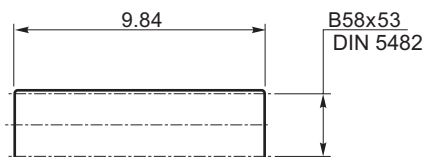
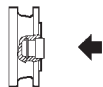
P...

Shrink disc



GOA

Splined bar



BOA

Case hardening steel SAE 4320 must be case hardened to 50-55 HRC

Code	m	z	x	dp	di	de	H	A	B	C	☆
PCL1	5	19	0	95	82	104	77	12	9	72	□
PCL2	5	19	0	95	82	104	68	0	0	0	□
PCM	5	20	0	100	87.5	110	68	18	0	0	■
PCP	5	22	0	110	97.5	120	68	18	0	0	■
PDE	6	14	0.500	84	75	99.6	68	0	0	0	□
PDI	6	18	0.500	108	99	123.6	68	0	0	0	□
PDM	6	20	0.833	120	115	140	68	0	0	0	□
PFD	8	13	0.675	104	95	127.6	68	0	0	0	■
PFE1	8	14	0	112	92	126	68	0	0	0	■
PFE2	8	14	0	112	92	126	80	0	12	72	■
PFF	8	15	0	120	100	136	68	0	0	0	□
PFP	8	22	0	176	156	190	77	12	10	71	□
PHG	10	16	0.500	160	145	188	75	0	7	72	□

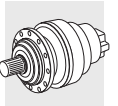
⚠ Dimensions of pinion gears are in mm

☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

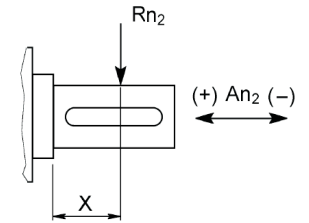
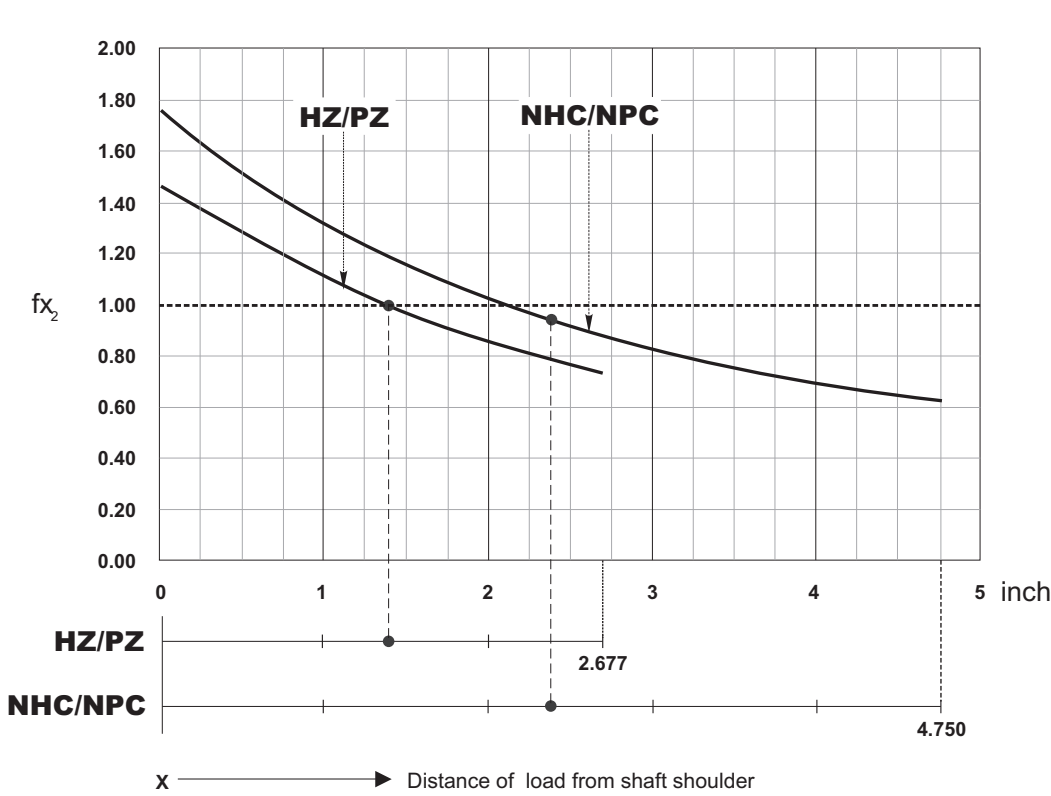
m = module  
z = number of teeth  
x = addendum modification  
dp = generated pitch diameter  
di = root diameter  
de = outside diameter

(mm)	inch	T
(60)	2.362 H7	+0.00118 0
(78)	3.071 h7	0 -0.00118
(95)	3.740 f7	-0.00142 -0.00280



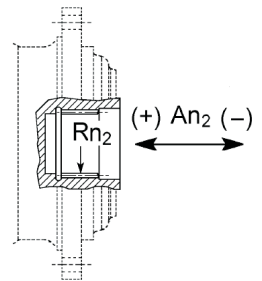


Load application factor for calculation of admissible overhung load on output shaft



$$R_{x_2} = R_{n_2} \cdot f_{x_2}$$

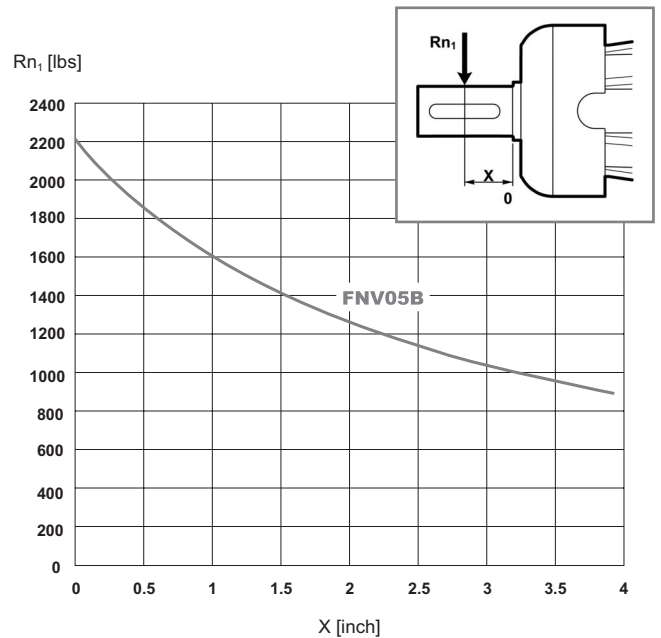
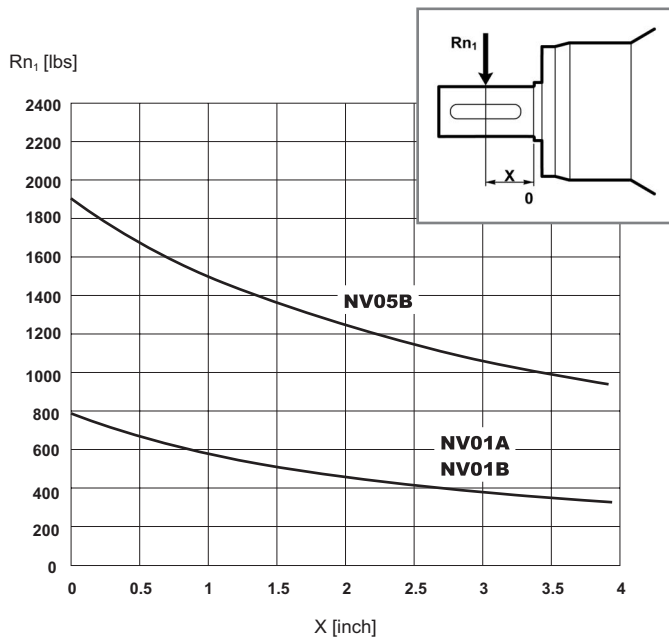
$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

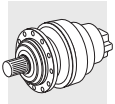


$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
FZ	1.04	1.04

Permitted overhung load on input shaft

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 (c<sub>2</sub>).





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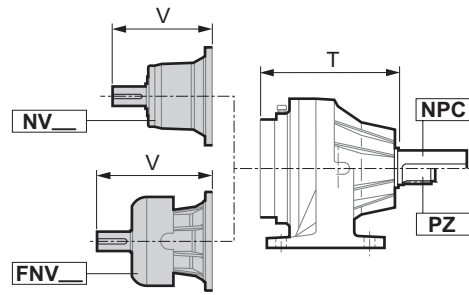
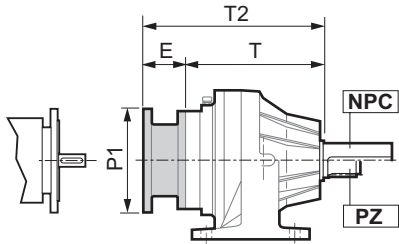
NPC

PZ

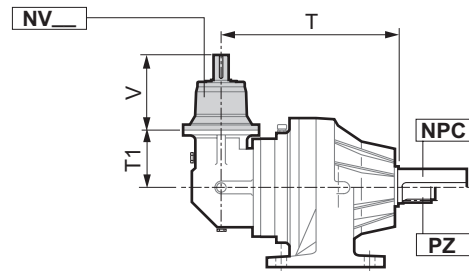
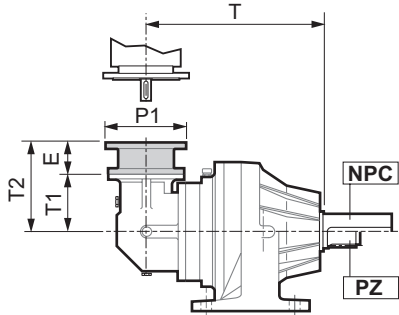
NEMA input

Solid input shaft

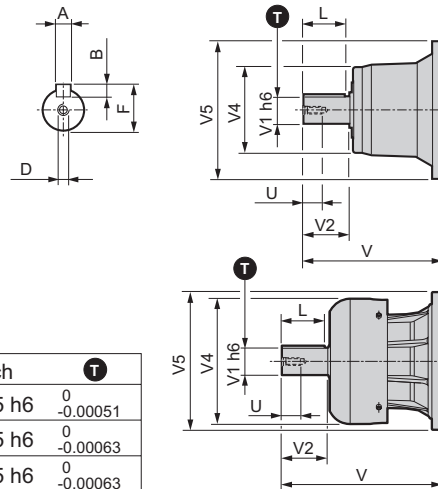
305 L



305 R

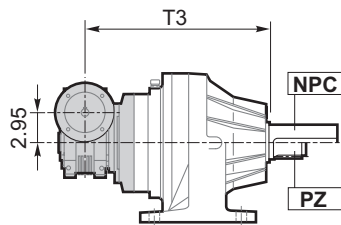


	305 L1		305 L2, L3, L4 305 R2, R3, R4	
	Solid input shaft			
	NV05B	FNV05B	NV01A	NV01B
V	9.68	11.06	6.00	6.44
V1	1.875	1.875	1.125	1.625
V2	3.50	3.50	2.00	2.50
V4	6.10	8.70	4.72	4.72
V5	9.65	9.65	7.32	7.32
A	0.500	0.500	0.250	0.375
B	0.500	0.500	0.250	0.375
F	2.091	2.091	1.236	1.791
L	3.00	3.00	1.75	2.00
D	5/8 - 11UNC	5/8 - 11UNC	3/8 - 16UNC	1/2 - 13UNC
U	1.42	1.42	0.87	1.10
Lbs	33.1	38	13.2	15.4

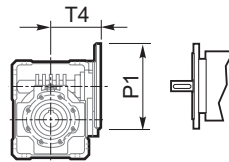


(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> <sub>-0.00063</sub>

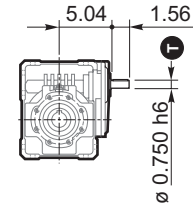
3/V 05 L3



NEMA input

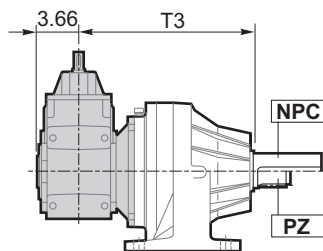


Solid input shaft

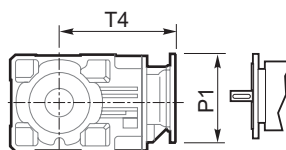


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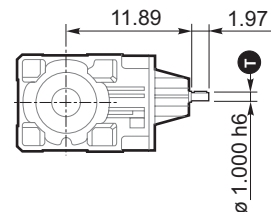
3/A 05 L2



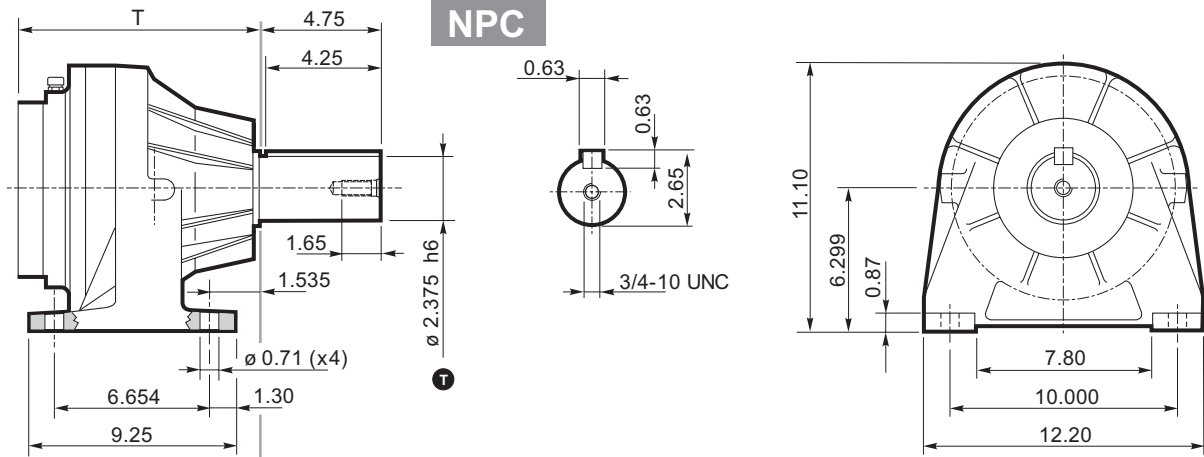
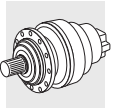
NEMA input



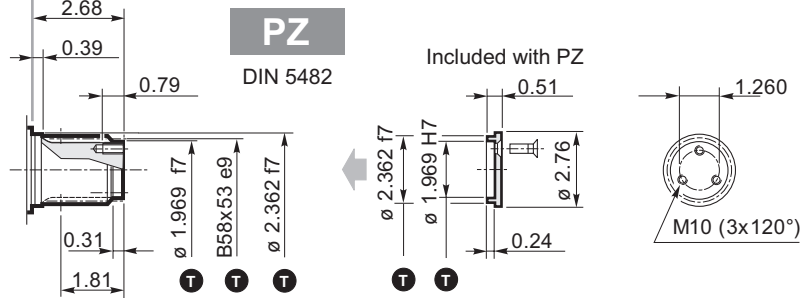
Solid input shaft



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(mm)	inch	T
—	0.750 h6	$\begin{matrix} 0 \\ -0.00051 \end{matrix}$
—	1.000 h6	$\begin{matrix} 0 \\ -0.00051 \end{matrix}$
(50)	1.969 f7	$\begin{matrix} -0.00098 \\ -0.00197 \end{matrix}$
(50)	1.969 H7	$\begin{matrix} +0.00098 \\ 0 \end{matrix}$
(60)	2.362 f7	$\begin{matrix} -0.00118 \\ -0.00236 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
B58x53 e9		DIN 5482

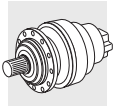


	305 L1	305 L2	305 L3	305 L4	305 R2	305 R3	305 R4
T	7.20	9.76	11.85	13.94	14.76	13.39	15.47
T1	—	—	—	—	5.51	4.80	4.80
Lbs	99.2	114.7	123.5	132.3	143.3	145.5	154.4

	3/V 05 L3	3/A 05 L2
T3		
	14.29	12.44
Lbs	132.3	231.5

NEMA Input									
	P1	E	T2						
N56C	9.84	4.51	—	14.27	16.36	18.44	10.02	9.31	9.31
N140TC	9.84	4.51	—	14.27	16.36	18.44	10.02	9.31	9.31
N180TC	8.82	5.22	—	14.98	17.07	19.15	10.73	10.02	10.02
N210TC	8.82	5.22	—	14.98	17.07	19.15	10.73	10.02	10.02
N250TC	8.82	5.22	—	14.98	17.07	19.15	10.73	10.02	10.02
N250TC	11.81	5.41	12.62	—	—	—	—	—	—
N280TC	11.81	6.28	—	16.04	18.13	20.22	11.79	11.08	11.08
N280TC	13.78	6.42	13.62	—	—	—	—	—	—

	P1	T4	P1	T4
	6.54	4.74	6.50	11.14
	6.54	4.74	6.50	11.14
	9.02	5.45	9.00	11.89
	—	—	9.00	13.13
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—



**305**

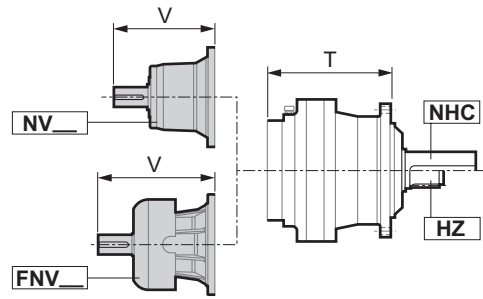
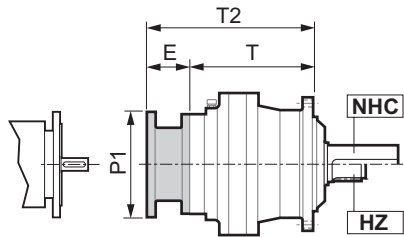
**NHC**

**HZ**

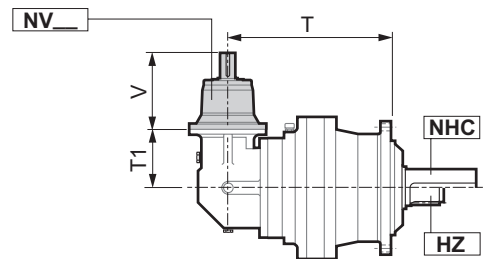
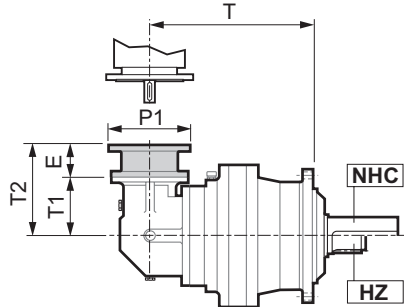
**NEMA input**

**Solid input shaft**

**305 L**



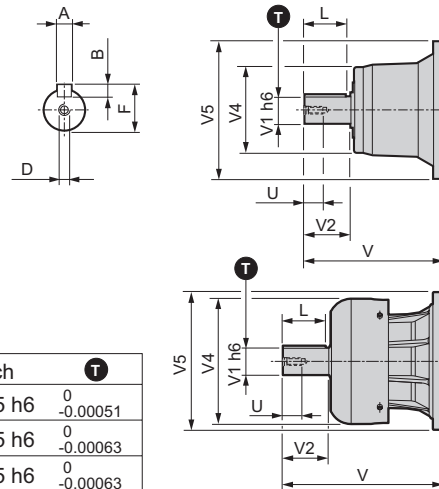
**305 R**



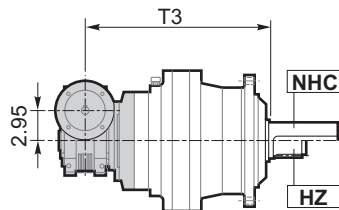
	305 L1		305 L2, L3, L4 305 R2, R3, R4	
	Solid input shaft			
	NV05B	FNV05B	NV01A	NV01B
<b>V</b>	9.68	11.06	6.00	6.44
<b>V1</b>	1.875	1.875	1.125	1.625
<b>V2</b>	3.50	3.50	2.00	2.50
<b>V4</b>	6.10	8.70	4.72	4.72
<b>V5</b>	9.65	9.65	7.32	7.32
<b>A</b>	0.500	0.500	0.250	0.375
<b>B</b>	0.500	0.500	0.250	0.375
<b>F</b>	2.091	2.091	1.236	1.791
<b>L</b>	3.00	3.00	1.75	2.00
<b>D</b>	5/8 - 11UNC	5/8 - 11UNC	3/8 - 16UNC	1/2 - 13UNC
<b>U</b>	1.42	1.42	0.87	1.10
<b>Lbs</b>	33.1	38	13.2	15.4

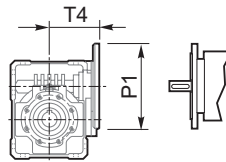
(mm)	inch	T
—	1.125 h6	<sup>0</sup> / <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> / <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> / <sub>-0.00063</sub>



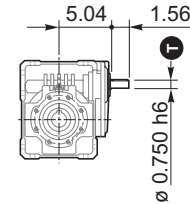
**3/V 05 L3**



**NEMA input**

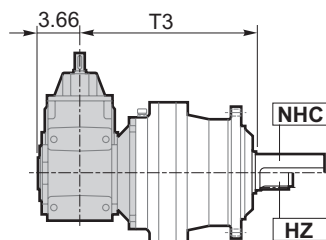


**Solid input shaft**

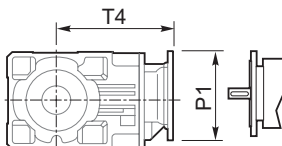


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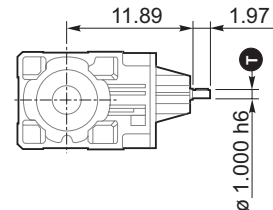
**3/A 05 L2**



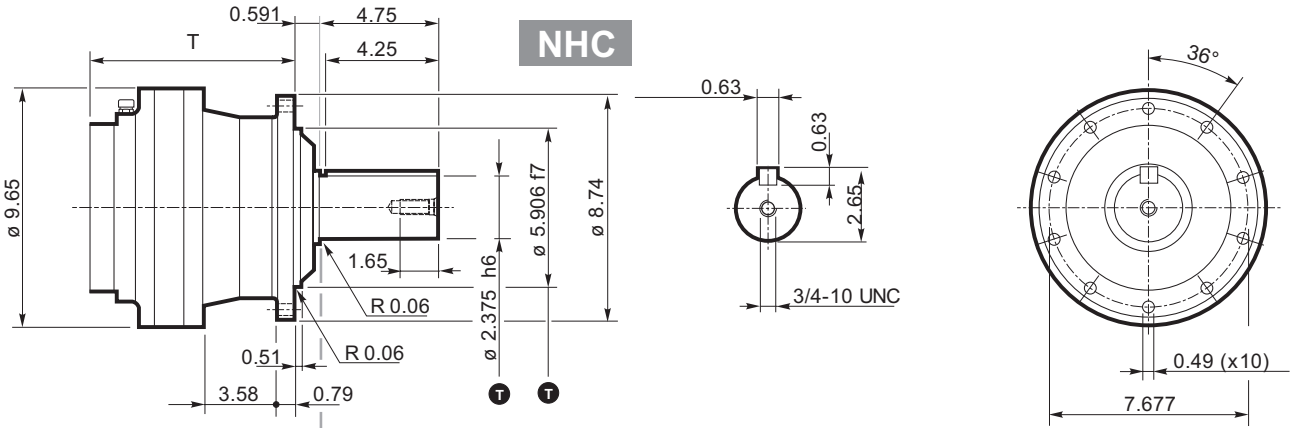
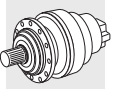
**NEMA input**



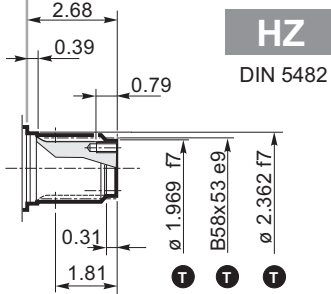
**Solid input shaft**



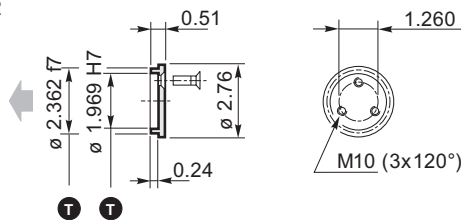
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(mm)	inch	Tolerance
—	0.750 h6	0 / -0.00051
—	1.000 h6	0 / -0.00051
(50)	1.969 f7	-0.00098 / -0.00197
(50)	1.969 H7	+0.00098 / 0
(60)	2.362 f7	-0.00118 / -0.00236
—	2.375 h6	0 / -0.00075
(150)	5.906 f7	-0.00169 / -0.00327
B58x53 e9		DIN 5482



Included with HZ

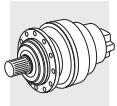


	305 L1	305 L2	305 L3	305 L4	305 R2	305 R3	305 R4
T	6.61	9.17	11.26	13.35	10.24	12.80	14.88
T1	—	—	—	—	5.51	4.80	4.80
Lbs	88.2	103.6	112.5	121.3	132.3	134.5	143.3

	3/V 05 L3	3/A 05 L2
T3	13.70	11.85
Lbs	121.3	220.5

NEMA Input									
	P1	E	T2						
N56C	9.84	4.51	—	13.68	15.77	17.85	10.02	9.31	9.31
N140TC	9.84	4.51	—	13.68	15.77	17.85	10.02	9.31	9.31
N180TC	8.82	5.22	—	14.39	16.48	18.56	10.73	10.02	10.02
N210TC	8.82	5.22	—	14.39	16.48	18.56	10.73	10.02	10.02
N250TC	8.82	5.22	—	14.39	16.48	18.56	10.73	10.02	10.02
N250TC	11.81	5.41	12.03	—	—	—	—	—	—
N280TC	11.81	6.28	—	15.45	17.54	19.63	11.79	11.08	11.08
N280TC	13.78	6.42	13.03	—	—	—	—	—	—

	P1	T4	P1	T4
	6.54	4.74	6.50	11.14
	6.54	4.74	6.50	11.14
	9.02	5.45	9.00	11.89
	—	—	9.00	13.13
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—



305

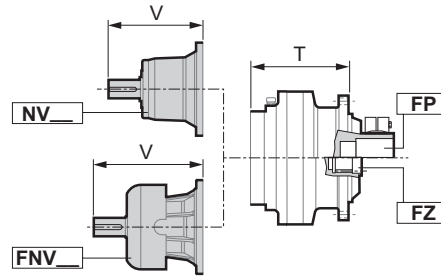
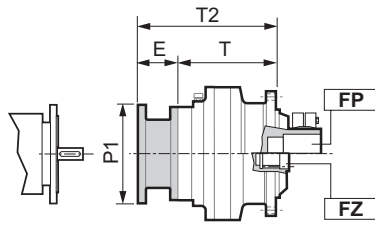
FP

FZ

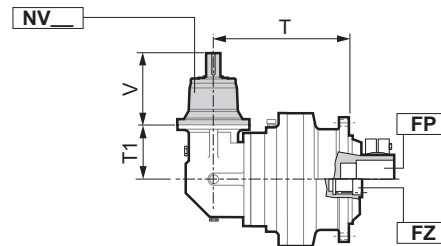
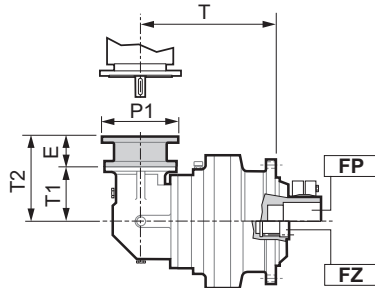
NEMA input

Solid input shaft

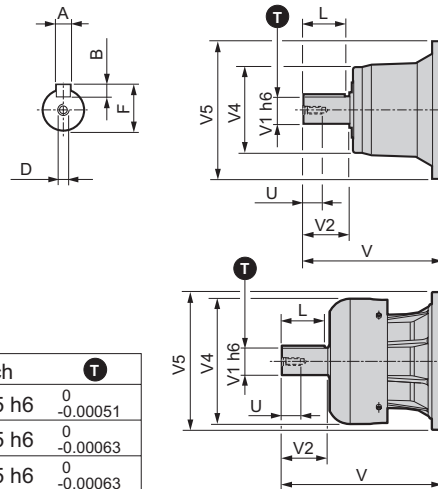
305 L



305 R

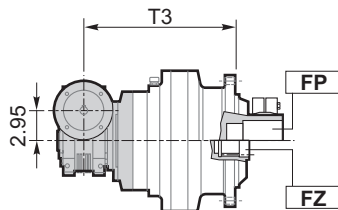


	305 L1		305 L2, L3, L4 305 R2, R3, R4	
	Solid input shaft			
	NV05B	FNV05B	NV01A	NV01B
V	9.68	11.06	6.00	6.44
V1	1.875	1.875	1.125	1.625
V2	3.50	3.50	2.00	2.50
V4	6.10	8.70	4.72	4.72
V5	9.65	9.65	7.32	7.32
A	0.500	0.500	0.250	0.375
B	0.500	0.500	0.250	0.375
F	2.091	2.091	1.236	1.791
L	3.00	3.00	1.75	2.00
D	5/8 - 11UNC	5/8 - 11UNC	3/8 - 16UNC	1/2 - 13UNC
U	1.42	1.42	0.87	1.10
Lbs	33.1	38	13.2	15.4

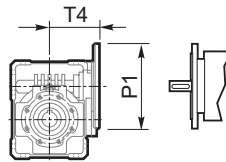


(mm)	inch	T
—	1.125 h6	0 -0.00051
—	1.625 h6	0 -0.00063
—	1.875 h6	0 -0.00063

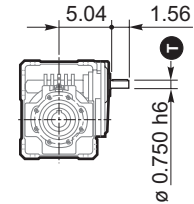
3/V 05 L3



NEMA input

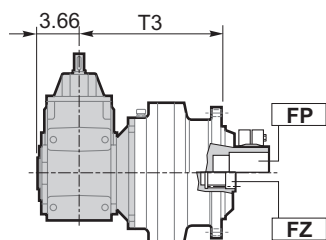


Solid input shaft

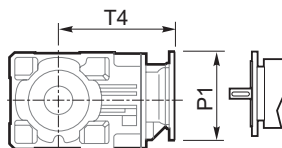


298

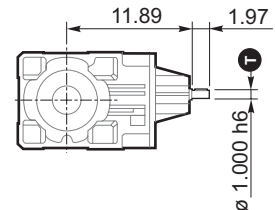
3/A 05 L2



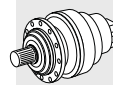
NEMA input



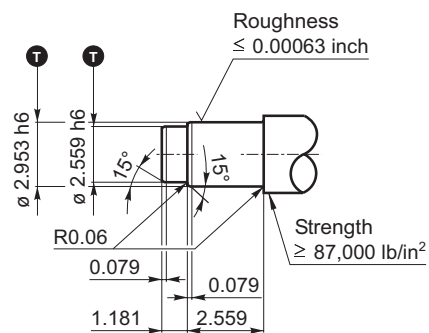
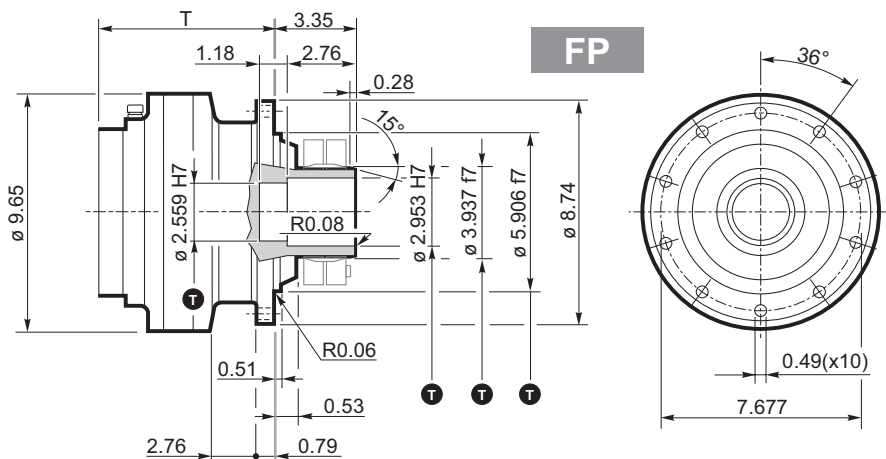
Solid input shaft



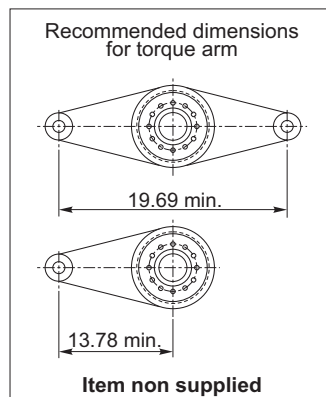
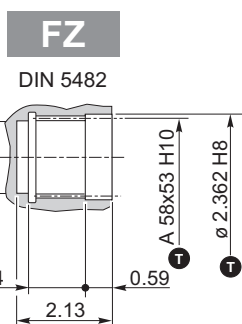
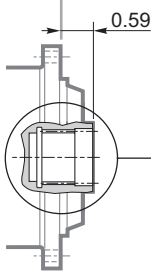
298



**FP**  $T_{2max} = 62,000 \text{ in. lbs}$



(mm)	inch	T
—	0.750 h6	$0 \text{ } -0.00051$
—	1.000 h6	$0 \text{ } -0.00051$
(50)	1.969 H8	$+0.00154 \text{ } 0$
(60)	2.362 H8	$+0.00181 \text{ } 0$
(65)	2.559 h6	$-0.00118 \text{ } -0.00193$
(65)	2.559 H7	$+0.00118 \text{ } 0$
(75)	2.953 h6	$0 \text{ } -0.00075$
(75)	2.953 H7	$+0.00118 \text{ } 0$
(100)	3.937 f7	$-0.00142 \text{ } -0.00280$
(150)	5.906 f7	$-0.00169 \text{ } -0.00327$
A58x53 H10		DIN 5482

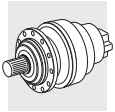


	305 L1	305 L2	305 L3	305 L4	305 R2	305 R3	305 R4
<b>T</b>	5.63	8.19	10.28	12.36	9.25	11.81	13.90
<b>T1</b>	—	—	—	—	5.51	4.80	4.80
<b>Lbs</b>	79.4	94.8	103.6	112.5	123.5	125.7	134.5

	3/V 05 L3	3/A 05 L2
<b>T3</b>		
	12.72	10.87
<b>Lbs</b>	112.5	198.5

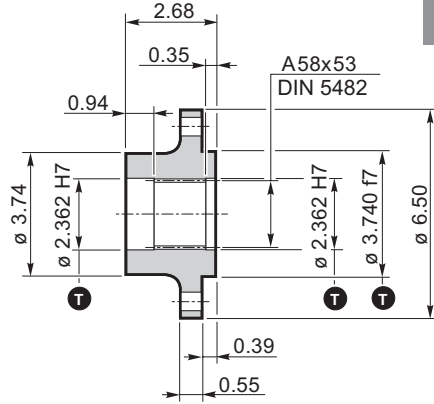
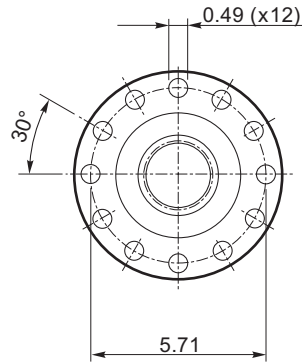
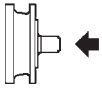
NEMA Input									
	P1	E	T2						
<b>N56C</b>	9.84	4.51	—	12.70	14.78	16.87	10.02	9.31	9.31
<b>N140TC</b>	9.84	4.51	—	12.70	14.78	16.87	10.02	9.31	9.31
<b>N180TC</b>	8.82	5.22	—	13.41	15.49	17.58	10.73	10.02	10.02
<b>N210TC</b>	8.82	5.22	—	13.41	15.49	17.58	10.73	10.02	10.02
<b>N250TC</b>	8.82	5.22	—	13.41	15.49	17.58	10.73	10.02	10.02
<b>N250TC</b>	11.81	5.41	11.04	—	—	—	—	—	—
<b>N280TC</b>	11.81	6.28	—	14.47	16.56	18.64	11.79	11.08	11.08
<b>N280TC</b>	13.78	6.42	12.05	—	—	—	—	—	—

	P1	T4	P1	T4
	6.54	4.74	6.50	11.14
	6.54	4.74	6.50	11.14
	9.02	5.45	9.00	11.89
	—	—	9.00	13.13
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—



**305**

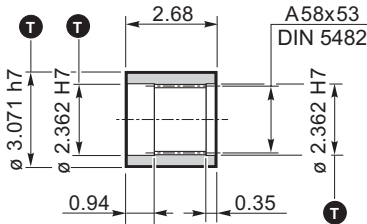
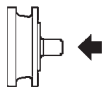
**Flange**



**WOA**

Material : Steel AISI 1040

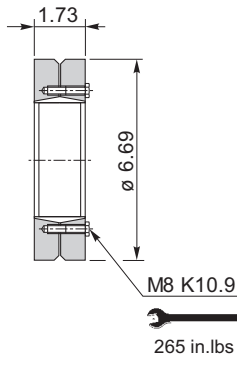
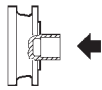
**Sleeve coupling**



**MOA**

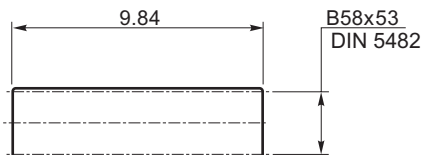
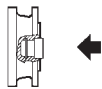
Material : Steel SAE 8620

**Shrink disc**



**GOA**

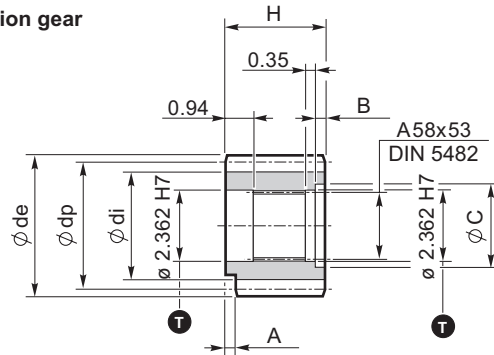
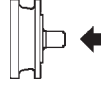
**Splined bar**



**BOA**

Case hardening steel SAE 4320 must be case hardened to 50-55 HRC

**Output pinion gear**



**P...**

Code	m	z	x	dp	di	de	H	A	B	C	☆
PCL1	5	19	0	95	82	104	77	12	9	72	□
PCL2	5	19	0	95	82	104	68	0	0	0	□
PCM	5	20	0	100	87.5	110	68	18	0	0	■
PCP	5	22	0	110	97.5	120	68	18	0	0	■
PDE	6	14	0.500	84	75	99.6	68	0	0	0	□
PDI	6	18	0.500	108	99	123.6	68	0	0	0	□
PDM	6	20	0.833	120	115	140	68	0	0	0	□
PFD	8	13	0.675	104	95	127.6	68	0	0	0	■
PFE1	8	14	0	112	92	126	68	0	0	0	■
PFE2	8	14	0	112	92	126	80	0	12	72	■
PFF	8	15	0	120	100	136	68	0	0	0	□
PFP	8	22	0	176	156	190	77	12	10	71	□
PHG	10	16	0.500	160	145	188	75	0	7	72	□

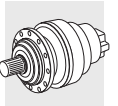
⚠ Dimensions of pinion gears are in mm

☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

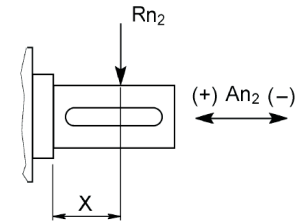
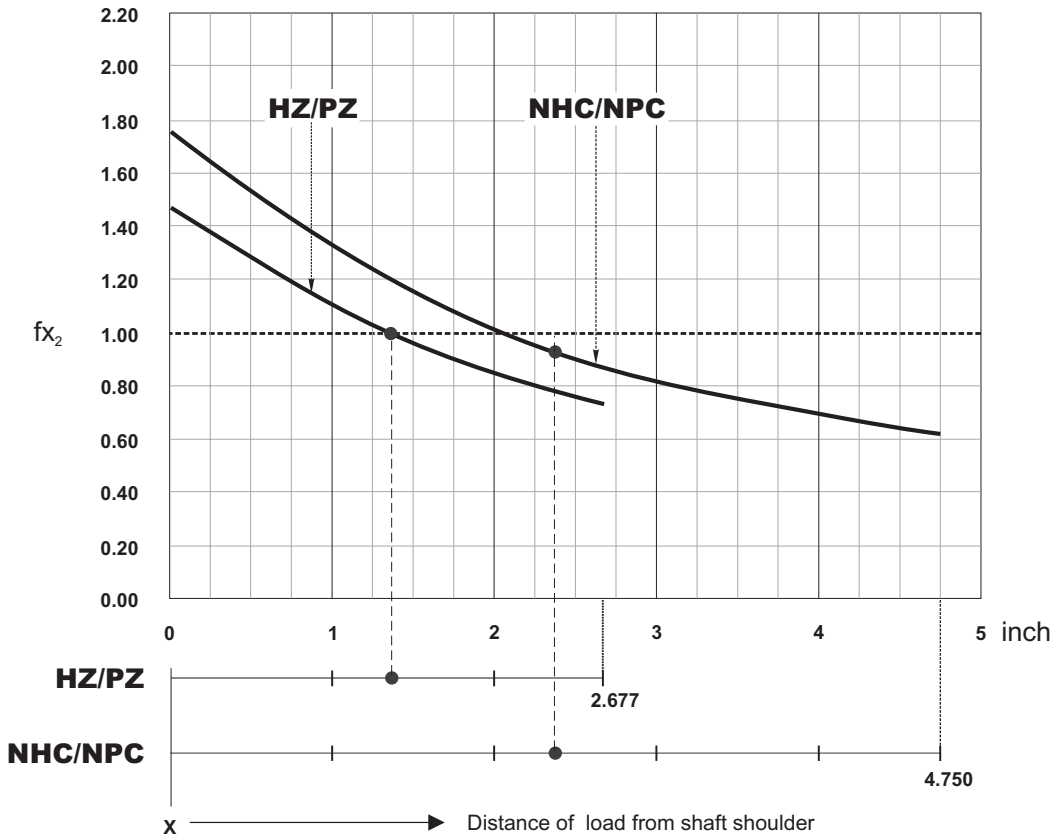
m = module  
z = number of teeth  
x = addendum modification  
dp = generated pitch diameter  
di = root diameter  
de = outside diameter

(mm)	inch	T
(60)	2.362 H7	+0.00118 0
(78)	3.071 h7	0 -0.00118
(95)	3.740 f7	-0.00142 -0.00280



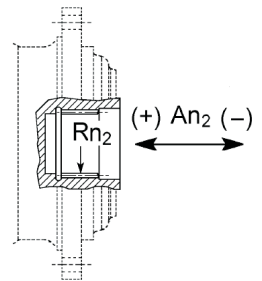


**Load application factor for calculation of admissible overhung load on output shaft**



$$R_{x_2} = R_{n_2} \cdot f_{x_2}$$

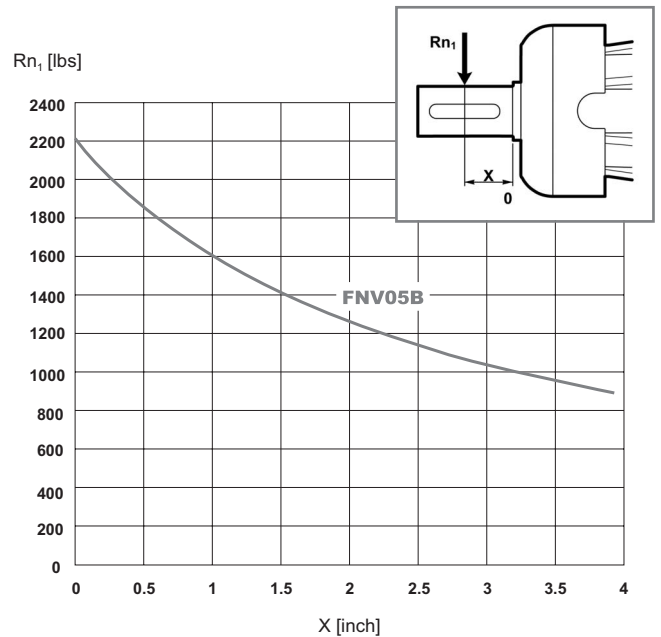
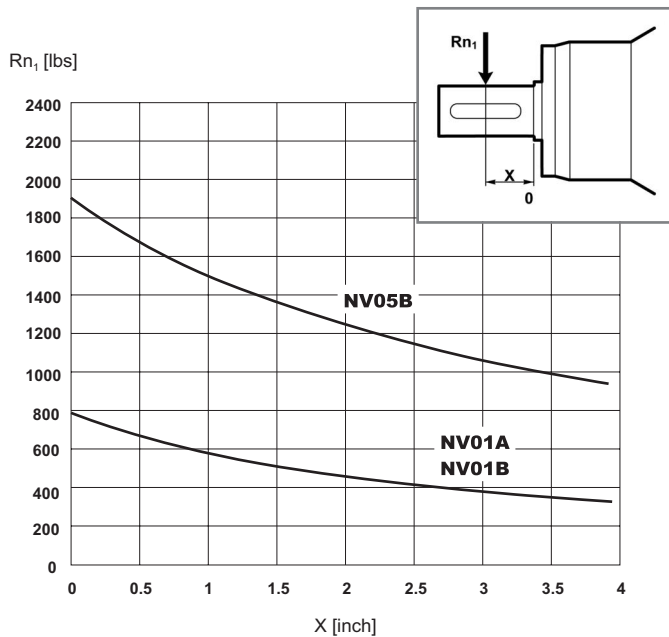
$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

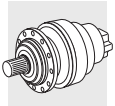


$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
FZ	1.04	1.04

**Permitted overhung load on input shaft**

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





**306**

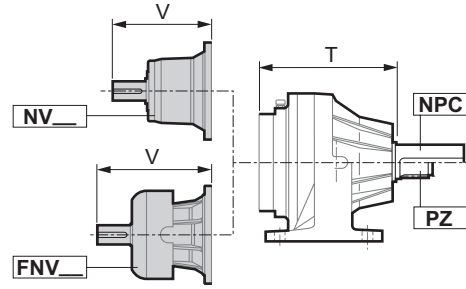
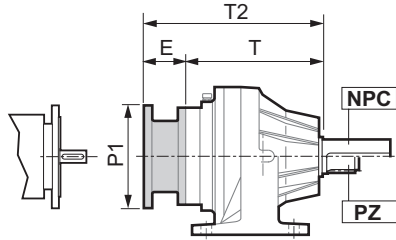
**NPC**

**PZ**

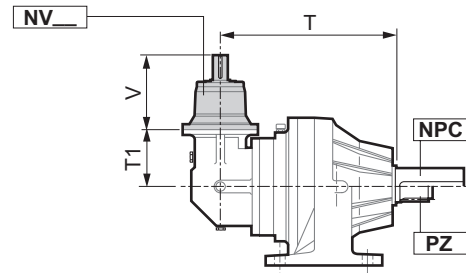
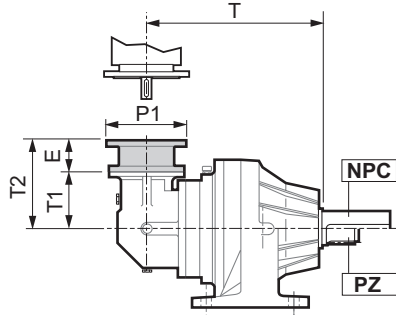
**NEMA input**

**Solid input shaft**

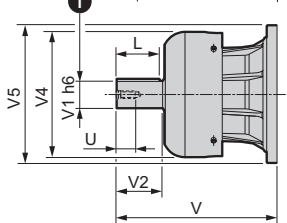
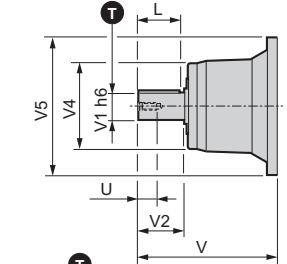
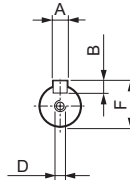
**306 L**



**306 R**

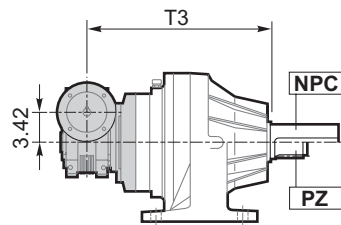


	306 L2		306 L3, L4 306 R2, R3, R4		306 L1	
	Solid input shaft					
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B
V	9.68	11.06	6.00	6.44	12.70	14.67
V1	1.875	1.875	1.125	1.625	2.375	2.375
V2	3.50	3.50	2.00	2.50	4.75	4.75
V4	6.10	8.70	4.72	4.72	6.10	12.20
V5	9.65	9.65	7.32	7.32	11.50	11.50
A	0.500	0.500	0.250	0.375	0.625	0.625
B	0.500	0.500	0.250	0.375	0.625	0.625
F	2.091	2.091	1.236	1.791	2.646	2.646
L	3.00	3.00	1.75	2.00	4.25	4.25
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65
Lbs	33.1	38	13.2	15.4	50.7	58

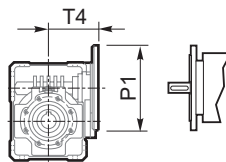


(mm)	inch	T
—	1.125 h6	0 -0.00051
—	1.625 h6	0 -0.00063
—	1.875 h6	0 -0.00063
—	2.375 h6	0 -0.00075

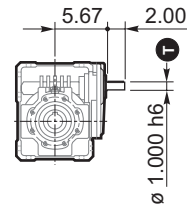
**3/V 06 L3**



**NEMA input**

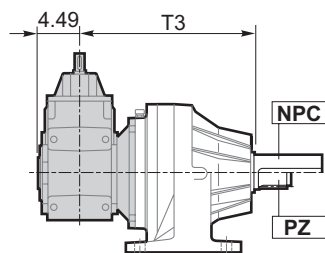


**Solid input shaft**

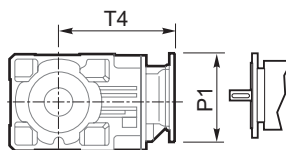


298

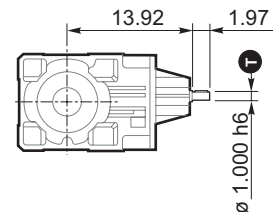
**3/A 06 L2**



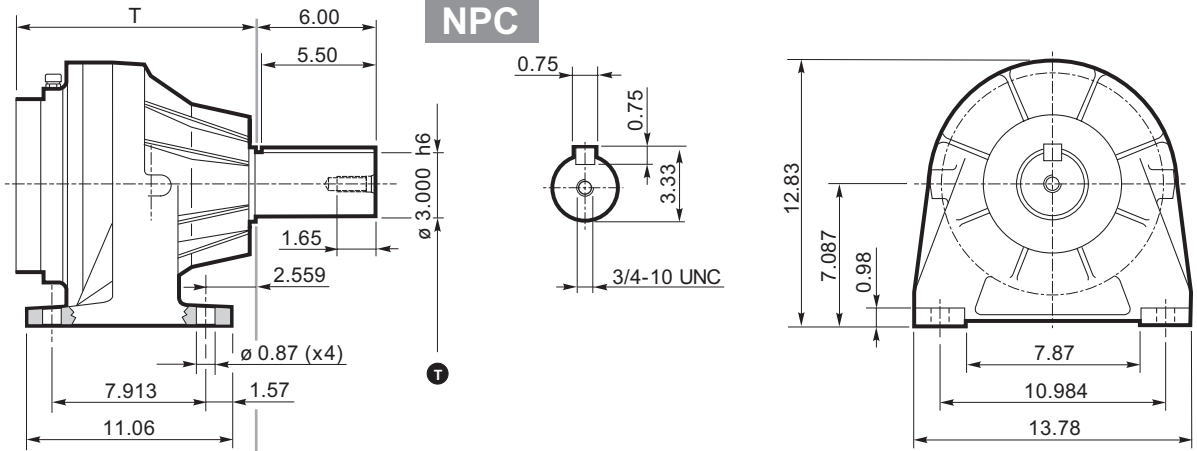
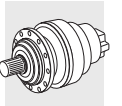
**NEMA input**



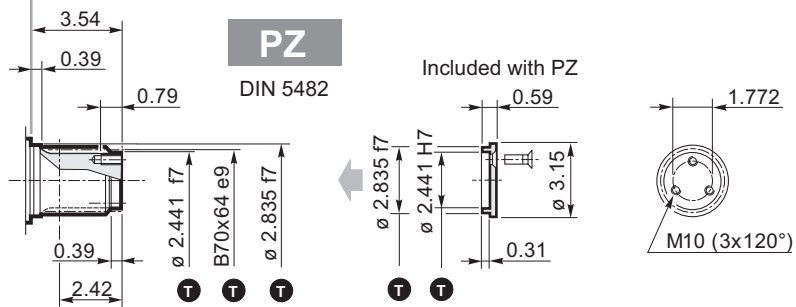
**Solid input shaft**



298



(mm)	inch	T
—	1.000 h6	$\begin{matrix} 0 \\ -0.00051 \end{matrix}$
(62)	2.441 f7	$\begin{matrix} -0.00118 \\ -0.00236 \end{matrix}$
(62)	2.441 H7	$\begin{matrix} +0.00118 \\ 0 \end{matrix}$
(72)	2.835 f7	$\begin{matrix} -0.00118 \\ -0.00236 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
B70x64 e9		DIN 5482

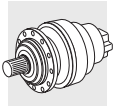


	306 L1	306 L2	306 L3	306 L4	306 R2	306 R3	306 R4
<b>T</b>	9.25	11.81	13.90	15.98	14.65	15.43	17.52
<b>T1</b>	—	—	—	—	5.51	5.51	4.80
<b>Lbs</b>	187.4	209.5	216.1	227.1	231.5	220.5	209.5

	3/V 06 L3	3/A 06 L2
<b>T3</b>	17.52	16.34
<b>Lbs</b>	244.8	374.9

NEMA Input									
	P1	E	T2						
<b>N56C</b>	9.84	4.51	—	—	18.41	20.49	10.02	10.02	9.31
<b>N140TC</b>	9.84	4.51	—	—	18.41	20.49	10.02	10.02	9.31
<b>N180TC</b>	8.82	5.22	—	—	19.11	21.20	10.73	10.73	10.02
<b>N210TC</b>	8.82	5.22	—	—	19.11	21.20	10.73	10.73	10.02
<b>N250TC</b>	8.82	5.22	—	—	19.11	21.20	10.73	10.73	10.02
<b>N250TC</b>	11.81	5.41	—	17.22	—	—	—	—	—
<b>N280TC</b>	11.81	6.28	—	—	20.18	22.26	11.79	11.79	11.08
<b>N280TC</b>	13.78	6.42	—	18.23	—	—	—	—	—
<b>N320TC</b>	13.78	7.97	17.22	—	—	—	—	—	—
<b>N360TC</b>	13.78	7.97	17.22	—	—	—	—	—	—

	P1	T4	P1	T4
	6.54	5.37	6.50	13.17
	6.54	5.37	6.50	13.17
	9.02	5.37	9.00	13.92
	9.02	6.08	9.00	15.16
	—	—	13.78	17.95
	—	—	—	—
	—	—	13.78	18.15
	—	—	—	—
	—	—	—	—
	—	—	—	—



306

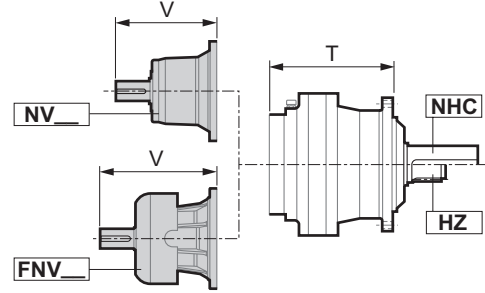
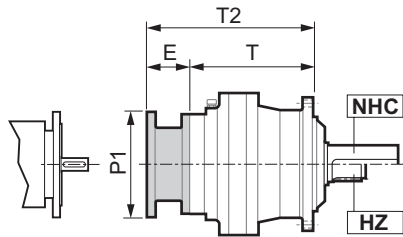
NHC

HZ

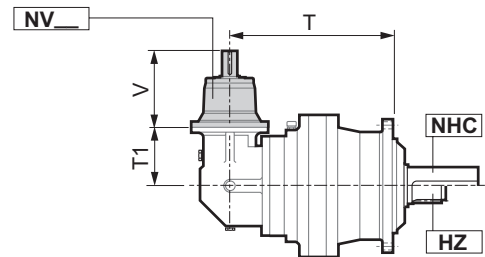
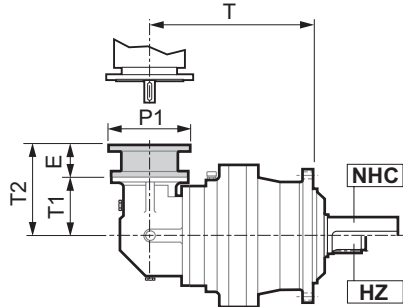
NEMA input

Solid input shaft

306 L



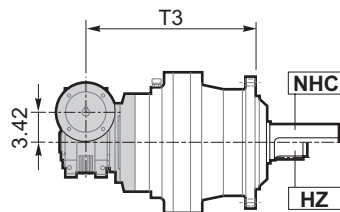
306 R



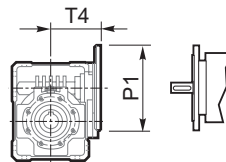
	306 L2		306 L3, L4 306 R2, R3, R4		306 L1	
	Solid input shaft					
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B
V	9.68	11.06	6.00	6.44	12.70	14.67
V1	1.875	1.875	1.125	1.625	2.375	2.375
V2	3.50	3.50	2.00	2.50	4.75	4.75
V4	6.10	8.70	4.72	4.72	6.10	12.20
V5	9.65	9.65	7.32	7.32	11.50	11.50
A	0.500	0.500	0.250	0.375	0.625	0.625
B	0.500	0.500	0.250	0.375	0.625	0.625
F	2.091	2.091	1.236	1.791	2.646	2.646
L	3.00	3.00	1.75	2.00	4.25	4.25
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65
Lbs	33.1	38	13.2	15.4	50.7	58

(mm)	inch	T
—	1.125 h6	0 -0.00051
—	1.625 h6	0 -0.00063
—	1.875 h6	0 -0.00063
—	2.375 h6	0 -0.00075

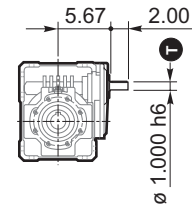
3/V 06 L3



NEMA input

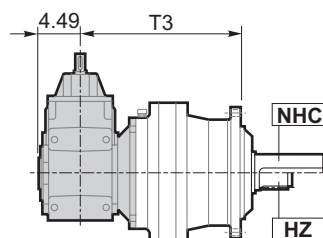


Solid input shaft

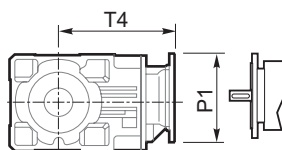


298

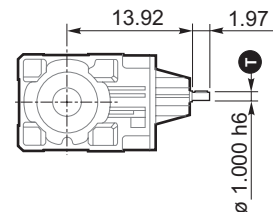
3/A 06 L2



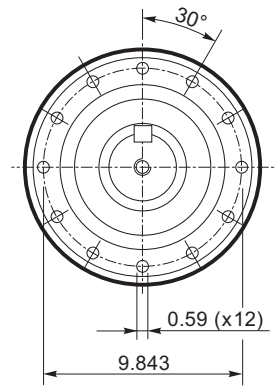
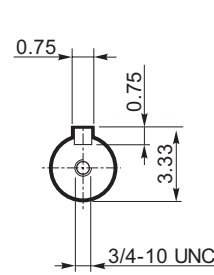
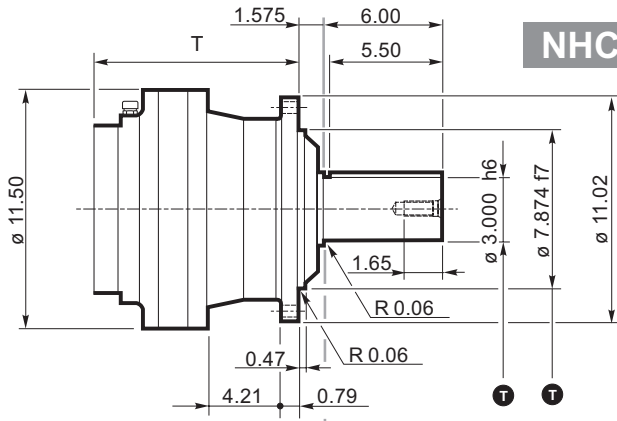
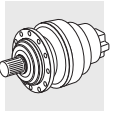
NEMA input



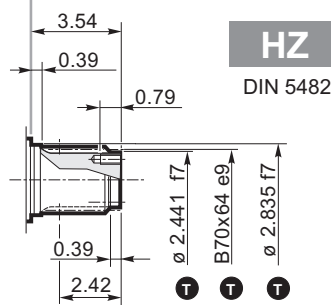
Solid input shaft



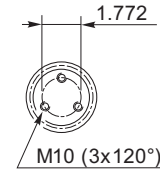
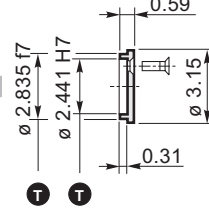
298



(mm)	inch	Tolerance
—	1.000 h6	0 -0.00051
(62)	2.441 f7	-0.00118 -0.00236
(62)	2.441 H7	+0.00118 0
(72)	2.835 f7	-0.00118 -0.00236
—	3.000 h6	0 -0.00075
(200)	7.874 f7	-0.00197 -0.00378
B70x64 e9		DIN 5482



Included with HZ

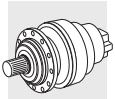


	306 L1	306 L2	306 L3	306 L4	306 R2	306 R3	306 R4
<b>T</b>	7.68	10.24	12.32	14.41	13.07	13.86	15.94
<b>T1</b>	—	—	—	—	5.51	5.51	4.80
<b>Lbs</b>	154.4	174.2	183.0	191.8	207.3	198.5	185.2

3/V 06 L3	3/A 06 L2
<b>T3</b>	
15.94	14.76
<b>Lbs</b> 209.5	330.8

NEMA Input									
	P1	E	T2						
<b>N56C</b>	9.84	4.51	—	—	16.83	18.92	10.02	10.02	9.31
<b>N140TC</b>	9.84	4.51	—	—	16.83	18.92	10.02	10.02	9.31
<b>N180TC</b>	8.82	5.22	—	—	17.54	19.63	10.73	10.73	10.02
<b>N210TC</b>	8.82	5.22	—	—	17.54	19.63	10.73	10.73	10.02
<b>N250TC</b>	8.82	5.22	—	—	17.54	19.63	10.73	10.73	10.02
<b>N250TC</b>	11.81	5.41	—	15.65	—	—	—	—	—
<b>N280TC</b>	11.81	6.28	—	—	18.60	20.69	11.79	11.79	11.08
<b>N280TC</b>	13.78	6.42	—	16.65	—	—	—	—	—
<b>N320TC</b>	13.78	7.97	15.65	—	—	—	—	—	—
<b>N360TC</b>	13.78	7.97	15.65	—	—	—	—	—	—

P1	T4	P1	T4
6.54	5.37	6.50	13.17
6.54	5.37	6.50	13.17
9.02	5.37	9.00	13.92
9.02	6.08	9.00	15.16
—	—	13.78	17.95
—	—	—	—
—	—	13.78	18.15
—	—	—	—
—	—	—	—
—	—	—	—



306

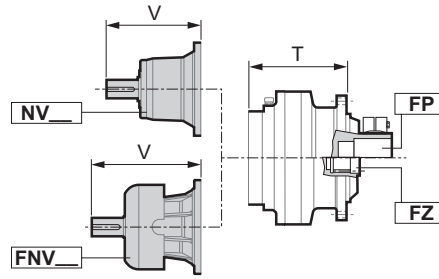
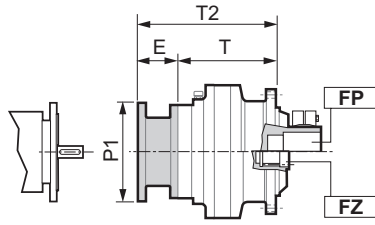
FP

FZ

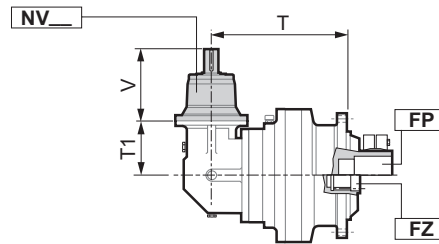
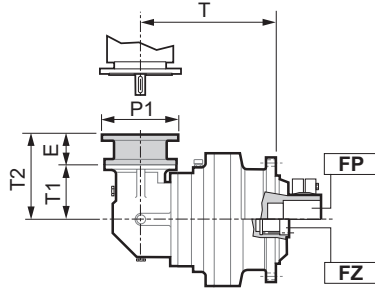
NEMA input

Solid input shaft

306 L



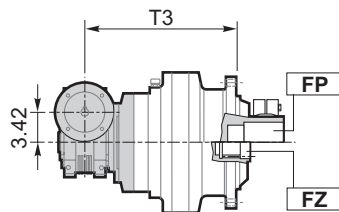
306 R



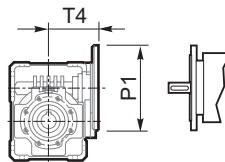
	306 L2		306 L3, L4 306 R2, R3, R4		306 L1	
	Solid input shaft					
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B
V	9.68	11.06	6.00	6.44	12.70	14.67
V1	1.875	1.875	1.125	1.625	2.375	2.375
V2	3.50	3.50	2.00	2.50	4.75	4.75
V4	6.10	8.70	4.72	4.72	6.10	12.20
V5	9.65	9.65	7.32	7.32	11.50	11.50
A	0.500	0.500	0.250	0.375	0.625	0.625
B	0.500	0.500	0.250	0.375	0.625	0.625
F	2.091	2.091	1.236	1.791	2.646	2.646
L	3.00	3.00	1.75	2.00	4.25	4.25
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65
Lbs	33.1	38	13.2	15.4	50.7	58

(mm)	inch	T
—	1.125 h6	0 -0.00051
—	1.625 h6	0 -0.00063
—	1.875 h6	0 -0.00063
—	2.375 h6	0 -0.00075

