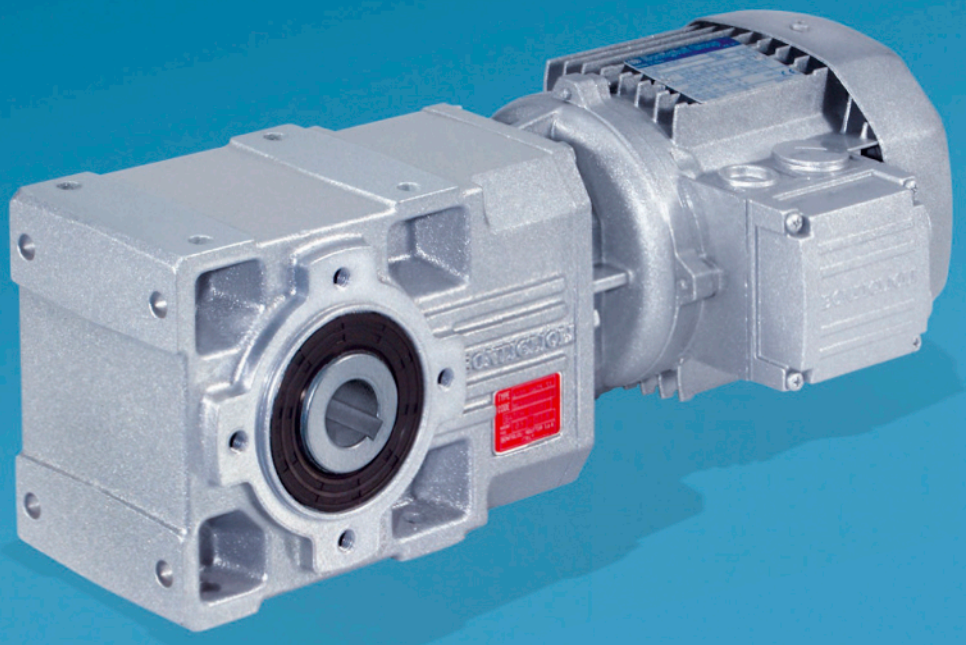
Bonfiglioli
Riduttori

A series

Helical bevel gear units



Bonfiglioli
power, control and green solutions

INDEX

1.0 GENERAL INFORMATION

2.0 BEVEL-HELICAL GEARMOTORS

3.0 ELECTRIC MOTORS

Revisions

Refer to page 198 for the catalogue revision index.

Visit www.bonfiglioli.com to search for catalogues with latest revision index.

1.0 GENERAL INFORMATION

1.1 SYMBOLS AND UNITS

Symb.	U.m.	Description
A_c	[lbs]	Calculated thrust load
A_n	[lbs]	Rated thrust load
f_m	–	Adjusting duty factor
f_t	–	Thermal correction factor
i	–	Gear ratio
I	–	Intermittence
J_c	[lb·ft^2]	Load moment of inertia
J_m	[lb·ft^2]	Mass moment of inertia for motor
J_r	[lb·ft^2]	Mass moment of inertia for gearbox
K	–	Acceleration factor of masses
K_r	–	Transmission element factor
T_b	[lb·in]	Brake torque
T	[lb·in]	Torque
T_c	[lb·in]	Calculated torque
T_n	[lb·in]	Speed reducer rated torque
T_r	[lb·in]	Torque required
n	[rpm]	Speed
P	[hp]	Power
P_c	[hp]	Calculated power
P_n	[hp]	Motor rated power
P_n	[hp]	Rated horsepower

Symb.	U.m.	Description
P_t	[hp]	Thermal capacity
P_r	[hp]	Power required
R_c	[lbs]	Calculated radial load
R_n	[lbs]	Rated OHL
R_x	[lbs]	Radial OHL for load shifted from shaft midpoint
S	–	Safety factor
S.F.	–	Service factor
t_a	[°C/ °F]	Ambient temperature
t_f	[min]	Operating time under constant load
t_r	[min]	Rest time
W	[ft·lb]	Brake dissipated energy between two successive air-gap adjustments
W_{max}	[ft·lb]	Maximum energy for each braking operation
x	[in]	Load application distance from shaft shoulder
Z	[1/h]	Number of permitted starts in loaded conditions
Z_r	[1/h]	Number of starts
η_d		Dynamic efficiency

Footnotes:

$\square_1$ *Applies to input shaft*

$\square_2$ *Applies to output shaft*

NOMENCLATURE

1.2 TORQUE

Nominal output torque T_{n2}

Torque transmitted at output shaft under uniform load, referred to input speed n_1 and corresponding output speed n_2.
It is calculated according to service factor S.F. = 1.

Application torque T_{r2}

This is torque corresponding to application requirements. It must be equal to or less than rated output torque T_{n2} for the gearmotor selected.

Calculated torque T_{c2}

Torque value to be used for selecting the gearbox, considering required torque T_{r2} and service factor S.F., and is obtained by:

$$T_{c2} = T_{r2} \times S.F. \leq T_{n2}$$

1.3 POWER

Rated input horsepower P_{n1}

In the speed reducer selection charts, this is power applicable at input shaft referred to speed n_1 and considering a service factor S.F. = 1.

Output horsepower P_{n2}

Value represents rated HP as referred to speed reducer output shaft.

$$P_{n2} = P_{n1} \times \eta_d$$

$$P_{n2} = \frac{T_{n2} \times n_2}{63025}$$

P_{n2} in [hp]; M_{n2} in [ib·in]

1.4 THERMAL CAPACITY P_t

The value indicates the speed reducer thermal limit and corresponds to the power transmission capacity under continuous duty at an ambient temperature of 20°C [70°F] without using a supplementary cooling system.
For short operating periods with sufficiently long pauses to allow the unit to cool, thermal power is not a factor important and it does not need to be taken into consideration.
For ambient temperature different from 20°C [70°F] and intermittent duty, P_t value can be adjusted according to thermal factor f_t listed in table (A1), provided the following condition is satisfied.

$$P_{r1} \leq P_t \times f_t$$

Gear units A 10 through A 30 are not thermally limited and the thermal verification does not apply.

(A0)

	**Pt** [hp] [20 °C / 70 °F]	
	n_1 = 1750 rpm	n_1 = 3500 rpm
A 05 2	4.3	3.2
A 10 2	6.4	5.4
A 20 2	8.0	7.2
A 30 2	10.7	8.9
A 35 2	12.7	11.0
A 41 2	15.4	12.9
A 50 2	26.8	24.1
A 55 2	28.2	24.1
A 60 2	36	31
A 70 3	42	35
A 80 3	59	52
A 90 3	86	76

(A1)

f_t					
ta max. °C [°F]	Continuous duty	Intermittent duty			
		Intermittence % (I)			
		80	60	40	20
40 [105]	0.8	1.1	1.3	1.5	1.6
30 [85]	0.85	1.3	1.5	1.6	1.8
20 [70]	1.0	1.5	1.6	1.8	2.0
50 [10]	1.15	1.6	1.8	2.0	2.3

Intermittence (I)% is obtained dividing operating time under load [t_f] by total time, expressed as a percentage:

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

1.5 EFFICIENCY η

Obtained from the relationship of output power P_2 to input power P_1, according to the following equation:

$$\eta = \frac{P_2}{P_1}$$

Torque value M_{n2} specified in this catalogue takes the dynamic efficiency η_d into account.

1.6 MASS MOMENT OF INERTIA J_r

Values for the moment of inertia specified in the catalogue refer to gear unit input shaft.
They are therefore related to motor speed, in the case of direct motor mounting.

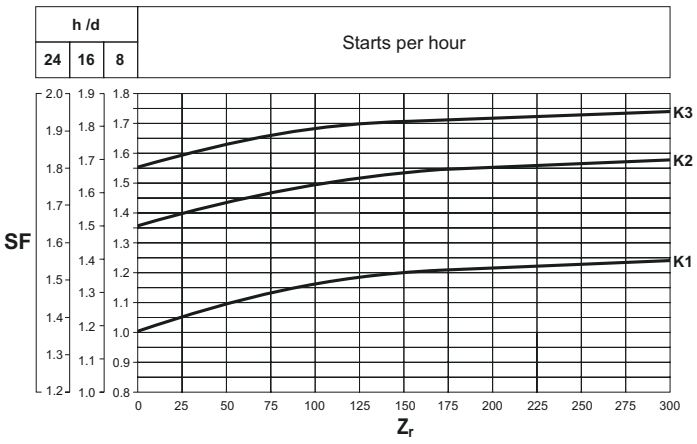
1.7 SERVICE FACTOR S.F.

The service factor is the numerical parameter that describes the severity of the application. Its value results from the combination of the actual duty the gearbox is operated at, the number of starts per hour and the daily operating hours.
The graph (A2) here after comes handy when calculating the actual value for the service factor:

1. Enter the chart with the starts per hour [$\mathbf{Z_r}$]
2. Intersect the **K_** curve that applies for the application
3. Read the service factor **S.F**. from the column marked with the applicable hours per day [**h/d**]

Intermediate values can be obtained by interpolation.

(A2)



Acceleration factor of masses K

Used for establishing the service factor and obtained from the following equation:

$$K = \frac{J_c}{J_m}$$

Where:

Jc [lb·ft^2]
moment of inertia of the driven masses in proportion to the speed of the applied motor

Jm [lb·ft^2]
motor moment of inertia

K1 uniform load
$K \leq 0.25$

K2 moderate shock load
$K \leq 3$

K3 heavy shock load
$K \leq 10$

For values of K > 10, please contact our Technical Service.

1.8 SELECTION

AGMA Service Factor charting 24hr service (continuous duty)

(A3)

Application	S.F.
AGITATORS	
Pure Liquids	1.25
Liquids & Solids	1.50
Liquids - variable density	1.50
BLOWERS	
Centrifugal	1.25
Lobe	1.50
Vane	1.50
BREWING AND DISTILLING	
Bottling Machinery	1.25
Brew Kettles - Continuous Duty	1.25
Cookers - Continuous Duty	1.25
Mash Tubs - Continuous Duty	1.25
Scale Hopper - Frequent Starts	1.50
CAN FILLING MACHINES	1.25
CAR DUMPERS	2.00
CAR PULLERS	1.50
CLARIFIERS	1.25
CLASSIFIERS	1.50
CLAY WORKING MACHINERY	
Brick Press	2.00
Briquette Machine	2.00
Pug Mill	1.50
COMPACTORS	2.00
COMPRESSORS	
Centrifugal	1.25
Lobe	1.50
Reciprocating, Multi-Cylinder	1.75
Reciprocating, Single-Cylinder	2.00
CONVEYORS - GENERAL PURPOSE	
includes Apron, Assembly, Belt, Bucket, Chain, Flight, Oven and Screw	
Uniformly Loaded or Fed	1.25
Heavy Duty - Not Uniformly Fed	1.50
Severe Duty - Reciprocating or Shaker	2.00
CRANES	
Dry Dock	
Main Hoist	2.50
Auxiliary Hoist	3.00
Boom Hoist	3.00
Slewing Hoist	3.00
Traction Drive	3.00
Container	
Main Hoist	3.00
Boom Hoist	2.00
Trolley Drive	
Gantry Drive	3.00
Traction Drive	2.00
Mill Duty	
Main Hoist	3.50
Auxiliary	3.50
Bridge Travel	3.00
Trolley Travel	3.00
Industrial Duty	
Main	3.00
Auxiliary	3.00
Bridge Travel	3.00
Trolley Travel	3.00
CRUSHERS	
Stone or Ore	2.00
DREDGES	
Cable Reels	1.50
Conveyors	1.50
Cutter Head Drives	2.00
Pumps	2.00
Screen Drives	2.00
Stackers	1.50
Winches	1.50
ELEVATORS	
Bucket	1.50
Centrifugal Discharge	1.25
Escalators	1.25
Freight	1.50
Gravity Discharge	1.25
EXTRUDERS	
General	1.50
Plastics	
Variable Speed Drive	1.50
Fixed Speed Drive	1.75
Rubber	
Continuous Screw Operation	1.75
Intermittent Screw Operation	1.75
FANS	
Centrifugal	1.25
Cooling Towers	2.00
Forced Draft	1.25
Induced Draft	1.50
Industrial & Mine	1.50
FEEDERS	
Apron	1.50
Belt	1.50
Disc	1.25
Reciprocating	2.00
Screw	1.50

Application	S.F.
FOOD INDUSTRY	
Cereal Cooker	1.25
Dough Mixer	1.50
Meat Grinder	1.50
Slicers	1.50
GENERATORS AND EXITORS	1.25
HAMMER MILLS	2.00
HOISTS	
Heavy Duty	2.00
Medium Duty	1.50
Skip Hoist	1.50
LUMBER INDUSTRY	
Barkers	
Spindle Feed	1.50
Main Drive	1.75
Conveyors	
Burner	1.50
Main or Heavy Duty	1.50
Main Log	2.00
Re-saw, Merry-Go-Round	1.50
Slab	2.00
Transfer	1.50
Chains	
Floor	1.50
Green	1.75
Cut-Off Saws	
Chain	1.75
Drag	1.75
Debarking Drums	2.00
Feeds	
Edger	1.50
Gang	1.75
Trimmer	1.50
Log Deck	1.75
Log Hauls - Incline - Well Type	1.75
Log Turning Devices	1.75
Planer Feed	1.50
Planer Tilting Hoists	1.50
Rolls - Live-off brg. - Roll Cases	1.75
Sorting Table	1.50
Tipple Hoist	1.50
Transfer	
Chain	1.75
Craneway	1.75
Tray Drives	1.50
Veneer Lathe Drives	1.50
METAL MILLS	
Draw Bench Carriage and Main Drive	1.50
Runout Table	
Non-reversing	1.50
Group Drives	1.50
Individual Drives	2.00

Application	S.F.
Reversing	2.00
Slab Pushers	1.50
Shears	2.00
Wire Drawing	1.50
Wire Winding Machine	1.50
METAL STRIP PROCESSING MACHINERY	
Bridles	1.50
Coilers & Uncoilers	1.25
Edge Trimmers	1.50
Flatteners	1.50
Loopers (Accumulators)	1.25
Pinch Rolls	1.50
Scrap Choppers	1.50
Shears	2.00
Slitters	1.50
MILLS, ROTARY TYPE	
Ball & Rod	
Spur Ring Gear	2.00
Helical Ring Gear	1.50
Direct Connected	2.00
Cement Kilns	1.50
Dryers & Coolers	1.50
MIXERS, CEMENT	1.50
PAPER MILLS	
Agitator (Mixer)	1.50
Agitator for Pure Liquors	1.25
Barking Drums	2.00
Barkers - Mechanical	2.00
Beater	1.50
Breaker Stack	1.25
Calendar	1.25
Chipper	2.00
Chip Feeder	1.50
Coating Rolls	1.25
Conveyors	
Chip, Bark, Chemical	1.25
Log (including Slab)	2.00
Couch Rolls	1.25
Cutter	2.00
Cylinder Molds	1.25
Dryers	
Paper Machine	1.25
Conveyor Type	1.25
Embosser	1.25
Extruder	1.50
Fourdrinier Rolls (includes Lump breaker, dandy roll, wire turning, and return rolls)	1.25
Jordan	1.50
Kiln Drive	1.50
Mt. Hope Roll	1.25
Paper Rolls	1.25
Platter	1.50

Application	S.F.
Presses - Felt & Suction	1.25
Pulper	2.00
Pumps - Vacuum	1.50
Reel (Surface Type)	1.25
Screens	
Chip	1.50
Rotary	1.50
Vibrating	2.00
Size Press	1.25
Super Calender	1.25
Thickener (AC Motor)	1.50
Thickener (DC Motor)	1.25
Washer (AC Motor)	1.50
Washer (DC Motor)	1.25
Wind and Unwind Stand	1.25
Winders (Surface Type)	1.25
Yankee Dryers	1.25
PLASTICS INDUSTRY - PRIMARY PROCESSING	
Intensive Internal Mixers	
Batch Mixers	1.75
Continuous Mixers	1.50
Batch Drop Mill - 2 smooth rolls	1.25
Continuous Feed, Holding & Blend Mill	1.25
Calender	1.50
PLASTICS INDUSTRY - SECONDARY PROCESSING	
Blow Molder	1.50
Coating	1.25
Film	1.25
Pipe	1.25
Pre-Plasticizer	1.50
Rods	1.25
Sheet	1.25
Tubing	1.50
PULLER - BARGE HAUL	1.50
PUMPS	
Centrifugal	1.25
Proportioning	1.50
Reciprocating	
Single Acting, 3 or more cylinders	1.50
Double Acting, 2 or more cylinders	1.50
Rotary	
Gear Type	1.25
Lobe	1.25
Vane	1.25
RUBBER INDUSTRY	
Intensive Internal Mixers	
Batch Mixers	1.75
Continuous Mixers	1.50
Mixing Mill	
2 smooth rolls	1.50
1 or 2 corrugated rolls	
Batch Drop Mill - 2 smooth rolls	1.50

Application	S.F.
Cracker - 2 corrugated rolls	2.00
Holding, Feed & Blend Mill - 2 rolls	1.25
Refiner - 2 rolls	1.50
Calender	1.50
SAND MULLER SEWAGE DISPOSAL EQUIPMENT	1.50
Bar Screens	1.25
Chemical Feeders	1.25
Dewatering Screens	1.50
Scum Breakers	1.50
Slow or Rapid Mixers	1.50
Sludge Collectors	1.25
Thickener	1.50
Vacuum Filters	1.50
SCREENS	
Air Washing	1.25
Rotary - Stone or Gravel	1.50
Traveling Water Intake	1.25
SUGAR INDUSTRY	
Beet Slicer	2.00
Cane Knives	1.50
Crushers	1.50
Mills (low speed end)	1.75
TEXTILE INDUSTRY	
Batchers,	1.50
Calenders	1.50
Cards	1.50
Dry Cans	1.50
Dyeing Machinery	1.50
Looms	1.50
Mangles	1.50
Nappers	1.50
Pads	1.50
Slashers	1.50
Soapers	1.50
Spinners	1.50
Tenter Frames	1.50
Washers	1.50
Winders	1.50

Recommended procedure for correct selection of drive unit:

Selecting a gearmotor

A) Determine service factor S.F. according to type of duty (factor K), number of starts per hour Z_r and hours of operation.

B) Once torque Tr_2, speed n_2 and dynamic efficiency η_d are known, input power can be calculated as follows:

$$P_{r1}(hp) = \frac{T_{r2}(lb \cdot in) \times n_2(rpm)}{63{,}025 \times \eta_d}$$

Values for η_d for the different sizes of speed reducer are indicated in table (A4) below:

(A4)

	Reductions		
	2	**3**	**4**
η_d	0.94	0.91	0.89

C) Consult the gearmotor selection charts and locate the table corresponding to power

$$P_n \geq P_{r1}$$

Unless otherwise specified, power Pn of motors indicated in the catalogue refers to continuous duty S1.
For motors used in conditions other than S1, the type of duty required by reference to CEI 2-3/IEC 60034-1 Standards must be mentioned.
For duties from S2 to S8 in particular, and for IEC motor frame 132 or smaller, extra power can be obtained with respect to continuous duty, consequently the following condition must be satisfied:

$$P_n \geq \frac{P_{r1}}{f_m}$$

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

(A5)

	Duty						
	S2			**S3***			**S4 - S8**
	Cycle duration [min]			Intermittence (I)			Please consult factory
	10	**30**	**60**	**25%**	**40%**	**60%**	
fm	1.35	1.15	1.05	1.25	1.15	1.1	

* Cycle duration, in any event, must be 10 minutes or less. If it is longer, please contact our Technical Service Department.

Intermittence:

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

t_f = operating time at constant load
t_r = rest time

Next, according to output speed n_2, select a gearmotor featuring a safety factor S greater than or equal to service factor S.F.

$$S \geq S.F.$$

The gearmotor selection charts feature combinations with 4-pole motors only.
If motors with different speed shall be used, refer to the selection procedure for speed reducers and choose the most suitable gear unit.
For applications such as hoisting and travelling, contact our Technical Service Department.

Selecting a speed reducer with a motor adapter

A) Determine service factor S.F. based on application. See pages 5 - 7.

B) Assuming the required output torque for the application Tr_2 is known, the calculated torque can be defined as:

$$T_{c2} = T_{r2} \times S.F.$$

C) The gear ratio is calculated according to requested output speed n_2 and the drive input speed n_1

$$i = \frac{n_1}{n_2}$$

Once the torque $\mathbf{T_{c2}}$ and gear ratio [i] are calculated consult the speed reducer rating chart for the actual drive speed $\mathbf{n_1}$ and select the unit that features a torque rating $\mathbf{T_{n2}}$ that equals or exceeds the computational torque $\mathbf{T_{c2}}$:

$T_{n2} \geq T_{c2}$

If an electric motor, with either a NEMA or a IEC flange, is going to be fitted onto the captioned gear unit, check that matching is feasible at chapter “Motor availability”.

D) Thrust loads

Thrust loads, if applicable, must also be compared to the permitted values indicated in the catalogue.
In the event of extremely high thrust loads, or a combination of thrust and radial loads, contact our Technical Service for advise.

E) Electric motors

For duties with considerable number of starts per hour, factor Z must be considered (it can be sorted from the motor rating chart). Factor Z defines the maximum number of starts for the application under consideration.

1.9 VERIFICATIONS

After the selection of the speed reducer, or gearmotor, is complete:

A) Thermal capacity

Make sure that the thermal capacity of the speed reducer is equal to or higher than power required by the application. If this condition is not verified, select a larger speed reducer or apply a supplementary cooling system.

B) Maximum torque

The maximum torque (intended as momentary peak load) applicable to the speed reducer must not, in general, exceed 200% of rated torque T_{n2}. Therefore, check that this limit is not exceeded, using suitable torque limiting devices, if necessary.
For three-phase two speed motors, it is important to pay attention to switching torque generated (from high to low speed), because it could be significantly higher than maximum torque.

C) Radial loads

Check that forces applying on input and/or output shafts are within permitted catalogue values. If they are higher, select a larger speed reducer or change bearing arrangement.
Remember that all values listed in the catalogue refer to loads acting at mid-point of the shaft. The permissible radial load value should be adjusted if the radial load is not acting at mid point of shaft.
See para 2.8.

1.10 INSTALLATION

The following installation instructions must be followed:

A) Make sure that the speed reducer is adequately secured to avoid vibrations. If shocks, prolonged overloading, or the possibility of locking are expected, install hydraulic couplings, clutches, torque limiters, etc.).

B) Prior to painting the gear unit,, the outer face of the oil seals must be protected to prevent the solvent drying out the rubber, thus jeopardizing the sealing function.

C) Contact surfaces must be cleaned and treated with suitable protective products before mounting to avoid oxidation and, as a result, seizure of parts.

D) Before starting up the machine, make sure that oil level is correct for the actual mounting position, and that viscosity is suitable for the specific duty. See table (B1).

1.11 STORAGE

Observe the following instructions to ensure correct storage of 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 long term storage (over 60 days), all machined surfaces such as flanges, shafts and couplings must be protected with a suitable rust inhibiting product (Mobilarma 248 or equivalent).

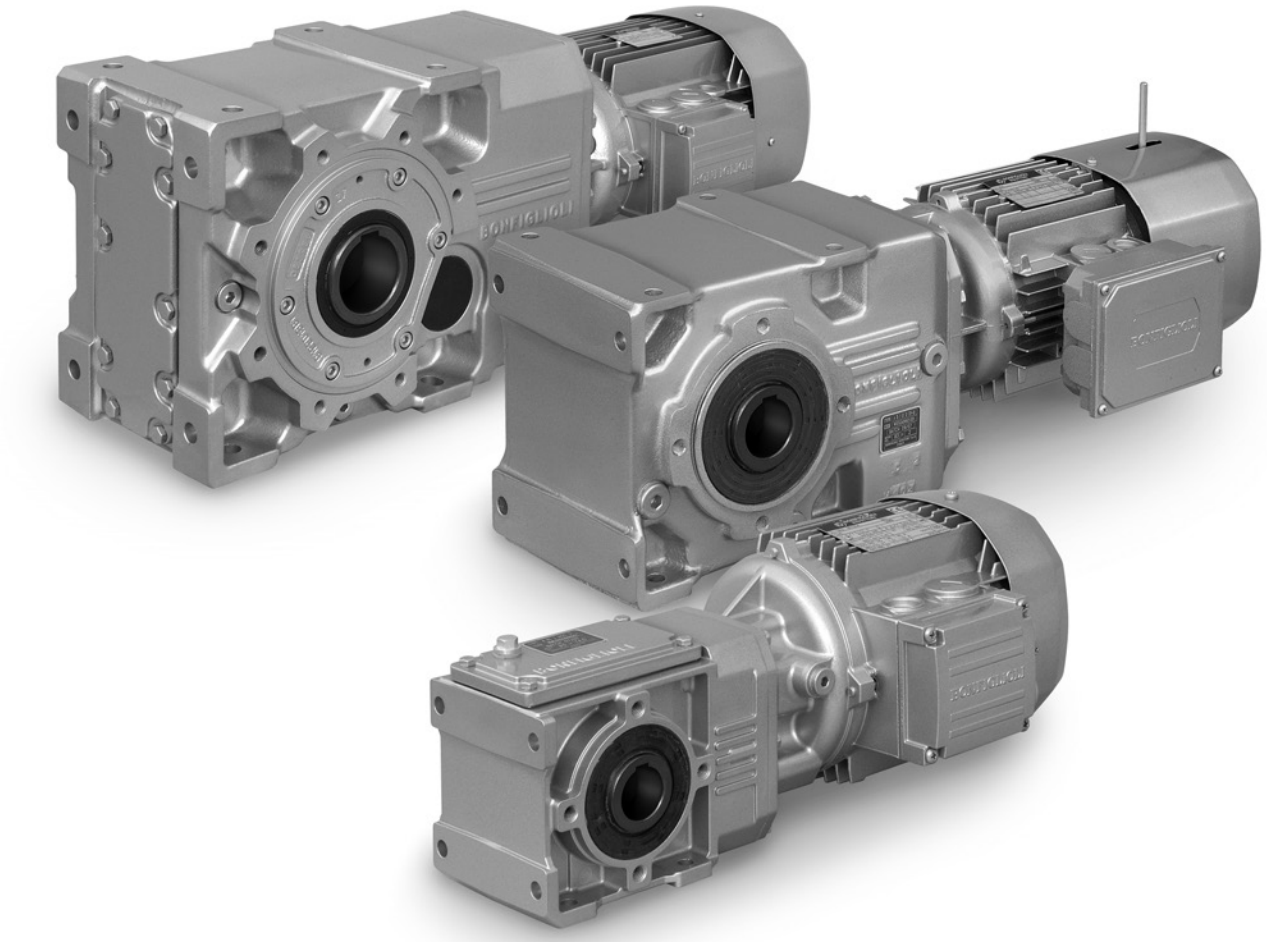
D) The following measures must be taken when products are stored for a period exceeding 6 months:

- For life lubricated products, the machined areas must be greased to prevent oxidation.
- In addition to above, products originally supplied w/o oil must be positioned with the breather plug at the highest point, and filled with oil.
  Before operating the speed reducer, restore the correct quantity of oil.

1.12 MAINTENANCE

Speed reducers A 05 through A 41 are factory filled with synthetic oil as standard and do not require periodical oil change.
For larger speed reducers, the first oil change must take place after about 300 hours of operation, flushing the interior of the unit using suitable detergents.
Do not mix mineral oils with synthetic oils.
Check oil periodically and restore the level, if necessary.

2.0 BEVEL-HELICAL GEARMOTORS



A SERIES

2.1 ORDERING NUMBERS

Speed reducer designation

A 30 2 NUH F1A 76.5 S1 B3 .....

OPTIONS

MOUNTING POSITION
B3 (default), B6, B7, B8, VA, VB

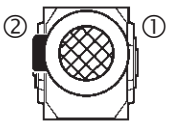
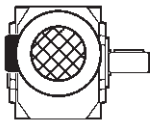
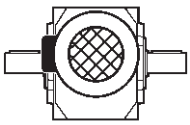
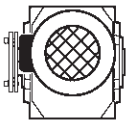
INPUT OPTIONS
NHS for speed reducer with solid input shaft (inch dims.)
P + IEC frame size for gear head with IEC motor adapter
S + **motor size** for integral gearmotor

Specify for NEMA inputs:			
	56C		56C
	140TC		143TC and 145TC
	180TC		182TC and 184TC
N +	210TC	for motors:	213TC and 215TC
	250TC		254TC and 256TC
	280TC		284TC and 286TC
	320TC		324TC and 326TC

GEAR RATIO

F = flange
1 = R.H. mount; **2** = L.H. mount
A, B, C = size of flange

VERSION

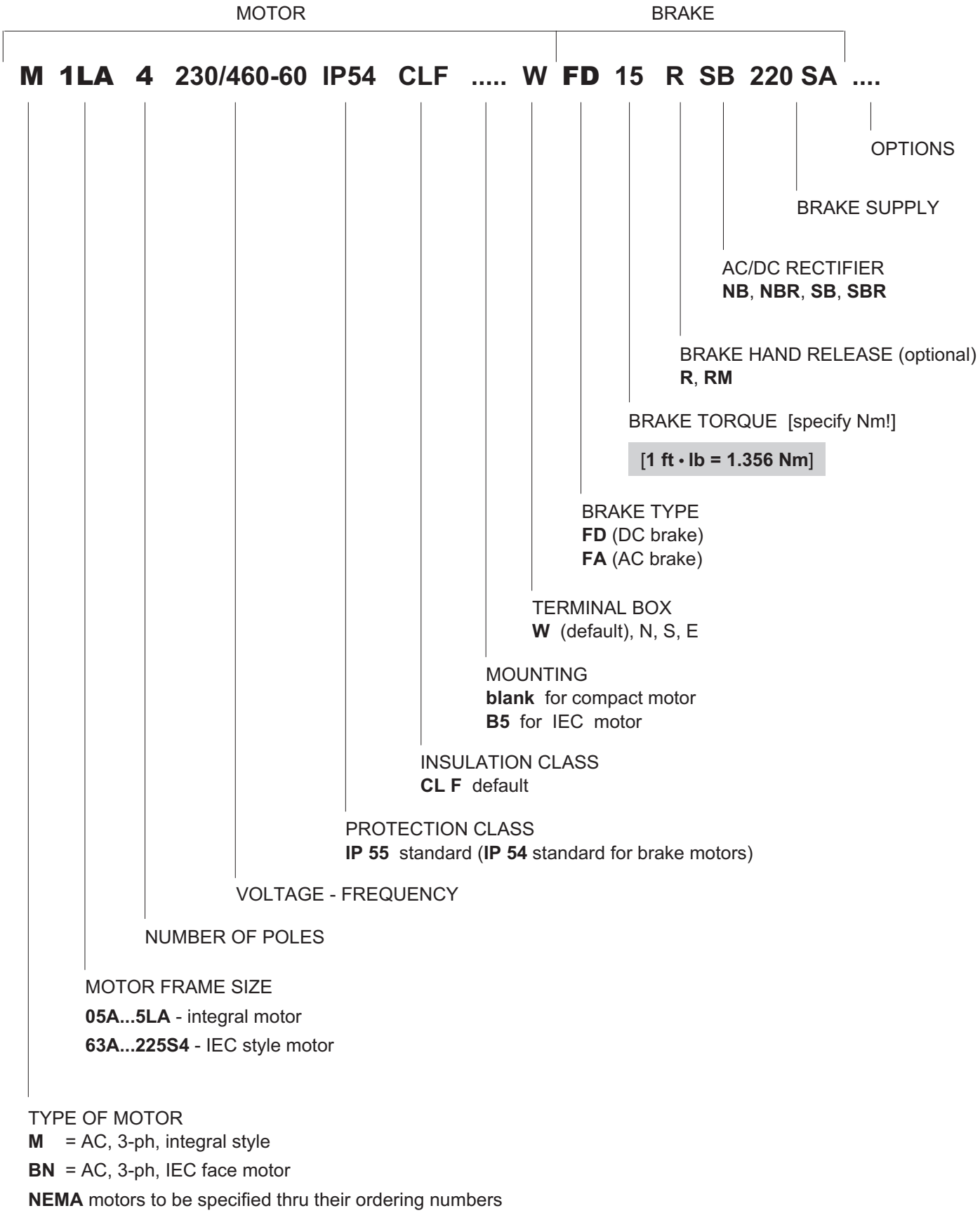
				shaft dims.
NUH: hollow shaft	**NUR** (A 05...A 90)	**NUD** (A 05...A 60)	—	inch
			US: shrink disc (A 05...A 90)	metric

REDUCTIONS
2, **3**, **4**

FRAME SIZE
05, 10, 20, 30, 35, 41, 50, 55, 60, 70, 80, 90

SERIES
A = bevel-helical

Bonfiglioli motor

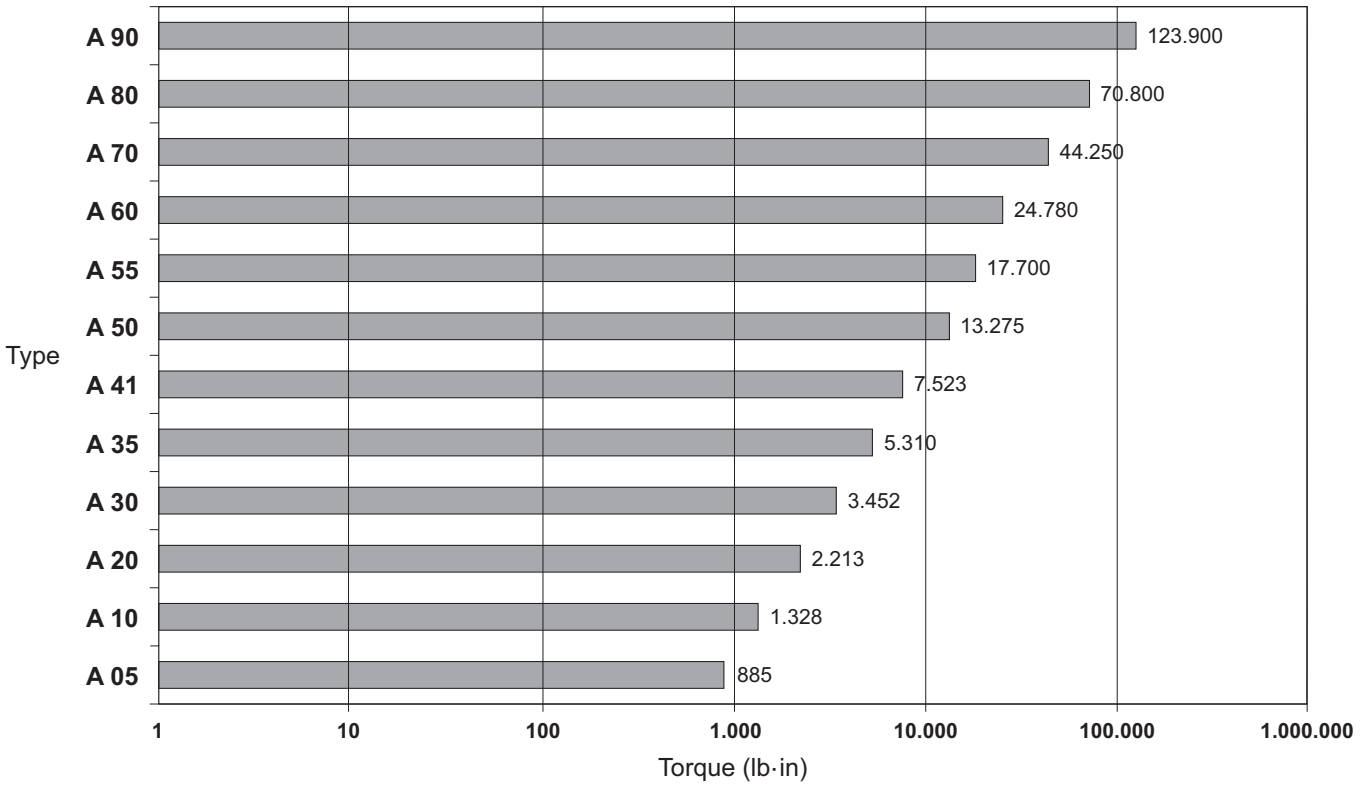


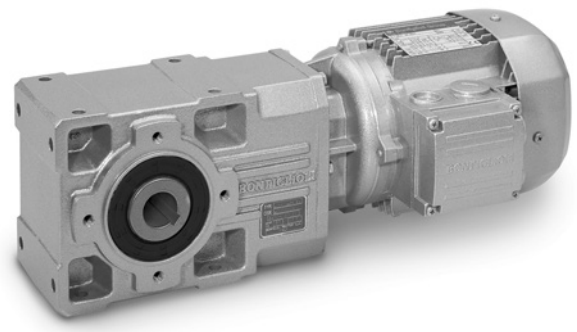
2.2 DESIGN ADVANTAGES

The main design characteristics are:

- modularity
- compact design
- universal mounting
- high efficiency
- low noise
- gears in hardened and case-hardened steel
- aluminium housing for sizes 05, 10, 20 and 30, unpainted, high strength painted cast-iron housings for larger sizes.
- input and output shafts in high grade steel

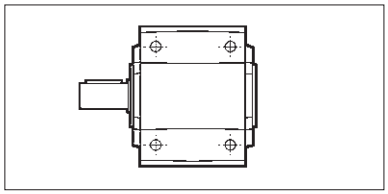
(B1)



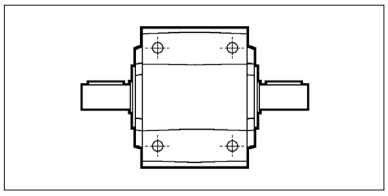


2.3 VERSIONS

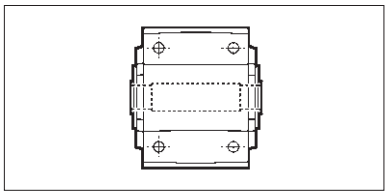
Available version for A series gearbox and gearmotors are illustrated below.



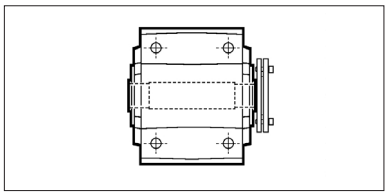
NUR (inch series)



NUD (inch series)



NUH (inch series)



US *(metric series)*

Terminal box location

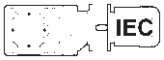
Location of motor terminal box can be specified by viewing the motor from the fan side; default position is highlighted in bold (**W**).

Angular position of the brake release lever

Unless otherwise specified, brake motors have the manual device side located, 90° apart from terminal box.
Different angles can be specified through the relevant options available.

2.5 SYMBOLS

Gearmotor with compact motor.



Gearmotor with motor adapter.

Gearbox with NEMA input.

Gearbox with solid input shaft.

2 Reduction

3 Reduction

4 Reduction

The symbol shows the page the information can be sorted from.

2.4 SPEED REDUCER OPTIONS

AL, AR
Anti-run back device.
The gear units the device can be specified for and the direction of free rotation are described at chapter 2.10

SO
On request units A 05, A 10, A 20, A 30, A 35 and A 41, are supplied without oil.

LO
Gearboxes A 50, A 55, A 60, A 70, A 80 and A 90, usually supplied without oil, to be factory filled with synthetic oil currently used by BONFIGLIOLI RIDUTTORI according to the mounting position specified.

DV
Two oil seals on input shaft.
(Available only for compact gearmotors).

VV
Viton® oil seal on input shaft.

PV
All oil seals in Viton® material.