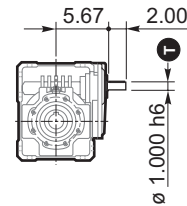
3/V 06 L3



NEMA input

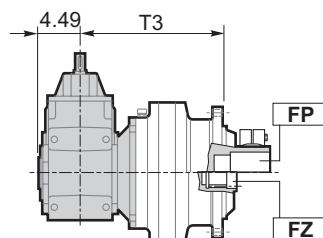


Solid input shaft

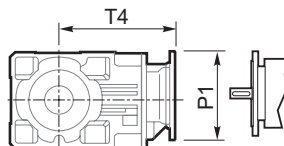


298

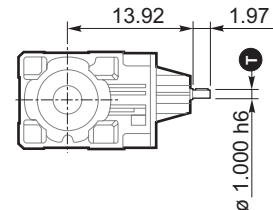
3/A 06 L2



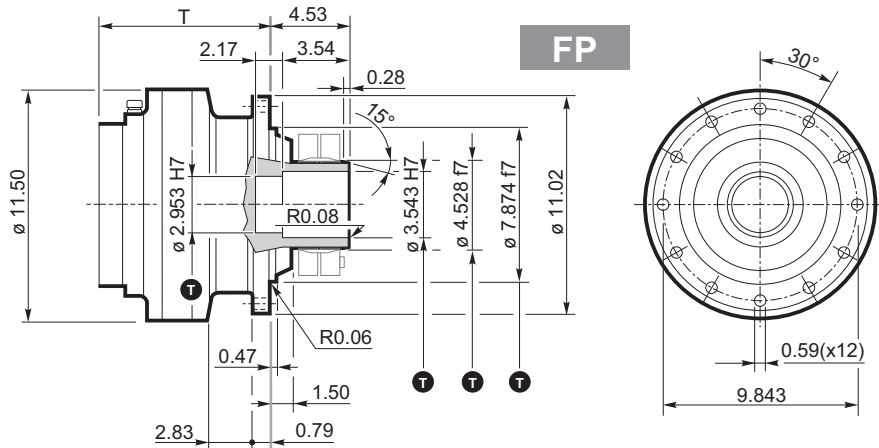
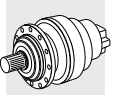
NEMA input



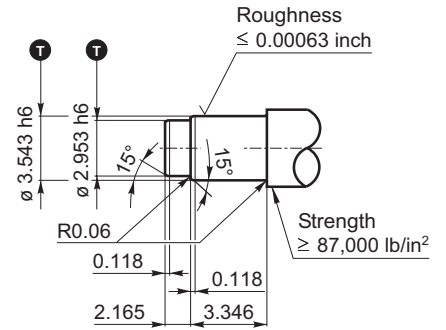
Solid input shaft



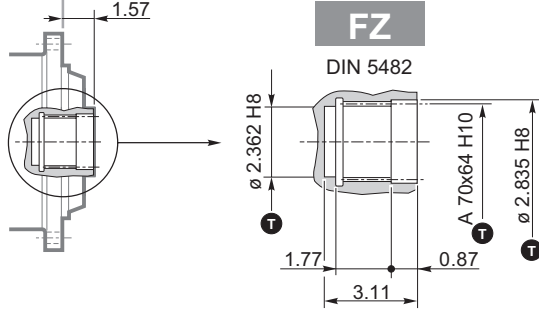
298



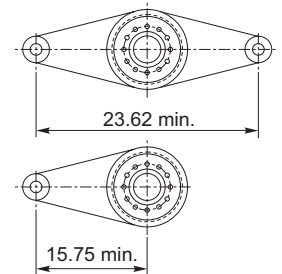
FP T<sub>2max</sub> = 106,200 in.lbs



(mm)	inch	T
—	1.000 h6	<sup>0</sup> / <sub>-0.00051</sub>
(60)	2.362 H8	<sup>+0.00181</sup> / <sub>0</sub>
(72)	2.835 H8	<sup>+0.00181</sup> / <sub>0</sub>
(75)	2.953 h6	<sup>-0.00118</sup> / <sub>-0.00193</sub>
(75)	2.953 H7	<sup>+0.00118</sup> / <sub>0</sub>
(90)	3.543 h6	<sup>0</sup> / <sub>-0.00087</sub>
(90)	3.543 H7	<sup>+0.00138</sup> / <sub>0</sub>
(115)	4.528 f7	<sup>-0.00142</sup> / <sub>-0.00280</sub>
(150)	7.874 f7	<sup>-0.00197</sup> / <sub>-0.00378</sub>
A70x64 H10	DIN 5482	



Recommended dimensions for torque arm



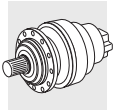
Item non supplied

	306 L1	306 L2	306 L3	306 L4	306 R2	306 R3	306 R4
T	6.30	8.86	10.94	13.03	11.69	12.48	14.57
T1	—	—	—	—	5.51	5.51	4.80
Lbs	143.3	163.2	172.0	180.8	196.2	187.4	174.2

	3/V 06 L3	3/A 06 L2
T3	14.57	13.39
Lbs	176.4	308.7

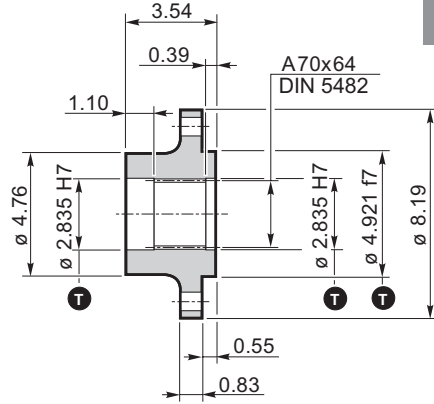
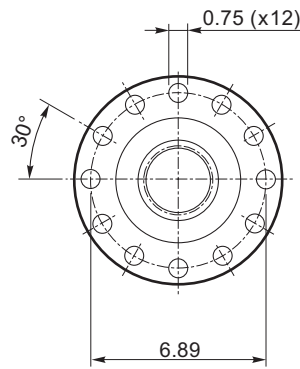
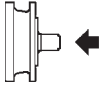
NEMA Input									
	P1	E	T2						
N56C	9.84	4.51	—	—	15.45	17.54	10.02	10.02	9.31
N140TC	9.84	4.51	—	—	15.45	17.54	10.02	10.02	9.31
N180TC	8.82	5.22	—	—	16.16	18.25	10.73	10.73	10.02
N210TC	8.82	5.22	—	—	16.16	18.25	10.73	10.73	10.02
N250TC	8.82	5.22	—	—	16.16	18.25	10.73	10.73	10.02
N250TC	11.81	5.41	—	14.27	—	—	—	—	—
N280TC	11.81	6.28	—	—	17.22	19.31	11.79	11.79	11.08
N280TC	13.78	6.42	—	15.28	—	—	—	—	—
N320TC	13.78	7.97	14.27	—	—	—	—	—	—
N360TC	13.78	7.97	14.27	—	—	—	—	—	—

	P1	T4	P1	T4
	6.54	5.37	6.50	13.17
	6.54	5.37	6.50	13.17
	9.02	5.37	9.00	13.92
	9.02	6.08	9.00	15.16
	—	—	13.78	17.95
	—	—	—	—
	—	—	13.78	18.15
	—	—	—	—
	—	—	—	—
	—	—	—	—



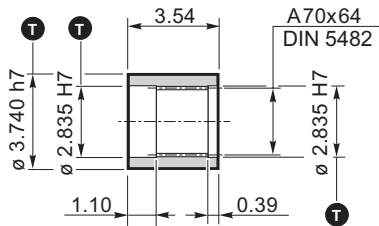
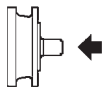
**306**

**Flange**



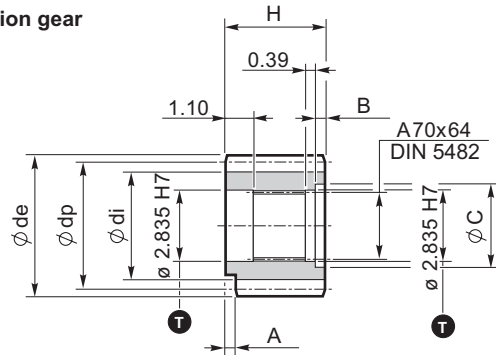
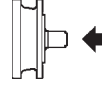
Material : Steel AISI 1040

**Sleeve coupling**

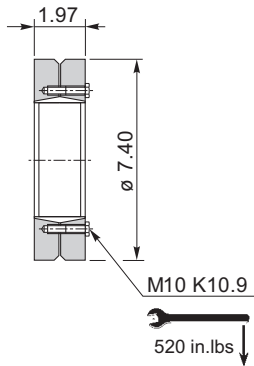
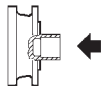


Material : Steel SAE 8620

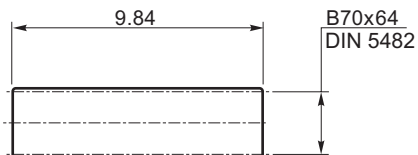
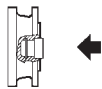
**Output pinion gear**



**Shrink disc**



**Splined bar**



Case hardening steel SAE 4320 must be case hardened to 50-55 HRC

Code	m	z	x	dp	di	de	H	A	B	C	☆
PFF1	8	15	0	120	100	134	90	0	0	0	□
PFF2	8	15	0.500	120	108	141	90	0	0	0	□
PHB	10	11	0.500	110	95	136	90	10	0	0	□
PHC1	10	12	0.450	120	104	145	90	0	0	0	□
PHC2	10	12	0.320	120	100	144.2	90	0	0	0	□
PHC3	10	12	0.350	120	101	144	90	0	0	0	□
PHD1	10	13	0.950	130	124	165	90	0	0	0	□
PHD2	10	13	0.500	130	115	159	90	0	0	0	□
PHE1	10	14	0	140	115	160	90	0	0	0	□
PHE2	10	14	0.500	140	125	166	90	0	0	0	■
PHF	10	15	0	150	127	167	90	24	0	0	□
PHH	10	17	0.480	170	154	197.5	90	10	0	0	□

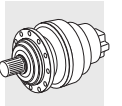
⚠ Dimensions of pinion gears are in mm

☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

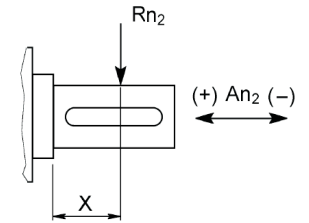
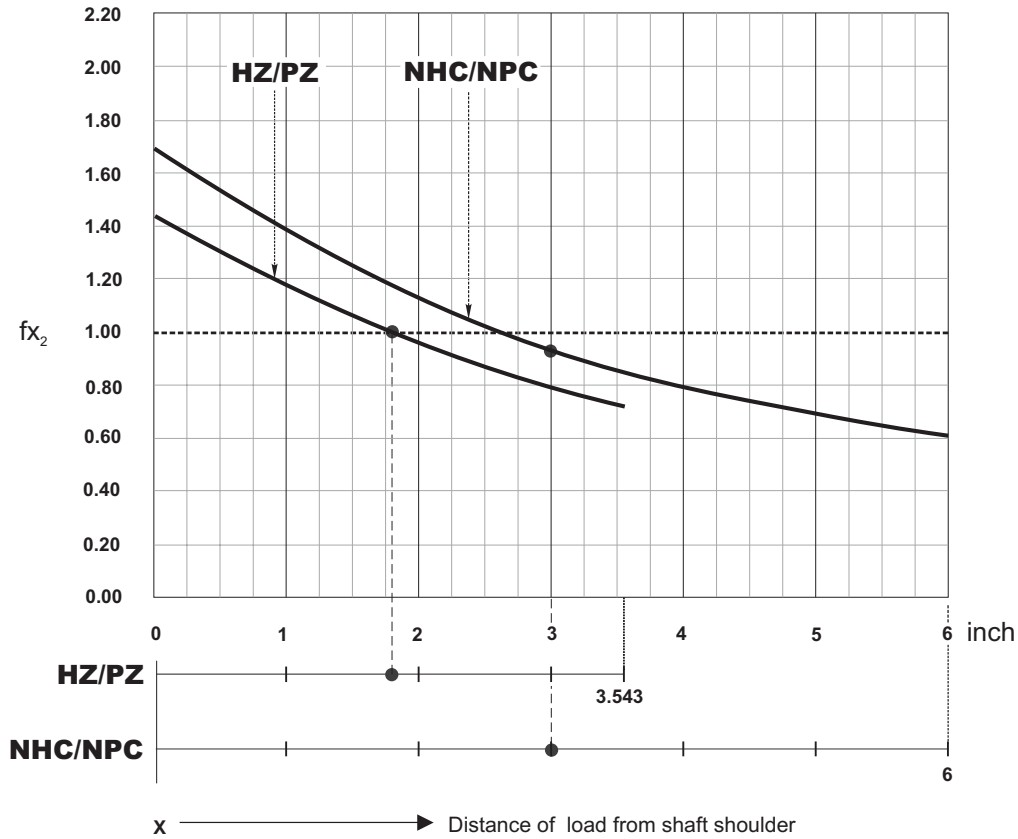
- m = module
- z = number of teeth
- x = addendum modification
- dp = generated pitch diameter
- di = root diameter
- de = outside diameter

(mm)	inch	T
(72)	2.835 H7	+0.00118 0
(95)	3.740 h7	0 -0.00138
(125)	4.921 f7	-0.00169 -0.00327



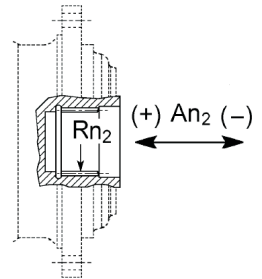


**Load application factor for calculation of admissible overhung load on output shaft**



$$R_{x2} = R_{n2} \cdot f_{x2}$$

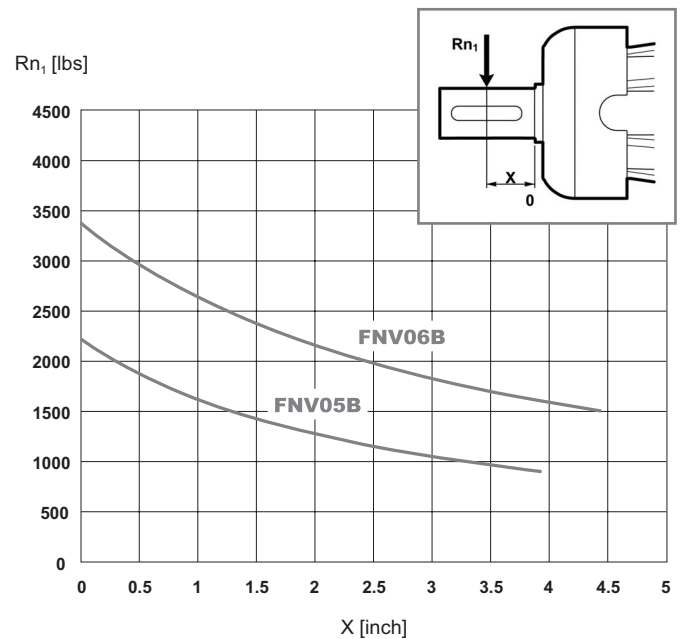
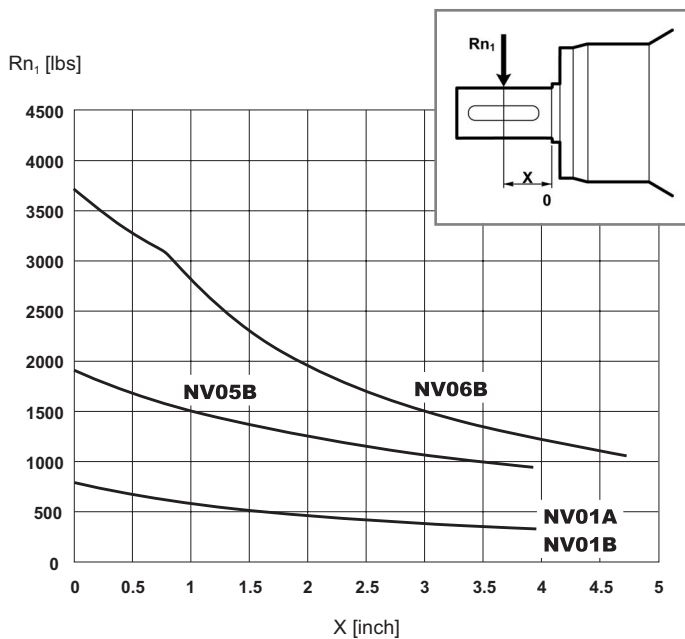
$A_{n2} (\pm) = R_{n2} \cdot f_{a2} (\pm)$		
	<b>f<sub>a2</sub> (+)</b>	<b>f<sub>a2</sub> (-)</b>
Hz/PZ	0.74	0.59
NHC/NPC	0.86	0.69

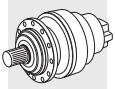


$A_{n2} (\pm) = R_{n2} \cdot f_{a2} (\pm)$		
	<b>f<sub>a2</sub> (+)</b>	<b>f<sub>a2</sub> (-)</b>
FZ	1.04	1.04

**Permitted overhung load on input shaft**

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





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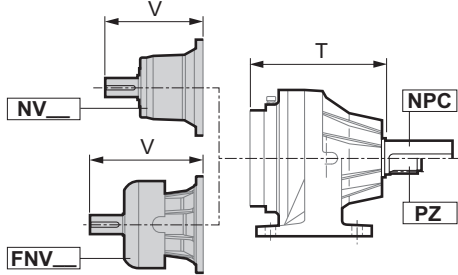
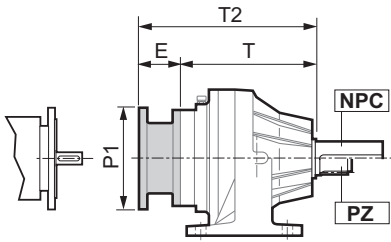
NPC

PZ

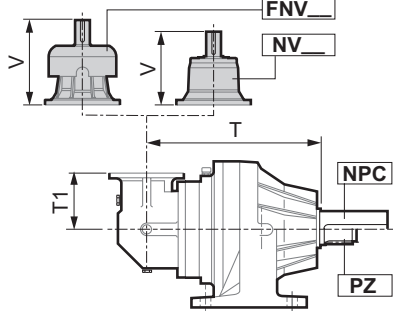
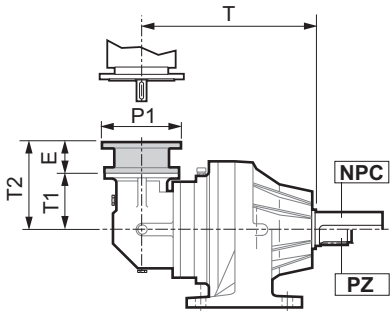
NEMA input

Solid input shaft

307 L



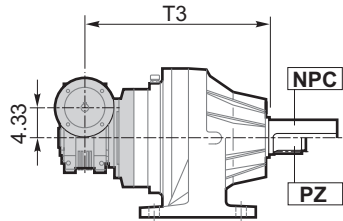
307 R



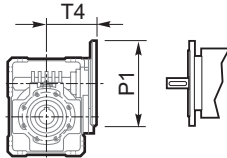
	307 L2 307 R2		307 L3, L4 307 R3, R4		307 L1	
	Solid input shaft					
	NV05B	FNV05B	NV01A	NV01B	NV07B	FNV07B
V	9.68	11.06	6.00	6.44	12.28	14.65
V1	1.875	1.875	1.125	1.625	3.000	3.000
V2	3.50	3.50	2.00	2.50	5.00	5.00
V4	6.10	8.70	4.72	4.72	7.87	13.70
V5	9.65	9.65	7.32	7.32	13.58	13.58
A	0.500	0.500	0.250	0.375	0.750	0.750
B	0.500	0.500	0.250	0.375	0.750	0.750
F	2.091	2.091	1.236	1.791	3.327	3.327
L	3.00	3.00	1.75	2.00	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65
Lbs	33.1	38	13.2	15.4	77.2	90

(mm)	inch	T
— 1.125 h6	<sup>0</sup> <sub>-0.00051</sub>	
— 1.625 h6	<sup>0</sup> <sub>-0.00063</sub>	
— 1.875 h6	<sup>0</sup> <sub>-0.00063</sub>	
— 3.000 h6	<sup>0</sup> <sub>-0.00075</sub>	

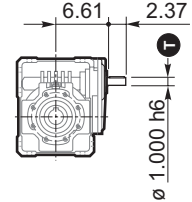
3/V 07 L3



NEMA input

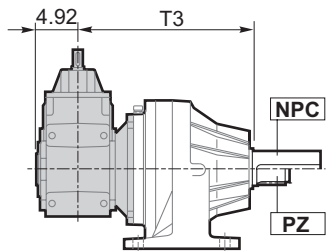


Solid input shaft

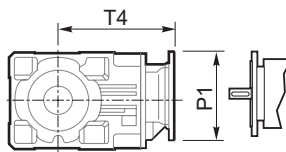


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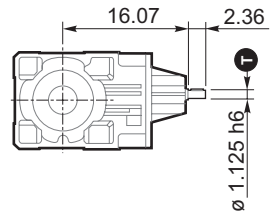
3/A 07 L2



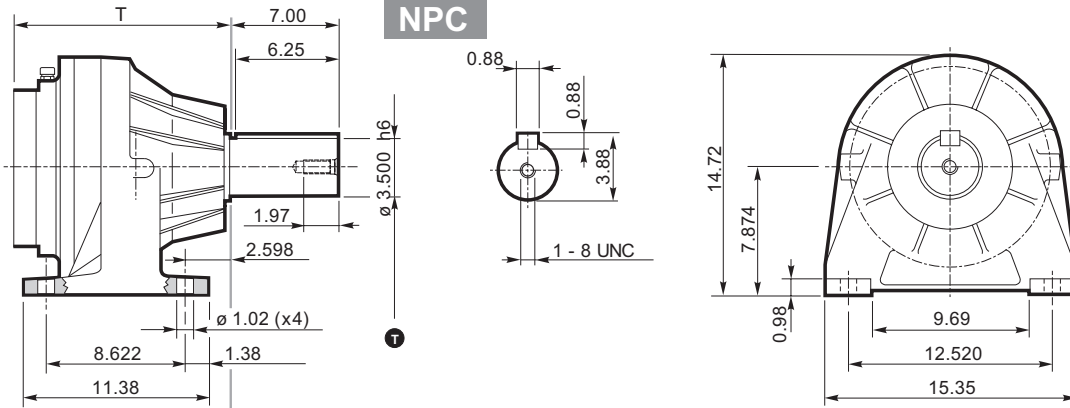
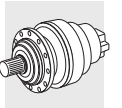
NEMA input



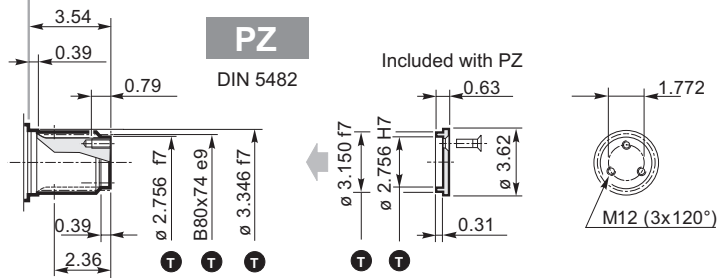
Solid input shaft



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(mm)	inch	T
—	1.000 h6	0 -0.00051
—	1.125 h6	0 -0.00051
(70)	2.756 f7	-0.00118 -0.00236
(70)	2.756 H7	+0.00118 0
(85)	3.346 f7	-0.00142 -0.00280
—	3.500 h6	0 -0.00087
B80x74 e9		DIN 5482

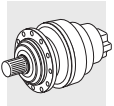


	307 L1	307 L2	307 L3	307 L4	307 R2	307 R3	307 R4
T	9.69	13.19	15.75	17.83	14.37	16.81	19.37
T1	—	—	—	—	8.86	5.51	4.80
Lbs	264.6	291.1	306.5	315.3	374.9	335.2	337.4

	3/V 07 L3	3/A 07 L2
T3		
	19.49	16.42
Lbs	363.8	507.2

NEMA Input									
	P1	E	T2						
N56C	9.84	4.51	—	—	20.26	22.34	—	10.02	9.31
N140TC	9.84	4.51	—	—	20.26	22.34	—	10.02	9.31
N180TC	8.82	5.22	—	—	20.96	23.05	—	10.73	10.02
N210TC	8.82	5.22	—	—	20.96	23.05	—	10.73	10.02
N250TC	8.82	5.22	—	—	20.96	23.05	—	10.73	10.02
N250TC	11.81	5.41	—	18.60	—	—	14.27	—	—
N280TC	11.81	6.28	—	—	22.03	24.11	—	11.79	11.08
N280TC	13.78	6.42	—	19.61	—	—	15.28	—	—
N320TC	13.78	7.97	18.33	—	—	—	—	—	—
N360TC	13.78	7.97	18.33	—	—	—	—	—	—

	P1	T4	P1	T4
—	—	—	—	—
6.54	5.96	6.50	14.63	
9.02	6.67	9.00	15.37	
9.02	9.17	9.00	16.61	
—	—	13.78	19.41	
—	—	—	—	
—	—	13.78	19.61	
—	—	—	—	
—	—	—	—	
—	—	—	—	



**307**

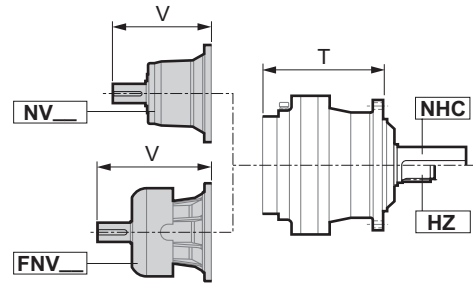
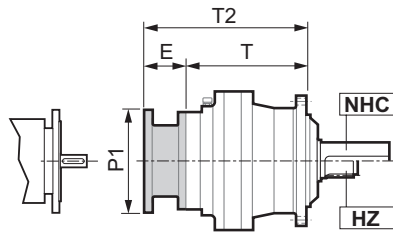
**NHC**

**HZ**

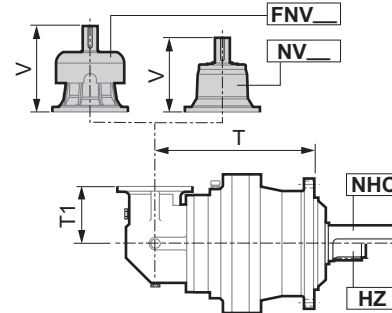
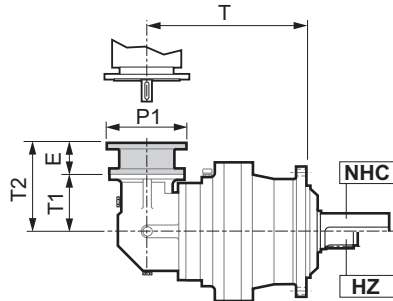
**NEMA input**

**Solid input shaft**

**307 L**



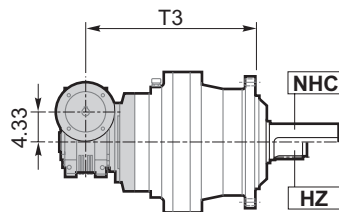
**307 R**



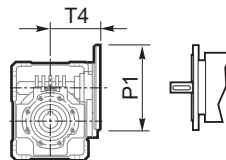
	307 L2 307 R2		307 L3, L4 307 R3, R4		307 L1	
	Solid input shaft					
	NV05B	FNV05B	NV01A	NV01B	NV07B	FNV07B
<b>V</b>	9.68	11.06	6.00	6.44	12.28	14.65
<b>V1</b>	1.875	1.875	1.125	1.625	3.000	3.000
<b>V2</b>	3.50	3.50	2.00	2.50	5.00	5.00
<b>V4</b>	6.10	8.70	4.72	4.72	7.87	13.70
<b>V5</b>	9.65	9.65	7.32	7.32	13.58	13.58
<b>A</b>	0.500	0.500	0.250	0.375	0.750	0.750
<b>B</b>	0.500	0.500	0.250	0.375	0.750	0.750
<b>F</b>	2.091	2.091	1.236	1.791	3.327	3.327
<b>L</b>	3.00	3.00	1.75	2.00	4.37	4.37
<b>D</b>	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC
<b>U</b>	1.42	1.42	0.87	1.10	1.65	1.65
<b>Lbs</b>	33.1	38	13.2	15.4	77.2	90

(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> <sub>-0.00063</sub>
—	3.000 h6	<sup>0</sup> <sub>-0.00075</sub>

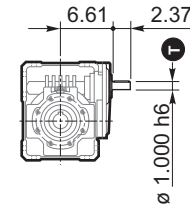
**3/V 07 L3**



**NEMA input**

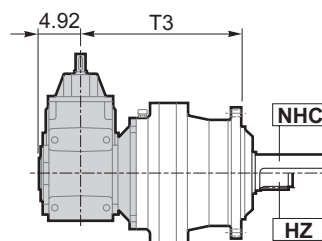


**Solid input shaft**

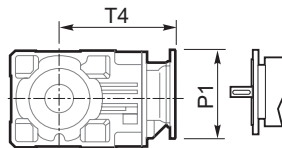


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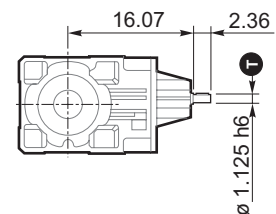
**3/A 07 L2**



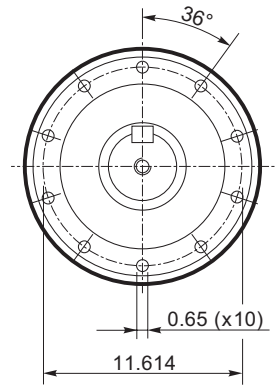
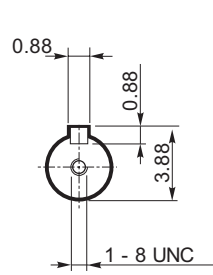
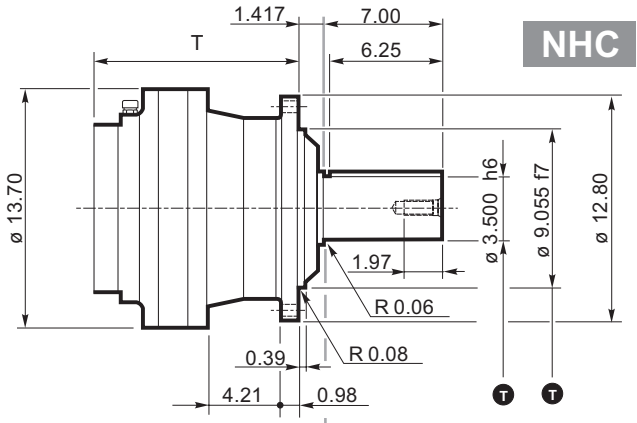
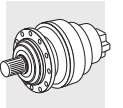
**NEMA input**



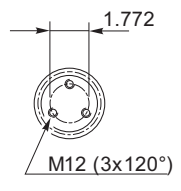
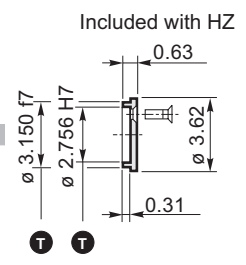
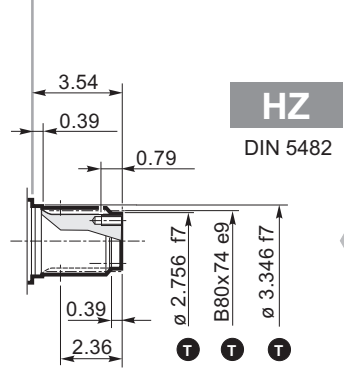
**Solid input shaft**



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(mm)	inch	T
—	1.000 h6	0 -0.00051
—	1.125 h6	0 -0.00051
(70)	2.756 f7	-0.00118 -0.00236
(70)	2.756 H7	+0.00118 0
(80)	3.150 f7	-0.00118 -0.00236
(85)	3.346 f7	-0.00142 -0.00280
—	3.500 h6	0 -0.00087
(200)	9.055 f7	-0.00197 -0.00378
B80x74 e9		DIN 5482

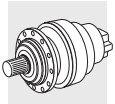


	307 L1	307 L2	307 L3	307 L4	307 R2	307 R3	307 R4
T	8.27	11.77	14.33	16.42	12.95	15.39	17.95
T1	—	—	—	—	8.86	5.51	4.80
Lbs	231.5	258.0	273.4	282.2	341.8	302.1	304.3

	3/V 07 L3	3/A 07 L2
T3		
	18.07	15.00
Lbs	330.8	463.1

NEMA Input		T2							
	P1	E							
N56C	9.84	4.51	—	—	18.84	20.93	—	10.02	9.31
N140TC	9.84	4.51	—	—	18.84	20.93	—	10.02	9.31
N180TC	8.82	5.22	—	—	19.55	21.63	—	10.73	10.02
N210TC	8.82	5.22	—	—	19.55	21.63	—	10.73	10.02
N250TC	8.82	5.22	—	—	19.55	21.63	—	10.73	10.02
N250TC	11.81	5.41	—	17.19	—	—	14.27	—	—
N280TC	11.81	6.28	—	—	20.61	22.70	—	11.79	11.08
N280TC	13.78	6.42	—	18.19	—	—	15.28	—	—
N320TC	13.78	7.97	16.91	—	—	—	—	—	—
N360TC	13.78	7.97	16.91	—	—	—	—	—	—

	P1	T4	P1	T4
—	—	—	—	—
6.54	5.96	6.50	14.63	
9.02	6.67	9.00	15.37	
9.02	9.17	9.00	16.61	
—	—	13.78	19.41	
—	—	—	—	
—	—	13.78	19.61	
—	—	—	—	
—	—	—	—	
—	—	—	—	



307

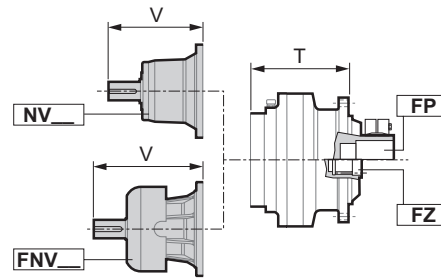
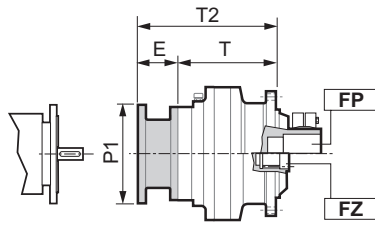
FP

FZ

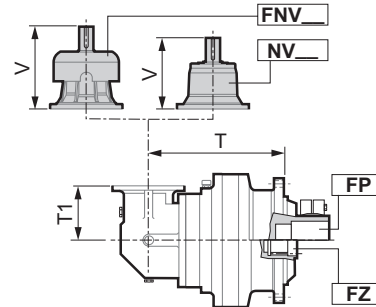
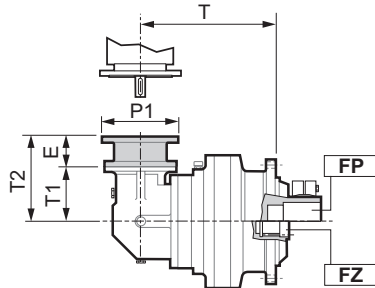
NEMA input

Solid input shaft

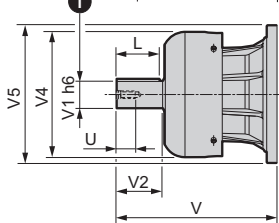
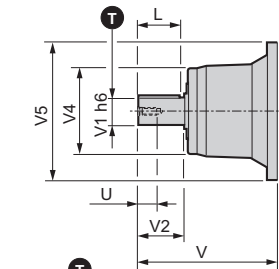
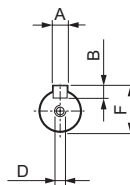
307 L



307 R

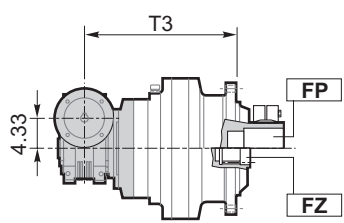


	307 L2 307 R2		307 L3, L4 307 R3, R4		307 L1	
	Solid input shaft					
	NV05B	FNV05B	NV01A	NV01B	NV07B	FNV07B
V	9.68	11.06	6.00	6.44	12.28	14.65
V1	1.875	1.875	1.125	1.625	3.000	3.000
V2	3.50	3.50	2.00	2.50	5.00	5.00
V4	6.10	8.70	4.72	4.72	7.87	13.70
V5	9.65	9.65	7.32	7.32	13.58	13.58
A	0.500	0.500	0.250	0.375	0.750	0.750
B	0.500	0.500	0.250	0.375	0.750	0.750
F	2.091	2.091	1.236	1.791	3.327	3.327
L	3.00	3.00	1.75	2.00	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65
Lbs	33.1	38	13.2	15.4	77.2	90

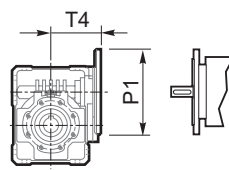


(mm)	inch	T
— 1.125 h6	0	-0.00051
— 1.625 h6	0	-0.00063
— 1.875 h6	0	-0.00063
— 3.000 h6	0	-0.00075

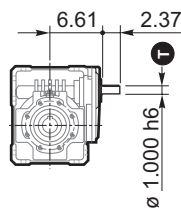
3/V 07 L3



NEMA input

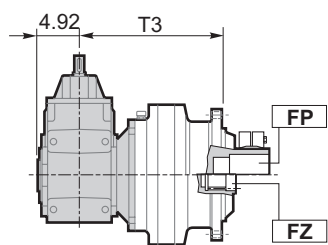


Solid input shaft

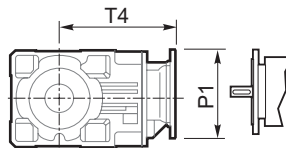


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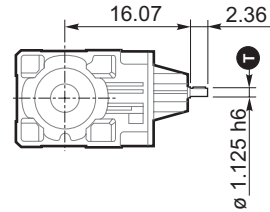
3/A 07 L2



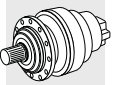
NEMA input



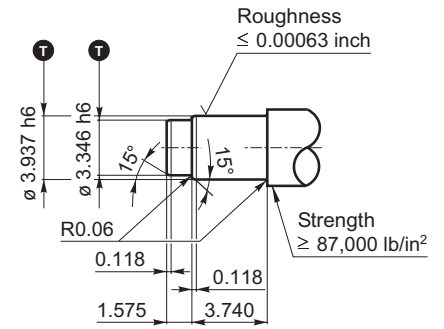
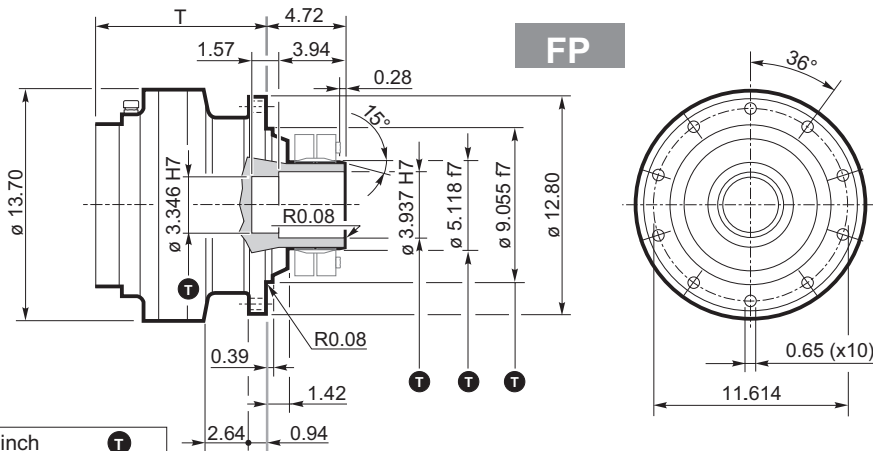
Solid input shaft



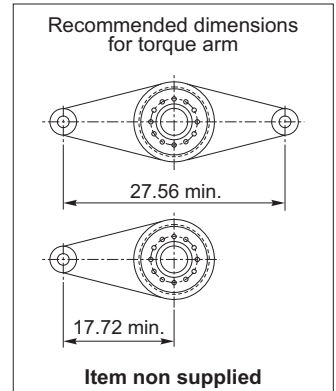
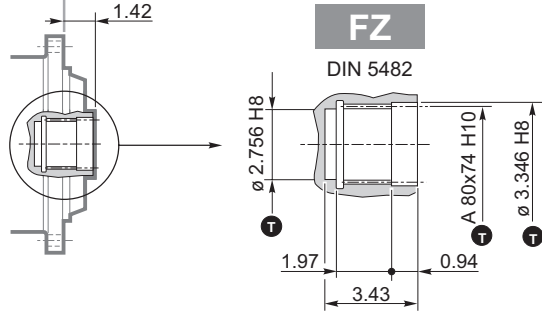
298



**FP**  $T_{max} = 159,300$  in.lbs



(mm)	inch	Tolerance
—	1.000 h6	$0$ $-0.00051$
—	1.125 h6	$0$ $-0.00051$
(70)	2.756 H8	$+0.00181$ $0$
(85)	3.346 H8	$+0.00213$ $0$
(85)	3.346 h6	$-0.00142$ $-0.00228$
(85)	3.346 H7	$+0.00138$ $0$
(100)	3.937 h6	$0$ $-0.00087$
(100)	3.937 H7	$+0.00138$ $0$
(130)	5.118 f7	$-0.00169$ $-0.00327$
(230)	9.055 f7	$-0.00197$ $-0.00378$
A80x74 H10		DIN 5482

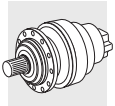


	307 L1	307 L2	307 L3	307 L4	307 R2	307 R3	307 R4
<b>T</b>	6.50	10.00	12.56	14.65	11.18	13.62	16.18
<b>T1</b>					8.86	5.51	4.80
<b>Lbs</b>	187.4	213.9	229.3	238.1	297.7	258.0	260.2

	3/V 07 L3	3/A 07 L2
<b>T3</b>		
	16.30	13.23
<b>Lbs</b>	286.7	441.0

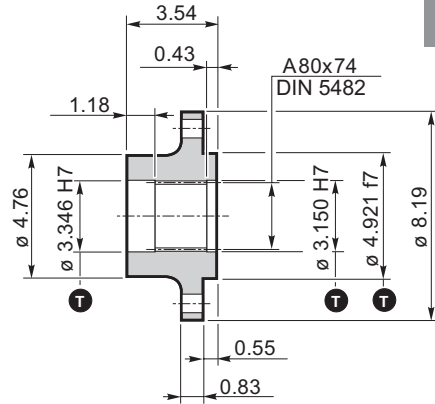
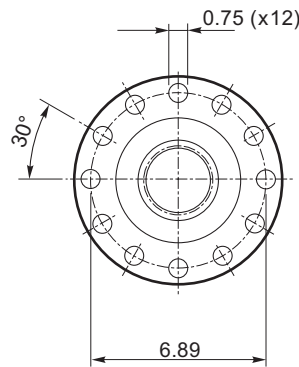
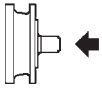
NEMA Input			T2						
	P1	E							
<b>N56C</b>	9.84	4.51	—	—	17.07	19.15	—	10.02	9.31
<b>N140TC</b>	9.84	4.51	—	—	17.07	19.15	—	10.02	9.31
<b>N180TC</b>	8.82	5.22	—	—	17.78	19.86	—	10.73	10.02
<b>N210TC</b>	8.82	5.22	—	—	17.78	19.86	—	10.73	10.02
<b>N250TC</b>	8.82	5.22	—	—	17.78	19.86	—	10.73	10.02
<b>N250TC</b>	11.81	5.41	—	15.41	—	—	—	—	—
<b>N280TC</b>	11.81	6.28	—	—	18.84	20.93	—	11.79	11.08
<b>N280TC</b>	13.78	6.42	—	16.42	—	—	15.28	—	—
<b>N320TC</b>	13.78	7.97	15.14	—	—	—	—	—	—
<b>N360TC</b>	13.78	7.97	15.14	—	—	—	—	—	—

	P1	T4	P1	T4
—	—	—	—	—
6.54	5.96	6.50	14.63	
9.02	6.67	9.00	15.37	
9.02	9.17	9.00	16.61	
—	—	13.78	19.41	
—	—	—	—	
—	—	13.78	19.61	
—	—	—	—	
—	—	—	—	
—	—	—	—	



307

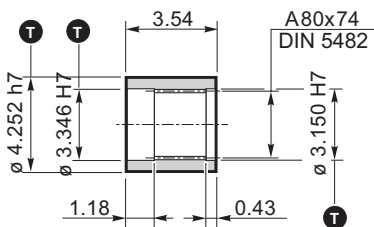
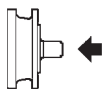
Flange



WOA

Material : Steel AISI 1040

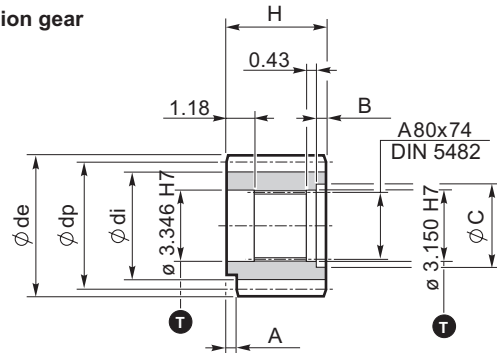
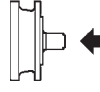
Sleeve coupling



MOA

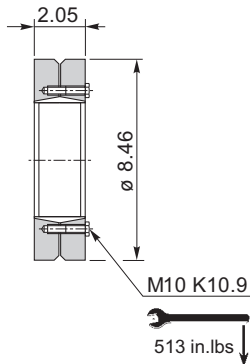
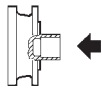
Material : Steel SAE 8620

Output pinion gear



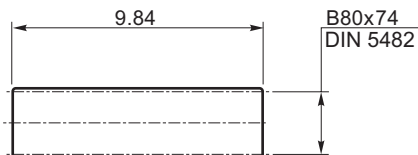
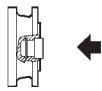
P...

Shrink disc



GOA

Splined bar



BOA

Case hardening steel SAE 4320 must be case hardened to 50-55 HRC

Code	m	z	x	dp	di	de	H	A	B	C	☆
PFG	8	16	0.500	128	117	149.5	90	0	0	0	□
PHC	10	12	0.450	120	104	145	90	0	0	0	□
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	0	0	0	■
PHH1	10	17	0	170	145	190	90	0	0	0	■
PHH2	10	17	0.500	170	154	198	90	0	0	0	■
PLD	12	13	0.500	156	138	192	102	0	12	95	□
PLE	12	14	0.500	168	150	199.2	90	0	0	0	□
PLI	12	18	0.500	216	198	249.6	107	7	17	95	□
PLT	12	26	0	312	282	336	90	10	0	0	■

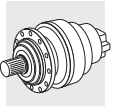
⚠ Dimensions of pinion gears are in mm

☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

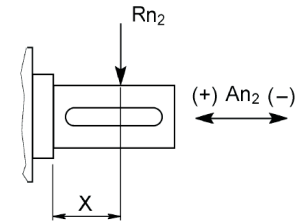
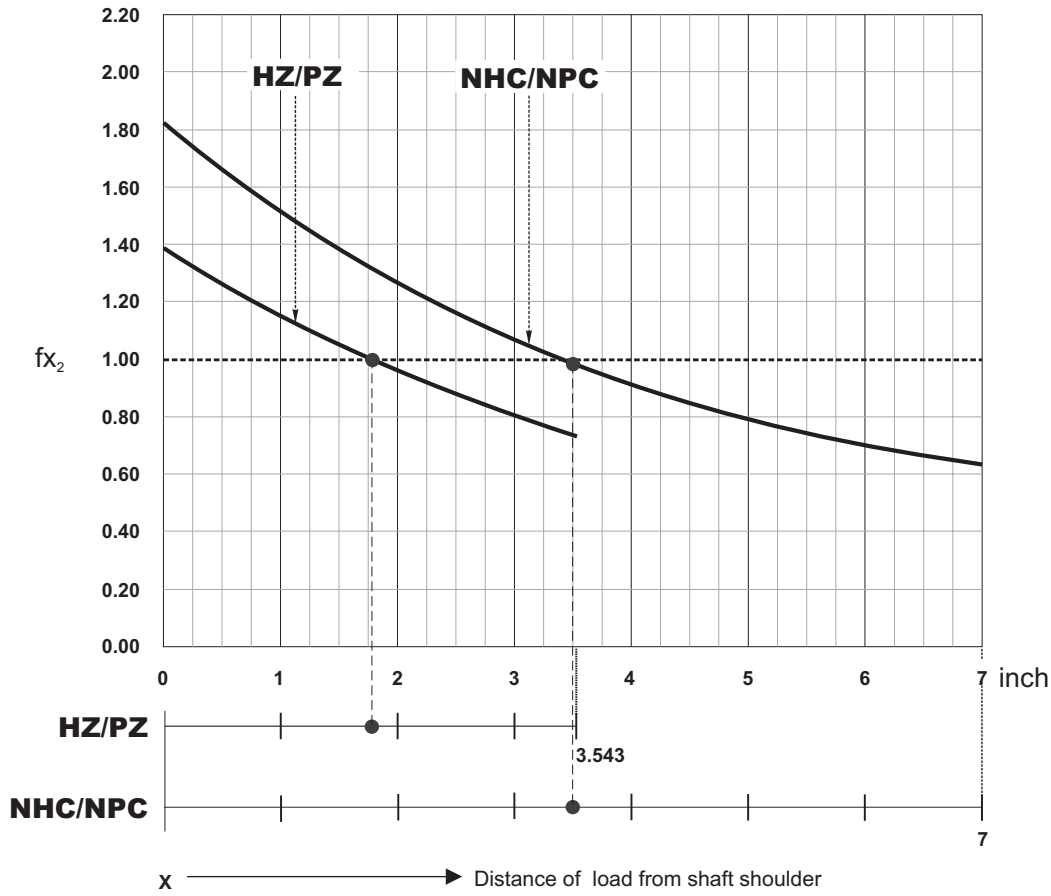
m = module  
z = number of teeth  
x = addendum modification  
dp = generated pitch diameter  
di = root diameter  
de = outside diameter

(mm)	inch	Ⓟ
(85)	3.346 H7	+0.00138 0
(80)	3.150 H7	+0.00138 0
(108)	4.252 h7	0 -0.00138
(125)	4.921 f7	-0.00169 -0.00327



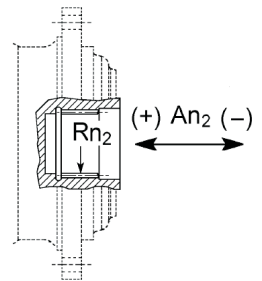


**Load application factor for calculation of admissible overhung load on output shaft**



$$R_{x2} = R_{n2} \cdot f_{x2}$$

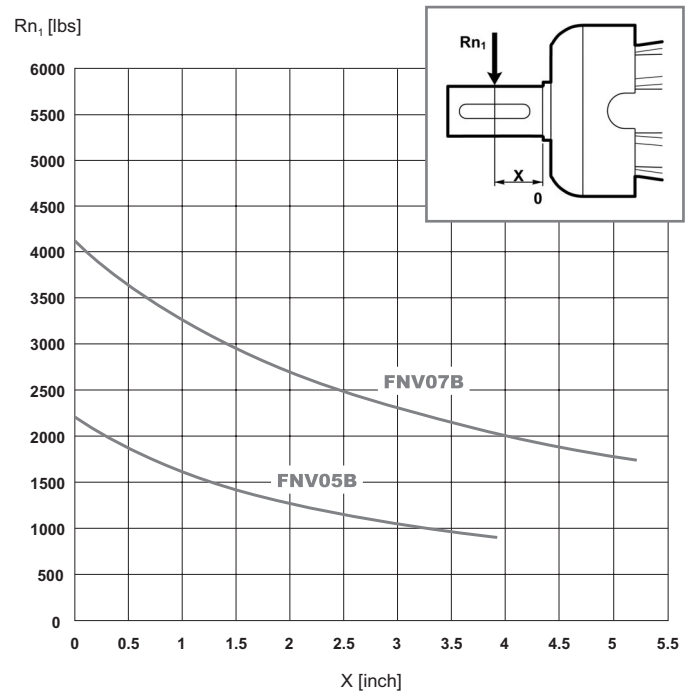
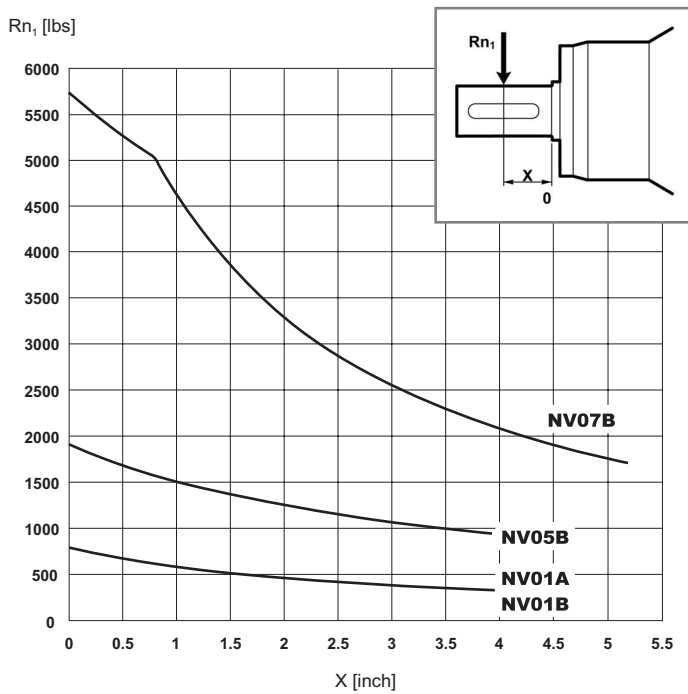
$A_{n2} (\pm) = R_{n2} \cdot f_{a2} (\pm)$		
	<b>fa<sub>2</sub> (+)</b>	<b>fa<sub>2</sub> (-)</b>
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

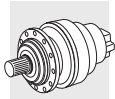


$A_{n2} (\pm) = R_{n2} \cdot f_{a2} (\pm)$		
	<b>fa<sub>2</sub> (+)</b>	<b>fa<sub>2</sub> (-)</b>
FZ	1.04	1.04

**Permitted overhung load on input shaft**

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





**309**

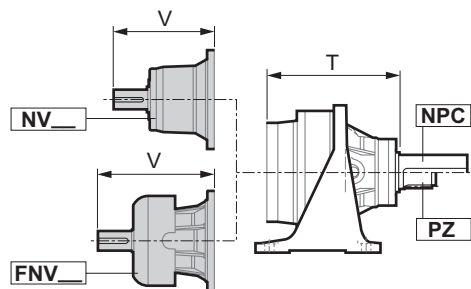
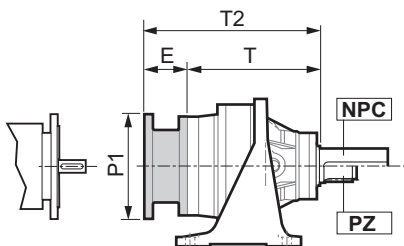
**NPC**

**PZ**

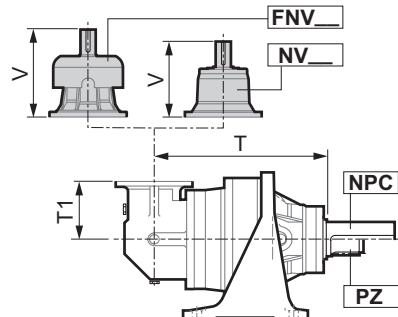
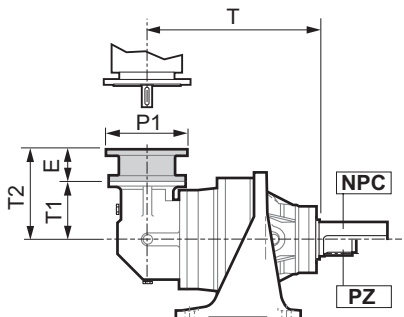
**NEMA input**

**Solid input shaft**

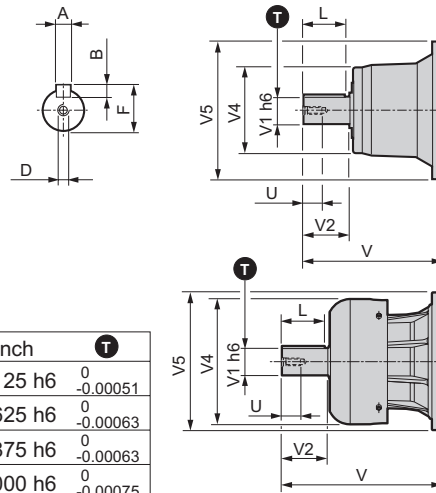
**309 L**



**309 R**

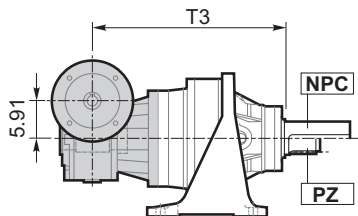


	309 L2 309 R2		309 L3, L4 309 R3, R4		309 L1	
	Solid input shaft					
	NV05B	FNV05B	NV01A	NV01B	NV07B	FNV07B
V	9.68	11.06	6.00	6.44	12.28	14.65
V1	1.875	1.875	1.125	1.625	3.000	3.000
V2	3.50	3.50	2.00	2.50	5.00	5.00
V4	6.10	8.70	4.72	4.72	7.87	13.70
V5	9.65	9.65	7.32	7.32	13.58	13.58
A	0.500	0.500	0.250	0.375	0.750	0.750
B	0.500	0.500	0.250	0.375	0.750	0.750
F	2.091	2.091	1.236	1.791	3.327	3.327
L	3.00	3.00	1.75	2.00	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65
Lbs	33.1	38	13.2	15.4	77.2	90

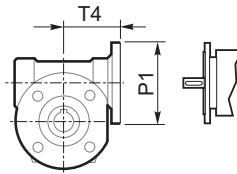


(mm)	inch	T
—	1.125 h6	$\begin{smallmatrix} 0 \\ -0.00051 \end{smallmatrix}$
—	1.625 h6	$\begin{smallmatrix} 0 \\ -0.00063 \end{smallmatrix}$
—	1.875 h6	$\begin{smallmatrix} 0 \\ -0.00063 \end{smallmatrix}$
—	3.000 h6	$\begin{smallmatrix} 0 \\ -0.00075 \end{smallmatrix}$

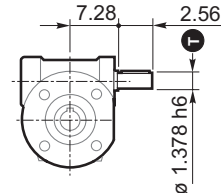
**3/V 09 L3**



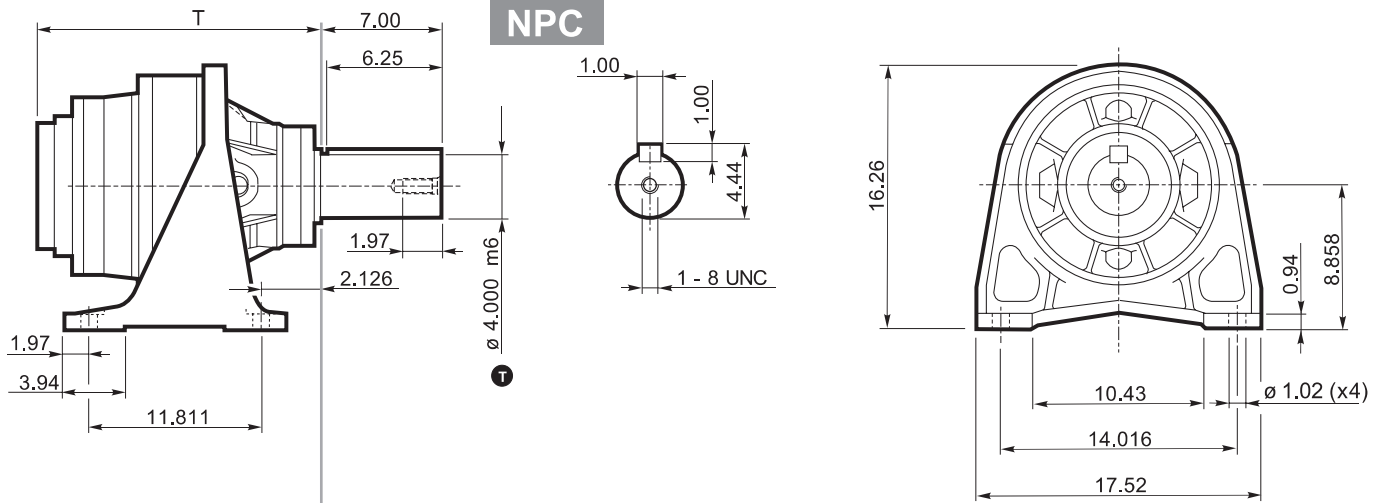
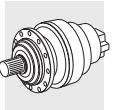
**IEC input**  
(contact Bonfiglioli for availability)



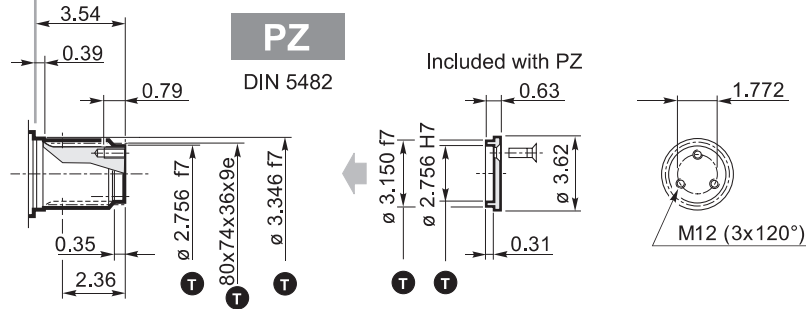
**Solid input shaft**



298



(mm)	inch	T
—	1.378 h6	0 -0.00063
(70)	2.756 f7	-0.00118 -0.00236
(70)	2.756 H7	+0.00118 0
(80)	3.150 f7	-0.00142 -0.00280
(85)	3.346 f7	-0.00142 -0.00280
—	4.000 m6	+0.00138 +0.00051
80x74x36x9e		DIN 5482

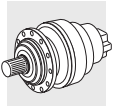


	309 L1	309 L2	309 L3	309 L4	309 R2	309 R3	309 R4
<b>T</b>	10.51	14.02	16.57	18.66	15.20	17.64	20.20
<b>T1</b>	—	—	—	—	8.86	5.51	4.80
<b>Lbs</b>	286.7	313.1	328.5	337.4	396.9	357.2	359.4

3/V 09 L3
<b>T3</b>
20.87
<b>Lbs</b>
445.4

NEMA Input			T2						
	P1	E							
<b>N56C</b>	9.84	4.51	—	—	21.08	23.17	—	10.02	9.31
<b>N140TC</b>	9.84	4.51	—	—	21.08	23.17	—	10.02	9.31
<b>N180TC</b>	8.82	5.22	—	—	21.79	23.88	—	10.73	10.02
<b>N210TC</b>	8.82	5.22	—	—	21.79	23.88	—	10.73	10.02
<b>N250TC</b>	8.82	5.22	—	—	21.79	23.88	—	10.73	10.02
<b>N250TC</b>	11.81	5.41	—	19.43	—	—	14.27	—	—
<b>N280TC</b>	11.81	6.28	—	—	22.85	24.94	—	11.79	11.08
<b>N280TC</b>	13.78	6.42	—	20.43	—	—	15.28	—	—
<b>N320TC</b>	15.75	8.64	19.15	—	—	—	—	—	—
<b>N360TC</b>	15.75	8.64	19.15	—	—	—	—	—	—

P1	T4
—	—
—	—
—	—
—	—
—	—
—	—
—	—
—	—
—	—



309

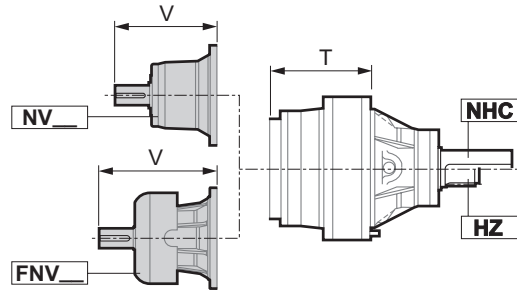
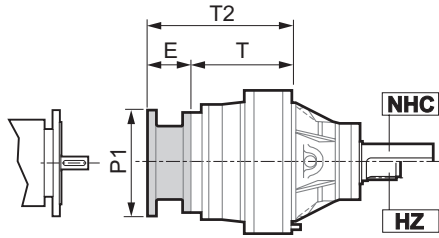
NHC

HZ

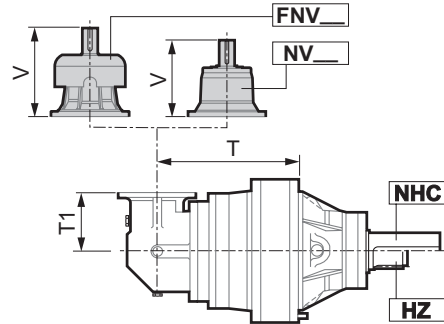
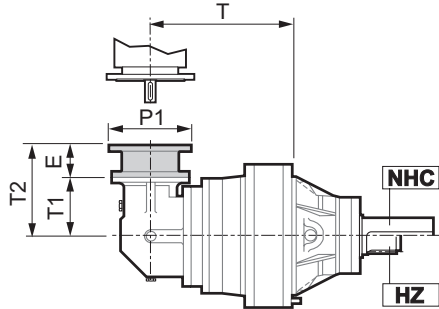
NEMA input

Solid input shaft

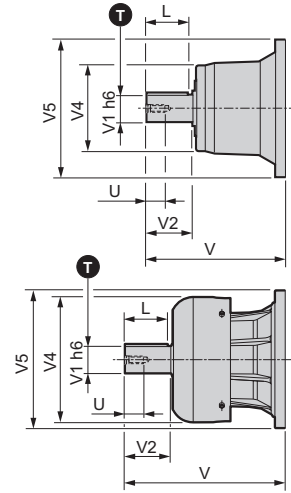
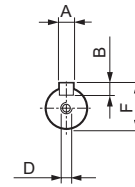
309 L



309 R

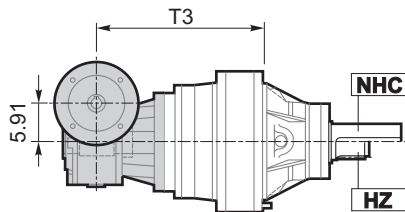


	309 L2 309 R2		309 L3, L4 309 R3, R4		309 L1	
	Solid input shaft					
	NV05B	FNV05B	NV01A	NV01B	NV07B	FNV07B
V	9.68	11.06	6.00	6.44	12.28	14.65
V1	1.875	1.875	1.125	1.625	3.000	3.000
V2	3.50	3.50	2.00	2.50	5.00	5.00
V4	6.10	8.70	4.72	4.72	7.87	13.70
V5	9.65	9.65	7.32	7.32	13.58	13.58
A	0.500	0.500	0.250	0.375	0.750	0.750
B	0.500	0.500	0.250	0.375	0.750	0.750
F	2.091	2.091	1.236	1.791	3.327	3.327
L	3.00	3.00	1.75	2.00	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65
Lbs	33.1	38	13.2	15.4	77.2	90

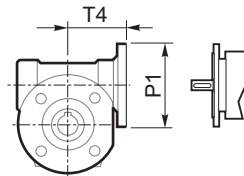


(mm)	inch	T
—	1.125 h6	$\begin{matrix} 0 \\ -0.00051 \end{matrix}$
—	1.625 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

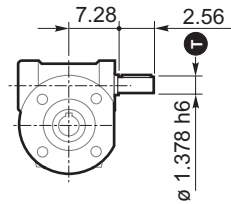
3/V 09 L3



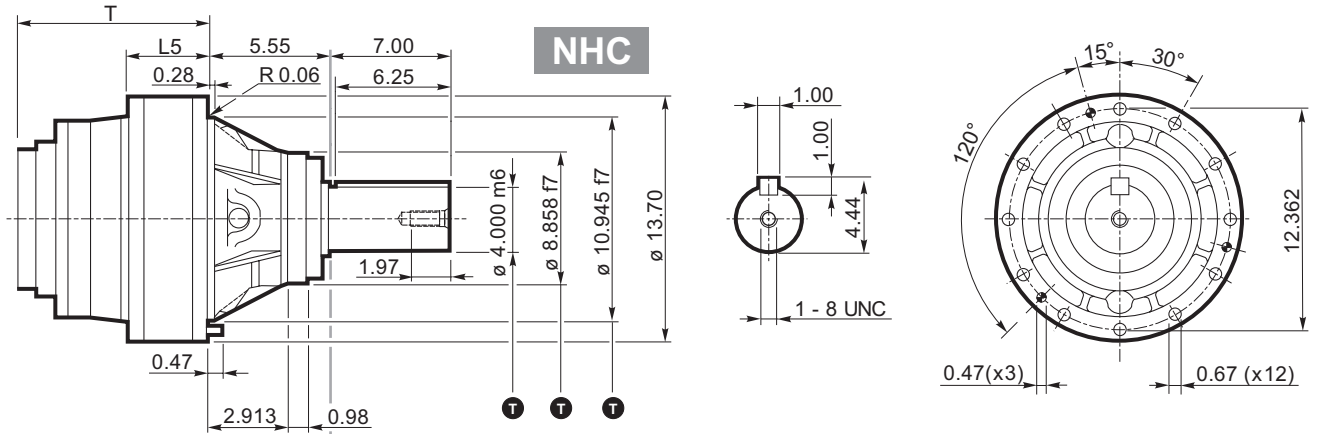
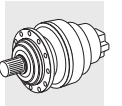
IEC input  
(contact Bonfiglioli for availability)



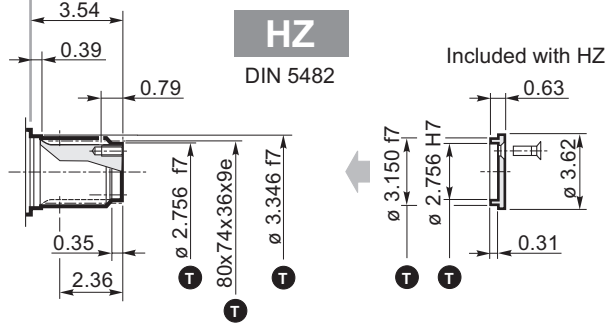
Solid input shaft



298



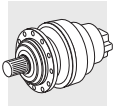
(mm)	inch	T
—	1.378 h6	0 -0.00063
(70)	2.756 f7	-0.00118 -0.00236
(70)	2.756 H7	+0.00118 0
(80)	3.150 f7	-0.00142 -0.00280
(85)	3.346 f7	-0.00142 -0.00280
—	4.000 m6	0.00138 -0.00051
(225)	8.858 f7	-0.00197 -0.00378
(277)	10.945 f7	-0.00220 -0.00425
80x74x36x9e		DIN 5482



	309 L1	309 L2	309 L3	309 L4	309 R2	309 R3	309 R4	3/V 09 L3
<b>T</b>	4.96	8.46	11.02	13.11	9.65	12.09	14.65	<b>T3</b>
<b>T1</b>	—	—	—	—	8.86	5.51	4.80	15.31
<b>L5</b>	5.57	5.57	5.57	5.57	6.61	5.57	5.57	
<b>Lbs</b>	253.6	280.0	295.5	304.3	363.8	324.1	326.3	<b>Lbs</b> 412.3

NEMA Input			T2						
	P1	E							
<b>N56C</b>	9.84	4.51	—	—	15.53	17.62	—	10.02	9.31
<b>N140TC</b>	9.84	4.51	—	—	15.53	17.62	—	10.02	9.31
<b>N180TC</b>	8.82	5.22	—	—	16.24	18.33	—	10.73	10.02
<b>N210TC</b>	8.82	5.22	—	—	16.24	18.33	—	10.73	10.02
<b>N250TC</b>	8.82	5.22	—	—	16.24	18.33	—	10.73	10.02
<b>N250TC</b>	11.81	5.41	—	13.88	—	—	14.27	—	—
<b>N280TC</b>	11.81	6.28	—	—	17.30	19.39	—	11.79	11.08
<b>N280TC</b>	13.78	6.42	—	14.88	—	—	15.28	—	—
<b>N320TC</b>	15.75	8.64	13.60	—	—	—	—	—	—
<b>N360TC</b>	15.75	8.64	13.60	—	—	—	—	—	—

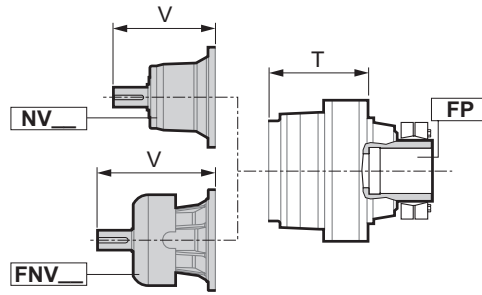
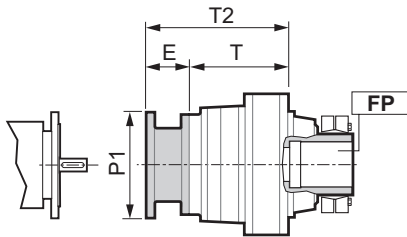
P1	T4
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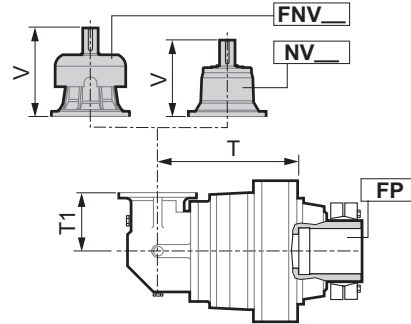
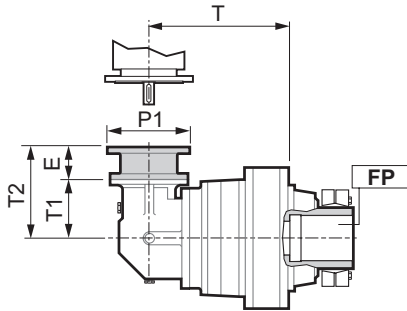
NEMA input

Solid input shaft

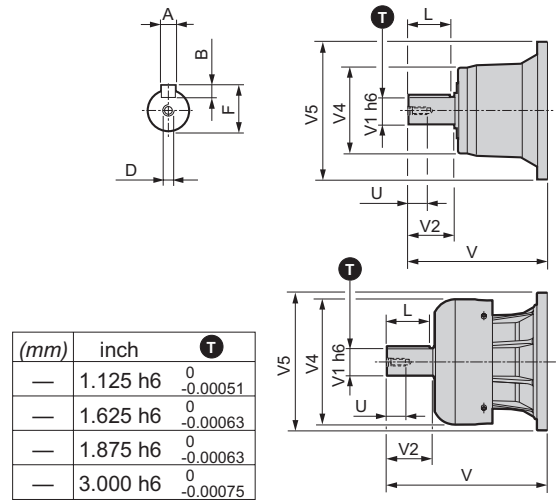
309 L



309 R

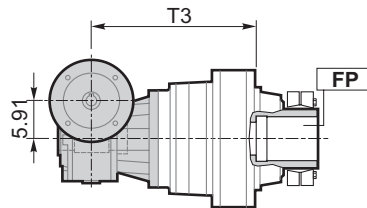


	309 L2 309 R2		309 L3, L4 309 R3, R4		309 L1	
	Solid input shaft					
	NV05B	FNV05B	NV01A	NV01B	NV07B	FNV07B
V	9.68	11.06	6.00	6.44	12.28	14.65
V1	1.875	1.875	1.125	1.625	3.000	3.000
V2	3.50	3.50	2.00	2.50	5.00	5.00
V4	6.10	8.70	4.72	4.72	7.87	13.70
V5	9.65	9.65	7.32	7.32	13.58	13.58
A	0.500	0.500	0.250	0.375	0.750	0.750
B	0.500	0.500	0.250	0.375	0.750	0.750
F	2.091	2.091	1.236	1.791	3.327	3.327
L	3.00	3.00	1.75	2.00	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65
Lbs	33.1	38	13.2	15.4	77.2	90

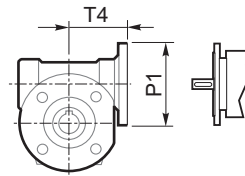


(mm)	inch	T
—	1.125 h6	0 -0.00051
—	1.625 h6	0 -0.00063
—	1.875 h6	0 -0.00063
—	3.000 h6	0 -0.00075

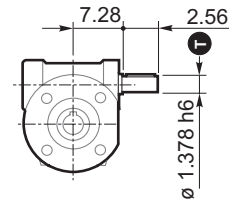
3/V 09 L3



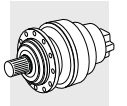
IEC input  
(contact Bonfiglioli for availability)



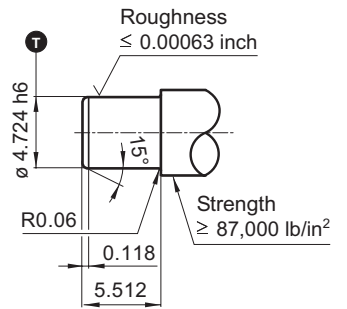
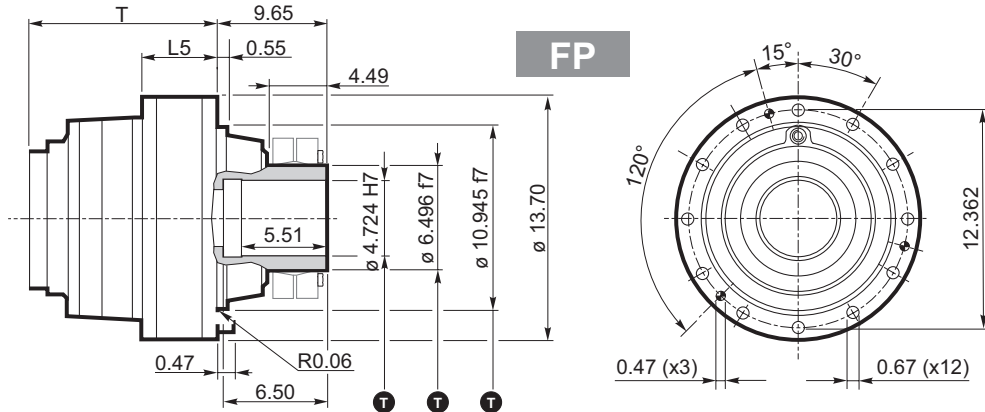
Solid input shaft



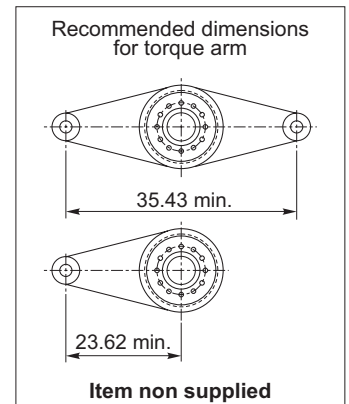
298



**FP**  $T_{2max} = 221,250 \text{ in.lbs}$



(mm)	inch	T
—	1.378 h6	0 -0.00063
(120)	4.724 H7	+0.00138 0
(120)	4.724 h6	0 -0.00087
(165)	6.496 f7	-0.00169 -0.00327
(278)	10.945 f7	-0.00220 -0.00425

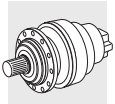


	309 L1	309 L2	309 L3	309 L4	309 R2	309 R3	309 R4
<b>T</b>	3.98	7.48	10.04	12.13	8.66	11.10	13.66
<b>T1</b>	—	—	—	—	8.86	5.51	4.80
<b>L5</b>	4.69	4.69	4.69	4.69	5.63	4.69	4.69
<b>Lbs</b>	220.5	247.0	262.4	271.2	330.8	291.1	293.3

3/V 09 L3
<b>T3</b>
14.33
<b>Lbs</b>
379.3

NEMA Input			T2						
	P1	E							
<b>N56C</b>	9.84	4.51	—	—	14.55	16.63	—	10.02	9.31
<b>N140TC</b>	9.84	4.51	—	—	14.55	16.63	—	10.02	9.31
<b>N180TC</b>	8.82	5.22	—	—	15.26	17.34	—	10.73	10.02
<b>N210TC</b>	8.82	5.22	—	—	15.26	17.34	—	10.73	10.02
<b>N250TC</b>	8.82	5.22	—	—	15.26	17.34	—	10.73	10.02
<b>N250TC</b>	11.81	5.41	—	12.89	—	—	14.27	—	—
<b>N280TC</b>	11.81	6.28	—	—	16.32	18.41	—	11.79	11.08
<b>N280TC</b>	13.78	6.42	—	13.90	—	—	15.28	—	—
<b>N320TC</b>	15.75	8.64	12.62	—	—	—	—	—	—
<b>N360TC</b>	15.75	8.64	12.62	—	—	—	—	—	—

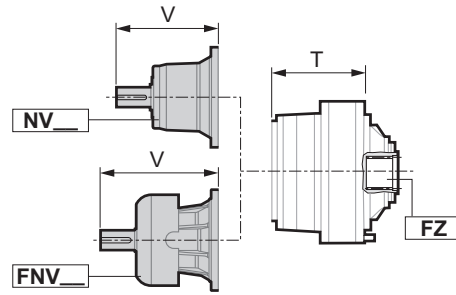
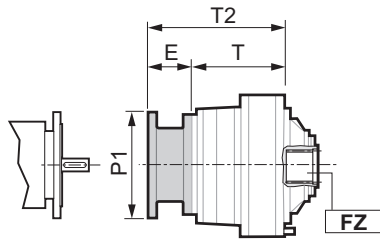
P1	T4
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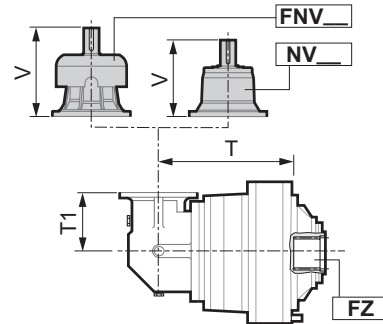
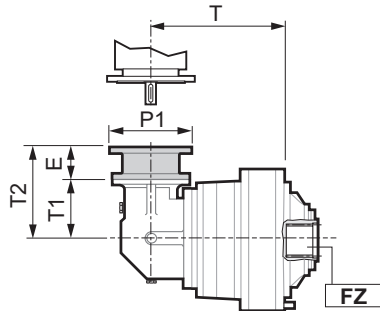
NEMA input

Solid input shaft

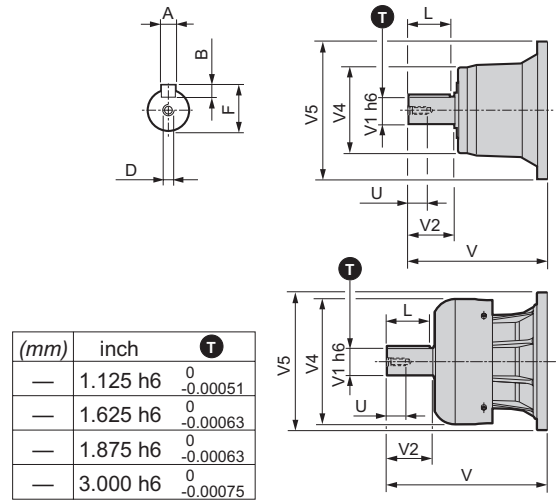
309 L



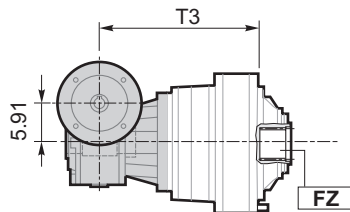
309 R



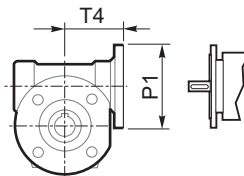
	309 L2 309 R2		309 L3, L4 309 R3, R4		309 L1	
	Solid input shaft					
	NV05B	FNV05B	NV01A	NV01B	NV07B	FNV07B
V	9.68	11.06	6.00	6.44	12.28	14.65
V1	1.875	1.875	1.125	1.625	3.000	3.000
V2	3.50	3.50	2.00	2.50	5.00	5.00
V4	6.10	8.70	4.72	4.72	7.87	13.70
V5	9.65	9.65	7.32	7.32	13.58	13.58
A	0.500	0.500	0.250	0.375	0.750	0.750
B	0.500	0.500	0.250	0.375	0.750	0.750
F	2.091	2.091	1.236	1.791	3.327	3.327
L	3.00	3.00	1.75	2.00	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65
Lbs	33.1	38	13.2	15.4	77.2	90



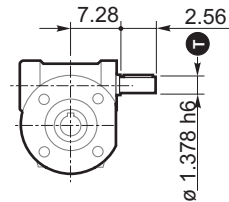
3/V 09 L3



IEC input  
(contact Bonfiglioli for availability)

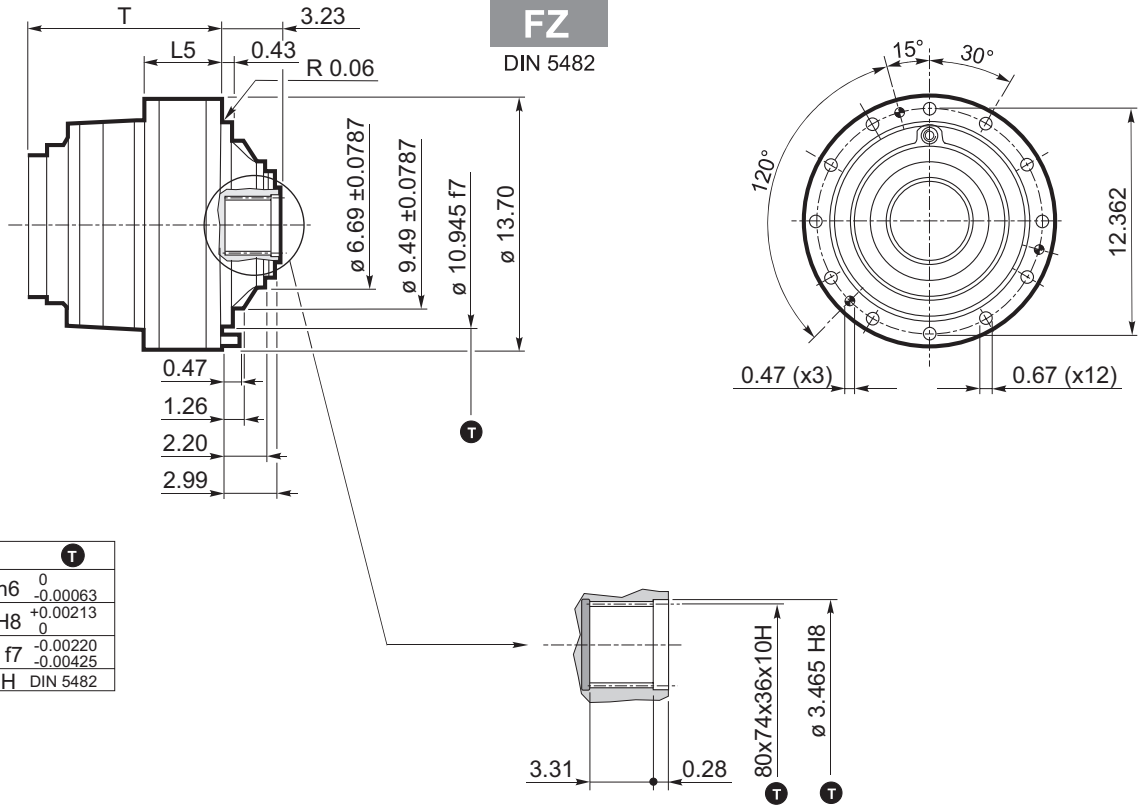
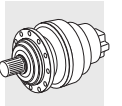


Solid input shaft



298





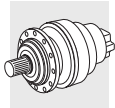
(mm)	inch	T
—	1.378 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
(85)	3.346 H8	$\begin{matrix} +0.00213 \\ 0 \end{matrix}$
(278)	10.945 f7	$\begin{matrix} -0.00220 \\ -0.00425 \end{matrix}$
80x74x3610H		DIN 5482

	309 L1	309 L2	309 L3	309 L4	309 R2	309 R3	309 R4
<b>T</b>	3.90	7.40	9.96	12.05	8.58	11.02	13.58
<b>T1</b>	—	—	—	—	8.86	5.51	4.80
<b>L5</b>	4.61	4.61	4.61	4.61	5.55	4.61	4.61
<b>Lbs</b>	209.5	235.9	251.4	260.2	319.7	280.0	282.2

3/V 09 L3
<b>T3</b>
14.25
<b>Lbs</b>
368.2

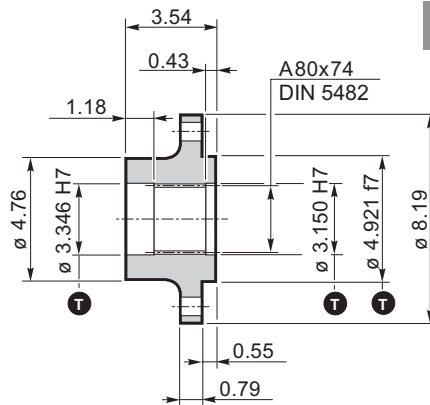
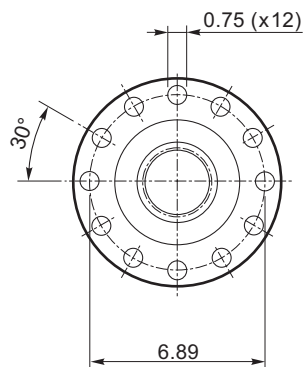
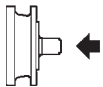
NEMA Input										
	P1	E	T2							
<b>N56C</b>	9.84	4.51	—	—	21.08	23.17	—	10.02	9.31	
<b>N140TC</b>	9.84	4.51	—	—	21.08	23.17	—	10.02	9.31	
<b>N180TC</b>	8.82	5.22	—	—	15.18	17.26	—	10.73	10.02	
<b>N210TC</b>	8.82	5.22	—	—	15.18	17.26	—	10.73	10.02	
<b>N250TC</b>	8.82	5.22	—	—	15.18	17.26	—	10.73	10.02	
<b>N250TC</b>	11.81	5.41	—	12.81	—	—	14.27	—	—	
<b>N280TC</b>	11.81	6.28	—	—	22.85	24.94	—	11.79	11.08	
<b>N280TC</b>	13.78	6.42	—	20.43	—	—	15.28	—	—	
<b>N320TC</b>	15.75	8.64	19.15	—	—	—	—	—	—	
<b>N360TC</b>	15.75	8.64	19.15	—	—	—	—	—	—	

P1	T4
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309

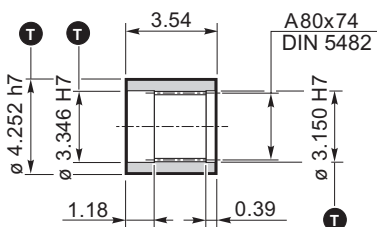
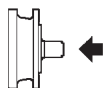
Flange



WOA

Material : Steel AISI 1040

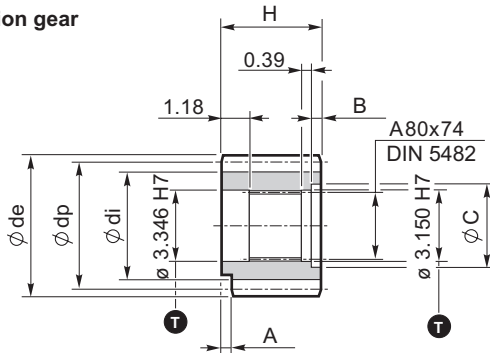
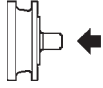
Sleeve coupling



MOA

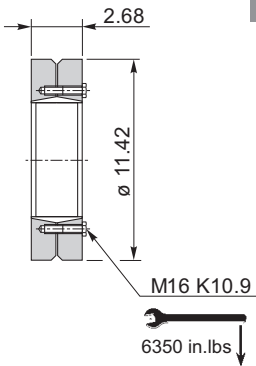
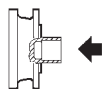
Material : Steel SAE 8620

Output pinion gear



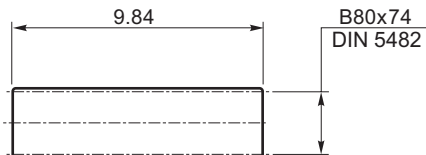
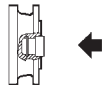
P...

Shrink disc



GOA

Splined bar



BOA

Case hardening steel SAE 4320 must be case hardened to 50-55 HRC

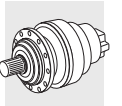
Code	m	z	x	dp	di	de	H	A	B	C	☆
PFG	8	16	0.500	128	117	149.5	90	0	0	0	□
PHC	10	12	0.450	120	104	145	90	0	0	0	□
PHE	10	14	0.320	140	121	165	116	13	26	95	□
PHF	10	15	0.150	150	130	171.5	107	20	17	100	□
PHG	10	16	0.500	160	145	186	90	0	0	0	■
PHH1	10	17	0	170	145	190	90	0	0	0	■
PHH2	10	17	0.500	170	154	198	90	0	0	0	■
PLD	12	13	0.500	156	138	192	102	0	12	95	□
PLE	12	14	0.500	168	150	199.2	90	0	0	0	□
PLI	12	18	0.500	216	198	249.6	107	7	17	95	□
PLT	12	26	0	312	282	336	90	10	0	0	■

⚠ Dimensions of pinion gears are in mm

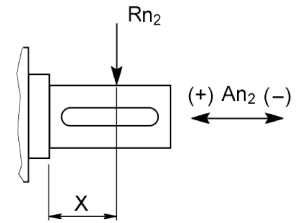
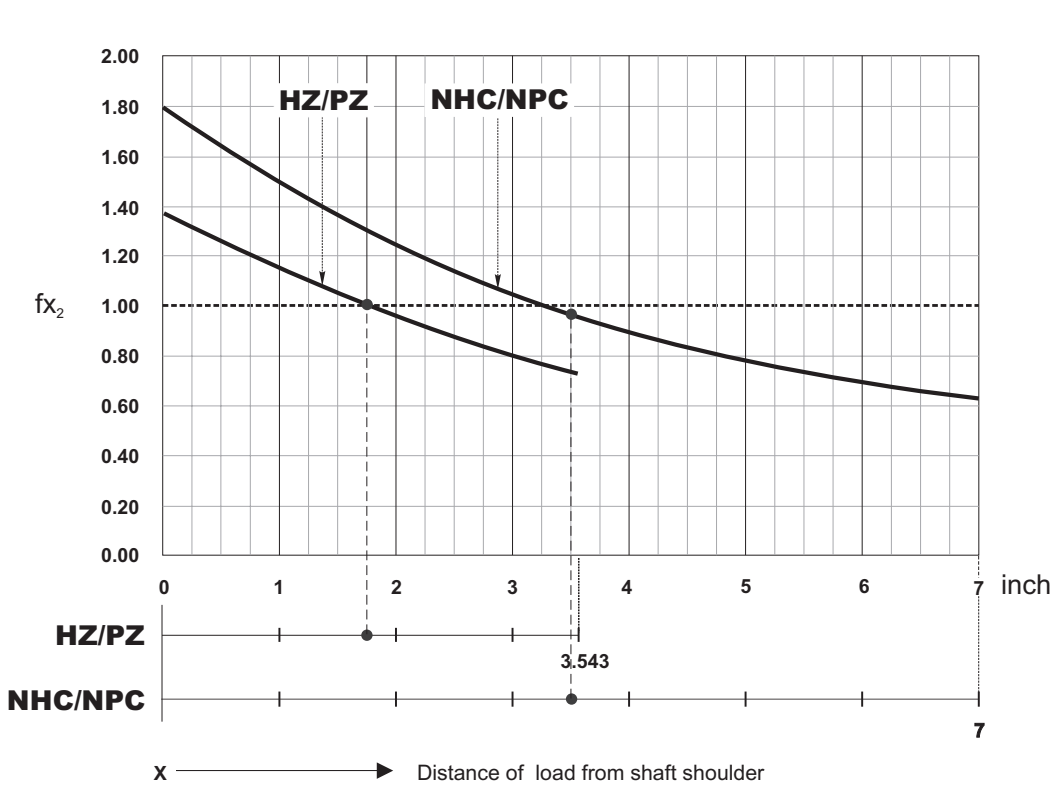
☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

m = module  
z = number of teeth  
x = addendum modification  
dp = generated pitch diameter  
di = root diameter  
de = outside diameter

(mm)	inch	T
(85)	3.346 H7	+0.00138 0
(80)	3.150 H7	+0.00138 0
(108)	4.252 h7	0 -0.00138
(125)	4.921 f7	-0.00169 -0.00327

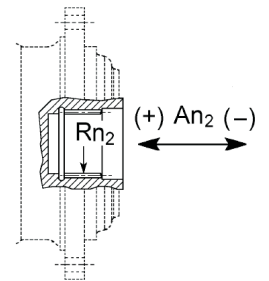


**Load application factor for calculation of admissible overhung load on output shaft**



$$R_{x_2} = R_{n_2} \cdot f_{x_2}$$

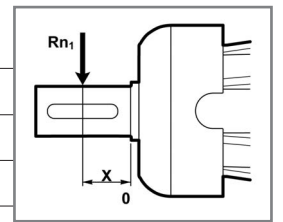
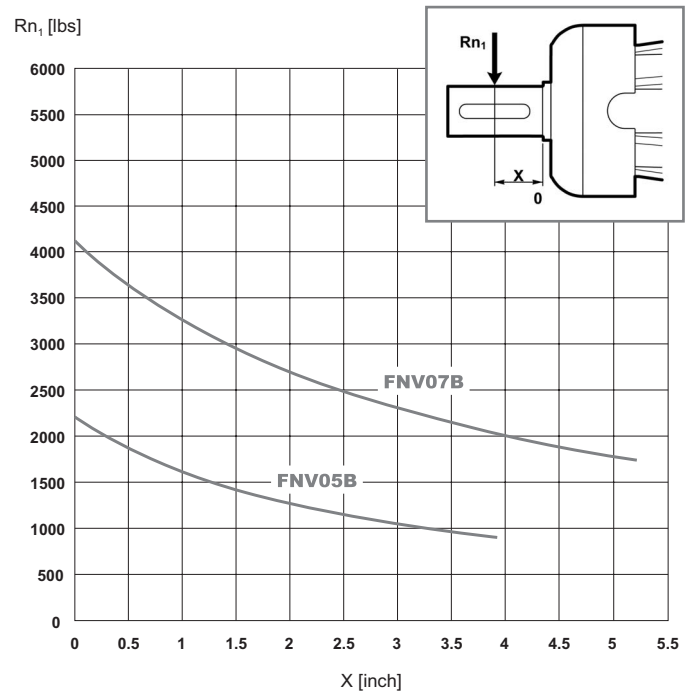
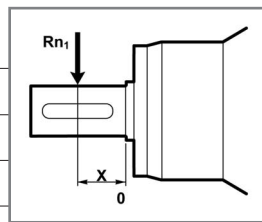
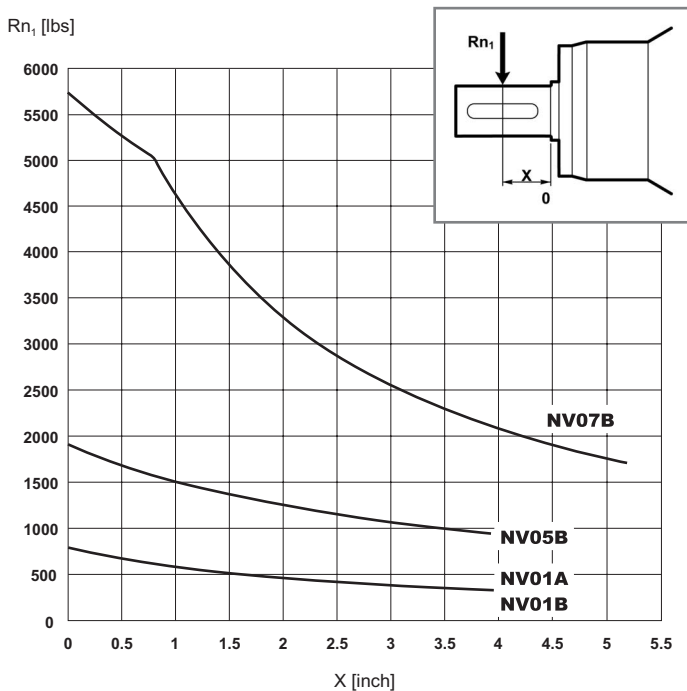
$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

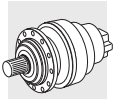


$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
FZ	1.04	1.04

**Permitted overhung load on input shaft**

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





**310**

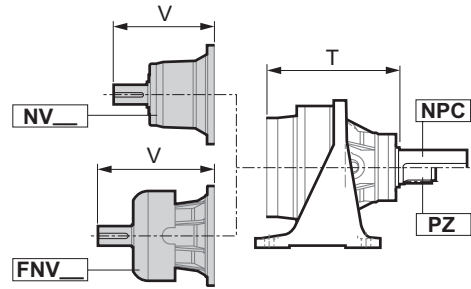
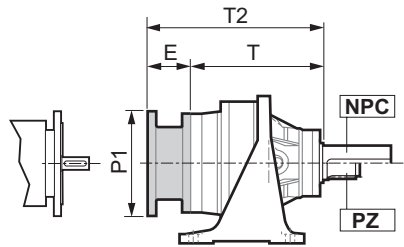
**NPC**

**PZ**

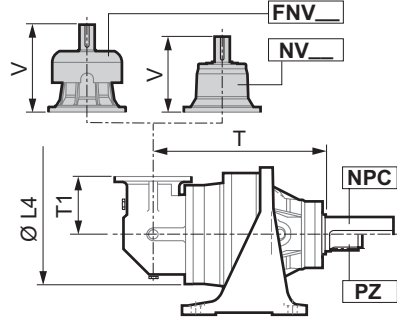
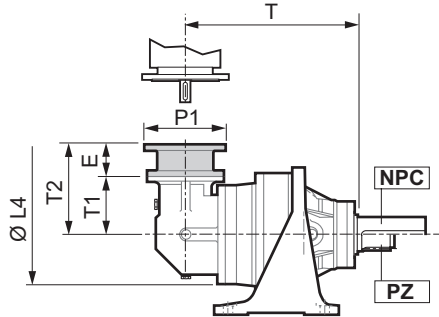
**NEMA input**

**Solid input shaft**

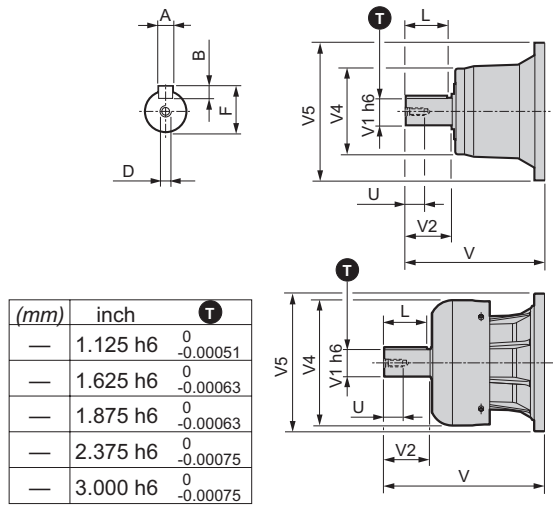
**310 L**



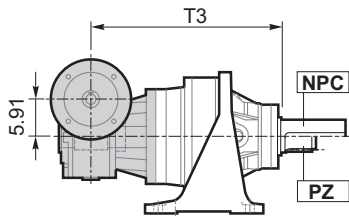
**310 R**



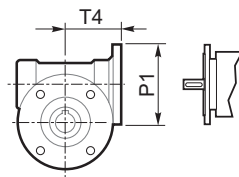
	310 L3		310 L4 310 R3, R4		310 L2 310 R2 (B) 310 R2 (C)		310 L1	
	Solid input shaft							
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B	NV10B	FNV10B
V	9.68	11.06	6.00	6.44	12.70	14.67	14.72	17.87
V1	1.875	1.875	1.125	1.625	2.375	2.375	3.000	3.000
V2	3.50	3.50	2.00	2.50	4.75	4.75	5.00	5.00
V4	6.10	8.70	4.72	4.72	6.10	12.20	7.87	13.70
V5	9.65	9.65	7.32	7.32	11.50	11.50	15.75	15.75
A	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750
B	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750
F	2.091	2.091	1.236	1.791	2.646	2.646	3.327	3.327
L	3.00	3.00	1.75	2.00	4.25	4.25	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65	1.65	1.65
LBS	33.1	38	13.2	15.4	50.7	58	110.3	130



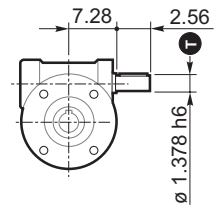
**3/V 10 L3**



IEC input  
(contact Bonfiglioli for availability)

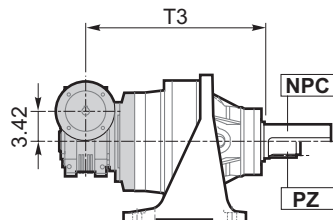


Solid input shaft

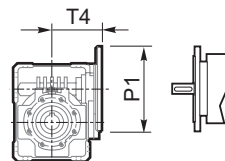


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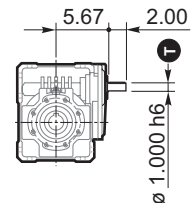
**3/V 10 L4**



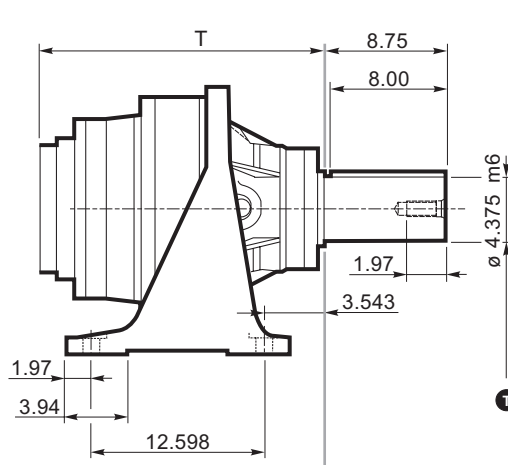
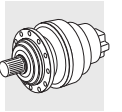
NEMA input



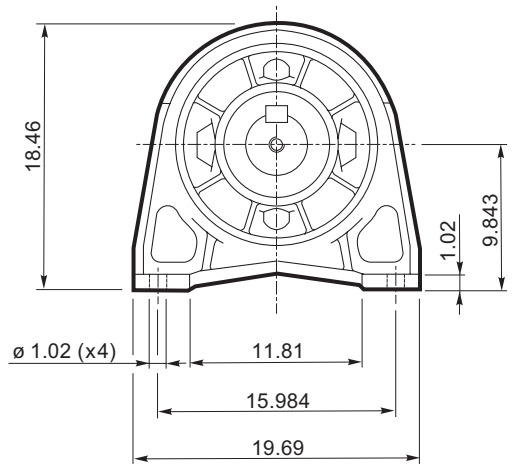
Solid input shaft



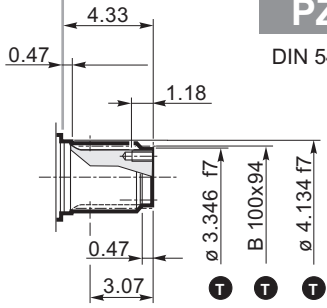
298



**NPC**

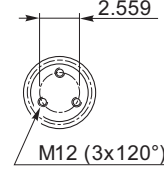
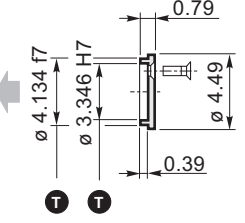


**PZ**



DIN 5482

Included with PZ



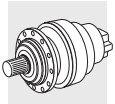
(mm)	inch	T
—	1.000 h6	<sup>0</sup> / <sub>-0.00051</sub>
—	1.378 h6	<sup>0</sup> / <sub>-0.00063</sub>
(85)	3.346 f7	<sup>0</sup> / <sub>-0.00142</sub> <sup>0</sup> / <sub>-0.00280</sub>
(85)	3.346 H7	<sup>+0.00138</sup> / <sub>0</sub>
(105)	4.134 f7	<sup>-0.00118</sup> / <sub>-0.00236</sub> <sup>0</sup> / <sub>-0.00280</sub>
—	4.375 m6	<sup>-0.00142</sup> / <sub>-0.00280</sub>
B 100x94		DIN 5482

	310 L1	310 L2	310 L3	310 L4	310 R2 (B)	310 R2 (C)	310 R3	310 R4
<b>T</b>	11.34	16.69	19.25	21.34	19.09	20.19	22.09	22.87
<b>T1</b>	—	—	—	—	13.58	15.35	5.51	5.51
<b>L4</b>	—	—	—	—	15.75	18.90	9.61	9.61
<b>Lbs</b>	341.8	407.9	427.8	436.6	680	617.4	460.8	471.9

	3/V 10 L3	3/V 10 L4
<b>T3</b>		
	23.94	24.96
<b>Lbs</b>	540.2	463.1

NEMA Input										
	P1	E	T2							
<b>N56C</b>	9.84	4.51	—	—	—	25.85	—	—	10.02	10.02
<b>N140TC</b>	9.84	4.51	—	—	—	25.85	—	—	10.02	10.02
<b>N180TC</b>	8.82	5.22	—	—	—	26.56	—	—	10.73	10.73
<b>N210TC</b>	8.82	5.22	—	—	—	26.56	—	—	10.73	10.73
<b>N250TC</b>	8.82	5.22	—	—	—	26.56	—	—	10.73	10.73
<b>N250TC</b>	11.81	5.41	—	—	24.67	—	—	—	—	—
<b>N280TC</b>	11.81	6.28	—	—	—	27.62	—	—	11.79	11.79
<b>N280TC</b>	13.78	6.42	—	—	25.67	—	—	—	—	—
<b>N320TC</b>	13.78	7.97	—	24.67	—	—	21.56	21.56	—	—
<b>N320TC</b>	13.78	11.44	22.78	—	—	—	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	24.67	—	—	21.56	21.56	—	—
<b>N360TC</b>	13.78	11.44	22.78	—	—	—	—	—	—	—

	P1	T4	P1	T4
—	—	—	6.54	4.74
—	—	—	6.54	4.74
—	—	—	9.02	5.45
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—



310

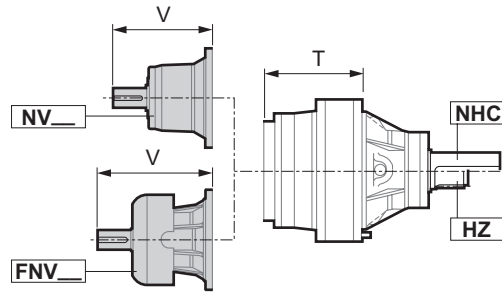
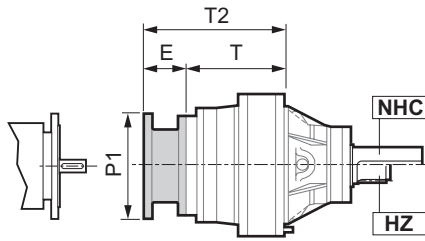
NHC

HZ

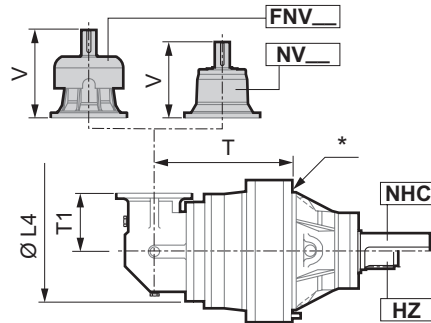
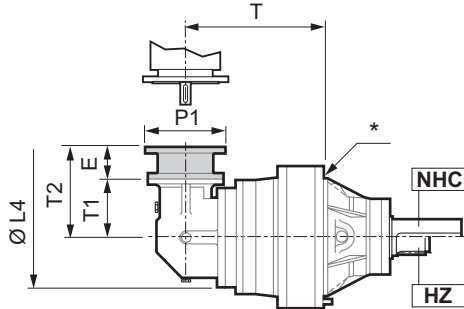
NEMA input

Solid input shaft

310 L

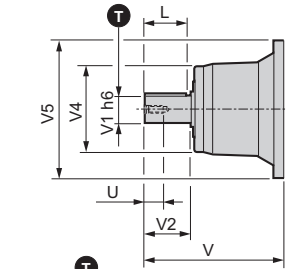
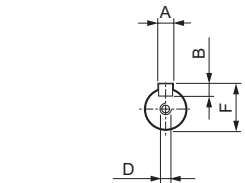


310 R

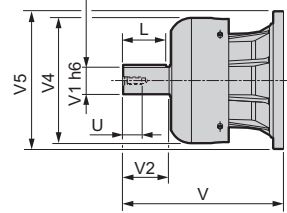


\* Only for configuration R2: for mounting the gerabox only use stud bolts

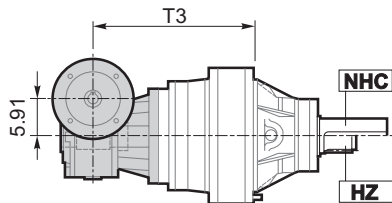
	310 L3		310 L4 310 R3, R4		310 L2 310 R2 (B) 310 R2 (C)		310 L1	
	Solid input shaft							
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B	NV10B	FNV10B
V	9.68	11.06	6.00	6.44	12.70	14.67	14.72	17.87
V1	1.875	1.875	1.125	1.625	2.375	2.375	3.000	3.000
V2	3.50	3.50	2.00	2.50	4.75	4.75	5.00	5.00
V4	6.10	8.70	4.72	4.72	6.10	12.20	7.87	13.70
V5	9.65	9.65	7.32	7.32	11.50	11.50	15.75	15.75
A	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750
B	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750
F	2.091	2.091	1.236	1.791	2.646	2.646	3.327	3.327
L	3.00	3.00	1.75	2.00	4.25	4.25	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65	1.65	1.65
Lbs	33.1	38	13.2	15.4	50.7	58	110.3	130



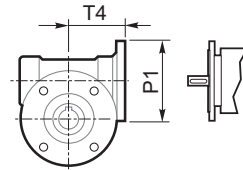
(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> <sub>-0.00063</sub>
—	2.375 h6	<sup>0</sup> <sub>-0.00075</sub>
—	3.000 h6	<sup>0</sup> <sub>-0.00075</sub>



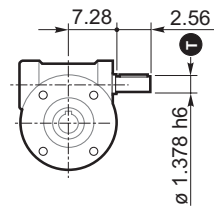
3/V 10 L3



IEC input  
(contact Bonfiglioli for availability)

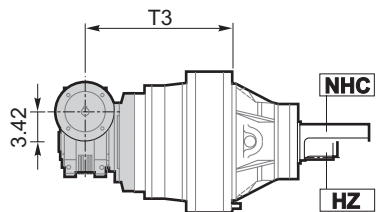


Solid input shaft

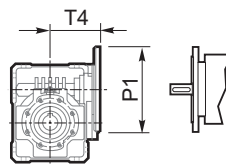


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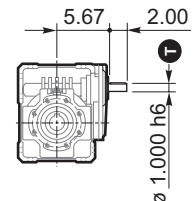
3/V 10 L4



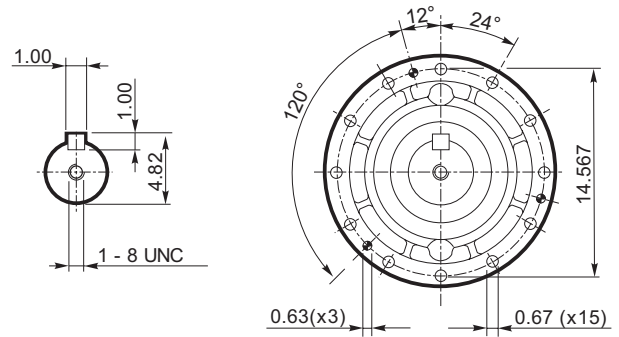
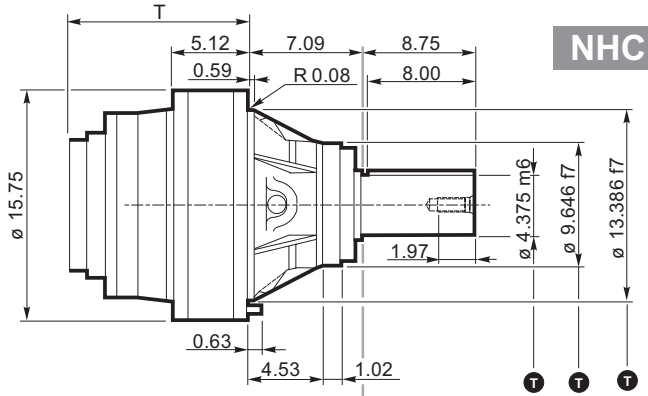
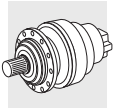
NEMA input



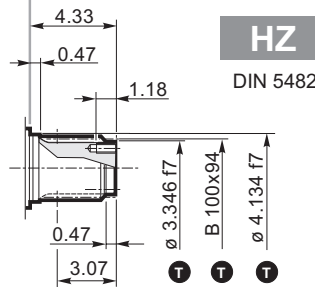
Solid input shaft



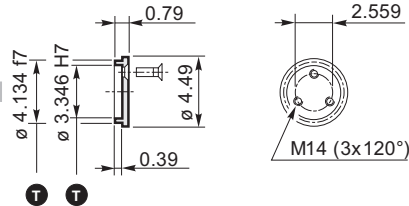
298



(mm)	inch	T
—	1.000 h6	0 -0.00051
—	1.378 h6	0 -0.00063
(85)	3.346 f7	-0.00142 -0.00280
(85)	3.346 H7	+0.00138 0
(105)	4.134 f7	-0.00118 -0.00236
—	4.375 h6	-0.00142 -0.00280
(245)	9.646 f7	-0.00197 -0.00378
(340)	13.386 f7	-0.00244 -0.00469
B 100x94		DIN 5482



Included with HZ

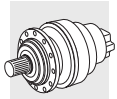


	310 L1	310 L2	310 L3	310 L4	310 R2 (B)	310 R2 (C)	310 R3	310 R4
<b>T</b>	4.25	9.61	12.17	14.25	12.01	13.11	15.00	15.79
<b>T1</b>	—	—	—	—	13.58	15.35	5.51	5.51
<b>L4</b>	—	—	—	—	15.75	18.90	9.61	9.61
<b>Lbs</b>	297.7	363.8	383.7	392.5	573.3	680	416.7	427.8

3/10 L3		3/10 L4	
<b>T3</b>			
16.85		17.87	
<b>Lbs</b>	496.1	Lbs	419.0

NEMA Input										
	P1	E	T2							
N56C	9.84	4.51	—	—	—	18.76	—	—	10.02	10.02
N140TC	9.84	4.51	—	—	—	18.76	—	—	10.02	10.02
N180TC	8.82	5.22	—	—	—	19.47	—	—	10.73	10.73
N210TC	8.82	5.22	—	—	—	19.47	—	—	10.73	10.73
N250TC	8.82	5.22	—	—	—	19.47	—	—	10.73	10.73
N250TC	11.81	5.41	—	—	17.58	—	—	—	—	—
N280TC	11.81	6.28	—	—	—	20.53	—	—	11.79	11.79
N280TC	13.78	6.42	—	—	18.58	—	—	—	—	—
N320TC	13.78	7.97	—	17.58	—	—	21.56	21.56	—	—
N320TC	13.78	11.44	15.69	—	—	—	—	—	—	—
N360TC	13.78	7.97	—	17.58	—	—	21.56	21.56	—	—
N360TC	13.78	11.44	15.69	—	—	—	—	—	—	—

P1	T4	P1	T4
—	—	6.54	4.74
—	—	6.54	4.74
—	—	9.02	5.45
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



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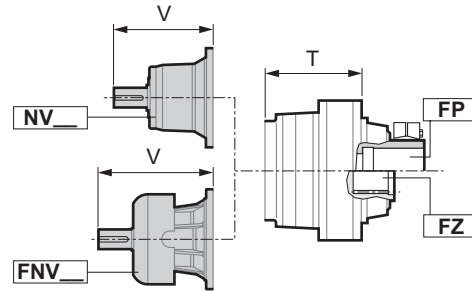
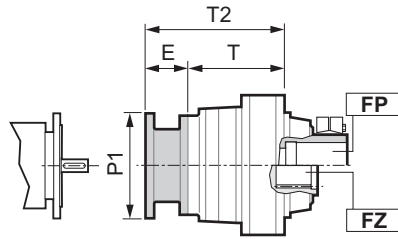
FP

FZ

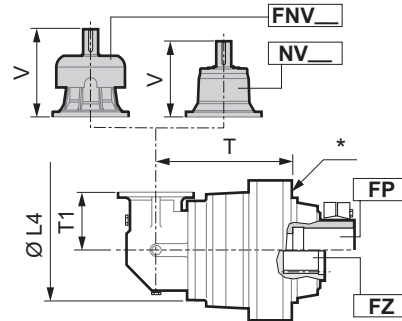
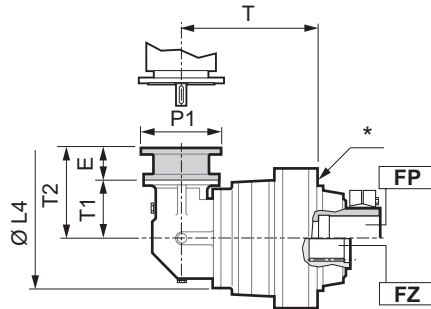
NEMA input

Solid input shaft

310 L

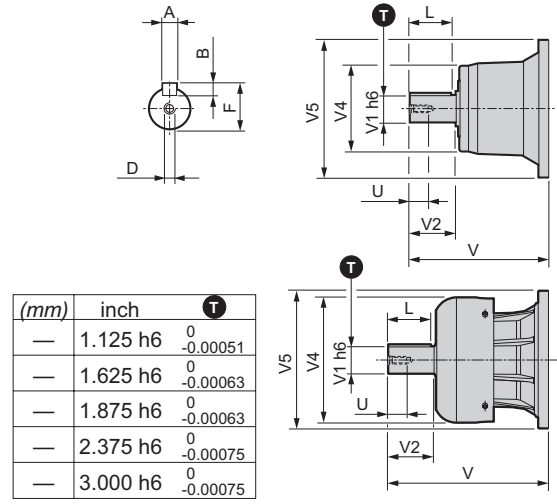


310 R

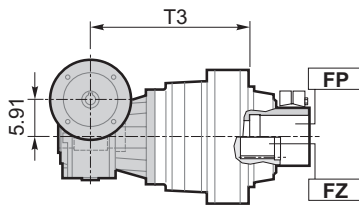


\* Only for configuration R2: for mounting the gerabox only use stud bolts

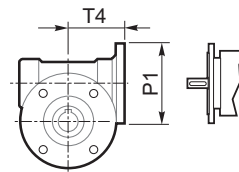
	310 L3		310 L4 310 R3, R4		310 L2 310 R2 (B) 310 R2 (C)		310 L1	
	Solid input shaft							
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B	NV10B	FNV10B
V	9.68	11.06	6.00	6.44	12.70	14.67	14.72	17.87
V1	1.875	1.875	1.125	1.625	2.375	2.375	3.000	3.000
V2	3.50	3.50	2.00	2.50	4.75	4.75	5.00	5.00
V4	6.10	8.70	4.72	4.72	6.10	12.20	7.87	13.70
V5	9.65	9.65	7.32	7.32	11.50	11.50	15.75	15.75
A	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750
B	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750
F	2.091	2.091	1.236	1.791	2.646	2.646	3.327	3.327
L	3.00	3.00	1.75	2.00	4.25	4.25	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10 UNC	3/4 10UNC	3/4 10 UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65	1.65	1.65
LBS	33.1	38	13.2	15.4	50.7	58	110.3	130



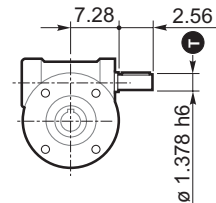
3/V 10 L3



IEC input  
(contact Bonfiglioli for availability)

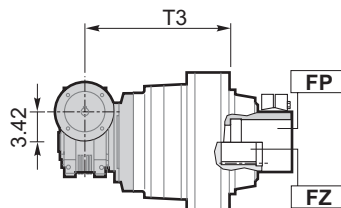


Solid input shaft

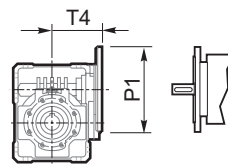


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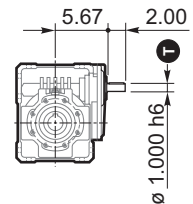
3/V 10 L4



NEMA input

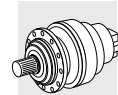


Solid input shaft

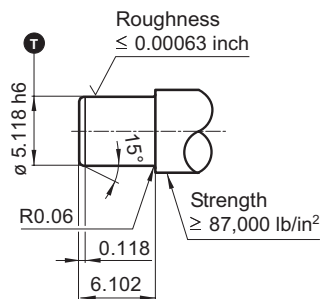
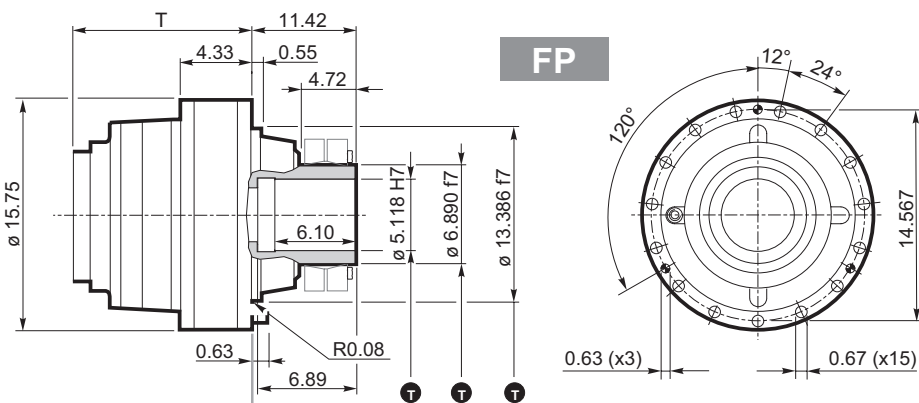


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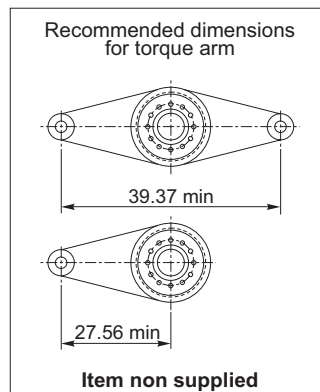
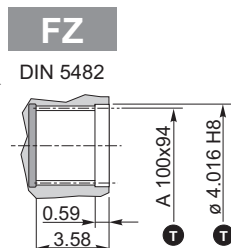
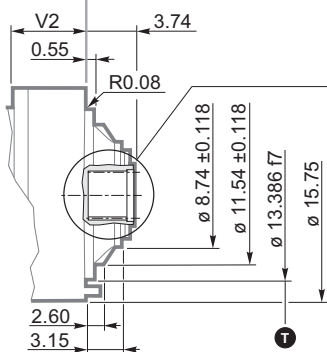




**FP**  $T_{2max} = 318,600$  in.lbs

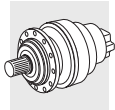


(mm)	inch	T
—	1.000 h6	0 -0.00051
—	1.378 h6	0 -0.00063
(102)	4.016 H8	+0.00213 0
(130)	5.118 h6	0 -0.00098
(130)	5.118 H7	0 +0.00157
(175)	6.890 f7	-0.00169 -0.00327
(340)	13.386 f7	-0.00244 -0.00469
A 100x94	DIN 5482	



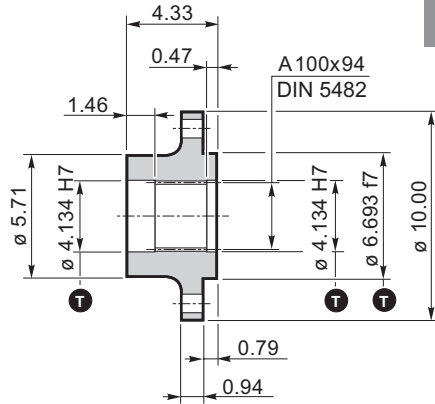
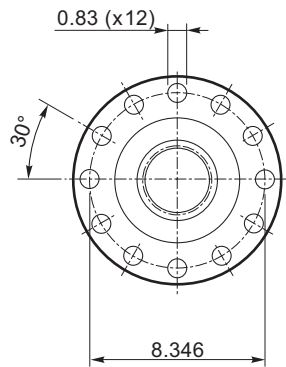
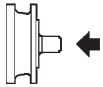
			310 L1	310 L2	310 L3	310 L4	310 R2 (B)	310 R2 (C)	310 R3	310 R4
	<b>T</b>		3.46	8.82	11.38	13.46	11.22	12.32	14.21	15.00
	<b>T1</b>		—	—	—	—	13.58	15.35	5.51	5.51
	<b>L4</b>		—	—	—	—	15.75	18.90	9.61	9.61
	<b>FP</b>	<b>Lbs</b>	253.6	319.7	339.6	348.4	551.3	595.2	372.6	383.7
	<b>FZ</b>		242.6	308.7	328.5	337.4	529.2	573.2	361.6	372.6
NEMA Input										
	P1	E	T2							
N56C	9.84	4.51	—	—	—	17.97	—	—	10.02	10.02
N140TC	9.84	4.51	—	—	—	17.97	—	—	10.02	10.02
N180TC	8.82	5.22	—	—	—	18.68	—	—	10.73	10.73
N210TC	8.82	5.22	—	—	—	18.68	—	—	10.73	10.73
N250TC	8.82	5.22	—	—	—	18.68	—	—	10.73	10.73
N250TC	11.81	5.41	—	—	16.79	—	—	—	—	—
N280TC	11.81	6.28	—	—	—	19.74	—	—	11.79	11.79
N280TC	13.78	6.42	—	—	17.80	—	—	—	—	—
N320TC	13.78	7.97	—	16.79	—	—	21.56	21.56	—	—
N320TC	13.78	11.44	14.90	—	—	—	—	—	—	—
N360TC	13.78	7.97	—	16.79	—	—	21.56	21.56	—	—
N360TC	13.78	11.44	14.90	—	—	—	—	—	—	—

	3/V 10 L3	3/V 10 L4		
	<b>T3</b>			
	16.06	17.09		
<b>Lbs</b>	452.0	374.9		
	441.0	363.8		
	P1	T4	P1	T4
	—	—	6.54	4.74
	—	—	6.54	4.74
	—	—	9.02	5.45
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—



**310**

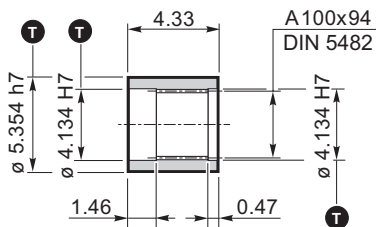
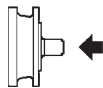
**Flange**



**WOA**

Material : Steel AISI 1040

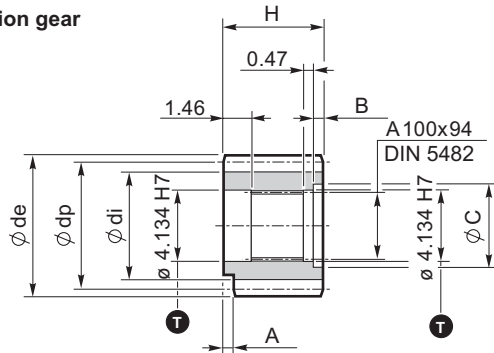
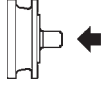
**Sleeve coupling**



**MOA**

Material : Steel SAE 8620

**Output pinion gear**

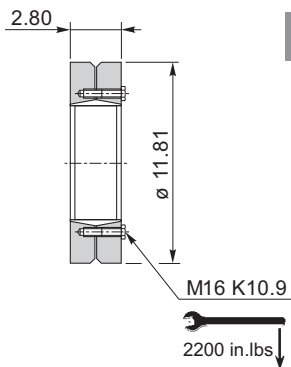
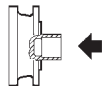


**P...**

Code	m	z	x	dp	di	de	H	A	B	C	☆
PLQ	12	23	0	276	246	300	110	0	0	0	■
PPD	16	13	0.500	208	184	252.5	145	0	35	116	□
PPF	16	15	0.450	240	215	280	125	0	15	120	□

⚠ Dimensions of pinion gears are in mm

**Shrink disc**

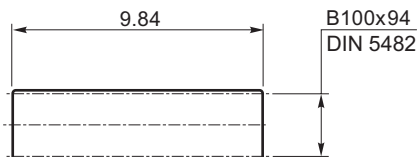
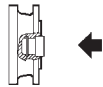


**GOA**

☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

m = module  
 z = number of teeth  
 x = addendum modification  
 dp = generated pitch diameter  
 di = root diameter  
 de = outside diameter