2.6 LUBRICATION

Speed reducer size A 05...A 41 are supplied with life lubrication and do not have oil filling, level, and drain plugs.
Operation of gear units is permitted at ambient temperatures between -20°C and +40°C [-4°F and 104°F]. However, for temperatures between -20°C and -10°C [-4°F and 14°F] unit may only start up after it has been progressively and evenly pre-heated, or otherwise initially operated unloaded.
Load may then be connected to the output shaft when the gear unit has reached the temperature of -10°C, or higher.
Speed reducers for which the SO options is specified come without oil and must be filled by the user prior to be put into operation. In this case refer to charts (B3) and (B4) for the most appropriate type of oil and relevant change interval.
Customers must always advise mounting position to ensure the correct arrangement of the filling, level and drain plugs.
Periodical oil changes are not required for sizes A 05...A 41 as they are lubricated for life with synthetic oil.

(B2)

Oil quantity						
	Mounting positions					
	B3	B6	B7	B8	VA	VB
A 05 2	0.50 *0.13*	0.50 *0.13*	0.50 *0.13*	0.50 *0.13*	0.50 *0.13*	0.50 *0.13*
A 10 2	1.4 *0.4*	1.4 *0.4*	1.4 *0.4*	1.4 *0.4*	1.4 *0.4*	1.4 *0.4*
A 20 2	2.3 *0.6*	2.3 *0.6*	2.3 *0.6*	2.3 *0.6*	2.3 *0.6*	2.3 *0.6*
A 20 3	2.6 *0.7*	2.6 *0.7*	2.6 *0.7*	2.6 *0.7*	2.6 *0.7*	2.6 *0.7*
A 30 2	3.2 *0.8*	3.2 *0.8*	3.2 *0.8*	3.2 *0.8*	3.2 *0.8*	3.2 *0.8*
A 30 3	3.6 *0.9*	3.6 *0.9*	3.6 *0.9*	3.6 *0.9*	3.6 *0.9*	3.6 *0.9*
A 35 2	2.8 *0.7*	3.2 *0.8*	3.2 *0.8*	3.2 *0.8*	3.9 *1.0*	2.7 *0.7*
A 35 3	3.5 *0.9*	3.8 *1.0*	3.8 *1.0*	3.6 *0.9*	4.9 *1.3*	3.3 *0.9*
A 41 2	3.8 *1.0*	3.1 *0.8*	3.0 *0.8*	4.0 *1.0*	5.3 *1.4*	3.3 *0.9*
A 41 3	4.6 *1.2*	3.9 *1.0*	3.8 *1.0*	4.8 *1.2*	6.1 *1.6*	4.0 *1.0*
A 50 2	4.9 *1.3*	8.1 *2.1*	4.7 *1.2*	8.4 *2.2*	11 *2.9*	9.2 *2.4*
A 50 3	5.1 *1.3*	8.1 *2.1*	4.7 *1.2*	8.4 *2.2*	11 *2.9*	9.2 *2.4*
A 50 4	6.3 *1.6*	8.2 *2.1*	5.3 *1.4*	8.3 *2.2*	13 *3.4*	9.1 *2.4*
A 55 2	3.2 *0.8*	6.2 *1.6*	6.1 *1.6*	7.0 *1.8*	8.5 *2.2*	8.0 *2.1*
A 55 3	3.8 *1.0*	6.8 *1.8*	6.5 *1.7*	7.7 *2.0*	9.2 *2.4*	8.2 *2.1*
A 55 4	5.2 *1.4*	9.2 *2.4*	9.0 *2.3*	8.8 *2.3*	11 *2.8*	8.7 *2.3*
A 60 2	6.8 *1.8*	8.1 *2.1*	12 *3*	15 *4*	18 *5*	15 *4*
A 60 3	6.8 *1.8*	8.1 *2.1*	12 *3*	15 *4*	18 *5*	15 *4*
A 60 4	7.2 *1.9*	11 *3*	7.4 *1.9*	16 *4*	19 *5*	14 *4*
A 70 3	10 *3*	14 *4*	10 *3*	15 *4*	20 *5*	14 *4*
A 70 4	13 *3*	14 *4*	10 *3*	15 *4*	23 *6*	14 *4*
A 80 3	15 *4*	22 *6*	15 *4*	26 *7*	35 *9*	22 *6*
A 80 4	20 *5*	22 *6*	15 *4*	26 *7*	39 *10*	22 *6*
A 90 3	31 *8*	35 *9*	37 *10*	44 *11*	66 *17*	39 *10*
A 90 4	41 *11*	35 *9*	37 *10*	44 *11*	73 *19*	39 *10*

Life lubricated

Quantities are $\frac{\text{litres}}{\textit{gallons}}$

(B3)

Duty	Ambient temp. 0 - 20 °C [32 - 70 °F]		Ambient temp. 20 - 40 °C [70 - 104 °F]	
	Mineral oil ISO VG	Synthetic oil ISO VG	Mineral oil ISO VG	Synthetic oil ISO VG
Light duty	150	150	220	220
Medium duty	150	150	320	220
Heavy duty	220	220	460	320

(B4)

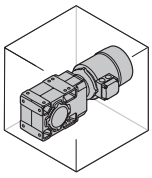
Oil temperature °C [°F]	Oil change interval [hours]	
	Mineral oil	Synthetic oil
< 65 [< 150 °F]	8000	25000
65 - 80 [150 °F - 175 °F]	4000	15000
80 - 95 [175 °F - 200 °F]	2000	12500

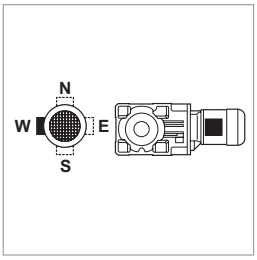
2.7 MOUNTING POSITION AND TERMINAL BOX SPECIFICATION

	Fill / breather plug		Level plug		Drain plug

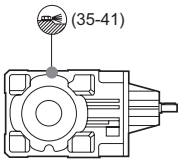
Input:	HS	P (IEC) N (NEMA)	S

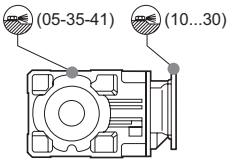
B3

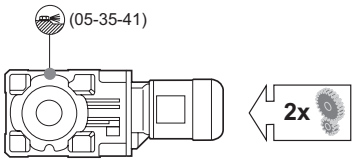


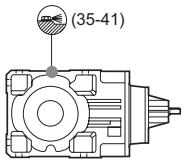


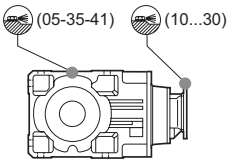
W = Default

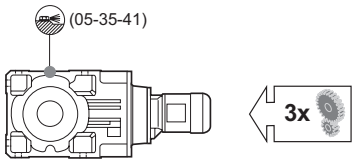




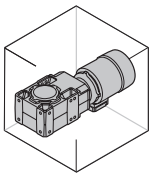


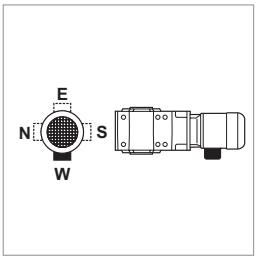




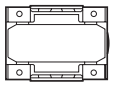


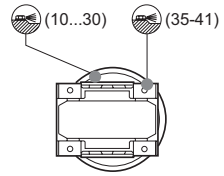
B6

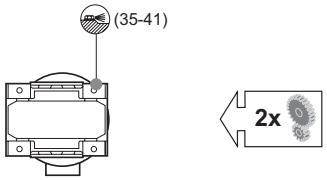


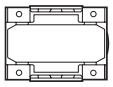


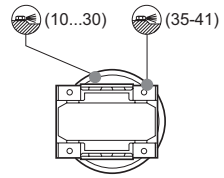
W = Default

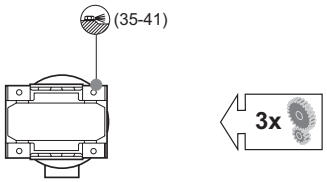




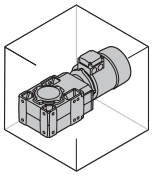


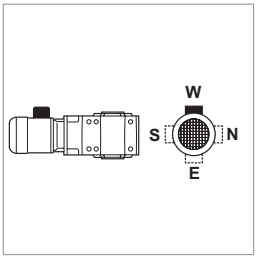




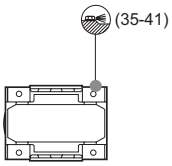


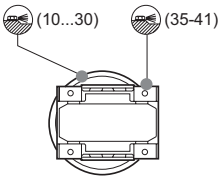
B7

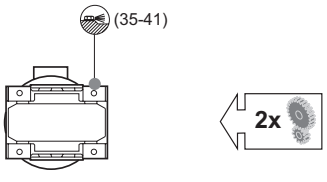


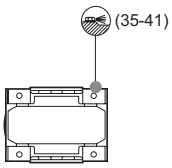


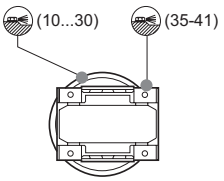
W = Default

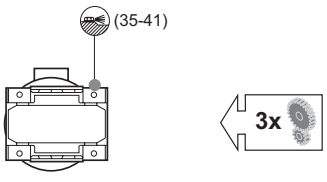






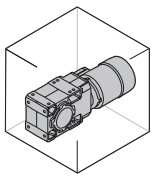


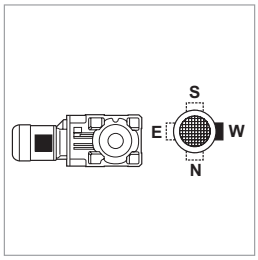




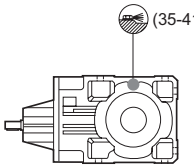
Input:	HS	P (IEC) N (NEMA)	S

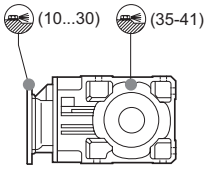
B8

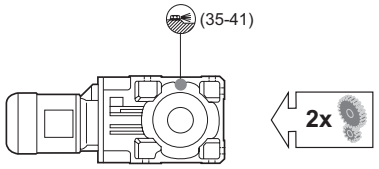


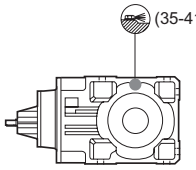


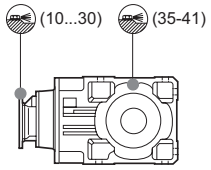
W = Default

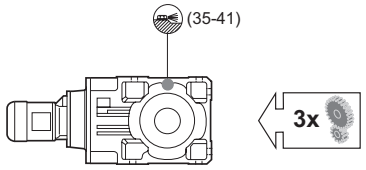




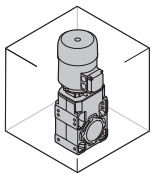


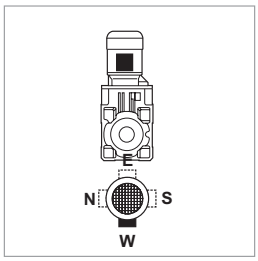




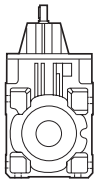


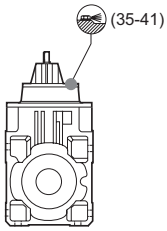
VA

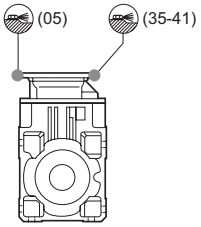


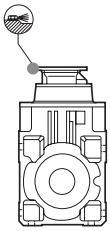


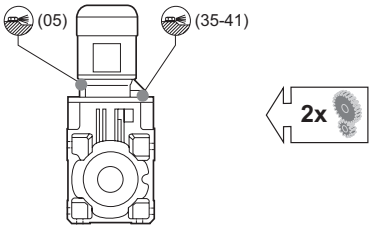
W = Default

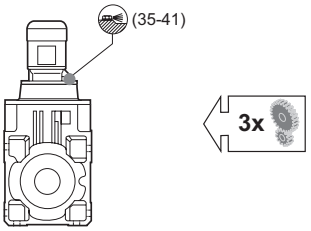




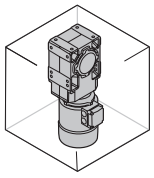


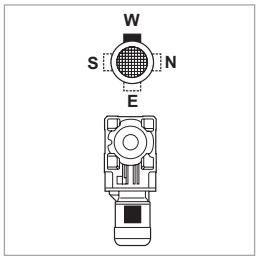




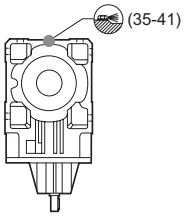


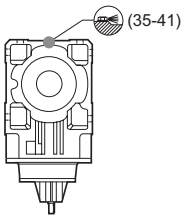
VB

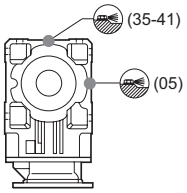


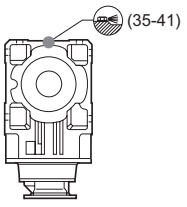


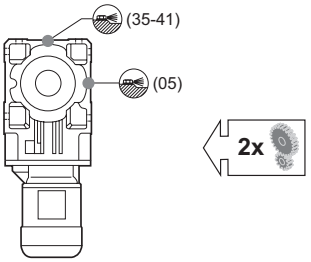
W = Default

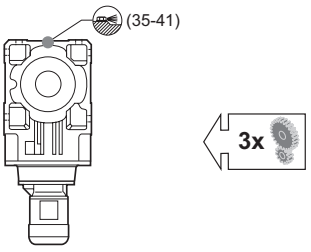






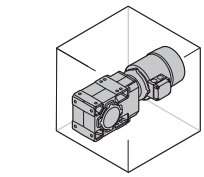


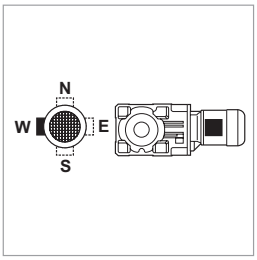




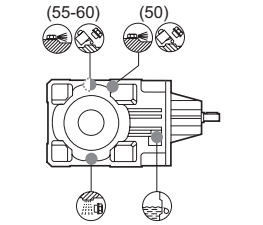
Input:	HS	P (IEC) N (NEMA)	S

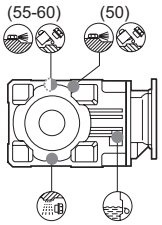
B3

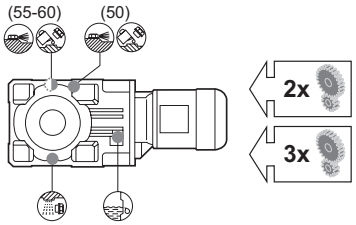


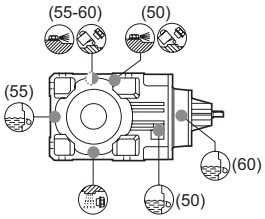


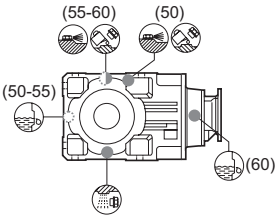
W = Default

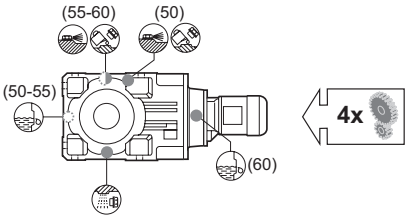




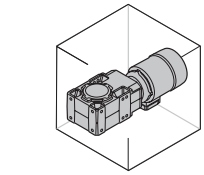


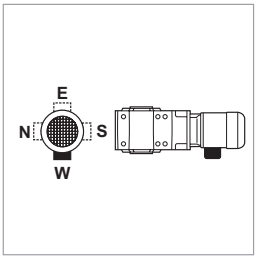




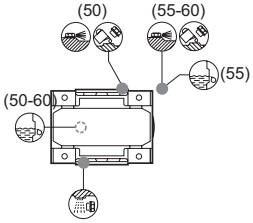


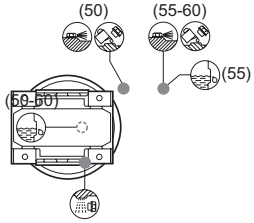
B6

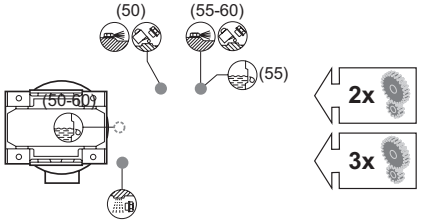


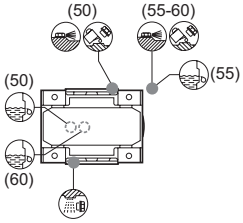


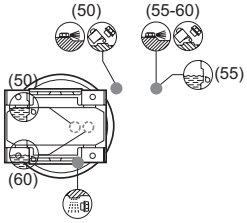
W = Default

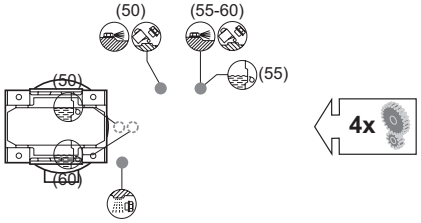




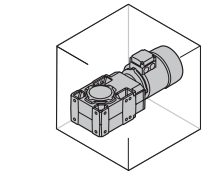


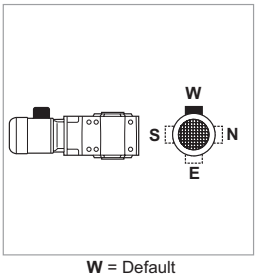




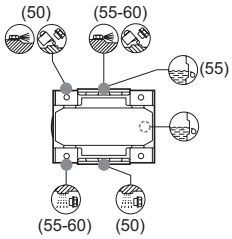


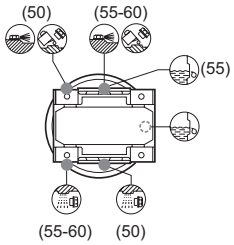
B7

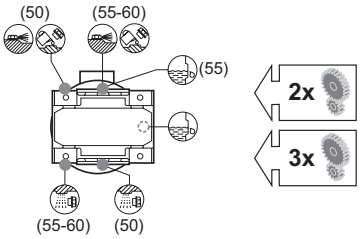


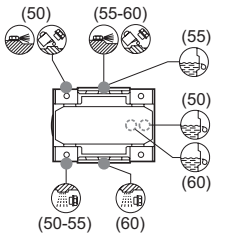


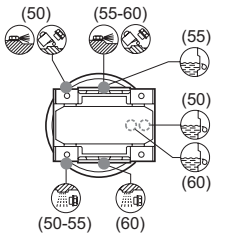
W = Default

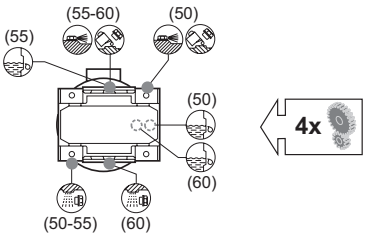






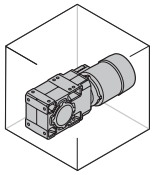


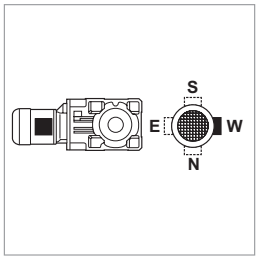




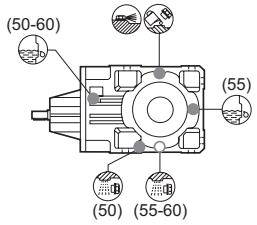
Input:	HS	P (IEC) N (NEMA)	S

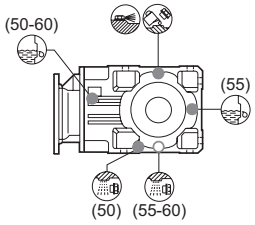
B8

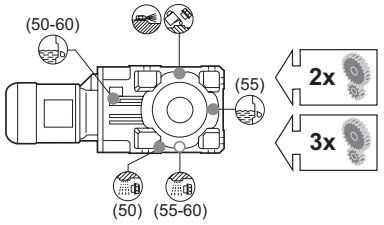


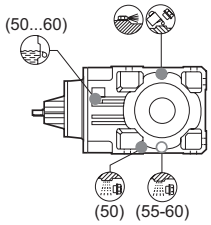


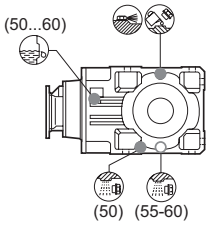
W = Default

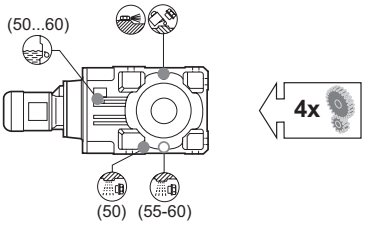




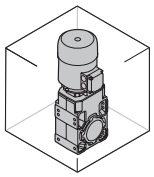


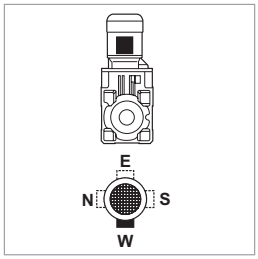




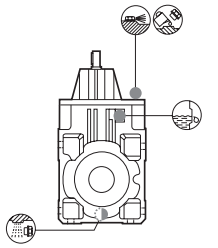


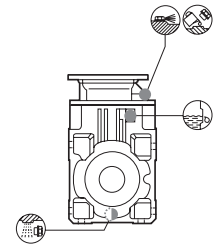
VA

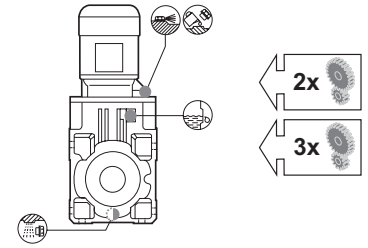




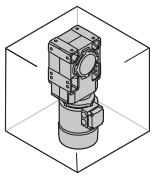
W = Default



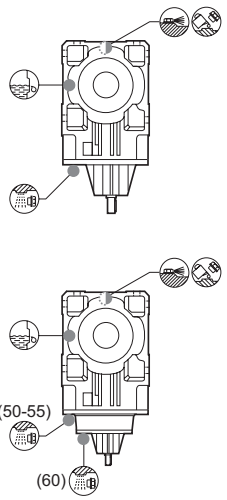


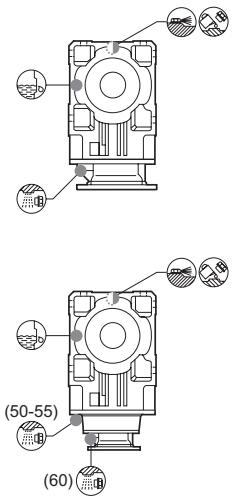


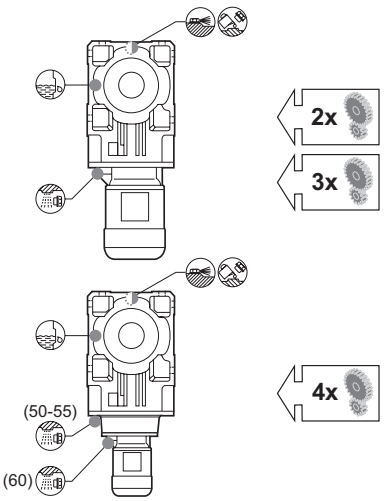
VB



W = Default

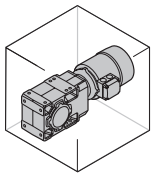


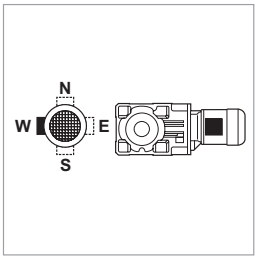




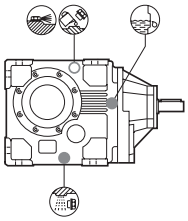
Input:	HS	P (IEC) N (NEMA)	S	

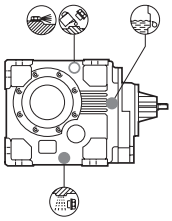
B3

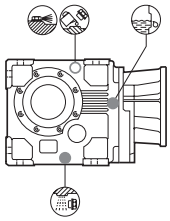


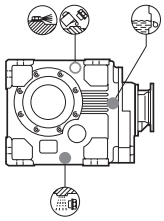


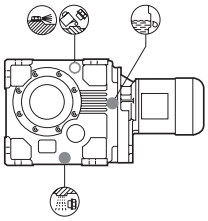
W = Default

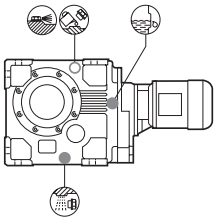


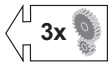


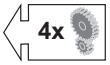




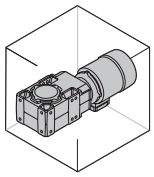


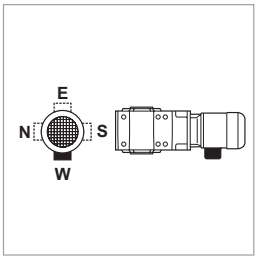




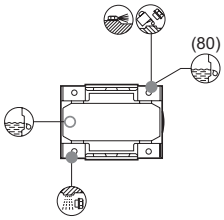


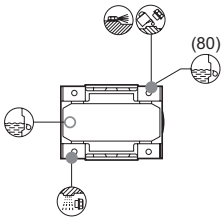
B6

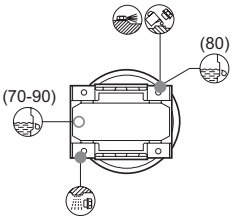


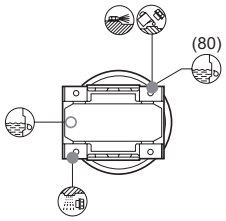


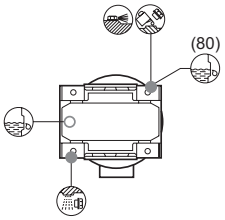
W = Default

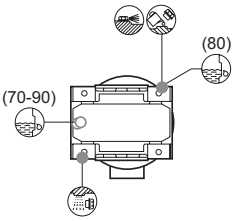


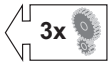


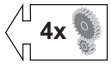




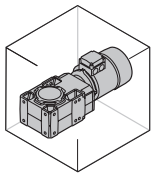


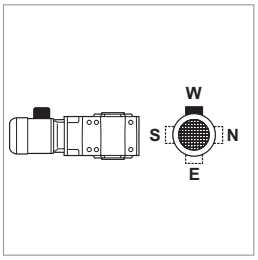




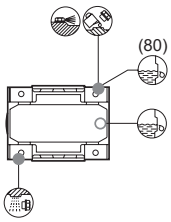


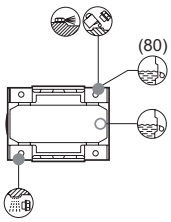
B7

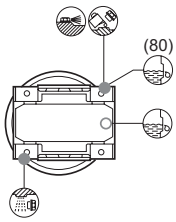


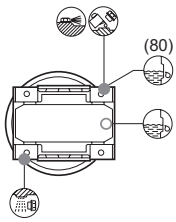


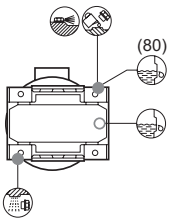
W = Default

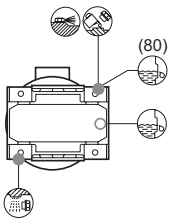


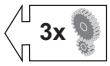


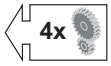






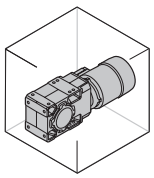


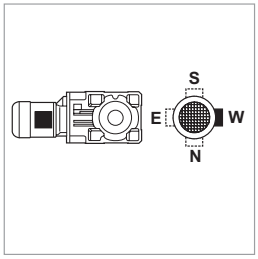




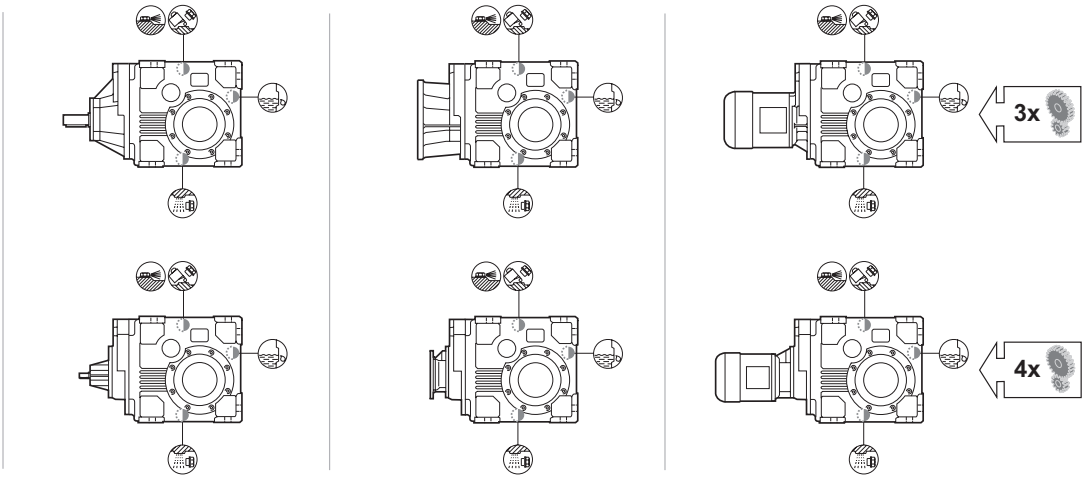
Input:	HS	P (IEC) N (NEMA)	S

B8

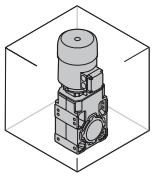


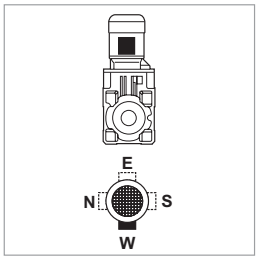


W = Default

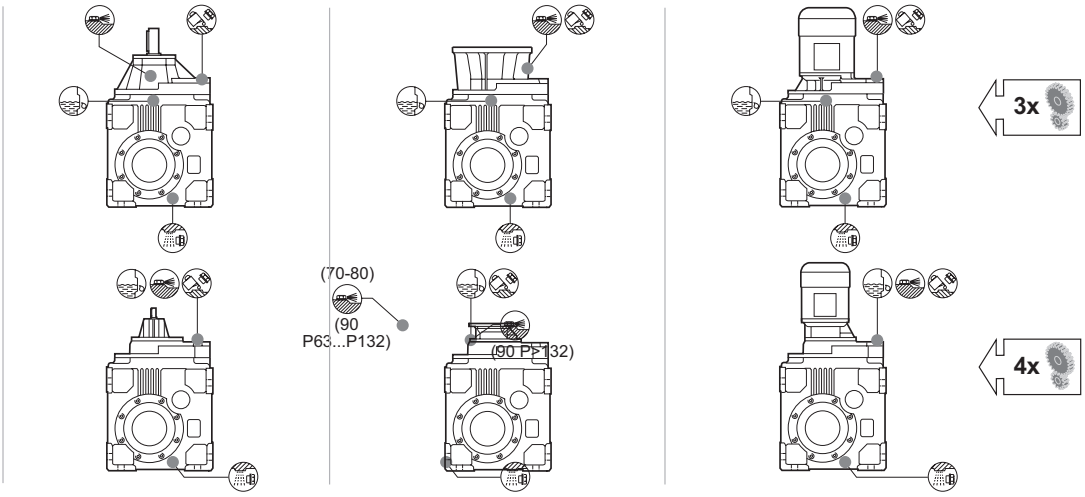


VA

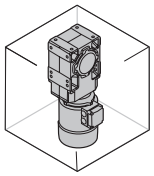


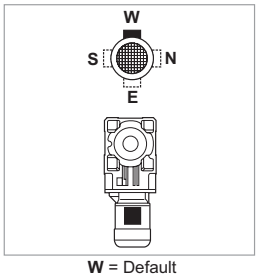


W = Default

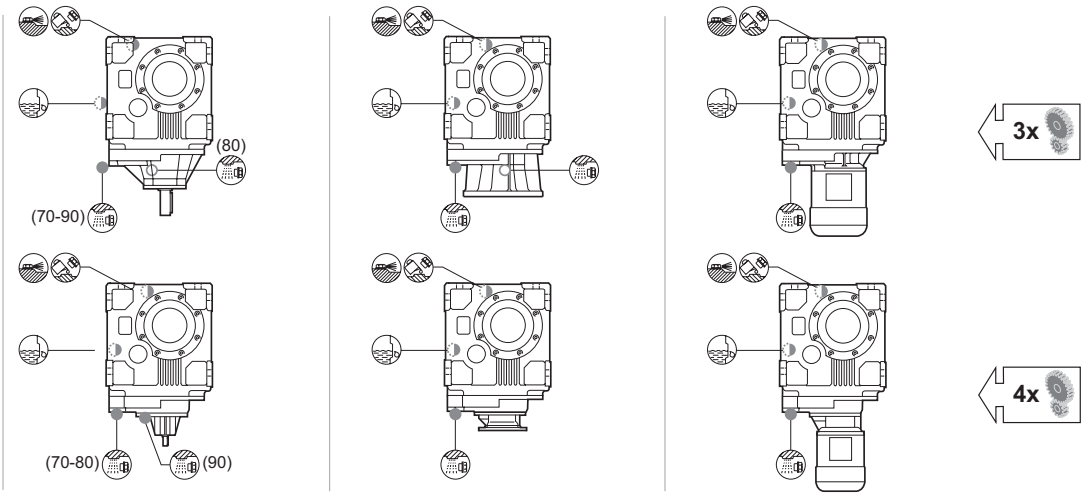


VB





W = Default



2.8 OVERHUNG LOADS

Input and output shaft of speed reducer can be subject to loading generated by the transmission keyed on the shaft itself.
Overhung load can be calculated with the following formula where all factors are determined at shaft under study.
[N.B. ($_1$) = input shaft; ($_2$) = output shaft]

$$R_c = \frac{2 \text{ x T x } K_r}{d}$$

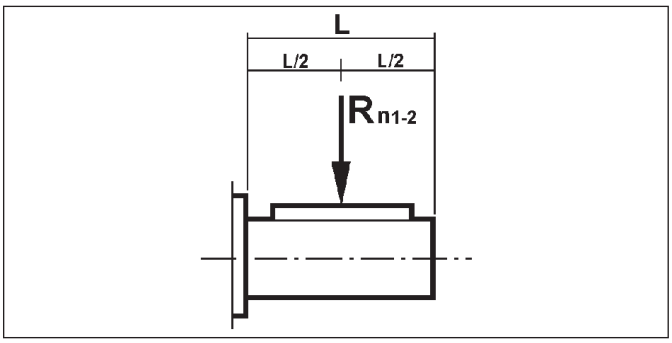
R_c = overhung load in [lbs]
T = torque in [lb·in]
d = pitch diameter in inches of sprocket, pinion, sheave or pulley
K_r = transmission element factor

Sprocket (single or multiple strand)	1.0
Spur or helical pinion	1.25
V-belt sheave	1.50
Flat belt pulley	2.50

a) load R_{c1} or R_{c2} applied at midpoint of shaft as indicated in table (B5).
This value can be directly compared with rated OHL capacity by observing the condition:

$$R_{c1} \le R_{n1} \quad ; \quad R_{c2} \le R_{n2}$$

(B5)



b) load applied at distance "x" from shaft shoulder as shown in table (B6).
Conversion to the new permitted overhung load values R_{x1} and R_{x2} is obtained from the following equation:

$$R_{x1} = R_{n1} \text{ x } \frac{a}{b + "x"} \quad ; \quad R_{x2} = R_{n2} \text{ x } \frac{a}{b + "x"}$$

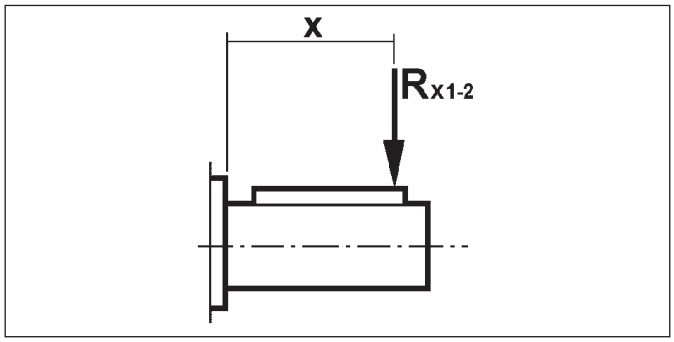
as long as $\frac{L}{2} < "x" < c$

R_{n1}, R_{n2} = permitted OHL on shaft mid-point [lbs] (radial load table)

a = load location factor
b = load location factor
c = load location factor
x = distance of load from shaft shoulder [in]

load location factors **a**, **b**, **c** are shown in table (B7).

(B6)



(B7)

	Load location factors [in]					
	low speed shaft			high speed shaft		
	a	b	c	a	b	c
A 05 2	4.6	3.4	17.7	-	-	-
A 10 2	4.8	4.0	23.6	0.8	0.04	11.8
A 20 2	5.9	4.7	29.5	1.6	1	13.8
A 20 3	5.9	4.7	29.5	0.8	0.04	11.8
A 30 2	6.6	5.4	35.4	1.5	1	13.8
A 30 3	6.6	5.4	35.4	0.8	0.04	11.8
A 35 2	7.2	5.8	37.4	1.5	0.7	13.8
A 35 3	7.2	5.8	37.4	0.8	0.04	11.8
A 41 2	7.8	6.2	41.3	1.9	1.0	17.7
A 41 3	7.8	6.2	41.3	1.6	0.8	13.8
A 50 2 - A 50 3	9.5	7.9	51.2	1.9	1.0	17.7
A 50 3	9.5	7.9	51.2	1.6	0.7	13.8
A 55 2 - A 55 3	9.1	7.0	51.2	1.9	1.0	17.7
A 55 4	9.1	7.0	51.2	1.5	0.7	13.8
A 60 2 - A 60 3	9.5	7.5	61.0	1.9	1.0	23.6
A 60 4	9.5	7.5	61.0	1.5	1.0	17.7
A 70 3	11.6	9.1	74.8	2.2	1.2	39.4
A 70 4	11.6	9.1	74.8	1.9	1.0	17.7
A 80 3	13.6	11.0	94.5	3.4	1.2	39.4
A 80 4	13.6	11.0	94.5	1.9	1.0	17.7
A 90 3	17.0	12.9	118.1	4.6	1.8	55.1
A 90 4	17.0	12.9	118.1	1.9	1.0	17.7

Output shaft OHL R_{n2}

Rated values for radial load referred to mid-point of the output shaft are listed in the gearmotor and speed reducer rating charts. They are based on transmitted torque T_2 and rated torque T_{n2} respectively and for the most unfavourable condition as far as the load angle and rotation direction.
If permitted values are below required values, please consult our Technical Service Department reporting the load angle and shaft rotation direction.

Input shaft OHL R_{n1}

These values which are shown in the speed reducer selection charts refer to input speed and are calculated at mid-point of the input shaft.
If permitted values are below required values, please consult our Technical Service reporting load orientation and shaft rotation direction.

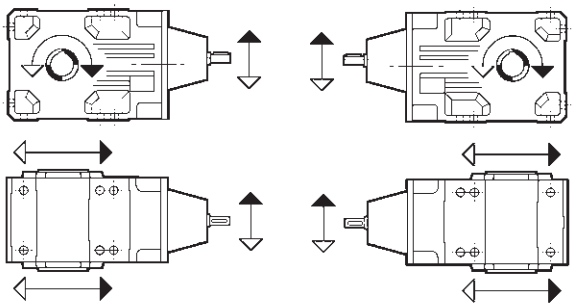
Thrust loads, A_{n1} A_{n2}

Maximum permitted thrust loads can be calculated as follows:

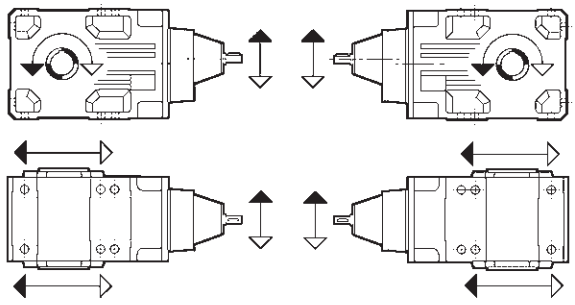
$A_{n1} = R_{n1} \cdot 0.2$
$A_{n2} = R_{n2} \cdot 0.2$

If thrust load exceeds permitted value, consult our Technical Service.