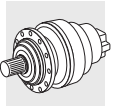
**Splined bar**



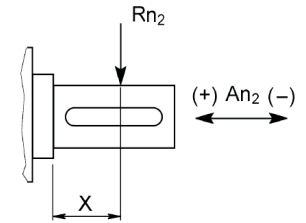
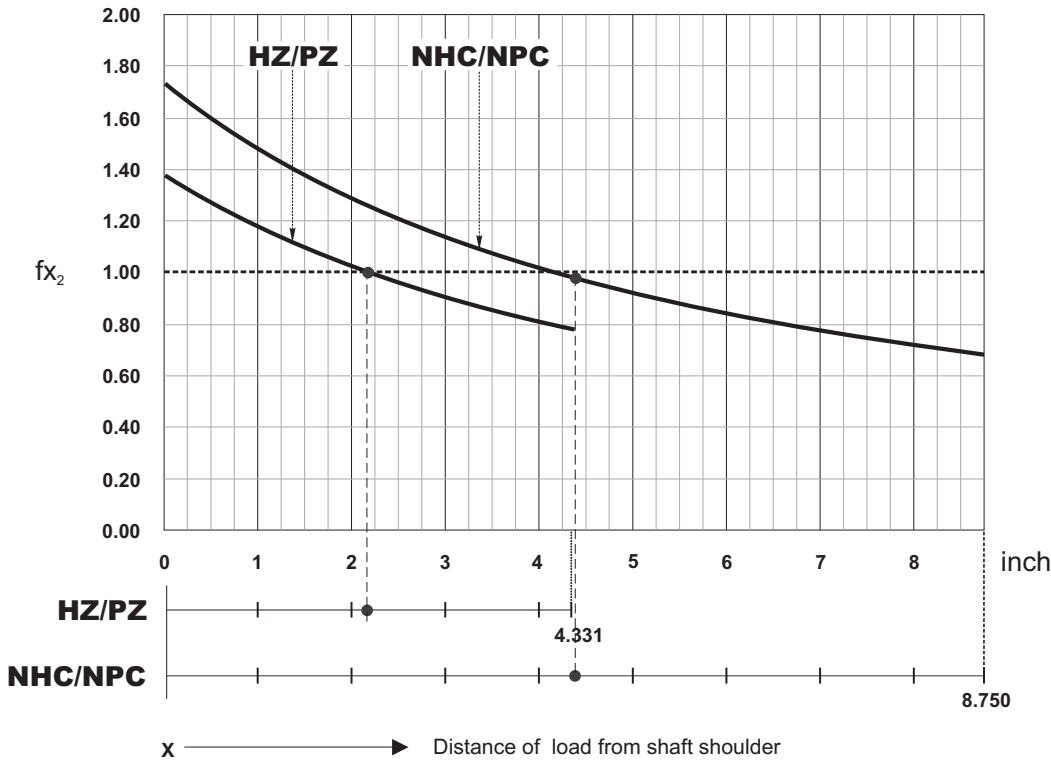
**BOA**

Case hardening steel SAE 4320 must be case hardened to 50-55 HRC

(mm)	inch	T
(105)	4.134 H7	+0.00138 0
(136)	5.354 h7	0 -0.00157
(170)	6.693 f7	-0.00169 -0.00327

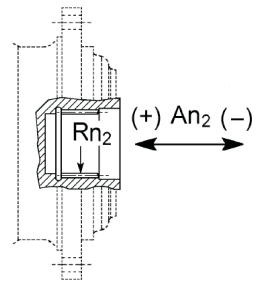


Load application factor for calculation of admissible overhung load on output shaft



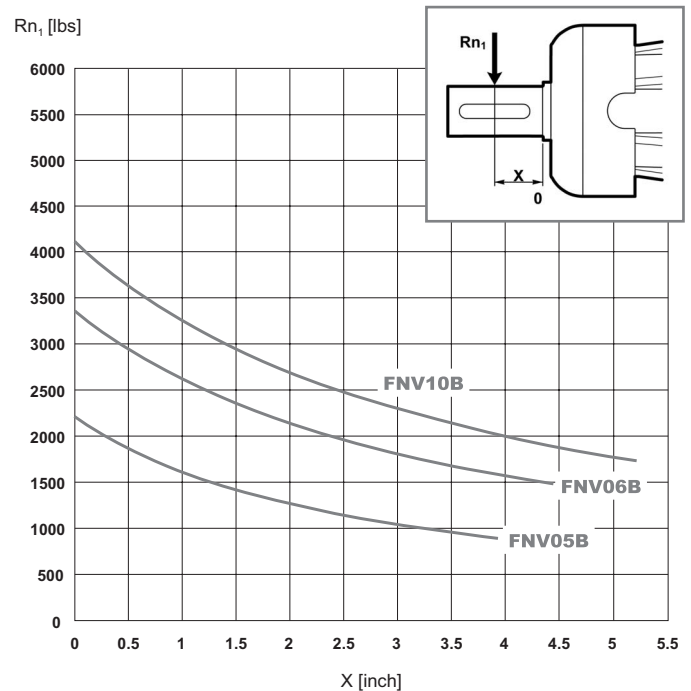
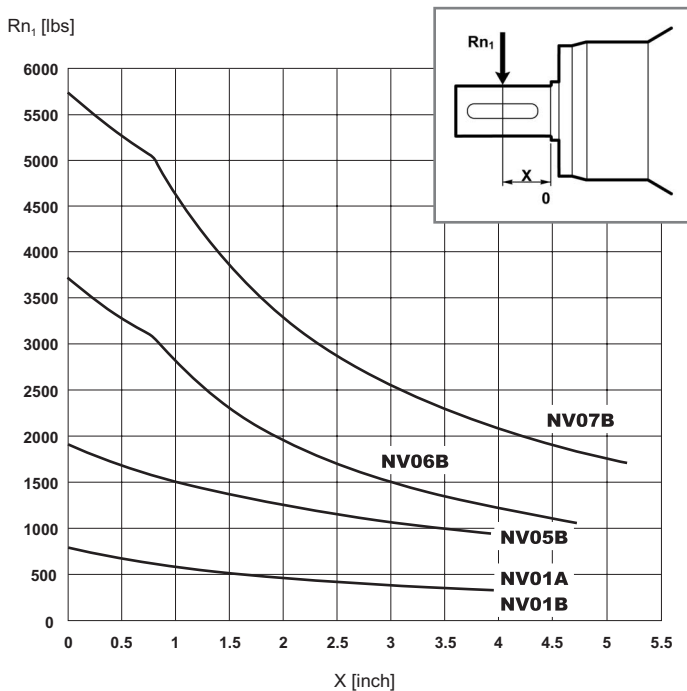
$$R_{x2} = R_{n2} \cdot f_{x2}$$

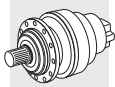
$A_{n2} (\pm) = R_{n2} \cdot f_{a2} (\pm)$		
	$f_{a2} (+)$	$f_{a2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69



$A_{n2} (\pm) = R_{n2} \cdot f_{a2} (\pm)$		
	$f_{a2} (+)$	$f_{a2} (-)$
FZ	1.04	1.04

Permitted overhung load on input shaft  
(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





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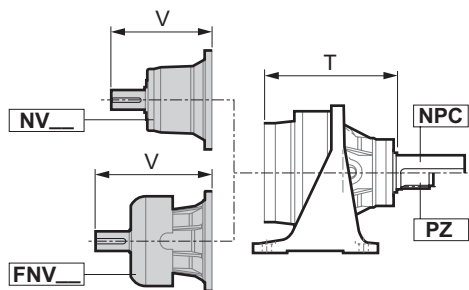
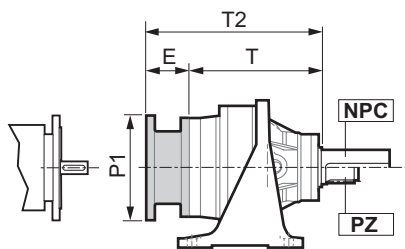
NPC

PZ

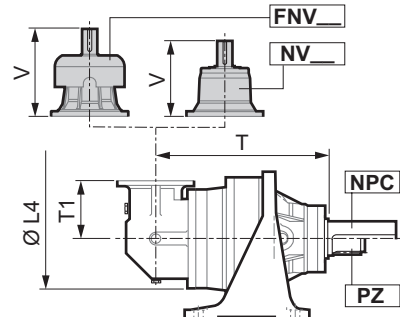
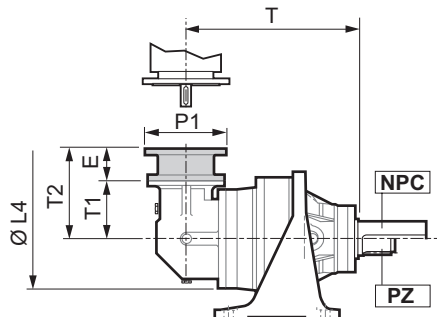
NEMA input

Solid input shaft

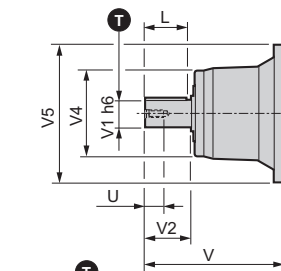
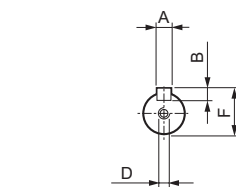
311 L



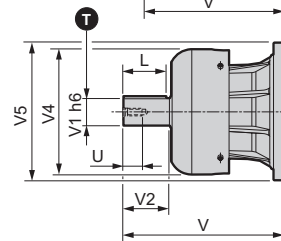
311 R



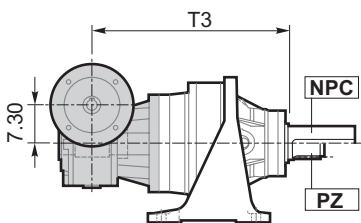
	311 L3 311 R3	311 L4 311 R4	311 R2 (B) 311 R2 (C)		311 L2		311 L1			
Solid input shaft										
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	6.00	6.44	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	1.125	1.625	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	2.00	2.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	4.72	4.72	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	7.32	7.32	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	1.236	1.791	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	1.75	2.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10UNC	3/4 10UNC	10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	13.2	15.4	50.7	58	77.2	90	121.3	140



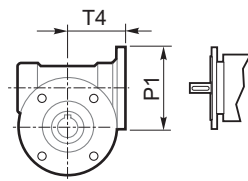
(mm)	inch	T
—	1.125 h6	$\begin{matrix} 0 \\ -0.00051 \end{matrix}$
—	1.625 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$



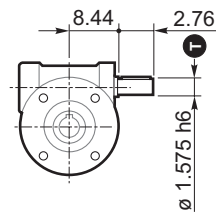
3/V 11 L3



IEC input  
(contact Bonfiglioli for availability)

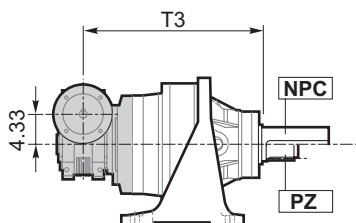


Solid input shaft

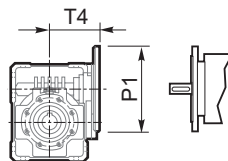


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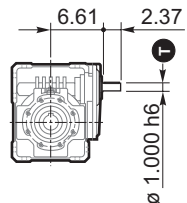
3/V 11 L4



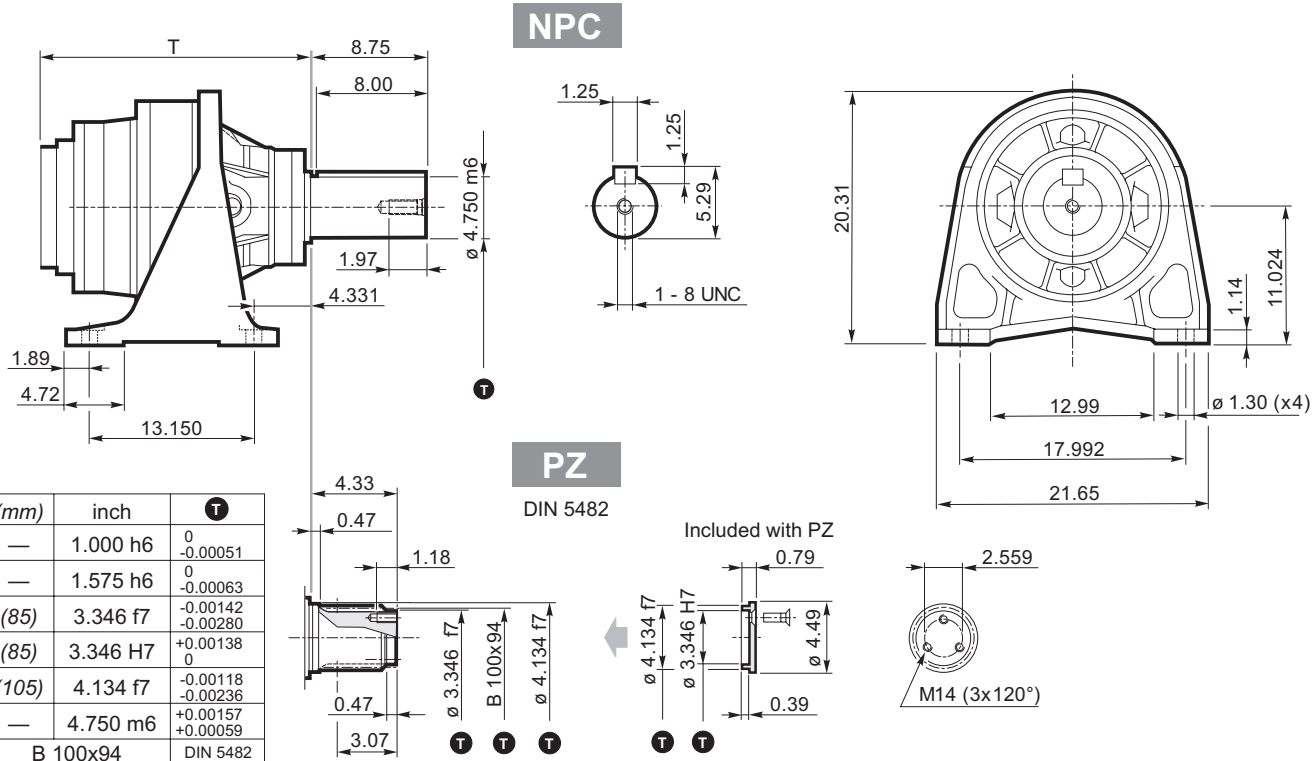
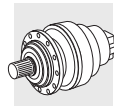
NEMA input



Solid input shaft



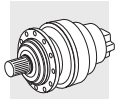
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	311 L1	311 L2	311 L3	311 L4	311 R2 (B)	311 R2 (C)	311 R3	311 R4
<b>T</b>	12.80	18.03	21.54	24.09	21.65	21.65	22.72	25.16
<b>T1</b>	—	—	—	—	13.58	15.35	8.86	5.51
<b>L4</b>	—	—	—	—	15.75	18.90	14.76	9.61
<b>Lbs</b>	551.3	650.5	676.9	692.4	837.9	860.0	760.7	721.0

3/V 11 L3		3/V 11 L4	
<b>T3</b>			
25.94		27.83	
<b>Lbs</b>	860.0	<b>Lbs</b>	749.7
<b>P1</b>	<b>T4</b>	<b>P1</b>	<b>T4</b>
—	—	—	—
—	—	6.54	5.96
—	—	9.02	6.67
—	—	9.02	9.17
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

NEMA Input										
	P1	E	T2							
<b>N56C</b>	9.84	4.51	—	—	—	28.60	—	—	13.37	10.02
<b>N140TC</b>	9.84	4.51	—	—	—	28.60	—	—	13.37	10.02
<b>N180TC</b>	8.82	5.22	—	—	—	29.31	—	—	14.07	10.73
<b>N210TC</b>	8.82	5.22	—	—	—	29.31	—	—	14.07	10.73
<b>N250TC</b>	8.82	5.22	—	—	—	29.31	—	—	14.07	10.73
<b>N250TC</b>	11.81	5.41	—	—	26.95	—	—	—	—	—
<b>N280TC</b>	11.81	6.28	—	—	—	30.37	—	—	15.14	11.79
<b>N280TC</b>	13.78	6.42	—	—	27.95	—	—	—	—	—
<b>N320TC</b>	13.78	7.97	—	—	—	—	21.56	23.33	—	—
<b>N320TC</b>	15.75	8.64	—	26.67	—	—	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	—	21.56	23.33	—	—
<b>N360TC</b>	15.75	8.64	—	26.67	—	—	—	—	—	—



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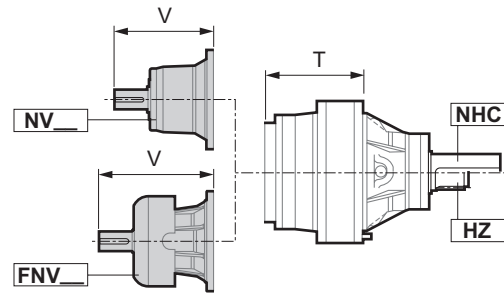
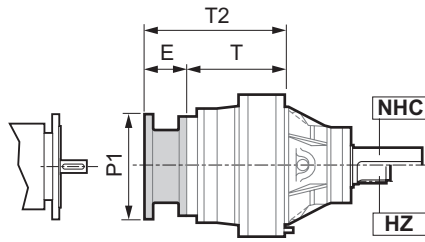
NHC

HZ

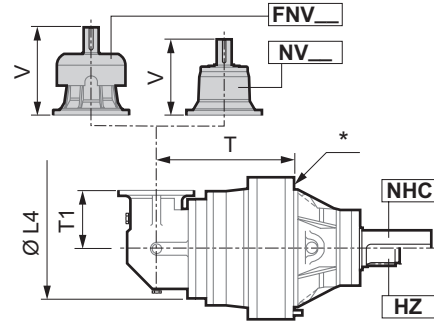
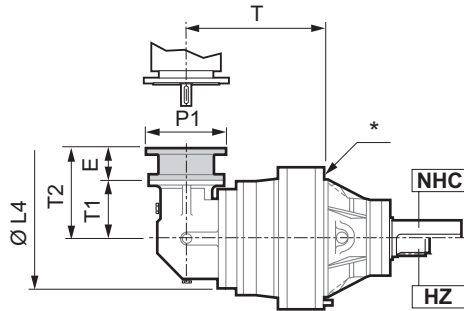
NEMA input

Solid input shaft

311 L

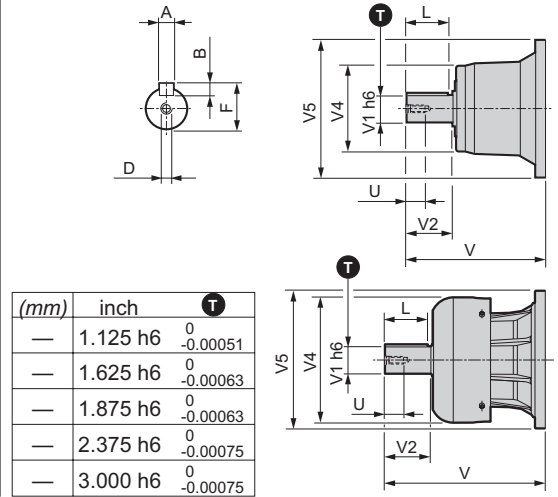


311 R

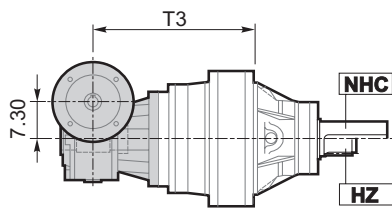


\* Only for configuration R2: for mounting the gerabox only use stud bolts

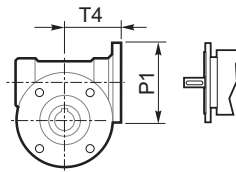
	311 L3 311 R3	311 L4 311 R4	311 R2 (B) 311 R2 (C)		311 L2		311 L1			
Solid input shaft										
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	6.00	6.44	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	1.125	1.625	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	2.00	2.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	4.72	4.72	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	7.32	7.32	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	1.236	1.791	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	1.75	2.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65	1.65	1.65	1.65	1.65
lbs	33.1	38	13.2	15.4	50.7	58	77.2	90	121.3	140



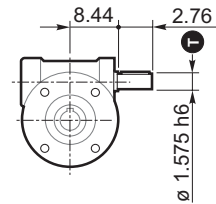
3/V 11 L3



IEC input  
(contact Bonfiglioli for availability)

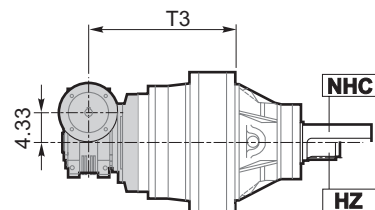


Solid input shaft

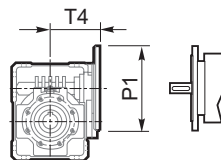


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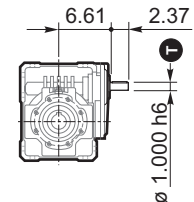
3/V 11 L4



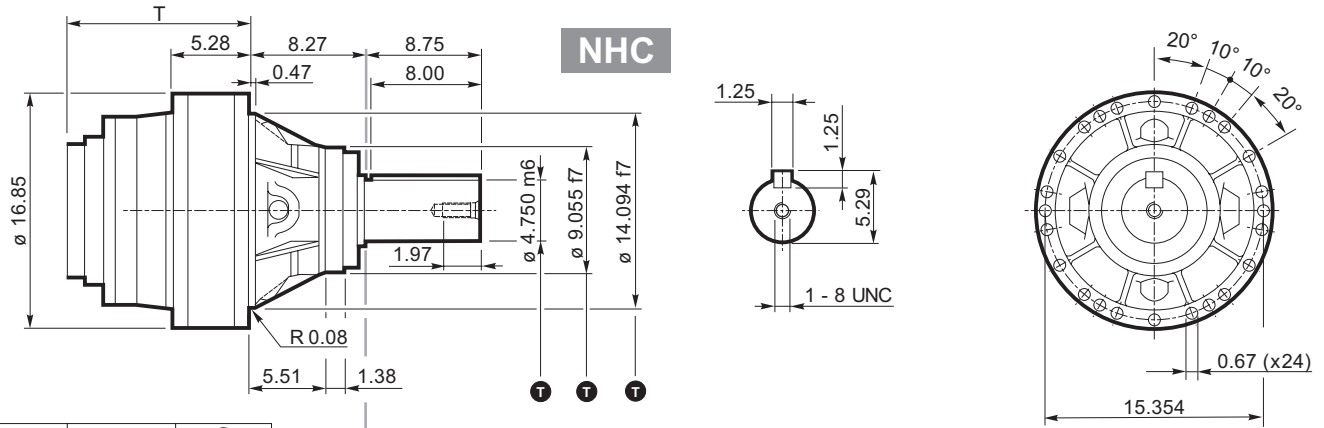
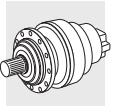
NEMA input



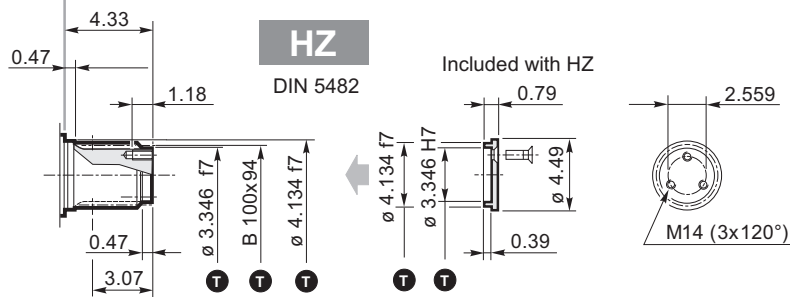
Solid input shaft



298



(mm)	inch	T
—	1.000 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.575 h6	<sup>0</sup> <sub>-0.00063</sub>
(85)	3.346 f7	<sup>-0.00142</sup> <sub>-0.00280</sub>
(85)	3.346 H7	<sup>+0.00138</sup> <sub>0</sub>
(105)	4.134 f7	<sup>-0.00142</sup> <sub>-0.00280</sub>
—	4.750 m6	<sup>+0.00157</sup> <sub>+0.00059</sub>
(230)	9.055 f7	<sup>-0.00197</sup> <sub>-0.00378</sub>
(358)	14.094 f7	<sup>-0.00244</sup> <sub>-0.00469</sub>
B 100x94		DIN 5482

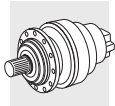


	311 L1	311 L2	311 L3	311 L4	311 R2 (B)	311 R2 (C)	311 R3	311 R4
T	4.53	9.76	13.27	15.83	13.39	13.39	14.45	16.89
T1	—	—	—	—	13.58	15.35	8.86	5.51
L4	—	—	—	—	15.75	18.90	14.76	9.61
Lbs	396.9	496.1	522.6	538.0	705.6	606.4	606.4	566.7

3/V 11 L3		3/V 11 L4	
T3			
17.68		19.57	
Lbs 705.6		595.4	

NEMA Input			
	P1	E	T2
N56C	9.84	4.51	— — — 20.33 — — 13.37 10.02
N140TC	9.84	4.51	— — — 20.33 — — 13.37 10.02
N180TC	8.82	5.22	— — — 21.04 — — 14.07 10.73
N210TC	8.82	5.22	— — — 21.04 — — 14.07 10.73
N250TC	8.82	5.22	— — — 21.04 — — 14.07 10.73
N250TC	11.81	5.41	— — — 18.68 — — — —
N280TC	11.81	6.28	— — — 22.11 — — — 15.14 11.79
N280TC	13.78	6.42	— — — 19.69 — — — —
N320TC	13.78	7.97	— — — — 21.56 23.33 — —
N320TC	15.75	8.64	— 18.41 — — — — — —
N360TC	13.78	7.97	— — — — 21.56 23.33 — —
N360TC	15.75	8.64	— 18.41 — — — — — —

P1	T4	P1	T4
—	—	—	—
—	—	6.54	5.96
—	—	9.02	6.67
—	—	9.02	9.17
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



311

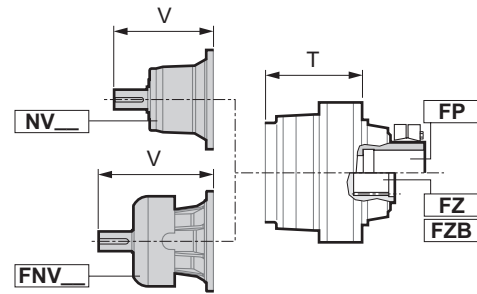
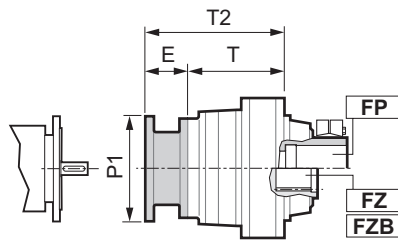
FP

FZ

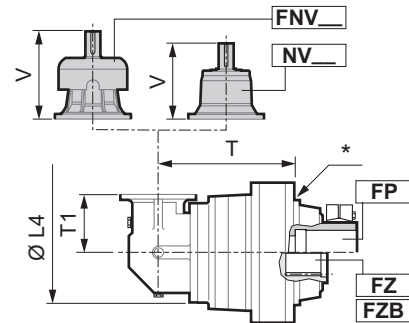
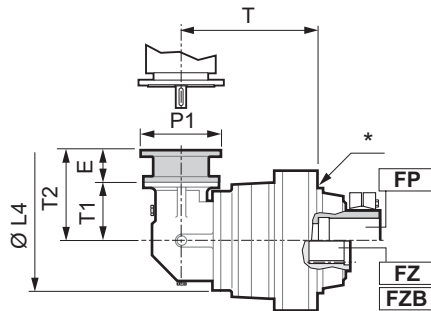
NEMA input

Solid input shaft

311 L

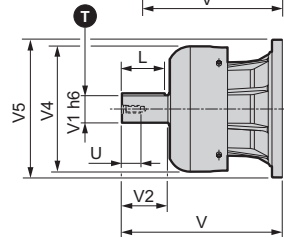
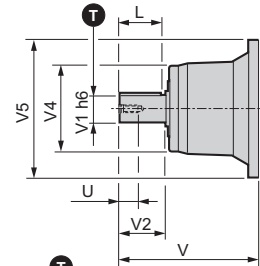
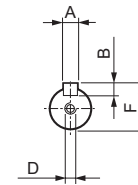


311 R



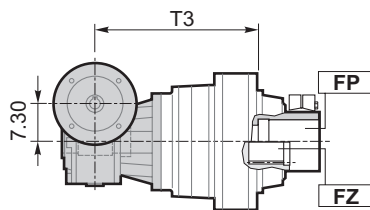
\* Only for configuration R2: for mounting the gearbox only use stud bolts

	311 L3 311 R3	311 L4 311 R4	311 R2 (B) 311 R2 (C)		311 L2		311 L1			
<b>Solid input shaft</b>										
	<b>NV05B</b>	<b>FNV05B</b>	<b>NV01A</b>	<b>NV01B</b>	<b>NV06B</b>	<b>FNV06B</b>	<b>NV07B</b>	<b>FNV07B</b>	<b>NV11B</b>	<b>FNV11B</b>
<b>V</b>	9.68	11.06	6.00	6.44	12.70	14.67	12.28	14.65	13.58	17.83
<b>V1</b>	1.875	1.875	1.125	1.625	2.375	2.375	3.000	3.000	3.000	3.000
<b>V2</b>	3.50	3.50	2.00	2.50	4.75	4.75	5.00	5.00	5.00	5.00
<b>V4</b>	6.10	8.70	4.72	4.72	6.10	12.20	7.87	13.70	7.87	13.70
<b>V5</b>	9.65	9.65	7.32	7.32	11.50	11.50	13.58	13.58	16.46	16.46
<b>A</b>	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
<b>B</b>	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
<b>F</b>	2.091	2.091	1.236	1.791	2.646	2.646	3.327	3.327	3.327	3.327
<b>L</b>	3.00	3.00	1.75	2.00	4.25	4.25	4.37	4.37	4.37	4.37
<b>D</b>	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
<b>U</b>	1.42	1.42	0.87	1.10	1.65	1.65	1.65	1.65	1.65	1.65
<b>Lbs</b>	33.1	38	13.2	15.4	50.7	58	77.2	90	121.3	140

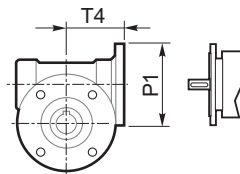


(mm)	inch	T
—	1.125 h6	0 -0.00051
—	1.625 h6	0 -0.00063
—	1.875 h6	0 -0.00063
—	2.375 h6	0 -0.00075
—	3.000 h6	0 -0.00075

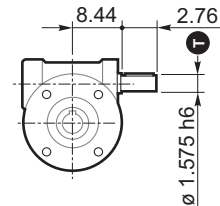
3/V 11 L3



IEC input  
(contact Bonfiglioli for availability)

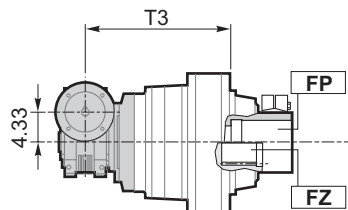


Solid input shaft

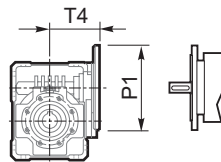


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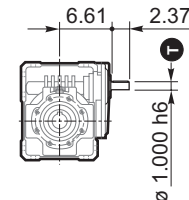
3/V 11 L4



NEMA input

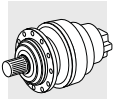


Solid input shaft

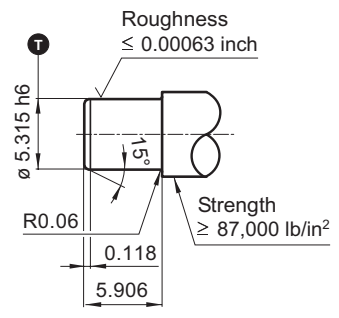
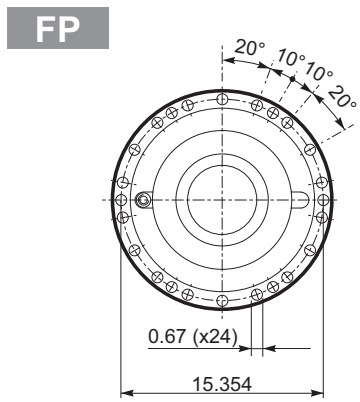
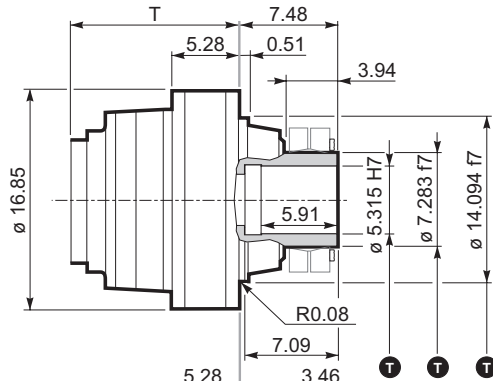


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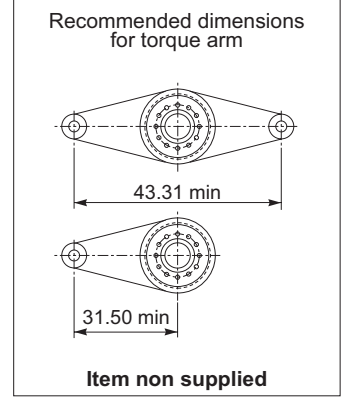
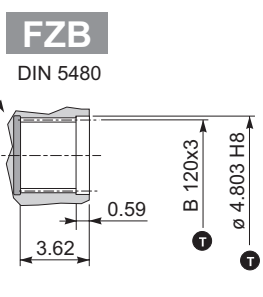
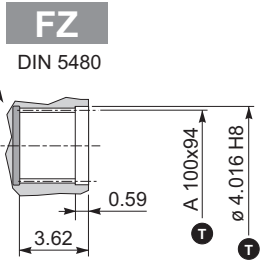




**FP**  $T_{2max} = 477,900$  in.lbs



(mm)	inch	T
—	1.000 h6	$0_{-0.00051}^0$
—	1.575 h6	$0_{-0.00063}^0$
(102)	4.016 H8	$+0.00213_0$
(135)	5.315 h6	$0_{-0.00095}^0$
(135)	5.315 H7	$+0.00157_0$
(185)	7.283 f7	$-0.00197_{-0.00378}$
(358)	14.094 f7	$-0.00244_{-0.00469}$
A 100x94	DIN 5482	



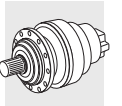
	311 L1	311 L2	311 L3	311 L4	311 R2 (B)	311 R2 (C)	311 R3	311 R4
<b>T</b>	4.53	9.76	13.27	15.83	13.39	13.39	14.45	16.89
<b>T1</b>	—	—	—	—	13.58	15.35	8.86	5.51
<b>L4</b>	—	—	—	—	15.75	18.90	14.76	9.61
<b>FP</b>	374.9	474.1	500.5	516.0	661.5	683.6	584.3	544.6
<b>FZ</b>	352.8	452.0	478.5	493.9	639.5	661.5	562.3	522.6

	3/V 11 L3	3/V 11 L4
<b>T3</b>	17.68	19.57
	683.6	573.3
	661.5	551.3

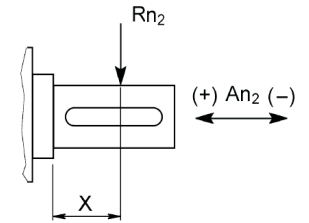
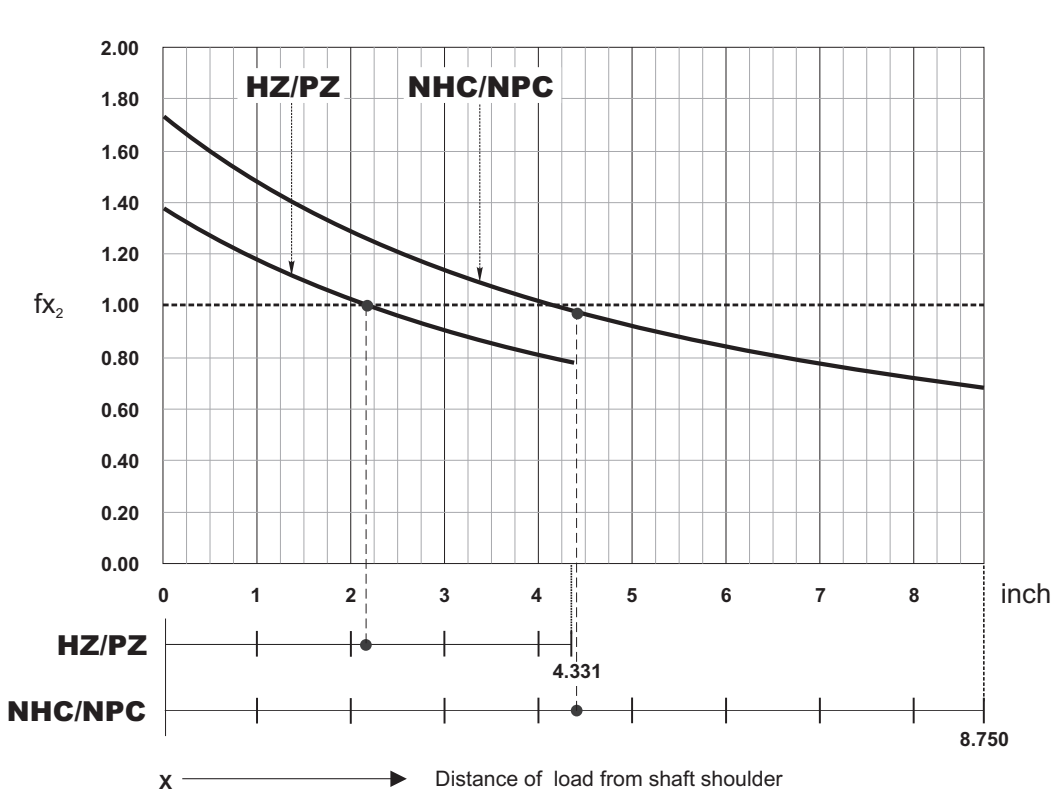
NEMA Input			T2							
	P1	E								
<b>N56C</b>	9.84	4.51	—	—	—	20.33	—	—	13.37	10.02
<b>N140TC</b>	9.84	4.51	—	—	—	20.33	—	—	13.37	10.02
<b>N180TC</b>	8.82	5.22	—	—	—	21.04	—	—	14.07	10.73
<b>N210TC</b>	8.82	5.22	—	—	—	21.04	—	—	14.07	10.73
<b>N250TC</b>	8.82	5.22	—	—	—	21.04	—	—	14.07	10.73
<b>N250TC</b>	11.81	5.41	—	—	18.68	—	—	—	—	—
<b>N280TC</b>	11.81	6.28	—	—	—	22.11	—	—	15.14	11.79
<b>N280TC</b>	13.78	6.42	—	—	19.69	—	—	—	—	—
<b>N320TC</b>	13.78	7.97	—	—	—	—	21.56	23.33	—	—
<b>N320TC</b>	15.75	8.64	—	18.41	—	—	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	—	21.56	23.33	—	—
<b>N360TC</b>	15.75	8.64	—	18.41	—	—	—	—	—	—

	P1	T4	P1	T4
	—	—	—	—
	—	—	6.54	5.96
	—	—	9.02	6.67
	—	—	9.02	9.17
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—



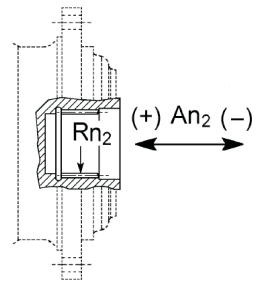


**Load application factor for calculation of admissible overhung load on output shaft**



$$R_{x2} = R_{n2} \cdot f_{x2}$$

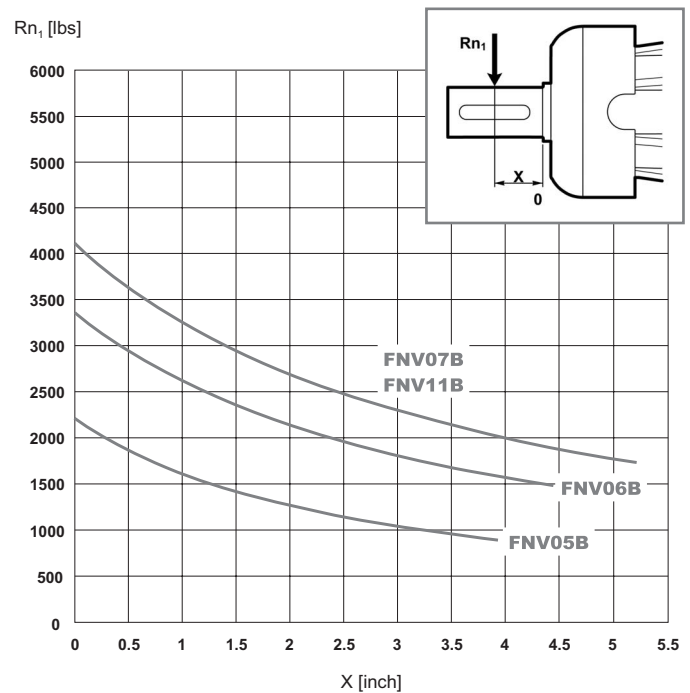
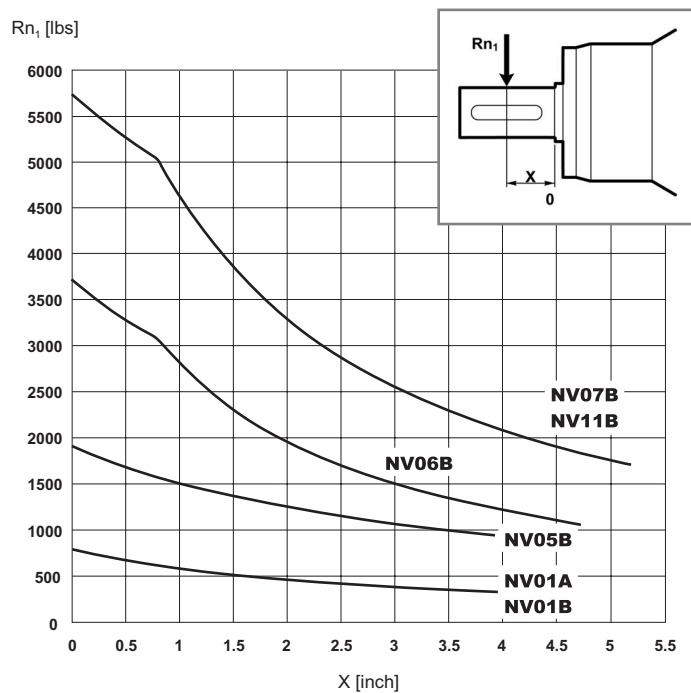
$An_2 (\pm) = R_{n2} \cdot fa_2 (\pm)$		
	$fa_2 (+)$	$fa_2 (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

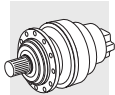


$An_2 (\pm) = R_{n2} \cdot fa_2 (\pm)$		
	$fa_2 (+)$	$fa_2 (-)$
FZ	1.04	1.04

**Permitted overhung load on input shaft**

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





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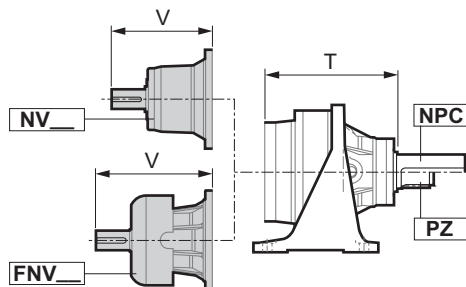
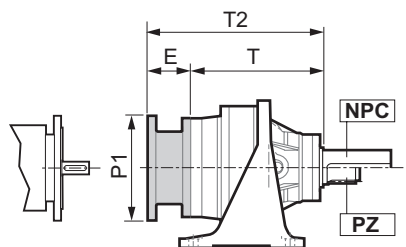
NPC

PZ

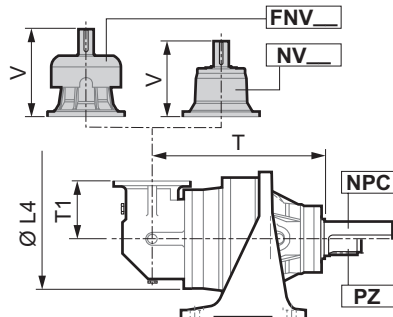
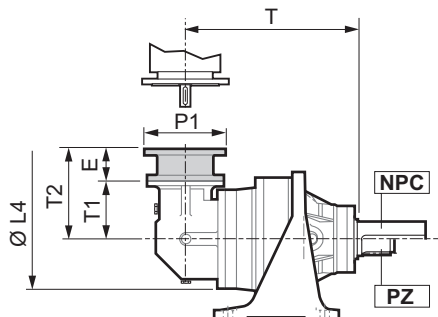
NEMA input

Solid input shaft

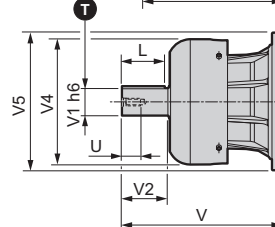
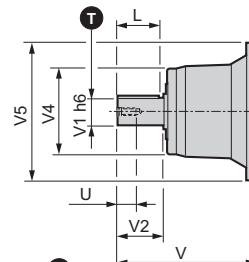
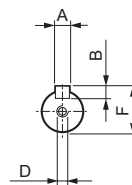
313 L



313 R

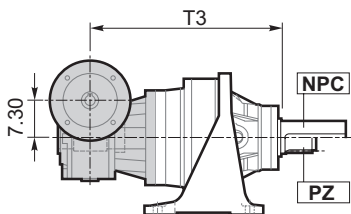


	313 L3 313 R3	313 L4 313 R4	313 R2 (B) 313 R2 (C)	313 L2	313 L1					
Solid input shaft										
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	6.00	6.44	12.70	14.67	12.28	14.65	13.38	17.83
V1	1.875	1.875	1.125	1.625	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	2.00	2.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	4.72	4.72	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	7.32	7.32	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	1.236	1.791	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	1.75	2.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	13.2	15.4	50.7	58	77.2	90	121.3	140

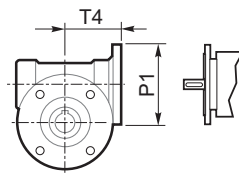


(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> <sub>-0.00063</sub>
—	2.375 h6	<sup>0</sup> <sub>-0.00075</sub>
—	3.000 h6	<sup>0</sup> <sub>-0.00075</sub>

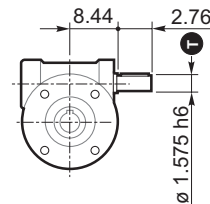
3/V 13 L3



IEC input  
(contact Bonfiglioli for availability)

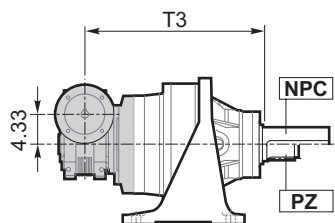


Solid input shaft

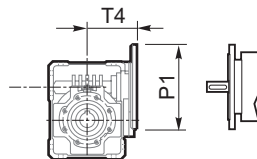


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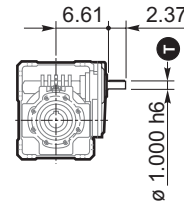
3/V 13 L4



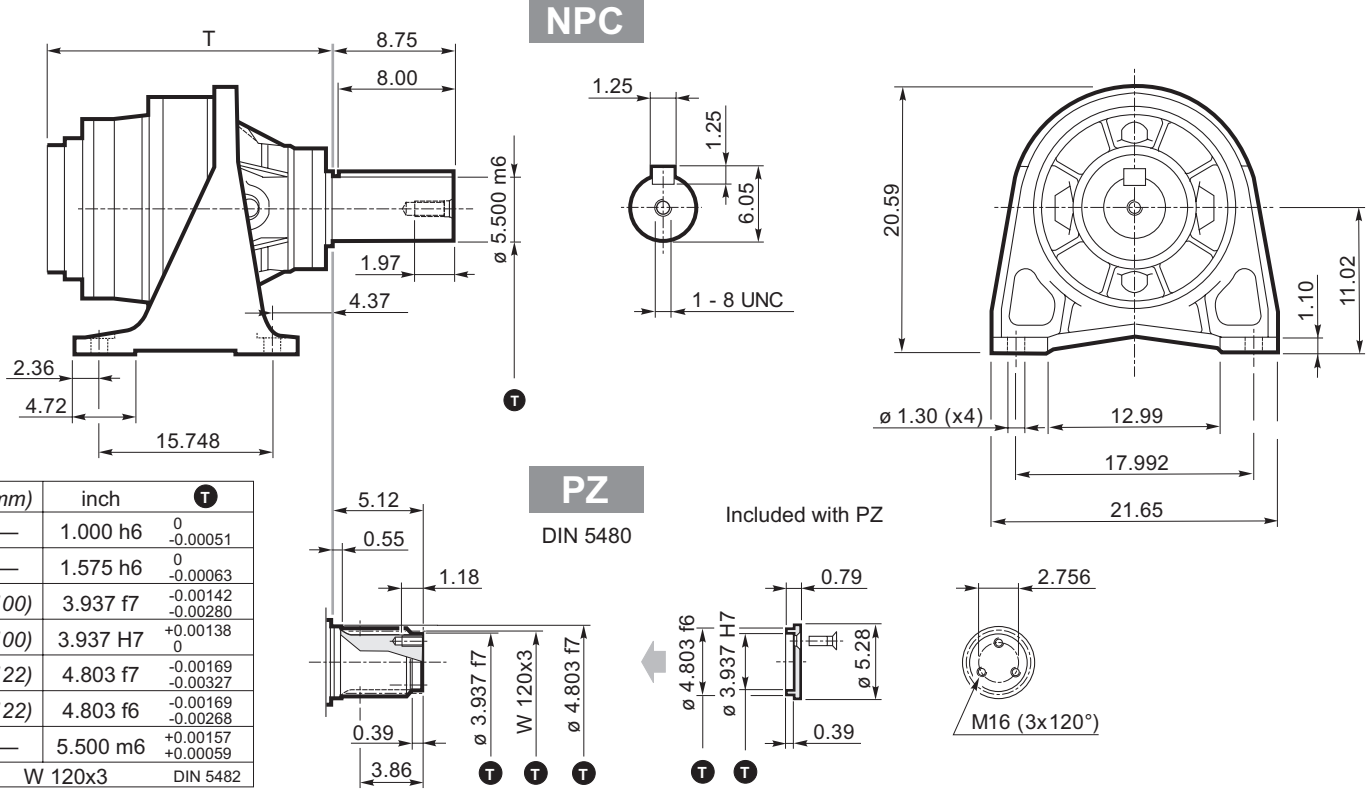
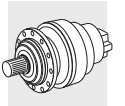
NEMA input



Solid input shaft



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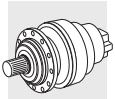


	313 L1	313 L2	313 L3	313 L4	313 R2 (B)	313 R2 (C)	313 R3	313 R4
<b>T</b>	15.00	20.91	24.41	26.97	24.06	24.06	25.59	28.03
<b>T1</b>	—	—	—	—	13.58	15.35	8.86	5.51
<b>L4</b>	—	—	—	—	15.75	18.90	13.58	9.61
<b>Lbs</b>	705.6	837.9	864.4	879.8	992.3	1014.3	948.2	908.5

3/V 13 L3		3/V 13 L4	
<b>T3</b>			
28.82		30.71	
<b>Lbs</b>	1047	937.1	

NEMA Input										
	P1	E	T2							
<b>N56C</b>	9.84	4.51	—	—	—	31.48	—	—	—	10.02
<b>N140TC</b>	9.84	4.51	—	—	—	31.48	—	—	—	10.02
<b>N180TC</b>	8.82	5.22	—	—	—	32.19	—	—	—	10.73
<b>N210TC</b>	8.82	5.22	—	—	—	32.19	—	—	—	10.73
<b>N250TC</b>	8.82	5.22	—	—	—	32.19	—	—	—	10.73
<b>N250TC</b>	11.81	5.41	—	—	29.82	—	—	—	14.27	—
<b>N280TC</b>	11.81	6.28	—	—	—	33.25	—	—	15.14	11.79
<b>N280TC</b>	13.78	6.42	—	—	30.83	—	—	—	—	—
<b>N320TC</b>	13.78	7.97	—	—	—	—	21.56	23.33	—	—
<b>N320TC</b>	15.75	8.64	—	29.55	—	—	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	—	21.56	23.33	—	—
<b>N360TC</b>	15.75	8.64	—	29.55	—	—	—	—	—	—

P1	T4	P1	T4
—	—	—	—
—	—	6.54	5.96
—	—	9.02	6.67
—	—	9.02	9.17
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



313

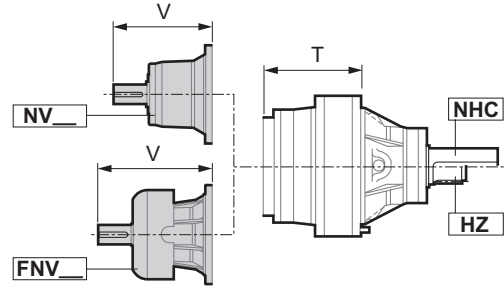
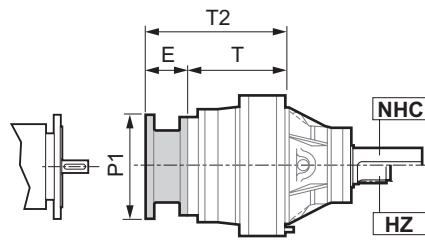
NHC

HZ

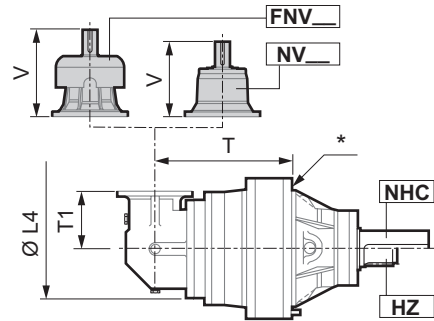
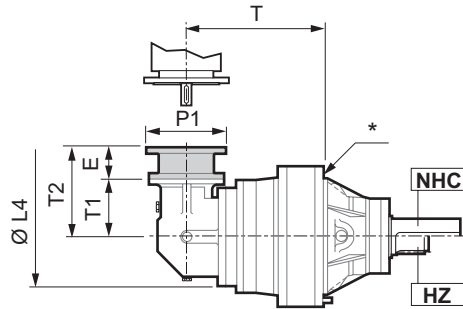
NEMA input

Solid input shaft

313 L

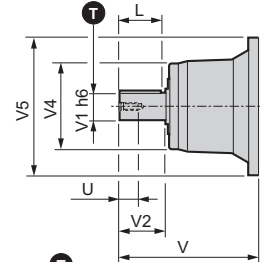
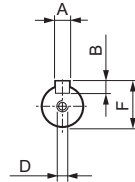


313 R

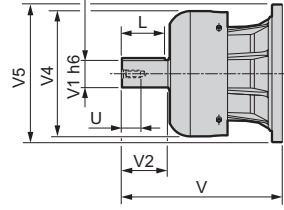


\* Only for configuration R2: for mounting the gearbox only use stud bolts

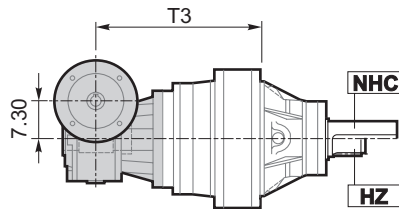
	313 L3 313 R3		313 L4 313 R4		313 R2 (B) 313 R2 (C)		313 L2		313 L1	
	Solid input shaft									
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	6.00	6.44	12.70	14.67	12.28	14.65	13.38	17.83
V1	1.875	1.875	1.125	1.625	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	2.00	2.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	4.72	4.72	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	7.32	7.32	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	1.236	1.791	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	1.75	2.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	13.2	15.4	50.7	58	77.2	90	121.3	140



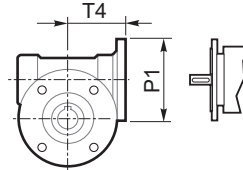
(mm)	inch	T
—	1.125 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.625 h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.875 h6	<sup>0</sup> <sub>-0.00063</sub>
—	2.375 h6	<sup>0</sup> <sub>-0.00075</sub>
—	3.000 h6	<sup>0</sup> <sub>-0.00075</sub>



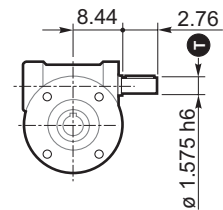
3/V 13 L3



IEC input  
(contact Bonfiglioli for availability)

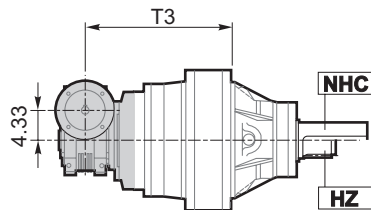


Solid input shaft

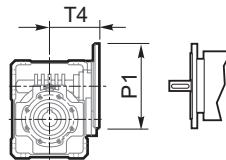


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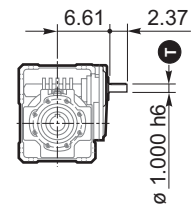
3/V 13 L4



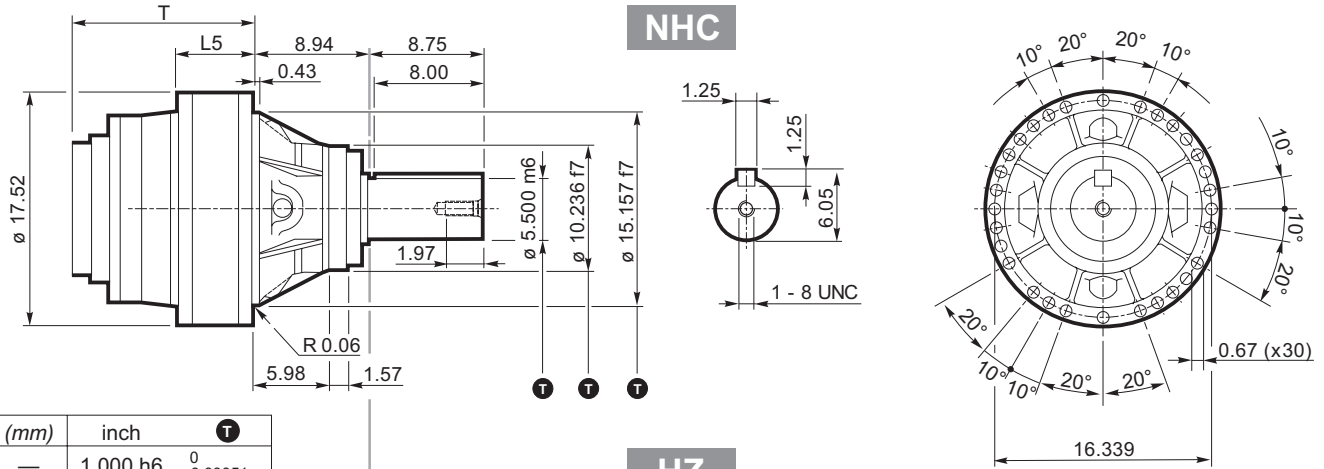
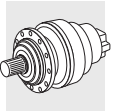
NEMA input



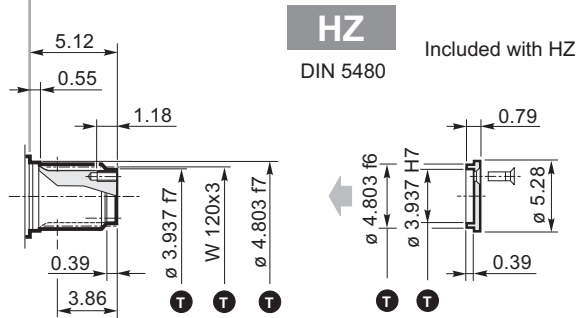
Solid input shaft



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(mm)	inch	T
—	1.000 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.575 h6	<sup>0</sup> <sub>-0.00063</sub>
(100)	3.937 H7	<sup>+0.00138</sup> <sub>0</sub>
(100)	3.937 f7	<sup>-0.00142</sup> <sub>-0.00280</sub>
(122)	4.803 f6	<sup>-0.00169</sup> <sub>-0.00268</sub>
—	5.500 m6	<sup>+0.00157</sup> <sub>+0.00059</sub>
(260)	10.236 f7	<sup>-0.00220</sup> <sub>-0.00425</sub>
(385)	15.157 f7	<sup>-0.00244</sup> <sub>-0.00469</sub>
W 120x3		DIN 5480

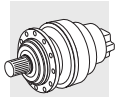


	313 L1	313 L2	313 L3	313 L4	313 R2 (B)	313 R2 (C)	313 R3	313 R4
<b>T</b>	6.06	11.97	15.47	18.03	15.12	15.12	16.65	19.09
<b>T1</b>	—	—	—	—	13.58	15.35	8.86	5.51
<b>L4</b>	—	—	—	—	15.75	18.90	13.58	9.61
<b>L5</b>	—	—	—	—	7.83	6.61	6.65	6.65
<b>Lbs</b>	507.2	639.5	665.9	681.3	793.8	815.9	749.7	710.0

3/V 13 L3		3/V 13 L4	
<b>T3</b>			
19.88		21.77	
<b>Lbs</b>	848.9	<b>Lbs</b>	738.7

NEMA Input										
	P1	E	T2							
<b>N56C</b>	9.84	4.51	—	—	—	22.54	—	—	—	10.02
<b>N140TC</b>	9.84	4.51	—	—	—	22.54	—	—	—	10.02
<b>N180TC</b>	8.82	5.22	—	—	—	23.25	—	—	—	10.73
<b>N210TC</b>	8.82	5.22	—	—	—	23.25	—	—	—	10.73
<b>N250TC</b>	8.82	5.22	—	—	—	23.25	—	—	—	10.73
<b>N250TC</b>	11.81	5.41	—	—	20.89	—	—	—	14.27	—
<b>N280TC</b>	11.81	6.28	—	—	—	24.31	—	—	15.14	11.79
<b>N280TC</b>	13.78	6.42	—	—	21.89	—	—	—	—	—
<b>N320TC</b>	13.78	7.97	—	—	—	—	21.56	23.33	—	—
<b>N320TC</b>	15.75	8.64	—	20.61	—	—	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	—	21.56	23.33	—	—
<b>N360TC</b>	15.75	8.64	—	20.61	—	—	—	—	—	—

P1	T4	P1	T4
—	—	—	—
—	—	6.54	5.96
—	—	9.02	6.67
—	—	9.02	9.17
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



313

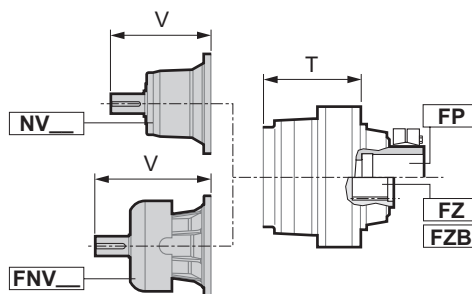
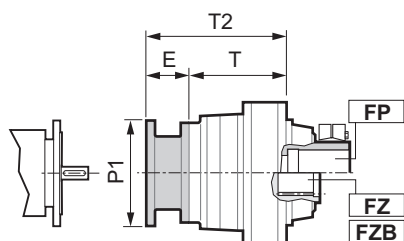
FP

FZ

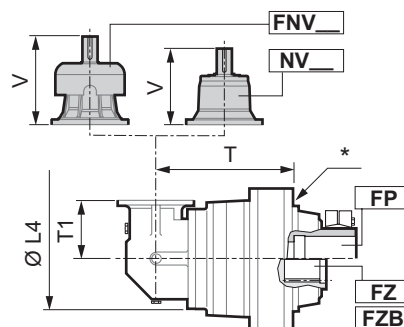
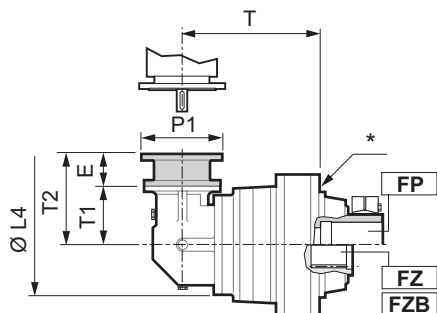
NEMA input

Solid input shaft

313 L

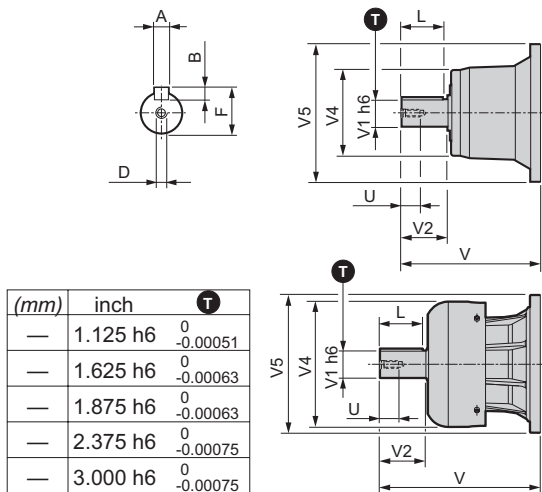


313 R

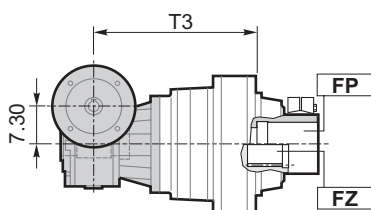


\* Only for configuration R2: for mounting the gerabox only use stud bolts

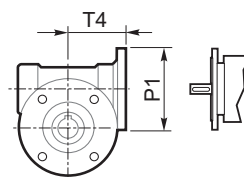
	313 L3 313 R3	313 L4 313 R4	313 R2 (B) 313 R2 (C)	313 L2	313 L1					
	Solid input shaft									
	NV05B	FNV05B	NV01A	NV01B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	6.00	6.44	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	1.125	1.625	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	2.00	2.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	4.72	4.72	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	7.32	7.32	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.250	0.375	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	1.236	1.791	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	1.75	2.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/8 16UNC	1/2 13UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	0.87	1.10	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	13.2	15.4	50.7	58	77.2	90	121.3	140



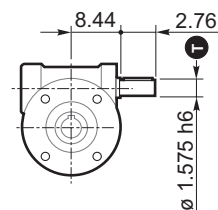
3/V 13 L3



IEC input  
(contact Bonfiglioli for availability)

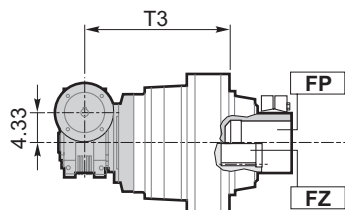


Solid input shaft

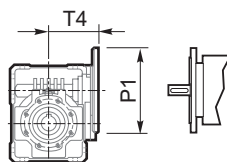


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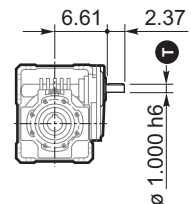
3/V 13 L4



NEMA input

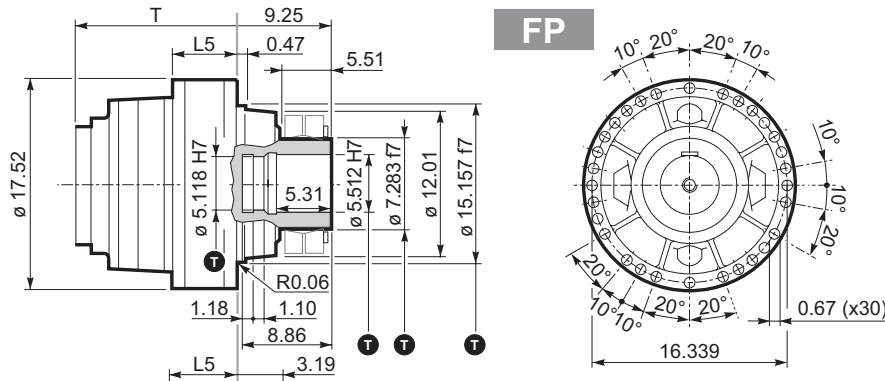
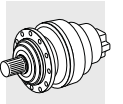


Solid input shaft

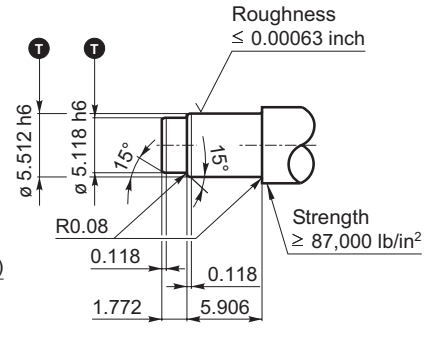


298

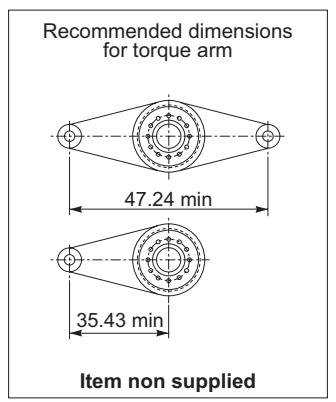
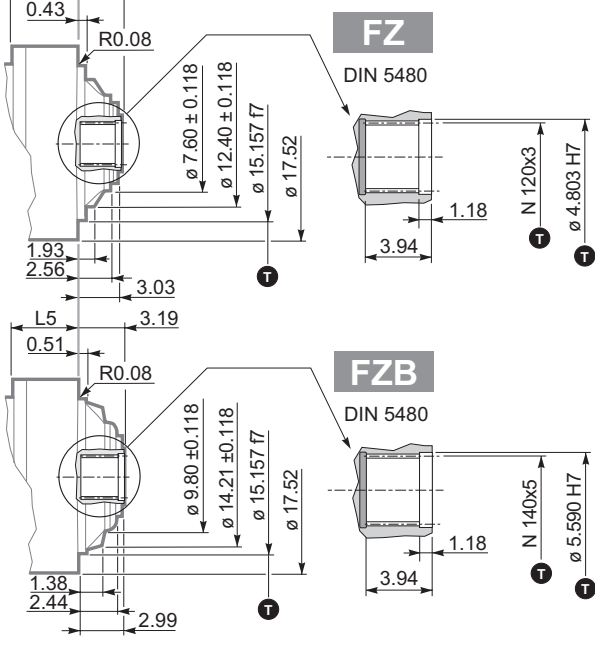




**FP** T<sub>2max</sub> = 584,100 in.lbs



(mm)	inch	T
—	1.000 h6	<sup>0</sup> <sub>-0.00051</sub>
—	1.575 h6	<sup>0</sup> <sub>-0.00063</sub>
(122)	4.803 H7	<sup>+0.00157</sup> <sub>0</sub>
(130)	5.118 h6	<sup>0</sup> <sub>-0.00098</sub>
(130)	5.118 H7	<sup>+0.00157</sup> <sub>0</sub>
(140)	5.512 H7	<sup>+0.00157</sup> <sub>0</sub>
(140)	5.512 h6	<sup>0</sup> <sub>-0.00098</sub>
(185)	7.283 f7	<sup>-0.00197</sup> <sub>-0.00378</sub>
(385)	15.157 f7	<sup>-0.00244</sup> <sub>-0.00469</sub>
N 120x3		DIN 5480

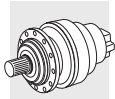


	313 L1	313 L2	313 L3	313 L4	313 R2 (B)	313 R2 (C)	313 R3	313 R4
<b>T</b>	6.06	11.97	15.47	18.03	15.12	15.12	16.65	19.09
<b>T1</b>	—	—	—	—	13.58	15.35	8.86	5.51
<b>L4</b>	—	—	—	—	15.75	18.90	13.58	9.61
<b>L5</b>	—	—	—	—	7.83	6.61	6.65	6.65
<b>FP</b>	441.0	617.4	643.9	659.3	771.8	793.8	727.7	688.0
<b>FZ</b>	441.0	573.3	599.8	615.2	727.7	749.7	683.6	643.9

	3/V 13 L3	3/V 13 L4
<b>T3</b>	28.82	30.71
<b>Lbs</b>	826.9	716.6
	782.8	672.5

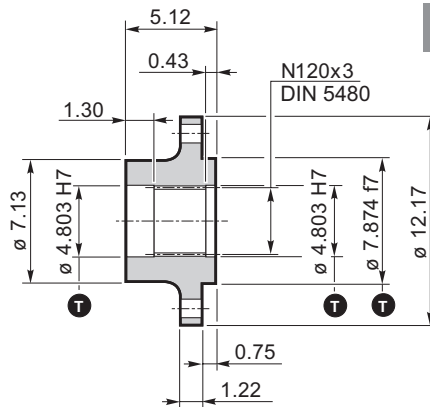
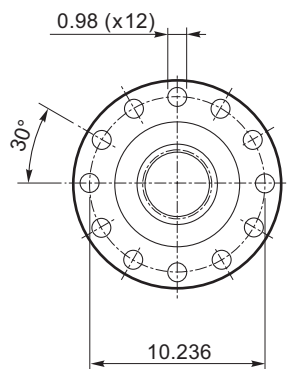
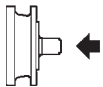
NEMA Input		T2								
	P1	E								
<b>N56C</b>	9.84	4.51	—	—	—	22.54	—	—	—	10.02
<b>N140TC</b>	9.84	4.51	—	—	—	22.54	—	—	—	10.02
<b>N180TC</b>	8.82	5.22	—	—	—	23.25	—	—	—	10.73
<b>N210TC</b>	8.82	5.22	—	—	—	23.25	—	—	—	10.73
<b>N250TC</b>	8.82	5.22	—	—	—	23.25	—	—	—	10.73
<b>N250TC</b>	11.81	5.41	—	—	20.89	—	—	—	14.27	—
<b>N280TC</b>	11.81	6.28	—	—	—	24.31	—	—	15.14	11.79
<b>N280TC</b>	13.78	6.42	—	—	21.89	—	—	—	—	—
<b>N320TC</b>	13.78	7.97	—	—	—	—	21.56	23.33	—	—
<b>N320TC</b>	15.75	8.64	—	20.61	—	—	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	—	21.56	23.33	—	—
<b>N360TC</b>	15.75	8.64	—	20.61	—	—	—	—	—	—

	P1	T4	P1	T4
—	—	—	—	—
—	—	6.54	5.96	—
—	—	9.02	6.67	—
—	—	9.02	9.17	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—



313

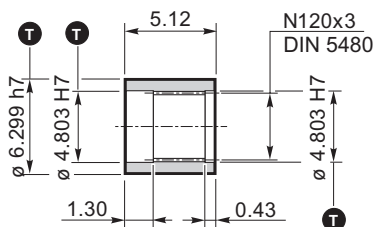
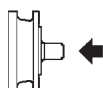
Flange



WOA

Material : Steel AISI 1040

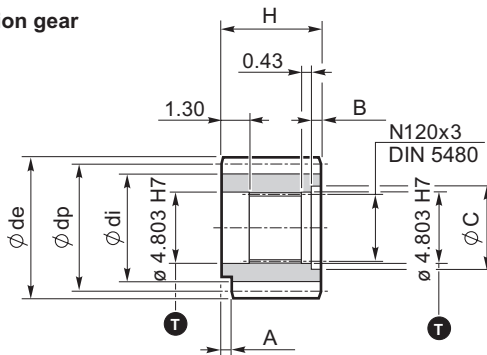
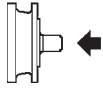
Sleeve coupling



MOA

Material : Steel SAE 8620

Output pinion gear

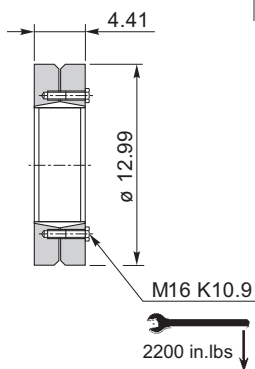
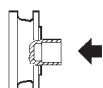


P...

Code	m	z	x	dp	di	de	H	A	B	C	☆
PPH	16	17	0.500	272	247	315	135	0	5	136	□
PRI	18	18	0.333	324	294	365	140	0	10	140	□

⚠ Dimensions of pinion gears are in mm

Shrink disc

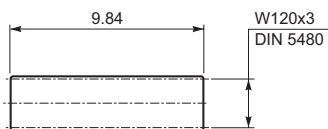
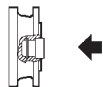


GOA

☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

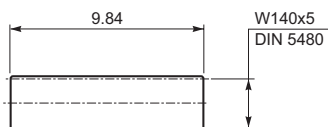
m = module  
z = number of teeth  
x = addendum modification  
dp = generated pitch diameter  
di = root diameter  
de = outside diameter

Splined bar



BOA

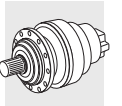
FZ



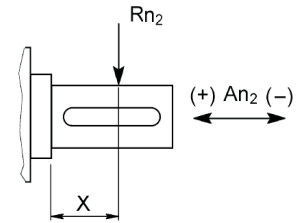
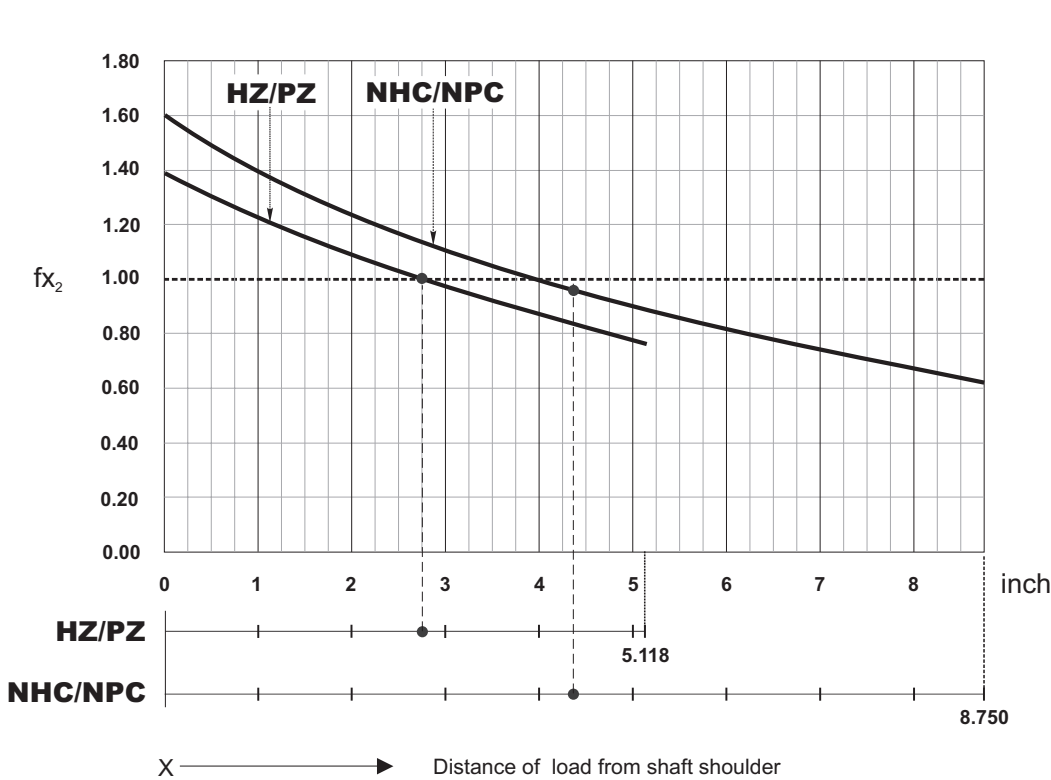
FZB

Case hardening steel SAE 4320 must be case hardened to 50-55 HRC

(mm)	inch	Tolerance
(120)	4.724 f7	-0.00142 -0.00280
(122)	4.803 H7	+0.00157 0
(160)	6.299 h7	0 -0.00157

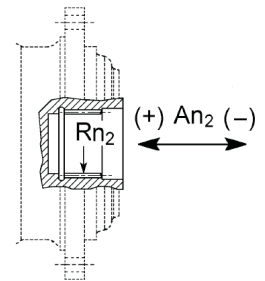


Load application factor for calculation of admissible overhung load on output shaft



$$R_{x_2} = R_{n_2} \cdot f_{x_2}$$

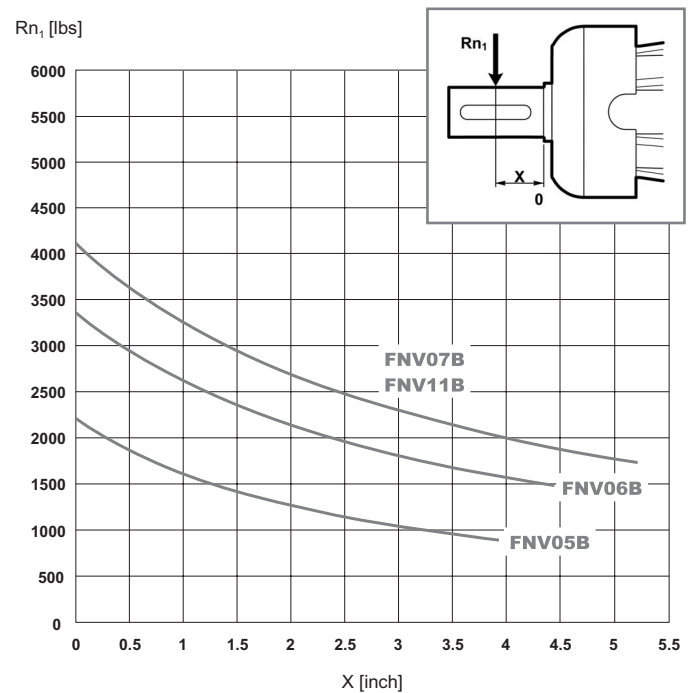
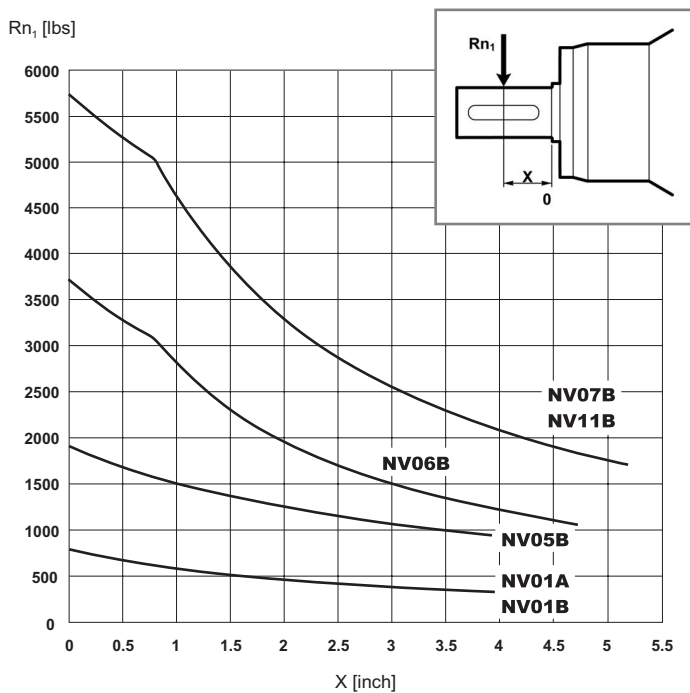
$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

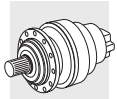


$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
FZ	1.04	1.04

Permitted overhung load on input shaft

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





314

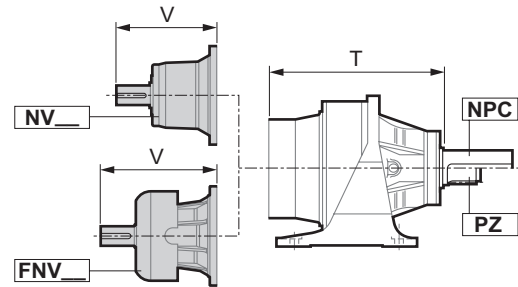
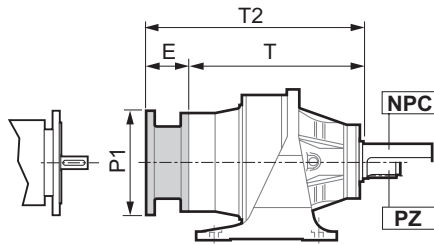
NPC

PZ

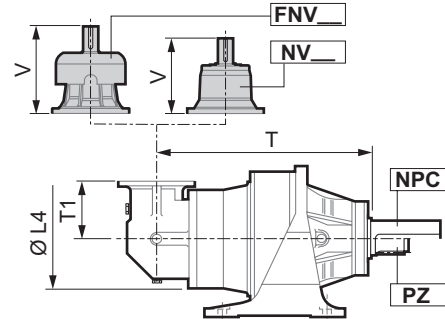
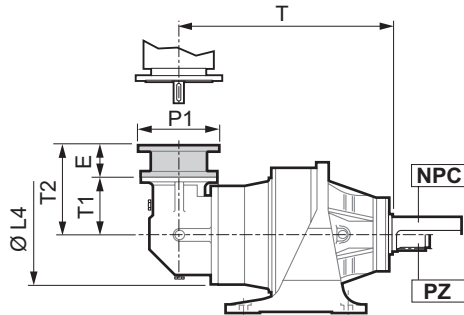
NEMA input

Solid input shaft

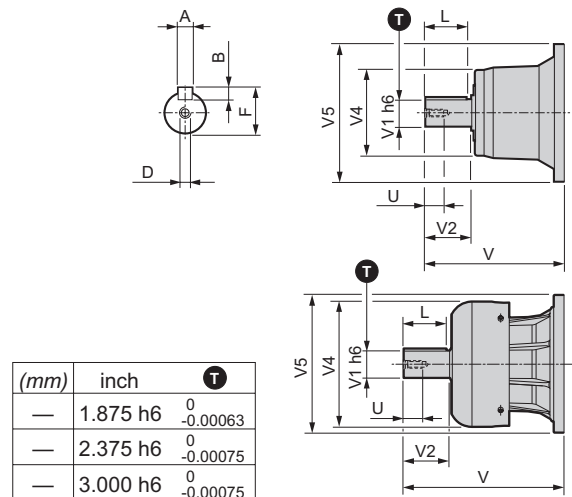
314 L



314 R

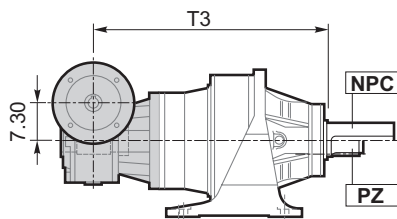


	314 L4 314 R4		314 L3 314 R3 (B) 314 R3 (C)		314 L2	
	NV05B	FNV05B	NV06B	FNV06B	NV10B	FNV10B
V	9.68	11.06	12.70	14.67	14.72	17.87
V1	1.875	1.875	2.375	2.375	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70
V5	9.65	9.65	11.50	11.50	15.75	15.75
A	0.500	0.500	0.625	0.625	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65
LBS	33.1	38	50.7	58	110.3	130

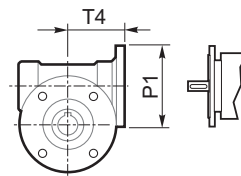


(mm)	inch	T
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

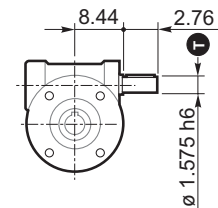
3/V 14 L3



IEC input  
(contact Bonfiglioli for availability)

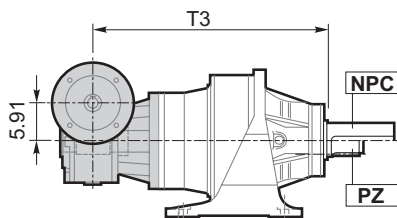


Solid input shaft

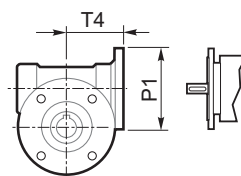


298

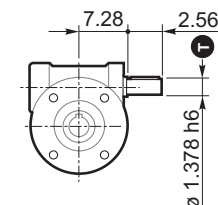
3/V 14 L4



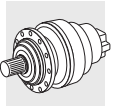
IEC input  
(contact Bonfiglioli for availability)



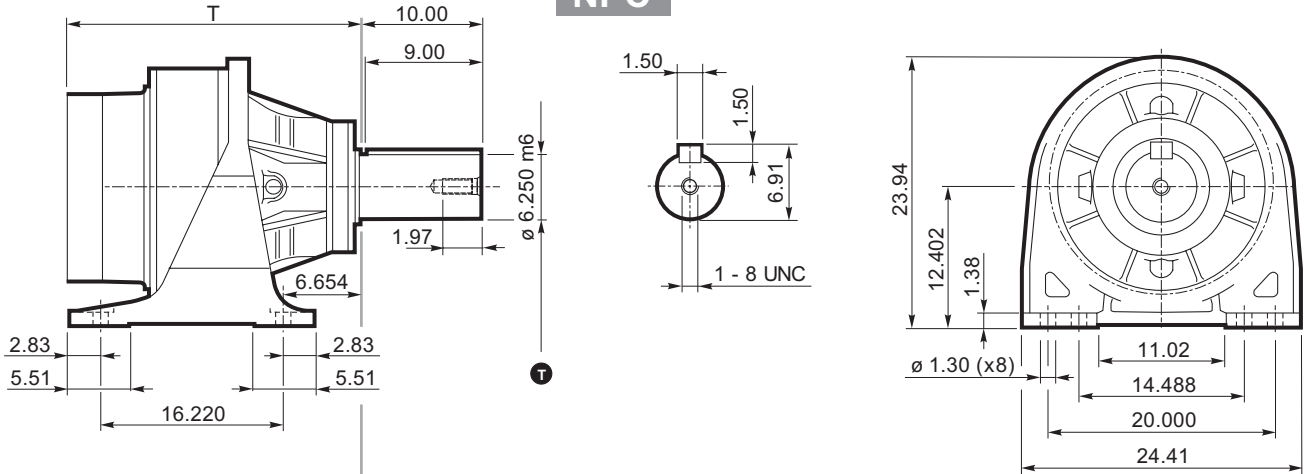
Solid input shaft



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**NPC**

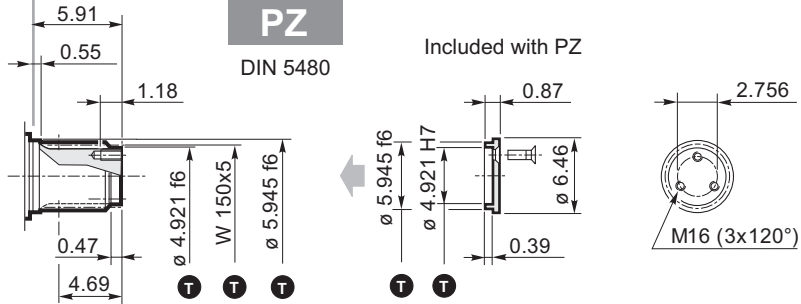


(mm)	inch	T
—	1.378 h6	0 -0.00063
—	1.890 h6	0 -0.00063
(125)	4.921 f6	-0.00169 -0.00268
(125)	4.921 H7	+0.00157 0
(151)	5.945 f6	-0.00169 -0.00268
—	6.250 m6	+0.00157 +0.00059
W 150x5		DIN 5480

**PZ**

DIN 5480

Included with PZ

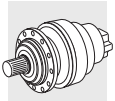


	314 L2	314 L3	314 L4	314 R3 (B)	314 R3 (C)	314 R4
<b>T</b>	25.23	30.60	33.15	33.38	33.70	35.98
<b>T1</b>	—	—	—	13.58	15.35	5.51
<b>L4</b>	—	—	—	15.75	18.90	9.61
<b>Lbs</b>	1225	1326	1348	1500	1530	1420

3/V 14 L3	3/V 14 L4
<b>T3</b>	
36.22	37.83
<b>Lbs</b> 1466	1521

NEMA Input							
	P1	E	T2				
<b>N250TC</b>	11.81	5.41	—	—	40.33	—	14.27
<b>N280TC</b>	13.78	6.42	—	—	41.34	—	15.28
<b>N320TC</b>	13.78	7.97	—	—	—	21.56	23.33
<b>N320TC</b>	15.75	8.64	—	40.06	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	21.56	23.33
<b>N360TC</b>	15.75	8.64	—	40.06	—	—	—

P1	T4	P1	T4
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



314

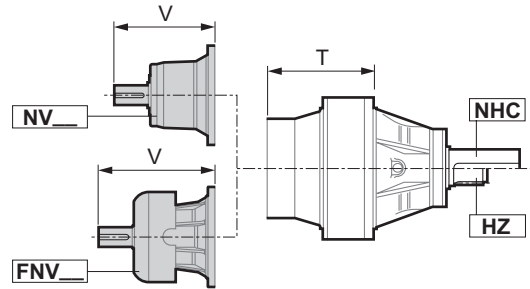
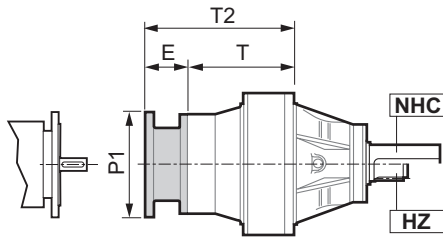
NHC

HZ

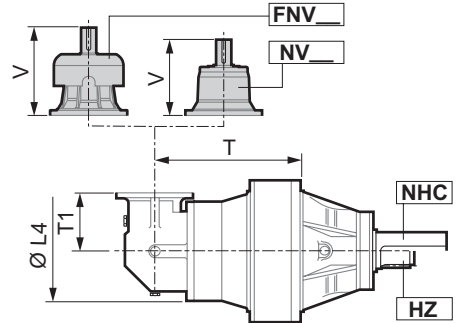
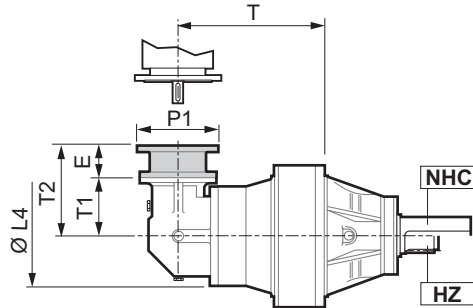
NEMA input

Solid input shaft

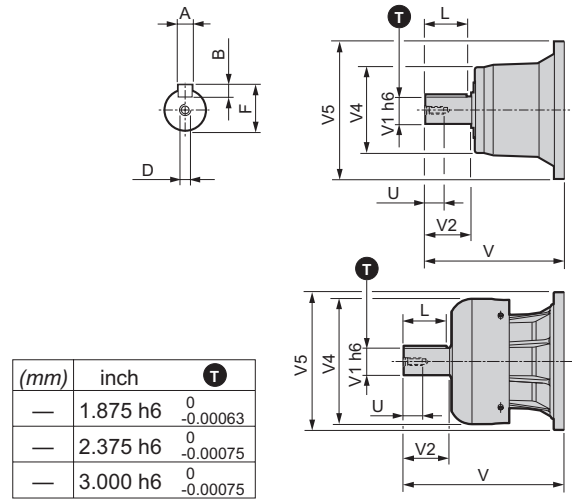
314 L



314 R

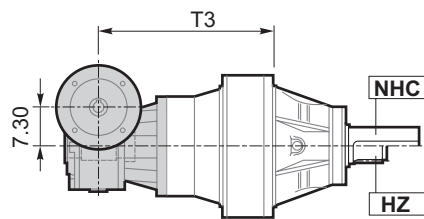


	314 L4 314 R4		314 L3 314 R3 (B) 314 R3 (C)		314 L2	
	NV05B	FNV05B	NV06B	FNV06B	NV10B	FNV10B
V	9.68	11.06	12.70	14.67	14.72	17.87
V1	1.875	1.875	2.375	2.375	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70
V5	9.65	9.65	11.50	11.50	15.75	15.75
A	0.500	0.500	0.625	0.625	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65
Lbs	33.1	38	50.7	58	110.3	130

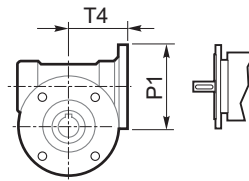


(mm)	inch	T
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

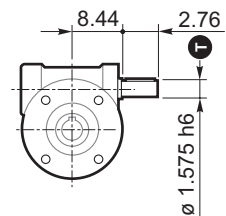
3/V 14 L3



IEC input  
(contact Bonfiglioli for availability)

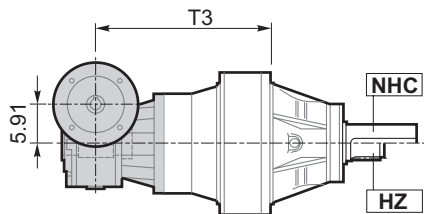


Solid input shaft

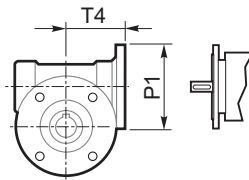


298

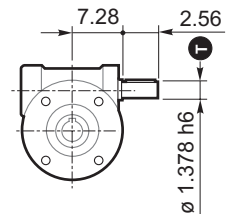
3/V 14 L4



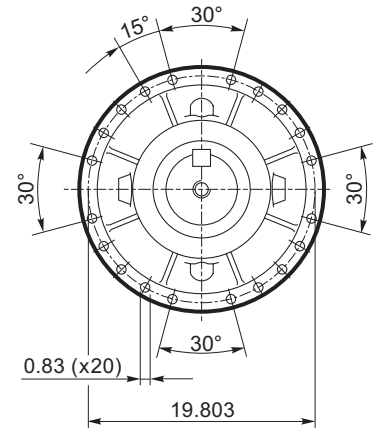
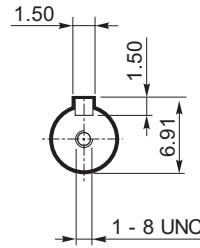
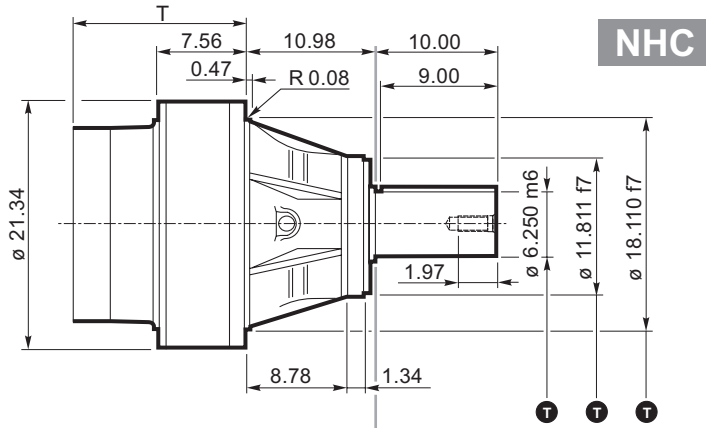
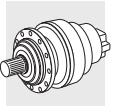
IEC input  
(contact Bonfiglioli for availability)



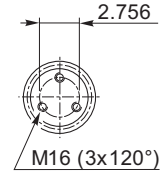
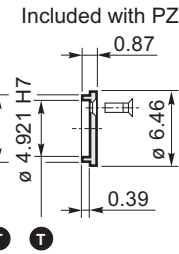
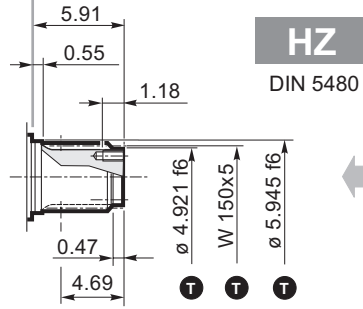
Solid input shaft



298



(mm)	inch	T
—	1.378 h6	<sup>0</sup> / <sub>-0.00063</sub>
—	1.890 h6	<sup>0</sup> / <sub>-0.00063</sub>
(125)	4.921 f6	<sup>-0.00169</sup> / <sub>-0.00268</sub>
(125)	4.921 H7	<sup>+0.00157</sup> / <sub>0</sub>
(150)	5.906 f7	<sup>-0.00169</sup> / <sub>-0.00326</sub>
(151)	5.945 f6	<sup>-0.00169</sup> / <sub>-0.00268</sub>
—	6.250 m6	<sup>+0.00157</sup> / <sub>+0.00059</sub>
(300)	11.811 f7	<sup>-0.00220</sup> / <sub>-0.00425</sub>
(460)	18.110 f7	<sup>-0.00268</sup> / <sub>-0.00516</sub>
W 150x5		DIN 5480

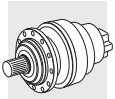


	314 L2	314 L3	314 L4	314 R3 (B)	314 R3 (C)	314 R4
T	14.25	19.60	22.16	22.40	23.11	25.00
T1	—	—	—	13.58	15.35	5.51
L4	—	—	—	15.75	18.90	9.61
Lbs	930	1030	1050	1210	1240	1125

	3/V 14 L3	3/V 14 L4
T3		
	25.23	26.85
Lbs	1180	1235

NEMA Input								
	P1	E	T2					
N250TC	11.81	5.41	—	—	29.35	—	—	14.27
N280TC	13.78	6.42	—	—	30.35	—	—	15.28
N320TC	13.78	7.97	—	—	—	21.56	23.33	—
N320TC	15.75	8.64	—	29.07	—	—	—	—
N360TC	13.78	7.97	—	—	—	21.56	23.33	—
N360TC	15.75	8.64	—	29.07	—	—	—	—

	P1	T4	P1	T4
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—



314

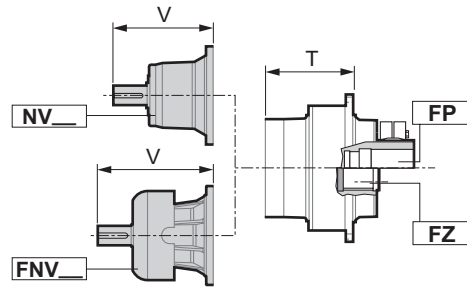
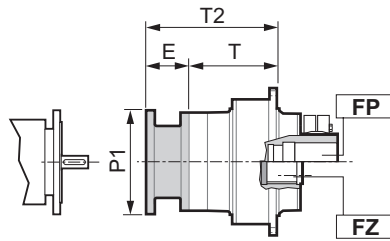
FP

FZ

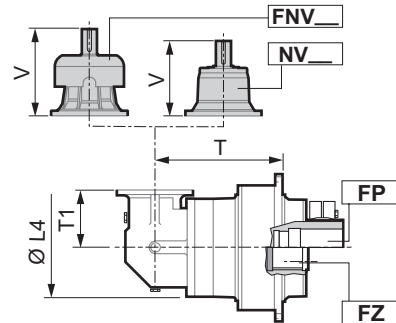
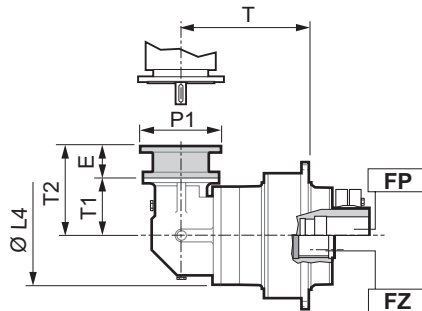
NEMA input

Solid input shaft

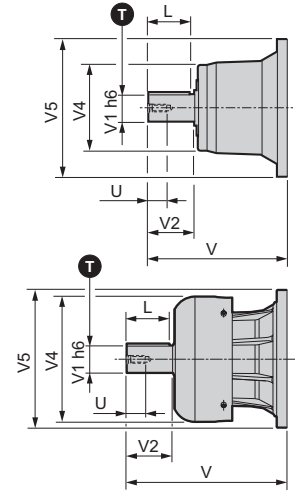
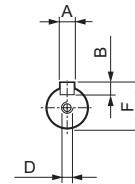
314 L



314 R

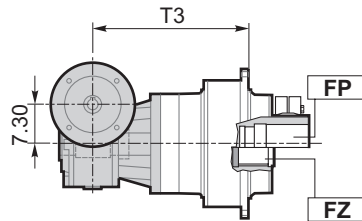


	314 L4 314 R4		314 L3 314 R3 (B) 314 R3 (C)		314 L2	
	Solid input shaft					
	NV05B	FNV05B	NV06B	FNV06B	NV10B	FNV10B
V	9.68	11.06	12.70	14.67	14.72	17.87
V1	1.875	1.875	2.375	2.375	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70
V5	9.65	9.65	11.50	11.50	15.75	15.75
A	0.500	0.500	0.625	0.625	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65
LBS	33.1	38	50.7	58	110.3	130

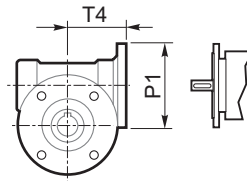


(mm)	inch	T
—	1.875 h6	<sup>0</sup> / <sub>-0.00063</sub>
—	2.375 h6	<sup>0</sup> / <sub>-0.00075</sub>
—	3.000 h6	<sup>0</sup> / <sub>-0.00075</sub>

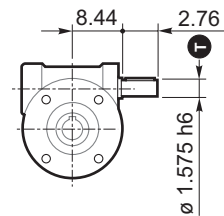
3/V 14 L3



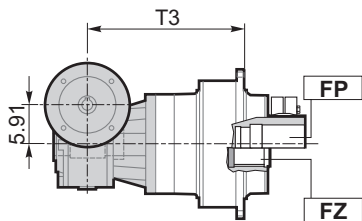
IEC input  
(contact Bonfiglioli for availability)



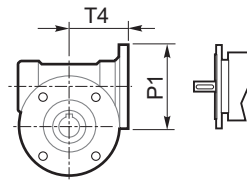
Solid input shaft



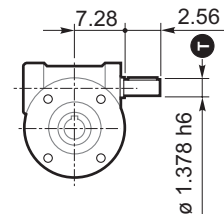
3/V 14 L4



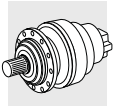
IEC input  
(contact Bonfiglioli for availability)



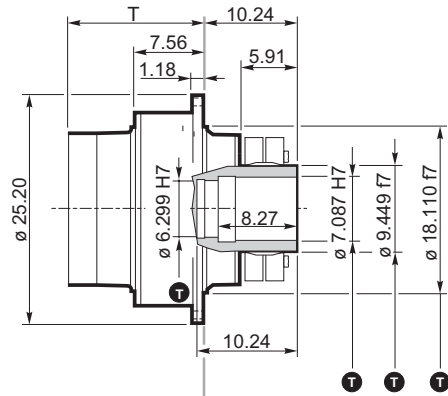
Solid input shaft



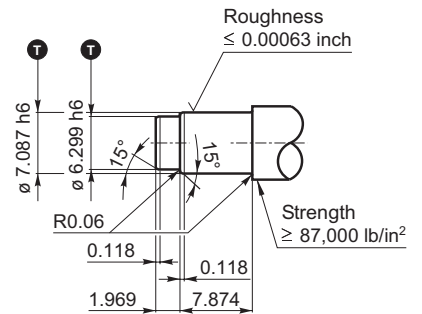
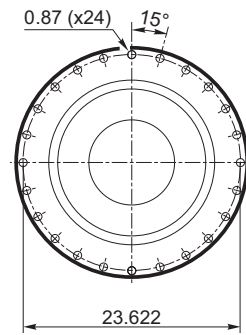




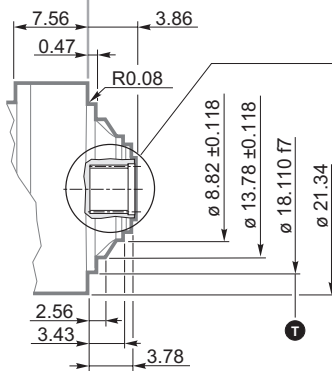
FP T<sub>2max</sub> = 1,115,100 in.lbs



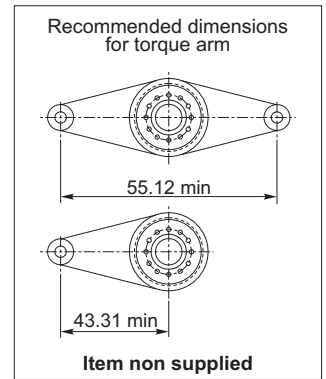
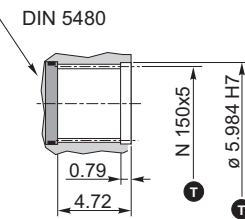
FP



(mm)	inch	T
—	1.378h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.890 h6	<sup>0</sup> <sub>-0.00063</sub>
(152)	5.984 H7	<sup>+0.00157</sup> <sub>0</sub>
(160)	6.299 H7	<sup>+0.00157</sup> <sub>0</sub>
(160)	6.299 h6	<sup>-0.00055</sup> <sub>-0.00154</sub>
(180)	7.087 H7	<sup>+0.00157</sup> <sub>0</sub>
(180)	7.087 h6	<sup>-0.00055</sup> <sub>-0.00154</sub>
(240)	9.449 f7	<sup>-0.00197</sup> <sub>-0.00378</sub>
(460)	18.110 f7	<sup>-0.00268</sup> <sub>-0.00516</sub>
N 150x5		DIN 5480



FZ

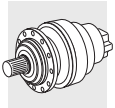


	314 L2	314 L3	314 L4	314 R3 (B)	314 R3 (C)	314 R4
T	14.25	19.60	22.16	22.4	23.11	25.00
T1	—	—	—	13.58	15.35	5.51
L4	—	—	—	15.75	18.90	9.61
FP	845	945	965	1125	1145	1035
FZ	730	830	855	1010	1035	920

	3/V 14 L3	3/V 14 L4
T3		
	25.23	26.85
Lbs	1091	1146
	981	1036

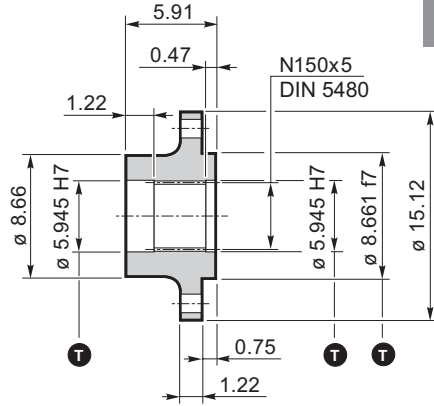
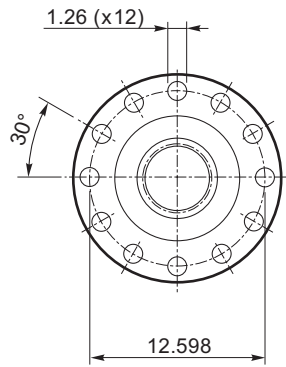
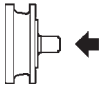
NEMA Input		T2					
	P1	E					
N250TC	11.81	5.41	—	—	29.35	—	14.27
N280TC	13.78	6.42	—	—	30.35	—	15.28
N320TC	13.78	7.97	—	—	—	21.56	23.33
N320TC	15.75	8.64	—	29.07	—	—	—
N360TC	13.78	7.97	—	—	—	21.56	23.33
N360TC	15.75	8.64	—	29.07	—	—	—

	P1	T4	P1	T4
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—



314

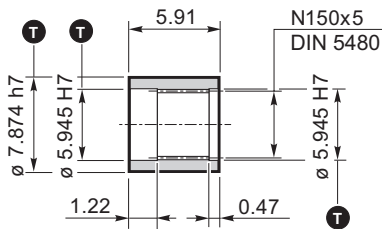
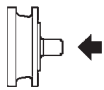
Flange



WOA

Material : Steel AISI 1040

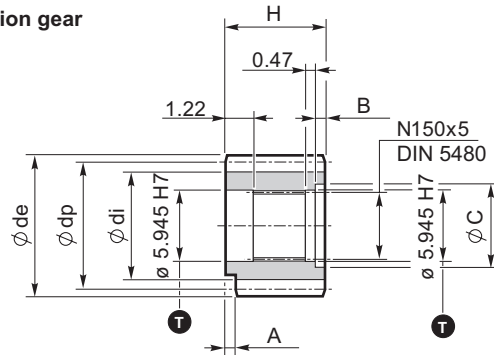
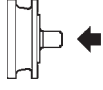
Sleeve coupling



MOA

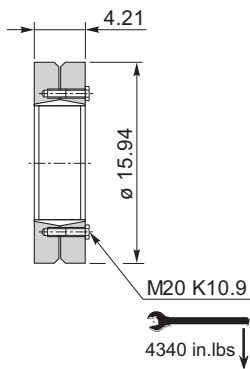
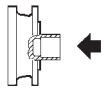
Material : Steel SAE 8620

Output pinion gear



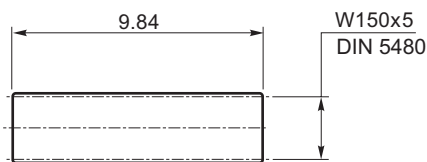
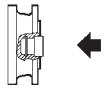
P...

Shrink disc



GOA

Splined bar



BOA

Case hardening steel SAE 4320 must be case hardened to 50-55 HRC

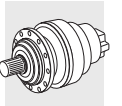
Code	m	z	x	dp	di	de	H	A	B	C	☆
PRG1	18	16	0.500	288	261	342	160	0	10	166	■
PRG2	18	16	0.617	288	271	339	150	30	0	0	□

⚠ Dimensions of pinion gears are in mm

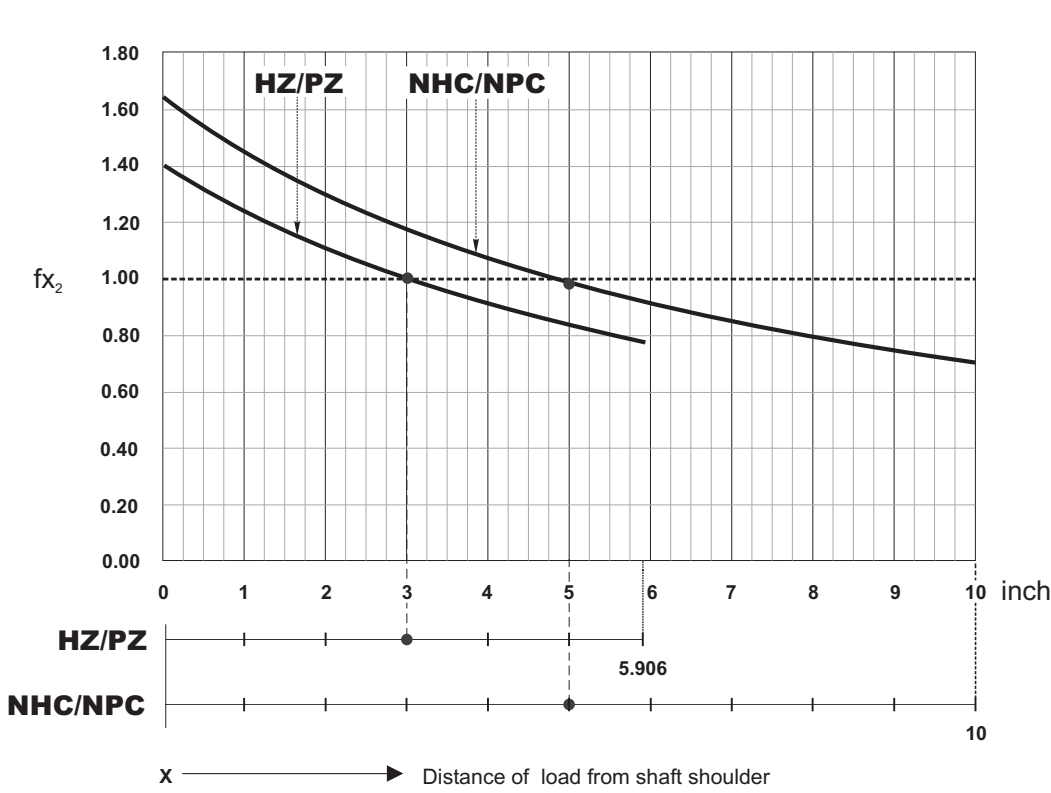
☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

m = module  
z = number of teeth  
x = addendum modification  
dp = generated pitch diameter  
di = root diameter  
de = outside diameter

(mm)	inch	T
(151)	5.945 H7	-0.00055 -0.00154
(200)	7.874 h7	0 -0.00181
(220)	8.661 f7	-0.00197 -0.00378

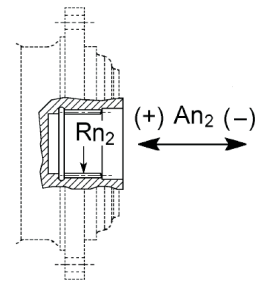


**Load application factor for calculation of admissible overhung load on output shaft**



$$R_{x_2} = R_{n_2} \cdot f_{x_2}$$

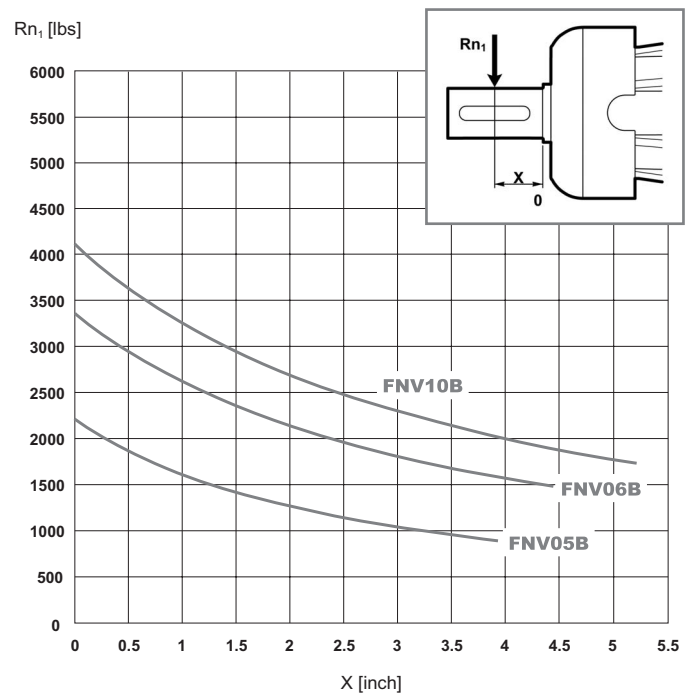
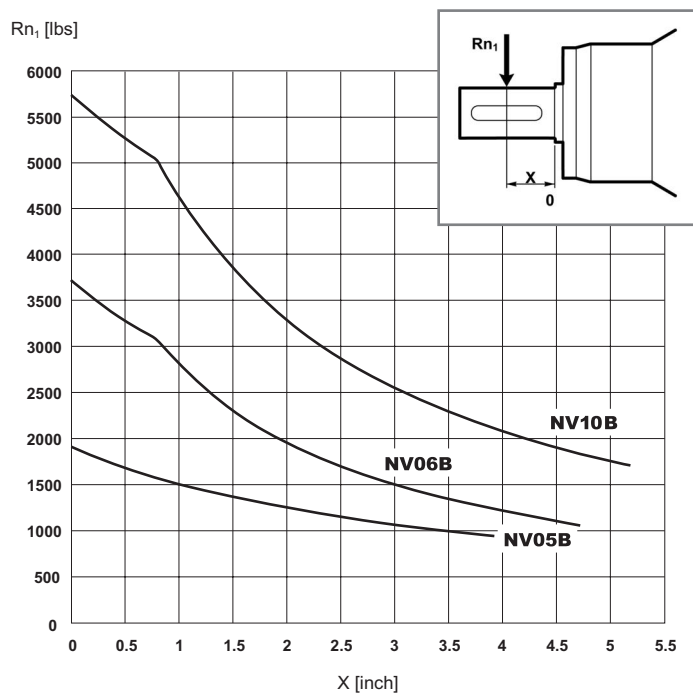
$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

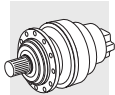


$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
FZ	1.04	1.04

**Permitted overhung load on input shaft**

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





315

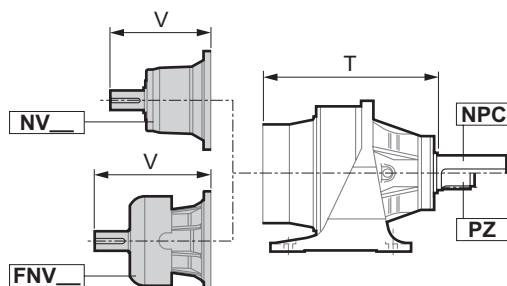
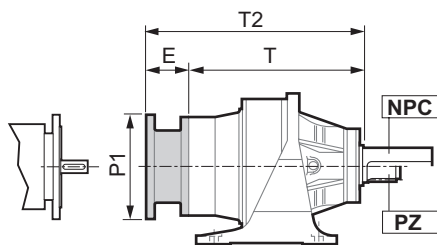
NPC

PZ

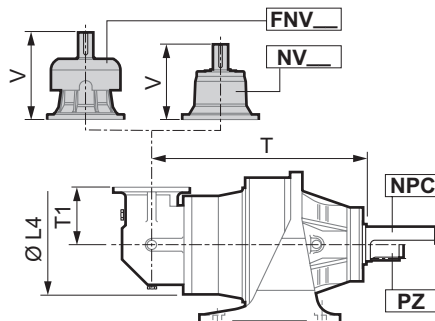
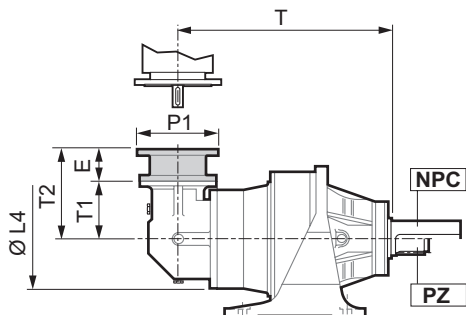
NEMA input

Solid input shaft

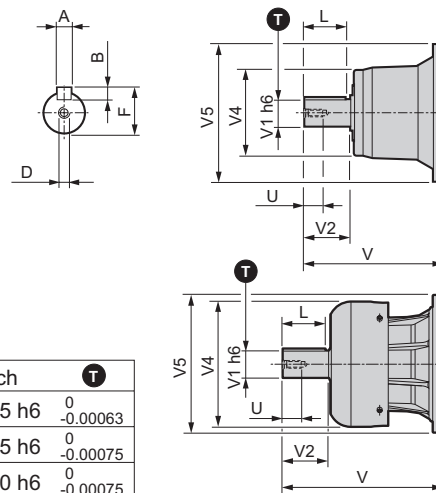
315 L



315 R

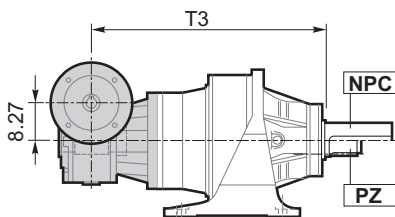


	315 L4 315 R4		315 R3 (B) 315 R3 (C)		315 L3		315 L2	
	Solid input shaft							
	NV05B	FNV05B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65	1.65	1.65
LBS	33.1	38	50.7	58	77.2	90	121.3	140

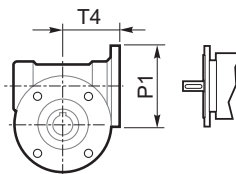


(mm)	inch	T
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

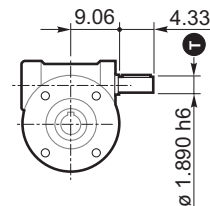
3/V 15 L3



IEC input  
(contact Bonfiglioli for availability)

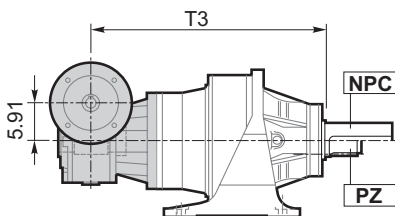


Solid input shaft

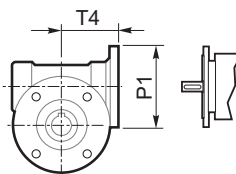


298

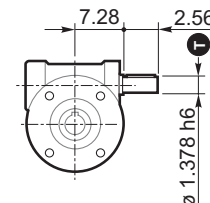
3/V 15 L4



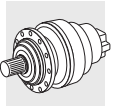
IEC input  
(contact Bonfiglioli for availability)



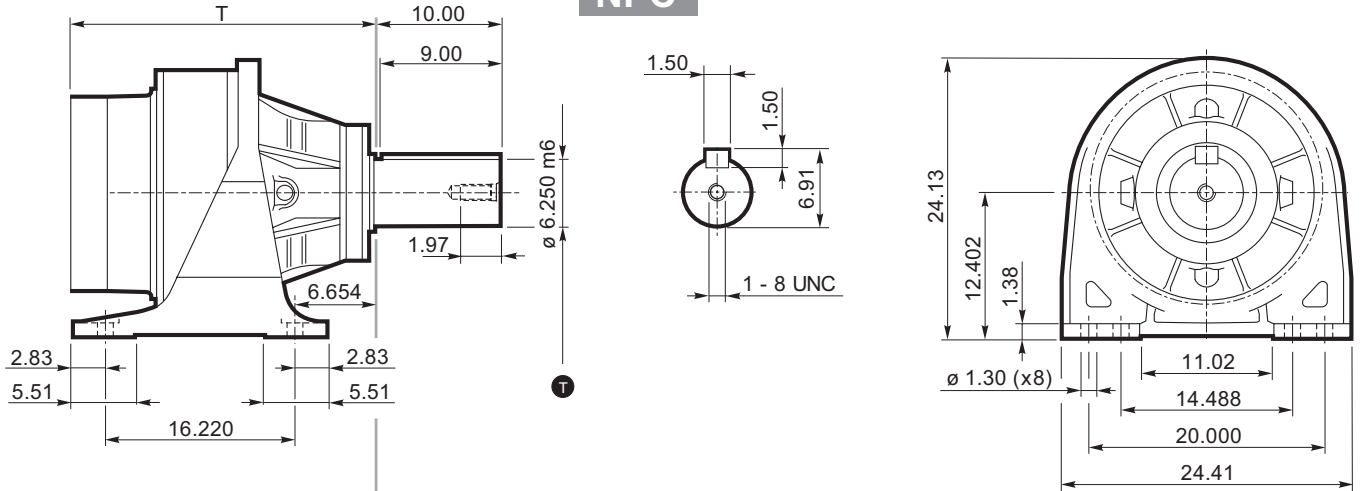
Solid input shaft



298



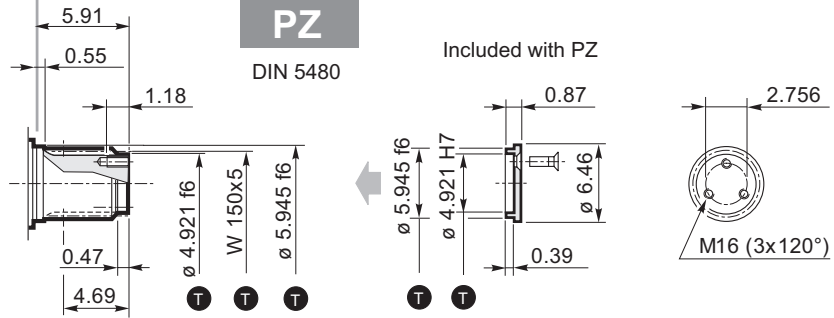
## NPC



(mm)	inch	Tolerance
—	1.378 h6	0 / -0.00063
—	1.890 h6	0 / -0.00063
(125)	4.921 f6	-0.00169 / -0.00268
(125)	4.921 H7	+0.00157 / 0
(151)	5.945 f6	-0.00169 / -0.00268
—	6.250 m6	+0.00157 / +0.00059
W 150x5 DIN 5480		

## PZ

DIN 5480



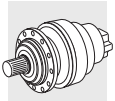
Included with PZ

	315 L2	315 L3	315 L4	315 R3 (B)	315 R3 (C)	315 R4
<b>T</b>	26.18	31.42	34.92	35.04	35.04	36.10
<b>T1</b>	—	—	—	13.58	15.35	8.86
<b>L4</b>	—	—	—	15.75	18.90	13.58
<b>Lbs</b>	1290	1389	1416	1588	1610	1499

3/V 15 L3		3/V 15 L4	
<b>T3</b>			
34.84		38.94	
<b>Lbs</b> 1764		1521	

NEMA Input								
	P1	E	T2					
<b>N250TC</b>	11.81	5.41	—	—	40.33	—	—	14.27
<b>N280TC</b>	13.78	6.42	—	—	41.34	—	—	15.28
<b>N320TC</b>	13.78	7.97	—	—	—	21.56	23.33	—
<b>N320TC</b>	15.75	8.64	—	40.06	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	21.56	23.33	—
<b>N360TC</b>	15.75	8.64	—	40.06	—	—	—	—

P1	T4	P1	T4
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



315

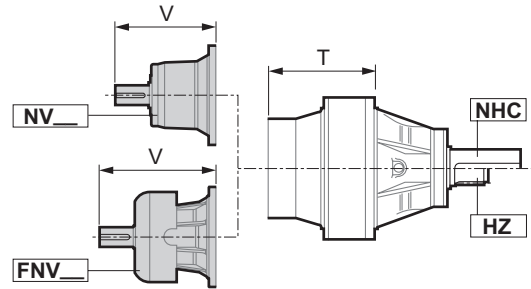
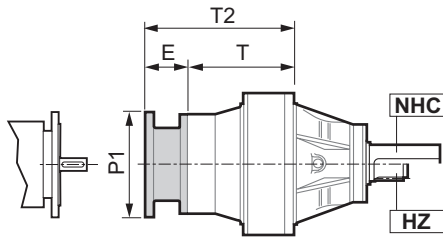
NHC

HZ

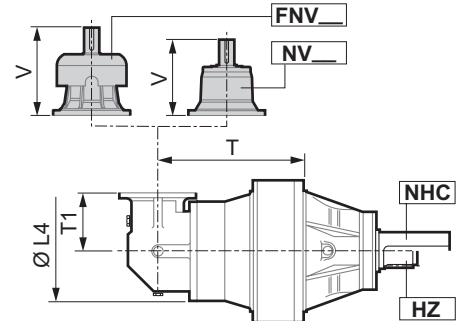
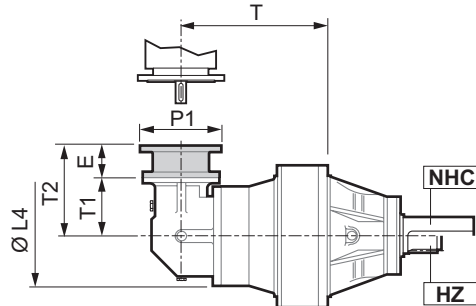
NEMA input

Solid input shaft

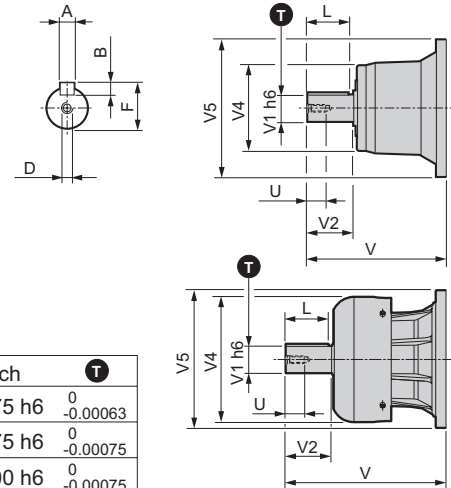
315 L



315 R

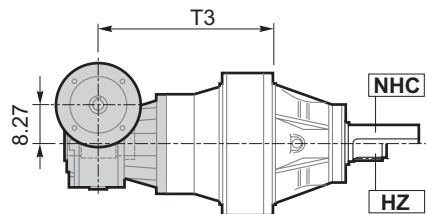


	315 L4 315 R4		315 R3 (B) 315 R3 (C)		315 L3		315 L2	
	Solid input shaft							
	NV05B	FNV05B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	50.7	58	77.2	90	121.3	140

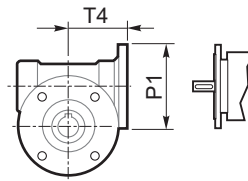


(mm)	inch	T
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

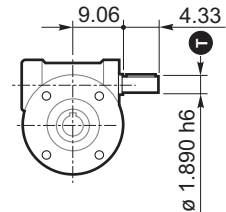
3/V 15 L3



IEC input  
(contact Bonfiglioli for availability)

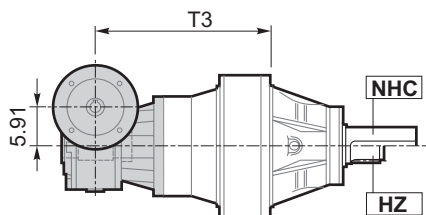


Solid input shaft

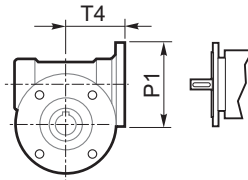


298

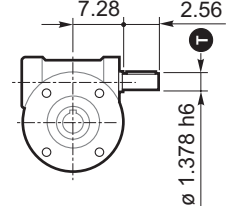
3/V 15 L4



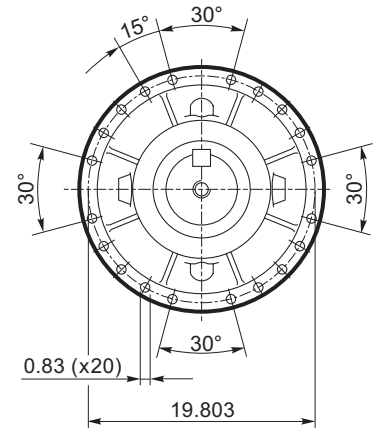
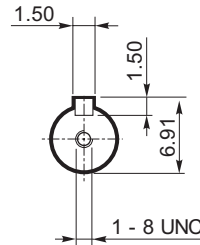
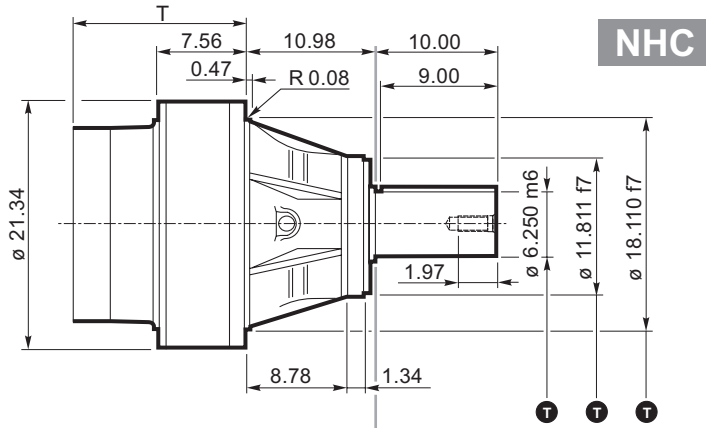
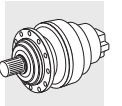
IEC input  
(contact Bonfiglioli for availability)