(B8)



2x	A 05	A 10	A 20	A 30	A 35	A 41	A 50	A 60
3x	A 60	A 70	A 80	A 90				
4x	A 50	A 55						



2x	A 55					
3x	A 20	A 30	A 35	A 41	A 50	A 55
4x	A 60	A 70	A 80	A 90		

2.9 SHAFT ARRANGEMENT

Table (B8) shows standard directions of rotation for 2, 3 and 4 stage helical-bevel gearboxes.

2.10 ANTI-RUN BACK DEVICE

On request the gear unit can be provided complete with an anti-run back device allowing the output shaft to rotate only in the direction specified at the time of ordering — option AL/AR.

Table B9 shows the gearboxes in which the anti-run back device can be installed.

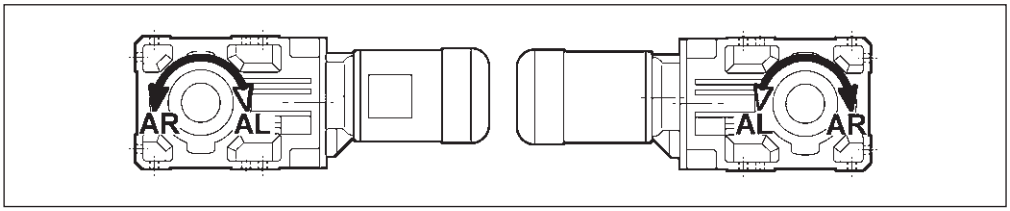
(B9)

A 30 2*	A 35 2* ⛔ (5.4_11.8)	A 41 2 ⛔ (5.2; 10.1)	A 50 3	A 55 3	A 60 3	A 70 3	A 80 3	A 90 3
			A 50 4	A 55 4	A 60 4	A 70 4	A 80 4	A 90 4

* The supply of the backstop will ban the configuration of servomotor adapters type S_60A, S_ 60B, S_80A.

When ordering the gear unit, the direction of free rotation must be specified through either the AR or the AL option.

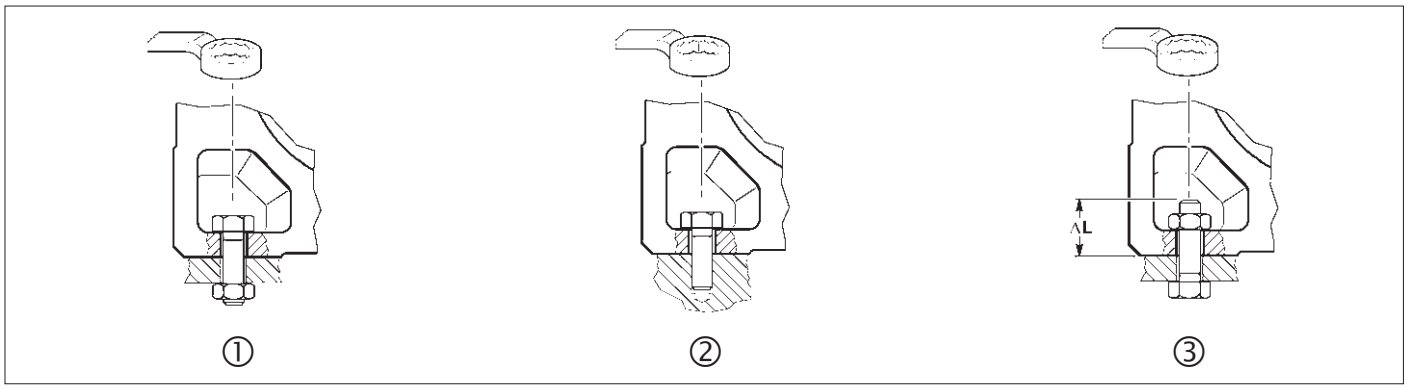
⚠ N.B. When the anti-run back device operates very frequently make sure that the torque backdriving the gearbox does not exceed 70% of the rated torque M_{n2} for the captioned gear unit.



2.11 INSTALLATION INSTRUCTIONS

Schemes in table (B10) show the 3 possible patterns for bolting the A units onto the machine.
For each of these cases, table (B11) indicates the size for the hexagonal head bolt to be used. Besides, for an easier installation, we suggest to use a wrench of the type shown in table (B10).

(B10)



(B11)

	Bolts pattern			
	①	②	③	ΔL (mm)
A 05	M8x22	M8x20	M8x …	22
A 10	M8x25	M8x20	M8x …	20
A 20	M8x25	M8x20	M8x …	20
A 30	M10x30	M10x25	M10x …	25
A 35	M10x30	M10x25	M10x …	25
A 41	M12x35	M12x30	M12x …	30

	Bolts pattern			
	①	②	③	ΔL (mm)
A 50	M14x45	M14x40	M14x …	35
A 55	M14x40	M14x40	M14x …	35
A 60	M16x50	M16x45	M16x …	40
A 70	M20x60	M20x55	M20x …	45
A 80	M24x70	M24x65	M24x …	55
A 90	M24x90	M24x80	M24x …	65

2.12 GEARMOTOR RATING CHARTS

0.16 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]					
309	31	27.3	5.5:1	440	**A052_5.5**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
267	36	24.8	6.3:1	460	**A052_6.3**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
234	41	21.8	7.2:1	480	**A052_7.2**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
199	48	18.4	8.5:1	500	**A052_8.5**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
175	54	16.3	9.6:1	520	**A052_9.6**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
160	60	14.9	10.6:1	540	**A052_10.6**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
138	69	12.8	12.3:1	570	**A052_12.3**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
121	79	11.3	13.9:1	590	**A052_13.9**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
103	93	9.5	16.4:1	620	**A052_16.4**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
91	105	8.4	18.6:1	640	**A052_18.6**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
79	121	7.4	21.4:1	670	**A052_21.4**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
71	134	6.6	23.8:1	690	**A052_23.8**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
66	144	6.1	25.5:1	700	**A052_25.5**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
59	161	5.5	28.6:1	730	**A052_28.6**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
53	182	4.9	32.2:1	760	**A052_32.2**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
48	198	4.5	35.1:1	770	**A052_35.1**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
41	231	3.9	40.9:1	810	**A052_40.9**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
37	256	3.5	45.4:1	830	**A052_45.4**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
33	289	3.0	51.3:1	860	**A052_51.3**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
28.8	331	2.6	58.6:1	890	**A052_58.6**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
28.8	331	4.0	58.6:1	1240	**A102_58.6**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	106...109
25.7	372	2.4	65.9:1	920	**A052_65.9**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
25.7	372	3.5	65.9:1	1240	**A102_65.9**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	106...109
22.2	431	2.0	76.4:1	960	**A052_76.4**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
22.2	431	3.1	76.4:1	1240	**A102_76.4**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	106...109
21.2	451	4.1	79.9:1	1400	**A202_79.9**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
18.4	517	1.8	91.6:1	1000	**A052_91.6**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	103...105
18.4	517	2.3	91.6:1	1240	**A102_91.6**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	106...109
18.3	521	3.4	92.3:1	1400	**A202_92.3**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
15.5	596	3.0	109.2:1	1400	**A203_109.2**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
14.0	658	4.0	120.5:1	2160	**A303_120.5**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
14.0	659	2.9	120.5:1	1400	**A203_120.5**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
13.1	706	2.8	129.1:1	1400	**A203_129.1**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
12.3	751	3.8	137.4:1	2160	**A303_137.4**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
11.5	799	2.5	146.1:1	1400	**A203_146.1**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
11.3	823	3.5	150.7:1	2160	**A303_150.7**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
10.5	882	3.4	161.4:1	2160	**A303_161.4**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
10.4	893	2.4	163.4:1	1400	**A203_163.4**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
9.5	974	2.3	178.3:1	1400	**A203_178.3**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113

0.16 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			IEC	NEMA	
9.5	976	3.1	178.5:1	2160	**A303_178.5**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
8.5	1085	2.9	198.5:1	2160	**A303_198.5**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
8.5	1088	2.0	199.2:1	1400	**A203_199.2**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
7.8	1183	2.8	216.6:1	2160	**A303_216.6**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
7.6	1209	1.9	221.3:1	1400	**A203_221.3**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
7.5	1219	4.4	223.2:1	2700	**A353_223.2**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	118...121
6.9	1335	2.5	244.3:1	2160	**A303_244.3**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
6.8	1356	3.9	248.1:1	2700	**A353_248.1**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	118...121
6.5	1423	1.5	260.5:1	1400	**A203_260.5**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
6.3	1479	3.6	270.7:1	2700	**A353_270.7**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	118...121
6.3	1483	2.3	271.5:1	2160	**A303_271.5**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
5.8	1600	1.4	292.8:1	1400	**A203_292.8**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
5.5	1669	3.1	305.4:1	2700	**A353_305.4**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	118...121
5.4	1719	2.0	314.5:1	2160	**A303_314.5**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
5.3	1771	4.3	324.2:1	3380	**A413_324.2**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	122...125
5.1	1800	1.3	329.4:1	1400	**A203_329.4**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	110...113
5.0	1854	2.5	339.3:1	2700	**A353_339.3**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	118...121
4.8	1947	1.6	356.3:1	2160	**A303_356.3**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
4.5	2059	3.6	376.8:1	3380	**A413_376.8**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	122...125
4.3	2148	1.9	393.2:1	2700	**A353_393.2**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	118...121
4.3	2190	1.5	400.8:1	2160	**A303_400.8**	**S05 + M05A4**	**P63 + BN63A4**	**N56C**	114...117
2.9	3143	4.3	574.2:1	4500	**A504_574.2**		**P63 + BN63A4**	**N56C**	126...129
2.6	3455	3.8	631.2:1	4500	**A504_631.2**		**P63 + BN63A4**	**N56C**	126...129
2.3	3875	3.4	707.9:1	4500	**A504_707.9**		**P63 + BN63A4**	**N56C**	126...129
2.1	4260	3.1	778.2:1	4500	**A504_778.2**		**P63 + BN63A4**	**N56C**	126...129

0.25 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			IEC	NEMA	
306	47	18.0	5.5:1	440	**A052_5.5**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
263	54	16.3	6.3:1	460	**A052_6.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
232	62	14.3	7.2:1	470	**A052_7.2**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
196	73	12.1	8.5:1	500	**A052_8.5**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
173	82	10.8	9.6:1	520	**A052_9.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
158	90	9.7	10.6:1	530	**A052_10.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
135	105	8.4	12.3:1	560	**A052_12.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
120	119	7.5	13.9:1	580	**A052_13.9**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105

0.25 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
101	141	6.3	16.4:1	610	**A052_16.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
90	159	5.6	18.6:1	630	**A052_18.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
78	183	4.8	21.4:1	650	**A052_21.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
71	204	4.3	23.8:1	670	**A052_23.8**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
66	218	4.0	25.5:1	690	**A052_25.5**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
58	245	3.7	28.6:1	710	**A052_28.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
52	276	3.2	32.2:1	730	**A052_32.2**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
48	301	2.9	35.1:1	750	**A052_35.1**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
48	301	4.4	35.1:1	1210	**A102_35.1**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	106...109
40	350	2.5	40.9:1	780	**A052_40.9**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
40	350	3.8	40.9:1	1240	**A102_40.9**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	106...109
37	389	2.3	45.4:1	800	**A052_45.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
37	389	3.4	45.4:1	1240	**A102_45.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	106...109
33	439	2.0	51.3:1	820	**A052_51.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
33	439	3.0	51.3:1	1240	**A102_51.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	106...109
28.5	502	1.8	58.6:1	850	**A052_58.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
28.5	502	2.7	58.6:1	1240	**A102_58.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	106...109
26.4	541	4.0	63.1:1	1400	**A202_63.1**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
25.3	565	1.5	65.9:1	870	**A052_65.9**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
25.3	565	2.4	65.9:1	1240	**A102_65.9**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	106...109
23.5	608	3.0	71.0:1	1400	**A202_71.0**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
21.9	655	1.4	76.4:1	900	**A052_76.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
21.9	655	2.0	76.4:1	1240	**A102_76.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	106...109
20.9	684	2.7	79.9:1	1400	**A202_79.9**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
19.2	743	3.8	86.7:1	2160	**A302_86.7**		**P63 + BN63B4**	**N56C**	114...114
18.2	785	1.1	91.6:1	930	**A052_91.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	103...105
18.2	785	1.5	91.6:1	1240	**A102_91.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	106...109
18.1	791	2.3	92.3:1	1400	**A202_92.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
17.1	835	3.2	97.5:1	2160	**A302_97.5**		**P63 + BN63B4**	**N56C**	114...114
15.3	905	2.9	109.1:1	2160	**A303_109.1**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
15.3	905	2.0	109.2:1	1400	**A203_109.2**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
13.9	999	2.7	120.5:1	2160	**A303_120.5**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
13.9	1000	1.9	120.5:1	1400	**A203_120.5**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
12.9	1071	1.8	129.1:1	1400	**A203_129.1**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
12.1	1140	2.4	137.4:1	2160	**A303_137.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
11.4	1212	1.6	146.1:1	1400	**A203_146.1**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
11.1	1249	4.3	150.6:1	2700	**A353_150.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	118...121
11.1	1250	2.3	150.7:1	2160	**A303_150.7**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
10.4	1339	2.3	161.4:1	2160	**A303_161.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
10.2	1356	1.5	163.4:1	1400	**A203_163.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
9.7	1425	3.7	171.8:1	2700	**A353_171.8**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	118...121

0.25 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
9.4	1479	1.5	178.3:1	1400	**A203_178.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
9.4	1481	2.0	178.5:1	2160	**A303_178.5**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
8.9	1562	3.4	188.3:1	2700	**A353_188.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	118...121
8.4	1646	1.9	198.5:1	2160	**A303_198.5**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
8.4	1652	1.4	199.2:1	1400	**A203_199.2**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
8.2	1674	3.2	201.8:1	2700	**A353_201.8**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	118...121
7.7	1796	1.8	216.6:1	2160	**A303_216.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
7.7	1803	4.2	217.4:1	3380	**A413_217.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	122...125
7.6	1836	1.3	221.3:1	1400	**A203_221.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	110...113
7.5	1851	2.9	223.2:1	2700	**A353_223.2**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	118...121
7.0	1995	3.8	240.6:1	3380	**A413_240.6**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	122...125
6.8	2026	1.6	244.3:1	2160	**A303_244.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
6.7	2058	2.5	248.1:1	2700	**A353_248.1**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	118...121
6.3	2177	3.4	262.5:1	3380	**A413_262.5**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	122...125
6.2	2245	2.4	270.7:1	2700	**A353_270.7**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	118...121
6.2	2252	1.5	271.5:1	2160	**A303_271.5**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
5.7	2420	3.2	291.7:1	3380	**A413_291.7**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	122...125
5.4	2533	2.2	305.4:1	2700	**A353_305.4**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	118...121
5.3	2609	1.3	314.5:1	2160	**A303_314.5**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
5.2	2689	2.8	324.2:1	3380	**A413_324.2**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	122...125
4.9	2814	1.6	339.3:1	2700	**A353_339.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	118...121
4.7	2955	1.1	356.3:1	2160	**A303_356.3**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	114...114
4.6	2966	4.4	365.6:1	4500	**A504_365.6**		**P63 + BN63B4**	**N56C**	126...129
4.4	3125	2.4	376.8:1	3380	**A413_376.8**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	122...125
4.3	3261	1.3	393.2:1	2700	**A353_393.2**	**S05 + M05B4**	**P63 + BN63B4**	**N56C**	118...121
4.0	3297	4.0	406.4:1	4500	**A504_406.4**		**P63 + BN63B4**	**N56C**	126...129
3.8	3624	3.7	446.8:1	4500	**A504_446.8**		**P63 + BN63B4**	**N56C**	126...129
3.4	3907	3.4	481.6:1	4500	**A504_481.6**		**P63 + BN63B4**	**N56C**	126...129
3.2	4295	3.0	529.5:1	4500	**A504_529.5**		**P63 + BN63B4**	**N56C**	126...129
2.9	4658	2.9	574.2:1	4500	**A504_574.2**		**P63 + BN63B4**	**N56C**	126...129
2.7	5121	2.5	631.2:1	4500	**A504_631.2**		**P63 + BN63B4**	**N56C**	126...129
2.4	5656	4.4	697.3:1	6750	**A604_697.3**		**P63 + BN63B4**	**N56C**	134...137
2.4	5742	2.3	707.9:1	4500	**A504_707.9**		**P63 + BN63B4**	**N56C**	126...129
2.2	6128	4.0	755.4:1	6750	**A604_755.4**		**P63 + BN63B4**	**N56C**	134...137
2.2	6313	2.2	778.2:1	4500	**A504_778.2**		**P63 + BN63B4**	**N56C**	126...129
1.4	10078	4.4	1242:1	11300	**A704_1242**		**P63 + BN63B4**	**N56C**	138...141
1.2	10917	4.0	1346:1	11300	**A704_1346**		**P63 + BN63B4**	**N56C**	138...141
1.1	12842	3.4	1583:1	11300	**A704_1583**		**P63 + BN63B4**	**N56C**	138...141
0.97	13912	3.2	1715:1	11300	**A704_1715**		**P63 + BN63B4**	**N56C**	138...141

0.33 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
314	63	13.3	5.5:1	430	**A052_5.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
272	73	12.1	6.3:1	450	**A052_6.3**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
238	83	10.6	7.2:1	470	**A052_7.2**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
202	98	9.0	8.5:1	500	**A052_8.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
179	111	8.0	9.6:1	510	**A052_9.6**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
163	122	7.2	10.6:1	520	**A052_10.6**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
140	142	6.2	12.3:1	550	**A052_12.3**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
123	161	5.5	13.9:1	570	**A052_13.9**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
105	190	4.6	16.4:1	590	**A052_16.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
90	221	4.0	18.6:1	610	**A052_18.6**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
79	254	3.5	21.4:1	640	**A052_21.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
70	283	3.1	23.8:1	650	**A052_23.8**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
66	303	2.9	25.5:1	670	**A052_25.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
59	340	2.6	28.6:1	690	**A052_28.6**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
59	340	3.9	28.6:1	1120	**A102_28.6**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	106...109
54	372	3.6	32.2:1	1240	**A102_32.2**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	106...109
52	383	2.4	32.2:1	710	**A052_32.2**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
47	418	2.1	35.1:1	720	**A052_35.1**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
47	418	3.1	35.1:1	1190	**A102_35.1**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	106...109
42	472	2.9	40.9:1	1240	**A102_40.9**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	106...109
41	486	1.9	40.9:1	740	**A052_40.9**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
37	540	1.6	45.4:1	760	**A052_45.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
37	540	2.5	45.4:1	1240	**A102_45.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	106...109
36	558	4.0	48.3:1	1390	**A202_48.3**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
33	610	1.5	51.3:1	780	**A052_51.3**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
33	610	2.1	51.3:1	1240	**A102_51.3**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	106...109
31	638	3.5	53.7:1	1400	**A202_53.7**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
29.3	677	2.0	58.6:1	1240	**A102_58.6**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	106...109
28.5	697	1.2	58.6:1	800	**A052_58.6**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
26.4	751	2.9	63.1:1	1400	**A202_63.1**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
25.3	785	1.1	65.9:1	820	**A052_65.9**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	103...105
25.3	785	1.7	65.9:1	1240	**A102_65.9**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	106...109
24.2	820	2.2	71.0:1	1400	**A202_71.0**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
22.2	894	3.4	76.5:1	2160	**A302_76.5**		**P71 + BN71A4**	**N56C**	114...117
21.8	909	1.5	76.4:1	1240	**A102_76.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	106...109
20.9	950	2.0	79.9:1	1400	**A202_79.9**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
19.6	1013	2.8	86.7:1	2160	**A302_86.7**		**P71 + BN71A4**	**N56C**	114...117
18.1	1099	1.6	92.3:1	1400	**A202_92.3**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
17.7	1118	4.3	95.6:1	2700	**A352_95.6**		**P71 + BN71A4**	**N56C**	118...121
17.5	1140	2.3	97.5:1	2160	**A302_97.5**		**P71 + BN71A4**	**N56C**	114...117
15.8	1216	3.9	105.5:1	2700	**A353_105.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121

0.33 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
15.8	1220	2.1	109.1:1	2160	**A303_109.1**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	114...117
15.7	1221	1.5	109.2:1	1400	**A203_109.2**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
14.3	1347	3.7	116.9:1	2700	**A353_116.9**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
13.8	1388	1.9	120.5:1	2160	**A303_120.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	114...117
13.8	1388	1.4	120.5:1	1400	**A203_120.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
13.3	1445	1.4	129.1:1	1400	**A203_129.1**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
12.5	1537	1.9	137.4:1	2160	**A303_137.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	114...117
12.2	1571	3.2	136.3:1	2700	**A353_136.3**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
11.5	1683	1.2	146.1:1	1400	**A203_146.1**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
11.1	1735	3.1	150.6:1	2700	**A353_150.6**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
11.1	1736	1.7	150.7:1	2160	**A303_150.7**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	114...117
10.6	1806	1.6	161.4:1	2160	**A303_161.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	114...117
10.5	1828	1.1	163.4:1	1400	**A203_163.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	110...113
9.7	1979	2.7	171.8:1	2700	**A353_171.8**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
9.3	2057	1.5	178.5:1	2160	**A303_178.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	114...117
9.1	2124	3.5	184.4:1	3380	**A413_184.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	122...125
8.8	2169	2.5	188.3:1	2700	**A353_188.3**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
8.7	2210	3.4	197.5:1	3380	**A413_197.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	122...125
8.7	2220	1.4	198.5:1	2160	**A303_198.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	114...117
8.2	2324	2.2	201.8:1	2700	**A353_201.8**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
7.7	2495	1.2	216.6:1	2160	**A303_216.6**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	114...117
7.7	2504	3.0	217.4:1	3380	**A413_217.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	122...125
7.5	2571	2.1	223.2:1	2700	**A353_223.2**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
7.1	2691	2.7	240.6:1	3380	**A413_240.6**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	122...125
7.0	2733	1.2	244.3:1	2160	**A303_244.3**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	114...117
6.7	2858	1.9	248.1:1	2700	**A353_248.1**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
6.4	3023	2.5	262.5:1	3380	**A413_262.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	122...125
6.2	3118	1.7	270.7:1	2700	**A353_270.7**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
6.1	3127	1.1	271.5:1	2160	**A303_271.5**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	114...117
5.9	3174	4.2	286.8:1	4500	**A504_286.8**		**P71 + BN71A4**	**N56C**	126...129
5.9	3263	2.2	291.7:1	3380	**A413_291.7**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	122...125
5.5	3518	1.5	305.4:1	2700	**A353_305.4**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
5.1	3734	2.0	324.2:1	3380	**A413_324.2**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	122...125
5.1	3681	3.6	332.6:1	4500	**A504_332.6**		**P71 + BN71A4**	**N56C**	126...129
4.9	3909	1.1	339.3:1	2700	**A353_339.3**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	118...121
4.7	4047	3.3	365.6:1	4500	**A504_365.6**		**P71 + BN71A4**	**N56C**	126...129
4.5	4341	1.7	376.8:1	3380	**A413_376.8**	**S05 + M05C4**	**P71 + BN71A4**	**N56C**	122...125
4.2	4498	3.0	406.4:1	4500	**A504_406.4**		**P71 + BN71A4**	**N56C**	126...129
3.8	4945	2.7	446.8:1	4500	**A504_446.8**		**P71 + BN71A4**	**N56C**	126...129
3.6	5331	2.5	481.6:1	4500	**A504_481.6**		**P71 + BN71A4**	**N56C**	126...129
3.2	5860	2.2	529.5:1	4500	**A504_529.5**		**P71 + BN71A4**	**N56C**	126...129

0.33 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]					
3.1	5999	4.2	542.0:1	6750	**A604_542.0**		**P71 + BN71A4**	**N56C**	134...137
3.0	6355	2.1	574.2:1	4500	**A504_574.2**		**P71 + BN71A4**	**N56C**	126...129
3.0	6483	3.8	585.8:1	6750	**A604_585.8**		**P71 + BN71A4**	**N56C**	134...137
2.7	6986	1.8	631.2:1	4500	**A504_631.2**		**P71 + BN71A4**	**N56C**	126...129
2.7	7023	3.6	634.6:1	6750	**A604_634.6**		**P71 + BN71A4**	**N56C**	134...137
2.5	7717	3.2	697.3:1	6750	**A604_697.3**		**P71 + BN71A4**	**N56C**	134...137
2.3	7835	1.7	707.9:1	4500	**A504_707.9**		**P71 + BN71A4**	**N56C**	126...129
2.2	8361	3.0	755.4:1	6750	**A604_755.4**		**P71 + BN71A4**	**N56C**	134...137
2.2	8613	1.6	778.2:1	4500	**A504_778.2**		**P71 + BN71A4**	**N56C**	126...129
1.8	10255	4.3	926.5:1	11300	**A704_926.5**		**P71 + BN71A4**	**N56C**	138...141
1.6	11866	3.7	1072:1	11300	**A704_1072**		**P71 + BN71A4**	**N56C**	138...141
1.5	12855	3.4	1161:1	11300	**A704_1161**		**P71 + BN71A4**	**N56C**	138...141
1.4	13750	3.2	1242:1	11300	**A704_1242**		**P71 + BN71A4**	**N56C**	138...141
1.2	14896	3.0	1346:1	11300	**A704_1346**		**P71 + BN71A4**	**N56C**	138...141
1.1	17240	4.1	1558:1	14700	**A804_1558**		**P71 + BN71A4**	**N56C**	142...145
1.1	17521	2.6	1583:1	11300	**A704_1583**		**P71 + BN71A4**	**N56C**	138...141
0.99	18981	2.3	1715:1	11300	**A704_1715**		**P71 + BN71A4**	**N56C**	138...141

0.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]					
311	95	8.9	5.5:1	430	**A052_5.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
268	110	8.1	6.3:1	440	**A052_6.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
236	125	7.1	7.2:1	460	**A052_7.2**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
200	147	6.0	8.5:1	480	**A052_8.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
176	166	5.3	9.6:1	500	**A052_9.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
161	183	4.8	10.6:1	510	**A052_10.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
138	213	4.1	12.3:1	530	**A052_12.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
122	241	3.7	13.9:1	550	**A052_13.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
103	285	3.1	16.4:1	570	**A052_16.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
92	321	2.7	18.6:1	590	**A052_18.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
92	321	4.1	18.6:1	960	**A102_18.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
79	370	2.4	21.4:1	610	**A052_21.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
79	370	3.6	21.4:1	1190	**A102_21.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
72	411	2.1	23.8:1	620	**A052_23.8**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
72	411	3.2	23.8:1	1030	**A102_23.8**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
67	441	2.0	25.5:1	630	**A052_25.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105

0.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
67	441	3.0	25.5:1	1240	**A102_25.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
60	494	1.7	28.6:1	640	**A052_28.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
60	494	2.7	28.6:1	1080	**A102_28.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
58	506	4.3	29.2:1	1180	**A202_29.2**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	110...113
55	542	4.1	31.3:1	1200	**A202_31.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	110...113
53	557	1.6	32.2:1	660	**A052_32.2**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
53	557	2.4	32.2:1	1240	**A102_32.2**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
48	608	1.5	35.1:1	670	**A052_35.1**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
48	608	2.2	35.1:1	1140	**A102_35.1**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
48	613	3.6	35.4:1	1240	**A202_35.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	110...113
43	685	3.2	39.6:1	1280	**A202_39.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	110...113
42	707	1.2	40.9:1	680	**A052_40.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
42	707	1.9	40.9:1	1240	**A102_40.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
40	748	3.0	43.2:1	1300	**A202_43.2**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	110...113
37	785	1.1	45.4:1	690	**A052_45.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	103...105
37	785	1.7	45.4:1	1210	**A102_45.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
35	835	2.6	48.3:1	1340	**A202_48.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	110...113
35	835	4.3	48.3:1	1930	**A302_48.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117
33	887	1.5	51.3:1	1240	**A102_51.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
32	911	4.0	52.7:1	1980	**A302_52.7**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117
32	928	2.4	53.7:1	1370	**A202_53.7**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	110...113
29.0	1014	1.4	58.6:1	1240	**A102_58.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
28.7	1028	3.5	59.4:1	2050	**A302_59.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117
26.9	1092	2.0	63.1:1	1400	**A202_63.1**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	110...113
25.8	1141	1.1	65.9:1	1240	**A102_65.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	106...109
25.7	1142	3.0	66.0:1	2110	**A302_66.0**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117
23.9	1228	1.5	71.0:1	1400	**A202_71.0**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	110...113
22.8	1285	4.1	74.3:1	2700	**A352_74.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
22.2	1324	2.4	76.5:1	2160	**A302_76.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117
21.3	1382	1.4	79.9:1	1400	**A202_79.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	110...113
20.6	1428	3.7	82.5:1	2700	**A352_82.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
19.6	1499	1.9	86.7:1	2160	**A302_86.7**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117
17.7	1655	2.9	95.6:1	2700	**A352_95.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
17.5	1687	1.6	97.5:1	2160	**A302_97.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117
16.1	1768	2.6	105.5:1	2700	**A353_105.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
15.6	1827	1.5	109.1:1	2160	**A303_109.1**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117
14.6	1940	3.8	115.9:1	3380	**A413_115.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	122...125
14.5	1958	2.5	116.9:1	2700	**A353_116.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
14.1	2018	1.4	120.5:1	2160	**A303_120.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117
12.4	2283	2.2	136.3:1	2700	**A353_136.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
12.4	2302	1.2	137.4:1	2160	**A303_137.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117

0.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
11.5	2460	3.1	146.9:1	3380	**A413_146.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	122...125
11.3	2522	2.1	150.6:1	2700	**A353_150.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
11.3	2523	1.1	150.7:1	2160	**A303_150.7**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	114...117
9.9	2877	1.9	171.8:1	2700	**A353_171.8**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
9.2	3088	2.5	184.4:1	3380	**A413_184.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	122...125
9.1	3154	1.7	188.3:1	2700	**A353_188.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
8.9	3192	4.2	190.6:1	4500	**A503_190.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
8.6	3308	2.2	197.5:1	3380	**A413_197.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	122...125
8.4	3379	1.6	201.8:1	2700	**A353_201.8**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
8.1	3457	3.8	211.0:1	4500	**A504_211.0**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
7.8	3641	2.1	217.4:1	3380	**A413_217.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	122...125
7.6	3738	1.4	223.2:1	2700	**A353_223.2**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
7.3	3800	3.5	232.0:1	4500	**A504_232.0**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
7.1	4029	1.9	240.6:1	3380	**A413_240.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	122...125
6.8	4156	1.2	248.1:1	2700	**A353_248.1**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
6.6	4273	3.1	260.9:1	4500	**A504_260.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
6.5	4396	1.7	262.5:1	3380	**A413_262.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	122...125
6.3	4534	1.1	270.7:1	2700	**A353_270.7**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	118...121
6.0	4698	2.9	286.8:1	4500	**A504_286.8**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
5.8	4886	1.5	291.7:1	3380	**A413_291.7**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	122...125
5.2	5429	1.4	324.2:1	3380	**A413_324.2**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	122...125
5.1	5448	2.5	332.6:1	4500	**A504_332.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
4.8	5753	4.3	351.2:1	6750	**A604_351.2**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	134...137
4.6	5989	2.2	365.6:1	4500	**A504_365.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
4.5	6311	1.2	376.8:1	3380	**A413_376.8**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	122...125
4.2	6628	3.7	404.7:1	6750	**A604_404.7**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	134...137
4.2	6657	2.0	406.4:1	4500	**A504_406.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
3.8	7181	3.5	438.4:1	6750	**A604_438.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	134...137
3.8	7319	1.9	446.8:1	4500	**A504_446.8**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
3.5	7889	1.7	481.6:1	4500	**A504_481.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
3.4	8195	3.0	500.3:1	6750	**A604_500.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	134...137
3.2	8673	1.5	529.5:1	4500	**A504_529.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
3.1	8878	2.7	542.0:1	6750	**A604_542.0**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	134...137
3.0	9405	1.4	574.2:1	4500	**A504_574.2**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
2.9	9595	2.6	585.8:1	6750	**A604_585.8**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	134...137
2.7	10340	1.2	631.2:1	4500	**A504_631.2**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129
2.7	10395	2.4	634.6:1	6750	**A604_634.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	134...137
2.6	10559	4.2	644.6:1	11300	**A704_644.6**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141
2.5	11422	2.1	697.3:1	6750	**A604_697.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	134...137
2.4	11550	3.8	705.1:1	11300	**A704_705.1**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141
2.4	11595	1.1	707.9:1	4500	**A504_707.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	126...129

0.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
2.2	12374	2.0	755.4:1	6750	**A604_755.4**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	134...137
2.2	12513	3.5	763.9:1	11300	**A704_763.9**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141
2.0	14009	3.1	855.3:1	11300	**A704_855.3**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141
1.9	15177	2.9	926.5:1	11300	**A704_926.5**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141
1.7	16404	4.3	1001:1	14700	**A804_1001**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	142...145
1.6	17562	2.5	1072:1	11300	**A704_1072**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141
1.6	17771	4.0	1085:1	14700	**A804_1085**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	142...145
1.5	19025	2.4	1161:1	11300	**A704_1161**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141
1.4	20260	3.5	1237:1	14700	**A804_1237**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	142...145
1.4	20350	2.2	1242:1	11300	**A704_1242**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141
1.2	21948	3.2	1340:1	14700	**A804_1340**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	142...145
1.2	22045	2.0	1346:1	11300	**A704_1346**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141
1.2	23552	3.0	1438:1	14700	**A804_1438**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	142...145
1.1	25515	2.7	1558:1	14700	**A804_1558**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	142...145
1.1	25931	1.7	1583:1	11300	**A704_1583**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141
0.99	28092	1.6	1715:1	11300	**A704_1715**	**S1 + M1SD4**	**P71 + BN71B4**	**N56C**	138...141

0.75 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
312	140	6.1	5.5:1	410	**A052_5.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
270	162	5.5	6.3:1	430	**A052_6.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
237	184	4.8	7.2:1	440	**A052_7.2**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
201	218	4.1	8.5:1	460	**A052_8.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
178	246	3.6	9.6:1	480	**A052_9.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
162	270	3.2	10.6:1	480	**A052_10.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
139	315	2.9	12.3:1	500	**A052_12.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
139	315	4.0	12.3:1	830	**A102_12.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
123	356	2.5	13.9:1	520	**A052_13.9**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
123	356	3.7	13.9:1	860	**A102_13.9**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
104	421	2.1	16.4:1	530	**A052_16.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
104	421	3.1	16.4:1	1060	**A102_16.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
92	475	1.9	18.6:1	540	**A052_18.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
92	475	2.9	18.6:1	920	**A102_18.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
81	543	4.1	21.2:1	1040	**A202_21.2**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
81	546	1.6	21.4:1	560	**A052_21.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105

0.75 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
81	546	2.5	21.4:1	1130	**A102_21.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
74	591	3.7	23.1:1	1060	**A202_23.1**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
72	608	1.5	23.8:1	560	**A052_23.8**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
72	608	2.2	23.8:1	980	**A102_23.8**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
67	651	1.4	25.5:1	570	**A052_25.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
67	651	2.0	25.5:1	1180	**A102_25.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
64	677	3.2	26.5:1	1100	**A202_26.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
59	730	1.2	28.6:1	580	**A052_28.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	103...105
59	730	1.9	28.6:1	1020	**A102_28.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
58	747	3.0	29.2:1	1120	**A202_29.2**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
55	800	2.7	31.3:1	1140	**A202_31.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
53	823	1.6	32.2:1	1240	**A102_32.2**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
51	855	4.2	33.4:1	1690	**A302_33.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
48	898	1.5	35.1:1	1060	**A102_35.1**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
48	906	2.5	35.4:1	1170	**A202_35.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
47	937	3.8	36.6:1	1730	**A302_36.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
43	1004	3.6	39.3:1	1760	**A302_39.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
43	1013	2.2	39.6:1	1210	**A202_39.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
42	1045	1.2	40.9:1	1240	**A102_40.9**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
40	1105	2.0	43.2:1	1230	**A202_43.2**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
40	1110	3.2	43.4:1	1810	**A302_43.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
37	1161	1.1	45.4:1	1110	**A102_45.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	106...109
35	1235	1.7	48.3:1	1250	**A202_48.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
35	1235	3.0	48.3:1	1860	**A302_48.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
35	1255	4.2	49.1:1	2700	**A352_49.1**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
32	1347	2.7	52.7:1	1900	**A302_52.7**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
32	1372	1.6	53.7:1	1280	**A202_53.7**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
31	1388	3.8	54.3:1	2700	**A352_54.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
28.7	1519	2.4	59.4:1	1950	**A302_59.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
28.4	1543	3.5	60.4:1	2700	**A352_60.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
27.1	1614	1.4	63.1:1	1320	**A202_63.1**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	110...113
26.0	1683	3.1	65.8:1	2700	**A352_65.8**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
25.9	1688	2.0	66.0:1	2000	**A302_66.0**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
24.0	1823	4.1	71.3:1	3380	**A412_71.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	122...125
23.0	1899	2.9	74.3:1	2700	**A352_74.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
22.3	1956	1.6	76.5:1	2070	**A302_76.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
21.6	2026	3.7	79.2:1	3380	**A412_79.2**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	122...125
20.7	2110	2.5	82.5:1	2700	**A352_82.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
19.7	2216	1.2	86.7:1	2120	**A302_86.7**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
18.5	2296	3.1	92.8:1	3380	**A413_92.8**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	122...125
17.8	2445	2.0	95.6:1	2700	**A352_95.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121

0.75 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
17.6	2493	1.1	97.5:1	2160	**A302_97.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	114...117
16.2	2612	1.7	105.5:1	2700	**A353_105.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
14.7	2868	2.6	115.9:1	3380	**A413_115.9**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	122...125
14.6	2894	1.7	116.9:1	2700	**A353_116.9**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
13.3	3186	4.2	129.7:1	4500	**A503_129.7**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
12.5	3374	1.5	136.3:1	2700	**A353_136.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
12.3	3455	3.8	140.6:1	4500	**A503_140.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
11.6	3635	2.1	146.9:1	3380	**A413_146.9**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	122...125
11.4	3727	1.4	150.6:1	2700	**A353_150.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
11.2	3799	3.5	154.6:1	4500	**A503_154.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
9.9	4252	1.2	171.8:1	2700	**A353_171.8**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
9.9	4291	3.1	173.4:1	4500	**A503_173.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
9.8	4332	4.1	175.0:1	6750	**A553_175.0**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	130...133
9.3	4563	1.6	184.4:1	3380	**A413_184.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	122...125
9.0	4661	1.1	188.3:1	2700	**A353_188.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	118...121
8.9	4717	2.9	190.6:1	4500	**A503_190.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
8.8	4806	3.7	194.2:1	6750	**A553_194.2**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	130...133
8.7	4889	1.5	197.5:1	3380	**A413_197.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	122...125
8.1	5108	2.6	211.0:1	4500	**A504_211.0**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
7.8	5381	1.4	217.4:1	3380	**A413_217.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	122...125
7.3	5616	2.4	232.0:1	4500	**A504_232.0**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
7.1	5955	1.2	240.6:1	3380	**A413_240.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	122...125
6.6	6315	2.1	260.9:1	4500	**A504_260.9**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
6.6	6496	1.1	262.5:1	3380	**A413_262.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	122...125
6.4	6398	3.8	264.3:1	6750	**A604_264.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
5.9	6931	3.6	286.3:1	6750	**A604_286.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
5.9	6943	1.9	286.8:1	4500	**A504_286.8**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
5.3	7848	3.1	324.2:1	6750	**A604_324.2**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
5.1	8051	1.6	332.6:1	4500	**A504_332.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
4.8	8501	3.0	351.2:1	6750	**A604_351.2**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
4.7	8851	1.5	365.6:1	4500	**A504_365.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
4.2	9795	2.5	404.7:1	6750	**A604_404.7**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
4.2	9838	1.4	406.4:1	4500	**A504_406.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
3.8	10612	2.4	438.4:1	6750	**A604_438.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
3.8	10816	1.2	446.8:1	4500	**A504_446.8**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
3.6	11516	3.8	475.8:1	11300	**A704_475.8**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
3.6	11659	1.1	481.6:1	4500	**A504_481.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	126...129
3.5	12111	2.1	500.3:1	6750	**A604_500.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
3.3	12476	3.6	515.4:1	11300	**A704_515.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
3.1	13120	1.9	542.0:1	6750	**A604_542.0**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
3.0	14180	1.7	585.8:1	6750	**A604_585.8**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137