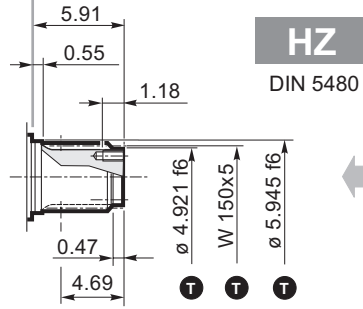
Solid input shaft



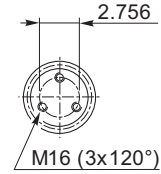
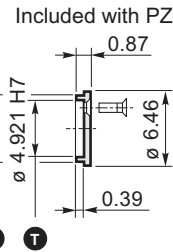
298



(mm)	inch	T
—	1.378 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	1.890 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
(125)	4.921 f6	$\begin{matrix} -0.00169 \\ -0.00268 \end{matrix}$
(125)	4.921 H7	$\begin{matrix} +0.00157 \\ 0 \end{matrix}$
(150)	5.906 f7	$\begin{matrix} -0.00169 \\ -0.00326 \end{matrix}$
(151)	5.945 f6	$\begin{matrix} -0.00169 \\ -0.00268 \end{matrix}$
—	6.250 m6	$\begin{matrix} +0.00157 \\ +0.00059 \end{matrix}$
(300)	11.811 f7	$\begin{matrix} -0.00220 \\ -0.00425 \end{matrix}$
(460)	18.110 f7	$\begin{matrix} -0.00268 \\ -0.00516 \end{matrix}$
W 150x5		DIN 5480



**HZ**  
DIN 5480

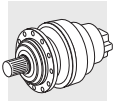


	315 L2	315 L3	315 L4	315 R3 (B)	315 R3 (C)	315 R4
<b>T</b>	15.20	20.43	23.94	24.06	24.06	25.12
<b>T1</b>	—	—	—	13.58	15.35	8.86
<b>L4</b>	—	—	—	15.75	18.90	13.58
<b>Lbs</b>	1003	1103	1129	1301	1323	1213

	3/V 15 L3	3/V 15 L4
<b>T3</b>		
	23.86	27.95
<b>Lbs</b>	1477	1235

NEMA Input							
	P1	E	T2				
<b>N250TC</b>	11.81	5.41	—	—	29.35	—	14.27
<b>N280TC</b>	13.78	6.42	—	—	30.35	—	15.28
<b>N320TC</b>	13.78	7.97	—	—	—	21.56	23.33
<b>N320TC</b>	15.75	8.64	—	29.07	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	21.56	23.33
<b>N360TC</b>	15.75	8.64	—	29.07	—	—	—

	P1	T4	P1	T4
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—



**315**

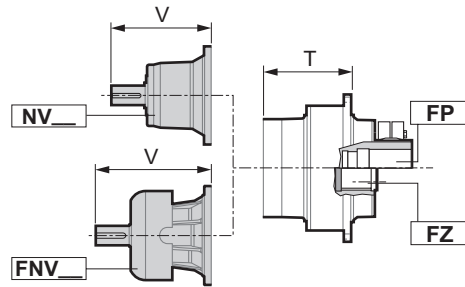
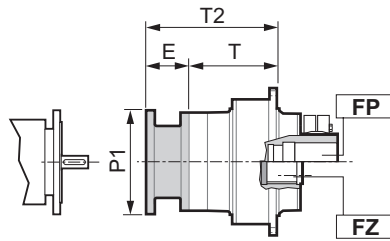
**FP**

**FZ**

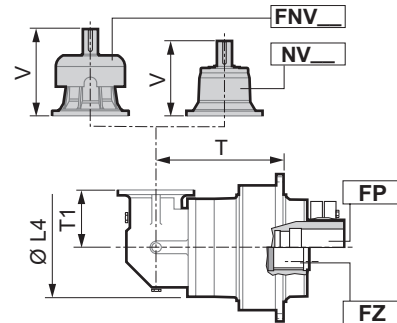
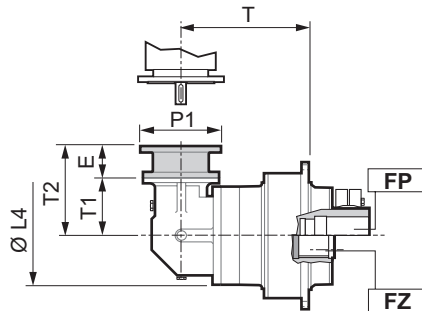
**NEMA input**

**Solid input shaft**

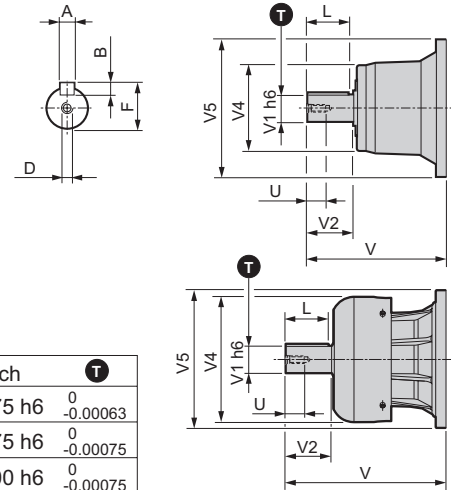
**315 L**



**315 R**

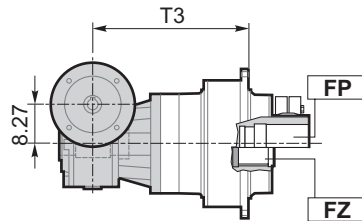


	315 L4 315 R4		315 R3 (B) 315 R3 (C)		315 L3		315 L2	
	Solid input shaft							
	NV05B	FNV05B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	50.7	58	77.2	90	121.3	140

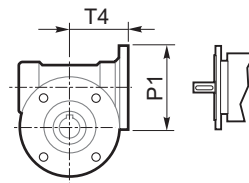


(mm)	inch	T
—	1.875 h6	<sup>0</sup> / <sub>-0.00063</sub>
—	2.375 h6	<sup>0</sup> / <sub>-0.00075</sub>
—	3.000 h6	<sup>0</sup> / <sub>-0.00075</sub>

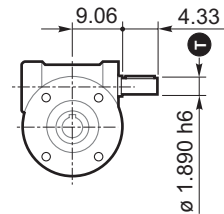
**3/V 15 L3**



**IEC input**  
(contact Bonfiglioli for availability)

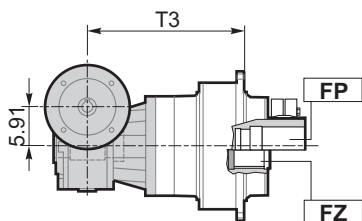


**Solid input shaft**

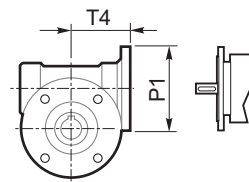


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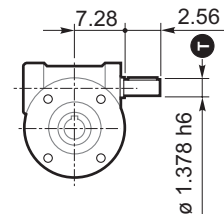
**3/V 15 L4**



**IEC input**  
(contact Bonfiglioli for availability)

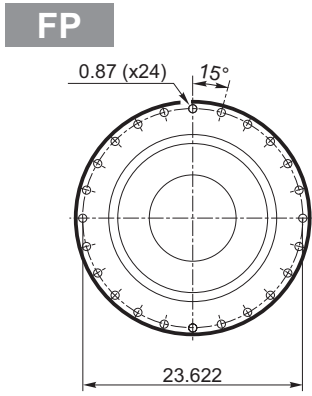
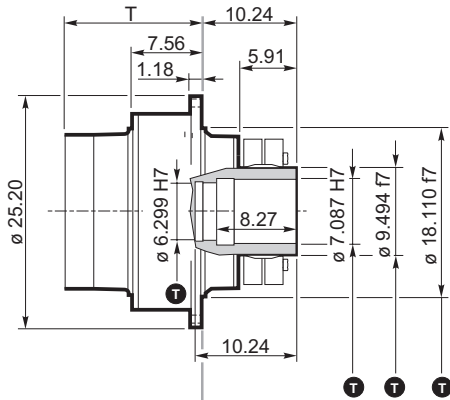
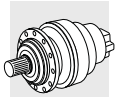


**Solid input shaft**

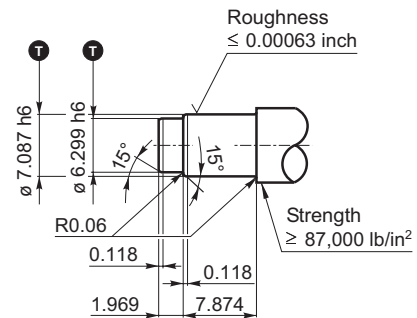


298

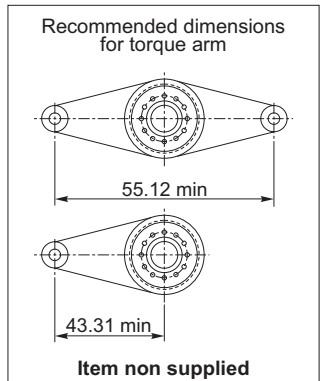
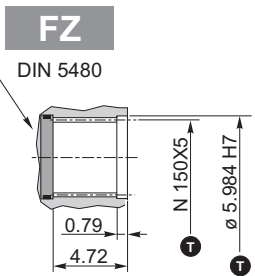
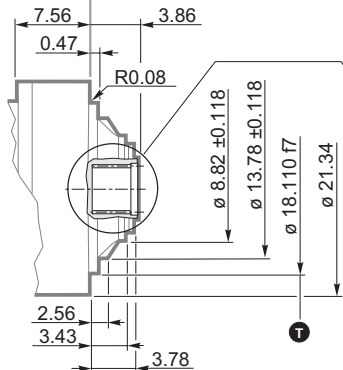




**FP** T<sub>2max</sub> = 1,115,100 in.lbs



(mm)	inch	T
—	1.378h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.890 h6	<sup>0</sup> <sub>-0.00063</sub>
(152)	5.984 H7	<sup>+0.00157</sup> <sub>0</sub>
(160)	6.299 H7	<sup>+0.00157</sup> <sub>0</sub>
(160)	6.299 h6	<sup>-0.00055</sup> <sub>-0.00154</sub>
(180)	7.087 H7	<sup>+0.00157</sup> <sub>0</sub>
(180)	7.087 h6	<sup>-0.00055</sup> <sub>-0.00154</sub>
(240)	9.449 f7	<sup>-0.00197</sup> <sub>-0.00378</sub>
(460)	18.110 f7	<sup>-0.00268</sup> <sub>-0.00516</sub>
N 150x5		DIN 5480

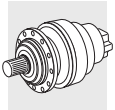


	315 L2	315 L3	315 L4	315 R3 (B)	315 R3 (C)	315 R4
<b>T</b>	15.20	20.43	23.94	24.06	24.06	25.12
<b>T1</b>	—	—	—	13.58	15.35	8.86
<b>L4</b>	—	—	—	15.75	18.90	13.58
<b>FP</b>	915.1	1014	1041	1213	1235	1125
<b>FZ</b>	804.8	904.1	930.5	1103	1125	1014

	3/V 15 L3	3/V 15 L4
<b>T3</b>		
	23.86	27.95
<b>Lbs</b>	1378	1147
	1268	1036

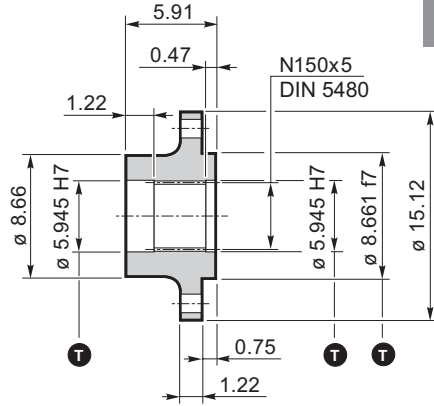
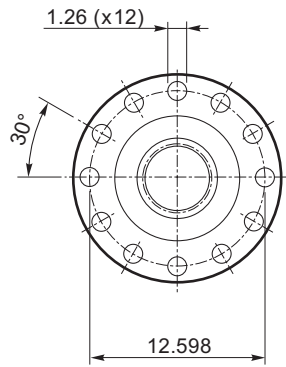
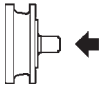
NEMA Input		T2						
	P1	E						
<b>N250TC</b>	11.81	5.41	—	—	29.35	—	—	14.27
<b>N280TC</b>	13.78	6.42	—	—	30.35	—	—	15.28
<b>N320TC</b>	13.78	7.97	—	—	—	21.56	23.33	—
<b>N320TC</b>	15.75	8.64	—	29.07	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	21.56	23.33	—
<b>N360TC</b>	15.75	8.64	—	29.07	—	—	—	—

	P1	T4	P1	T4
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—



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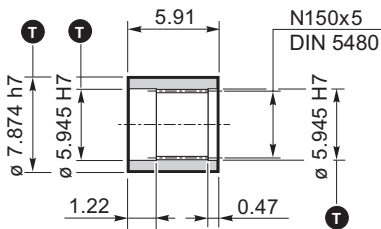
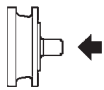
Flange



WOA

Material : Steel AISI 1040

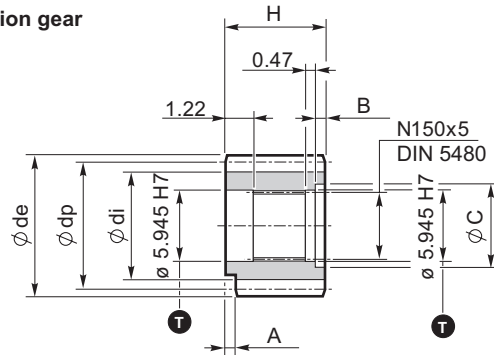
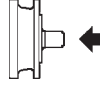
Sleeve coupling



MOA

Material : Steel SAE 8620

Output pinion gear



P...

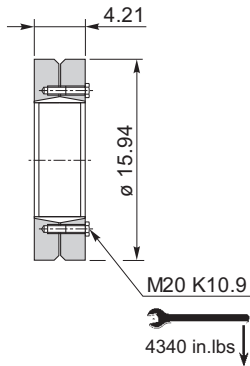
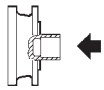
Code	m	z	x	dp	di	de	H	A	B	C	☆
PRG1	18	16	0.500	288	261	342	160	0	10	166	■
PRG2	18	16	0.617	288	271	339	150	30	0	0	□

⚠ Dimensions of pinion gears are in mm

☆	Material
□	Steel AISI 9840 hardened and tempered
■	Steel SAE 4320 Case hardened

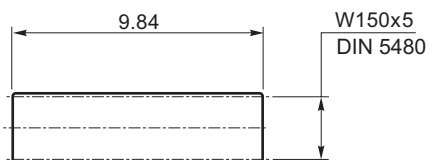
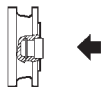
m = module  
z = number of teeth  
x = addendum modification  
dp = generated pitch diameter  
di = root diameter  
de = outside diameter

Shrink disc



GOA

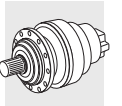
Splined bar



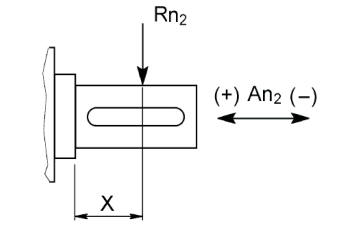
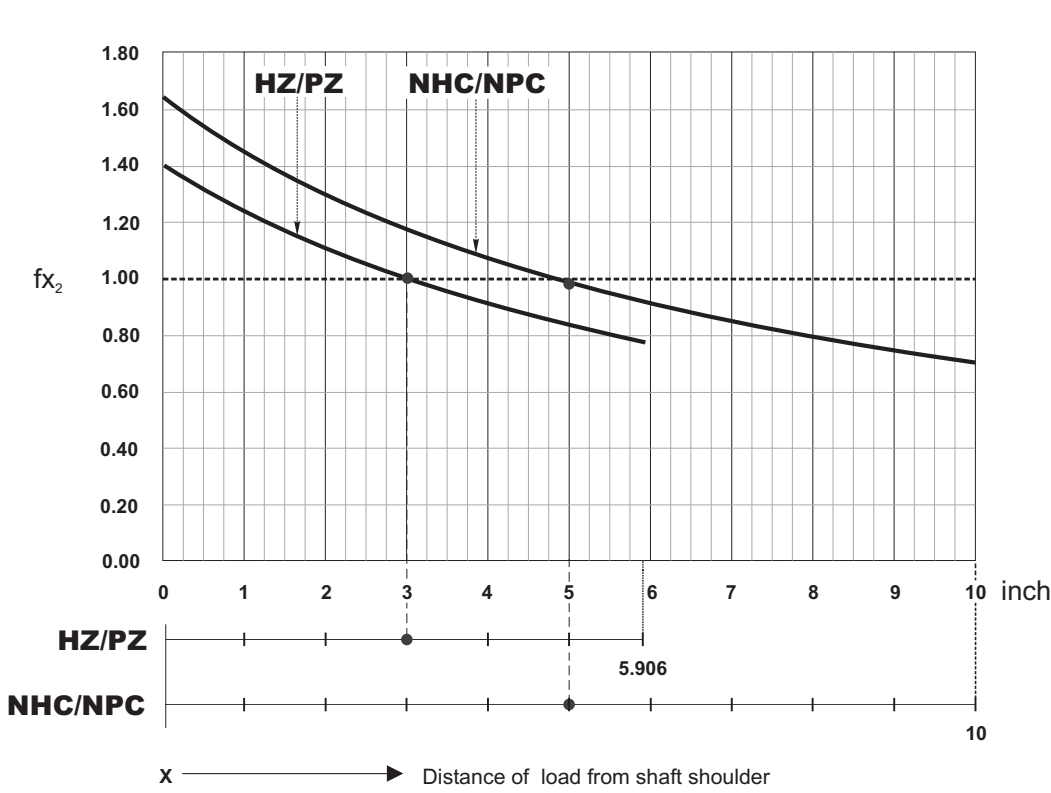
BOA

Case hardening steel SAE 4320 must be case hardened to 50-55 HRC

(mm)	inch	T
(151)	5.945 H7	-0.00055 -0.00154
(200)	7.874 h7	0 -0.00181
(220)	8.661 f7	-0.00197 -0.00378

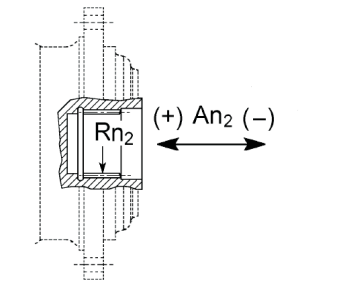


Load application factor for calculation of admissible overhung load on output shaft



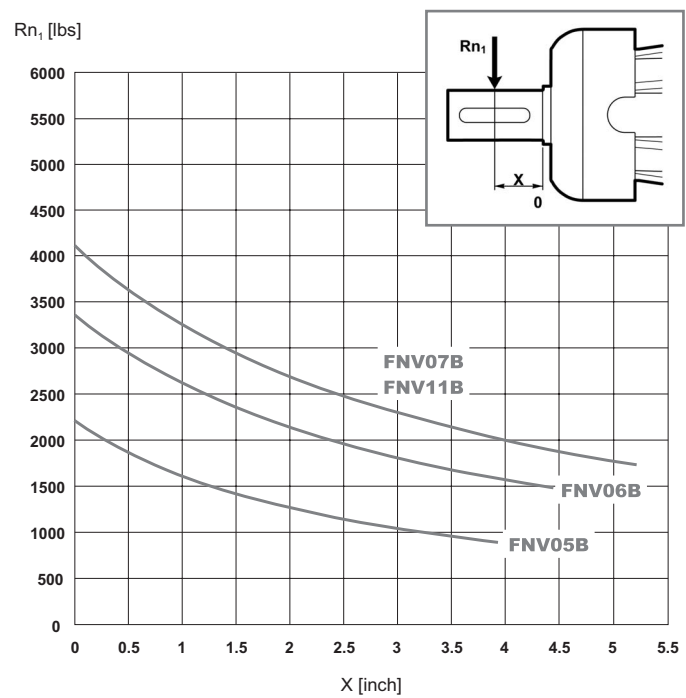
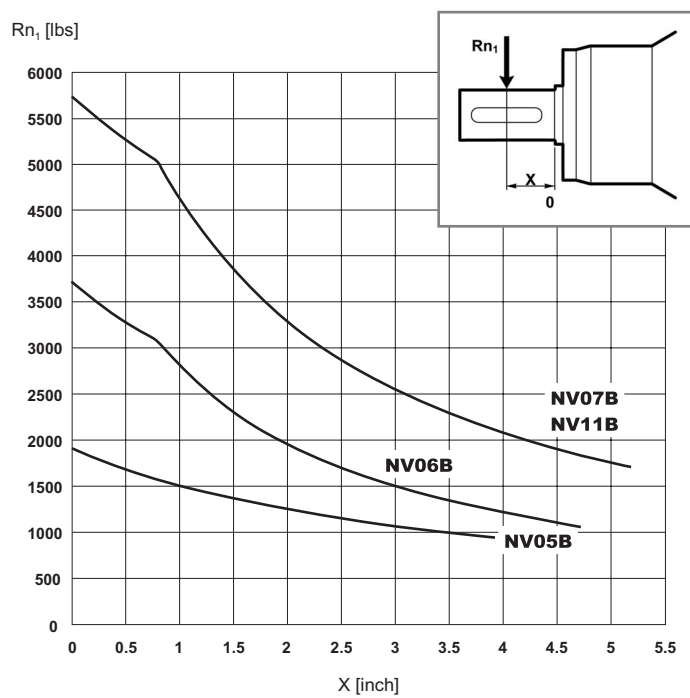
$$R_{x_2} = R_{n_2} \cdot f_{x_2}$$

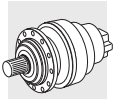
$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69



$A_{n_2} (\pm) = R_{n_2} \cdot f_{a_2} (\pm)$		
	$f_{a_2} (+)$	$f_{a_2} (-)$
FZ	1.04	1.04

Permitted overhung load on input shaft  
(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





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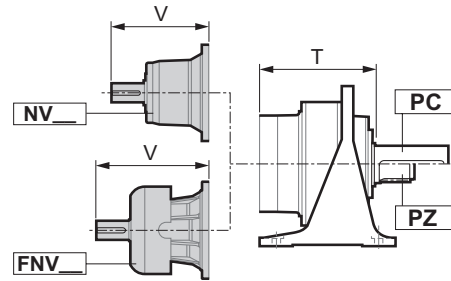
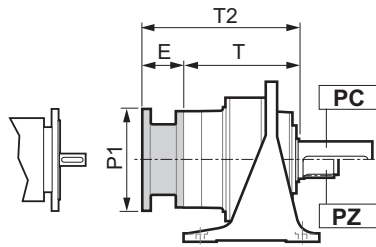
PC

PZ

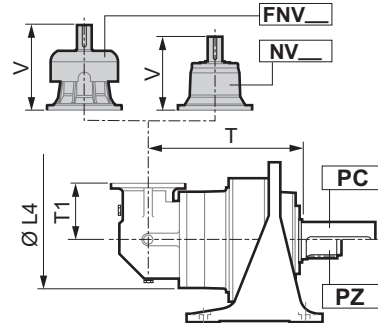
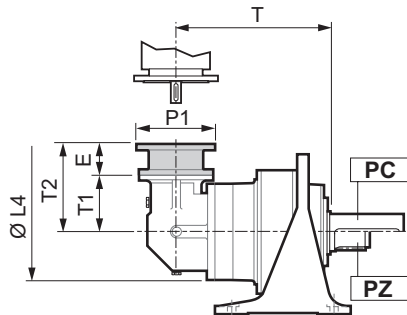
NEMA input

Solid input shaft

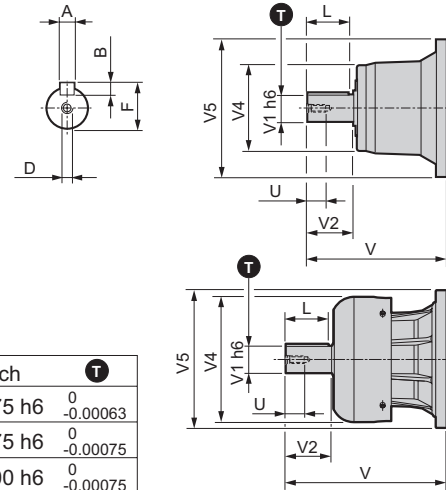
316 L



316 R

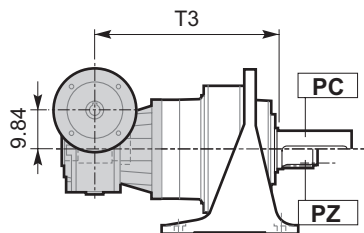


	316 L4 316 R4	316 R3 (B) 316 R3 (C)	316 L3	316 L2				
Solid input shaft								
	NV05B	FNV05B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	50.7	58	77.2	90	121.3	140

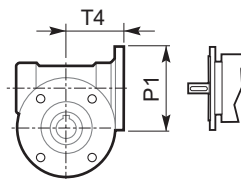


(mm)	inch	T
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

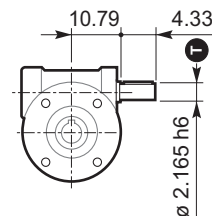
3/V 16 L3



IEC input  
(contact Bonfiglioli for availability)

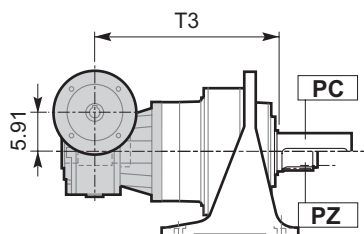


Solid input shaft

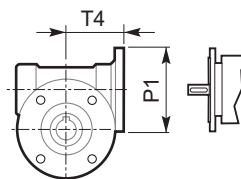


298

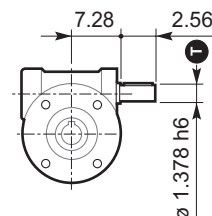
3/V 16 L4



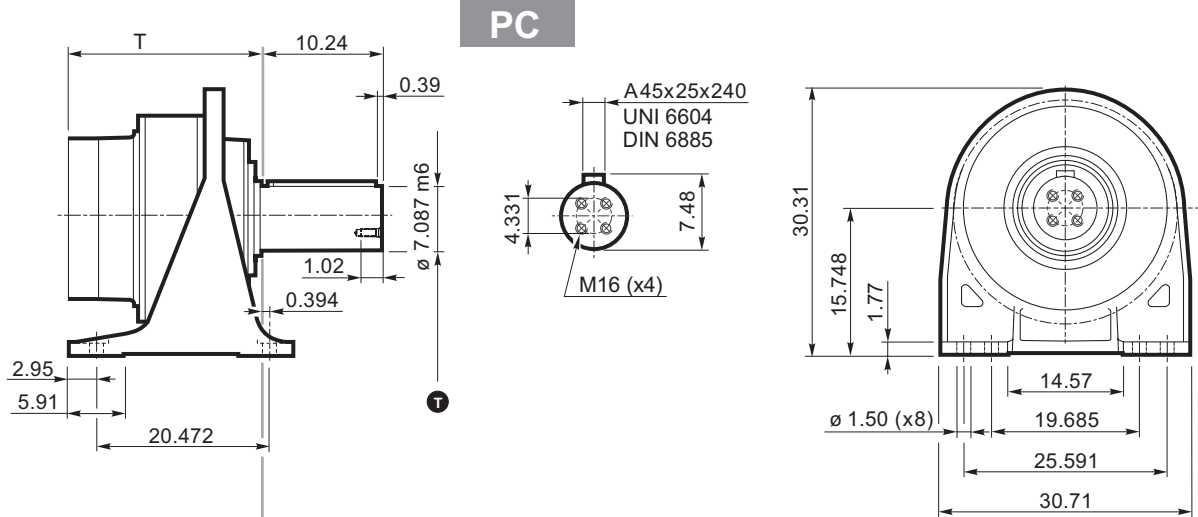
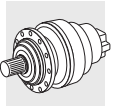
IEC input  
(contact Bonfiglioli for availability)



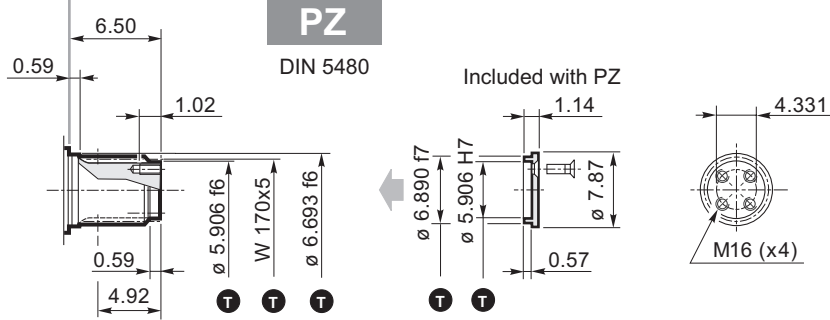
Solid input shaft



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(mm)	inch	T
—	1.890 h6	<sup>0</sup> / <sub>-0.00063</sub>
—	1.378 h6	<sup>0</sup> / <sub>-0.00063</sub>
(180)	7.087 m6	<sup>-0.00055</sup> / <sub>-0.00154</sub>
(150)	5.906 f6	<sup>-0.00169</sup> / <sub>-0.00268</sub>
(170)	6.693 f6	<sup>-0.00169</sup> / <sub>-0.00268</sub>
(175)	6.890 f7	<sup>-0.00169</sup> / <sub>-0.00327</sub>
(150)	5.906 H7	<sup>+0.00157</sup> / <sub>0</sub>
W 170x5		DIN 5480

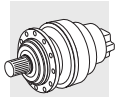


	316 L2	316 L3	316 L4	316 R3 (B)	316 R3 (C)	316 R4
<b>T</b>	21.30	26.54	30.04	30.16	30.16	31.22
<b>T1</b>	—	—	—	13.58	15.35	8.86
<b>L4</b>	—	—	—	15.75	18.90	13.58
<b>Lbs</b>	1742	1852	1896	2007	2029	1962

3/V 16 L3		3/V 16 L4	
<b>T3</b>			
31.97		34.06	
<b>Lbs</b>	2425	<b>Lbs</b>	1985

NEMA Input								
	P1	E	T2					
<b>N250TC</b>	11.81	5.41	—	—	35.45	—	—	14.27
<b>N280TC</b>	13.78	6.42	—	—	36.46	—	—	15.28
<b>N320TC</b>	13.78	7.97	—	—	—	21.56	23.33	—
<b>N320TC</b>	15.75	8.64	—	35.18	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	21.56	23.33	—
<b>N360TC</b>	15.75	8.64	—	35.18	—	—	—	—

P1	T4	P1	T4
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



316

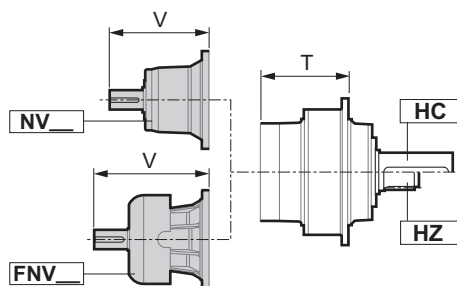
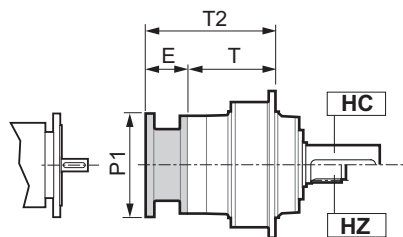
HC

HZ

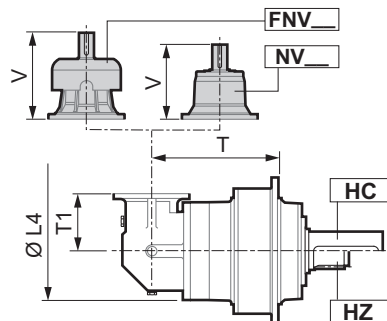
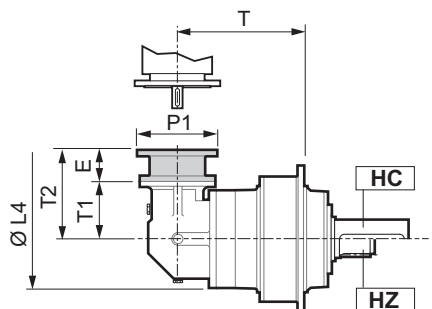
NEMA input

Solid input shaft

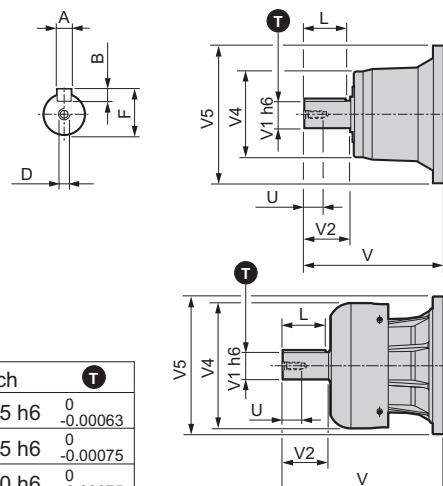
316 L



316 R

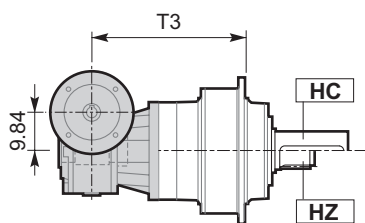


	316 L4 316 R4		316 R3 (B) 316 R3 (C)		316 L3		316 L2	
	Solid input shaft							
	NV05B	FNV05B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	50.7	58	77.2	90	121.3	140

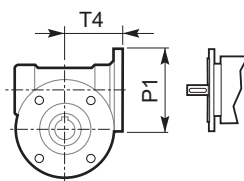


(mm)	inch	T
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

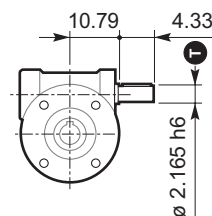
3/V 16 L3



IEC input  
(contact Bonfiglioli for availability)

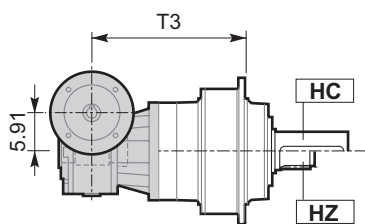


Solid input shaft

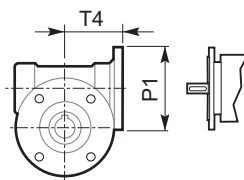


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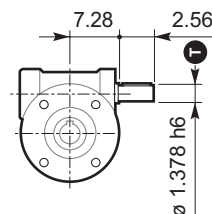
3/V 16 L4



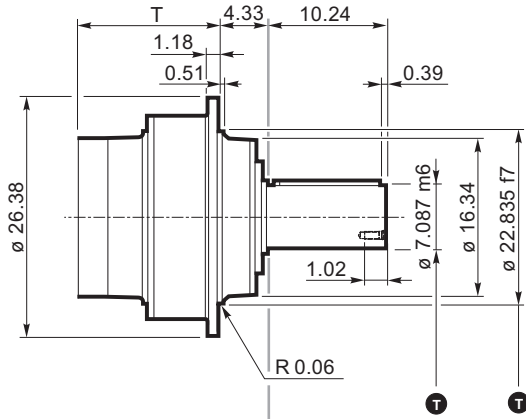
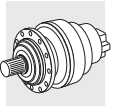
IEC input  
(contact Bonfiglioli for availability)



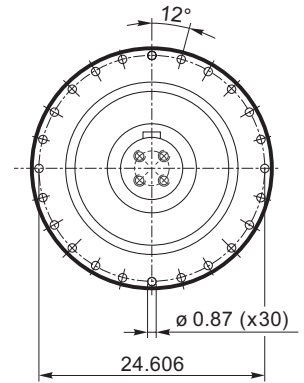
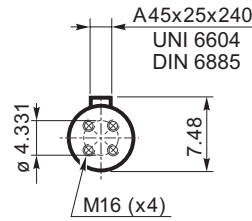
Solid input shaft



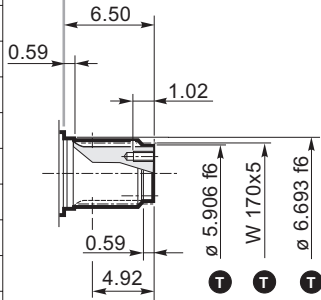
298



HC

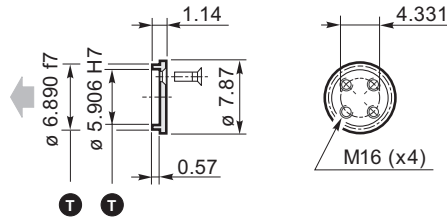


(mm)	inch	T
—	1.890 h6	0 -0.00063
—	1.378 h6	0 -0.00063
(180)	7.087 m6	-0.00055 -0.00154
(150)	5.906 f6	-0.00169 -0.00268
(170)	6.693 f6	-0.00169 -0.00268
(175)	6.890 f7	-0.00169 -0.00327
(150)	5.906 H7	+0.00157 0
(580)	22.835 f7	-0.00299 -0.00575
W 170x5		DIN 5480



HZ

DIN 5480 Included with HZ

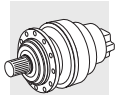


	316 L2	316 L3	316 L4	316 R3 (B)	316 R3 (C)	316 R4
T	16.97	22.20	25.71	25.83	25.83	26.89
T1	—	—	—	13.58	15.35	8.86
L4	—	—	—	15.75	18.90	13.58
Lbs	1301	1411	1455	1566	1588	1521

3/V 16 L3		3/V 16 L4	
T3			
27.64		29.72	
Lbs	1984	Lbs	1543

NEMA Input							
	P1	E	T2				
N250TC	11.81	5.41	—	—	31.12	—	14.27
N280TC	13.78	6.42	—	—	32.13	—	15.28
N320TC	13.78	7.97	—	—	—	21.56	23.33
N320TC	15.75	8.64	—	30.85	—	—	—
N360TC	13.78	7.97	—	—	—	21.56	23.33
N360TC	15.75	8.64	—	30.85	—	—	—

P1	T4	P1	T4
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



316

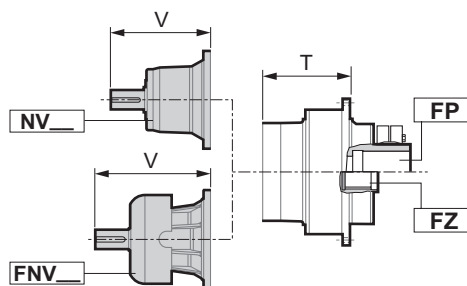
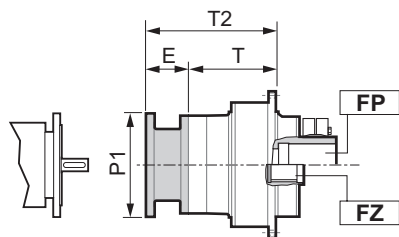
FP

FZ

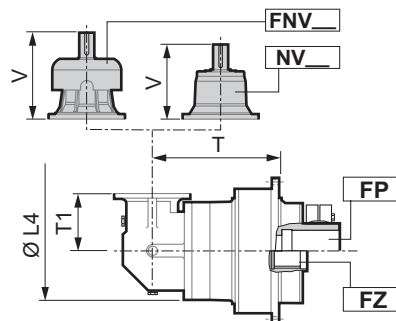
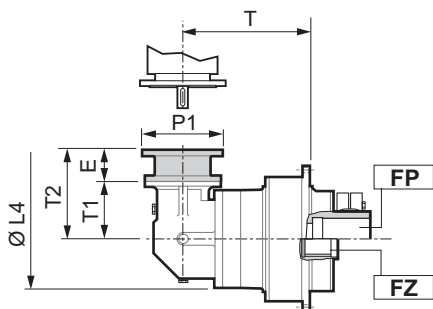
NEMA input

Solid input shaft

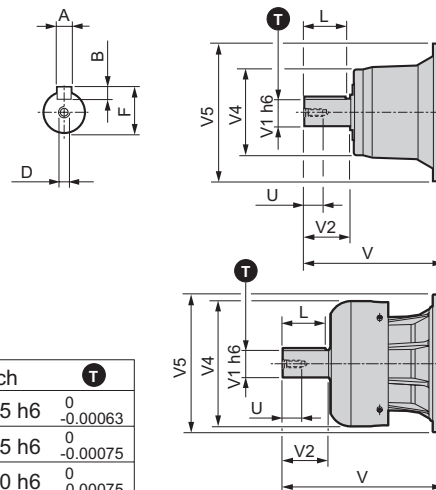
316 L



316 R

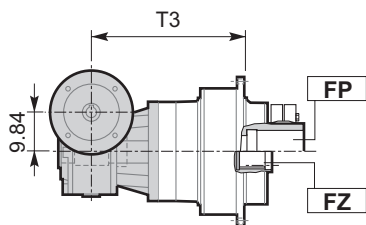


	316 L4 316 R4		316 R3 (B) 316 R3 (C)		316 L3		316 L2	
	Solid input shaft							
	NV05B	FNV05B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	50.7	58	77.2	90	121.3	140

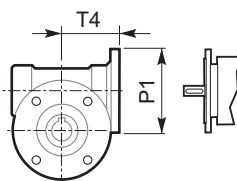


(mm)	inch	T
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

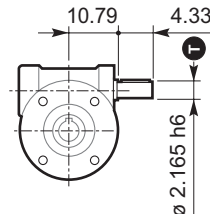
3/V 16 L3



IEC input  
(contact Bonfiglioli for availability)

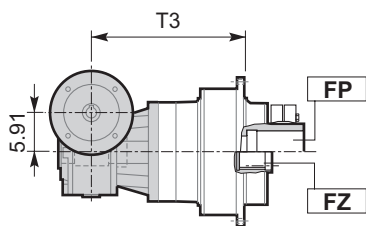


Solid input shaft

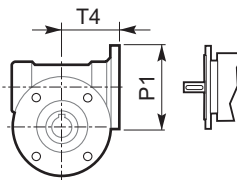


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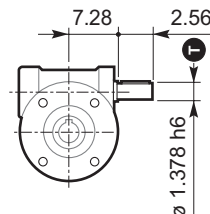
3/V 16 L4



IEC input  
(contact Bonfiglioli for availability)

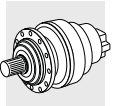


Solid input shaft

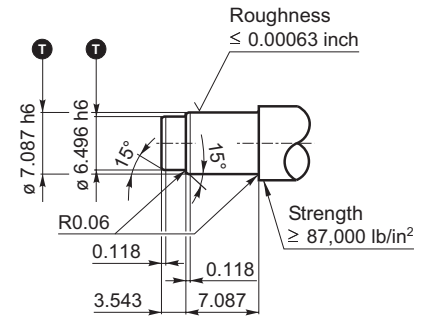
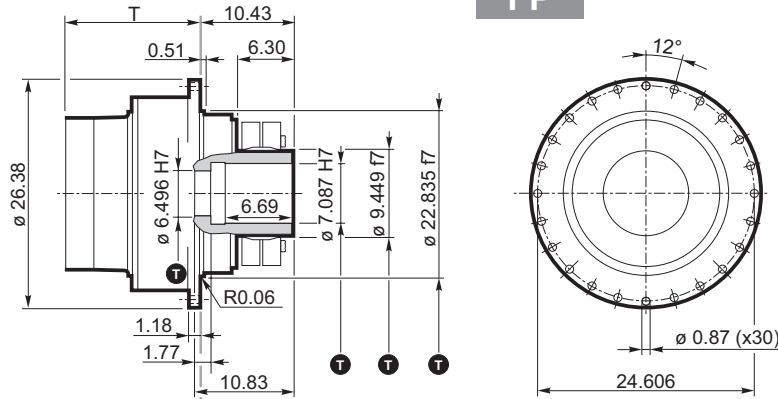


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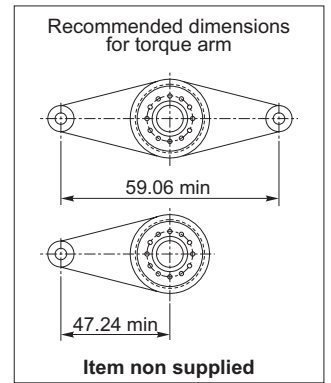
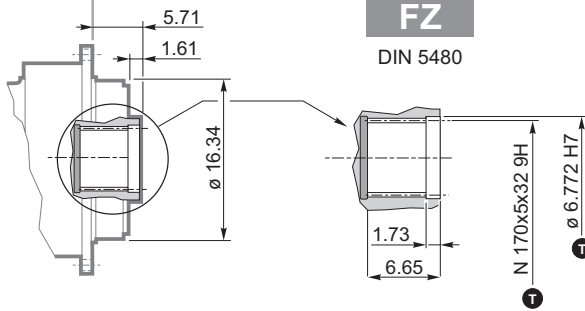




FP T<sub>2max</sub> = 1,433,700 in.lbs



(mm)	inch	T
—	1.378 h6	<sup>0</sup> <sub>-0.00063</sub>
—	1.890 h6	<sup>0</sup> <sub>-0.00063</sub>
(165)	6.496 h6	<sup>0</sup> <sub>-0.00098</sub>
(165)	6.496 H7	<sup>+0.00157</sup> <sub>0</sub>
(172)	6.772 H7	<sup>+0.00157</sup> <sub>0</sub>
(180)	7.087 H7	<sup>+0.00157</sup> <sub>0</sub>
(180)	7.087 h6	<sup>0</sup> <sub>-0.00098</sub>
(240)	9.449 f7	<sup>-0.00197</sup> <sub>-0.00378</sub>
(580)	22.835 f7	<sup>-0.00299</sup> <sub>-0.00575</sub>
N 170x5x32 9H DIN 5480		

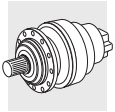


		316 L2	316 L3	316 L4	316 R3 (B)	316 R3 (C)	316 R4
	T	16.97	22.20	25.71	25.83	25.83	26.89
	T1	—	—	—	13.58	15.35	8.86
	L4	—	—	—	15.75	18.90	13.58
	FP	1191	1301	1345	1455	1477	1411
	FZ	1147	1257	1301	1411	1433	1367

	3/16 16 L3	3/16 16 L4
	T3	
	27.64	29.72
	1874	1433
	1830	1389

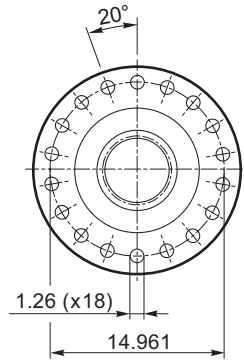
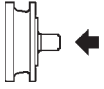
NEMA Input			T2				
	P1	E					
N250TC	11.81	5.41	—	—	31.12	—	14.27
N280TC	13.78	6.42	—	—	32.13	—	15.28
N320TC	13.78	7.97	—	—	—	21.56	23.33
N320TC	15.75	8.64	—	30.85	—	—	—
N360TC	13.78	7.97	—	—	—	21.56	23.33
N360TC	15.75	8.64	—	30.85	—	—	—

	P1	T4	P1	T4
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—

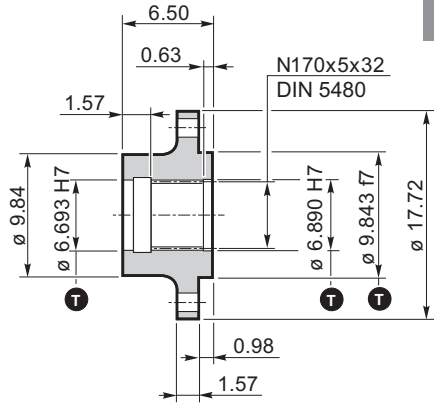


**316**

**Flange**

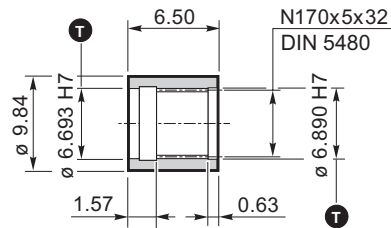
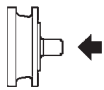


Material : Steel AISI 1040



**WOA**

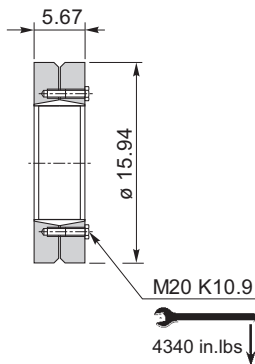
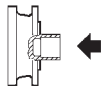
**Sleeve coupling**



Material : Steel SAE 8620

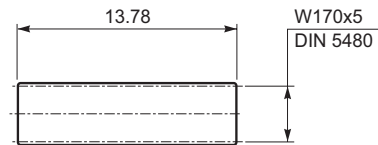
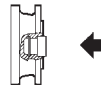
**MOA**

**Shrink disc**



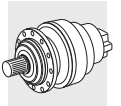
**GOA**

**Splined bar**

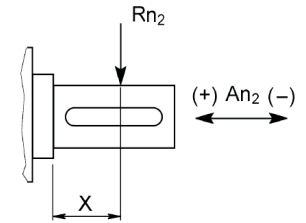
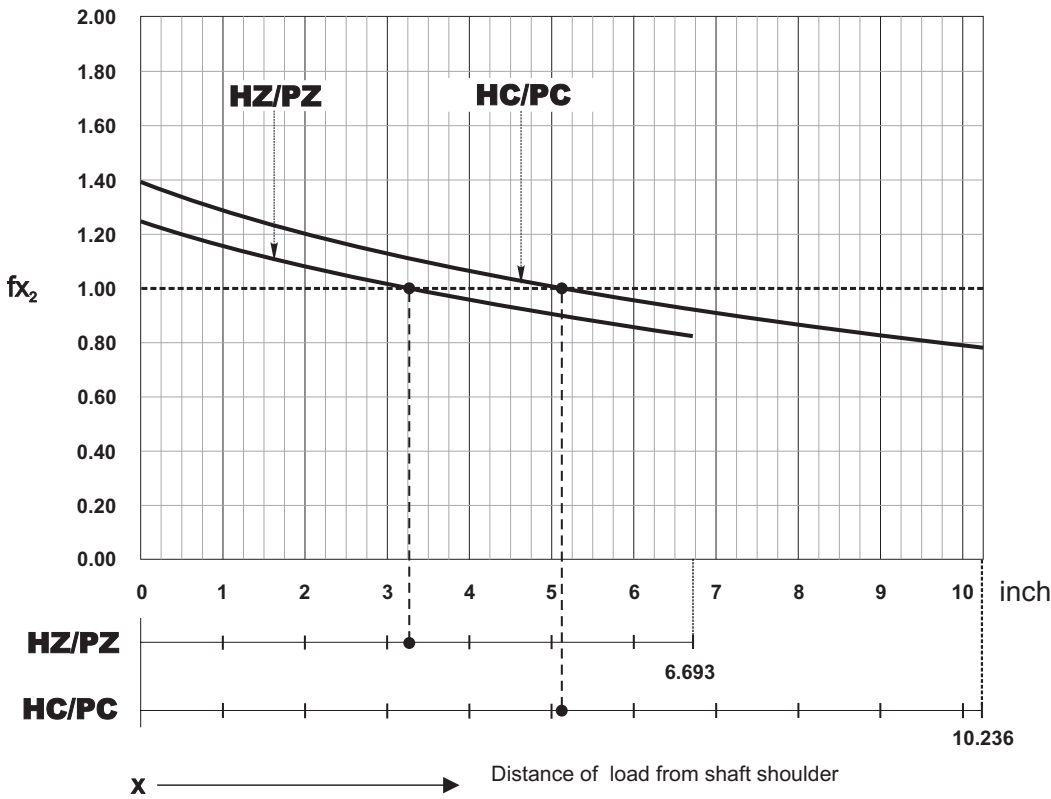


**B0A**

(mm)	inch	T
(170)	6.693 H7	+0.00157 0
(175)	6.890 H7	+0.00157 0
(250)	9.843 f7	-0.00197 0.00378

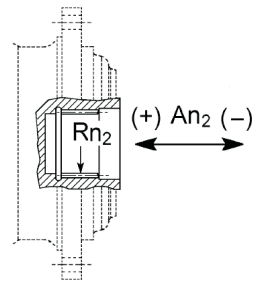


Load application factor for calculation of admissible overhung load on output shaft



$$R_{x2} = Rn_2 \cdot fx_2$$

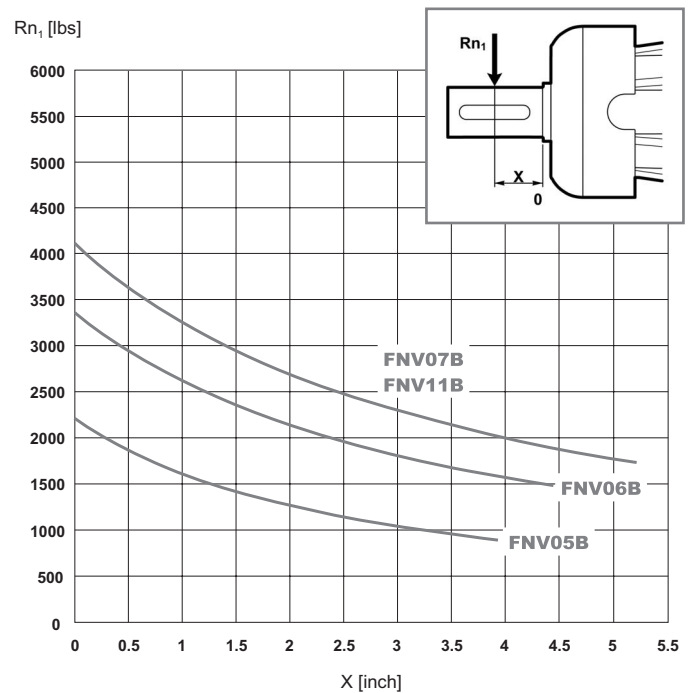
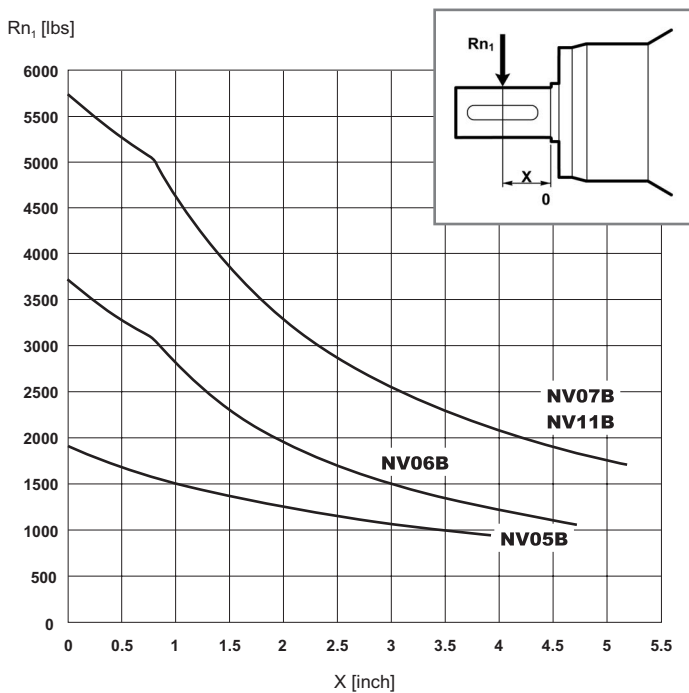
$An_2 (\pm) = Rn_2 \cdot fa_2(\pm)$		
	$fa_2 (+)$	$fa_2 (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

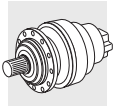


$An_2 (\pm) = Rn_2 \cdot fa_2(\pm)$		
	$fa_2 (+)$	$fa_2 (-)$
FZ	1.04	1.04

Permitted overhung load on input shaft

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





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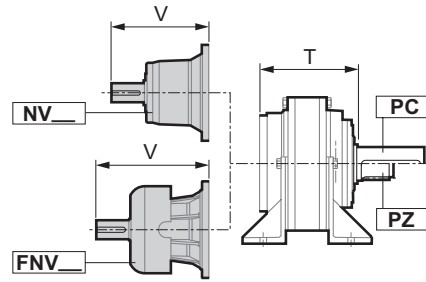
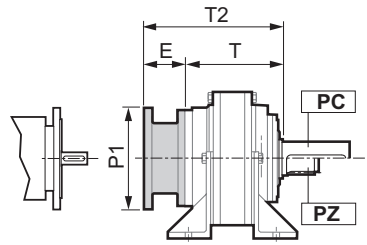
PC

PZ

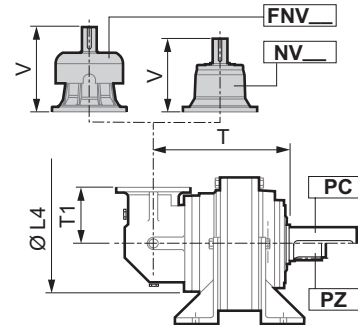
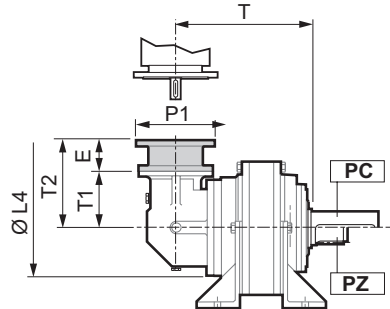
NEMA input

Solid input shaft

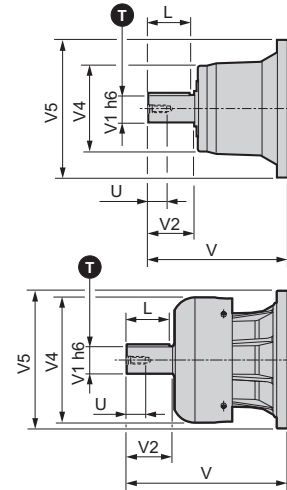
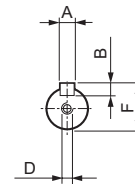
317 L



317 R

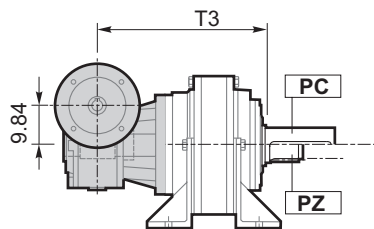


	317 L4 317 R4		317 R3 (B) 317 R3 (C)		317 L3		317 L2	
	Solid input shaft							
	NV05B	FNV05B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	50.7	58	77.2	90	121.3	140

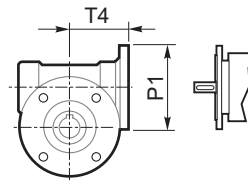


(mm)	inch	T
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

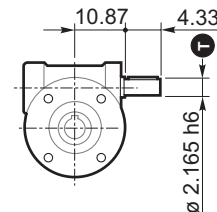
3/V 17 L3



IEC input  
(contact Bonfiglioli for availability)

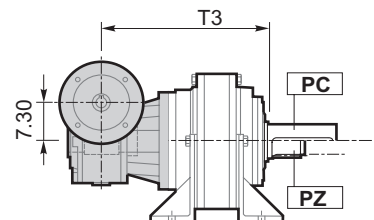


Solid input shaft

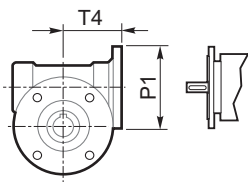


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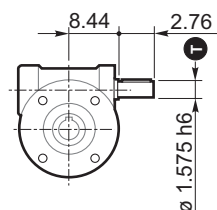
3/V 17 L4



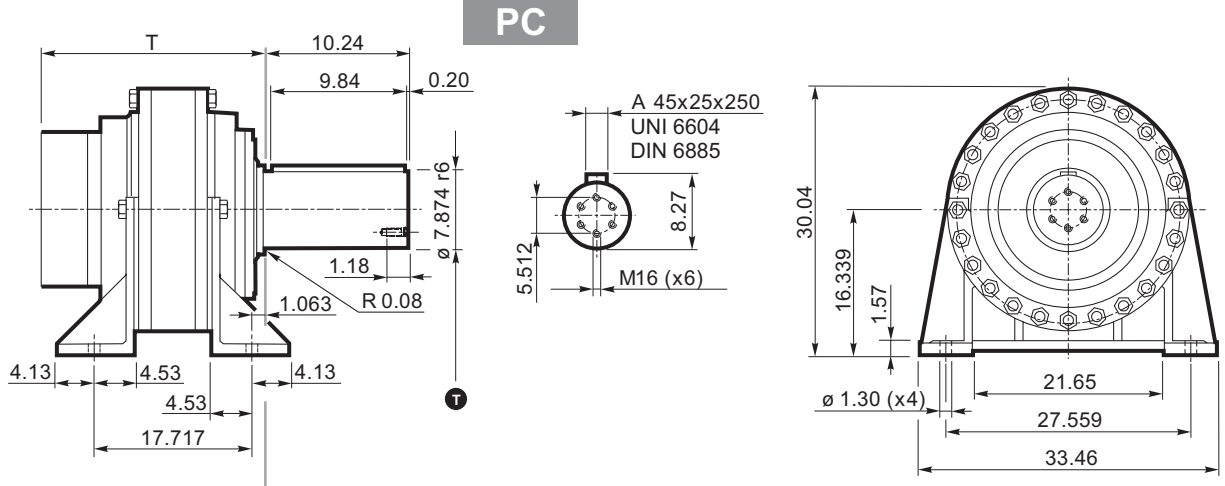
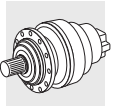
IEC input  
(contact Bonfiglioli for availability)



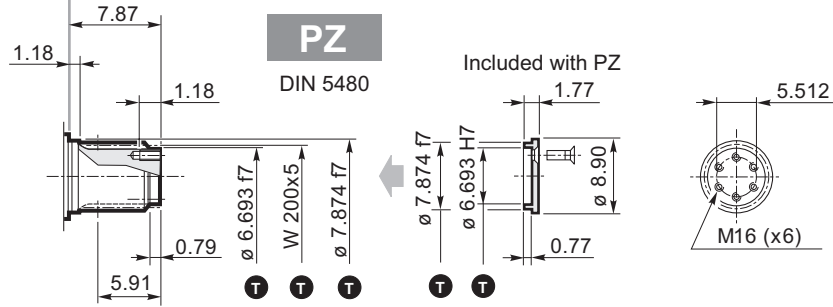
Solid input shaft



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(mm)	inch	T
—	1.575 h6	$0^{-0.00063}$
—	2.165 h6	$0^{-0.00063}$
(170)	6.693 f7	$-0.00169$ $-0.00327$
(170)	6.693 H7	$+0.00157$ $0$
(200)	7.874 r6	$+0.00417$ $+0.00303$
(200)	7.874 f7	$-0.00197$ $-0.00378$
W 200x5		DIN 5480

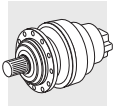


	317 L2	317 L3	317 L4	317 R3 (B)	317 R3 (C)	317 R4
<b>T</b>	24.57	30.47	33.94	33.58	33.58	35.12
<b>T1</b>	—	—	—	13.58	15.35	8.86
<b>L4</b>	—	—	—	15.75	18.90	13.58
<b>Lbs</b>	2381	2514	2540	2668	2690	2624

3/V 17 L3	3/V 17 L4
<b>T3</b>	
35.20	38.39
<b>Lbs</b> 3087	2756

NEMA Input		T2						
	P1	E						
<b>N250TC</b>	11.81	5.41	—	—	39.35	—	—	14.27
<b>N280TC</b>	13.78	6.42	—	—	40.35	—	—	15.28
<b>N320TC</b>	13.78	7.97	—	—	—	21.56	23.33	—
<b>N320TC</b>	15.75	8.64	—	39.11	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	21.56	23.33	—
<b>N360TC</b>	15.75	8.64	—	39.11	—	—	—	—

P1	T4	P1	T4
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



317

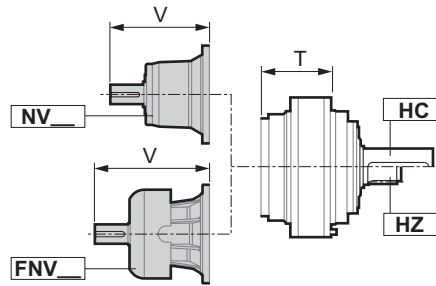
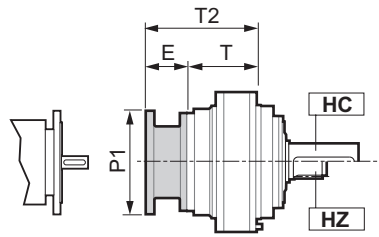
HC

HZ

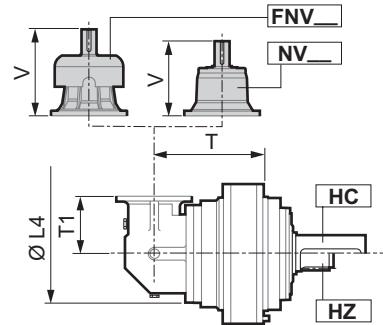
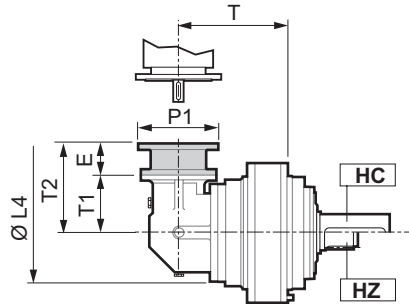
NEMA input

Solid input shaft

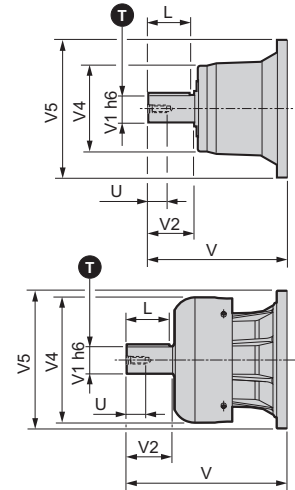
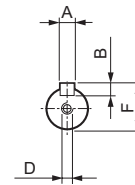
317 L



317 R

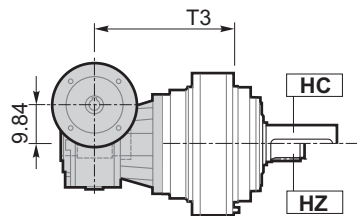


	317 L4 317 R4		317 R3 (B) 317 R3 (C)		317 L3		317 L2	
	Solid input shaft							
	NV05B	FNV05B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	50.7	58	77.2	90	121.3	140

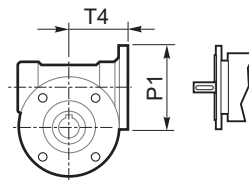


(mm)	inch	T
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

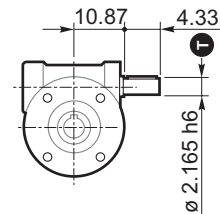
3/V 17 L3



IEC input  
(contact Bonfiglioli for availability)