0.75 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]					
2.9	14404	3.1	595.0:1	11300	**A704_595.0**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
2.7	15361	1.6	634.6:1	6750	**A604_634.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
2.6	15604	2.9	644.6:1	11300	**A704_644.6**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
2.5	16879	1.5	697.3:1	6750	**A604_697.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
2.5	17028	4.2	703.5:1	14700	**A804_703.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	142...145
2.5	17069	2.6	705.1:1	11300	**A704_705.1**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
2.2	18286	1.4	755.4:1	6750	**A604_755.4**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	134...137
2.2	18447	3.8	762.1:1	14700	**A804_762.1**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	142...145
2.2	18491	2.4	763.9:1	11300	**A704_763.9**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
2.1	20080	3.5	829.5:1	14700	**A804_829.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	142...145
2.0	20703	2.1	855.3:1	11300	**A704_855.3**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
1.9	21753	3.2	898.7:1	14700	**A804_898.7**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	142...145
1.9	22428	2.0	926.5:1	11300	**A704_926.5**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
1.7	24241	3.0	1001:1	14700	**A804_1001**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	142...145
1.6	25953	1.7	1072:1	11300	**A704_1072**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
1.6	26261	2.7	1085:1	14700	**A804_1085**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	142...145
1.5	28115	1.6	1161:1	11300	**A704_1161**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
1.4	29372	4.2	1222:1	16900	**A904_1222**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	146...149
1.4	29940	2.4	1237:1	14700	**A804_1237**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	142...145
1.4	30073	1.5	1242:1	11300	**A704_1242**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
1.2	31819	3.8	1324:1	16900	**A904_1324**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	146...149
1.2	32435	2.2	1340:1	14700	**A804_1340**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	142...145
1.2	32579	1.4	1346:1	11300	**A704_1346**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
1.2	34805	2.0	1438:1	14700	**A804_1438**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	142...145
1.1	36211	3.5	1507:1	16900	**A904_1507**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	146...149
1.1	37706	1.9	1558:1	14700	**A804_1558**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	142...145
1.1	38321	1.1	1583:1	11300	**A704_1583**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141
1.1	39513	3.1	1632:1	16900	**A904_1632**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	146...149
0.99	41514	1.1	1715:1	11300	**A704_1715**	**S1 + M1LA4**	**P80 + BN80A4**	**N56C**	138...141

1 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]					
315	189	4.4	5.5:1	400	**A052_5.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105
272	220	4.1	6.3:1	410	**A052_6.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105
238	250	3.6	7.2:1	430	**A052_7.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105
201	295	2.9	8.5:1	440	**A052_8.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105

1 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
201	295	4.2	8.5:1	860	**A102_8.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
179	333	2.7	9.6:1	450	**A052_9.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105
179	333	3.7	9.6:1	750	**A102_9.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
163	366	2.5	10.6:1	460	**A052_10.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105
163	366	3.7	10.6:1	770	**A102_10.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
140	427	2.1	12.3:1	470	**A052_12.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105
140	427	2.9	12.3:1	800	**A102_12.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
124	483	1.8	13.9:1	480	**A052_13.9**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105
124	483	2.7	13.9:1	820	**A102_13.9**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
107	560	3.9	16.2:1	930	**A202_16.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
104	570	1.6	16.4:1	490	**A052_16.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105
104	570	2.3	16.4:1	1010	**A102_16.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
95	628	3.6	18.1:1	960	**A202_18.1**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
92	644	1.4	18.6:1	500	**A052_18.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105
92	644	2.1	18.6:1	880	**A102_18.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
81	736	2.9	21.2:1	990	**A202_21.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
81	740	1.2	21.4:1	500	**A052_21.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	103...105
81	740	1.8	21.4:1	1070	**A102_21.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
75	801	2.7	23.1:1	1010	**A202_23.1**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
72	824	1.6	23.8:1	920	**A102_23.8**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
68	883	1.5	25.5:1	1110	**A102_25.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
65	917	2.5	26.5:1	1040	**A202_26.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
65	920	3.9	26.5:1	1530	**A302_26.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
60	990	1.4	28.6:1	950	**A102_28.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
59	1013	2.2	29.2:1	1060	**A202_29.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
59	1016	3.6	29.3:1	1570	**A302_29.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
55	1085	2.1	31.3:1	1080	**A202_31.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
53	1116	1.2	32.2:1	1150	**A102_32.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
52	1159	3.1	33.4:1	1620	**A302_33.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
49	1217	1.1	35.1:1	980	**A102_35.1**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	106...109
49	1228	1.8	35.4:1	1100	**A202_35.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
47	1270	4.2	36.6:1	2590	**A352_36.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
47	1270	2.8	36.6:1	1660	**A302_36.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
44	1361	2.7	39.3:1	1690	**A302_39.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
43	1373	1.6	39.6:1	1130	**A202_39.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
42	1448	3.7	41.8:1	2680	**A352_41.8**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
39	1498	1.5	43.2:1	1140	**A202_43.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
39	1505	2.5	43.4:1	1730	**A302_43.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
38	1588	3.3	45.8:1	2700	**A352_45.8**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
36	1674	1.4	48.3:1	1160	**A202_48.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
36	1674	2.2	48.3:1	1770	**A302_48.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
35	1701	3.1	49.1:1	2700	**A352_49.1**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121

1 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
33	1826	2.0	52.7:1	1800	**A302_52.7**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
32	1842	4.1	53.1:1	3380	**A412_53.1**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	122...125
32	1860	1.2	53.7:1	1180	**A202_53.7**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	110...113
32	1882	2.8	54.3:1	2700	**A352_54.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
29.2	2038	3.7	58.8:1	3380	**A412_58.8**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	122...125
29.0	2060	1.7	59.4:1	1850	**A302_59.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
28.5	2092	2.6	60.4:1	2700	**A352_60.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
26.8	2224	3.4	64.2:1	3380	**A412_64.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	122...125
26.2	2282	2.3	65.8:1	2700	**A352_65.8**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
26.0	2289	1.5	66.0:1	1880	**A302_66.0**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
24.1	2472	3.1	71.3:1	3380	**A412_71.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	122...125
23.1	2575	2.1	74.3:1	2700	**A352_74.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
22.5	2652	1.2	76.5:1	1930	**A302_76.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	114...117
21.7	2746	2.7	79.2:1	3380	**A412_79.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	122...125
20.9	2861	1.8	82.5:1	2700	**A352_82.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
18.6	3113	2.3	92.8:1	3380	**A413_92.8**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	122...125
17.9	3315	1.5	95.6:1	2700	**A352_95.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
17.3	3340	3.9	99.5:1	4500	**A503_99.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
16.3	3541	1.4	105.5:1	2700	**A353_105.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
15.7	3672	3.6	109.4:1	4500	**A503_109.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
14.9	3888	2.0	115.9:1	3380	**A413_115.9**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	122...125
14.7	3923	1.2	116.9:1	2700	**A353_116.9**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
14.6	3958	3.3	118.0:1	4500	**A503_118.0**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
13.9	4157	4.3	123.9:1	6750	**A553_123.9**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	130...133
13.3	4351	3.1	129.7:1	4500	**A503_129.7**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
12.9	4454	3.9	132.7:1	6750	**A553_132.7**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	130...133
12.7	4575	1.1	136.3:1	2700	**A353_136.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	118...121
12.3	4718	2.8	140.6:1	4500	**A503_140.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
11.7	4926	3.6	146.8:1	6750	**A553_146.8**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	130...133
11.7	4929	1.5	146.9:1	3380	**A413_146.9**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	122...125
11.2	5187	2.6	154.6:1	4500	**A503_154.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
10.7	5383	3.3	160.4:1	6750	**A553_160.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	130...133
10.1	5753	4.3	171.5:1	6750	**A603_171.5**	**S2 + M2SA4**	**P80 + BN80B4**		134...137
10.0	5817	2.3	173.4:1	4500	**A503_173.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
9.8	5873	3.1	175.0:1	6750	**A553_175.0**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	130...133
9.3	6186	1.2	184.4:1	3380	**A413_184.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	122...125
9.2	6233	3.9	185.8:1	6750	**A603_185.8**	**S2 + M2SA4**	**P80 + BN80B4**		134...137
9.0	6395	2.1	190.6:1	4500	**A503_190.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
8.8	6516	2.7	194.2:1	6750	**A553_194.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	130...133
8.7	6628	1.1	197.5:1	3380	**A413_197.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	122...125
8.2	6850	3.6	208.7:1	6750	**A604_208.7**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
8.1	6925	2.0	211.0:1	4500	**A504_211.0**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129

1 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
7.6	7421	3.3	226.1:1	6750	**A604_226.1**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
7.4	7613	1.7	232.0:1	4500	**A504_232.0**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
6.6	8561	1.6	260.9:1	4500	**A504_260.9**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
6.5	8673	2.8	264.3:1	6750	**A604_264.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
6.0	9396	2.6	286.3:1	6750	**A604_286.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
6.0	9412	1.4	286.8:1	4500	**A504_286.8**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
5.4	10382	4.3	316.4:1	11300	**A704_316.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
5.3	10639	2.3	324.2:1	6750	**A604_324.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
5.2	10915	1.2	332.6:1	4500	**A504_332.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
4.9	11526	2.2	351.2:1	6750	**A604_351.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
4.7	11999	1.1	365.6:1	4500	**A504_365.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	126...129
4.7	12122	3.7	369.4:1	11300	**A704_369.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
4.3	13132	3.3	400.2:1	11300	**A704_400.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
4.3	13280	1.8	404.7:1	6750	**A604_404.7**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
3.9	14386	1.7	438.4:1	6750	**A604_438.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
3.6	15613	2.8	475.8:1	11300	**A704_475.8**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
3.4	16419	1.5	500.3:1	6750	**A604_500.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
3.3	16914	2.6	515.4:1	11300	**A704_515.4**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
3.2	17787	1.4	542.0:1	6750	**A604_542.0**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
3.1	18392	3.8	560.5:1	14700	**A804_560.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
2.9	19223	1.2	585.8:1	6750	**A604_585.8**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
2.9	19527	2.2	595.0:1	11300	**A704_595.0**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
2.8	19925	3.6	607.2:1	14700	**A804_607.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
2.7	20825	1.2	634.6:1	6750	**A604_634.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
2.7	21154	2.1	644.6:1	11300	**A704_644.6**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
2.5	22883	1.1	697.3:1	6750	**A604_697.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	134...137
2.5	23085	3.1	703.5:1	14700	**A804_703.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
2.5	23140	2.0	705.1:1	11300	**A704_705.1**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
2.2	25009	2.8	762.1:1	14700	**A804_762.1**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
2.2	25069	1.7	763.9:1	11300	**A704_763.9**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
2.1	27222	2.6	829.5:1	14700	**A804_829.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
2.0	28067	1.6	855.3:1	11300	**A704_855.3**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
2.0	29491	2.5	898.7:1	14700	**A804_898.7**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
1.8	30406	1.5	926.5:1	11300	**A704_926.5**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
1.8	30755	4.1	937.2:1	16900	**A904_937.2**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	146...149
1.7	32864	2.2	1001:1	14700	**A804_1001**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
1.7	33643	3.7	1025:1	16900	**A904_1025**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	146...149
1.6	35184	1.2	1072:1	11300	**A704_1072**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
1.6	35602	2.0	1085:1	14700	**A804_1085**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
1.6	36446	3.4	1111:1	16900	**A904_1111**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	146...149
1.5	38116	1.1	1161:1	11300	**A704_1161**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
1.4	40108	3.1	1222:1	16900	**A904_1222**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	146...149

1 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
1.4	40590	1.7	1237:1	14700	**A804_1237**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
1.4	40770	1.1	1242:1	11300	**A704_1242**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	138...141
1.4	43450	2.8	1324:1	16900	**A904_1324**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	146...149
1.2	43972	1.6	1340:1	14700	**A804_1340**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
1.2	47186	1.5	1438:1	14700	**A804_1438**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
1.1	49447	2.5	1507:1	16900	**A904_1507**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	146...149
1.1	51118	1.4	1558:1	14700	**A804_1558**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	142...145
1.1	53568	2.3	1632:1	16900	**A904_1632**	**S2 + M2SA4**	**P80 + BN80B4**	**N56C**	146...149

1.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
315	278	3.1	5.5:1	370	**A052_5.5**	**S2 + M2SB4**	**P90 + BN90S4**		103...105
272	322	2.7	6.3:1	380	**A052_6.3**	**S2 + M2SB4**	**P90 + BN90S4**		103...105
272	322	3.8	6.3:1	770	**A102_6.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
238	367	2.5	7.2:1	390	**A052_7.2**	**S2 + M2SB4**	**P90 + BN90S4**		103...105
238	367	3.4	7.2:1	670	**A102_7.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
201	433	2.1	8.5:1	410	**A052_8.5**	**S2 + M2SB4**	**P90 + BN90S4**		103...105
201	433	2.8	8.5:1	820	**A102_8.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
183	477	3.9	9.4:1	770	**A202_9.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
179	489	1.8	9.6:1	410	**A052_9.6**	**S2 + M2SB4**	**P90 + BN90S4**		103...105
179	489	2.6	9.6:1	710	**A102_9.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
166	525	3.8	10.3:1	790	**A202_10.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
163	537	1.6	10.6:1	410	**A052_10.6**	**S2 + M2SB4**	**P90 + BN90S4**		103...105
163	537	2.5	10.6:1	730	**A102_10.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
144	608	3.1	12.0:1	820	**A202_12.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
140	626	1.5	12.3:1	420	**A052_12.3**	**S2 + M2SB4**	**P90 + BN90S4**		103...105
140	626	2.0	12.3:1	750	**A102_12.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
124	708	1.2	13.9:1	420	**A052_13.9**	**S2 + M2SB4**	**P90 + BN90S4**		103...105
124	708	1.8	13.9:1	760	**A102_13.9**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
122	716	3.1	14.1:1	850	**A202_14.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
107	822	2.7	16.2:1	880	**A202_16.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
106	831	4.1	16.3:1	1300	**A302_16.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
104	836	1.6	16.4:1	930	**A102_16.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
96	914	3.9	18.0:1	1330	**A302_18.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
95	920	2.5	18.1:1	900	**A202_18.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113

1.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]					
92	944	1.4	18.6:1	800	**A102_18.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
84	1044	3.4	20.5:1	1370	**A302_20.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
81	1079	2.1	21.2:1	920	**A202_21.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
81	1086	1.2	21.4:1	970	**A102_21.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
76	1157	3.2	22.8:1	1400	**A302_22.8**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
75	1175	1.8	23.1:1	940	**A202_23.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
72	1208	1.1	23.8:1	820	**A102_23.8**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	106...109
68	1305	4.1	25.7:1	2280	**A352_25.7**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
65	1345	1.6	26.5:1	960	**A202_26.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
65	1349	2.7	26.5:1	1450	**A302_26.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
60	1446	3.7	28.4:1	2340	**A352_28.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
59	1485	1.5	29.2:1	970	**A202_29.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
59	1490	2.5	29.3:1	1480	**A302_29.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
55	1591	1.4	31.3:1	980	**A202_31.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
52	1686	3.2	33.2:1	2430	**A352_33.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
52	1699	2.1	33.4:1	1520	**A302_33.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
49	1801	1.2	35.4:1	990	**A202_35.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	110...113
48	1825	3.8	35.9:1	3220	**A412_35.9**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	122...125
47	1862	2.8	36.6:1	2500	**A352_36.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
47	1863	2.0	36.6:1	1550	**A302_36.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
44	1996	1.8	39.3:1	1570	**A302_39.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
42	2124	2.5	41.8:1	2570	**A352_41.8**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
39	2208	1.6	43.4:1	1600	**A302_43.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
38	2291	3.2	45.1:1	3380	**A412_45.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	122...125
38	2329	2.3	45.8:1	2640	**A352_45.8**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
36	2455	1.5	48.3:1	1630	**A302_48.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
36	2455	3.1	48.3:1	3380	**A412_48.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	122...125
35	2495	2.1	49.1:1	2660	**A352_49.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
33	2678	1.4	52.7:1	1650	**A302_52.7**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
32	2702	2.8	53.1:1	3380	**A412_53.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	122...125
32	2760	2.0	54.3:1	2700	**A352_54.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
29.2	2990	2.5	58.8:1	3380	**A412_58.8**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	122...125
29.0	3021	1.2	59.4:1	1670	**A302_59.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	114...117
28.5	3068	1.7	60.4:1	2700	**A352_60.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
26.9	3144	4.2	63.9:1	4500	**A503_63.9**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
26.8	3261	2.3	64.2:1	3380	**A412_64.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	122...125
26.2	3347	1.6	65.8:1	2700	**A352_65.8**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
24.4	3457	3.8	70.2:1	4500	**A503_70.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
24.1	3625	2.1	71.3:1	3380	**A412_71.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	122...125
23.1	3776	1.4	74.3:1	2700	**A352_74.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
21.7	4028	1.8	79.2:1	3380	**A412_79.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	122...125

1.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
21.1	4008	3.3	81.5:1	4500	**A503_81.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
20.9	4196	1.2	82.5:1	2700	**A352_82.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	118...121
19.2	4407	3.1	89.5:1	4500	**A503_89.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
18.6	4565	1.6	92.8:1	3380	**A413_92.8**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	122...125
17.3	4898	2.7	99.5:1	4500	**A503_99.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
17.0	4989	3.6	101.4:1	6750	**A553_101.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	130...133
15.7	5385	2.5	109.4:1	4500	**A503_109.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
14.9	5702	1.4	115.9:1	3380	**A413_115.9**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	122...125
14.6	5805	2.3	118.0:1	4500	**A503_118.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
14.0	6055	4.1	123.0:1	6750	**A603_123.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
13.9	6097	2.9	123.9:1	6750	**A553_123.9**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	130...133
13.3	6381	2.1	129.7:1	4500	**A503_129.7**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
12.9	6532	2.7	132.7:1	6750	**A553_132.7**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	130...133
12.9	6559	3.8	133.3:1	6750	**A603_133.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
12.3	6920	2.0	140.6:1	4500	**A503_140.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
11.9	7089	3.4	144.0:1	6750	**A603_144.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
11.7	7225	2.5	146.8:1	6750	**A553_146.8**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	130...133
11.2	7608	1.7	154.6:1	4500	**A503_154.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
11.1	7679	3.2	156.0:1	6750	**A603_156.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
10.7	7896	2.2	160.4:1	6750	**A553_160.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	130...133
10.1	8438	2.9	171.5:1	6750	**A603_171.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
10.0	8532	1.6	173.4:1	4500	**A503_173.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
9.8	8613	2.1	175.0:1	6750	**A553_175.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	130...133
9.2	9142	2.7	185.8:1	6750	**A603_185.8**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
9.0	9379	1.5	190.6:1	4500	**A503_190.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
8.8	9557	1.8	194.2:1	6750	**A553_194.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	130...133
8.2	10046	2.5	208.7:1	6750	**A604_208.7**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
8.1	10157	1.4	211.0:1	4500	**A504_211.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
7.9	10601	4.2	220.3:1	11300	**A704_220.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
7.6	10884	2.3	226.1:1	6750	**A604_226.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
7.4	11166	1.2	232.0:1	4500	**A504_232.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
7.2	11485	3.8	238.6:1	11300	**A704_238.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
6.6	12557	1.1	260.9:1	4500	**A504_260.9**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	126...129
6.5	12721	2.0	264.3:1	6750	**A604_264.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
6.0	13781	1.8	286.3:1	6750	**A604_286.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
5.9	14055	3.2	292.0:1	11300	**A704_292.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
5.4	15226	2.9	316.4:1	11300	**A704_316.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
5.3	15604	1.6	324.2:1	6750	**A604_324.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
4.9	16904	1.5	351.2:1	6750	**A604_351.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
4.9	17037	4.2	354.0:1	14700	**A804_354.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
4.7	17779	2.5	369.4:1	11300	**A704_369.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141

1.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
4.5	18457	3.8	383.5:1	14700	**A804_383.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
4.3	19261	2.3	400.2:1	11300	**A704_400.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
4.3	19477	1.2	404.7:1	6750	**A604_404.7**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
3.9	21100	1.2	438.4:1	6750	**A604_438.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	134...137
3.9	21278	3.3	442.1:1	14700	**A804_442.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
3.6	22899	2.0	475.8:1	11300	**A704_475.8**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
3.6	23051	3.1	478.9:1	14700	**A804_478.9**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
3.3	24807	1.8	515.4:1	11300	**A704_515.4**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
3.1	26975	2.6	560.5:1	14700	**A804_560.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
2.9	28640	1.6	595.0:1	11300	**A704_595.0**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
2.8	28954	4.3	601.6:1	16900	**A904_601.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149
2.8	29223	2.5	607.2:1	14700	**A804_607.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
2.7	31027	1.5	644.6:1	11300	**A704_644.6**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
2.5	33859	2.1	703.5:1	14700	**A804_703.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
2.5	33939	1.4	705.1:1	11300	**A704_705.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
2.5	34073	3.7	707.9:1	16900	**A904_707.9**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149
2.2	36680	2.0	762.1:1	14700	**A804_762.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
2.2	36767	1.2	763.9:1	11300	**A704_763.9**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
2.2	36913	3.3	766.9:1	16900	**A904_766.9**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149
2.1	39926	1.7	829.5:1	14700	**A804_829.5**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
2.0	41165	1.1	855.3:1	11300	**A704_855.3**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	138...141
2.0	41638	2.9	865.1:1	16900	**A904_865.1**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149
2.0	43253	1.6	898.7:1	14700	**A804_898.7**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
1.8	45108	2.7	937.2:1	16900	**A904_937.2**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149
1.7	48200	1.5	1001:1	14700	**A804_1001**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
1.7	49342	2.5	1025:1	16900	**A904_1025**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149
1.6	52217	1.4	1085:1	14700	**A804_1085**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
1.6	53454	2.3	1111:1	16900	**A904_1111**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149
1.4	58825	2.1	1222:1	16900	**A904_1222**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149
1.4	59532	1.2	1237:1	14700	**A804_1237**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
1.4	63727	2.0	1324:1	16900	**A904_1324**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149
1.2	64493	1.1	1340:1	14700	**A804_1340**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	142...145
1.1	72523	1.7	1507:1	16900	**A904_1507**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149
1.1	78566	1.6	1632:1	16900	**A904_1632**	**S2 + M2SB4**	**P90 + BN90S4**	**N140TC**	146...149

2 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
315	379	3.3	5.5:1	600	**A102_5.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	106...109
272	439	2.8	6.3:1	730	**A102_6.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	106...109
263	453	4.1	6.5:1	680	**A202_6.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
239	500	2.4	7.2:1	630	**A102_7.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	106...109
235	505	3.7	7.3:1	700	**A202_7.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
205	580	3.2	8.4:1	720	**A202_8.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
202	590	2.1	8.5:1	770	**A102_8.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	106...109
184	645	4.1	9.3:1	1080	**A302_9.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
183	650	2.8	9.4:1	740	**A202_9.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
179	667	1.8	9.6:1	670	**A102_9.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	106...109
166	716	2.8	10.3:1	750	**A202_10.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
165	725	4.1	10.5:1	1110	**A302_10.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
163	732	1.8	10.6:1	680	**A102_10.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	106...109
146	817	3.3	11.8:1	1140	**A302_11.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
144	829	2.2	12.0:1	770	**A202_12.0**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
140	853	1.5	12.3:1	690	**A102_12.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	106...109
127	940	3.5	13.6:1	1190	**A302_13.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
123	966	1.3	13.9:1	700	**A102_13.9**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	106...109
122	976	2.2	14.1:1	800	**A202_14.1**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
106	1121	2.0	16.2:1	810	**A202_16.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
105	1133	3.0	16.3:1	1240	**A302_16.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
105	1140	1.2	16.4:1	840	**A102_16.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	106...109
95	1247	2.8	18.0:1	1260	**A302_18.0**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
95	1255	1.7	18.1:1	830	**A202_18.1**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
84	1416	3.8	20.4:1	2070	**A352_20.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
84	1424	2.6	20.5:1	1300	**A302_20.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
81	1471	1.5	21.2:1	840	**A202_21.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
77	1558	3.4	22.5:1	2120	**A352_22.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
76	1572	3.8	22.7:1	2750	**A412_22.7**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
76	1577	2.3	22.8:1	1320	**A302_22.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
74	1602	1.3	23.1:1	850	**A202_23.1**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
67	1780	2.9	25.7:1	2190	**A352_25.7**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
65	1835	1.2	26.5:1	860	**A202_26.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	110...113
65	1839	2.0	26.5:1	1360	**A302_26.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
61	1963	3.3	28.3:1	2930	**A412_28.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
61	1971	2.7	28.4:1	2240	**A352_28.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
59	2031	1.8	29.3:1	1390	**A302_29.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
52	2299	2.3	33.2:1	2320	**A352_33.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
51	2317	1.6	33.4:1	1410	**A302_33.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
48	2489	2.8	35.9:1	3110	**A412_35.9**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
46	2539	2.1	36.6:1	2370	**A352_36.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121

2 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
46	2540	1.5	36.6:1	1430	**A302_36.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
44	2722	1.3	39.3:1	1440	**A302_39.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
41	2897	1.8	41.8:1	2430	**A352_41.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
39	3011	1.2	43.4:1	1450	**A302_43.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	114...117
38	3124	2.3	45.1:1	3290	**A412_45.1**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
38	3176	1.7	45.8:1	2480	**A352_45.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
36	3347	2.2	48.3:1	3350	**A412_48.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
35	3402	1.6	49.1:1	2500	**A352_49.1**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
33	3468	3.8	51.7:1	4430	**A503_51.7**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
32	3684	2.1	53.1:1	3380	**A412_53.1**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
32	3763	1.5	54.3:1	2550	**A352_54.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
30	3813	3.5	56.8:1	4500	**A503_56.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
29.3	4077	1.8	58.8:1	3380	**A412_58.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
28.5	4184	1.2	60.4:1	2590	**A352_60.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
27.0	4288	3.0	63.9:1	4500	**A503_63.9**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
26.8	4447	1.7	64.2:1	3380	**A412_64.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
26.7	4317	4.1	64.3:1	6750	**A553_64.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	130...133
26.1	4564	1.2	65.8:1	2610	**A352_65.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	118...121
24.5	4714	2.8	70.2:1	4500	**A503_70.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
24.2	4944	1.5	71.3:1	3380	**A412_71.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
21.7	5493	1.3	79.2:1	3380	**A412_79.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
21.6	5337	3.3	79.5:1	6750	**A553_79.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	130...133
21.1	5466	2.4	81.5:1	4500	**A503_81.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
19.9	5796	4.3	86.4:1	6750	**A603_86.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
19.2	6009	2.2	89.5:1	4500	**A503_89.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
18.5	6226	1.1	92.8:1	3380	**A413_92.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	122...125
17.3	6678	3.7	99.5:1	6750	**A603_99.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
17.3	6680	2.0	99.5:1	4500	**A503_99.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
17.0	6803	2.6	101.4:1	6750	**A553_101.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	130...133
16.0	7234	3.4	107.8:1	6750	**A603_107.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
15.7	7343	1.8	109.4:1	4500	**A503_109.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
14.6	7916	1.7	118.0:1	4500	**A503_118.0**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
14.0	8256	3.0	123.0:1	6750	**A603_123.0**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
13.9	8314	2.1	123.9:1	6750	**A553_123.9**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	130...133
13.3	8702	1.6	129.7:1	4500	**A503_129.7**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
12.9	8908	2.0	132.7:1	6750	**A553_132.7**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	130...133
12.9	8944	2.8	133.3:1	6750	**A603_133.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
12.2	9437	1.5	140.6:1	4500	**A503_140.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
12.0	9666	2.6	144.0:1	6750	**A603_144.0**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
11.7	9852	1.8	146.8:1	6750	**A553_146.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	130...133
11.2	10313	3.4	153.7:1	11300	**A703_153.7**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141

2 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
11.1	10374	1.2	154.6:1	4500	**A503_154.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
11.0	10472	2.3	156.0:1	6750	**A603_156.0**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
10.7	10767	1.6	160.4:1	6750	**A553_160.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	130...133
10.1	11142	4.0	169.8:1	11300	**A704_169.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
10.0	11507	2.2	171.5:1	6750	**A603_171.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
9.9	11634	1.1	173.4:1	4500	**A503_173.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	126...129
9.9	11746	1.5	175.0:1	6750	**A553_175.0**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	130...133
9.4	12070	3.7	183.9:1	11300	**A704_183.9**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
9.3	12466	2.0	185.8:1	6750	**A603_185.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
8.9	13032	1.3	194.2:1	6750	**A553_194.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	130...133
8.3	13700	1.8	208.7:1	6750	**A604_208.7**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
7.8	14456	3.0	220.3:1	11300	**A704_220.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
7.6	14841	1.7	226.1:1	6750	**A604_226.1**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
7.2	15661	2.8	238.6:1	11300	**A704_238.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
6.5	17346	1.5	264.3:1	6750	**A604_264.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
6.2	18199	3.9	277.3:1	14700	**A804_277.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
6.0	18792	1.3	286.3:1	6750	**A604_286.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
5.9	19166	2.3	292.0:1	11300	**A704_292.0**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
5.7	19716	3.5	300.4:1	14700	**A804_300.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
5.5	20763	2.1	316.4:1	11300	**A704_316.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
5.2	21278	1.2	324.2:1	6750	**A604_324.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
4.9	23051	1.1	351.2:1	6750	**A604_351.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	134...137
4.9	23232	3.0	354.0:1	14700	**A804_354.0**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
4.6	24244	1.8	369.4:1	11300	**A704_369.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
4.5	25168	2.8	383.5:1	14700	**A804_383.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
4.3	26264	1.7	400.2:1	11300	**A704_400.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
3.9	29015	2.4	442.1:1	14700	**A804_442.1**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
3.8	29480	4.1	449.2:1	16900	**A904_449.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
3.7	31226	1.5	475.8:1	11300	**A704_475.8**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
3.5	31433	2.2	478.9:1	14700	**A804_478.9**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
3.5	31937	3.9	486.6:1	16900	**A904_486.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
3.3	33828	1.3	515.4:1	11300	**A704_515.4**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
3.0	36446	3.4	555.3:1	16900	**A904_555.3**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
3.0	36784	2.0	560.5:1	14700	**A804_560.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
2.9	39054	1.1	595.0:1	11300	**A704_595.0**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
2.8	39483	3.2	601.6:1	16900	**A904_601.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
2.8	39850	1.8	607.2:1	14700	**A804_607.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
2.7	42309	1.1	644.6:1	11300	**A704_644.6**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	138...141
2.4	46171	1.6	703.5:1	14700	**A804_703.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
2.4	46463	2.7	707.9:1	16900	**A904_707.9**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
2.3	50018	1.5	762.1:1	14700	**A804_762.1**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145

2 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
2.2	50335	2.4	766.9:1	16900	**A904_766.9**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
2.1	54445	1.3	829.5:1	14700	**A804_829.5**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
2.0	56779	2.2	865.1:1	16900	**A904_865.1**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
2.0	58982	1.2	898.7:1	14700	**A804_898.7**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
1.8	61511	2.1	937.2:1	16900	**A904_937.2**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
1.7	65728	1.1	1001:1	14700	**A804_1001**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	142...145
1.7	67285	1.8	1025:1	16900	**A904_1025**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
1.6	72892	1.7	1111:1	16900	**A904_1111**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
1.5	80216	1.6	1222:1	16900	**A904_1222**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
1.3	86901	1.5	1324:1	16900	**A904_1324**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
1.1	98895	1.2	1507:1	16900	**A904_1507**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149
1.0	107136	1.1	1632:1	16900	**A904_1632**	**S3 + M3SA4**	**P90 + BN90LA4**	**N140TC**	146...149

3 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
321	544	3.4	5.4:1	610	**A202_5.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	110...113
315	556	2.2	5.5:1	550	**A102_5.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	106...109
272	644	2.0	6.3:1	670	**A102_6.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	106...109
268	652	4.0	6.4:1	940	**A302_6.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
263	665	2.8	6.5:1	640	**A202_6.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	110...113
245	714	3.7	7.0:1	960	**A302_7.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
239	733	1.7	7.2:1	570	**A102_7.2**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	106...109
235	741	2.6	7.3:1	650	**A202_7.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	110...113
205	851	2.2	8.4:1	660	**A202_8.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	110...113
204	860	3.0	8.5:1	1000	**A302_8.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
204	860	3.9	8.5:1	1590	**A352_8.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
202	866	1.5	8.5:1	690	**A102_8.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	106...109
184	947	2.8	9.3:1	1020	**A302_9.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
184	947	3.8	9.3:1	1630	**A352_9.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
183	953	2.0	9.4:1	670	**A202_9.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	110...113
179	978	1.2	9.6:1	580	**A102_9.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	106...109
166	1051	2.0	10.3:1	690	**A202_10.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	110...113
165	1063	2.8	10.5:1	1050	**A302_10.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
163	1073	1.2	10.6:1	590	**A102_10.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	106...109
162	1081	3.3	10.6:1	1690	**A352_10.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
146	1194	4.0	11.7:1	2220	**A412_11.7**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125

3 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
146	1198	2.2	11.8:1	1070	**A302_11.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
146	1198	2.9	11.8:1	1740	**A352_11.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
144	1217	1.6	12.0:1	700	**A202_12.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	110...113
132	1329	4.0	13.1:1	1760	**A352_13.1**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
127	1379	2.3	13.6:1	1110	**A302_13.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
124	1399	3.7	13.8:1	2320	**A412_13.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125
122	1431	1.5	14.1:1	710	**A202_14.1**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	110...113
111	1573	3.4	15.5:1	1840	**A352_15.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
107	1636	3.3	16.1:1	2430	**A412_16.1**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125
106	1644	1.3	16.2:1	710	**A202_16.2**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	110...113
105	1662	2.1	16.3:1	1140	**A302_16.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
101	1724	3.0	17.0:1	1880	**A352_17.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
96	1806	3.0	17.8:1	2480	**A412_17.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125
95	1829	2.0	18.0:1	1160	**A302_18.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
95	1841	1.2	18.1:1	710	**A202_18.1**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	110...113
84	2077	2.6	20.4:1	1950	**A352_20.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
84	2088	1.7	20.5:1	1180	**A302_20.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
77	2286	2.3	22.5:1	1990	**A352_22.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
76	2306	2.6	22.7:1	2640	**A412_22.7**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125
76	2313	1.6	22.8:1	1190	**A302_22.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
67	2610	2.1	25.7:1	2040	**A352_25.7**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
65	2697	1.3	26.5:1	1210	**A302_26.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
61	2879	2.2	28.3:1	2790	**A412_28.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125
61	2891	1.8	28.4:1	2080	**A352_28.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
59	2979	1.2	29.3:1	1210	**A302_29.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	114...117
54	3187	4.1	32.4:1	3740	**A503_32.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
52	3372	1.6	33.2:1	2130	**A352_33.2**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
49	3504	3.8	35.6:1	3830	**A503_35.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
48	3650	2.0	35.9:1	2950	**A412_35.9**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125
46	3724	1.5	36.6:1	2160	**A352_36.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
41	4029	3.3	40.9:1	3940	**A503_40.9**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
41	4248	1.2	41.8:1	2200	**A352_41.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
38	4430	3.0	45.0:1	4030	**A503_45.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
38	4582	1.6	45.1:1	3080	**A412_45.1**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125
38	4657	1.1	45.8:1	2220	**A352_45.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
36	4909	1.6	48.3:1	3130	**A412_48.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125
35	4990	1.1	49.1:1	2230	**A352_49.1**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	118...121
34	5015	3.5	51.0:1	6750	**A553_51.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	130...133
33	5087	2.6	51.7:1	4120	**A503_51.7**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
32	5403	1.3	53.1:1	3170	**A412_53.1**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125
30	5592	2.3	56.8:1	4190	**A503_56.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
29.3	5979	1.2	58.8:1	3240	**A412_58.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125

3 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA				
27.0	6288	2.1	63.9:1	4280	**A503_63.9**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
26.8	6523	1.1	64.2:1	3260	**A412_64.2**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	122...125
26.7	6331	2.8	64.3:1	6750	**A553_64.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	130...133
26.5	6397	3.9	65.0:1	6750	**A603_65.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
24.5	6913	2.0	70.2:1	4340	**A503_70.2**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
24.4	6930	3.5	70.4:1	6750	**A603_70.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
21.6	7827	2.3	79.5:1	6750	**A553_79.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	130...133
21.6	7846	3.2	79.7:1	6750	**A603_79.7**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
21.1	8017	1.7	81.5:1	4410	**A503_81.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
19.9	8500	2.9	86.4:1	6750	**A603_86.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
19.2	8813	1.5	89.5:1	4460	**A503_89.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
17.3	9794	2.6	99.5:1	6750	**A603_99.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
17.3	9797	1.3	99.5:1	4500	**A503_99.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
17.0	9978	1.8	101.4:1	6750	**A553_101.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	130...133
16.5	10260	4.3	104.2:1	11300	**A703_104.2**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
16.0	10610	2.3	107.8:1	6750	**A603_107.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
15.7	10770	1.2	109.4:1	4500	**A503_109.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
14.6	11609	1.1	118.0:1	4500	**A503_118.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	126...129
14.3	11872	3.8	120.6:1	11300	**A703_120.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
14.0	12109	2.1	123.0:1	6750	**A603_123.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
13.9	12194	1.5	123.9:1	6750	**A553_123.9**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	130...133
13.2	12861	3.4	130.7:1	11300	**A703_130.7**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
12.9	13064	1.3	132.7:1	6750	**A553_132.7**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	130...133
12.9	13118	1.8	133.3:1	6750	**A603_133.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
12.1	13963	3.2	141.9:1	11300	**A703_141.9**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
12.0	14178	1.7	144.0:1	6750	**A603_144.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
11.7	14450	1.2	146.8:1	6750	**A553_146.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	130...133
11.2	15126	2.3	153.7:1	11300	**A703_153.7**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
11.0	15359	1.6	156.0:1	6750	**A603_156.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
10.7	15791	1.1	160.4:1	6750	**A553_160.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	130...133
10.1	16341	2.7	169.8:1	11300	**A704_169.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
10.0	16490	4.3	171.3:1	14700	**A804_171.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
10.0	16877	1.5	171.5:1	6750	**A603_171.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
9.4	17703	2.4	183.9:1	11300	**A704_183.9**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
9.3	18283	1.3	185.8:1	6750	**A603_185.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
8.3	20093	1.2	208.7:1	6750	**A604_208.7**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
8.1	20671	3.4	214.7:1	14700	**A804_214.7**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
7.8	21202	2.1	220.3:1	11300	**A704_220.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
7.6	21767	1.1	226.1:1	6750	**A604_226.1**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	134...137
7.4	22393	3.2	232.6:1	14700	**A804_232.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
7.2	22969	2.0	238.6:1	11300	**A704_238.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
6.2	26692	2.7	277.3:1	14700	**A804_277.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145