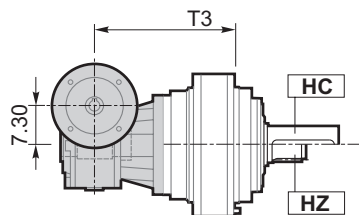


Solid input shaft

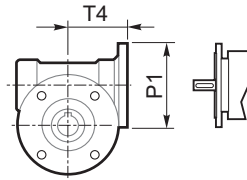


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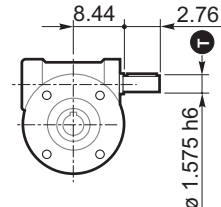
3/V 17 L4



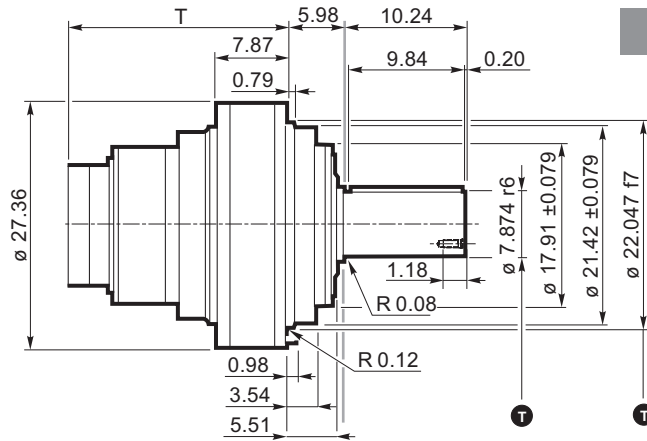
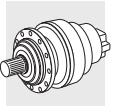
IEC input  
(contact Bonfiglioli for availability)



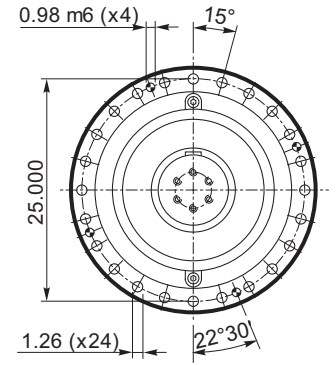
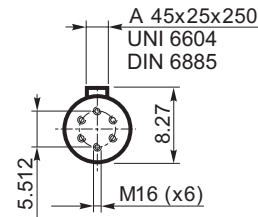
Solid input shaft



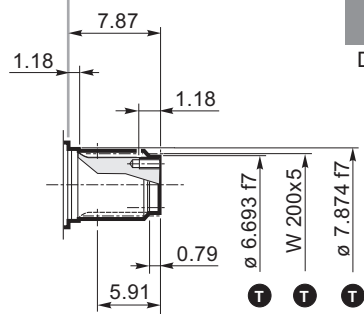
298



**HC**



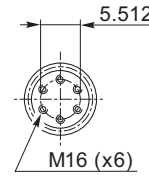
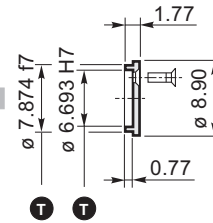
(mm)	inch	T
—	1.575 h6	0 -0.00063
—	2.165 h6	0 -0.00063
(150)	5.906 f7	-0.00169 -0.00326
(170)	6.693 f7	-0.00169 -0.00327
(170)	6.693 H7	+0.00157 0
(200)	7.874 r6	+0.00417 +0.00303
(200)	7.874 f7	-0.00197 -0.00378
(560)	22.047 f7	-0.00299 -0.00575
W 200x5		DIN 5480



**HZ**

Included with HZ

DIN 5480

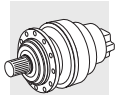


	317 L2	317 L3	317 L4	317 R3 (B)	317 R3 (C)	317 R4
<b>T</b>	18.70	24.49	27.95	27.60	27.60	29.13
<b>T1</b>	—	—	—	13.58	15.35	8.86
<b>L4</b>	—	—	—	15.75	18.90	13.58
<b>Lbs</b>	2051	2183	2205	2337	2359	2293

3/V 17 L3		3/V 17 L4	
<b>T3</b>			
29.33		32.40	
<b>Lbs</b> 2756		2403	

NEMA Input								
	P1	E	T2					
<b>N250TC</b>	11.81	5.41	—	—	33.37	—	—	14.27
<b>N280TC</b>	13.78	6.42	—	—	34.37	—	—	15.28
<b>N320TC</b>	13.78	7.97	—	—	—	21.56	23.33	—
<b>N320TC</b>	15.75	8.64	—	33.13	—	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	21.56	23.33	—
<b>N360TC</b>	15.75	8.64	—	33.13	—	—	—	—

P1	T4	P1	T4
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



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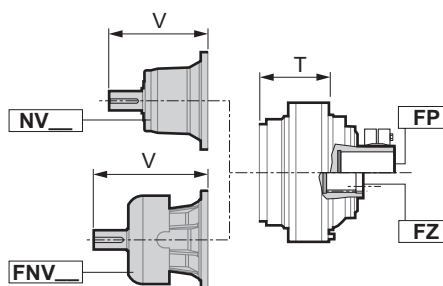
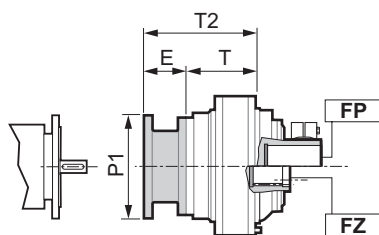
FP

FZ

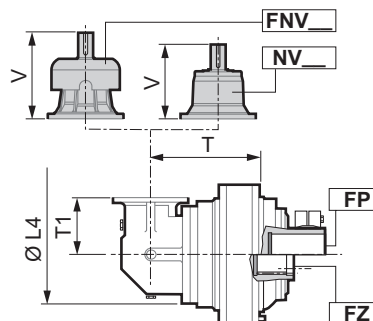
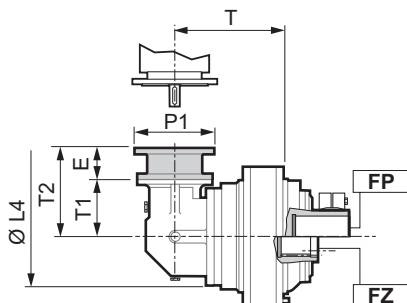
NEMA input

Solid input shaft

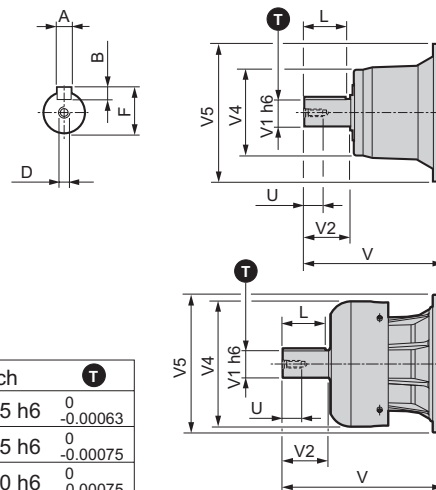
317 L



317 R

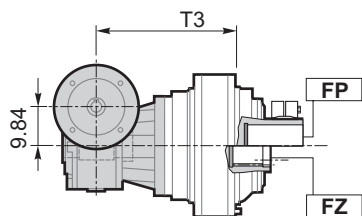


	317 L4 317 R4		317 R3 (B) 317 R3 (C)		317 L3		317 L2	
	Solid input shaft							
	NV05B	FNV05B	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	9.68	11.06	12.70	14.67	12.28	14.65	13.58	17.83
V1	1.875	1.875	2.375	2.375	3.000	3.000	3.000	3.000
V2	3.50	3.50	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	8.70	6.10	12.20	7.87	13.70	7.87	13.70
V5	9.65	9.65	11.50	11.50	13.58	13.58	16.46	16.46
A	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
B	0.500	0.500	0.625	0.625	0.750	0.750	0.750	0.750
F	2.091	2.091	2.646	2.646	3.327	3.327	3.327	3.327
L	3.00	3.00	4.25	4.25	4.37	4.37	4.37	4.37
D	5/8 11UNC	5/8 11UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.42	1.42	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	33.1	38	50.7	58	77.2	90	121.3	140

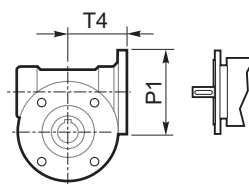


(mm)	inch	T
—	1.875 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

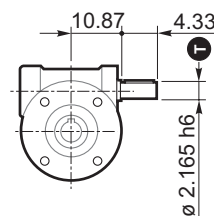
3/V 17 L3



IEC input  
(contact Bonfiglioli for availability)

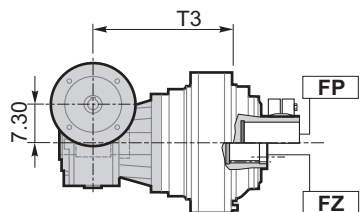


Solid input shaft

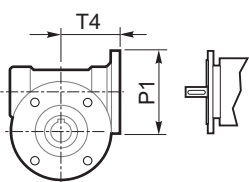


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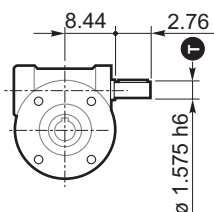
3/V 17 L4



IEC input  
(contact Bonfiglioli for availability)

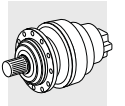


Solid input shaft

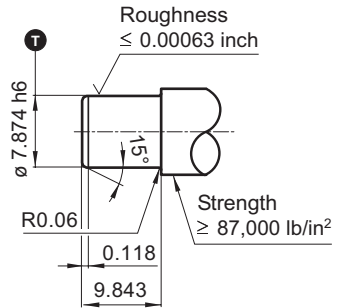
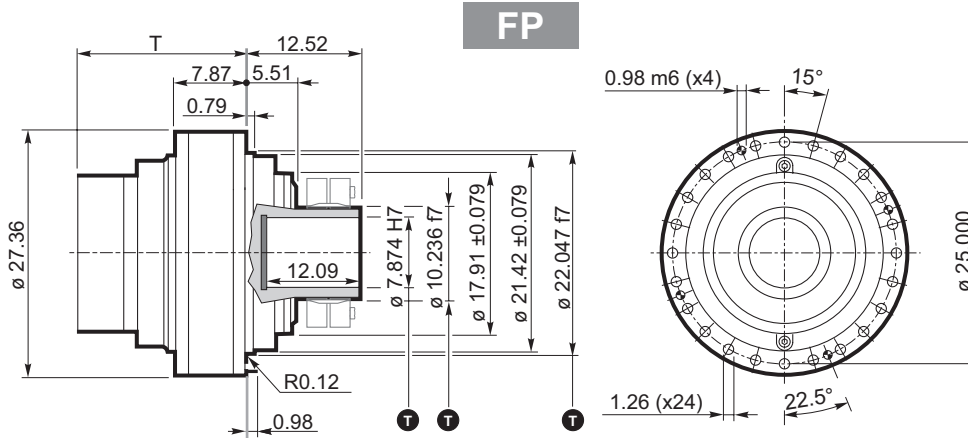


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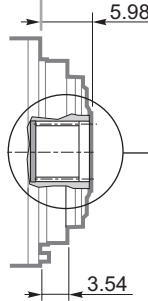




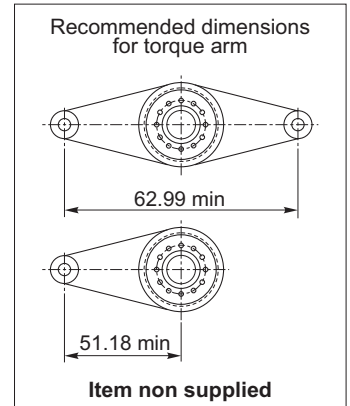
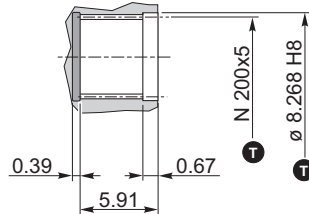
**FP**  $T_{2max} = 1,911,600$  in.lbs



(mm)	inch	T
—	1.575 h6	$0$ $-0.00063$
—	2.165 h6	$0$ $-0.00063$
(200)	7.874 h6	$-0.00059$ $-0.00173$
(200)	7.874 H7	$+0.00181$ $0$
(210)	8.268 H8	$+0.00000$ $0$
(260)	10.236 f7	$-0.00220$ $-0.00425$
(560)	22.047 f7	$-0.00299$ $-0.00575$
N 200x5		DIN 5480



**FZ**  
DIN 5480

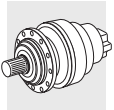


		317 L2	317 L3	317 L4	317 R3 (B)	317 R3 (C)	317 R4
	<b>T</b>	18.70	24.49	27.95	27.60	27.60	29.13
	<b>T1</b>	—	—	—	13.58	15.35	8.86
	<b>L4</b>	—	—	—	15.75	18.90	13.58
	<b>FP</b>	2051	2183	2205	2337	2359	2293
	<b>FZ</b>	1940	2073	2099	2227	2249	2183

	3/16 17 L3	3/16 17 L4
	<b>T3</b>	
	29.33	32.40
	2756	2403
	2646	2293

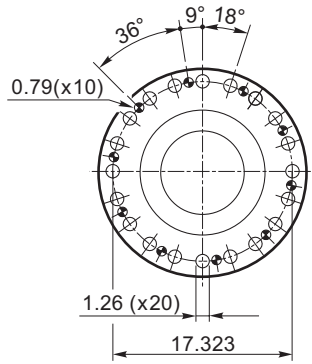
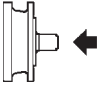
NEMA Input		T2					
	P1	E					
<b>N250TC</b>	11.81	5.41	—	—	33.37	—	14.27
<b>N280TC</b>	13.78	6.42	—	—	34.37	—	15.28
<b>N320TC</b>	13.78	7.97	—	—	—	21.56	23.33
<b>N320TC</b>	15.75	8.64	—	33.13	—	—	—
<b>N360TC</b>	13.78	7.97	—	—	—	21.56	23.33
<b>N360TC</b>	15.75	8.64	—	33.13	—	—	—

	P1	T4	P1	T4
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—
	—	—	—	—

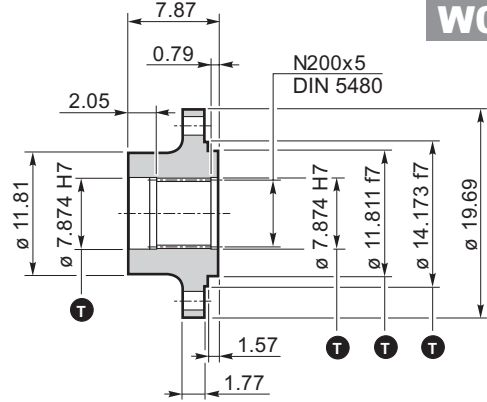


# 317

## Flange

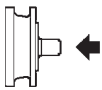


**WOA**

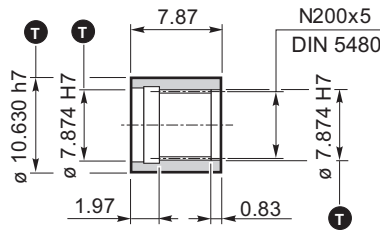


Material : Steel AISI 1040

## Sleeve coupling

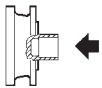


**MOA**

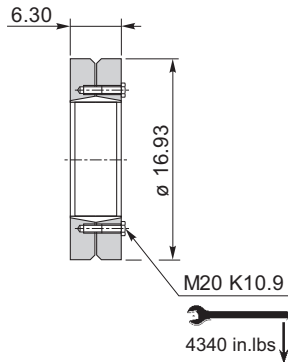


Material : Steel SAE 8620

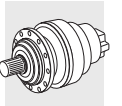
## Brink disc



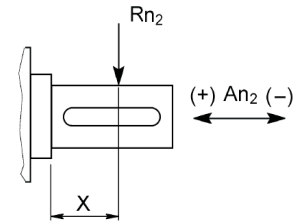
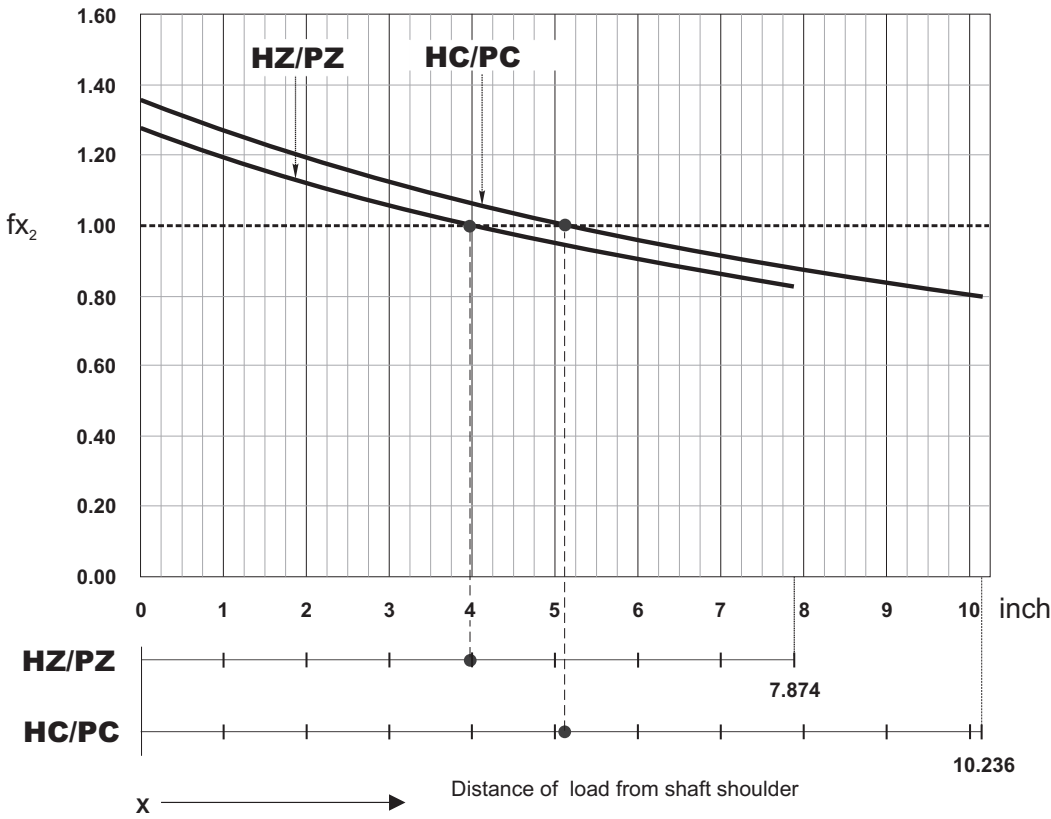
**GOA**



(mm)	inch	T
(200)	7.874 H7	+0.00181 0
(270)	10.630 h7	0 -0.00205
(300)	11.811 f7	-0.00220 -0.00425
(360)	14.173 f7	-0.00244 -0.00469

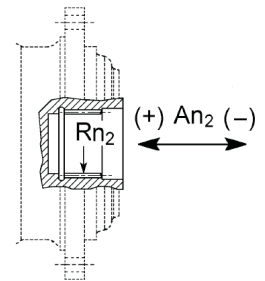


**Load application factor for calculation of admissible overhung load on output shaft**



$$R_{x2} = R_{n2} \cdot f_{x2}$$

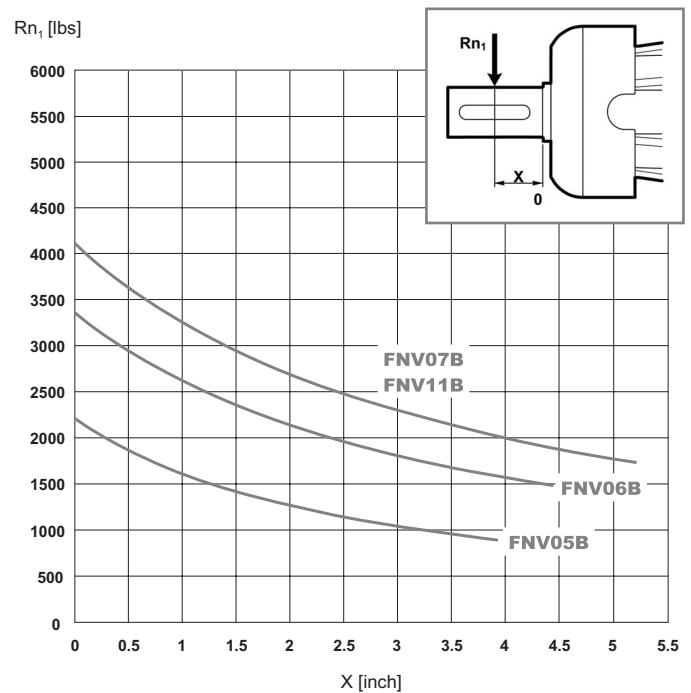
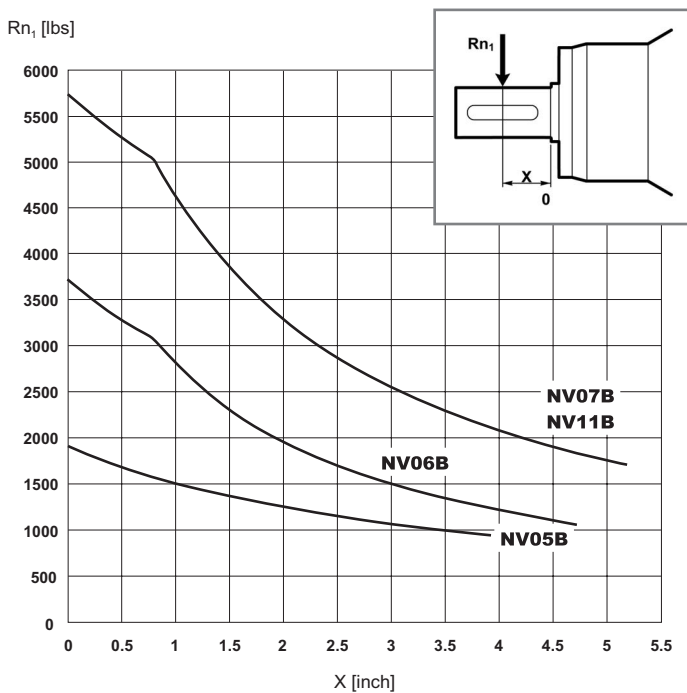
$A_{n2} (\pm) = R_{n2} \cdot f_{a2} (\pm)$		
	$f_{a2} (+)$	$f_{a2} (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

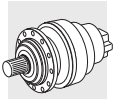


$A_{n2} (\pm) = R_{n2} \cdot f_{a2} (\pm)$		
	$f_{a2} (+)$	$f_{a2} (-)$
FZ	1.04	1.04

**Permitted overhung load on input shaft**

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





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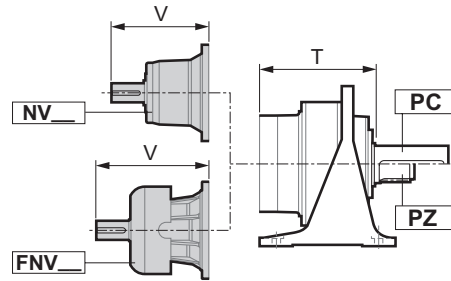
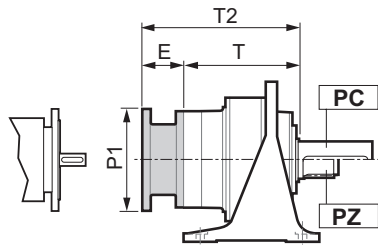
PC

PZ

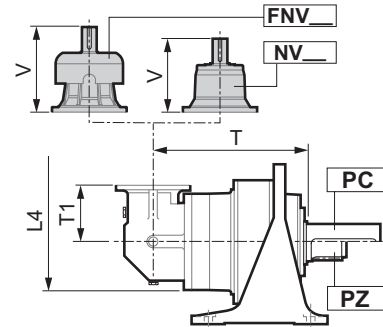
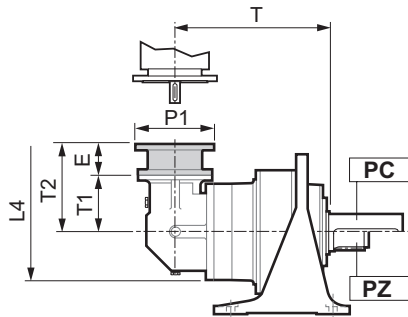
NEMA input

Solid input shaft

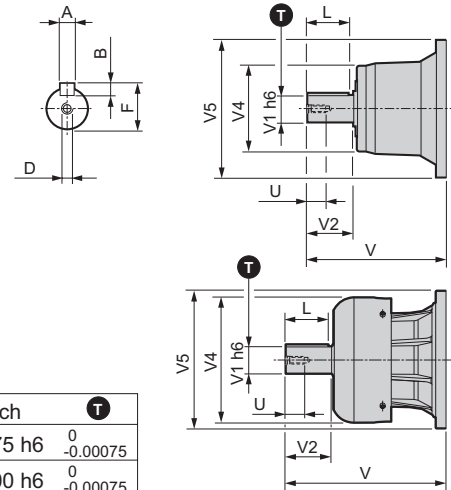
318 L



318 R

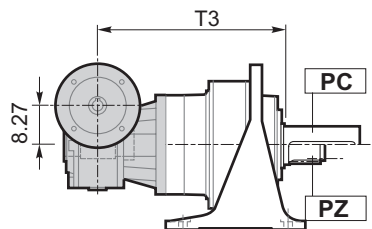


	318 R3 (B) 318 R3 (C)		318 L4		318 L3	
	Solid input shaft					
	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	12.70	14.67	12.28	14.65	13.58	17.83
V1	2.375	2.375	3.000	3.000	3.000	3.000
V2	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	12.20	7.87	13.70	7.87	13.70
V5	11.50	11.50	13.58	13.58	16.46	16.46
A	0.625	0.625	0.750	0.750	0.750	0.750
B	0.625	0.625	0.750	0.750	0.750	0.750
F	2.646	2.646	3.327	3.327	3.327	3.327
L	4.25	4.25	4.37	4.37	4.37	4.37
D	3/4	3/4	3/4	3/4	3/4	3/4
	10UNC	10UNC	10UNC	10UNC	10UNC	10UNC
U	1.65	1.65	1.65	1.65	1.65	1.65
	50.7	58	77.2	90	121.3	140

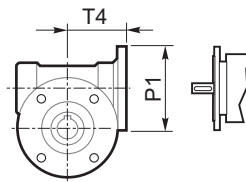


(mm)	inch	T
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

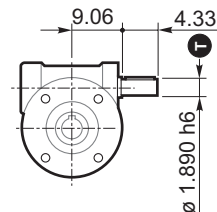
3/V 18 L4



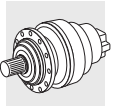
IEC input  
(contact Bonfiglioli for availability)



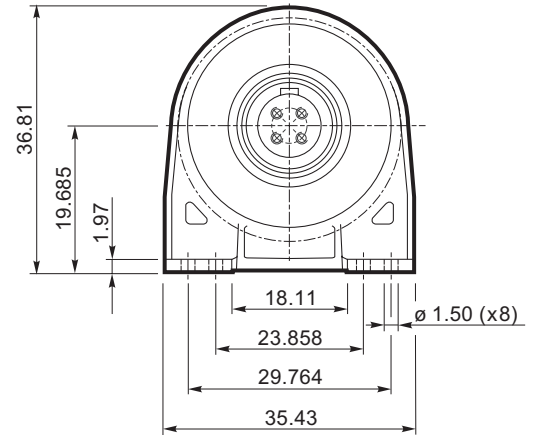
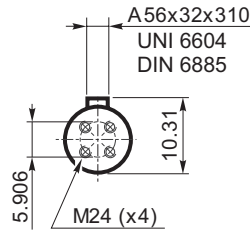
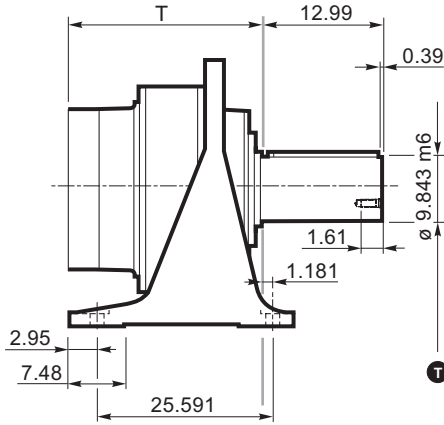
Solid input shaft



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PC

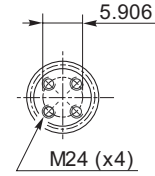
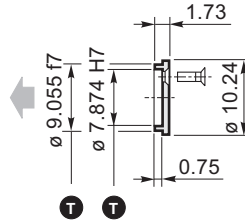
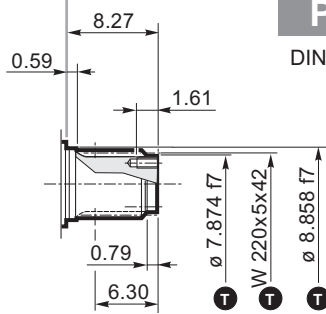


PZ

DIN 5480

Included with PZ

(mm)	inch	T
—	1.890 h6	0 -0.00063
(200)	7.874 f7	-0.00197 -0.00378
(200)	7.874 H7	+0.00181 0
(225)	8.858 f7	-0.00197 -0.00378
(230)	9.055 f7	0.00197 -0.00378
(250)	9.843 m6	+0.00181 +0.00067
W 220x5x42		DIN 5480

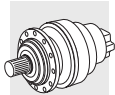


	318 L2	318 L3	318 L4	318 R4 (B)	318 R4 (C)
T	26.65	35.00	38.19	43.90	43.90
T1	—	—	—	13.58	15.35
L4	—	—	—	15.75	18.90
Lbs	3308	3528	3638	3793	3815

3/V 18 L4	
T3	
43.86	
Lbs 3991	

NEMA Input						
	P1	E	T2			
N320TC	13.78	7.97	—	—	21.56	23.33
N320TC	15.75	8.64	—	—	46.83	—
N360TC	13.78	7.97	—	—	21.56	23.33
N360TC	15.75	8.64	—	—	46.83	—

P1	T4
—	—
—	—
—	—
—	—



318

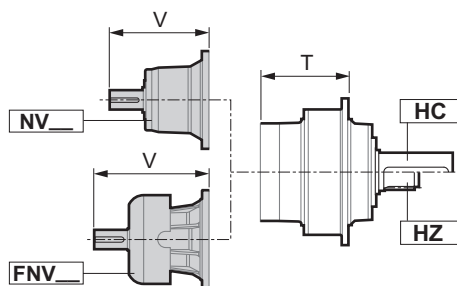
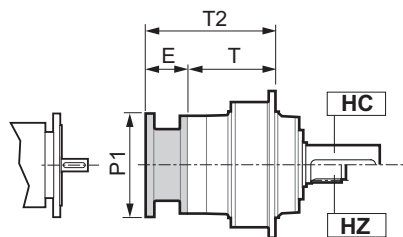
HC

HZ

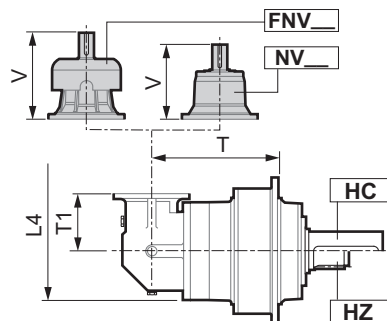
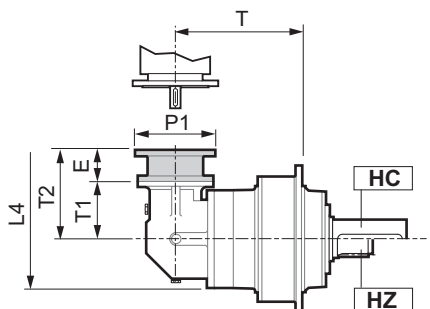
NEMA input

Solid input shaft

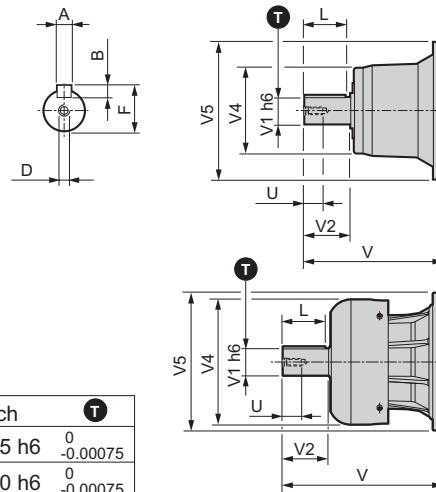
318 L



318 R

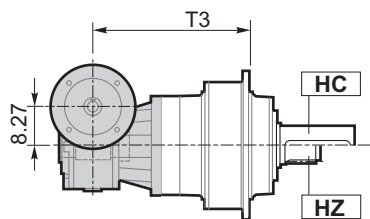


	318 R3 (B) 318 R3 (C)		318 L4		318 L3	
	Solid input shaft					
	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	12.70	14.67	12.28	14.65	13.58	17.83
V1	2.375	2.375	3.000	3.000	3.000	3.000
V2	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	12.20	7.87	13.70	7.87	13.70
V5	11.50	11.50	13.58	13.58	16.46	16.46
A	0.625	0.625	0.750	0.750	0.750	0.750
B	0.625	0.625	0.750	0.750	0.750	0.750
F	2.646	2.646	3.327	3.327	3.327	3.327
L	4.25	4.25	4.37	4.37	4.37	4.37
D	3/4	3/4	3/4	3/4	3/4	3/4
	10UNC	10UNC	10UNC	10UNC	10UNC	10UNC
U	1.65	1.65	1.65	1.65	1.65	1.65
	50.7	58	77.2	90	121.3	140

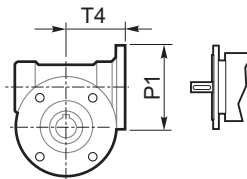


(mm)	inch	T
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

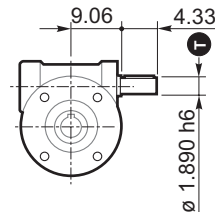
3/V 18 L4



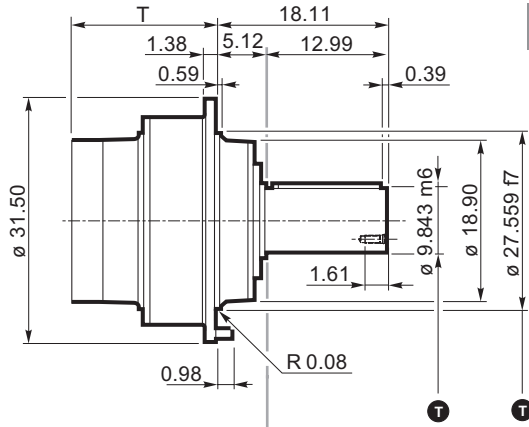
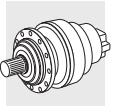
IEC input  
(contact Bonfiglioli for availability)



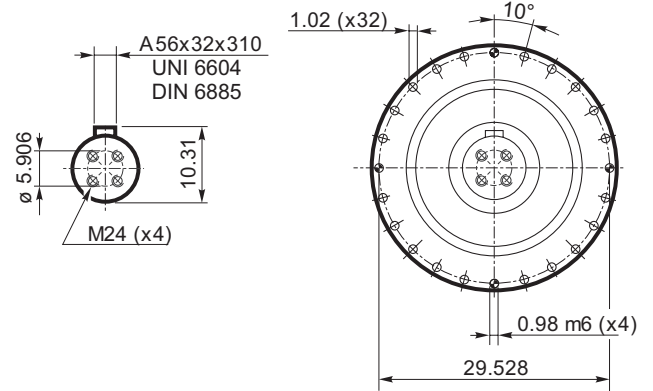
Solid input shaft



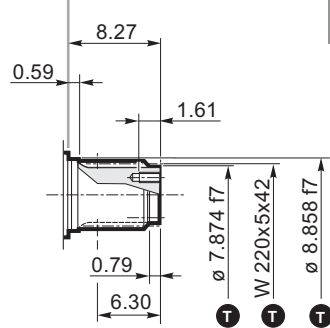
298



**HC**



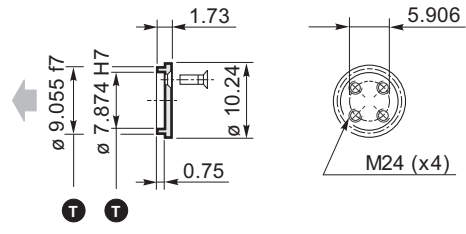
(mm)	inch	T
—	1.890 h6	<sup>0</sup> <sub>-0.00063</sub>
(200)	7.874 f7	<sup>-0.00197</sup> <sub>-0.00378</sub>
(200)	7.874 H7	<sup>+0.00181</sup> <sub>0</sub>
(225)	8.858 f7	<sup>-0.00197</sup> <sub>-0.00378</sub>
(230)	9.055 f7	<sup>0.00197</sup> <sub>-0.00378</sub>
(250)	9.843 m6	<sup>+0.00181</sup> <sub>+0.00067</sub>
(700)	27.559 f7	<sup>-0.00315</sup> <sub>-0.00630</sub>
W 220x5x42		DIN 5480



**HZ**

DIN 5480

Included with HZ

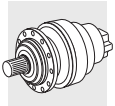


	318 L2	318 L3	318 L4	318 R4 (B)	318 R4 (C)
<b>T</b>	21.54	29.88	33.07	38.78	38.78
<b>T1</b>	—	—	—	13.58	15.35
<b>L4</b>	—	—	—	15.75	18.90
<b>Lbs</b>	2646	2867	2977	3131	3153

3/V 18 L4	
<b>T3</b>	
38.74	
<b>Lbs</b>	
3330	

NEMA Input						
	P1	E	T2			
<b>N320TC</b>	13.78	7.97	—	—	—	21.56 23.33
<b>N320TC</b>	15.75	8.64	—	—	41.71	—
<b>N360TC</b>	13.78	7.97	—	—	—	21.56 23.33
<b>N360TC</b>	15.75	8.64	—	—	41.71	—

P1	T4
—	—
—	—
—	—
—	—



318

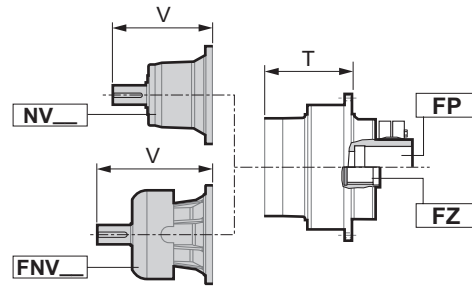
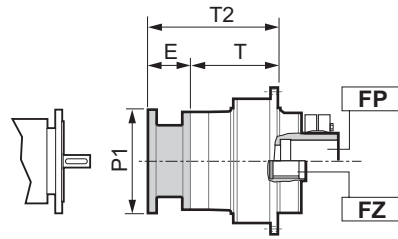
FP

FZ

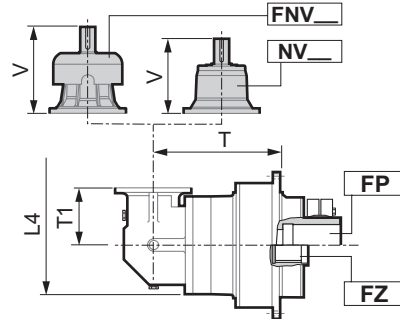
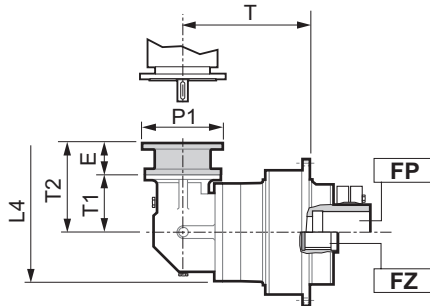
NEMA input

Solid input shaft

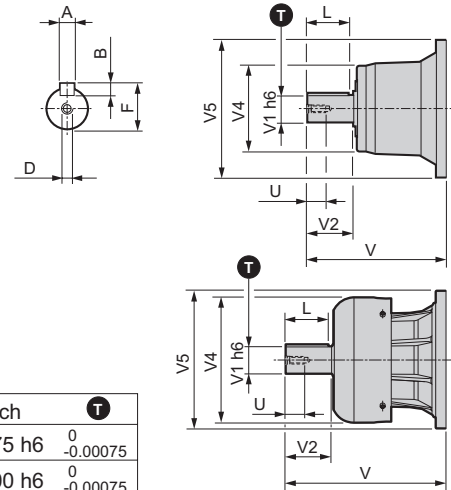
318 L



318 R

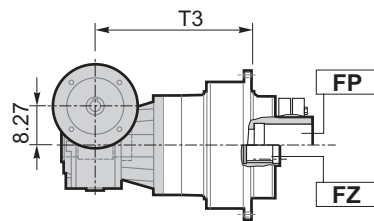


	318 R3 (B) 318 R3 (C)		318 L4		318 L3	
	Solid input shaft					
	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	12.70	14.67	12.28	14.65	13.58	17.83
V1	2.375	2.375	3.000	3.000	3.000	3.000
V2	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	12.20	7.87	13.70	7.87	13.70
V5	11.50	11.50	13.58	13.58	16.46	16.46
A	0.625	0.625	0.750	0.750	0.750	0.750
B	0.625	0.625	0.750	0.750	0.750	0.750
F	2.646	2.646	3.327	3.327	3.327	3.327
L	4.25	4.25	4.37	4.37	4.37	4.37
D	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.65	1.65	1.65	1.65	1.65	1.65
Ø	50.7	58	77.2	90	121.3	140

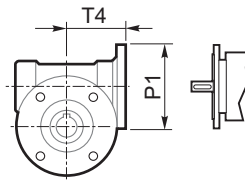


(mm)	inch	T
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

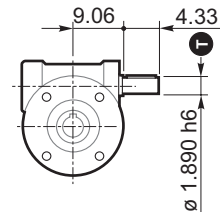
3/V 18 L4



IEC input  
(contact Bonfiglioli for availability)

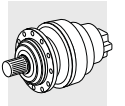


Solid input shaft



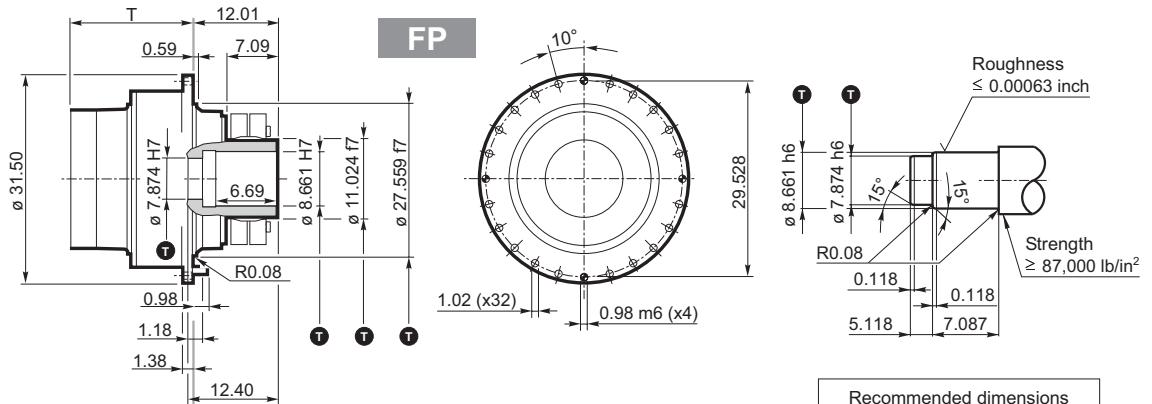
298



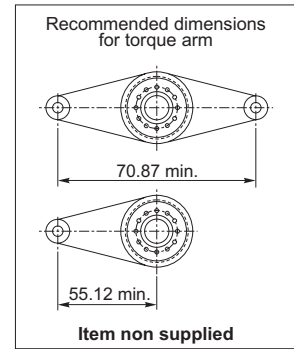
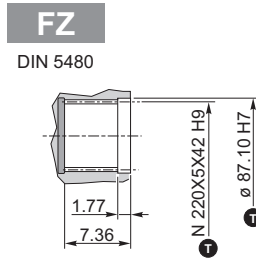
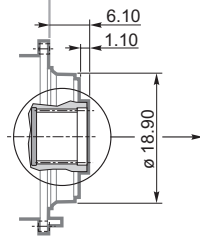


318

FP T<sub>2max</sub> = 2,655,000 in.lbs

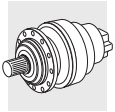


(mm)	inch	T
—	1.890 h6	<sup>0</sup> <sub>-0.00063</sub>
(200)	7.874 h6	<sup>0</sup> <sub>-0.00114</sub>
(200)	7.874 H7	<sup>+0.00181</sup> <sub>0</sub>
(220)	8.661 h6	<sup>0</sup> <sub>-0.00114</sub>
(227)	8.937 H7	<sup>+0.00181</sup> <sub>0</sub>
(280)	11.024 f7	<sup>-0.00220</sup> <sub>-0.00425</sub>
(700)	27.559 f7	<sup>-0.00315</sup> <sub>-0.00630</sub>
W 220x5x42 H9 DIN 5480		



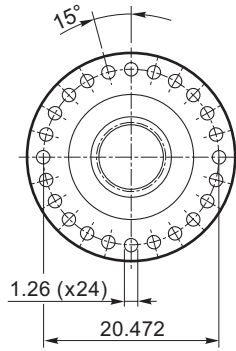
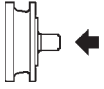
		318 L2	318 L3	318 L4	318 R4 (B)	318 R4 (C)
T		21.54	29.88	33.07	38.78	38.78
T1		—	—	—	13.58	15.35
L4		—	—	—	15.75	18.90
FP		2381	2602	2712	2867	2889
FZ		2315	2536	2646	2800	2822
NEMA Input						
	P1	E	T2			
N320TC	13.78	7.97	—	—	—	21.56 23.33
N320TC	15.75	8.64	—	—	41.71	—
N360TC	13.78	7.97	—	—	—	21.56 23.33
N360TC	15.75	8.64	—	—	41.71	—

3/V 18 L4	
T3	
38.74	
3065	
2999	
P1	T4
—	—
—	—
—	—
—	—

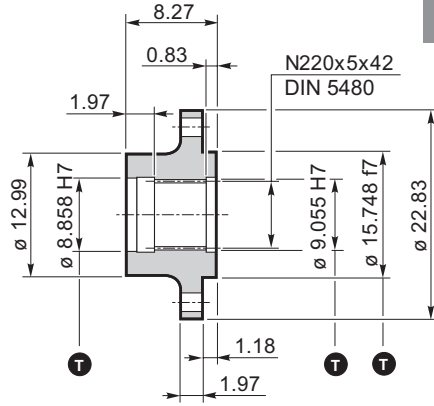


318

Flange

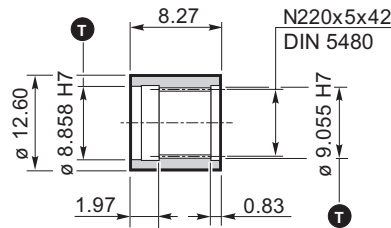
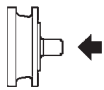


Material : Steel AISI 1040



WOA

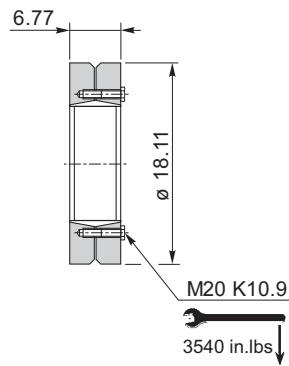
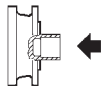
Sleeve coupling



Material : Steel SAE 8620

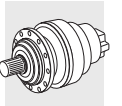
MOA

Shrink disc

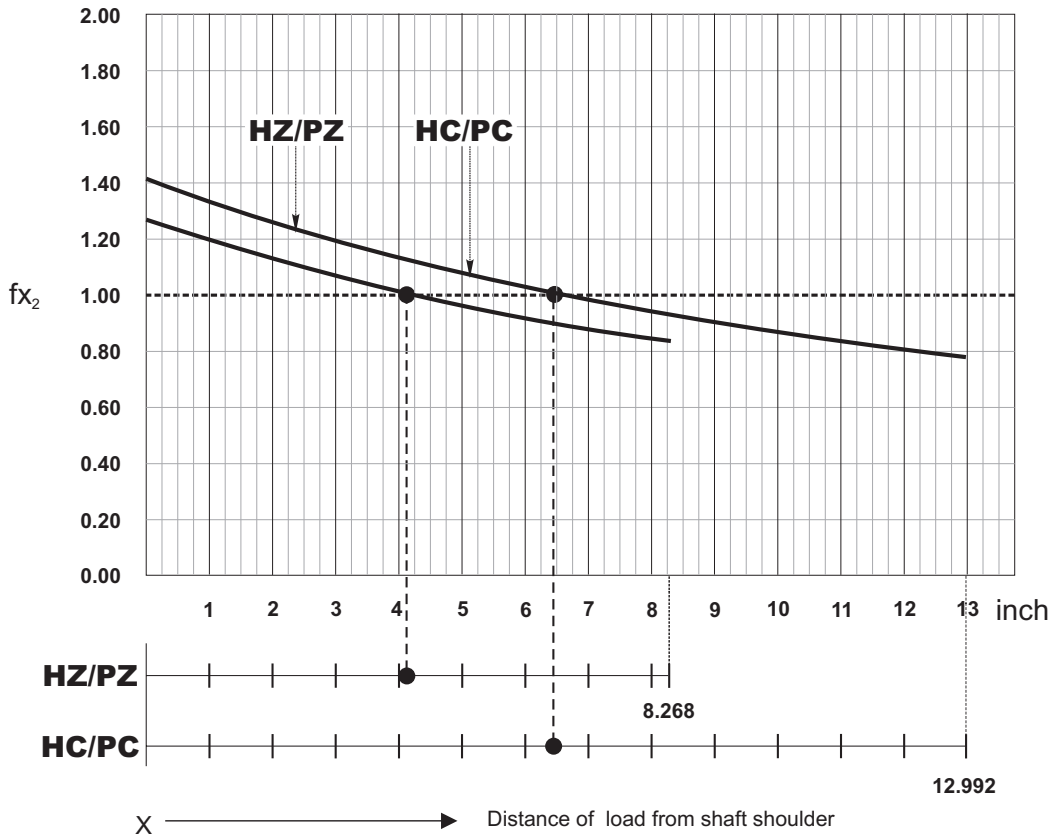


GOA

(mm)	inch	
(225)	8.858 H7	+0.00181 0
(230)	9.055 H7	-0.00220 -0.00425
(400)	15.748 f7	-0.00244 -0.00469

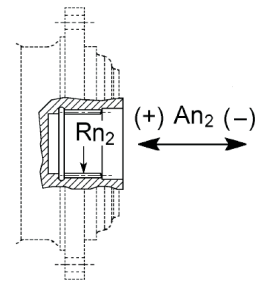


**Load application factor for calculation of admissible overhung load on output shaft**



$$R_{x2} = Rn_2 \cdot fx_2$$

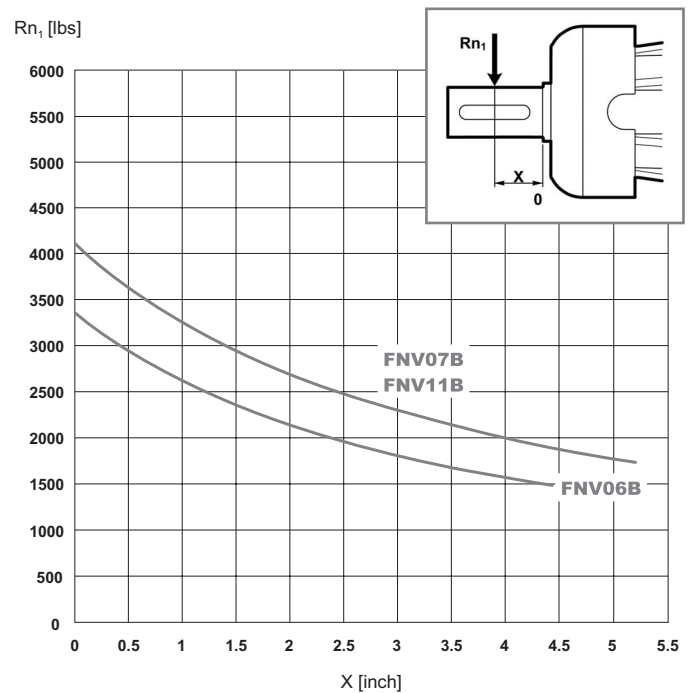
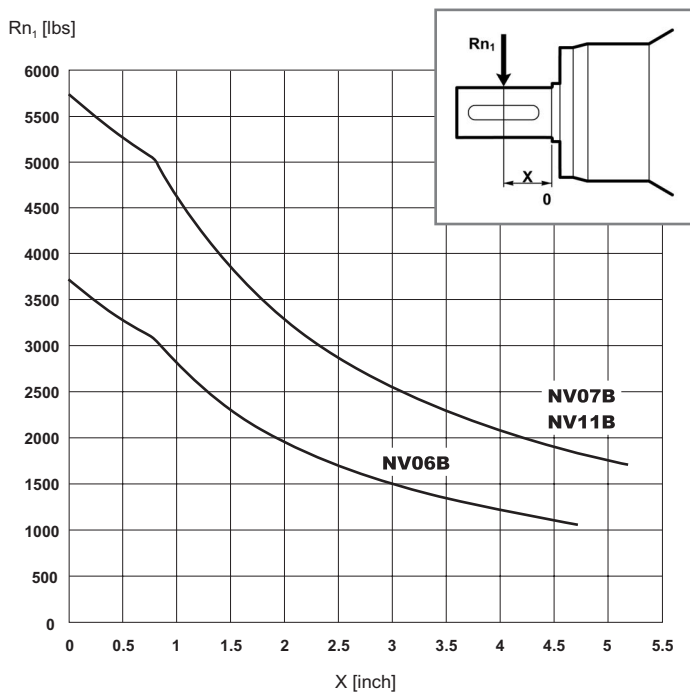
$An_2 (\pm) = Rn_2 \cdot fa_2(\pm)$		
	$fa_2 (+)$	$fa_2 (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

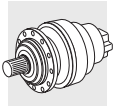


$An_2 (\pm) = Rn_2 \cdot fa_2(\pm)$		
	$fa_2 (+)$	$fa_2 (-)$
FZ	1.04	1.04

**Permitted overhung load on input shaft**

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





319

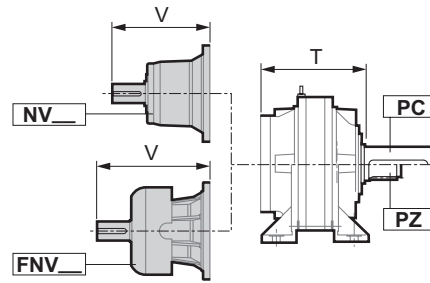
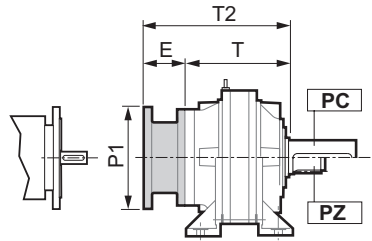
PC

PZ

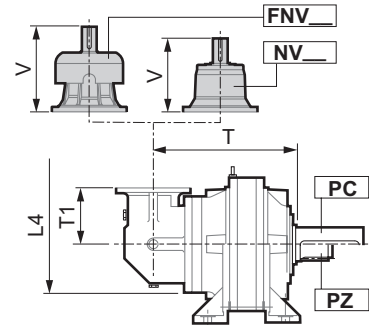
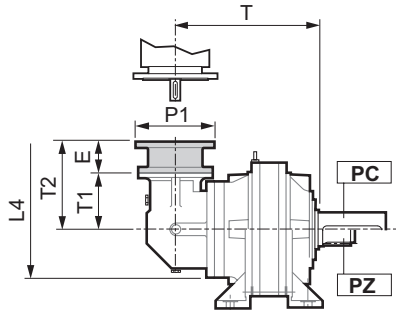
NEMA input

Solid input shaft

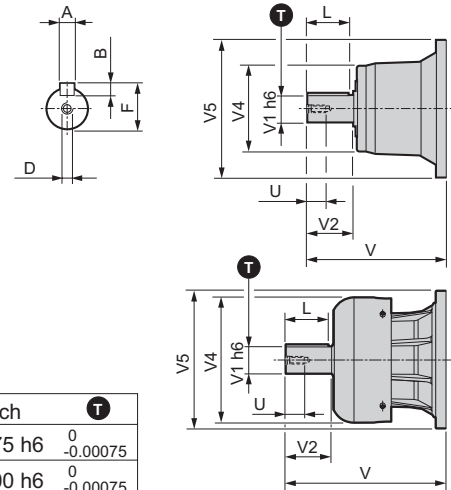
319 L



319 R

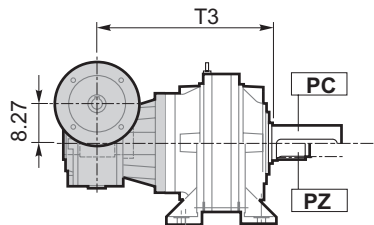


	319 R3 (B) 319 R3 (C)		319 L4		319 L3	
	Solid input shaft					
	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	12.70	14.67	12.28	14.65	13.58	17.83
V1	2.375	2.375	3.000	3.000	3.000	3.000
V2	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	12.20	7.87	13.70	7.87	13.70
V5	11.50	11.50	13.58	13.58	16.46	16.46
A	0.625	0.625	0.750	0.750	0.750	0.750
B	0.625	0.625	0.750	0.750	0.750	0.750
F	2.646	2.646	3.327	3.327	3.327	3.327
L	4.25	4.25	4.37	4.37	4.37	4.37
D	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.65	1.65	1.65	1.65	1.65	1.65
LBS	50.7	58	77.2	90	121.3	140

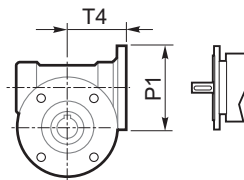


(mm)	inch	T
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

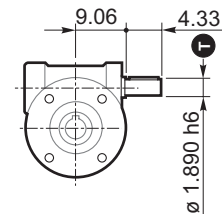
3/V 19 L4



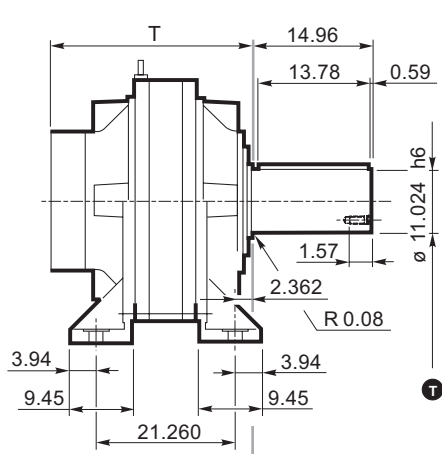
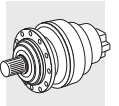
IEC input  
(contact Bonfiglioli for availability)



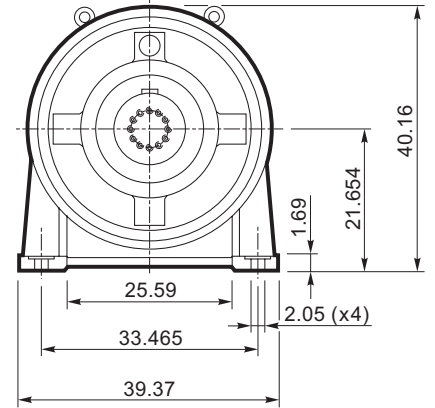
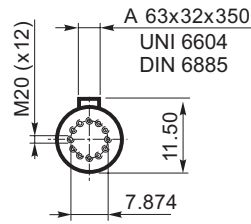
Solid input shaft



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PC

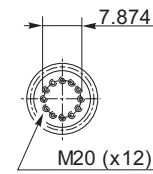
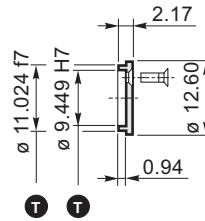
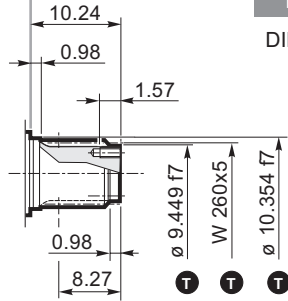


(mm)	inch	T
—	1.890 h6	$\begin{matrix} 0 \\ -0.00063 \end{matrix}$
(240)	9.449 f7	$\begin{matrix} -0.00197 \\ -0.00378 \end{matrix}$
(240)	9.449 H7	$\begin{matrix} +0.00181 \\ 0 \end{matrix}$
(263)	10.354 f7	$\begin{matrix} -0.00220 \\ -0.00425 \end{matrix}$
(280)	11.024 f7	$\begin{matrix} -0.00220 \\ -0.00425 \end{matrix}$
(280)	11.024 h6	$\begin{matrix} 0 \\ -0.00126 \end{matrix}$
W 260x5		DIN 5480

PZ

DIN 5480

Included with PZ

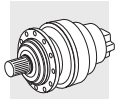


	319 L3	319 L4	319 R4 (B)	319 R4 (C)
T	38.98	44.21	47.44	47.44
T1	—	—	13.58	15.35
L4	—	—	15.75	18.90
Lbs	5369	5468	5645	5689

3/V 19 L4	
T3	
47.64	
Lbs	5843

NEMA Input		T2			
	P1	E			
N250TC	11.81	5.41	—	—	—
N280TC	13.78	6.42	—	—	—
N320TC	13.78	7.97	—	—	21.56 23.33
N320TC	15.75	8.64	—	52.85	—
N360TC	13.78	7.97	—	—	21.56 23.33
N360TC	15.75	8.64	—	52.85	—

P1	T4
—	—
—	—
—	—
—	—
—	—
—	—



**319**

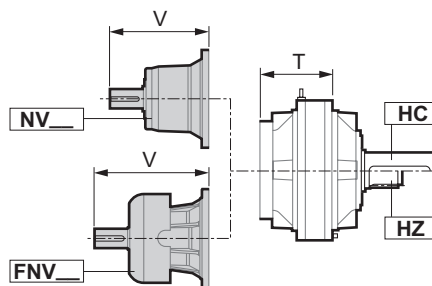
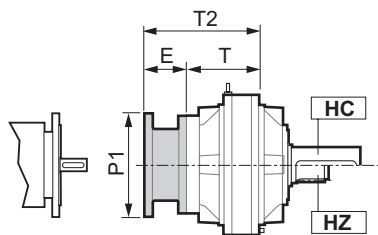
**HC**

**HZ**

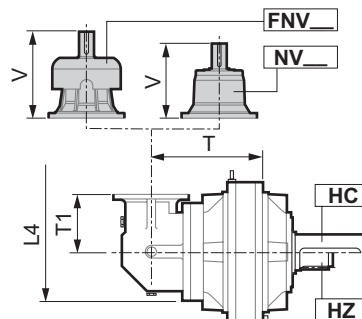
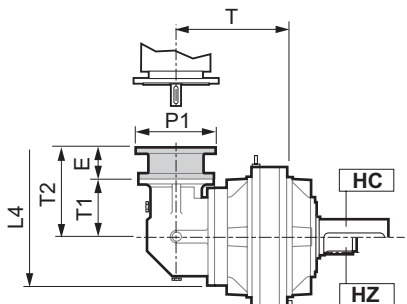
**NEMA input**

**Solid input shaft**

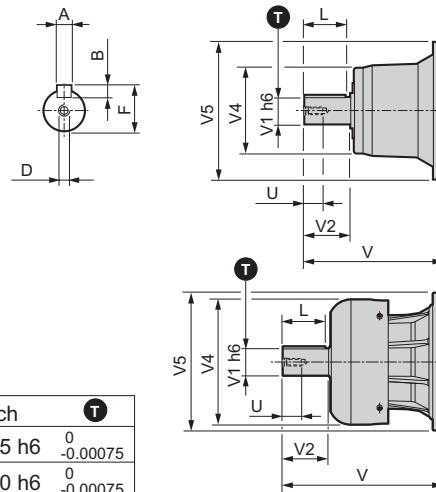
**319 L**



**319 R**

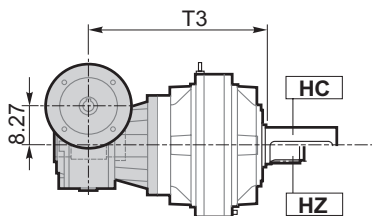


	319 R3 (B) 319 R3 (C)		319 L4		319 L3	
	Solid input shaft					
	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	12.70	14.67	12.28	14.65	13.58	17.83
V1	2.375	2.375	3.000	3.000	3.000	3.000
V2	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	12.20	7.87	13.70	7.87	13.70
V5	11.50	11.50	13.58	13.58	16.46	16.46
A	0.625	0.625	0.750	0.750	0.750	0.750
B	0.625	0.625	0.750	0.750	0.750	0.750
F	2.646	2.646	3.327	3.327	3.327	3.327
L	4.25	4.25	4.37	4.37	4.37	4.37
D	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.65	1.65	1.65	1.65	1.65	1.65
LBS	50.7	58	77.2	90	121.3	140

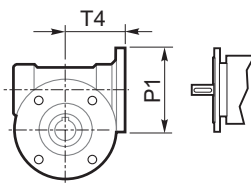


(mm)	inch	T
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

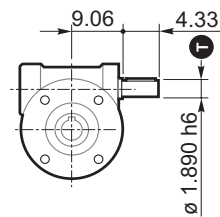
**3/V 19 L4**



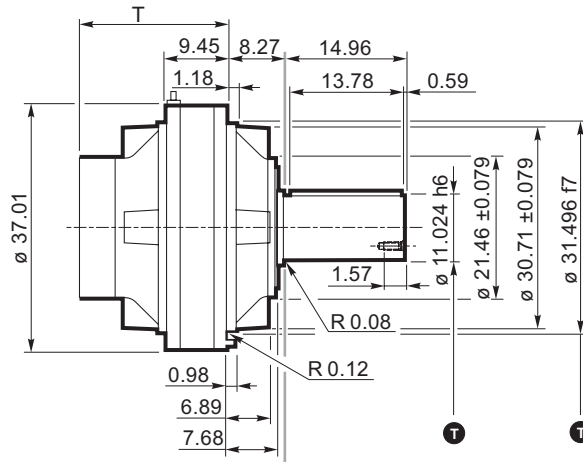
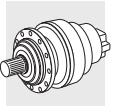
IEC input  
(contact Bonfiglioli for availability)