3 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
5.9	28110	1.6	292.0:1	11300	**A704_292.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
5.7	28916	2.4	300.4:1	14700	**A804_300.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
5.6	29349	4.3	304.9:1	16900	**A904_304.9**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
5.5	30453	1.5	316.4:1	11300	**A704_316.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
4.9	34074	2.1	354.0:1	14700	**A804_354.0**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
4.9	34250	3.7	355.8:1	16900	**A904_355.8**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
4.6	35558	1.2	369.4:1	11300	**A704_369.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
4.5	36914	2.0	383.5:1	14700	**A804_383.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
4.5	37104	3.3	385.4:1	16900	**A904_385.4**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
4.3	38521	1.1	400.2:1	11300	**A704_400.2**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	138...141
3.9	42556	1.7	442.1:1	14700	**A804_442.1**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
3.8	43237	2.8	449.2:1	16900	**A904_449.2**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
3.5	46102	1.6	478.9:1	14700	**A804_478.9**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
3.5	46840	2.7	486.6:1	16900	**A904_486.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
3.0	53454	2.3	555.3:1	16900	**A904_555.3**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
3.0	53951	1.3	560.5:1	14700	**A804_560.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
2.8	57909	2.2	601.6:1	16900	**A904_601.6**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
2.8	58446	1.2	607.2:1	14700	**A804_607.2**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
2.4	67717	1.1	703.5:1	14700	**A804_703.5**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	142...145
2.4	68146	1.8	707.9:1	16900	**A904_707.9**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
2.2	73825	1.7	766.9:1	16900	**A904_766.9**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
2.0	83276	1.5	865.1:1	16900	**A904_865.1**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
1.8	90216	1.3	937.2:1	16900	**A904_937.2**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
1.7	98685	1.2	1025:1	16900	**A904_1025**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
1.6	106908	1.2	1111:1	16900	**A904_1111**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149
1.5	117650	1.1	1222:1	16900	**A904_1222**	**S3 + M3LA4**	**P100 + BN100LA4**	**N180TC**	146...149

5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
324	983	1.9	5.4:1	520	**A202_5.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	110...113
320	995	2.7	5.4:1	820	**A302_5.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	114...117
320	995	3.0	5.4:1	1340	**A352_5.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
316	1005	1.2	5.5:1	430	**A102_5.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	106...109
269	1178	2.2	6.4:1	840	**A302_6.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	114...117
269	1178	2.6	6.4:1	1390	**A352_6.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
264	1202	1.6	6.5:1	520	**A202_6.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	110...113

5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA		
246	1291	2.1	7.0:1	850	**A302_7.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	114...117
246	1291	2.6	7.0:1	1420	**A352_7.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
243	1309	3.7	7.1:1	1840	**A412_7.1**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	122...125
237	1339	1.4	7.3:1	520	**A202_7.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	110...113
208	1532	3.2	8.3:1	1920	**A412_8.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	122...125
206	1539	1.2	8.4:1	520	**A202_8.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	110...113
204	1555	1.7	8.5:1	870	**A302_8.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	114...117
204	1555	2.2	8.5:1	1490	**A352_8.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
188	1690	2.8	9.2:1	1970	**A412_9.2**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	122...125
185	1711	1.6	9.3:1	880	**A302_9.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	114...117
185	1711	2.1	9.3:1	1520	**A352_9.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
171	1862	2.6	10.1:1	2020	**A412_10.1**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	122...125
166	1922	1.6	10.5:1	900	**A302_10.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	114...117
163	1954	1.9	10.6:1	1560	**A352_10.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
147	2158	2.2	11.7:1	2090	**A412_11.7**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	122...125
147	2165	1.2	11.8:1	900	**A302_11.8**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	114...117
147	2165	1.6	11.8:1	1590	**A352_11.8**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
132	2402	2.2	13.1:1	1580	**A352_13.1**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
132	2409	4.1	13.1:1	2990	**A502_13.1**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
127	2493	1.4	13.6:1	900	**A302_13.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	114...117
126	2528	2.1	13.8:1	2170	**A412_13.8**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	122...125
111	2844	1.9	15.5:1	1610	**A352_15.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
108	2958	1.9	16.1:1	2240	**A412_16.1**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	122...125
106	3004	1.1	16.3:1	900	**A302_16.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	114...117
104	3045	3.5	16.6:1	3200	**A502_16.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
103	3116	1.7	17.0:1	1630	**A352_17.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
98	3265	1.7	17.8:1	2280	**A412_17.8**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	122...125
96	3305	1.1	18.0:1	890	**A302_18.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	114...117
85	3755	1.4	20.4:1	1660	**A352_20.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
83	3844	2.7	20.9:1	3400	**A502_20.9**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
77	4132	1.2	22.5:1	1670	**A352_22.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
77	4168	1.5	22.7:1	2370	**A412_22.7**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	122...125
73	4233	4.1	23.8:1	6750	**A553_23.8**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	130...133
72	4279	3.1	24.0:1	3130	**A503_24.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
68	4718	1.1	25.7:1	1670	**A352_25.7**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	118...121
65	4704	2.8	26.4:1	3170	**A503_26.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
61	5205	1.2	28.3:1	2460	**A412_28.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	122...125
58	5325	3.3	29.9:1	6750	**A553_29.9**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	130...133
53	5761	2.3	32.4:1	3260	**A503_32.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
51	6103	4.1	34.3:1	6750	**A603_34.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
48	6334	2.1	35.6:1	3310	**A503_35.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129

5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
43	7171	2.5	40.3:1	6750	**A553_40.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	130...133
42	7283	1.9	40.9:1	3330	**A503_40.9**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
42	7422	3.3	41.7:1	6750	**A603_41.7**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
38	8007	1.6	45.0:1	3350	**A503_45.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
38	8040	3.1	45.2:1	6750	**A603_45.2**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
34	9065	2.0	51.0:1	6750	**A553_51.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	130...133
34	9132	2.7	51.3:1	6750	**A603_51.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
33	9195	1.5	51.7:1	3350	**A503_51.7**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
31	9893	2.5	55.6:1	6750	**A603_55.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
30	10108	1.4	56.8:1	3330	**A503_56.8**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
27.1	11367	1.1	63.9:1	3310	**A503_63.9**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	126...129
26.9	11444	1.6	64.3:1	6750	**A553_64.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	130...133
26.6	11563	2.1	65.0:1	6750	**A603_65.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
25.8	11910	3.7	66.9:1	11300	**A703_66.9**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
24.6	12527	2.0	70.4:1	6750	**A603_70.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
23.8	12903	3.5	72.5:1	11300	**A703_72.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
21.7	14114	3.1	79.3:1	11300	**A703_79.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
21.7	14149	1.2	79.5:1	6750	**A553_79.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	130...133
21.7	14184	1.7	79.7:1	6750	**A603_79.7**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
20.1	15290	2.8	85.9:1	11300	**A703_85.9**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
20.0	15366	1.6	86.4:1	6750	**A603_86.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
18.0	17086	4.2	96.0:1	14700	**A803_96.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145
18.0	17119	2.6	96.2:1	11300	**A703_96.2**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
17.4	17705	1.4	99.5:1	6750	**A603_99.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
16.7	18509	3.8	104.0:1	14700	**A803_104.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145
16.6	18546	2.3	104.2:1	11300	**A703_104.2**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
16.1	19180	1.2	107.8:1	6750	**A603_107.8**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
15.0	20631	3.5	116.0:1	14700	**A803_116.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145
14.3	21460	2.1	120.6:1	11300	**A703_120.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
14.1	21889	1.1	123.0:1	6750	**A603_123.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	134...137
13.7	22350	3.2	125.6:1	14700	**A803_125.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145
13.2	23248	1.9	130.7:1	11300	**A703_130.7**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
12.2	25240	1.7	141.9:1	11300	**A703_141.9**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
12.0	25752	2.7	144.7:1	14700	**A803_144.7**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145
11.2	27343	1.4	153.7:1	11300	**A703_153.7**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
11.0	27898	2.6	156.8:1	14700	**A803_156.8**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145
10.4	28908	4.3	166.1:1	16900	**A904_166.1**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149
10.1	29539	1.5	169.8:1	11300	**A704_169.8**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141
10.1	29808	2.3	171.3:1	14700	**A804_171.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145
9.6	31317	4.0	180.0:1	16900	**A904_180.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149
9.4	32001	1.4	183.9:1	11300	**A704_183.9**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141

5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA		
8.3	36370	3.5	209.0:1	16900	**A904_209.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149	
8.0	37366	1.9	214.7:1	14700	**A804_214.7**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145	
7.9	38327	1.1	220.3:1	11300	**A704_220.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141	
7.7	39401	3.1	226.4:1	16900	**A904_226.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149	
7.4	40480	1.7	232.6:1	14700	**A804_232.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145	
7.3	41521	1.1	238.6:1	11300	**A704_238.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	138...141	
6.2	48251	1.5	277.3:1	14700	**A804_277.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145	
6.2	48973	2.5	281.4:1	16900	**A904_281.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149	
5.8	52272	1.4	300.4:1	14700	**A804_300.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145	
5.7	53054	2.3	304.9:1	16900	**A904_304.9**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149	
4.9	61595	1.1	354.0:1	14700	**A804_354.0**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145	
4.8	61912	2.0	355.8:1	16900	**A904_355.8**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149	
4.6	66727	1.1	383.5:1	14700	**A804_383.5**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	142...145	
4.4	67072	1.9	385.4:1	16900	**A904_385.4**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149	
3.8	78159	1.6	449.2:1	16900	**A904_449.2**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149	
3.6	84672	1.5	486.6:1	16900	**A904_486.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149	
3.1	96628	1.2	555.3:1	16900	**A904_555.3**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149	
2.8	104680	1.2	601.6:1	16900	**A904_601.6**	**S3 + M3LC4**	**P112 + BN112M4**	**N180TC**	146...149	

7.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA		
330	1325	3.7	5.2:1	1630	**A412_5.2**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	122...125	
320	1368	2.2	5.4:1	1270	**A352_5.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	118...121	
270	1620	1.9	6.4:1	1310	**A352_6.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	118...121	
246	1775	1.8	7.0:1	1340	**A352_7.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	118...121	
243	1800	2.8	7.1:1	1760	**A412_7.1**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	122...125	
208	2106	2.3	8.3:1	1820	**A412_8.3**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	122...125	
204	2138	1.6	8.5:1	1390	**A352_8.5**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	118...121	
189	2324	2.0	9.2:1	1860	**A412_9.2**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	122...125	
186	2353	1.6	9.3:1	1410	**A352_9.3**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	118...121	
178	2460	3.6	9.7:1	2660	**A502_9.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	126...129	
171	2560	1.8	10.1:1	1900	**A412_10.1**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	122...125	
162	2687	1.3	10.6:1	1430	**A352_10.6**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	118...121	
148	2967	1.7	11.7:1	1950	**A412_11.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	122...125	
147	2977	1.2	11.8:1	1450	**A352_11.8**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	118...121	
132	3312	2.9	13.1:1	2880	**A502_13.1**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	126...129	
126	3476	1.4	13.8:1	2010	**A412_13.8**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	122...125	

7.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
111	3963	4.0	15.7:1	6230	**A552_15.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	130...133
107	4067	1.3	16.1:1	2060	**A412_16.1**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	122...125
105	4187	2.5	16.6:1	3060	**A502_16.6**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	126...129
103	4229	4.2	16.7:1	6750	**A602_16.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
97	4489	1.2	17.8:1	2090	**A412_17.8**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	122...125
90	4860	3.2	19.2:1	6590	**A552_19.2**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	130...133
84	5204	3.4	20.6:1	6750	**A602_20.6**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
83	5286	2.0	20.9:1	3240	**A502_20.9**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	126...129
73	5820	3.0	23.8:1	6700	**A553_23.8**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	130...133
72	5883	2.3	24.0:1	2810	**A503_24.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	126...129
67	6290	4.0	25.7:1	6750	**A603_25.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
65	6468	2.0	26.4:1	2840	**A503_26.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	126...129
62	6814	3.6	27.9:1	6750	**A603_27.9**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
58	7322	2.4	29.9:1	6750	**A553_29.9**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	130...133
54	7746	3.2	31.7:1	6750	**A603_31.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
53	7922	1.7	32.4:1	2860	**A503_32.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	126...129
50	8391	3.0	34.3:1	6750	**A603_34.3**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
48	8709	1.6	35.6:1	2860	**A503_35.6**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	126...129
43	9860	1.8	40.3:1	6750	**A553_40.3**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	130...133
42	10015	1.3	40.9:1	2840	**A503_40.9**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	126...129
42	10205	2.4	41.7:1	6750	**A603_41.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
38	11010	1.2	45.0:1	2790	**A503_45.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	126...129
38	11055	2.3	45.2:1	6750	**A603_45.2**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
38	11065	3.8	45.2:1	11300	**A703_45.2**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
35	11987	3.7	49.0:1	11300	**A703_49.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
34	12465	1.4	51.0:1	6750	**A553_51.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	130...133
34	12557	1.9	51.3:1	6750	**A603_51.3**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
33	13023	3.4	53.2:1	11300	**A703_53.2**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
31	13603	1.8	55.6:1	6750	**A603_55.6**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
30	14108	3.1	57.7:1	11300	**A703_57.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
26.9	15736	1.1	64.3:1	6750	**A553_64.3**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	130...133
26.7	15899	1.6	65.0:1	6750	**A603_65.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
25.8	16377	2.6	66.9:1	11300	**A703_66.9**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
24.6	17224	1.4	70.4:1	6750	**A603_70.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
23.9	17705	4.0	72.4:1	14700	**A803_72.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
23.9	17741	2.5	72.5:1	11300	**A703_72.5**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
21.9	19407	2.3	79.3:1	11300	**A703_79.3**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
21.7	19503	1.3	79.7:1	6750	**A603_79.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
21.0	20139	3.5	82.3:1	14700	**A803_82.3**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
20.2	21024	2.2	85.9:1	11300	**A703_85.9**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
20.1	21128	1.2	86.4:1	6750	**A603_86.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	134...137
19.3	21817	3.2	89.2:1	14700	**A803_89.2**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
18.0	23493	3.0	96.0:1	14700	**A803_96.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145

7.5 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA					
18.0	23539	1.9	96.2:1	11300	**A703_96.2**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
16.6	25450	2.8	104.0:1	14700	**A803_104.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
16.6	25501	1.7	104.2:1	11300	**A703_104.2**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
14.9	28368	2.5	116.0:1	14700	**A803_116.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
14.3	29508	1.4	120.6:1	11300	**A703_120.6**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
13.8	30732	2.3	125.6:1	14700	**A803_125.6**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
13.7	30983	3.7	126.6:1	16900	**A903_126.6**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
13.2	31967	1.4	130.7:1	11300	**A703_130.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
12.4	34101	3.4	139.4:1	16900	**A903_139.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
12.3	34705	1.3	141.9:1	11300	**A703_141.9**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
11.9	35409	2.0	144.7:1	14700	**A803_144.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
11.4	36943	3.4	151.0:1	16900	**A903_151.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
11.1	38360	1.8	156.8:1	14700	**A803_156.8**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
10.5	39748	3.1	166.1:1	16900	**A904_166.1**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
10.2	40617	1.1	169.8:1	11300	**A704_169.8**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	138...141
10.1	40986	1.7	171.3:1	14700	**A804_171.3**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
9.6	43061	2.9	180.0:1	16900	**A904_180.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
8.3	50009	2.5	209.0:1	16900	**A904_209.0**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
8.0	51378	1.3	214.7:1	14700	**A804_214.7**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
7.7	54176	2.3	226.4:1	16900	**A904_226.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
7.4	55660	1.3	232.6:1	14700	**A804_232.6**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
6.2	66345	1.1	277.3:1	14700	**A804_277.3**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	142...145
6.1	67338	1.8	281.4:1	16900	**A904_281.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
5.6	72949	1.7	304.9:1	16900	**A904_304.9**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
4.8	85130	1.4	355.8:1	16900	**A904_355.8**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
4.4	92224	1.3	385.4:1	16900	**A904_385.4**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
3.8	107468	1.2	449.2:1	16900	**A904_449.2**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149
3.6	116424	1.1	486.6:1	16900	**A904_486.6**	**S4 + M4SA4**	**P132 + BN132S4**	**N210TC**	146...149

10 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA					
332	1797	2.7	5.2:1	1560	**A412_5.2**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	122...125
321	1855	1.6	5.4:1	1190	**A352_5.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	118...121
272	2196	1.5	6.4:1	1220	**A352_6.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	118...121
248	2406	1.3	7.0:1	1240	**A352_7.0**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	118...121
244	2440	2.1	7.1:1	1660	**A412_7.1**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	122...125
225	2651	3.1	7.7:1	2430	**A502_7.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	126...129

10 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA		
209	2855	1.7	8.3:1	1710	**A412_8.3**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	122...125
205	2899	1.2	8.5:1	1260	**A352_8.5**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	118...121
190	3151	1.6	9.2:1	1740	**A412_9.2**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	122...125
187	3190	1.1	9.3:1	1280	**A352_9.3**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	118...121
179	3335	2.7	9.7:1	2590	**A502_9.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	126...129
172	3471	1.3	10.1:1	1770	**A412_10.1**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	122...125
149	4023	1.2	11.7:1	1800	**A412_11.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	122...125
137	4353	4.1	12.7:1	6750	**A602_12.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
133	4480	3.5	13.1:1	5870	**A552_13.1**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	130...133
133	4491	2.2	13.1:1	2770	**A502_13.1**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	126...129
127	4713	1.1	13.8:1	1830	**A412_13.8**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	122...125
111	5372	3.0	15.7:1	6140	**A552_15.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	130...133
105	5677	1.8	16.6:1	2930	**A502_16.6**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	126...129
104	5734	3.1	16.7:1	6750	**A602_16.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
91	6589	2.4	19.2:1	6480	**A552_19.2**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	130...133
85	7056	2.5	20.6:1	6750	**A602_20.6**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
83	7167	1.5	20.9:1	3080	**A502_20.9**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	126...129
74	7891	2.2	23.8:1	6480	**A553_23.8**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	130...133
73	7976	1.7	24.0:1	2430	**A503_24.0**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	126...129
68	8528	2.9	25.7:1	6750	**A603_25.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
65	8769	1.6	26.4:1	2410	**A503_26.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	126...129
63	9238	2.7	27.9:1	6750	**A603_27.9**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
58	9928	1.8	29.9:1	6750	**A553_29.9**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	130...133
54	10502	2.4	31.7:1	6750	**A603_31.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
53	10740	1.2	32.4:1	2320	**A503_32.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	126...129
51	11377	2.2	34.3:1	6750	**A603_34.3**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
50	11752	3.4	35.4:1	11300	**A703_35.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
48	11807	1.1	35.6:1	2280	**A503_35.6**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	126...129
46	12731	3.4	38.4:1	11300	**A703_38.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
44	13368	1.3	40.3:1	6750	**A553_40.3**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	130...133
42	13836	1.8	41.7:1	6750	**A603_41.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
39	14989	1.7	45.2:1	6750	**A603_45.2**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
39	15002	2.8	45.2:1	11300	**A703_45.2**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
36	16253	2.8	49.0:1	11300	**A703_49.0**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
34	17025	1.5	51.3:1	6750	**A603_51.3**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
33	17657	2.5	53.2:1	11300	**A703_53.2**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
32	18303	3.9	55.2:1	14100	**A803_55.2**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
31	18443	1.3	55.6:1	6750	**A603_55.6**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
30	19128	2.3	57.7:1	11300	**A703_57.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
29.1	19828	3.6	59.8:1	14400	**A803_59.8**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
26.8	21556	1.2	65.0:1	6750	**A603_65.0**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
26.1	22157	3.1	66.8:1	14700	**A803_66.8**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
26.0	22204	1.9	66.9:1	11300	**A703_66.9**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141

10 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA		
24.8	23352	1.1	70.4:1	6750	**A603_70.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	134...137
24.0	24004	2.9	72.4:1	14700	**A803_72.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
24.0	24054	1.8	72.5:1	11300	**A703_72.5**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
22.0	26312	1.7	79.3:1	11300	**A703_79.3**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
21.1	27304	2.5	82.3:1	14700	**A803_82.3**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
20.3	28505	1.6	85.9:1	11300	**A703_85.9**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
19.5	29580	2.4	89.2:1	14700	**A803_89.2**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
18.1	31851	2.2	96.0:1	14700	**A803_96.0**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
18.1	31914	1.3	96.2:1	11300	**A703_96.2**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
17.6	32705	3.7	98.6:1	16900	**A903_98.6**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
16.7	34506	2.1	104.0:1	14700	**A803_104.0**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
16.7	34574	1.3	104.2:1	11300	**A703_104.2**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
16.3	35431	3.5	106.8:1	16900	**A903_106.8**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
15.0	38461	1.8	116.0:1	14700	**A803_116.0**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
14.9	38776	3.1	116.9:1	16900	**A903_116.9**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
14.4	40006	1.1	120.6:1	11300	**A703_120.6**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	138...141
13.9	41666	1.7	125.6:1	14700	**A803_125.6**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
13.8	42007	2.8	126.6:1	16900	**A903_126.6**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
12.4	46235	2.4	139.4:1	16900	**A903_139.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
12.0	48008	1.5	144.7:1	14700	**A803_144.7**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
11.5	50088	2.4	151.0:1	16900	**A903_151.0**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
11.1	52008	1.3	156.8:1	14700	**A803_156.8**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
10.5	53891	2.3	166.1:1	16900	**A904_166.1**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
10.2	55568	1.3	171.3:1	14700	**A804_171.3**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	142...145
9.7	58382	2.2	180.0:1	16900	**A904_180.0**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
8.3	67802	1.8	209.0:1	16900	**A904_209.0**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
7.7	73452	1.7	226.4:1	16900	**A904_226.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
6.2	91297	1.3	281.4:1	16900	**A904_281.4**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
5.7	98905	1.2	304.9:1	16900	**A904_304.9**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149
4.8	115419	1.1	355.8:1	16900	**A904_355.8**	**S4 + M4LA4**	**P132 + BN132MA4**	**N210TC**	146...149

15 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA		
244	3579	1.3	7.1:1	1500	**A412_7.1**	**S4 + M4LC4**			122...125
225	3888	2.2	7.7:1	2320	**A502_7.7**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	126...129
205	4252	3.7	8.5:1	5130	**A552_8.5**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	130...133
179	4891	1.8	9.7:1	2430	**A502_9.7**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	126...129
169	5184	3.4	10.3:1	6750	**A602_10.3**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	134...137

15 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
168	5204	3.0	10.4:1	5400	**A552_10.4**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	130...133
137	6384	2.8	12.7:1	6750	**A602_12.7**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	134...137
133	6571	2.4	13.1:1	5710	**A552_13.1**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	130...133
133	6586	1.5	13.1:1	2590	**A502_13.1**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	126...129
111	7880	2.1	15.7:1	5980	**A552_15.7**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	130...133
105	8327	1.3	16.6:1	2700	**A502_16.6**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	126...129
104	8410	2.1	16.7:1	6750	**A602_16.7**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	134...137
91	9664	1.7	19.2:1	6280	**A552_19.2**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	130...133
88	9567	3.4	19.7:1	10100	**A703_19.7**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
85	10349	1.7	20.6:1	6750	**A602_20.6**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	134...137
82	10364	3.4	21.3:1	10300	**A703_21.3**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
74	11442	3.4	23.5:1	10500	**A703_23.5**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
73	11699	1.1	24.0:1	1760	**A503_24.0**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	126...129
68	12507	1.9	25.7:1	6750	**A603_25.7**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	134...137
63	13516	2.8	27.8:1	11000	**A703_27.8**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
63	13550	1.8	27.9:1	6750	**A603_27.9**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	134...137
62	13730	4.2	28.2:1	11600	**A803_28.2**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
58	14643	2.8	30.1:1	11200	**A703_30.1**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
57	14874	3.9	30.6:1	11900	**A803_30.6**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
54	15403	1.6	31.7:1	6750	**A603_31.7**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	134...137
51	16686	1.5	34.3:1	6750	**A603_34.3**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	134...137
50	17236	2.3	35.4:1	11300	**A703_35.4**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
50	17288	3.6	35.5:1	12300	**A803_35.5**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
46	18672	2.3	38.4:1	11300	**A703_38.4**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
45	18729	3.6	38.5:1	12500	**A803_38.5**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
42	20292	1.2	41.7:1	6750	**A603_41.7**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	134...137
39	21637	3.0	44.5:1	12900	**A803_44.5**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
39	21983	1.1	45.2:1	6750	**A603_45.2**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	134...137
39	22004	1.9	45.2:1	11300	**A703_45.2**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
36	23440	3.0	48.2:1	13200	**A803_48.2**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
36	23837	1.8	49.0:1	11300	**A703_49.0**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
33	25896	1.7	53.2:1	11300	**A703_53.2**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
32	26844	2.7	55.2:1	13500	**A803_55.2**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
30	28055	1.6	57.7:1	11300	**A703_57.7**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
29.2	29002	4.2	59.6:1	16900	**A903_59.6**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
29.1	29081	2.4	59.8:1	13700	**A803_59.8**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
26.1	32498	2.2	66.8:1	14000	**A803_66.8**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
26.0	32565	1.3	66.9:1	11300	**A703_66.9**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
25.3	33445	3.7	68.8:1	16900	**A903_68.8**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
24.0	35206	2.1	72.4:1	14300	**A803_72.4**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
24.0	35279	1.2	72.5:1	11300	**A703_72.5**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
23.3	36233	3.4	74.5:1	16900	**A903_74.5**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149

15 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA		
22.0	38591	1.1	79.3:1	11300	**A703_79.3**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	138...141
21.6	39099	3.1	80.4:1	16900	**A903_80.4**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
21.1	40046	1.8	82.3:1	14500	**A803_82.3**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
19.9	42357	2.9	87.1:1	16900	**A903_87.1**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
19.5	43384	1.7	89.2:1	14700	**A803_89.2**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
18.1	46715	1.6	96.0:1	14700	**A803_96.0**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
17.6	47968	2.5	98.6:1	16900	**A903_98.6**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
16.7	50608	1.5	104.0:1	14700	**A803_104.0**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
16.3	51965	2.4	106.8:1	16900	**A903_106.8**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
15.0	56409	1.2	116.0:1	14700	**A803_116.0**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
14.9	56871	2.2	116.9:1	16900	**A903_116.9**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
13.9	61110	1.2	125.6:1	14700	**A803_125.6**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	142...145
13.8	61610	1.9	126.6:1	16900	**A903_126.6**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
12.4	67811	1.7	139.4:1	16900	**A903_139.4**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
11.5	73462	1.7	151.0:1	16900	**A903_151.0**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
10.5	79040	1.6	166.1:1	16900	**A904_166.1**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
9.7	85627	1.5	180.0:1	16900	**A904_180.0**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
8.3	99443	1.2	209.0:1	16900	**A904_209.0**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149
7.7	107730	1.2	226.4:1	16900	**A904_226.4**	**S4 + M4LC4**	**P160 + BN160MR4**	**N250TC**	146...149

20 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA		
354	3369	4.2	4.9:1	4370	**A552_4.9**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	130...133
273	4367	3.5	6.4:1	4660	**A552_6.4**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	130...133
227	5271	1.6	7.7:1	2200	**A502_7.7**		**P160 + BN160L4**	**N250TC**	126...129
223	5358	3.4	7.9:1	6370	**A602_7.9**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	134...137
207	5765	2.8	8.5:1	5000	**A552_8.5**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	130...133
180	6632	1.3	9.7:1	2280	**A502_9.7**		**P160 + BN160L4**	**N250TC**	126...129
170	7028	2.5	10.3:1	6750	**A602_10.3**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	134...137
169	7055	2.3	10.4:1	5270	**A552_10.4**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	130...133
147	7823	1.8	23.8:1	5090	**A553_23.8**	**S5 + M5SB2**	**P160 + BN160L4**	**N250TC**	130...133
145	7968	4.0	12.1:1	8640	**A703_12.1**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
138	8655	2.0	12.7:1	6750	**A602_12.7**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	134...137
134	8632	4.0	13.1:1	8820	**A703_13.1**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
134	8910	1.8	13.1:1	5560	**A552_13.1**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	130...133
133	8930	1.1	13.1:1	2370	**A502_13.1**		**P160 + BN160L4**	**N250TC**	126...129
114	10161	3.2	15.4:1	9180	**A703_15.4**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141

20 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
111	10684	1.4	15.7:1	5780	**A552_15.7**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	130...133
104	11007	3.2	16.7:1	9360	**A703_16.7**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
104	11403	1.6	16.7:1	6750	**A602_16.7**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	134...137
91	13102	1.2	19.2:1	6030	**A552_19.2**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	130...133
90	12755	4.2	19.3:1	10300	**A803_19.3**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
89	12971	2.5	19.7:1	9740	**A703_19.7**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
85	14031	1.3	20.6:1	6750	**A602_20.6**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	134...137
84	13818	4.2	20.9:1	10500	**A803_20.9**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
83	14052	2.5	21.3:1	9920	**A703_21.3**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
74	15513	2.4	23.5:1	10200	**A703_23.5**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
73	15692	1.1	23.8:1	5620	**A553_23.8**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	130...133
68	16958	1.4	25.7:1	6750	**A603_25.7**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	134...137
64	18326	2.0	27.8:1	10500	**A703_27.8**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
62	18371	1.3	27.9:1	6750	**A603_27.9**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	134...137
62	18616	3.1	28.2:1	11300	**A803_28.2**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
59	19853	2.0	30.1:1	10800	**A703_30.1**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
58	20167	2.9	30.6:1	11500	**A803_30.6**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
55	20883	1.2	31.7:1	6750	**A603_31.7**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	134...137
52	22624	1.1	34.3:1	6750	**A603_34.3**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	134...137
49	23370	1.7	35.4:1	11100	**A703_35.4**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
49	23441	2.6	35.5:1	11800	**A803_35.5**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
46	25317	1.7	38.4:1	11300	**A703_38.4**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
46	25394	2.6	38.5:1	12000	**A803_38.5**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
40	29336	2.3	44.5:1	12300	**A803_44.5**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
40	29407	4.2	44.6:1	16600	**A903_44.6**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149
38	29833	1.4	45.2:1	11300	**A703_45.2**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
36	31781	2.3	48.2:1	12500	**A803_48.2**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
36	31858	3.8	48.3:1	16900	**A903_48.3**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149
36	32319	1.3	49.0:1	11300	**A703_49.0**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
33	35112	1.3	53.2:1	11300	**A703_53.2**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
32	36297	3.4	55.0:1	16900	**A903_55.0**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149
32	36397	1.9	55.2:1	12800	**A803_55.2**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
30	38038	1.2	57.7:1	11300	**A703_57.7**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	138...141
29.4	39322	3.1	59.6:1	16900	**A903_59.6**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149
29.2	39430	1.8	59.8:1	13000	**A803_59.8**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
26.3	44062	1.6	66.8:1	13200	**A803_66.8**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
25.4	45347	2.8	68.8:1	16900	**A903_68.8**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149
24.2	47733	1.4	72.4:1	13300	**A803_72.4**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
23.5	49126	2.5	74.5:1	16900	**A903_74.5**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149
21.8	53012	2.3	80.4:1	16900	**A903_80.4**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149
21.2	54297	1.3	82.3:1	13500	**A803_82.3**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145
20.1	57429	2.2	87.1:1	16900	**A903_87.1**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149

20 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA					
19.7	58821	1.2	89.2:1	13600	**A803_89.2**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145				
18.2	63339	1.1	96.0:1	13700	**A803_96.0**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	142...145				
17.7	65037	1.9	98.6:1	16900	**A903_98.6**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149				
16.4	70457	1.8	106.8:1	16900	**A903_106.8**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149				
15.0	77108	1.6	116.9:1	16900	**A903_116.9**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149				
13.8	83534	1.4	126.6:1	16900	**A903_126.6**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149				
12.6	91941	1.2	139.4:1	16900	**A903_139.4**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149				
11.6	99603	1.2	151.0:1	16900	**A903_151.0**	**S5 + M5SB4**	**P160 + BN160L4**	**N250TC**	146...149				
10.5	107166	1.2	166.1:1	16900	**A904_166.1**		**P160 + BN160L4**	**N250TC**	146...149				
9.7	116097	1.1	180.0:1	16900	**A904_180.0**		**P160 + BN160L4**	**N250TC**	146...149				

25 hp

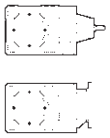
n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA					
356	4132	3.4	4.9:1	4300	**A552_4.9**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	130...133				
275	5356	2.8	6.4:1	4590	**A552_6.4**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	130...133				
228	6464	1.3	7.7:1	2090	**A502_7.7**		**P180 + BN180M4**	**N280TC**	126...129				
224	6571	2.7	7.9:1	6280	**A602_7.9**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	134...137				
209	7070	2.3	8.5:1	4930	**A552_8.5**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	130...133				
187	7635	3.5	9.4:1	8010	**A703_9.4**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141				
181	8133	1.1	9.7:1	2150	**A502_9.7**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	126...129				
172	8271	3.5	10.2:1	8170	**A703_10.2**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141				
171	8619	2.0	10.3:1	6730	**A602_10.3**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	134...137				
170	8652	1.8	10.4:1	5150	**A552_10.4**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	130...133				
146	9771	3.3	12.1:1	8500	**A703_12.1**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141				
139	10614	1.7	12.7:1	6750	**A602_12.7**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	134...137				
135	10586	3.3	13.1:1	8680	**A703_13.1**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141				
135	10926	1.4	13.1:1	5420	**A552_13.1**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	130...133				
115	12460	2.7	15.4:1	9020	**A703_15.4**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141				
112	13101	1.2	15.7:1	5620	**A552_15.7**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	130...133				
105	13499	2.7	16.7:1	9180	**A703_16.7**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141				
105	13984	1.2	16.7:1	6750	**A602_16.7**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	134...137				
90	15642	3.4	19.3:1	10100	**A803_19.3**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	142...145				
89	15907	2.0	19.7:1	9510	**A703_19.7**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141				
84	16945	3.4	20.9:1	10300	**A803_20.9**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	142...145				
83	17232	2.0	21.3:1	9670	**A703_21.3**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141				
78	18293	3.0	22.6:1	10500	**A803_22.6**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	142...145				

25 hp

n_2 [rpm]	T_2 [lb·in]	S Safety factor	i (ratio)	R_{n2} [lb]			 IEC	 NEMA	
75	19024	2.0	23.5:1	9870	**A703_23.5**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141
72	19817	3.0	24.5:1	10700	**A803_24.5**		**P180 + BN180M4**	**N280TC**	142...145
69	20796	1.2	25.7:1	6750	**A603_25.7**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	134...137
64	22474	1.7	27.8:1	10200	**A703_27.8**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141
63	22529	1.1	27.9:1	6750	**A603_27.9**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	134...137
63	22829	2.5	28.2:1	11000	**A803_28.2**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	142...145
59	24347	1.7	30.1:1	10400	**A703_30.1**		**P180 + BN180M4**	**N280TC**	138...141
58	24732	2.3	30.6:1	11100	**A803_30.6**		**P180 + BN180M4**	**N280TC**	142...145
49	28659	1.4	35.4:1	10700	**A703_35.4**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141
49	28746	2.2	35.5:1	11400	**A803_35.5**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	142...145
49	28976	4.2	35.8:1	15400	**A903_35.8**		**P180 + BN180M4**	**N280TC**	146...149
46	31047	1.3	38.4:1	10800	**A703_38.4**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141
46	31141	2.2	38.5:1	11600	**A803_38.5**		**P180 + BN180M4**	**N280TC**	142...145
46	31390	4.0	38.8:1	15700	**A903_38.8**		**P180 + BN180M4**	**N280TC**	146...149
40	35976	1.8	44.5:1	11900	**A803_44.5**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	142...145
40	36063	3.5	44.6:1	16200	**A903_44.6**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149
39	36585	1.2	45.2:1	11100	**A703_45.2**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141
36	38974	1.8	48.2:1	12000	**A803_48.2**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	142...145
36	39068	3.1	48.3:1	16500	**A903_48.3**		**P180 + BN180M4**	**N280TC**	146...149
36	39634	1.1	49.0:1	11200	**A703_49.0**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	138...141
32	44512	2.8	55.0:1	16900	**A903_55.0**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149
32	44634	1.6	55.2:1	12200	**A803_55.2**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	142...145
29.5	48222	2.5	59.6:1	16900	**A903_59.6**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149
29.4	48354	1.4	59.8:1	12300	**A803_59.8**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	142...145
26.4	54034	1.3	66.8:1	12400	**A803_66.8**		**P180 + BN180M4**	**N280TC**	142...145
25.6	55610	2.2	68.8:1	16900	**A903_68.8**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149
24.4	58537	1.2	72.4:1	12500	**A803_72.4**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	142...145
23.6	60244	2.0	74.5:1	16900	**A903_74.5**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149
21.9	65010	1.9	80.4:1	16900	**A903_80.4**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149
20.3	70427	1.8	87.1:1	16900	**A903_87.1**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149
17.8	79756	1.6	98.6:1	16900	**A903_98.6**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149
16.5	86403	1.4	106.8:1	16900	**A903_106.8**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149
15.1	94559	1.3	116.9:1	16900	**A903_116.9**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149
13.9	102439	1.1	126.6:1	16900	**A903_126.6**	**S5 + M5LA4**	**P180 + BN180M4**	**N280TC**	146...149

2.13 SPEED REDUCER RATING CHARTS

A 10 — 1,330 lb·in

	i	n_1 = **3500** rpm					n_1 = **1750** rpm				
	(ratio)	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 10 2_ 5.5		636	646	6.9	—	411	318	646	3.4	216	553
A 10 2_ 6.3		556	708	6.6	—	427	278	708	3.3	187	575
A 10 2_ 7.2		486	814	6.6	—	429	243	823	3.3	142	584
A 10 2_ 8.5		412	814	5.6	—	463	206	823	2.8	162	627
A 10 2_ 9.6		365	903	5.5	—	470	182	1133	3.4	—	596
A 10 2_ 10.6		330	1106	6.1	121	452	165	1328	3.7	182	582
A 10 2_ 12.3		285	974	4.6	—	513	142	1221	2.9	—	647
A 10 2_ 13.9		252	1195	5.0	139	499	126	1328	2.8	243	665
A 10 2_ 16.4		213	1239	4.4	137	533	107	1328	2.4	256	719
A 10 2_ 18.6		188	1301	4.1	146	553	94	1328	2.1	265	760
A 10 2_ 21.4		164	1328	3.6	146	587	82	1328	1.8	270	809
A 10 2_ 23.8		147	1328	3.3	169	618	74	1328	1.6	274	850
A 10 2_ 25.5		137	1328	3.0	169	638	69	1328	1.5	274	877
A 10 2_ 28.6		122	1328	2.7	187	674	61	1328	1.4	281	922
A 10 2_ 32.2		109	1328	2.4	198	713	54	1328	1.2	285	969
A 10 2_ 35.1		100	1328	2.2	198	742	50	1328	1.1	285	1005
A 10 2_ 40.9		86	1328	1.9	205	794	43	1328	0.95	292	1072
A 10 2_ 45.4		77	1328	1.7	205	832	39	1328	0.85	292	1120
A 10 2_ 51.3		68	1328	1.5	205	879	34	1328	0.76	290	1178
A 10 2_ 58.6		60	1328	1.3	207	931	30	1328	0.66	292	1236
A 10 2_ 65.9		53	1328	1.2	207	980	27	1328	0.59	292	1236
A 10 2_ 76.4		46	1328	1.0	209	1043	23	1328	0.51	292	1236
A 10 2_ 91.6		38	1151	0.7	229	1160	19	1151	0.37	292	1236

(–) Contact our Technical Service advising radial load data (rotation direction, angle, offset)

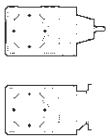
A 10

1,330 lb·in

i (ratio)	n_1 = **1100** rpm					n_1 = **600** rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 10 2_ 5.5	164	646	1.8	292	663	109	646	1.2	292	836
A 10 2_ 6.3	143	708	1.7	292	690	95	708	1.1	292	922
A 10 2_ 7.2	125	823	1.7	261	704	83	823	1.1	292	892
A 10 2_ 8.5	106	841	1.5	270	749	71	974	1.1	292	922
A 10 2_ 9.6	94	1133	1.8	112	726	63	1133	1.2	292	935
A 10 2_ 10.6	85	1328	1.9	292	719	57	1328	1.3	292	935
A 10 2_ 12.3	73	1328	1.6	40	769	49	1328	1.1	232	996
A 10 2_ 13.9	65	1328	1.4	292	816	43	1328	1.0	292	1052
A 10 2_ 16.4	55	1328	1.2	292	877	37	1328	0.81	292	1126
A 10 2_ 18.6	48	1328	1.1	292	926	32	1328	0.71	292	1185
A 10 2_ 21.4	42	1328	0.93	292	982	28.0	1328	0.62	292	1236
A 10 2_ 23.8	38	1328	0.84	292	1027	25.2	1328	0.56	292	1124
A 10 2_ 25.5	35	1328	0.78	292	1059	23.5	1328	0.52	292	1236
A 10 2_ 28.6	31	1328	0.70	292	1111	21.0	1328	0.46	292	1124
A 10 2_ 32.2	28.0	1328	0.62	292	1167	18.6	1328	0.41	292	1236
A 10 2_ 35.1	25.6	1328	0.57	292	1209	17.1	1328	0.38	292	1124
A 10 2_ 40.9	22.0	1328	0.49	292	1236	14.7	1328	0.32	292	1236
A 10 2_ 45.4	19.8	1328	0.44	292	1236	13.2	1328	0.29	292	1124
A 10 2_ 51.3	17.5	1328	0.39	292	1236	11.7	1328	0.26	292	1124
A 10 2_ 58.6	15.4	1328	0.34	292	1236	10.2	1328	0.23	292	1236
A 10 2_ 65.9	13.7	1328	0.30	292	1236	9.1	1328	0.20	292	1124
A 10 2_ 76.4	11.8	1328	0.26	292	1236	7.9	1328	0.17	292	1236
A 10 2_ 91.6	9.8	1151	0.19	292	1236	6.6	1151	0.13	292	1124

A 20

2,210 lb·in



i (ratio)	n_1 = **3500** rpm					n_1 = **1750** rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 20 2_ 5.4	648	850	9.2	137	429	324	1071	5.8	173	540
A 20 2_ 6.5	538	947	8.5	110	452	269	1195	5.4	137	569
A 20 2_ 7.3	479	1000	8.0	115	465	240	1266	5.1	142	584
A 20 2_ 8.4	417	1027	7.1	115	490	208	1292	4.5	146	618
A 20 2_ 9.4	372	1080	6.7	119	508	186	1363	4.2	148	638
A 20 2_ 10.3	340	1620	9.2	146	443	170	1991	5.6	200	566
A 20 2_ 12.0	292	1133	5.5	124	513	146	1425	3.5	155	701
A 20 2_ 14.1	248	1761	7.3	169	497	124	2168	4.5	216	634
A 20 2_ 16.2	216	1850	6.7	157	519	108	2213	4.0	234	672
A 20 2_ 18.1	193	1912	6.2	171	540	97	2213	3.6	272	713
A 20 2_ 21.2	165	2000	5.5	160	571	83	2213	3.0	290	771
A 20 2_ 23.1	152	2053	5.2	160	589	76	2213	2.8	306	805
A 20 2_ 26.5	132	2133	4.7	148	618	66	2213	2.4	317	859
A 20 2_ 29.2	120	2204	4.4	151	641	60	2213	2.2	339	899
A 20 2_ 31.3	112	2213	4.1	148	661	56	2213	2.1	339	928
A 20 2_ 35.4	99	2213	3.6	180	706	49	2213	1.8	371	985
A 20 2_ 39.6	88	2213	3.3	198	746	44	2213	1.6	384	1034
A 20 2_ 43.2	81	2213	3.0	198	778	41	2213	1.5	384	1077
A 20 2_ 48.3	72	2213	2.7	207	821	36	2213	1.3	387	1131
A 20 2_ 53.7	65	2213	2.4	207	863	33	2213	1.2	387	1185
A 20 2_ 63.1	55	2168	2.0	234	940	27.7	2168	1.00	391	1277
A 20 2_ 71.0	49	1859	1.5	306	1043	24.6	1859	0.76	402	1394
A 20 2_ 79.9	44	1859	1.4	306	1097	21.9	1859	0.68	402	1394
A 20 2_ 92.3	38	1770	1.1	310	1180	19.0	1770	0.56	407	1394
A 20 3_ 109.2	32	1460	0.80	265	1326	16.0	1814	0.50	292	1394
A 20 3_ 120.5	29.0	1487	0.74	254	1374	14.5	1859	0.46	292	1394
A 20 3_ 129.1	27.1	1549	0.72	272	1394	13.6	1903	0.44	292	1394
A 20 3_ 146.1	24.0	1620	0.66	261	1394	12.0	2036	0.42	292	1394
A 20 3_ 163.4	21.4	1682	0.62	279	1394	10.7	2080	0.38	292	1394
A 20 3_ 178.3	19.6	1726	0.58	270	1394	9.8	2168	0.36	292	1394
A 20 3_ 199.2	17.6	1770	0.53	285	1394	8.8	2213	0.33	292	1394
A 20 3_ 221.3	15.8	1797	0.49	279	1394	7.9	2213	0.30	292	1394
A 20 3_ 260.5	13.4	1894	0.44	285	1394	6.7	2213	0.25	292	1394
A 20 3_ 292.8	12.0	1929	0.39	292	1394	6.0	2213	0.23	292	1394
A 20 3_ 329.4	10.6	1956	0.36	292	1394	5.3	2213	0.20	292	1394
A 20 3_ 380.9	9.2	2000	0.31	292	1394	4.6	2213	0.17	292	1394

A 20

2,210 lb·in

i (ratio)	n_1 = **1100** rpm					n_1 = **600** rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 20 2_ 5.4	204	1239	4.2	202	625	111	1505	2.8	247	762
A 20 2_ 6.5	169	1381	3.9	162	659	92	1682	2.6	193	803
A 20 2_ 7.3	151	1460	3.7	166	679	82	1779	2.4	200	825
A 20 2_ 8.4	131	1505	3.3	164	715	71	1823	2.2	205	870
A 20 2_ 9.4	117	1584	3.1	171	740	64	1859	2.0	245	910
A 20 2_ 10.3	107	2213	3.9	268	672	58	2213	2.2	495	895
A 20 2_ 12,0	92	1655	2.5	178	672	50	1859	1.6	300	1014
A 20 2_ 14.1	78	2213	2.9	362	785	43	2213	1.6	495	1032
A 20 2_ 16.2	68	2213	2.5	380	839	37	2213	1.4	495	1097
A 20 2_ 18.1	61	2213	2.2	418	883	33	2213	1.2	495	1155
A 20 2_ 21.2	52	2213	1.9	436	951	28.3	2213	1.0	495	1236
A 20 2_ 23.1	48	2213	1.8	443	989	26.0	2213	0.96	495	1284
A 20 2_ 26.5	42	2213	1.5	445	1052	22.6	2213	0.84	495	1360
A 20 2_ 29.2	38	2213	1.4	450	1099	20.5	2213	0.76	495	1394
A 20 2_ 31.3	35	2213	1.3	450	1133	19.2	2213	0.71	495	1394
A 20 2_ 35.4	31	2213	1.1	454	1198	16.9	2213	0.63	495	1394
A 20 2_ 39.6	27.8	2213	1.0	459	1257	15.2	2213	0.56	495	1394
A 20 2_ 43.2	25.5	2213	0.94	459	1304	13.9	2213	0.51	495	1394
A 20 2_ 48.3	22.8	2213	0.84	459	1367	12.4	2213	0.46	495	1394
A 20 2_ 53.7	20.5	2213	0.76	461	1394	11.2	2213	0.41	495	1394
A 20 2_ 63.1	17.4	2168	0.63	463	1394	9.5	2168	0.34	495	1394
A 20 2_ 71,0	15.5	1859	0.48	477	1394	8.5	1859	0.26	495	1394
A 20 2_ 79.9	13.8	1859	0.43	477	1394	7.5	1859	0.23	495	1394
A 20 2_ 92.3	11.9	1770	0.35	481	1394	6.5	1770	0.19	495	1394
A 20 3_ 109.2	10.1	2124	0.37	292	1394	5.5	2213	0.21	292	1394
A 20 3_ 120.5	9.1	2168	0.34	292	1394	5.0	2213	0.19	292	1394
A 20 3_ 129.1	8.5	2213	0.32	292	1394	4.6	2213	0.18	292	1394
A 20 3_ 146.1	7.5	2213	0.29	292	1394	4.1	2213	0.16	292	1394
A 20 3_ 163.4	6.7	2213	0.25	292	1394	3.7	2213	0.14	292	1394
A 20 3_ 178.3	6.2	2213	0.23	292	1394	3.4	2213	0.13	292	1394
A 20 3_ 199.2	5.5	2213	0.21	292	1394	3.0	2213	0.11	292	1394
A 20 3_ 221.3	5.0	2213	0.19	292	1394	2.7	2213	0.10	292	1394
A 20 3_ 260.5	4.2	2213	0.16	292	1394	2.3	2213	0.09	292	1394
A 20 3_ 292.8	3.8	2213	0.14	292	1394	2.0	2213	0.08	292	1394
A 20 3_ 329.4	3.3	2213	0.13	292	1394	1.8	2213	0.07	292	1394
A 20 3_ 380.9	2.9	2213	0.11	292	1394	1.6	2213	0.06	292	1394

A 30

3,630 lb·in

	i	n_1 = **3500** rpm					n_1 = **1750** rpm				
	(ratio)	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 30 2_5.4		648	1549	16.7	254	558	324	1947	10.5	321	704
A 30 2_6.4		547	1637	14.9	252	591	273	2036	9.3	330	749
A 30 2_7.0		500	1717	14.3	256	605	250	2168	9.0	321	760
A 30 2_8.5		412	1770	12.2	274	652	206	2213	7.6	353	823
A 30 2_9.3		376	1894	11.9	256	663	188	2390	7.5	324	834
A 30 2_10.5		333	2460	13.7	405	623	167	3009	8.4	495	798
A 30 2_11.8		297	2036	10.1	254	719	148	2567	6.4	319	906
A 30 2_13.6		257	2664	11.4	411	681	129	3275	7.0	495	870
A 30 2_16.3		215	2814	10.1	411	728	107	3407	6.1	495	937
A 30 2_18.0		194	2894	9.4	414	753	97	3540	5.7	495	964
A 30 2_20.5		171	3009	8.6	411	789	85	3629	5.2	495	1018
A 30 2_22.8		154	3106	8.0	416	818	77	3629	4.6	495	1072
A 30 2_26.5		132	3248	7.2	414	865	66	3629	4.0	495	1158
A 30 2_29.3		119	3345	6.7	415	895	60	3629	3.6	495	1214
A 30 2_33.4		105	3478	6.1	414	937	52	3629	3.2	495	1293
A 30 2_36.6		96	3575	5.7	414	969	48	3629	2.9	495	1351
A 30 2_39.3		89	3629	5.4	407	996	45	3629	2.7	495	1394
A 30 2_43.4		81	3629	4.9	416	1048	40	3629	2.4	495	1459
A 30 2_48.3		72	3629	4.4	418	1106	36	3629	2.2	495	1531
A 30 2_52.7		66	3629	4.0	418	1153	33	3629	2.0	495	1592
A 30 2_59.4		59	3540	3.5	425	1236	29.5	3540	1.7	495	1693
A 30 2_66.0		53	3452	3.1	427	1313	26.5	3452	1.5	495	1785
A 30 2_76.5		46	3098	2.4	438	1457	22.9	3098	1.2	495	1954
A 30 2_86.7		40	2832	1.9	450	1576	20.2	2832	0.95	495	2093
A 30 2_97.5		36	2655	1.6	454	1682	17.9	2655	0.80	495	2158
A 30 3_109.1		32	2124	1.2	292	1852	16.0	2655	0.73	292	2158
A 30 3_120.5		29.0	2151	1.1	252	1920	14.5	2655	0.66	292	2158
A 30 3_137.4		25.5	2213	0.96	292	2012	12.7	2788	0.61	292	2158
A 30 3_150.7		23.2	2310	0.92	263	2070	11.6	2921	0.58	292	2158
A 30 3_161.4		21.7	2390	0.89	292	2115	10.8	3009	0.56	292	2158
A 30 3_178.5		19.6	2425	0.81	272	2158	9.8	3053	0.51	292	2158
A 30 3_198.5		17.6	2478	0.75	292	2158	8.8	3098	0.47	292	2158
A 30 3_216.6		16.2	2540	0.70	279	2158	8.1	3186	0.44	292	2158
A 30 3_244.3		14.3	2611	0.64	292	2158	7.2	3275	0.40	292	2158
A 30 3_271.5		12.9	2664	0.59	288	2158	6.4	3363	0.37	292	2158
A 30 3_314.5		11.1	2735	0.52	292	2158	5.6	3452	0.33	292	2158
A 30 3_356.3		9.8	2832	0.48	292	2158	4.9	3275	0.28	292	2158
A 30 3_400.8		8.7	2832	0.42	292	2158	4.4	3186	0.24	292	2158

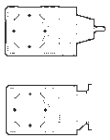
A 30

3,630 lb·in

i (ratio)	n_1 = 1100 rpm					n_1 = 600 rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 30 2_5.4	204	2257	7.7	373	816	111	2655	4.9	495	1005
A 30 2_6.4	172	2390	6.9	366	861	94	2655	4.2	495	1086
A 30 2_7.0	157	2513	6.6	371	881	86	2655	3.8	495	1133
A 30 2_8.5	129	2567	5.5	407	953	71	2655	3.1	495	1230
A 30 2_9.3	118	2655	5.2	427	985	65	2655	2.9	495	1284
A 30 2_10.5	105	3460	6.0	495	928	57	3629	3.5	495	1214
A 30 2_11.8	93	2655	4.1	495	1097	51	2655	2.3	495	1421
A 30 2_13.6	81	3629	4.9	495	1034	44	3629	2.7	495	1374
A 30 2_16.3	67	3629	4.1	495	1134	37	3629	2.2	495	1495
A 30 2_18.0	61	3629	3.7	495	1187	33	3629	2.0	495	1560
A 30 2_20.5	54	3629	3.2	495	1266	29.3	3629	1.8	495	1655
A 30 2_22.8	48	3629	2.9	495	1329	26.3	3629	1.6	495	1731
A 30 2_26.5	42	3629	2.5	495	1425	22.6	3629	1.4	495	1850
A 30 2_29.3	38	3629	2.3	495	1493	20.5	3629	1.2	495	1931
A 30 2_33.4	33	3629	2.0	495	1583	18.0	3629	1.1	495	2041
A 30 2_36.6	30	3629	1.8	495	1650	16.4	3629	1.0	495	2122
A 30 2_39.3	28.0	3629	1.7	495	1699	15.3	3629	0.92	495	2158
A 30 2_43.4	25.3	3629	1.5	495	1776	13.8	3629	0.84	495	2158
A 30 2_48.3	22.8	3629	1.4	495	1859	12.4	3629	0.75	495	2158
A 30 2_52.7	20.9	3629	1.3	495	1931	11.4	3629	0.69	495	2158
A 30 2_59.4	18.5	3540	1.1	495	2043	10.1	3540	0.60	495	2158
A 30 2_66.0	16.7	3452	1.0	495	2149	9.1	3452	0.52	495	2158
A 30 2_76.5	14.4	3098	0.74	495	2158	7.8	3098	0.41	495	2158
A 30 2_86.7	12.7	2832	0.60	495	2158	6.9	2832	0.33	495	2158
A 30 2_97.5	11.3	2655	0.50	495	2158	6.2	2655	0.27	495	2158
A 30 3_109.1	10.1	3098	0.53	292	2158	5.5	3275	0.31	292	2158
A 30 3_120.5	9.1	3133	0.48	292	2158	5.0	3629	0.30	292	2158
A 30 3_137.4	8.0	3275	0.44	292	2158	4.4	3629	0.26	292	2158
A 30 3_150.7	7.3	3372	0.41	292	2158	4.0	3629	0.24	292	2158
A 30 3_161.4	6.8	3452	0.39	292	2158	3.7	3629	0.23	292	2158
A 30 3_178.5	6.2	3540	0.36	292	2158	3.4	3629	0.20	292	2158
A 30 3_198.5	5.5	3629	0.34	292	2158	3.0	3629	0.18	292	2158
A 30 3_216.6	5.1	3629	0.31	292	2158	2.8	3629	0.17	292	2158
A 30 3_244.3	4.5	3629	0.27	292	2158	2.5	3629	0.15	292	2158
A 30 3_271.5	4.1	3629	0.25	292	2158	2.2	3629	0.13	292	2158
A 30 3_314.5	3.5	3629	0.21	292	2158	1.9	3629	0.12	292	2158
A 30 3_356.3	3.1	3363	0.17	292	2158	1.7	3363	0.09	292	2158
A 30 3_400.8	2.7	3186	0.15	292	2158	1.5	3186	0.08	292	2158

A 35

7,520 lb·in



i (ratio)	n_1 = **3500** rpm					n_1 = **1750** rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 35 2_ 5.4	648	2177	23.5	319	899	324	2744	14.8	402	1135
A 35 2_ 6.4	547	2319	21.2	319	951	273	2921	13.3	402	1198
A 35 2_ 7.0	500	2460	20.5	317	971	250	3098	12.9	402	1223
A 35 2_ 8.5	412	2531	17.4	326	1045	206	3186	10.9	411	1315
A 35 2_ 9.3	376	2673	16.8	326	1070	188	3363	10.6	411	1349
A 35 2_ 10.6	330	2744	15.1	324	1126	165	3452	9.5	411	1418
A 35 2_ 11.8	297	2805	13.9	333	1169	148	3540	8.8	418	1472
A 35 2_ 13.1	267	4053	18.1	366	1005	134	4868	10.8	472	1299
A 35 2_ 15.5	226	4390	16.5	364	1050	113	5045	9.5	477	1392
A 35 2_ 17.0	206	4646	16.0	364	1063	103	5310	9.1	479	1418
A 35 2_ 20.4	172	4868	13.9	366	1142	86	5310	7.6	488	1558
A 35 2_ 22.5	156	4956	12.9	373	1189	78	5310	6.9	495	1632
A 35 2_ 25.7	136	5177	11.8	369	1245	68	5310	6.0	495	1740
A 35 2_ 28.4	123	5310	10.9	373	1295	62	5310	5.5	495	1828
A 35 2_ 33.2	105	5310	9.3	205	1403	53	5310	4.7	495	1963
A 35 2_ 36.6	96	5310	8.5	243	1475	48	5310	4.2	495	2055
A 35 2_ 41.8	84	5310	7.4	256	1576	42	5310	3.7	495	2181
A 35 2_ 45.8	76	5310	6.8	283	1648	38	5310	3.4	495	2270
A 35 2_ 49.1	71	5310	6.3	283	1704	36	5310	3.2	495	2338
A 35 2_ 54.3	64	5310	5.7	306	1787	32	5310	2.9	495	2450
A 35 2_ 60.4	58	5310	5.1	330	1879	29.0	5310	2.6	495	2563
A 35 2_ 65.8	53	5310	4.7	330	1956	26.6	5310	2.4	495	2653
A 35 2_ 74.3	47	5310	4.2	351	2068	23.6	5310	2.1	495	2698
A 35 2_ 82.5	42	5310	3.8	351	2169	21.2	5310	1.9	495	2698
A 35 2_ 95.6	37	4779	2.9	418	2392	18.3	4779	1.5	495	2698
A 35 3_ 105.5	33	3806	2.2	124	2698	16.6	4646	1.3	175	2698
A 35 3_ 116.9	29.9	4027	2.1	146	2698	15.0	4956	1.3	196	2698
A 35 3_ 136.3	25.7	4160	1.8	196	2698	12.8	5089	1.1	250	2698
A 35 3_ 150.6	23.2	4381	1.7	202	2698	11.6	5310	1.1	261	2698
A 35 3_ 171.8	20.4	4469	1.6	216	2698	10.2	5310	0.93	281	2698
A 35 3_ 188.3	18.6	4646	1.5	223	2698	9.3	5310	0.84	292	2698
A 35 3_ 201.8	17.3	4646	1.4	229	2698	8.7	5310	0.79	292	2698
A 35 3_ 223.2	15.7	4823	1.3	236	2698	7.8	5310	0.71	292	2698
A 35 3_ 248.1	14.1	5000	1.2	243	2698	7.1	5310	0.64	292	2698
A 35 3_ 270.7	12.9	5045	1.1	250	2698	6.5	5310	0.59	292	2698
A 35 3_ 305.4	11.5	5177	1.0	256	2698	5.7	5310	0.52	292	2698
A 35 3_ 339.3	10.3	4602	0.81	272	2698	5.2	4602	0.41	292	2698
A 35 3_ 393.2	8.9	4115	0.63	283	2698	4.5	4115	0.31	292	2698

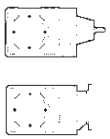
A 35

7,520 lb·in

i (ratio)	n_1 = 1100 rpm					n_1 = 600 rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 35 2_ 5.4	204	3009	10.2	483	1335	111	3009	5.6	495	1708
A 35 2_ 6.4	172	3098	8.9	492	1425	94	3098	4.8	495	1819
A 35 2_ 7.0	157	3275	8.6	495	1459	86	3275	4.7	495	1864
A 35 2_ 8.5	129	3363	7.3	495	1567	71	3363	4.0	495	1998
A 35 2_ 9.3	118	3540	7.0	495	1610	65	3540	3.8	495	2055
A 35 2_ 10.6	104	3540	6.1	495	1702	57	3540	3.3	495	2169
A 35 2_ 11.8	93	3540	5.5	495	1778	51	3540	3.0	495	2270
A 35 2_ 13.1	84	5310	7.4	495	1553	46	5310	4.1	495	2055
A 35 2_ 15.5	71	5310	6.3	470	1688	39	5310	3.4	495	2217
A 35 2_ 17.0	65	5310	5.7	495	1762	35	5310	3.1	495	2315
A 35 2_ 20.4	54	5310	4.8	495	1924	29.4	5310	2.6	495	2495
A 35 2_ 22.5	49	5310	4.3	495	2012	26.7	5310	2.4	495	2608
A 35 2_ 25.7	43	5310	3.8	495	2136	23.3	5310	2.1	495	2698
A 35 2_ 28.4	39	5310	3.4	495	2237	21.1	5310	1.9	495	2698
A 35 2_ 33.2	33	5310	2.9	495	2405	18.1	5310	1.6	495	2698
A 35 2_ 36.6	30.1	5310	2.7	495	2495	16.4	5310	1.5	495	2698
A 35 2_ 41.8	26.3	5310	2.3	495	2653	14.4	5310	1.3	495	2698
A 35 2_ 45.8	24.0	5310	2.1	495	2698	13.1	5310	1.2	495	2698
A 35 2_ 49.1	22.4	5310	2.0	495	2698	12.2	5310	1.1	495	2698
A 35 2_ 54.3	20.3	5310	1.8	495	2698	11.0	5310	1.0	495	2698
A 35 2_ 60.4	18.2	5310	1.6	495	2698	9.9	5310	0.88	495	2698
A 35 2_ 65.8	16.7	5310	1.5	495	2698	9.1	5310	0.81	495	2698
A 35 2_ 74.3	14.8	5310	1.3	495	2698	8.1	5310	0.72	495	2698
A 35 2_ 82.5	13.3	5310	1.2	495	2698	7.3	5310	0.64	495	2698
A 35 2_ 95.6	11.5	4779	0.92	495	2698	6.3	4779	0.50	495	2698
A 35 3_ 105.5	10.4	5310	0.95	211	2698	5.7	5310	0.52	292	2698
A 35 3_ 116.9	9.4	5310	0.86	277	2698	5.1	5310	0.47	292	2698
A 35 3_ 136.3	8.1	5310	0.73	292	2698	4.4	5310	0.40	292	2698
A 35 3_ 150.6	7.3	5310	0.66	292	2698	4.0	5310	0.36	292	2698
A 35 3_ 171.8	6.4	5310	0.58	292	2698	3.5	5310	0.32	292	2698
A 35 3_ 188.3	5.8	5310	0.53	292	2698	3.2	5310	0.29	292	2698
A 35 3_ 201.8	5.5	5310	0.50	292	2698	3.0	5310	0.27	292	2698
A 35 3_ 223.2	4.9	5310	0.45	292	2698	2.7	5310	0.24	292	2698
A 35 3_ 248.1	4.4	5310	0.40	292	2698	2.4	5310	0.22	292	2698
A 35 3_ 270.7	4.1	5310	0.37	292	2698	2.2	5310	0.20	292	2698
A 35 3_ 305.4	3.6	5310	0.33	292	2698	2.0	5310	0.18	292	2698
A 35 3_ 339.3	3.2	4602	0.26	292	2698	1.8	4602	0.14	292	2698
A 35 3_ 393.2	2.8	4115	0.20	292	2698	1.5	4115	0.11	292	2698

A 41

7,520 lb·in



i	n_1 = **3500** rpm					n_1 = **1750** rpm				
(ratio)	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 41 2_ 5.2	673	3983	45	402	978	337	4868	27.3	551	1250
A 41 2_ 7.1	493	4337	36	425	1090	246	4868	20.0	600	1445
A 41 2_ 8.3	422	4514	32	427	1155	211	4868	17.1	618	1556
A 41 2_ 9.2	380	4691	29.8	445	1191	190	4868	15.4	643	1628
A 41 2_ 10.1	347	3850	22.3	602	1356	173	4735	13.7	762	1720
A 41 2_ 11.7	299	4868	24.3	461	1320	150	4868	12.1	663	1814
A 41 2_ 13.8	254	4248	18.0	605	1502	127	5177	11.0	771	1913
A 41 2_ 16.1	217	4425	16.0	607	1589	109	5399	9.8	771	2023
A 41 2_ 17.8	197	4558	15.0	614	1643	98	5576	9.1	780	2091
A 41 2_ 22.7	154	4868	12.5	614	1792	77	6018	7.7	778	2270
A 41 2_ 28.3	124	5266	10.9	600	1927	62	6461	6.7	776	2450
A 41 2_ 35.9	97	5620	9.1	582	2095	49	6903	5.6	767	2653
A 41 2_ 45.1	78	6018	7.8	562	2270	39	7346	4.8	749	2877
A 41 2_ 48.3	72	6107	7.4	546	2315	36	7523	4.5	719	2945
A 41 2_ 53.1	66	6195	6.8	555	2405	33	7523	4.1	749	3080
A 41 2_ 58.8	60	6461	6.4	537	2495	29.8	7523	3.7	778	3215
A 41 2_ 64.2	55	6549	6.0	522	2585	27.3	7523	3.4	778	3327
A 41 2_ 71.3	49	6903	5.7	477	2653	24.5	7523	3.1	780	3372
A 41 2_ 79.2	44	7080	5.2	447	2765	22.1	7080	2.6	787	3372
A 41 3_ 92.8	38	5753	3.7	61	3147	18.9	7080	2.3	97	3372
A 41 3_ 115.9	30.2	7080	3.7	70	3282	15.1	7523	1.9	220	3372
A 41 3_ 146.9	23.8	7523	3.1	178	3372	11.9	7523	1.5	369	3372
A 41 3_ 184.4	19.0	7523	2.4	290	3372	9.5	7523	1.2	398	3372
A 41 3_ 197.5	17.7	7523	2.3	306	3372	8.9	7523	1.1	402	3372
A 41 3_ 217.4	16.1	7523	2.1	312	3372	8.0	7523	1.0	409	3372
A 41 3_ 240.6	14.5	7523	1.9	317	3372	7.3	7523	0.94	414	3372
A 41 3_ 262.5	13.3	7523	1.7	321	3372	6.7	7523	0.86	418	3372
A 41 3_ 291.7	12.0	7523	1.5	326	3372	6.0	7523	0.77	423	3372
A 41 3_ 324.2	10.8	7523	1.4	330	3372	5.4	7523	0.70	427	3372
A 41 3_ 376.8	9.3	7523	1.2	337	3372	4.6	7523	0.60	434	3372

A 41

7,520 lb·in

i (ratio)	n_1 = **1100** rpm					n_1 = **600** rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 41 2_ 5.2	212	4868	17.2	706	1540	115	4868	9.4	787	2001
A 41 2_ 7.1	155	4868	12.6	755	1769	85	4868	6.9	787	2270
A 41 2_ 8.3	133	4868	10.8	773	1895	72	4868	5.9	787	2428
A 41 2_ 9.2	120	4868	9.7	787	1978	65	4868	5.3	787	2540
A 41 2_ 10.1	109	5399	9.8	787	2005	59	6461	6.4	787	2450
A 41 2_ 11.7	94	4868	7.6	787	2194	51	4868	4.2	787	2788
A 41 2_ 13.8	80	5930	7.9	787	2226	43	7080	5.1	787	2720
A 41 2_ 16.1	68	6195	7.1	787	2360	37	7346	4.6	787	2877
A 41 2_ 17.8	62	6372	6.6	787	2428	34	7523	4.2	787	2990
A 41 2_ 22.7	48	6903	5.6	787	2630	26.4	7523	3.3	787	3327
A 41 2_ 28.3	39	7346	4.8	787	2855	21.2	7523	2.7	787	3372
A 41 2_ 35.9	31	7523	3.8	787	3147	16.7	7523	2.1	787	3372
A 41 2_ 45.1	24.4	7523	3.1	787	3372	13.3	7523	1.7	787	3372
A 41 2_ 48.3	22.8	7523	2.9	787	3372	12.4	7523	1.6	787	3372
A 41 2_ 53.1	20.7	7523	2.6	787	3372	11.3	7523	1.4	787	3372
A 41 2_ 58.8	18.7	7523	2.3	787	3372	10.2	7523	1.3	787	3372
A 41 2_ 64.2	17.1	7523	2.2	742	3372	9.3	7523	1.2	787	3372
A 41 2_ 71.3	15.4	7523	1.9	787	3372	8.4	7523	1.1	787	3372
A 41 2_ 79.2	13.9	7080	1.6	787	3372	7.6	7080	0.89	787	3372
A 41 3_ 92.8	11.9	7080	1.4	243	3372	6.5	7080	0.78	474	3372
A 41 3_ 115.9	9.5	7523	1.2	366	3372	5.2	7523	0.67	495	3372
A 41 3_ 146.9	7.5	7523	1.0	454	3372	4.1	7523	0.53	495	3372
A 41 3_ 184.4	6.0	7523	0.77	472	3372	3.3	7523	0.42	495	3372
A 41 3_ 197.5	5.6	7523	0.72	477	3372	3.0	7523	0.39	495	3372
A 41 3_ 217.4	5.1	7523	0.65	483	3372	2.8	7523	0.36	495	3372
A 41 3_ 240.6	4.6	7523	0.59	488	3372	2.5	7523	0.32	495	3372
A 41 3_ 262.5	4.2	7523	0.54	492	3372	2.3	7523	0.29	495	3372
A 41 3_ 291.7	3.8	7523	0.49	495	3372	2.1	7523	0.26	495	3372
A 41 3_ 324.2	3.4	7523	0.44	495	3372	1.9	7523	0.24	495	3372
A 41 3_ 376.8	2.9	7523	0.38	495	3372	1.6	7523	0.21	495	3372

A 50

13,300 lb·in

i (ratio)	n_1 = 3500 rpm					n_1 = 1750 rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 50 2_ 7.7	455	4868	37	517	1780	227	6195	23.5	650	2239
A 50 2_ 9.7	361	5310	32	524	1918	180	6638	20.0	663	2428
A 50 2_ 13.1	267	5310	23.7	553	2158	134	6638	14.8	699	2720
A 50 2_ 16.6	211	5664	19.9	560	2338	105	7080	12.5	708	2945
A 50 2_ 20.9	167	5664	15.8	571	2563	84	7080	9.9	722	3237
A 50 3_ 24.0	146	10178	25.4	416	1578	73	13275	16.6	472	1920
A 50 3_ 26.4	133	10620	24.1	472	1612	66	13275	15.1	605	2046
A 50 3_ 32.4	108	11417	21.1	405	1041	54	13275	12.3	620	2338
A 50 3_ 35.6	98	11859	20.0	468	1760	49	13275	11.2	740	2473
A 50 3_ 40.9	86	12523	18.3	391	1828	43	13275	9.7	724	2675
A 50 3_ 45.0	78	13010	17.3	456	1875	39	13275	8.8	773	2832
A 50 3_ 51.7	68	13275	15.4	378	2016	34	13275	7.7	764	3057
A 50 3_ 56.8	62	13275	14.0	483	2145	31	13275	7.0	782	3237
A 50 3_ 63.9	55	13275	12.4	427	2315	27.4	13275	6.2	776	3439
A 50 3_ 70.2	50	13275	11.3	528	2450	24.9	13275	5.7	787	3619
A 50 3_ 81.5	43	13275	9.8	488	2675	21.5	13275	4.9	787	3889
A 50 3_ 89.5	39	13275	8.9	582	2832	19.6	13275	4.4	787	4091
A 50 3_ 99.5	35	13275	8.0	508	3012	17.6	13275	4.0	787	4316
A 50 3_ 109.4	32	13275	7.3	602	3170	16.0	13275	3.6	787	4496
A 50 3_ 118.0	29.7	13275	6.7	537	3305	14.8	13275	3.4	787	4496
A 50 3_ 129.7	27.0	13275	6.1	611	3462	13.5	13275	3.1	787	4496
A 50 3_ 140.6	24.9	13275	5.7	549	3619	12.4	13275	2.8	787	4496
A 50 3_ 154.6	22.6	13275	5.1	614	3799	11.3	13275	2.6	787	4496
A 50 3_ 173.4	20.2	13275	4.6	558	4024	10.1	13275	2.3	787	4496
A 50 3_ 190.6	18.4	13275	4.2	616	4226	9.2	13275	2.1	787	4496
A 50 4_ 211.0	16.6	13275	3.9	434	4496	8.3	13275	1.9	495	4496
A 50 4_ 232.0	15.1	13275	3.5	443	4496	7.5	13275	1.8	495	4496
A 50 4_ 260.9	13.4	13275	3.1	452	4496	6.7	13275	1.6	495	4496
A 50 4_ 286.8	12.2	13275	2.8	459	4496	6.1	13275	1.4	495	4496
A 50 4_ 332.6	10.5	13275	2.5	468	4496	5.3	13275	1.2	495	4496
A 50 4_ 365.6	9.6	13275	2.2	472	4496	4.8	13275	1.1	495	4496
A 50 4_ 406.4	8.6	13275	2.0	479	4496	4.3	13275	1.0	495	4496
A 50 4_ 446.8	7.8	13275	1.8	481	4496	3.9	13275	0.91	495	4496
A 50 4_ 481.6	7.3	13275	1.7	486	4496	3.6	13275	0.85	495	4496
A 50 4_ 529.5	6.6	13275	1.5	488	4496	3.3	13275	0.77	495	4496
A 50 4_ 574.2	6.1	13275	1.4	492	4496	3.0	13275	0.71	495	4496
A 50 4_ 631.2	5.5	13275	1.3	495	4496	2.8	13275	0.65	495	4496
A 50 4_ 707.9	4.9	13275	1.2	495	4496	2.5	13275	0.58	495	4496
A 50 4_ 778.2	4.5	13275	1.0	495	4496	2.2	13275	0.52	495	4496

A 50

13,300 lb·in

i (ratio)	n_1 = 1100 rpm					n_1 = 600 rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 50 2_ 7.7	143	6815	16.2	771	2630	78	7965	10.4	787	3215
A 50 2_ 9.7	113	7346	13.9	785	2832	62	8850	9.1	787	3439
A 50 2_ 13.1	84	7346	10.3	787	3192	46	8850	6.8	787	3889
A 50 2_ 16.6	66	7788	8.6	787	3462	36	8850	5.3	787	4249
A 50 2_ 20.9	53	7788	6.8	787	3777	28.7	8850	4.2	787	4496
A 50 3_ 24.0	46	13275	10.4	782	2540	25.0	13275	5.7	787	3529
A 50 3_ 26.4	42	13275	9.5	787	2698	22.7	13275	5.2	787	3709
A 50 3_ 32.4	34	13275	7.7	787	3012	18.5	13275	4.2	787	4114
A 50 3_ 35.6	30.9	13275	7.0	787	3192	16.9	13275	3.8	787	4316
A 50 3_ 40.9	26.9	13275	6.1	787	3439	14.7	13275	3.3	787	4496
A 50 3_ 45.0	24.4	13275	5.6	787	3597	13.3	13275	3.0	787	4496
A 50 3_ 51.7	21.3	13275	4.8	776	3867	11.6	13275	2.6	787	4496
A 50 3_ 56.8	19.4	13275	4.4	787	4069	10.6	13275	2.4	787	4496
A 50 3_ 63.9	17.2	13275	3.9	787	4316	9.4	13275	2.1	787	4496
A 50 3_ 70.2	15.7	13275	3.6	787	4496	8.5	13275	1.9	787	4496
A 50 3_ 81.5	13.5	13275	3.1	787	4496	7.4	13275	1.7	787	4496
A 50 3_ 89.5	12.3	13275	2.8	787	4496	6.7	13275	1.5	787	4496
A 50 3_ 99.5	11.1	13275	2.5	787	4496	6.0	13275	1.4	787	4496
A 50 3_ 109.4	10.1	13275	2.3	787	4496	5.5	13275	1.2	787	4496
A 50 3_ 118.0	9.3	13275	2.1	787	4496	5.1	13275	1.2	787	4496
A 50 3_ 129.7	8.5	13275	1.9	787	4496	4.6	13275	1.1	787	4496
A 50 3_ 140.6	7.8	13275	1.8	787	4496	4.3	13275	0.97	787	4496
A 50 3_ 154.6	7.1	13275	1.6	787	4496	3.9	13275	0.88	787	4496
A 50 3_ 173.4	6.3	13275	1.4	787	4496	3.5	13275	0.79	787	4496
A 50 3_ 190.6	5.8	13275	1.3	787	4496	3.1	13275	0.72	787	4496
A 50 4_ 211.0	5.2	13275	1.2	495	4496	2.8	13275	0.66	495	4496
A 50 4_ 232.0	4.7	13275	1.1	495	4496	2.59	13275	0.60	495	4496
A 50 4_ 260.9	4.2	13275	0.98	495	4496	2.30	13275	0.54	495	4496
A 50 4_ 286.8	3.8	13275	0.89	495	4496	2.09	13275	0.49	495	4496
A 50 4_ 332.6	3.3	13275	0.77	495	4496	1.80	13275	0.42	495	4496
A 50 4_ 365.6	3.0	13275	0.70	495	4496	1.64	13275	0.38	495	4496
A 50 4_ 406.4	2.7	13275	0.63	495	4496	1.48	13275	0.34	495	4496
A 50 4_ 446.8	2.5	13275	0.57	495	4496	1.34	13275	0.31	495	4496
A 50 4_ 481.6	2.3	13275	0.53	495	4496	1.25	13275	0.29	495	4496
A 50 4_ 529.5	2.1	13275	0.48	495	4496	1.13	13275	0.26	495	4496
A 50 4_ 574.2	1.9	13275	0.45	495	4496	1.04	13275	0.24	495	4496
A 50 4_ 631.2	1.7	13275	0.41	495	4496	0.95	13275	0.22	495	4496
A 50 4_ 707.9	1.6	13275	0.36	495	4496	0.85	13275	0.20	495	4496
A 50 4_ 778.2	1.4	13275	0.33	495	4496	0.77	13275	0.18	495	4496