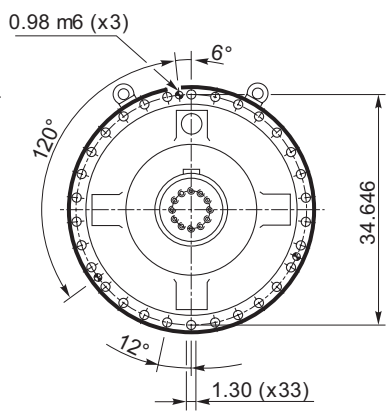
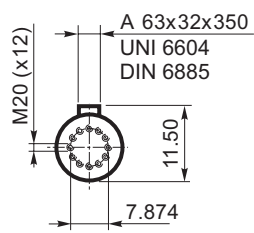
Solid input shaft



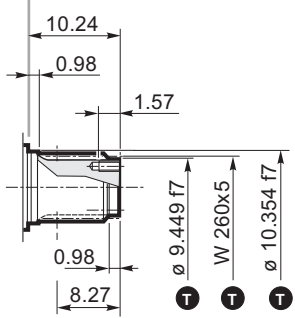
298



**HC**



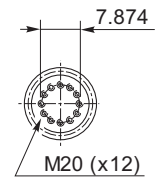
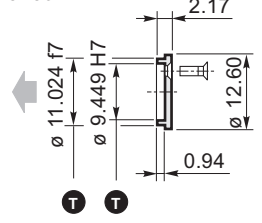
(mm)	inch	T
—	1.890 h6	<sup>0</sup> / <sub>-0.00063</sub>
(240)	9.449 f7	<sup>-0.00197</sup> / <sub>-0.00378</sub>
(240)	9.449 H7	<sup>+0.00181</sup> / <sub>0</sub>
(263)	10.354 f7	<sup>-0.00220</sup> / <sub>-0.00425</sub>
(280)	11.024 f7	<sup>-0.00220</sup> / <sub>-0.00425</sub>
(280)	11.024 h6	<sup>0</sup> / <sub>-0.00126</sub>
(800)	31.496 f7	<sup>-0.00315</sup> / <sub>-0.00630</sub>
W 260x5		DIN 5480



**HZ**

Included with HZ

DIN 5480

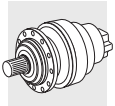


	319 L3	319 L4	319 R4 (B)	319 R4 (C)
<b>T</b>	30.71	35.94	39.57	39.57
<b>T1</b>	—	—	13.58	15.35
<b>L4</b>	—	—	15.75	18.90
<b>Lbs</b>	4708	4807	4983	5027

3/V 19 L4	
<b>T3</b>	
39.37	
<b>Lbs</b>	5182

NEMA Input		T2				
	P1	E				
<b>N250TC</b>	11.81	5.41	—	—	—	—
<b>N280TC</b>	13.78	6.42	—	—	—	—
<b>N320TC</b>	13.78	7.97	—	—	21.56	23.33
<b>N320TC</b>	15.75	8.64	—	44.59	—	—
<b>N360TC</b>	13.78	7.97	—	—	21.56	23.33
<b>N360TC</b>	15.75	8.64	—	44.59	—	—

P1	T4
—	—
—	—
—	—
—	—
—	—
—	—



319

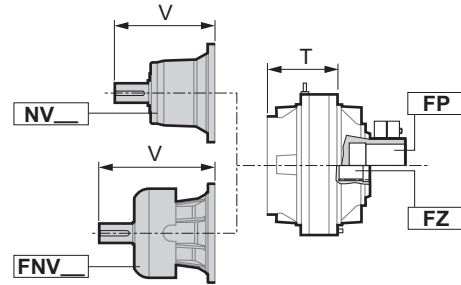
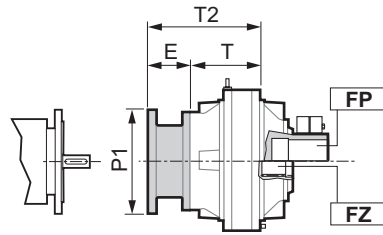
FP

FZ

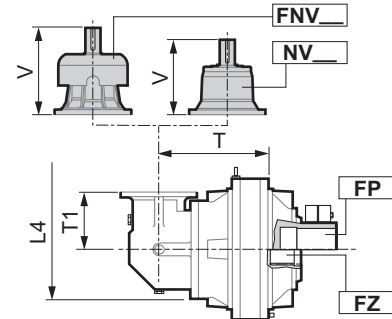
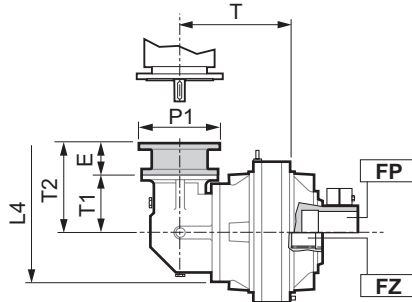
NEMA input

Solid input shaft

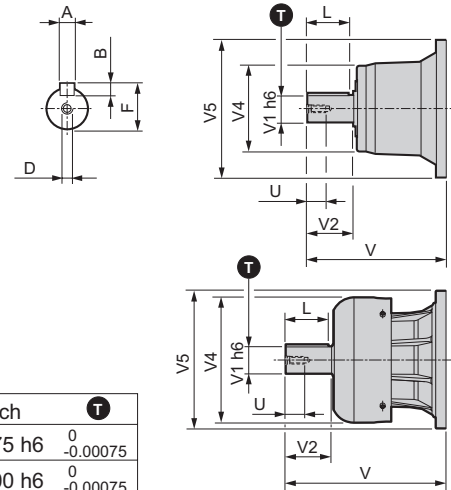
319 L



319 R

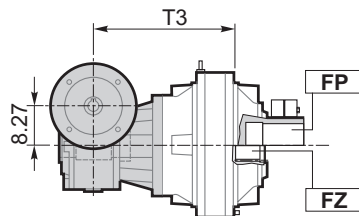


	319 R3 (B) 319 R3 (C)		319 L4		319 L3	
	Solid input shaft					
	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	12.70	14.67	12.28	14.65	13.58	17.83
V1	2.375	2.375	3.000	3.000	3.000	3.000
V2	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	12.20	7.87	13.70	7.87	13.70
V5	11.50	11.50	13.58	13.58	16.46	16.46
A	0.625	0.625	0.750	0.750	0.750	0.750
B	0.625	0.625	0.750	0.750	0.750	0.750
F	2.646	2.646	3.327	3.327	3.327	3.327
L	4.25	4.25	4.37	4.37	4.37	4.37
D	3/4	3/4	3/4	3/4	3/4	3/4
	10UNC	10UNC	10UNC	10UNC	10UNC	10UNC
U	1.65	1.65	1.65	1.65	1.65	1.65
	50.7	58	77.2	90	121.3	140

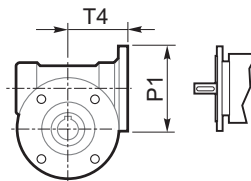


(mm)	inch	T
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

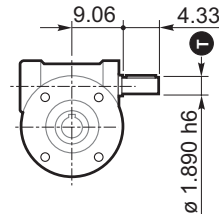
3/V 19 L4



IEC input  
(contact Bonfiglioli for availability)

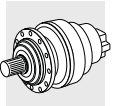


Solid input shaft

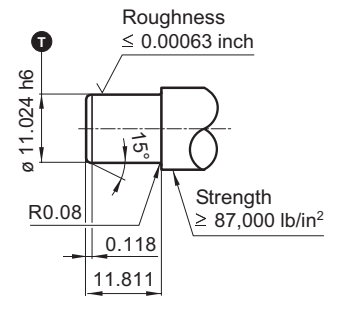
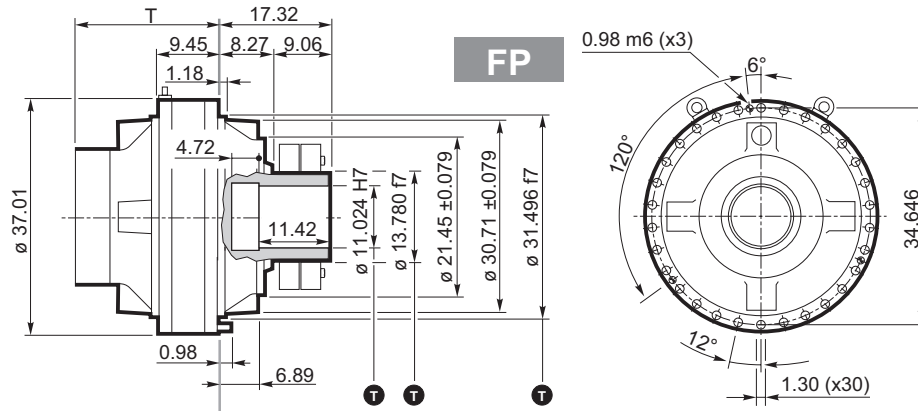


298

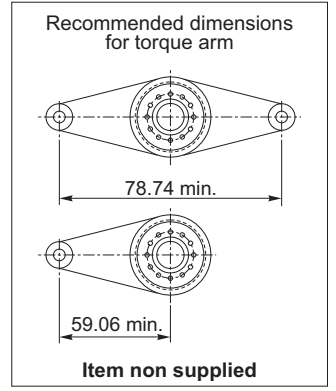
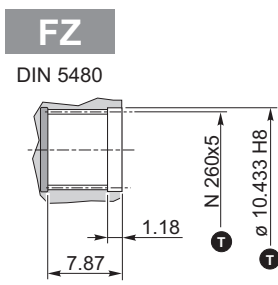
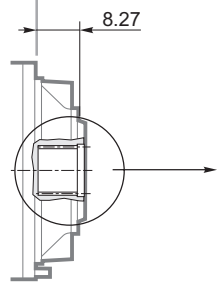




**FP** T<sub>2max</sub> = 3,717,000 in.lbs



(mm)	inch	T
—	1.890 h6	0 -0.00063
(265)	10.433 H8	+0.00331 0
(280)	11.024 h6	-0.00067 -0.00193
(280)	11.024 H7	+0.00205 0
(350)	13.780 f7	-0.00244 -0.00469
(800)	31.496 f7	-0.00315 -0.00630
N 260x5		DIN 5480

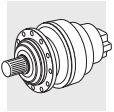


	319 L3	319 L4	319 R4 (B)	319 R4 (C)
<b>T</b>	30.71	35.94	39.57	39.57
<b>T1</b>	—	—	13.58	15.35
<b>L4</b>	—	—	15.75	18.90
<b>Lbs</b>	4487	4586	4763	4807

3/V 19 L4	
<b>T3</b>	
39.37	
<b>Lbs</b>	4961

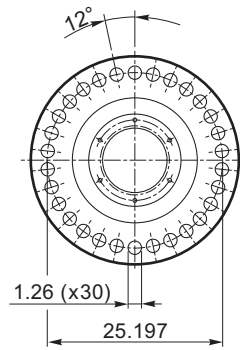
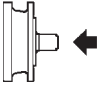
NEMA Input		T2				
	P1	E				
<b>N250TC</b>	11.81	5.41	—	—	—	—
<b>N280TC</b>	13.78	6.42	—	—	—	—
<b>N320TC</b>	13.78	7.97	—	—	21.56	23.33
<b>N320TC</b>	15.75	8.64	—	44.59	—	—
<b>N360TC</b>	13.78	7.97	—	—	21.56	23.33
<b>N360TC</b>	15.75	8.64	—	44.59	—	—

P1	T4
—	—
—	—
—	—
—	—
—	—
—	—

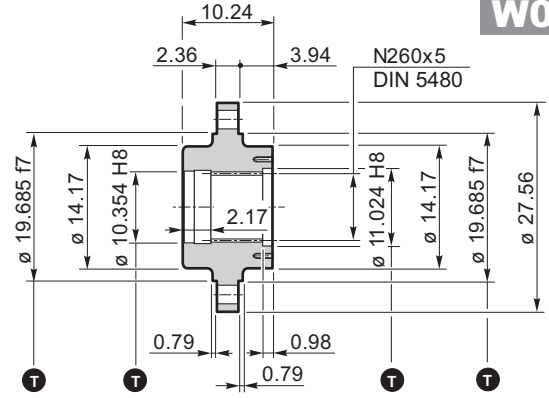


319

Flange

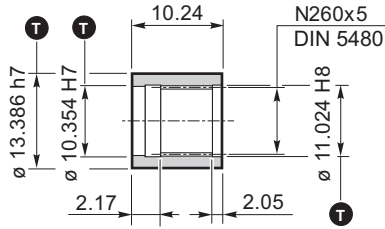
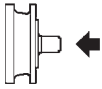


Material : Steel AISI 1040



WOA

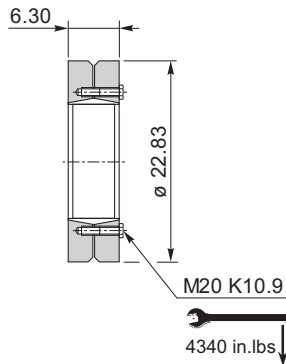
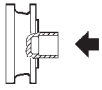
Sleeve coupling



Material : Steel SAE 8620

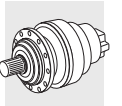
MOA

Shrink disc

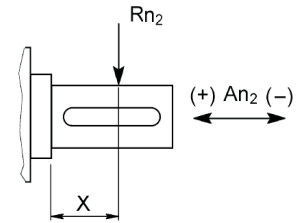
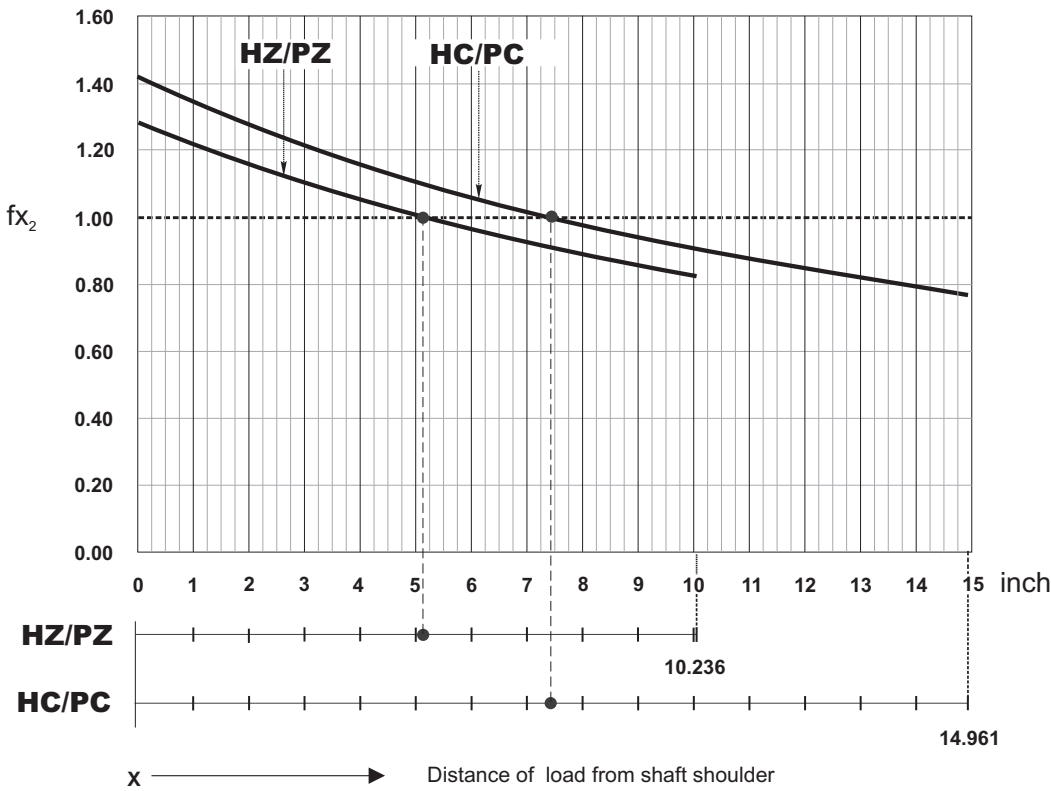


GOA

(mm)	inch	T
(253)	10.354 H7	+0.00205 0
(253)	10.354 H8	+0.00331 0
(280)	11.024 H8	+0.00331 0
(340)	13.386 h7	0 -0.00224
(500)	19.685 f7	-0.00286 -0.00516

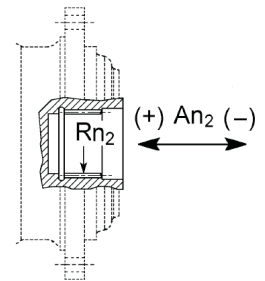


Load application factor for calculation of admissible overhung load on output shaft



$$R_{x_2} = R_{n_2} \cdot f_{x_2}$$

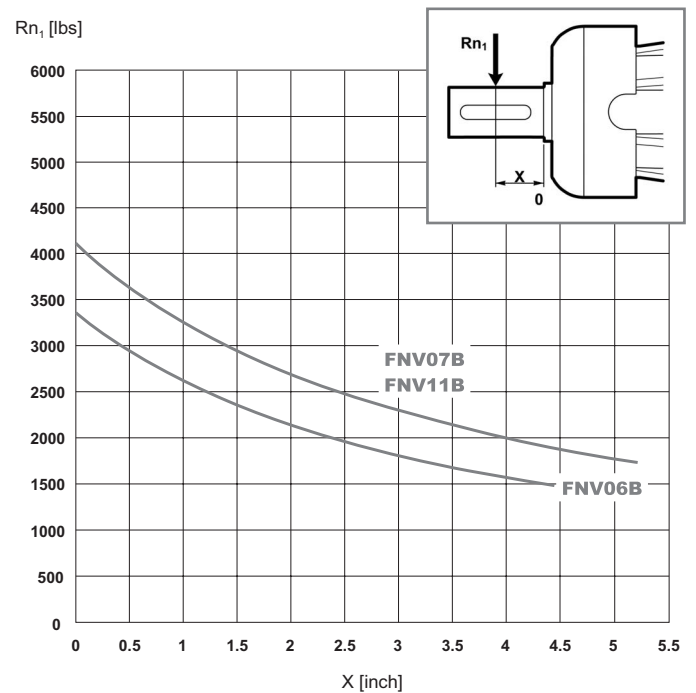
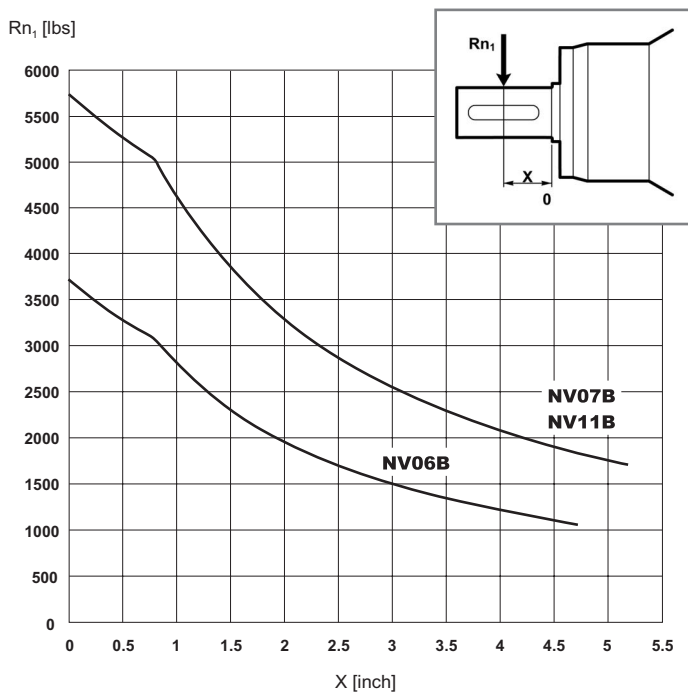
$An_2 (\pm) = R_{n_2} \cdot fa_2 (\pm)$		
	$fa_2 (+)$	$fa_2 (-)$
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

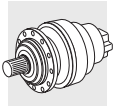


$An_2 (\pm) = R_{n_2} \cdot fa_2 (\pm)$		
	$fa_2 (+)$	$fa_2 (-)$
FZ	1.04	1.04

Permitted overhung load on input shaft

(based on input speed  $n_1 = 1000$  rpm and theoretical lifetime  $L_h = 5000$  hours).  
For different operating conditions refer to Par. 12 ( $c_2$ ).





**321**

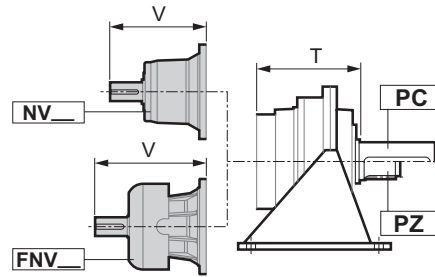
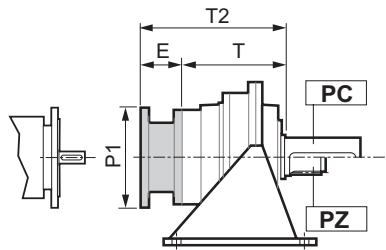
**PC**

**PZ**

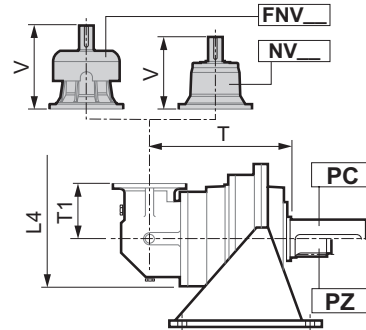
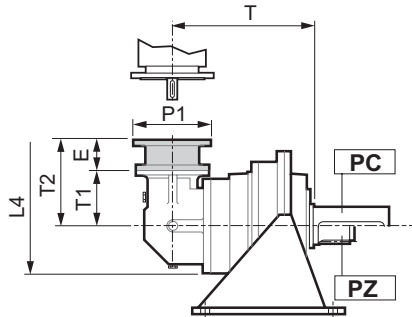
**NEMA input**

**Solid input shaft**

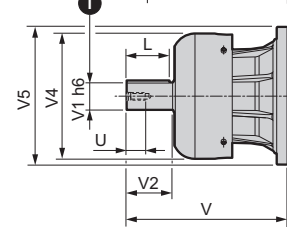
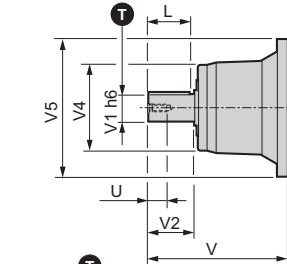
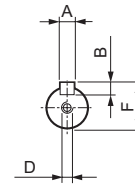
**321 L**



**321 R**

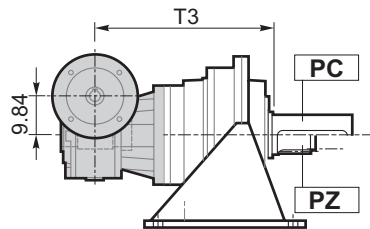


	321 R4 (B) 321 R4 (C)		321 L4		321 L3	
	Solid input shaft					
	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	12.70	14.67	12.28	14.65	13.58	17.83
V1	2.375	2.375	3.000	3.000	3.000	3.000
V2	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	12.20	7.87	13.70	7.87	13.70
V5	11.50	11.50	13.58	13.58	16.46	16.46
A	0.625	0.625	0.750	0.750	0.750	0.750
B	0.625	0.625	0.750	0.750	0.750	0.750
F	2.646	2.646	3.327	3.327	3.327	3.327
L	4.25	4.25	4.37	4.37	4.37	4.37
D	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.65	1.65	1.65	1.65	1.65	1.65
Lbs	50.7	58	77.2	90	121.3	140

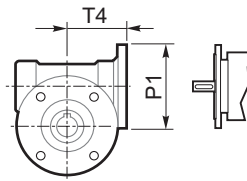


(mm)	inch	T
—	2.375 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
—	3.000 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$

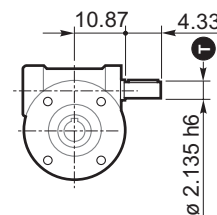
**3/V 21 L4**



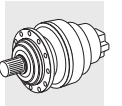
**IEC input**  
(contact Bonfiglioli for availability)



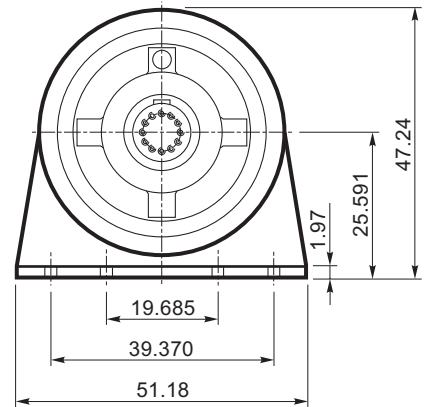
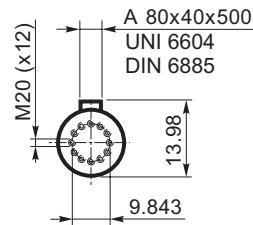
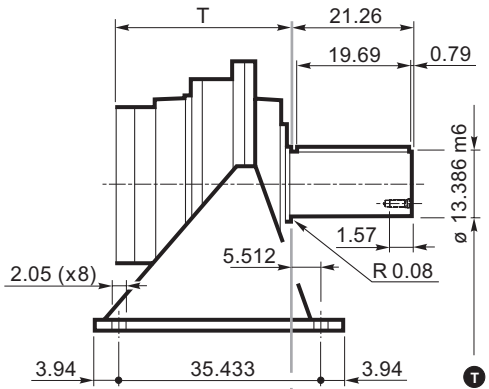
**Solid input shaft**



298



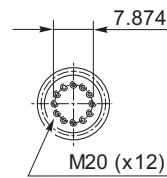
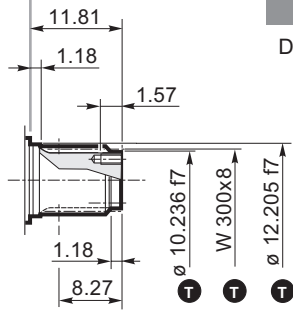
PC



PZ

DIN 5480

(mm)	inch	T
—	2.135 h6	0 -0.00075
(260)	10.236 f7	-0.00220 -0.00425
(310)	12.205 f7	-0.00220 -0.00425
(340)	13.386 m6	-0.00224 -0.00083
W 300x8		DIN 5480

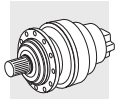


	321 L3	321 L4	321 R4 (B)	321 R4 (C)
T	43.46	49.33	52.52	52.52
T1	—	—	13.58	15.35
L4	—	—	15.75	18.90
Lbs	6880	7012	7166	7188

3/V 21 L4	
T3	
54.09	
Lbs	7563

NEMA Input				
	P1	E	T2	
N250TC	11.81	5.41	—	—
N280TC	13.78	6.42	—	—
N320TC	13.78	7.97	—	21.56 23.33
N320TC	15.75	8.64	—	57.97 —
N360TC	13.78	7.97	—	21.56 23.33
N360TC	15.75	8.64	—	57.97 —

P1	T4
—	—
—	—
—	—
—	—
—	—
—	—



321

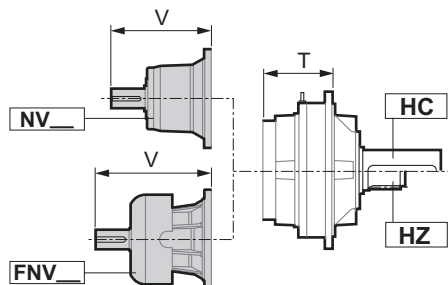
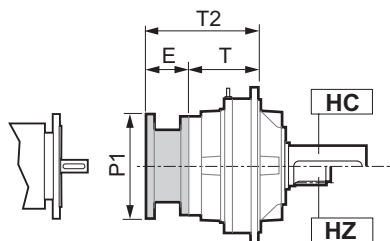
HC

HZ

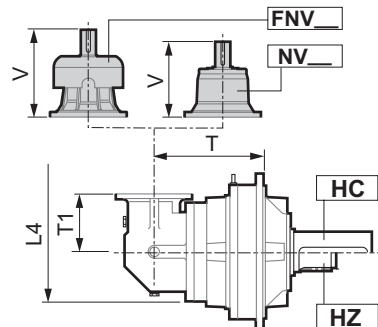
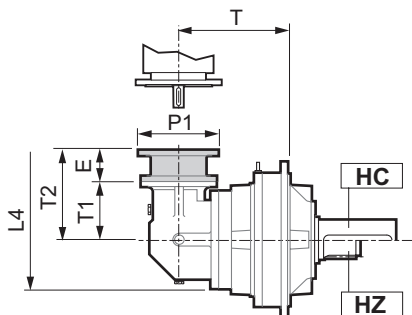
NEMA input

Solid input shaft

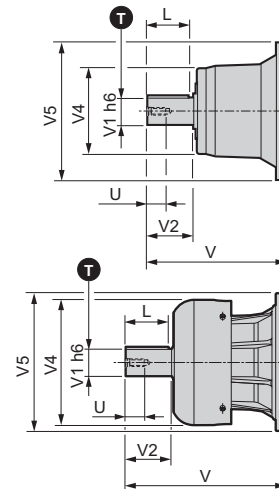
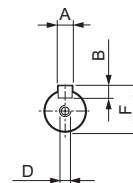
321 L



321 R

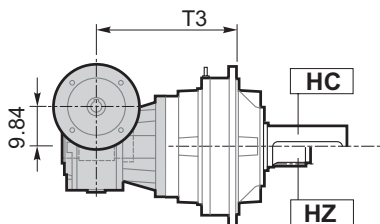


	321 R4 (B) 321 R4 (C)		321 L4		321 L3	
	Solid input shaft					
	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	12.70	14.67	12.28	14.65	13.58	17.83
V1	2.375	2.375	3.000	3.000	3.000	3.000
V2	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	12.20	7.87	13.70	7.87	13.70
V5	11.50	11.50	13.58	13.58	16.46	16.46
A	0.625	0.625	0.750	0.750	0.750	0.750
B	0.625	0.625	0.750	0.750	0.750	0.750
F	2.646	2.646	3.327	3.327	3.327	3.327
L	4.25	4.25	4.37	4.37	4.37	4.37
D	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.65	1.65	1.65	1.65	1.65	1.65
LBS	50.7	58	77.2	90	121.3	140

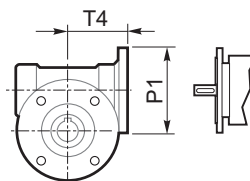


(mm)	inch	T
—	2.375 h6	0 -0.00075
—	3.000 h6	0 -0.00075

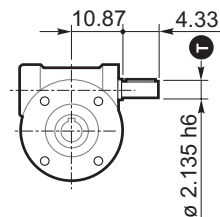
3/V 21 L4



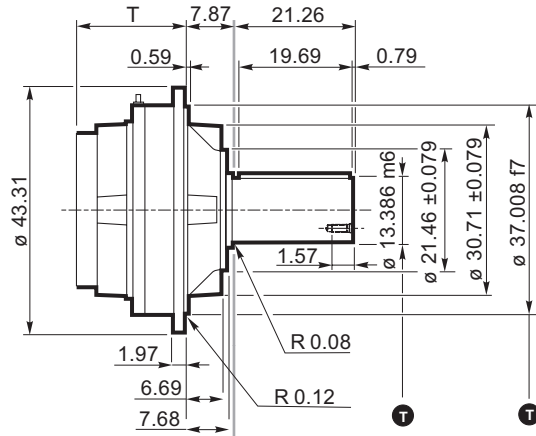
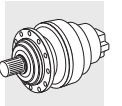
IEC input  
(contact Bonfiglioli for availability)



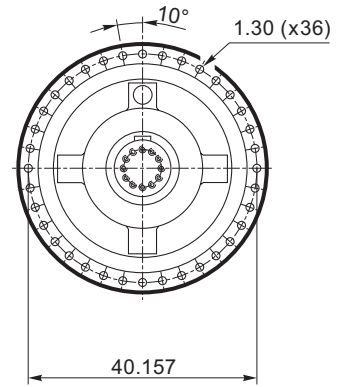
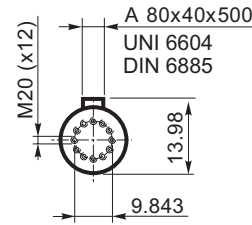
Solid input shaft



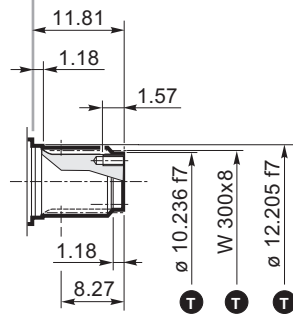
298



HC

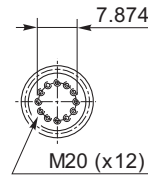


(mm)	inch	T
—	2.135 h6	0 -0.00075
(260)	10.236 f7	-0.00220 -0.00425
(310)	12.205 f7	-0.00220 -0.00425
(340)	13.386 m6	-0.00224 -0.00083
(940)	37.008 f7	-0.00339 -0.00693
W 300x8		DIN 5480



HZ

DIN 5480

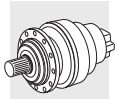


	321 L3	321 L4	321 R4 (B)	321 R4 (C)
T	35.59	41.46	44.65	44.65
T1	—	—	13.58	15.35
L4	—	—	15.75	18.90
Lbs	6218	6350	6505	6527

3/V 21 L4	
T3	
46.22	
Lbs	6902

NEMA Input					
	P1	E	T2		
N250TC	11.81	5.41	—	—	—
N280TC	13.78	6.42	—	—	—
N320TC	13.78	7.97	—	—	21.56 23.33
N320TC	15.75	8.64	—	50.10	—
N360TC	13.78	7.97	—	—	21.56 23.33
N360TC	15.75	8.64	—	50.10	—

P1	T4
—	—
—	—
—	—
—	—
—	—



**321**

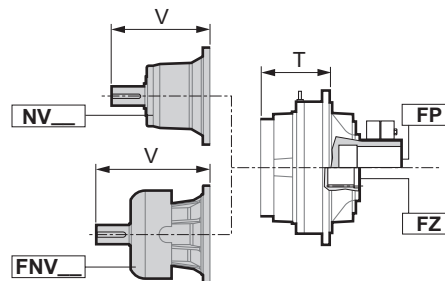
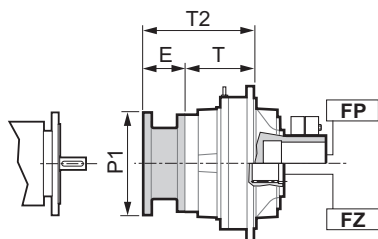
**FP**

**FZ**

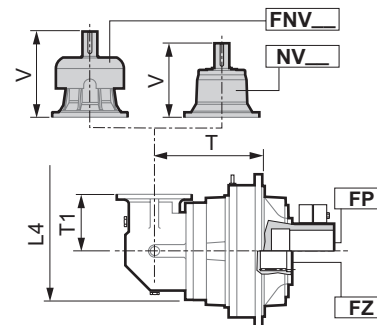
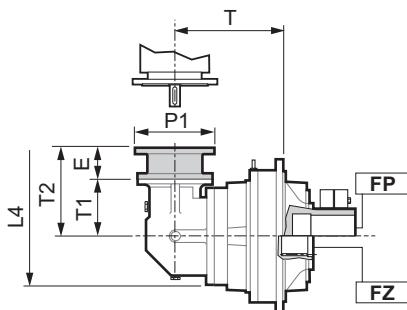
**NEMA input**

**Solid input shaft**

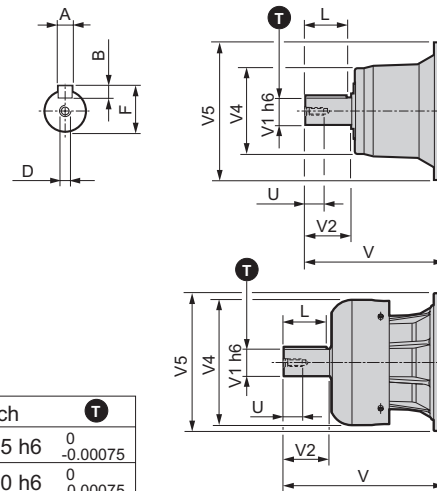
**321 L**



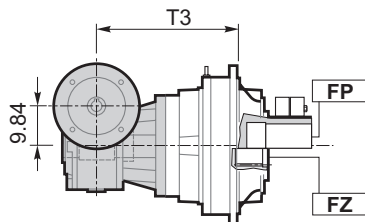
**321 R**



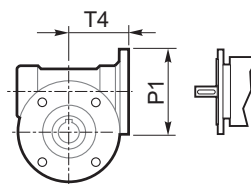
	321 R4 (B) 321 R4 (C)		321 L4		321 L3	
	Solid input shaft					
	NV06B	FNV06B	NV07B	FNV07B	NV11B	FNV11B
V	12.70	14.67	12.28	14.65	13.58	17.83
V1	2.375	2.375	3.000	3.000	3.000	3.000
V2	4.75	4.75	5.00	5.00	5.00	5.00
V4	6.10	12.20	7.87	13.70	7.87	13.70
V5	11.50	11.50	13.58	13.58	16.46	16.46
A	0.625	0.625	0.750	0.750	0.750	0.750
B	0.625	0.625	0.750	0.750	0.750	0.750
F	2.646	2.646	3.327	3.327	3.327	3.327
L	4.25	4.25	4.37	4.37	4.37	4.37
D	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC	3/4 10UNC
U	1.65	1.65	1.65	1.65	1.65	1.65
LBS	50.7	58	77.2	90	121.3	140



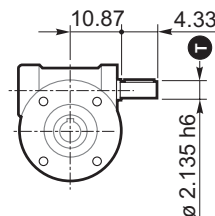
**3/V 21 L4**



**IEC input**  
(contact Bonfiglioli for availability)

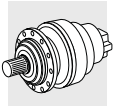


**Solid input shaft**

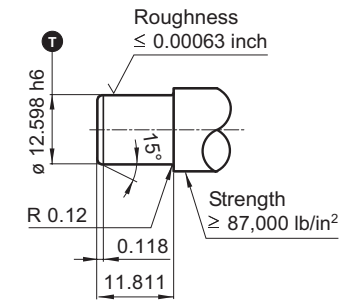
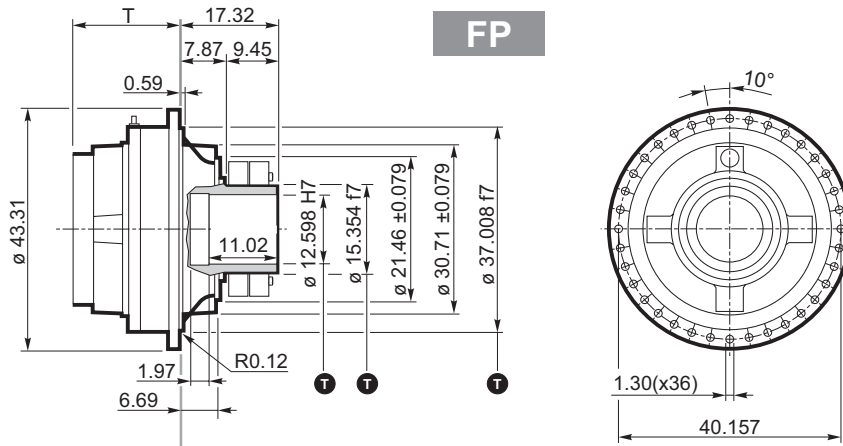


298

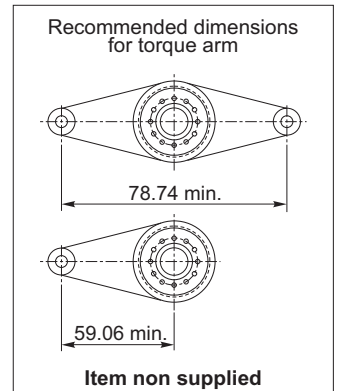
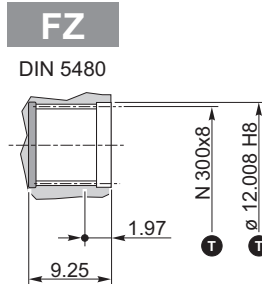
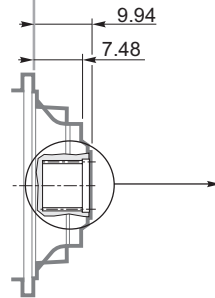




**FP**  $T_{2max} = 3,717,000$  in.lbs



(mm)	inch	T
—	2.135 h6	$\begin{matrix} 0 \\ -0.00075 \end{matrix}$
(320)	12.598 h6	$\begin{matrix} +0.00000 \\ 0 \end{matrix}$
(305)	12.008 H8	$\begin{matrix} +0.00331 \\ 0 \end{matrix}$
(320)	12.598 H7	$\begin{matrix} +0.00224 \\ 0 \end{matrix}$
(390)	15.354 f7	$\begin{matrix} -0.00244 \\ -0.00469 \end{matrix}$
(940)	37.008 f7	$\begin{matrix} -0.00339 \\ -0.00693 \end{matrix}$
N 300x8		DIN 5480

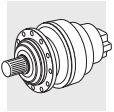


	321 L3	321 L4	321 R4 (B)	321 R4 (C)
<b>T</b>	35.59	41.46	44.65	44.65
<b>T1</b>	—	—	13.58	15.35
<b>L4</b>	—	—	15.75	18.90
<b>Lbs</b>	5998	6130	6284	6306

	3/V 21 L4
<b>T3</b>	46.22
<b>Lbs</b>	6681

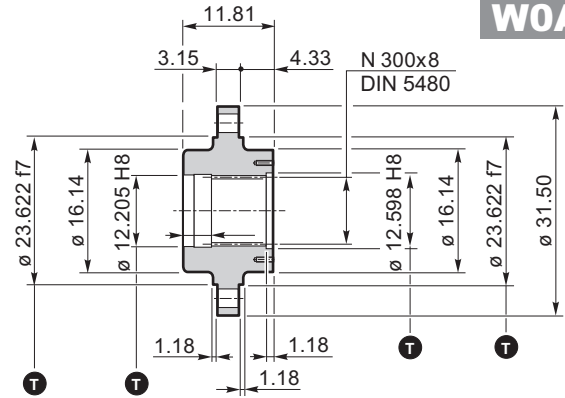
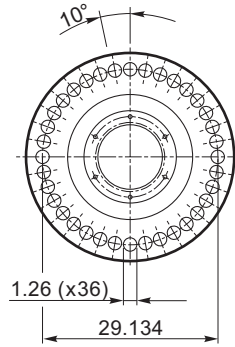
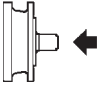
NEMA Input		T2			
	P1	E			
<b>N250TC</b>	11.81	5.41	—	—	—
<b>N280TC</b>	13.78	6.42	—	—	—
<b>N320TC</b>	13.78	7.97	—	21.56	23.33
<b>N320TC</b>	15.75	8.64	—	50.10	—
<b>N360TC</b>	13.78	7.97	—	21.56	23.33
<b>N360TC</b>	15.75	8.64	—	50.10	—

	P1	T4
—	—	—
—	—	—
—	—	—
—	—	—
—	—	—



321

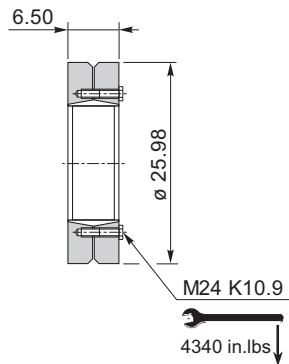
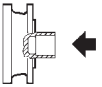
Flange



WOA

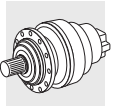
Material : Steel AISI 1040

Shrink disc

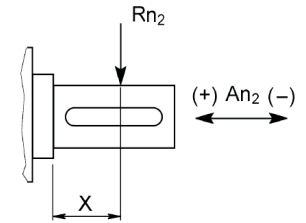
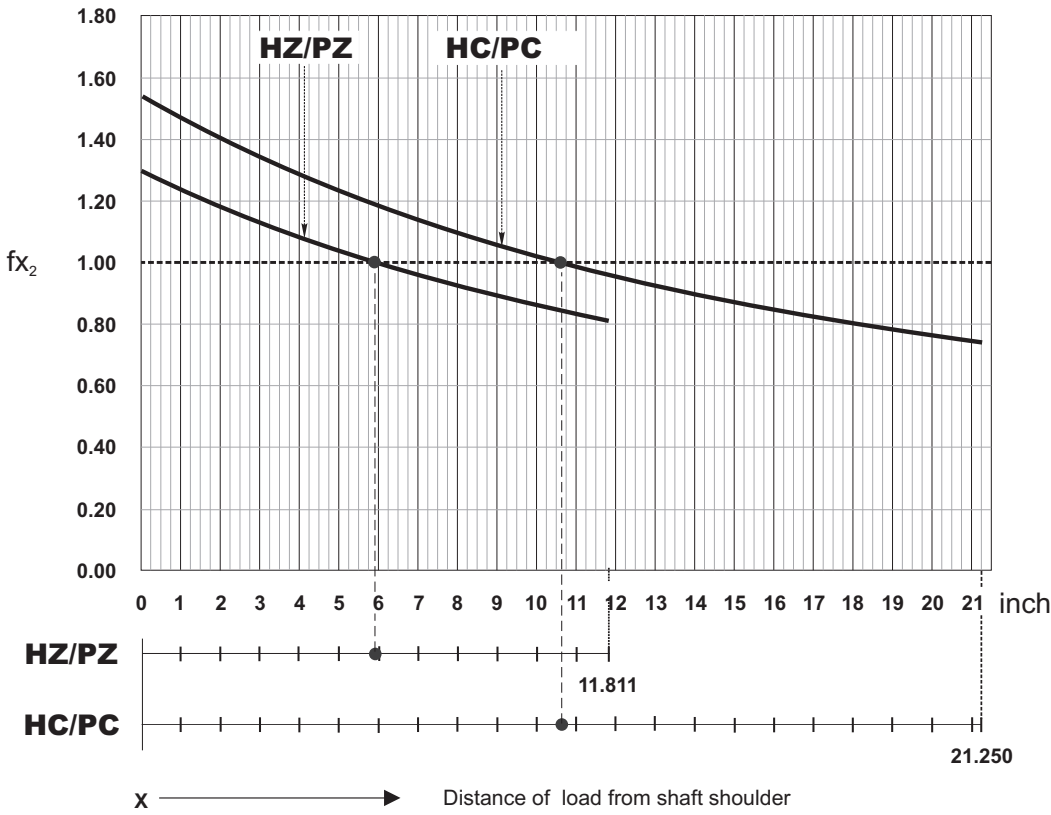


GOA

(mm)	inch	T
(310)	12.205 H8	+0.00000 0
(320)	12.598 H8	+0.00350 0
(600)	23.622 f7	-0.00299 -0.00575

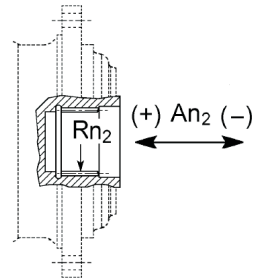


**Load application factor for calculation of admissible overhung load on output shaft**



$$R_{x2} = R_{n2} \cdot f_{x2}$$

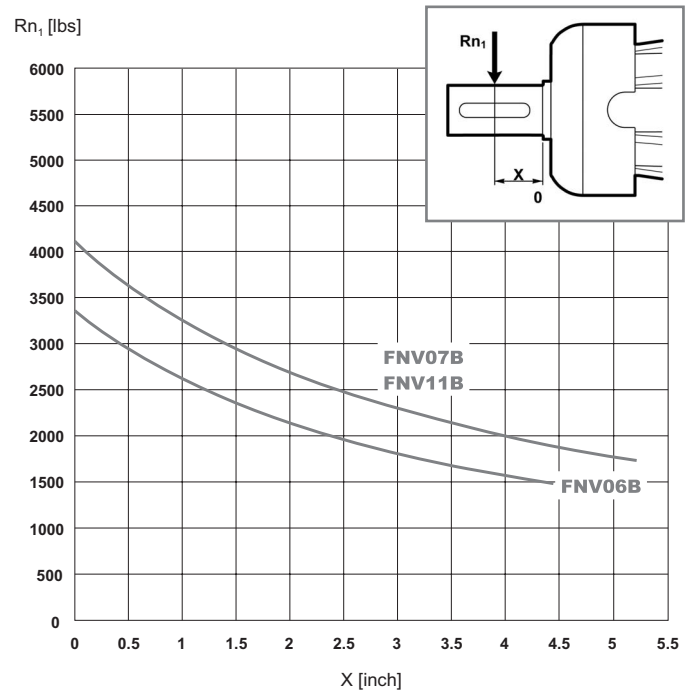
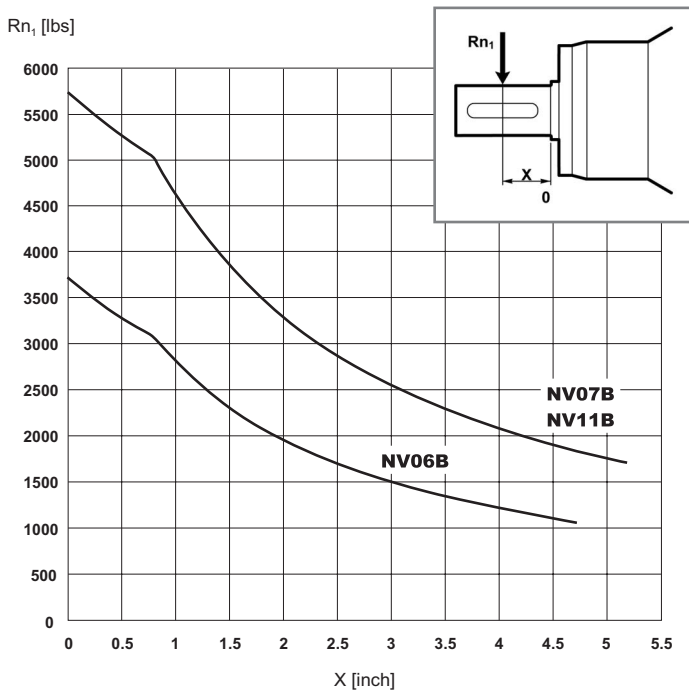
$An_2 (\pm) = R_{n2} \cdot fa_2 (\pm)$		
	<b>fa<sub>2</sub> (+)</b>	<b>fa<sub>2</sub> (-)</b>
HZ/PZ	0.74	0.59
NHC/NPC	0.86	0.69

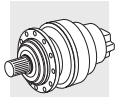


$An_2 (\pm) = R_{n2} \cdot fa_2 (\pm)$		
	<b>fa<sub>2</sub> (+)</b>	<b>fa<sub>2</sub> (-)</b>
FZ	1.04	1.04

**Permitted overhung load on input shaft**

(based on input speed n<sub>1</sub> = 1000 rpm and theoretical lifetime L<sub>h</sub> = 5000 hours).  
For different operating conditions refer to Par. 12 (c<sub>2</sub>).

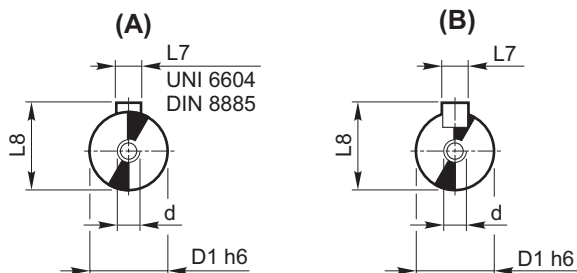
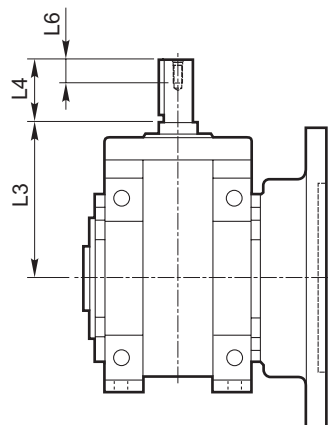




3/V

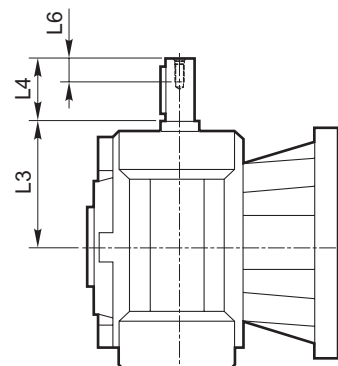
3/A

3/V



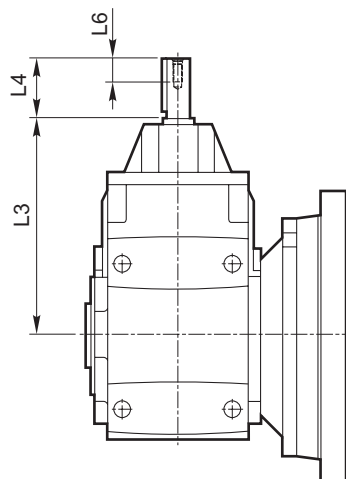
	D1 h6	L3	L4	L7	L8	dxL6 (mm)
<b>3/V 03 L3</b>	0.750	4.35	1.56	0.188 (B)	0.832	M6x16
<b>3/V 04 L3</b>	0.750	5.04	1.56	0.188 (B)	0.832	M6x16
<b>3/V 05 L3</b>	0.750	5.04	1.56	0.188 (B)	0.832	M6x16
<b>3/V 06 L3</b>	1.000	5.67	2.00	0.250 (B)	1.109	M8x19
<b>3/V 07 L3</b>	1.000	6.61	2.37	0.250 (B)	1.109	M8x19
<b>3/V 10 L4</b>	1.000	5.67	2.00	0.250 (B)	1.109	M8x19
<b>3/V 11 L4</b>	1.000	6.61	2.37	0.250 (B)	1.109	M8x19
<b>3/V 13 L4</b>	1.000	6.61	2.37	0.250 (B)	1.109	M8x19

3/V

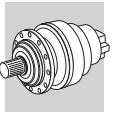


	D1 h6	L3	L4	L7	L8	dxL6 (mm)
<b>3/V 00 L3</b>	0.625	2.57	1.56	0.188 (B)	0.705	—
<b>3/V 01 L3</b>	0.625	2.57	1.56	0.188 (B)	0.705	—
<b>3/V 09 L3</b>	1.378	7.28	2.56	0.394 (A)	1.496	M8x20
<b>3/V 10 L3</b>	1.378	7.28	2.56	0.394 (A)	1.496	M8x20
<b>3/V 11 L3</b>	1.575	8.44	2.76	0.472 (A)	1.693	M8x20
<b>3/V 13 L3</b>	1.575	8.44	2.76	0.472 (A)	1.693	M8x20
<b>3/V 14 L3</b>	1.575	8.44	2.76	0.472 (A)	1.693	M8x20
<b>3/V 15 L3</b>	1.890	9.06	4.33	0.551 (A)	2.028	M16x40
<b>3/V 15 L4</b>	1.378	7.28	2.56	0.394 (A)	1.496	M8x20
<b>3/V 16 L3</b>	2.165	10.79	4.33	0.630 (A)	2.323	M16x40
<b>3/V 16 L4</b>	1.378	7.28	2.56	0.394 (A)	1.496	M8x20
<b>3/V 17 L3</b>	2.165	10.87	4.33	0.630 (A)	2.323	M16x40
<b>3/V 17 L4</b>	1.575	8.44	2.76	0.472 (A)	1.693	M8x20
<b>3/V 18 L4</b>	1.890	9.06	4.33	0.551 (A)	2.028	M16x40
<b>3/V 19 L4</b>	1.890	9.06	4.33	0.551 (A)	2.028	M16x40

3/A

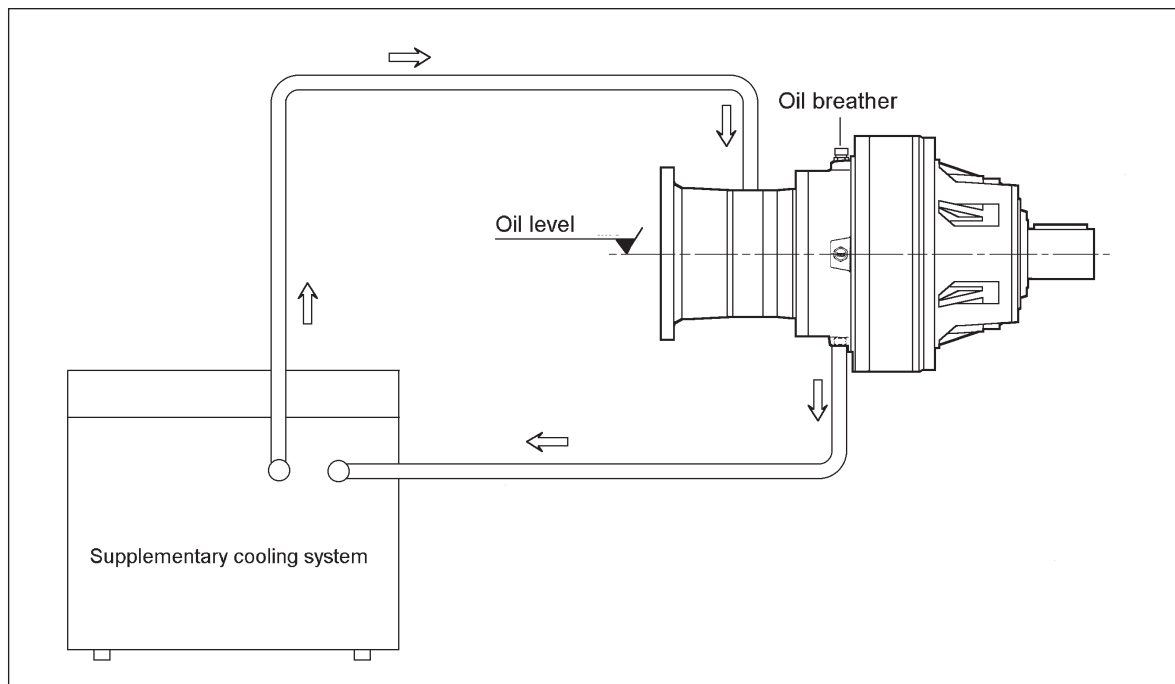


	D1 h6	L3	L4	L7	L8	dxL6 (mm)
<b>3/A 00 L2</b>	0.625	7.07	1.57	0.188 (B)	0.710	M6x16
<b>3/A 01 L2</b>	0.750	9.30	1.57	0.188 (B)	0.830	M6x16
<b>3/A 03 L2</b>	0.750	9.97	1.57	0.188 (B)	0.830	M6x16
<b>3/A 04 L2</b>	1.000	11.89	1.97	0.250 (B)	1.110	M8x19
<b>3/A 05 L2</b>	1.000	11.89	1.97	0.250 (B)	1.110	M8x19
<b>3/A 06 L2</b>	1.000	13.92	1.97	0.250 (B)	1.110	M8x19
<b>3/A 07 L2</b>	1.125	16.07	2.36	0.250 (B)	1.230	M10x22



## 25.0 - SUPPLEMENTARY COOLING SYSTEMS

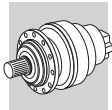
Should the transmitted mechanical power be greater than the thermal capacity the unit is rated for, a supplementary cooling systems can be specified.



Independent cooling systems are made up of an air-oil heat exchanger, a motor pump, a filter and an electric system that incorporates a thermostatic sensor that protects the electric motor. Cooling units are particularly quiet in operation.

### Technical data

	CR1	CR2	CR3
Absorbed power [HP]	0.75	1.0	1.5
Oil flow rate [l/min]	13	22	34
Air flow rate [m <sup>3</sup> /h]	850	1500	2000
Noise level at 1m [dB(A)]	68	70	75
Weight [lbs]	24	36	58



## Selection criteria

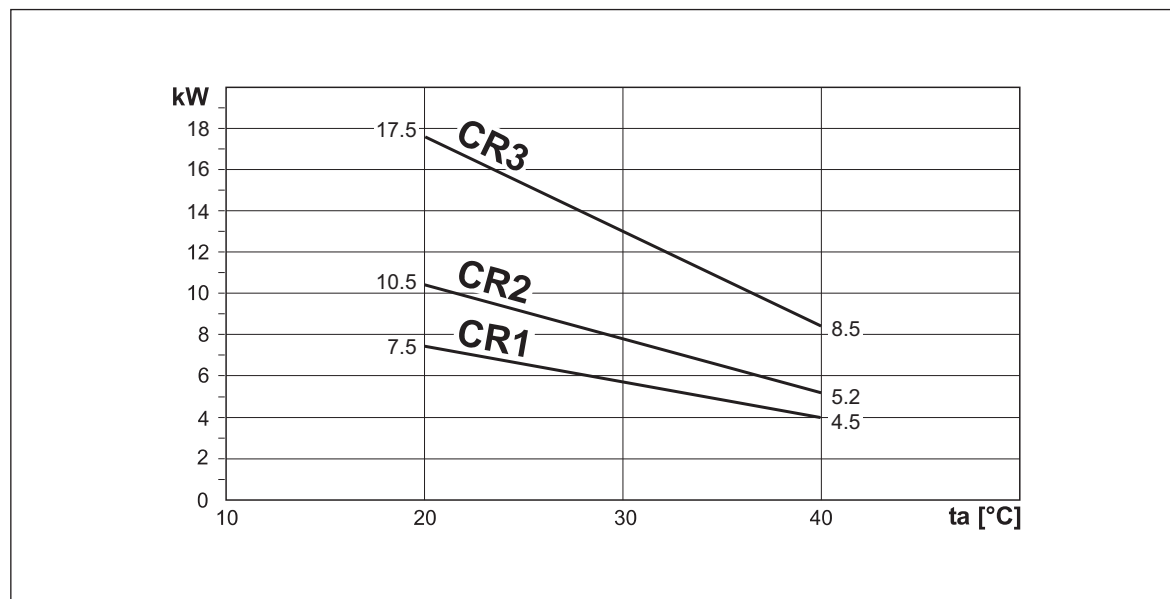
If the mechanical power « P » is greater than the thermal rating « Pt », the heating to be dissipated [Ps] can be calculated through the following equation:

$$P_s = 0.1 \times (P_{r1} - P_t) \quad (19)$$

Select cooling system size in chart (B01) according to ambient temperature « ta » (in the range 70°F/20°C through 100°F/40°C).

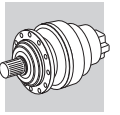
Check that the cooling system you have selected will fit the gearbox (see table B02).

(B01)

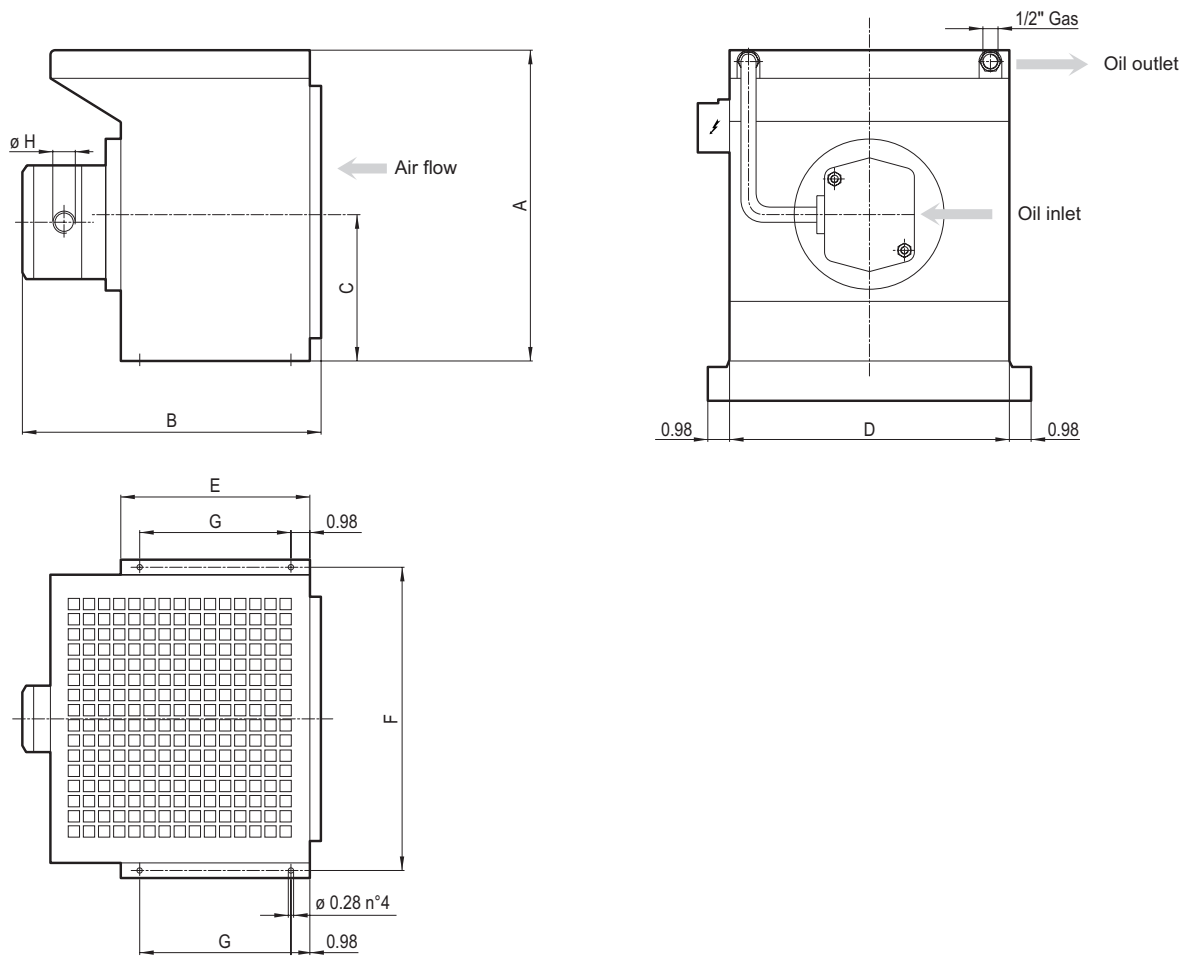


(B02)

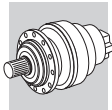
Gearbox	L1	L2	L3	L4	R2	R3	R4
306	CR1	CR1	—	—	—	—	—
307	CR1	CR1	—	—	CR1	—	—
309	CR1	CR1	CR1	—	CR1	—	—
310	CR2	CR1	CR1	—	—	CR1	—
311	CR2	CR1	CR1	—	CR1	CR1	—
313	CR2	CR1	CR1	—	CR1	CR1	—
314	CR2	CR1	CR1	—	CR1	CR1	—
315	CR3	CR2	CR1	—	CR1	CR1	—
316	CR3	CR2	CR1	—	CR1	CR1	—
317	CR3	CR2	CR2	CR1	—	—	—
318	CR3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



## Dimensions



	A	B	C	D	E	F	G	H
<b>CR1</b>	16.14	15.55	7.60	14.57	9.84	15.75	7.87	1/2" Gas
<b>CR2</b>	17.72	15.94	7.99	18.50	9.84	19.69	7.87	3/4" Gas
<b>CR3</b>	19.49	17.91	8.86	20.47	11.42	21.65	9.45	3/4" Gas



## R4

Ratio  $i = 2086$  replaced with  $i = 2003$  for gear units 309L4

Dimensions of recommended machine shaft for FP outputs newly added.

090506

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