A 55

13,300 lb·in

i	n_1 = **3500** rpm					n_1 = **1750** rpm				
(ratio)	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 55 2_ 4.9	714	6726	80	297	3394	357	7965	47	483	4204
A 55 2_ 6.4	547	7080	65	438	3687	273	8408	38	643	4563
A 55 2_ 8.5	412	7080	49	632	4046	206	8408	28.9	787	4991
A 55 2_ 10.4	337	7434	42	652	4294	168	8850	24.8	787	5305
A 55 2_ 13.1	267	7434	33	726	4631	134	8850	19.7	787	5732
A 55 2_ 15.7	223	7434	28	773	4923	111	8850	16.5	787	6070
A 55 2_ 19.2	182	8186	25	710	5215	91	9735	14.8	787	6429
A 55 3_ 23.8	147	14160	36	461	4721	74	17258	21.7	593	5845
A 55 3_ 29.9	117	15045	30.1	474	5058	59	17700	17.7	623	6339
A 55 3_ 40.3	87	16373	24.3	483	5575	43	17700	13.2	659	6744
A 55 3_ 51.0	69	17700	20.8	488	5957	34	17700	10.4	686	6744
A 55 3_ 64.3	54	17700	16.5	501	6519	27.2	17700	8.2	699	6744
A 55 3_ 79.5	44	17700	13.3	234	6744	22.0	17700	6.7	634	6744
A 55 3_ 101.4	35	17700	10.5	301	6744	17.3	17700	5.2	704	6744
A 55 3_ 123.9	28.2	17700	8.6	326	6744	14.1	17700	4.3	726	6744
A 55 3_ 132.7	26.4	17700	8.0	326	6744	13.2	17700	4.0	728	6744
A 55 3_ 146.8	23.8	17700	7.2	362	6744	11.9	17700	3.6	740	6744
A 55 3_ 160.4	21.8	17700	6.6	373	6744	10.9	17700	3.3	742	6744
A 55 3_ 175.0	20.0	17700	6.1	373	6744	10.0	17700	3.0	742	6744
A 55 3_ 194.2	18.0	17700	5.5	384	6744	9.0	17700	2.7	744	6744
A 55 4_ 208.1	16.8	14160	4.2	425	6744	8.4	17258	2.5	495	6744
A 55 4_ 262.6	13.3	14603	3.4	445	6744	6.7	17700	2.1	495	6744
A 55 4_ 324.7	10.8	15488	2.9	456	6744	5.4	17700	1.7	495	6744
A 55 4_ 414.0	8.5	16373	2.4	468	6744	4.2	17700	1.3	495	6744
A 55 4_ 505.9	6.9	16815	2.0	477	6744	3.5	17700	1.1	495	6744
A 55 4_ 542.0	6.5	16815	1.9	481	6744	3.2	17700	1.0	495	6744
A 55 4_ 599.5	5.8	17258	1.8	483	6744	2.9	17700	0.9	495	6744
A 55 4_ 655.1	5.3	17258	1.6	490	6744	2.7	17700	0.8	495	6744
A 55 4_ 714.7	4.9	17258	1.5	495	6744	2.4	17700	0.8	495	6744
A 55 4_ 793.0	4.4	17700	1.4	495	6744	2.2	17700	0.7	495	6744

A 55

13,300 lb·in

i (ratio)	n_1 = **1100** rpm					n_1 = **600** rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 552_ 4.9	224	8850	33	641	4811	122	10266	21.0	787	5755
A 552_ 6.4	172	9381	26.9	787	5215	94	10886	17.0	787	6227
A 552_ 8.5	129	9381	20.3	787	5710	71	10886	12.8	787	6744
A 552_ 10.4	106	9912	17.5	787	6070	58	11417	11.0	787	6744
A 552_ 13.1	84	9912	13.9	787	6542	46	11417	8.7	787	6744
A 552_ 15.7	70	9912	11.6	787	6744	38	11417	7.3	787	6744
A 552_ 19.2	57	10886	10.4	787	6744	31	12567	6.6	787	6744
A 553_ 23.8	46	17700	14.0	737	6744	25.2	17700	7.6	787	6744
A 553_ 29.9	37	17700	11.1	776	6744	20.1	17700	6.1	787	6744
A 553_ 40.3	27.3	17700	8.3	787	6744	14.9	17700	4.5	787	6744
A 553_ 51.0	21.6	17700	6.5	787	6744	11.8	17700	3.6	787	6744
A 553_ 64.3	17.1	17700	5.2	787	6744	9.3	17700	2.8	787	6744
A 553_ 79.5	13.8	17700	4.2	787	6744	7.5	17700	2.3	787	6744
A 553_ 101.4	10.8	17700	3.3	787	6744	5.9	17700	1.8	787	6744
A 553_ 123.9	8.9	17700	2.7	787	6744	4.8	17700	1.5	787	6744
A 553_ 132.7	8.3	17700	2.5	787	6744	4.5	17700	1.4	787	6744
A 553_ 146.8	7.5	17700	2.3	787	6744	4.1	17700	1.2	787	6744
A 553_ 160.4	6.9	17700	2.1	787	6744	3.7	17700	1.1	787	6744
A 553_ 175.0	6.3	17700	1.9	787	6744	3.4	17700	1.0	787	6744
A 553_ 194.2	5.7	17700	1.7	787	6744	3.1	17700	0.94	787	6744
A 554_ 208.1	5.3	17700	1.6	495	6744	2.9	17700	0.90	495	6744
A 554_ 262.6	4.2	17700	1.3	495	6744	2.3	17700	0.71	495	6744
A 554_ 324.7	3.4	17700	1.1	495	6744	1.8	17700	0.57	495	6744
A 554_ 414.0	2.7	17700	0.8	495	6744	1.4	17700	0.45	495	6744
A 554_ 505.9	2.2	17700	0.7	495	6744	1.2	17700	0.37	495	6744
A 554_ 542.0	2.0	17700	0.6	495	6744	1.1	17700	0.34	495	6744
A 554_ 599.5	1.8	17700	0.6	495	6744	1.0	17700	0.31	495	6744
A 554_ 655.1	1.7	17700	0.5	495	6744	0.9	17700	0.28	495	6744
A 554_ 714.7	1.5	17700	0.5	495	6744	0.8	17700	0.26	495	6744
A 554_ 793.0	1.4	17700	0.4	495	6744	0.8	17700	0.24	495	6744

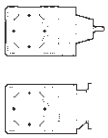
A 60

24,800 lb·in

i (ratio)	n_1 = **3500** rpm					n_1 = **1750** rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 60 2_ 7.9	443	8408	62	623	5058	222	10620	39	764	6227
A 60 2_ 10.3	340	8408	48	668	5530	170	10620	30	841	6744
A 60 2_ 12.7	276	8850	41	679	5890	138	11063	25.4	856	6744
A 60 2_ 16.7	210	9293	32	692	6429	105	11505	20.1	879	6744
A 60 2_ 20.6	170	9735	28	697	6744	85	12390	17.6	874	6744
A 60 3_ 25.7	136	24426	57	535	6047	68	24780	28.9	854	6744
A 60 3_ 27.9	125	24780	53	625	6227	63	24780	26.6	883	6744
A 60 3_ 31.7	110	24780	47	627	6519	55	24780	23.4	886	6744
A 60 3_ 34.3	102	24780	43	656	6744	51	24780	21.6	913	6744
A 60 3_ 41.7	84	24780	36	661	6744	42	24780	17.8	919	6744
A 60 3_ 45.2	77	24780	33	688	6744	39	24780	16.4	944	6744
A 60 3_ 51.3	68	24780	28.9	681	6744	34	24780	14.5	940	6744
A 60 3_ 55.6	63	24780	26.7	706	6744	31	24780	13.3	962	6744
A 60 3_ 65.0	54	24780	22.8	699	6744	26.9	24780	11.4	958	6744
A 60 3_ 70.4	50	24780	21.1	722	6744	24.9	24780	10.5	980	6744
A 60 3_ 79.7	44	24780	18.6	710	6744	22.0	24780	9.3	969	6744
A 60 3_ 86.4	41	24780	17.2	733	6744	20.3	24780	8.6	991	6744
A 60 3_ 99.5	35	24780	14.9	722	6744	17.6	24780	7.5	980	6744
A 60 3_ 107.8	32	24780	13.8	742	6744	16.2	24780	6.9	1000	6744
A 60 3_ 123.0	28.5	24780	12.1	731	6744	14.2	24780	6.0	989	6744
A 60 3_ 133.3	26.3	24780	11.1	751	6744	13.1	24780	5.6	1009	6744
A 60 3_ 144.0	24.3	24780	10.3	737	6744	12.2	24780	5.2	994	6744
A 60 3_ 156.0	22.4	24780	9.5	755	6744	11.2	24780	4.8	1014	6744
A 60 3_ 171.5	20.4	24780	8.7	740	6744	10.2	24780	4.3	996	6744
A 60 3_ 185.8	18.8	24780	8.0	758	6744	9.4	24780	4.0	1016	6744
A 60 4_ 208.7	16.8	24780	7.3	611	6744	8.4	24780	3.6	787	6744
A 60 4_ 226.1	15.5	24780	6.7	623	6744	7.7	24780	3.4	787	6744
A 60 4_ 264.3	13.2	24780	5.8	643	6744	6.6	24780	2.9	787	6744
A 60 4_ 286.3	12.2	24780	5.3	652	6744	6.1	24780	2.7	787	6744
A 60 4_ 324.2	10.8	24780	4.7	665	6744	5.4	24780	2.3	787	6744
A 60 4_ 351.2	10.0	24780	4.3	672	6744	5.0	24780	2.2	787	6744
A 60 4_ 404.7	8.6	24780	3.8	686	6744	4.3	24780	1.9	787	6744
A 60 4_ 438.4	8.0	24780	3.5	690	6744	4.0	24780	1.7	787	6744
A 60 4_ 500.3	7.0	24780	3.0	699	6744	3.5	24780	1.5	787	6744
A 60 4_ 542.0	6.5	24780	2.8	706	6744	3.2	24780	1.4	787	6744
A 60 4_ 585.8	6.0	24780	2.6	708	6744	3.0	24780	1.3	787	6744
A 60 4_ 634.6	5.5	24780	2.4	713	6744	2.8	24780	1.2	787	6744
A 60 4_ 697.3	5.0	24780	2.2	717	6744	2.5	24780	1.1	787	6744
A 60 4_ 755.4	4.6	24780	2.0	722	6744	2.3	24780	1.0	787	6744

A 60

24,800 lb·in



i (ratio)	n_1 = 1100 rpm					n_1 = 600 rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 60 2_ 7.9	139	11505	26.7	942	6744	76	13718	17.4	1057	6744
A 60 2_ 10.3	107	11505	20.5	1005	6744	58	13718	13.3	1057	6744
A 60 2_ 12.7	87	12390	17.9	1009	6744	47	15045	11.9	1057	6744
A 60 2_ 16.7	66	12833	14.1	1036	6744	36	15045	9.0	1057	6744
A 60 2_ 20.6	53	13718	12.2	1034	6744	29.1	15930	7.7	1057	6744
A 60 3_ 25.7	43	24780	18.2	1052	6744	23.3	24780	9.9	1057	6744
A 60 3_ 27.9	39	24780	16.7	1057	6744	21.5	24780	9.1	1057	6744
A 60 3_ 31.7	35	24780	14.7	1057	6744	18.9	24780	8.0	1057	6744
A 60 3_ 34.3	32	24780	13.6	1057	6744	17.5	24780	7.4	1057	6744
A 60 3_ 41.7	26.4	24780	11.2	1057	6744	14.4	24780	6.1	1057	6744
A 60 3_ 45.2	24.3	24780	10.3	1057	6744	13.3	24780	5.6	1057	6744
A 60 3_ 51.3	21.4	24780	9.1	1057	6744	11.7	24780	5.0	1057	6744
A 60 3_ 55.6	19.8	24780	8.4	1057	6744	10.8	24780	4.6	1057	6744
A 60 3_ 65.0	16.9	24780	7.2	1057	6744	9.2	24780	3.9	1057	6744
A 60 3_ 70.4	15.6	24780	6.6	1057	6744	8.5	24780	3.6	1057	6744
A 60 3_ 79.7	13.8	24780	5.9	1057	6744	7.5	24780	3.2	1057	6744
A 60 3_ 86.4	12.7	24780	5.4	1057	6744	6.9	24780	2.9	1057	6744
A 60 3_ 99.5	11.1	24780	4.7	1057	6744	6.0	24780	2.6	1057	6744
A 60 3_ 107.8	10.2	24780	4.3	1057	6744	5.6	24780	2.4	1057	6744
A 60 3_ 123.0	8.9	24780	3.8	1057	6744	4.9	24780	2.1	1057	6744
A 60 3_ 133.3	8.3	24780	3.5	1057	6744	4.5	24780	1.9	1057	6744
A 60 3_ 144.0	7.6	24780	3.2	1057	6744	4.2	24780	1.8	1057	6744
A 60 3_ 156.0	7.1	24780	3.0	1057	6744	3.8	24780	1.6	1057	6744
A 60 3_ 171.5	6.4	24780	2.7	1057	6744	3.5	24780	1.5	1057	6744
A 60 3_ 185.8	5.9	24780	2.5	1057	6744	3.2	24780	1.4	1057	6744
A 60 4_ 208.7	5.3	24780	2.3	787	6744	2.9	24780	1.3	787	6744
A 60 4_ 226.1	4.9	24780	2.1	787	6744	2.7	24780	1.2	787	6744
A 60 4_ 264.3	4.2	24780	1.8	787	6744	2.3	24780	1.0	787	6744
A 60 4_ 286.3	3.8	24780	1.7	787	6744	2.1	24780	0.91	787	6744
A 60 4_ 324.2	3.4	24780	1.5	787	6744	1.9	24780	0.80	787	6744
A 60 4_ 351.2	3.1	24780	1.4	787	6744	1.7	24780	0.74	787	6744
A 60 4_ 404.7	2.7	24780	1.2	787	6744	1.5	24780	0.64	787	6744
A 60 4_ 438.4	2.5	24780	1.1	787	6744	1.4	24780	0.60	787	6744
A 60 4_ 500.3	2.2	24780	1.0	787	6744	1.2	24780	0.52	787	6744
A 60 4_ 542.0	2.0	24780	0.88	787	6744	1.1	24780	0.48	787	6744
A 60 4_ 585.8	1.9	24780	0.82	787	6744	1.0	24780	0.45	787	6744
A 60 4_ 634.6	1.7	24780	0.75	787	6744	0.95	24780	0.41	787	6744
A 60 4_ 697.3	1.6	24780	0.69	787	6744	0.86	24780	0.37	787	6744
A 60 4_ 755.4	1.5	24780	0.63	787	6744	0.79	24780	0.35	787	6744

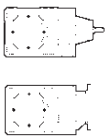
A 70

44,300 lb·in

i (ratio)	n_1 = **3500** rpm					n_1 = **1750** rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 70 3_ 9.4	372	20355	130	427	5822	186	24780	79	573	7171
A 70 3_ 10.2	343	21240	125	558	5935	172	28320	83	333	7171
A 70 3_ 12.1	289	21240	105	544	6294	145	28320	70	315	7621
A 70 3_ 13.1	267	23010	105	544	6384	134	29648	68	472	7778
A 70 3_ 15.4	227	23895	93	472	6722	114	29648	58	546	8250
A 70 3_ 16.7	210	25223	90	562	6834	105	31860	57	582	8363
A 70 3_ 19.7	178	25665	78	456	7216	89	32745	50	402	8835
A 70 3_ 21.3	164	26550	75	618	7396	82	35400	50	411	8947
A 70 3_ 23.5	149	30975	79	1108	7396	74	38055	49	1405	9104
A 70 3_ 27.8	126	30533	66	1115	7890	63	37170	40	1416	9734
A 70 3_ 30.1	116	32745	65	1117	8003	58	40268	40	1416	9869
A 70 3_ 35.4	99	32303	55	1133	8520	49	39825	34	1432	10476
A 70 3_ 38.4	91	34958	55	1133	8632	46	42923	33	1434	10633
A 70 3_ 45.2	77	34515	46	1135	9172	39	42480	28.2	1439	11240
A 70 3_ 49.0	71	37613	46	1135	9284	36	44250	27.0	1450	11240
A 70 3_ 53.2	66	36285	41	1131	9644	33	44250	24.9	1434	11240
A 70 3_ 57.7	61	39383	41	1131	9756	30	44250	23.0	1459	11240
A 70 3_ 66.9	52	38498	34	1135	10341	26.2	44250	19.8	1457	11240
A 70 3_ 72.5	48	42038	35	1133	10453	24.1	44250	18.3	1479	11240
A 70 3_ 79.3	44	40710	31	1128	10880	22.1	44250	16.7	1466	11240
A 70 3_ 85.9	41	43808	31	1131	11038	20.4	44250	15.4	1488	11240
A 70 3_ 96.2	36	42923	26.7	1124	11240	18.2	44250	13.8	1477	11240
A 70 3_ 104.2	34	44250	25.4	1137	11240	16.8	44250	12.7	1497	11240
A 70 3_ 120.6	29.0	44250	22.0	1126	11240	14.5	44250	11.0	1486	11240
A 70 3_ 130.7	26.8	44250	20.3	1146	11240	13.4	44250	10.1	1504	11240
A 70 3_ 141.9	24.7	44250	18.7	1133	11240	12.3	44250	9.3	1493	11240
A 70 3_ 153.7	22.8	29205	11.4	1216	11240	11.4	35843	7.0	1556	11240
A 70 4_ 169.8	20.6	44250	16.0	254	11240	10.3	44250	8.0	566	11240
A 70 4_ 183.9	19.0	44250	14.8	326	11240	9.5	44250	7.4	600	11240
A 70 4_ 220.3	15.9	44250	12.3	351	11240	7.9	44250	6.2	609	11240
A 70 4_ 238.6	14.7	44250	11.4	418	11240	7.3	44250	5.7	623	11240
A 70 4_ 292.0	12.0	44250	9.3	427	11240	6.0	44250	4.7	627	11240
A 70 4_ 316.4	11.1	44250	8.6	474	11240	5.5	44250	4.3	641	11240
A 70 4_ 369.4	9.5	44250	7.4	474	11240	4.7	44250	3.7	638	11240
A 70 4_ 400.2	8.7	44250	6.8	486	11240	4.4	44250	3.4	652	11240
A 70 4_ 475.8	7.4	44250	5.7	483	11240	3.7	44250	2.9	650	11240
A 70 4_ 515.4	6.8	44250	5.3	495	11240	3.4	44250	2.6	661	11240
A 70 4_ 595.0	5.9	44250	4.6	492	11240	2.9	44250	2.3	656	11240
A 70 4_ 644.6	5.4	44250	4.2	501	11240	2.7	44250	2.1	668	11240
A 70 4_ 705.1	5.0	44250	3.9	495	11240	2.5	44250	1.9	661	11240
A 70 4_ 763.9	4.6	44250	3.6	506	11240	2.3	44250	1.8	672	11240
A 70 4_ 855.3	4.1	44250	3.2	499	11240	2.0	44250	1.6	665	11240
A 70 4_ 926.5	3.8	44250	2.9	510	11240	1.9	44250	1.5	674	11240
A 70 4_ 1072	3.3	44250	2.5	504	11240	1.6	44250	1.3	668	11240
A 70 4_ 1161	3.0	44250	2.3	513	11240	1.5	44250	1.2	679	11240
A 70 4_ 1242	2.8	44250	2.2	506	11240	1.4	44250	1.1	670	11240
A 70 4_ 1346	2.6	44250	2.0	515	11240	1.3	44250	1.0	681	11240
A 70 4_ 1583	2.2	44250	1.7	508	11240	1.1	44250	0.9	672	11240
A 70 4_ 1715	2.0	44250	1.6	517	11240	1.0	44250	0.8	683	11240

A 70

44,300 lb·in



i (ratio)	n_1 = **1100** rpm					n_1 = **600** rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 70 3_ 9.4	117	26550	53	964	8295	64	26550	29.0	1574	10206
A 70 3_ 10.2	108	28763	53	964	8408	59	28763	29.0	1574	10363
A 70 3_ 12.1	91	32303	50	364	8700	50	32303	27.4	1454	10768
A 70 3_ 13.1	84	34958	50	371	8812	46	34958	27.4	1461	10925
A 70 3_ 15.4	71	32745	40	789	9487	39	32745	21.8	1574	11240
A 70 3_ 16.7	66	35400	40	800	9621	36	35400	21.8	1574	11240
A 70 3_ 19.7	56	32745	31	1104	10363	30	32745	17.1	1574	11240
A 70 3_ 21.3	52	35400	31	1113	10521	28.2	35400	17.1	1574	11240
A 70 3_ 23.5	47	43365	35	1574	10408	25.5	44250	19.3	1574	11240
A 70 3_ 27.8	40	42480	29	1574	11105	21.6	44250	16.3	1574	11240
A 70 3_ 30.1	37	44250	28	1574	11240	19.9	44250	15.1	1574	11240
A 70 3_ 35.4	31	44250	24	1574	11240	16.9	44250	12.8	1574	11240
A 70 3_ 38.4	28.6	44250	22	1574	11240	15.6	44250	11.8	1574	11240
A 70 3_ 45.2	24.3	44250	18	1574	11240	13.3	44250	10.1	1574	11240
A 70 3_ 49.0	22.4	44250	17	1574	11240	12.2	44250	9.3	1574	11240
A 70 3_ 53.2	20.7	44250	16	1574	11240	11.3	44250	8.5	1574	11240
A 70 3_ 57.7	19.1	44250	14	1574	11240	10.4	44250	7.9	1574	11240
A 70 3_ 66.9	16.4	44250	12	1574	11240	9.0	44250	6.8	1574	11240
A 70 3_ 72.5	15.2	44250	11	1574	11240	8.3	44250	6.3	1574	11240
A 70 3_ 79.3	13.9	44250	11	1574	11240	7.6	44250	5.7	1574	11240
A 70 3_ 85.9	12.8	44250	10	1574	11240	7.0	44250	5.3	1574	11240
A 70 3_ 96.2	11.4	44250	8.7	1574	11240	6.2	44250	4.7	1574	11240
A 70 3_ 104.2	10.6	44250	8.0	1574	11240	5.8	44250	4.4	1574	11240
A 70 3_ 120.6	9.1	44250	6.9	1574	11240	5.0	44250	3.8	1574	11240
A 70 3_ 130.7	8.4	44250	6.4	1574	11240	4.6	44250	3.5	1574	11240
A 70 3_ 141.9	7.8	44250	5.9	1574	11240	4.2	44250	3.2	1574	11240
A 70 3_ 153.7	7.2	40710	5.0	1574	11240	3.9	44250	3.0	1574	11240
A 70 4_ 169.8	6.5	44250	5.0	713	11240	3.5	44250	2.7	787	11240
A 70 4_ 183.9	6.0	44250	4.6	728	11240	3.3	44250	2.5	787	11240
A 70 4_ 220.3	5.0	44250	3.9	735	11240	2.7	44250	2.1	787	11240
A 70 4_ 238.6	4.6	44250	3.6	751	11240	2.5	44250	2.0	787	11240
A 70 4_ 292.0	3.8	44250	2.9	753	11240	2.1	44250	1.6	787	11240
A 70 4_ 316.4	3.5	44250	2.7	767	11240	1.9	44250	1.5	787	11240
A 70 4_ 369.4	3.0	44250	2.3	767	11240	1.6	44250	1.3	787	11240
A 70 4_ 400.2	2.7	44250	2.1	778	11240	1.5	44250	1.2	787	11240
A 70 4_ 475.8	2.3	44250	1.8	776	11240	1.3	44250	1.0	787	11240
A 70 4_ 515.4	2.1	44250	1.7	787	11240	1.2	44250	0.9	787	11240
A 70 4_ 595.0	1.8	44250	1.4	782	11240	1.0	44250	0.8	787	11240
A 70 4_ 644.6	1.7	44250	1.3	787	11240	0.93	44250	0.7	787	11240
A 70 4_ 705.1	1.6	44250	1.2	787	11240	0.85	44250	0.7	787	11240
A 70 4_ 763.9	1.4	44250	1.1	787	11240	0.79	44250	0.6	787	11240
A 70 4_ 855.3	1.3	44250	1.0	787	11240	0.70	44250	0.5	787	11240
A 70 4_ 926.5	1.2	44250	0.9	787	11240	0.65	44250	0.5	787	11240
A 70 4_ 1072	1.0	44250	0.8	787	11240	0.56	44250	0.4	787	11240
A 70 4_ 1161	0.9	44250	0.7	787	11240	0.52	44250	0.4	787	11240
A 70 4_ 1242	0.9	44250	0.7	787	11240	0.48	44250	0.4	787	11240
A 70 4_ 1346	0.8	44250	0.6	787	11240	0.45	44250	0.3	787	11240
A 70 4_ 1583	0.7	44250	0.5	787	11240	0.38	44250	0.3	787	11240
A 70 4_ 1715	0.6	44250	0.5	787	11240	0.35	44250	0.3	787	11240

A 80

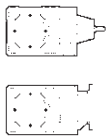
70,800 lb·in

i (ratio)	n_1 = **3500** rpm					n_1 = **1750** rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 80 3_ 9.8	357	27435	168	—	5912	179	34515	105	—	7216
A 80 3_ 10.7	327	30533	171	—	5912	164	38055	107	—	7261
A 80 3_ 12.3	285	30533	149	—	6227	142	38055	93	—	7643
A 80 3_ 13.3	263	30533	138	259	6452	132	38055	86	259	7913
A 80 3_ 15.5	226	29205	113	351	6879	113	36285	70	389	8452
A 80 3_ 16.7	210	31860	114	324	6946	105	39825	71	328	8520
A 80 3_ 19.3	181	30975	96	420	7373	91	38940	60	423	9037
A 80 3_ 20.9	167	33984	97	375	7441	84	42480	61	391	9127
A 80 3_ 22.6	155	44693	118	1012	7014	77	55313	73	1311	8632
A 80 3_ 24.5	143	48675	119	1005	7036	71	59738	73	1313	8677
A 80 3_ 28.2	124	47348	101	1057	7531	62	58410	62	1340	9262
A 80 3_ 30.6	114	46463	91	1088	7846	57	57083	56	1380	9666
A 80 3_ 35.5	99	50445	85	1057	8093	49	61950	52	1349	9959
A 80 3_ 38.5	91	54428	85	1061	8138	45	67260	52	1349	10004
A 80 3_ 44.5	79	53543	72	1077	8677	39	65933	44	1365	10678
A 80 3_ 48.2	73	57968	72	1077	8722	36	70800	44	1369	10768
A 80 3_ 55.2	63	56640	61	1059	9284	32	69915	38	1360	11420
A 80 3_ 59.8	59	61508	62	1054	9329	29.3	70800	35	1387	11757
A 80 3_ 66.8	52	60180	54	1050	9824	26.2	70800	32	1383	12274
A 80 3_ 72.4	48	65048	54	1052	9891	24.2	70800	29.3	1412	12701
A 80 3_ 82.3	43	63720	46	1027	10476	21.3	70800	25.8	1401	13331
A 80 3_ 89.2	39	69030	46	1027	10543	19.6	70800	23.8	1427	13803
A 80 3_ 96.0	36	66375	41	991	10993	18.2	70800	22.1	1407	14162
A 80 3_ 104.0	34	70800	41	1012	11128	16.8	70800	20.4	1434	14612
A 80 3_ 116.0	30	70358	36	951	11622	15.1	70800	18.3	1416	14612
A 80 3_ 125.6	27.9	70800	34	1041	12004	13.9	70800	16.9	1443	14612
A 80 3_ 144.7	24.2	70800	29.3	971	12679	12.1	70800	14.7	1427	14612
A 80 3_ 156.8	22.3	70800	27.0	1068	13106	11.2	70800	13.5	1452	14612
A 80 4_ 171.3	20.4	70800	25.4	—	14612	10.2	70800	12.4	277	14612
A 80 4_ 214.7	16.3	70800	20.3	—	14612	8.2	70800	9.9	315	14612
A 80 4_ 232.6	15.0	70800	18.7	—	14612	7.5	70800	9.1	407	14612
A 80 4_ 277.3	12.6	70800	15.7	121	14612	6.3	70800	7.6	434	14612
A 80 4_ 300.4	11.7	70800	14.5	202	14612	5.8	70800	7.1	515	14612
A 80 4_ 354.0	9.9	70800	12.3	180	14612	4.9	70800	6.0	492	14612
A 80 4_ 383.5	9.1	70800	11.3	256	14612	4.6	70800	5.5	569	14612
A 80 4_ 442.1	7.9	70800	9.8	234	14612	4.0	70800	4.8	546	14612
A 80 4_ 478.9	7.3	70800	9.1	308	14612	3.7	70800	4.4	600	14612
A 80 4_ 560.5	6.2	70800	7.8	279	14612	3.1	70800	3.8	591	14612
A 80 4_ 607.2	5.8	70800	7.2	348	14612	2.9	70800	3.5	611	14612
A 80 4_ 703.5	5.0	70800	6.2	324	14612	2.5	70800	3.0	605	14612
A 80 4_ 762.1	4.6	70800	5.7	389	14612	2.3	70800	2.8	620	14612
A 80 4_ 829.5	4.2	70800	5.2	344	14612	2.1	70800	2.6	611	14612
A 80 4_ 898.7	3.9	70800	4.8	409	14612	1.9	70800	2.4	625	14612
A 80 4_ 1001	3.5	70800	4.3	364	14612	1.7	70800	2.1	616	14612
A 80 4_ 1085	3.2	70800	4.0	427	14612	1.6	70800	2.0	629	14612
A 80 4_ 1237	2.8	70800	3.5	373	14612	1.4	70800	1.7	618	14612
A 80 4_ 1340	2.6	70800	3.2	436	14612	1.3	70800	1.6	632	14612
A 80 4_ 1438	2.4	70800	3.0	389	14612	1.2	70800	1.5	623	14612
A 80 4_ 1558	2.2	70800	2.8	450	14612	1.1	70800	1.4	636	14612

(–) Contact our Technical Service advising radial load data (rotation direction, angle, offset)

A 80

70,800 lb·in



i (ratio)	n_1 = 1100 rpm					n_1 = 600 rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 80 3_ 9.8	112	39383	76	—	8250	61	46905	49	—	9846
A 80 3_ 10.7	103	43365	76	—	8295	56	51773	50	—	9891
A 80 3_ 12.3	89	43365	66	—	8745	49	51773	43	—	10431
A 80 3_ 13.3	83	43365	61	306	9037	45	51773	40	360	10768
A 80 3_ 15.5	71	41153	50	479	9666	39	49118	33	569	11532
A 80 3_ 16.7	66	45135	51	414	9756	36	53985	33	477	11622
A 80 3_ 19.3	57	44250	43	508	10341	31	53100	28.3	569	12319
A 80 3_ 20.9	53	48410	44	456	10431	28.7	57525	28.3	569	12454
A 80 3_ 22.6	49	62835	52	1531	9869	26.5	70800	32.2	1574	12004
A 80 3_ 24.5	45	68145	52	1529	9914	24.5	70800	29.7	1574	12431
A 80 3_ 28.2	39	66818	45	1560	10566	21.3	70800	25.8	1574	13128
A 80 3_ 30.6	36	65490	40	1574	11015	19.6	70800	23.8	1574	13578
A 80 3_ 35.5	31	70800	38	1569	11375	16.9	70800	20.5	1574	14365
A 80 3_ 38.5	28.6	70800	35	1574	11780	15.6	70800	18.9	1574	14612
A 80 3_ 44.5	24.7	70800	30	1574	12454	13.5	70800	16.3	1574	14612
A 80 3_ 48.2	22.8	70800	27.7	1574	12881	12.4	70800	15.1	1574	14612
A 80 3_ 55.2	19.9	70800	24.1	1574	13555	10.9	70800	13.2	1574	14612
A 80 3_ 59.8	18.4	70800	22.3	1574	14005	10.0	70800	12.2	1574	14612
A 80 3_ 66.8	16.5	70800	20.0	1574	14612	9.0	70800	10.9	1574	14612
A 80 3_ 72.4	15.2	70800	18.4	1574	14612	8.3	70800	10.0	1574	14612
A 80 3_ 82.3	13.4	70800	16.2	1574	14612	7.3	70800	8.8	1574	14612
A 80 3_ 89.2	12.3	70800	14.9	1574	14612	6.7	70800	8.2	1574	14612
A 80 3_ 96.0	11.5	70800	13.9	1574	14612	6.3	70800	7.6	1574	14612
A 80 3_ 104.0	10.6	70800	12.8	1574	14612	5.8	70800	7.0	1574	14612
A 80 3_ 116.0	9.5	70800	11.5	1574	14612	5.2	70800	6.3	1574	14612
A 80 3_ 125.6	8.8	70800	10.6	1574	14612	4.8	70800	5.8	1574	14612
A 80 3_ 144.7	7.6	70800	9.2	1574	14612	4.1	70800	5.0	1574	14612
A 80 3_ 156.8	7.0	70800	8.5	1574	14612	3.8	70800	4.6	1574	14612
A 80 4_ 171.3	6.4	70800	8.0	517	14612	3.5	70800	4.2	787	14612
A 80 4_ 214.7	5.1	70800	6.4	555	14612	2.8	70800	3.4	787	14612
A 80 4_ 232.6	4.7	70800	5.9	645	14612	2.6	70800	3.1	787	14612
A 80 4_ 277.3	4.0	70800	4.9	674	14612	2.2	70800	2.6	787	14612
A 80 4_ 300.4	3.7	70800	4.6	701	14612	2.0	70800	2.4	787	14612
A 80 4_ 354.0	3.1	70800	3.9	697	14612	1.7	70800	2.1	787	14612
A 80 4_ 383.5	2.9	70800	3.6	715	14612	1.6	70800	1.9	787	14612
A 80 4_ 442.1	2.5	70800	3.1	710	14612	1.4	70800	1.6	787	14612
A 80 4_ 478.9	2.3	70800	2.9	726	14612	1.3	70800	1.5	787	14612
A 80 4_ 560.5	2.0	70800	2.4	722	14612	1.1	70800	1.3	787	14612
A 80 4_ 607.2	1.8	70800	2.3	737	14612	1.0	70800	1.2	787	14612
A 80 4_ 703.5	1.6	70800	1.9	733	14612	0.85	70800	1.0	787	14612
A 80 4_ 762.1	1.4	70800	1.8	746	14612	0.79	70800	1.0	787	14612
A 80 4_ 829.5	1.3	70800	1.6	737	14612	0.72	70800	0.88	787	14612
A 80 4_ 898.7	1.2	70800	1.5	751	14612	0.67	70800	0.81	787	14612
A 80 4_ 1001	1.1	70800	1.4	742	14612	0.60	70800	0.73	787	14612
A 80 4_ 1085	1.0	70800	1.3	755	14612	0.55	70800	0.67	787	14612
A 80 4_ 1237	0.89	70800	1.1	744	14612	0.49	70800	0.59	787	14612
A 80 4_ 1340	0.82	70800	1.0	758	14612	0.45	70800	0.54	787	14612
A 80 4_ 1438	0.76	70800	1.0	749	14612	0.42	70800	0.51	787	14612
A 80 4_ 1558	0.71	70800	0.88	762	14612	0.39	70800	0.47	787	14612

(–) Contact our Technical Service advising radial load data (rotation direction, angle, offset)

A 90

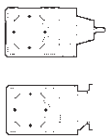
123,900 lb·in

i (ratio)	n_1 = 3500 rpm					n_1 = 1750 rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 90 3_9.7	361	69030	426	549	6204	180	80093	247	1241	7868
A 90 3_10.5	333	73898	422	589	6227	167	86730	247	1243	7846
A 90 3_12.6	278	75225	358	607	6699	139	92483	220	1077	8250
A 90 3_13.7	255	71243	312	1050	7149	128	98678	216	1137	8295
A 90 3_15.6	224	78765	302	728	7194	112	96908	186	1216	8857
A 90 3_16.9	207	85403	303	726	7171	104	104873	186	1223	8835
A 90 3_19.4	180	83190	257	710	7711	90	102218	158	1203	9509
A 90 3_21.0	167	89828	256	722	7711	83	109740	157	1239	9532
A 90 3_22.3	157	87173	234	2172	8025	78	107528	144	2743	9869
A 90 3_24.1	145	94695	235	2172	7980	73	116378	145	2743	9846
A 90 3_29.1	120	93368	192	2203	8745	60	115050	118	2788	10768
A 90 3_31.5	111	101333	193	2203	8722	56	123900	118	2788	10768
A 90 3_35.8	98	98678	165	2228	9352	49	121688	102	2810	11487
A 90 3_38.8	90	107085	165	2226	9329	45	123900	96	2855	11847
A 90 3_44.6	78	104430	140	2230	10026	39	123900	83	2855	12589
A 90 3_48.3	72	113280	141	2230	10004	36	123900	77	2877	13038
A 90 3_55.0	64	111068	121	2239	10678	32	123900	67	2877	13803
A 90 3_59.6	59	119918	121	2241	10678	29.4	123900	62	2922	14275
A 90 3_68.8	51	118148	103	2239	11442	25.4	123900	54	2922	15152
A 90 3_74.5	47	123900	100	2248	11622	23.5	123900	50	2945	15669
A 90 3_80.4	44	123015	92	2230	12027	21.8	123900	46	2922	16163
A 90 3_87.1	40	123900	85	2270	12476	20.1	123900	43	2967	16703
A 90 3_98.6	35	123900	75	2246	13151	17.7	123900	38	2945	16860
A 90 3_106.8	33	123900	69	2270	13623	16.4	123900	35	2990	16860
A 90 3_116.9	30	123900	63	2270	14162	15.0	123900	32	2967	16860
A 90 3_126.6	27.6	94253	45	2383	16051	13.8	116378	27.5	3012	16860
A 90 3_139.4	25.1	91598	39	2383	16748	12.6	112838	24.2	3012	16860
A 90 3_151.0	23.2	99120	39	2383	16860	11.6	122130	24.2	3012	16860
A 90 4_166.1	21.1	123900	46	—	16860	10.5	123900	22.9	—	16860
A 90 4_180.0	19.4	123900	42	—	16860	9.7	123900	21.1	—	16860
A 90 4_209.0	16.7	123900	36	—	16860	8.4	123900	18.2	—	16860
A 90 4_226.4	15.5	123900	34	—	16860	7.7	123900	16.8	—	16860
A 90 4_281.4	12.4	123900	27.0	—	16860	6.2	123900	13.5	—	16860
A 90 4_304.9	11.5	123900	25.0	—	16860	5.7	123900	12.5	—	16860
A 90 4_355.8	9.8	123900	21.4	—	16860	4.9	123900	10.7	—	16860
A 90 4_385.4	9.1	123900	19.7	—	16860	4.5	123900	9.9	153	16860
A 90 4_449.2	7.8	123900	16.9	—	16860	3.9	123900	8.5	—	16860
A 90 4_486.6	7.2	123900	15.6	—	16860	3.6	123900	7.8	214	16860
A 90 4_555.3	6.3	123900	13.7	—	16860	3.2	123900	6.9	166	16860
A 90 4_601.6	5.8	123900	12.7	—	16860	2.9	123900	6.3	270	16860
A 90 4_707.9	4.9	123900	10.8	—	16860	2.5	123900	5.4	236	16860
A 90 4_766.9	4.6	123900	9.9	—	16860	2.3	123900	5.0	335	16860
A 90 4_865.1	4.0	123900	8.8	—	16860	2.0	123900	4.4	263	16860
A 90 4_937.2	3.7	123900	8.1	—	16860	1.9	123900	4.1	357	16860
A 90 4_1025	3.4	123900	7.4	—	16860	1.7	123900	3.7	299	16860
A 90 4_1111	3.2	123900	6.9	—	16860	1.6	123900	3.4	391	16860
A 90 4_1222	2.9	123900	6.2	—	16860	1.4	123900	3.1	310	16860
A 90 4_1324	2.6	123900	5.7	—	16860	1.3	123900	2.9	402	16860
A 90 4_1507	2.3	123900	5.1	—	16860	1.2	123900	2.5	324	16860
A 90 4_1632	2.1	123900	4.7	—	16860	1.1	123900	2.3	414	16860

(–) Contact our Technical Service advising radial load data (rotation direction, angle, offset)

A 90

123,900 lb·in



i (ratio)	n_1 = 1100 rpm					n_1 = 600 rpm				
	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]	n_2 [rpm]	T_{n2} [lb·in]	P_{n1} [hp]	R_{n1} [lb]	R_{n2} [lb]
A 90 3_ 9.7	113	80093	155	2203	9509	62	80093	85	3372	12072
A 90 3_ 10.5	105	86730	156	205	9554	57	86730	85	3372	12184
A 90 3_ 12.6	87	104430	156	1511	9464	48	104430	85	3035	12252
A 90 3_ 13.7	80	112838	155	1522	9464	44	113280	85	3035	12274
A 90 3_ 15.6	71	102218	123	1963	10498	38	102218	67	3372	13466
A 90 3_ 16.9	65	110625	123	1967	10521	36	110625	67	3372	13555
A 90 3_ 19.4	57	102218	99	2165	11555	31	102218	54	3372	14702
A 90 3_ 21.0	52	109740	98	2201	11622	28.6	109740	54	3372	14859
A 90 3_ 22.3	49	122573	103	3192	11285	26.9	123900	57	3372	14545
A 90 3_ 24.1	46	123900	97	3237	11667	24.9	123900	53	3372	15039
A 90 3_ 29.1	38	123900	80	3282	12634	20.6	123900	44	3372	16208
A 90 3_ 31.5	35	123900	74	3327	13128	19.0	123900	40	3372	16793
A 90 3_ 35.8	31	123900	65	3350	13870	16.8	123900	36	3372	16860
A 90 3_ 38.8	28.4	123900	60	3372	14365	15.5	123900	33	3372	16860
A 90 3_ 44.6	24.7	123900	52	3372	15219	13.5	123900	28.5	3372	16860
A 90 3_ 48.3	22.8	123900	48	3372	15736	12.4	123900	26.3	3372	16860
A 90 3_ 55.0	20.0	123900	42	3372	16590	10.9	123900	23.1	3372	16860
A 90 3_ 59.6	18.5	123900	39	3372	16860	10.1	123900	21.3	3372	16860
A 90 3_ 68.8	16.0	123900	34	3372	16860	8.7	123900	18.5	3372	16860
A 90 3_ 74.5	14.8	123900	31	3372	16860	8.1	123900	17.1	3372	16860
A 90 3_ 80.4	13.7	123900	29.0	3372	16860	7.5	123900	15.8	3372	16860
A 90 3_ 87.1	12.6	123900	26.8	3372	16860	6.9	123900	14.6	3372	16860
A 90 3_ 98.6	11.2	123900	23.7	3372	16860	6.1	123900	12.9	3372	16860
A 90 3_ 106.8	10.3	123900	21.8	3372	16860	5.6	123900	11.9	3372	16860
A 90 3_ 116.9	9.4	123900	20.0	3372	16860	5.1	123900	10.9	3372	16860
A 90 3_ 126.6	8.7	123900	18.4	3372	16860	4.7	123900	10.1	3372	16860
A 90 3_ 139.4	7.9	123900	16.7	3372	16860	4.3	123900	9.1	3372	16860
A 90 3_ 151.0	7.3	123900	15.4	3372	16860	4.0	123900	8.4	3372	16860
A 90 4_ 166.1	6.6	123900	14.4	—	16860	3.6	123900	7.9	157	16860
A 90 4_ 180.0	6.1	123900	13.3	—	16860	3.3	123900	7.2	315	16860
A 90 4_ 209.0	5.3	123900	11.4	—	16860	2.9	123900	6.2	337	16860
A 90 4_ 226.4	4.9	123900	10.6	112	16860	2.7	123900	5.8	472	16860
A 90 4_ 281.4	3.9	123900	8.5	155	16860	2.1	123900	4.6	517	16860
A 90 4_ 304.9	3.6	123900	7.8	277	16860	2.0	123900	4.3	652	16860
A 90 4_ 355.8	3.1	123900	6.7	279	16860	1.7	123900	3.7	652	16860
A 90 4_ 385.4	2.9	123900	6.2	393	16860	1.6	123900	3.4	764	16860
A 90 4_ 449.2	2.4	123900	5.3	346	16860	1.3	123900	2.9	719	16860
A 90 4_ 486.6	2.3	123900	4.9	454	16860	1.2	123900	2.7	787	16860
A 90 4_ 555.3	2.0	123900	4.3	407	16860	1.1	123900	2.3	787	16860
A 90 4_ 601.6	1.8	123900	4.0	510	16860	1.0	123900	2.2	787	16860
A 90 4_ 707.9	1.6	123900	3.4	477	16860	0.85	123900	1.8	787	16860
A 90 4_ 766.9	1.4	123900	3.1	575	16860	0.78	123900	1.7	787	16860
A 90 4_ 865.1	1.3	123900	2.8	504	16860	0.69	123900	1.5	787	16860
A 90 4_ 937.2	1.2	123900	2.6	598	16860	0.64	123900	1.4	787	16860
A 90 4_ 1025	1.1	123900	2.3	540	16860	0.59	123900	1.3	787	16860
A 90 4_ 1111	1.0	123900	2.2	632	16860	0.54	123900	1.2	787	16860
A 90 4_ 1222	0.9	123900	2.0	551	16860	0.49	123900	1.1	787	16860
A 90 4_ 1324	0.8	123900	1.8	643	16860	0.45	123900	1.0	787	16860
A 90 4_ 1507	0.7	123900	1.6	542	16860	0.40	123900	0.87	787	16860
A 90 4_ 1632	0.7	123900	1.5	654	16860	0.37	123900	0.80	787	16860

(–) Contact our Technical Service advising radial load data (rotation direction, angle, offset)

2.14 MOTOR AVAILABILITY

Matches of motors and gearboxes listed in tables (B11), (B12) and (B13) here after are purely based on geometrical compatibility. When selecting a gearmotor refer to procedure described at chapter 1.8, based on torque/hp rating. Combinations featuring the gear ratios within brackets are not possible.

(B11)

		IEC (IM B5)											
		63	71	80	90	100	112	132	160	180	200	225	250
A 05 2		5.5_91.6	5.5_91.6	5.5_65.9									
A 10 2		5.5_91.6	5.5_91.6	5.5_65.9	5.5_65.9	5.5_65.9	5.5_65.9						
A 20 2		7.3_92.3 ⛔ (10.3)	7.3_92.3 ⛔ (10.3)	5.4_79.9	5.4_79.9	5.4_79.9	5.4_79.9						
A 20 3		120.5_380.9	120.5_380.9	120.5_380.9	120.5_380.9	120.5_380.9	120.5_380.9						
A 30 2		9.3_97.5 ⛔ (10.5_13.6)	9.3_97.5 ⛔ (10.5_13.6)	5.4_97.5	5.4_97.5	5.4_97.5	5.4_97.5						
A 30 3		120.5_400.8	120.5_400.8	120.5_400.8	120.5_400.8	120.5_400.8	120.5_400.8						
A 35 2		9.3_95.6 ⛔ (13.1_20.4)	9.3_95.6 ⛔ (13.1_20.4)	5.4_95.6	5.4_95.6	5.4_95.6	5.4_95.6	5.4_11.8					
A 35 3		105.5_393.2	105.5_393.2	105.5_393.2	105.5_393.2	105.5_393.2	105.5_393.2						
A 41 2		11.7_79.2 ⛔ (13.8_17.8)	11.7_79.2 ⛔ (13.8_17.8)	5.2_79.2	5.2_79.2	5.2_79.2	5.2_79.2	5.2_45.1					
A 41 3		92.8_376.8	92.8_376.8	92.8_376.8	92.8_376.8	92.8_376.8	92.8_376.8						
A 50 2		20.9	20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9			
A 50 3		51.7_190.6	51.7_190.6	24_190.6	24_190.6	24_190.6	24_190.6	24_109.4	24_109.4	24_109.4			
A 50 4	i=	211.0_778.2	211.0_778.2	211.0_778.2	211.0_778.2	211.0_778.2	211.0_778.2						
A 55 2				13.1_19.2	13.1_19.2	13.1_19.2	13.1_19.2	4.9_19.2	4.9_19.2	4.9_19.2			
A 55 3		64.3_194.2	64.3_194.2	23.8_194.2	23.8_194.2	23.8_194.2	23.8_194.2	23.8_123.9	23.8_123.9	23.8_123.9			
A 55 4		208.1_793.0	208.1_793.0	208.1_793.0	208.1_793.0	208.1_793.0	208.1_793.0						
A 60 2				10.3_20.6	10.3_20.6	10.3_20.6	10.3_20.6	7.9_20.6	7.9_20.6	7.9_20.6			
A 60 3		65.0_185.8	65.0_185.8	25.7_185.8	25.7_185.8	25.7_185.8	25.7_185.8	25.7_133.3	25.7_133.3	25.7_133.3			
A 60 4		208.7_755.4	208.7_755.4	208.7_755.4	208.7_755.4	208.7_755.4	208.7_755.4						
A 70 3				66.9_153.7	66.9_153.7	66.9_153.7	66.9_153.7	15.4_153.7 ⛔ (23.5_30.1)	9.4_153.7	9.4_153.7	9.4_38.4 ⛔ (19.7_21.3)		
A 70 4		292.0_1715	292.0_1715	169.8_1715	169.8_1715	169.8_1715	169.8_1715	169.8_644.6					
A 80 3				82.3_156.8	82.3_156.8	82.3_156.8	82.3_156.8	19.3_156.8 ⛔ (22.6_38.5)	12.3_156.8 ⛔ (22.6_24.5)	9.8_156.8	9.8_104.0	9.8_104.0	
A 80 4		354.0_1558	354.0_1558	171.3_1558	171.3_1558	171.3_1558	171.3_1558	171.3_762.1					
A 90 3				98.6_151.0	98.6_151.0	98.6_151.0	98.6_151.0	55.0_151.0	15.6_151.0 ⛔ (22.3_31.5)	9.7_151.0	9.7_126.6	9.7_126.6	9.7_126.6
A 90 4		449.2_1632	449.2_1632	166.1_1632	166.1_1632	166.1_1632	166.1_1632	166.1_937.2	166.1_937.2	166.1_937.2			

(B12)

		NEMA Motor frame						
		N56C	N140TC	N180TC	N210TC	N250TC	N280TC	N320TC
	HP	0.16…1	1.5…2	3…5	7.5…10	15…20	25…30	40…50
A 05 2	i=	5.5_91.6						
A 10 2		5.5_91.6	5.5_65.9	5.5_65.9				
A 20 2		⛔ 7.3_92.3 (10.3)	5.4_79.9	5.4_79.9				
A 20 3		109.2_380.8	109.2_380.8	109.2_380.8				
A 30 2		⛔ 9.3_97.5 (10.5; 13.6; 16.3)	5.4_97.5	5.4_97.5				
A 30 3		109.1_400.8	109.1_400.8	109.1_400.8				
A 35 2		⛔ 9.3_95.6 (13.1_20.4)	5.4_95.6	5.4_95.6	5.4_11.8			
A 35 3		105.5_393.2	105.5_393.2	105.5_393.2				
A 41 2		⛔ 11.7_79.2 (13.8_17.8)	5.2_79.2	5.2_79.2	5.2_45.1			
A 41 3		92.8_376.8	92.8_376.8	92.8_376.8				
A 50 2		20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	
A 50 3		51.7_190.6	24.0_190.6	24.0_109.4	24.0_109.4	24.0_109.4	24.0_109.4	
A 50 4		211.0_778.2	211.0_778.2	211.0_778.2				
A 55 2			10.4_19.2	10.4_19.2	4.9_19.2	4.9_19.2	4.9_19.2	
A 55 3		64.3_194.2	23.8_194.2	23.8_194.2	23.8_123.9	23.8_123.9	23.8_123.9	
A 55 4		208.1_793.0	208.1_793.0	208.1_793.0				
A 60 2			10.3_20.6	10.3_20.6	7.9_20.6	7.9_20.6	7.9_20.6	
A 60 3			25.7_185.8	25.7_185.8	25.7_133.3	25.7_133.3	25.7_133.3	
A 60 4		208.7_755.4	208.7_755.4	208.7_755.4				
A 70 3			66.9_153.7	66.9_153.7	⛔ 15.4_153.7 (23.5_30.1)	9.4_153.7	9.4_153.7	
A 70 4		292.0_1715	169.8_1715	169.8_1715	169.8_644.6			
A 80 3				82.3_156.8	⛔ 19.3_156.8 (22.6_38.5)	⛔ 12.3_156.8 (22.6_24.5)	9.8_156.8	9.8_104.0
A 80 4		354.0_1558	171.3_1558	171.3_1558	171.3_762.1			
A 90 3				98.6_151.0	55.0_151.0	⛔ 15.6_151.0 (22.3_31.5)	9.7_151.0	9.7_126.6
A 90 4		449.2_1632	166.1_1632	166.1_1632	166.1_937.2	166.1_937.2	166.1_937.2	

(B13)

		Integral gearmotors					
		M05	M1	M2	M3	M4	M5
A 05 2		5.5_91.6	5.5_91.6	5.5_65.9			
A 10 2		5.5_91.6	5.5_91.6	5.5_65.9	5.5_65.9		
A 20 2		7.3_92.3 ⛔ (10.3)	7.3_92.3 ⛔ (10.3)	5.4_79.9	5.4_79.9		
A 20 3		120.5_380.9	120.5_380.9	120.5_380.9	120.5_380.9		
A 30 2			9.3_97.5 ⛔ (10.5_13.6)	5.4_97.5	5.4_97.5		
A 30 3		120.5_400.8	120.5_400.8	120.5_400.8	120.5_400.8		
A 35 2			9.3_96.6 ⛔ (13.1_20.4)	5.4_95.6	5.4_95.6	5.4_11.8	
A 35 3		105.5_393.2	105.5_393.2	105.5_393.2	105.5_393.2		
A 41 2			11.7_79.2 ⛔ (13.8_17.8)	5.2_79.2	5.2_79.2	5.2_45.1	
A 41 3		92.8_376.8	92.8_376.8	92.8_376.8	92.8_376.8		
A 50 2			20.9	7.7_20.9	7.7_20.9	7.7_20.9	
A 50 3			51.7_190.6	24.0_190.6	24.0_190.6	24.0_109.4	
A 50 4	i =		211.0_778.2	211.0_778.2	211.0_778.2		
A 55 2				13.1_19.2	13.1_19.2	4.9_19.2	4.9_19.2
A 55 3			64.3_793.0	23.8_793.0	23.8_793.0	23.8_123.9	23.8_123.9
A 55 4			208.1_793.0	208.1_793.0	208.1_793.0		
A 60 2				10.3_20.6	10.3_20.6	7.9_20.6	7.9_20.6
A 60 3				25.7_185.8	25.7_185.8	25.7_133.3	25.7_133.3
A 60 4			208.7_755.4	208.7_755.4	208.7_755.4		
A 70 3				66.9_153.7	66.9_153.7	15.4_153.7 ⛔ (23.5_30.1)	15.4_153.7 ⛔ (23.5_30.1)
A 70 4			292.0_1715	169.8_1715	169.8_1715	169.8_644.6	
A 80 3					82.3_156.8	19.3_156.8 ⛔ (22.6_38.5)	19.3_156.8 ⛔ (22.6_38.5)
A 80 4			354.0_1558	171.3_1558	171.3_1558	171.3_762.1	
A 90 3					98.6_151.0	55.0_151.0	55.0_151.0
A 90 4			449.2_1632	166.1_1632	166.1_1632	166.1_937.2	

2.15 MASS MOMENT OF INERTIA

A 05

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]				
			 NEMA Motor frame			
			N56C	N140TC	N180TC	
A 05 2_5.5	17.1	24.0	—	—	—	—
A 05 2_6.3	13.3	20.4	—	—	—	—
A 05 2_7.2	11.4	18.3	—	—	—	—
A 05 2_8.5	8.6	15.4	—	—	—	—
A 05 2_9.6	6.9	13.8	—	—	—	—
A 05 2_10.6	11.9	19.0	—	—	—	—
A 05 2_12.3	4.3	11.4	—	—	—	—
A 05 2_13.9	8.3	15.4	—	—	—	—
A 05 2_16.4	6.4	13.5	—	—	—	—
A 05 2_18.6	5.2	12.1	—	—	—	—
A 05 2_21.4	3.8	10.9	—	—	—	—
A 05 2_23.8	3.3	10.2	—	—	—	—
A 05 2_25.5	3.1	10.0	—	—	—	—
A 05 2_28.6	2.6	9.5	—	—	—	—
A 05 2_32.2	2.1	9.3	—	—	—	—
A 05 2_35.1	1.9	8.8	—	—	—	—
A 05 2_40.9	1.7	8.6	—	—	—	—
A 05 2_45.4	1.2	8.3	—	—	—	—
A 05 2_51.3	0.95	8.1	—	—	—	—
A 05 2_58.6	0.95	7.8	—	—	—	—
A 05 2_65.9	0.71	—	—	—	—	—
A 05 2_76.4	0.48	—	—	—	—	—
A 05 2_91.6	0.48	—	—	—	—	—

A 10

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]				
						
			NEMA Motor frame			
			N56C	N140TC	N180TC	
A 10 2_5.5		24	59	90	121	43
A 10 2_6.3		19	55	86	116	38
A 10 2_7.2		14	50	81	112	36
A 10 2_8.5		10.7	45	74	107	33
A 10 2_9.6		7.1	43	74	105	31
A 10 2_10.6		11.9	48	78	109	33
A 10 2_12.3		4.8	40	71	102	26
A 10 2_13.9		7.1	43	74	109	29
A 10 2_16.4		5.9	40	71	102	26
A 10 2_18.6		4.8	40	71	102	24
A 10 2_21.4		3.6	38	69	100	24
A 10 2_23.8		2.4	38	69	100	24
A 10 2_25.5		2.4	38	69	100	24
A 10 2_28.6		2.4	38	69	100	21
A 10 2_32.2		1.9	38	69	100	21
A 10 2_35.1		1.7	38	69	100	21
A 10 2_40.9		1.4	38	69	100	21
A 10 2_45.4		1.2	38	69	100	21
A 10 2_51.3		0.71	36	67	97	21
A 10 2_58.6		0.71	36	67	97	21
A 10 2_65.9		0.48	36	67	97	21
A 10 2_76.4		0.48	36	67	97	21
A 10 2_91.6		0.24	36	67	97	21

A 20

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]				
			 NEMA Motor frame			
			N56C	N140TC	N180TC	
A 20 2_5.4	57	—	124	154	102	
A 20 2_6.5	45	—	—	—	—	
A 20 2_7.3	33	69	100	131	78	
A 20 2_8.4	26	62	93	124	71	
A 20 2_9.4	21	57	88	119	67	
A 20 2_10.3	29	—	95	126	71	
A 20 2_12.0	12	48	78	109	57	
A 20 2_14.1	17	52	83	114	62	
A 20 2_16.2	13	48	78	109	59	
A 20 2_18.1	9.5	45	76	107	57	
A 20 2_21.2	8.3	43	74	105	55	
A 20 2_23.1	7.1	43	74	105	52	
A 20 2_26.5	5.9	40	71	102	50	
A 20 2_29.2	4.8	40	71	102	50	
A 20 2_31.3	4.8	40	71	102	50	
A 20 2_35.4	4.8	40	71	102	50	
A 20 2_39.6	2.4	38	69	100	48	
A 20 2_43.2	2.4	38	69	100	48	
A 20 2_48.3	2.4	38	69	100	48	
A 20 2_53.7	2.4	38	69	100	48	
A 20 2_63.1	2.4	38	69	100	48	
A 20 2_71.0	1.19	36	67	97	48	
A 20 2_79.9	0.71	36	67	97	48	
A 20 2_92.3	0.48	36	—	—	48	
A 20 3_109.2	0.48	36	—	—	21	
A 20 3_120.5	0.48	36	—	—	21	
A 20 3_129.1	0.48	36	—	—	21	
A 20 3_146.1	0.48	36	—	—	21	
A 20 3_163.4	0.24	36	—	—	21	
A 20 3_178.3	0.24	36	—	—	21	
A 20 3_199.2	0.24	36	—	—	21	
A 20 3_221.3	0.24	36	—	—	21	
A 20 3_260.5	0.24	36	—	—	21	
A 20 3_292.8	0.24	36	—	—	21	
A 20 3_329.4	0.24	36	—	—	21	
A 20 3_380.9	0.24	36	—	—	21	

A 30

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]				
						
			NEMA Motor frame			
			N56C	N140TC	N180TC	
A 30 2_5.4		107	—	173	204	164
A 30 2_6.4		81	—	157	185	143
A 30 2_7.0		69	—	138	166	124
A 30 2_8.5		52	—	121	150	109
A 30 2_9.3		38	74	105	135	95
A 30 2_10.5		55	—	121	152	109
A 30 2_11.8		26	62	93	124	81
A 30 2_13.6		36	—	102	133	93
A 30 2_16.3		29	—	95	126	83
A 30 2_18.0		21	57	88	119	76
A 30 2_20.5		17	52	83	114	74
A 30 2_22.8		14	50	81	112	71
A 30 2_26.5		12	48	78	109	69
A 30 2_29.3		9.5	45	76	107	67
A 30 2_33.4		8.3	43	74	105	64
A 30 2_36.6		7.1	43	74	105	64
A 30 2_39.3		5.9	40	71	102	62
A 30 2_43.4		4.8	40	71	102	62
A 30 2_48.3		4.8	40	71	102	62
A 30 2_52.7		4.8	40	71	102	59
A 30 2_59.4		2.4	38	69	100	59
A 30 2_66.0		2.4	38	69	100	59
A 30 2_76.5		2.4	38	69	100	59
A 30 2_86.7		2.4	38	69	100	59
A 30 2_97.5		2.4	38	69	100	57
A 30 3_109.1		2.4	38	—	—	21
A 30 3_120.5		2.4	38	—	—	21
A 30 3_137.4		2.4	38	—	—	21
A 30 3_150.7		2.4	38	—	—	21
A 30 3_161.4		2.4	38	—	—	21
A 30 3_178.6		2.4	38	—	—	21
A 30 3_198.5		2.4	38	—	—	21
A 30 3_216.6		2.4	38	—	—	21
A 30 3_244.3		2.4	38	—	—	21
A 30 3_271.5		2.4	38	—	—	21
A 30 3_314.6		2.4	38	—	—	21
A 30 3_356.3		1.4	38	—	—	21
A 30 3_400.8		1.0	38	—	—	21

A 35

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]					
			 NEMA Motor frame				
			N56C	N140TC	N180TC		
A 35 2_5.4	173	—	235	264	565	223	
A 35 2_6.4	128	—	190	219	520	176	
A 35 2_7.0	109	—	171	200	501	157	
A 35 2_8.5	78	—	140	169	470	128	
A 35 2_9.3	67	83	128	157	458	116	
A 35 2_10.6	50	69	114	143	444	100	
A 35 2_11.8	43	59	105	135	435	93	
A 35 2_13.1	71	—	133	162	—	119	
A 35 2_15.5	52	—	116	145	—	102	
A 35 2_17.0	48	—	109	138	—	95	
A 35 2_20.4	38	—	100	128	—	86	
A 35 2_22.5	31	48	93	121	—	81	
A 35 2_25.7	23	40	86	114	—	71	
A 35 2_28.4	20	38	83	112	—	69	
A 35 2_33.2	16	33	78	107	—	67	
A 35 2_36.6	14	31	76	105	—	62	
A 35 2_41.8	11	29	74	102	—	59	
A 35 2_45.8	10	26	74	102	—	59	
A 35 2_49.1	9.0	26	71	100	—	57	
A 35 2_54.3	7.8	24	71	100	—	57	
A 35 2_60.4	6.9	24	69	97	—	55	
A 35 2_65.8	5.9	24	69	97	—	55	
A 35 2_74.3	5.0	22	67	97	—	55	
A 35 2_82.5	4.3	21	67	95	—	52	
A 35 2_95.6	3.6	21	67	95	—	52	
A 35 3_105.5	2.6	21	67	95	—	19	
A 35 3_116.9	2.6	21	67	95	—	19	
A 35 3_136.3	2.4	20	67	95	—	19	
A 35 3_150.6	2.1	20	67	95	—	18	
A 35 3_171.8	1.9	20	67	95	—	18	
A 35 3_188.3	1.9	20	64	95	—	18	
A 35 3_201.8	1.9	20	64	95	—	18	
A 35 3_223.2	1.9	20	64	95	—	18	
A 35 3_248.1	1.7	20	64	95	—	18	
A 35 3_270.7	1.7	20	64	95	—	18	
A 35 3_305.4	1.7	20	64	95	—	18	
A 35 3_339.3	1.7	20	64	95	—	18	
A 35 3_393.2	1.7	20	64	93	—	18	

A 41

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]					
			 NEMA Motor frame				
			N56C	N140TC	N180TC	N210TC	
A 41 2_5.2	304	—	371	401	753	553	
A 41 2_7.1	173	—	240	271	622	423	
A 41 2_8.3	140	—	207	238	589	390	
A 41 2_9.2	107	—	173	204	556	356	
A 41 2_10.1	140	—	207	238	589	390	
A 41 2_11.7	69	105	135	166	518	318	
A 41 2_13.8	86	—	152	183	534	335	
A 41 2_16.1	69	—	135	166	518	302	
A 41 2_17.8	52	—	119	150	501	271	
A 41 2_22.7	36	71	102	133	485	254	
A 41 2_28.3	26	62	93	124	—	242	
A 41 2_35.9	40	76	107	138	—	233	
A 41 2_45.1	36	71	102	133	—	228	
A 41 2_48.3	33	69	100	131	—	226	
A 41 2_53.1	33	69	100	131	—	226	
A 41 2_58.8	31	67	97	128	—	223	
A 41 2_64.2	31	67	97	128	—	223	
A 41 2_71.3	29	64	95	126	—	221	
A 41 2_79.2	29	64	95	126	—	221	
A 41 3_92.8	26	62	93	124	—	219	
A 41 3_115.9	4.8	40	71	102	—	50	
A 41 3_146.9	2.4	38	69	100	—	50	
A 41 3_184.4	2.4	38	69	100	—	50	
A 41 3_197.5	2.4	38	69	100	—	48	
A 41 3_217.4	2.4	38	69	100	—	48	
A 41 3_240.6	2.4	38	69	100	—	48	
A 41 3_262.5	2.4	38	69	100	—	48	
A 41 3_291.7	2.4	38	69	100	—	48	
A 41 3_324.2	2.4	38	69	100	—	48	
A 41 3_376.8	2.4	38	69	100	—	48	

A 50

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]							
			 NEMA Motor frame						
			N56C	N140TC	N180TC	N210TC	N250TC	N280TC	
A 50 2_7.7		356	—	423	454	808	2209	2162	572
A 50 2_9.7		242	—	309	340	691	2114	2043	458
A 50 2_13.1		150	—	216	245	599	2019	1948	363
A 50 2_16.6		100	—	166	195	549	1948	1900	314
A 50 2_20.9		67	100	133	164	515	1924	1876	283
A 50 3_24.0		143	—	209	240	591	1995	1948	356
A 50 3_26.4		138	—	204	235	587	1995	1948	352
A 50 3_32.4		95	—	162	192	544	1948	1900	309
A 50 3_35.6		93	—	159	190	542	1948	1900	306
A 50 3_40.9		64	—	131	162	513	1924	1876	280
A 50 3_45.0		62	—	128	159	511	1924	1876	278
A 50 3_51.7		45	81	112	143	494	1900	1853	261
A 50 3_56.8		45	78	109	140	494	1900	1853	259
A 50 3_63.9		33	67	100	131	482	1900	1829	249
A 50 3_70.2		33	67	97	128	482	1900	1829	247
A 50 3_81.5		21	57	88	119	470	1876	1829	238
A 50 3_89.5		21	57	88	119	470	1876	1829	238
A 50 3_99.5		14	50	81	112	463	1876	1829	230
A 50 3_109.4		14	50	81	112	463	1876	1829	230
A 50 3_118.0		12	48	78	109	—	—	—	228
A 50 3_129.7		12	48	78	109	—	—	—	228
A 50 3_140.6		9.5	43	76	105	—	—	—	223
A 50 3_154.6		9.5	43	76	105	—	—	—	223
A 50 3_173.4		7.1	40	71	102	—	—	—	221
A 50 3_190.6		4.8	40	71	102	—	—	—	221

A 55

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]						
			 NEMA Motor frame					
			N56C	N140TC	N180TC	N210TC	N250TC	N280TC	
A 55 2_4.9	1444	—	—	—	1829	2922	2857	1658
A 55 2_6.4	962	—	—	—	1347	2439	2375	1176
A 55 2_8.5	610	—	—	—	995	2088	2024	824
A 55 2_10.4	444	—	—	—	829	1919	1857	658
A 55 2_13.1	287	—	333	397	672	1762	1701	501
A 55 2_15.7	211	—	259	325	596	1686	1625	425
A 55 2_19.2	147	—	202	268	534	1625	1563	361
A 55 3_23.8	259	—	316	380	644	1736	1672	473
A 55 3_29.9	188	—	245	309	572	1665	1601	401
A 55 3_40.3	126	—	181	247	511	1603	1539	340
A 55 3_51.0	86	—	140	204	470	1563	1499	299
A 55 3_64.3	62	71	119	183	449	1539	1477	276
A 55 3_79.5	48	57	105	169	432	1525	1461	261
A 55 3_101.4	31	43	88	154	416	1508	1444	245
A 55 3_123.9	24	36	81	147	409	1501	1437	238
A 55 3_132.7	17	33	78	145	—	—	—	226
A 55 3_146.8	16	33	78	143	—	—	—	223
A 55 3_160.4	14	31	76	143	—	—	—	223
A 55 3_175.0	12	29	74	140	—	—	—	221
A 55 3_194.2	10	29	74	138	—	—	—	219

A 60

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]							
			 NEMA Motor frame						
			N56C	N140TC	N180TC	N210TC	N250TC	N280TC	
A 60 2_7.9		855	—	—	—	53	2708	2660	1354
A 60 2_10.3		537	—	603	634	974	2399	2352	1045
A 60 2_12.7		382	—	447	477	831	2233	2185	879
A 60 2_16.7		223	—	290	321	672	2090	2019	713
A 60 2_20.6		159	—	226	257	608	2019	1971	658
A 60 3_25.7		335	—	401	430	784	2185	2138	831
A 60 3_27.9		328	—	394	425	784	2185	2138	831
A 60 3_31.7		247	—	314	344	696	2114	2043	736
A 60 3_34.3		245	—	311	342	694	2114	2043	736
A 60 3_41.7		145	—	211	242	596	1995	1948	644
A 60 3_45.2		145	—	211	240	594	1995	1948	641
A 60 3_51.3		119	—	176	207	558	1971	1924	608
A 60 3_55.6		107	—	173	204	556	1971	1924	606
A 60 3_65.0		76	—	143	173	525	1948	1876	575
A 60 3_70.4		76	—	143	173	525	1924	1876	575
A 60 3_79.7		50	—	116	147	499	1900	1853	549
A 60 3_86.4		50	—	116	147	499	1900	1853	549
A 60 3_99.5		48	—	102	133	485	1900	1853	534
A 60 3_107.8		36	—	102	133	485	1900	1853	532
A 60 3_123.0		26	—	93	124	475	1876	1829	525
A 60 3_133.3		26	—	93	124	475	1876	1829	523
A 60 3_144.0		19	—	86	119	—	—	—	518
A 60 3_156.0		19	—	86	119	—	—	—	518
A 60 3_171.5		14	—	81	112	—	—	—	513
A 60 3_185.8		14	—	81	112	—	—	—	513

A 70

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]							
			 NEMA Motor frame						
			N56C	N140TC	N180TC	N210TC	N250TC	N280TC	
A 70 3_9.4		—	—	—	—	—	4442	4394	3563
A 70 3_10.2		—	—	—	—	—	4347	4276	3468
A 70 3_12.1		—	—	—	—	—	3563	3515	2684
A 70 3_13.1		—	—	—	—	—	3492	3444	2637
A 70 3_15.4		1069	—	—	—	1520	2945	2874	2067
A 70 3_16.7		1045	—	—	—	1496	2898	2850	2019
A 70 3_19.7		713	—	—	—	1164	2589	2542	1710
A 70 3_21.3		689	—	—	—	1140	2565	2518	1686
A 70 3_23.5		—	—	—	—	—	2755	2708	1876
A 70 3_27.8		—	—	—	—	—	2803	2755	1924
A 70 3_30.1		—	—	—	—	—	2779	2732	1924
A 70 3_35.4		610	—	—	—	1069	2470	2423	1591
A 70 3_38.4		603	—	—	—	1045	2470	2399	1591
A 70 3_45.2		435	—	—	—	879	2304	2233	1401
A 70 3_49.0		432	—	—	—	879	2280	2233	1401
A 70 3_53.2		356	—	—	—	808	2209	2162	1330
A 70 3_57.7		356	—	—	—	808	2209	2162	1330
A 70 3_66.9		230	—	285	316	679	2090	2043	1211
A 70 3_72.5		228	—	285	314	675	2090	2043	1211
A 70 3_79.3		162	—	221	252	610	2019	1971	1140
A 70 3_85.9		159	—	221	249	608	2019	1971	1140
A 70 3_96.2		128	—	195	223	580	1995	1948	1116
A 70 3_104.2		128	—	192	223	577	1995	1924	1116
A 70 3_120.6		81	—	147	178	530	1948	1876	1069
A 70 3_130.7		81	—	147	176	530	1948	1876	1069
A 70 3_141.9		57	—	124	154	506	1924	1853	1045
A 70 3_153.7		57	—	124	154	506	1924	1853	1045

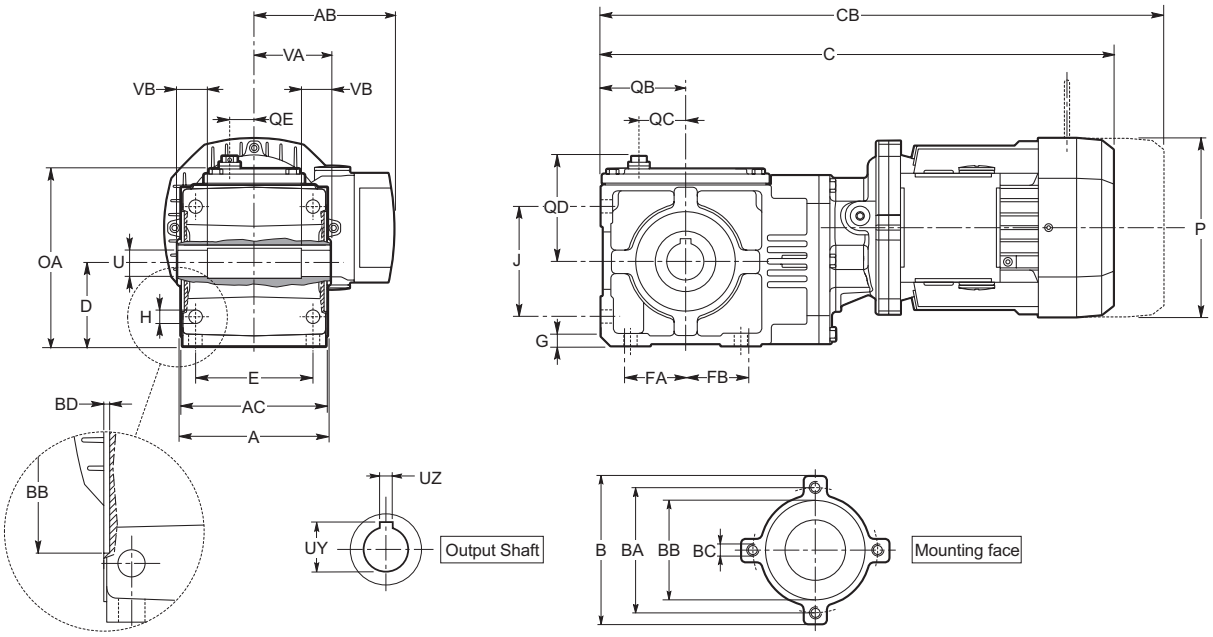
A 80

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]								
			 NEMA Motor frame							
			N56C	N140TC	N180TC	N210TC	N250TC	N280TC	N320TC	
A 80 3_9.8		—	—	—	—	—	—	7601	14513	6793
A 80 3_10.7		—	—	—	—	—	—	7340	14276	6556
A 80 3_12.3		—	—	—	—	—	5677	5677	12613	4869
A 80 3_13.3		—	—	—	—	—	5511	5534	12447	4727
A 80 3_15.5		—	—	—	—	—	4442	4394	11354	3563
A 80 3_16.7		—	—	—	—	—	4347	4276	11259	3563
A 80 3_19.3		1639	—	—	—	2090	3492	3444	10451	2637
A 80 3_20.9		1568	—	—	—	2019	3444	3373	10380	2565
A 80 3_22.6		—	—	—	—	—	—	4869	11781	4062
A 80 3_24.5		—	—	—	—	—	—	4822	11734	4014
A 80 3_28.2		—	—	—	—	—	3919	3943	10855	3135
A 80 3_30.6		—	—	—	—	—	3895	3895	10831	3088
A 80 3_35.5		—	—	—	—	—	3325	3278	10261	2470
A 80 3_38.5		—	—	—	—	—	3325	3254	10238	2447
A 80 3_44.5		926	—	—	—	1378	2803	2732	9739	1924
A 80 3_48.2		926	—	—	—	1378	2779	2732	9739	2138
A 80 3_55.2		696	—	—	—	1140	2565	2494	9477	1663
A 80 3_59.8		689	—	—	—	1140	2542	2494	9477	1663
A 80 3_66.8		527	—	—	—	974	2399	2328	9287	1496
A 80 3_72.4		523	—	—	—	974	2375	2328	9287	1496
A 80 3_82.3		356	—	406	437	808	2233	2162	9121	1330
A 80 3_89.2		356	—	404	435	808	2209	2162	9169	1330
A 80 3_96.0		333	—	382	411	760	2185	2138	9074	1306
A 80 3_104.0		318	—	380	409	760	2185	2114	9074	1306
A 80 3_116.0		216	—	280	311	665	2067	2019	8979	1188
A 80 3_125.6		216	—	280	311	665	2067	2019	—	1188
A 80 3_144.7		128	—	195	238	580	1995	1948	—	1116
A 80 3_156.8		—	—	69	100	454	1853	1805	—	974

A 90

Type	i (ratio)	J (·10^{-4}) [lb·ft^2]								
			 NEMA Motor frame							
			N56C	N140TC	N180TC	N210TC	N250TC	N280TC	N320TC	
A 90 3_9.7		—	—	—	—	—	—	14181	21116	21330
A 90 3_10.5		—	—	—	—	—	—	13658	20594	20808
A 90 3_12.6		—	—	—	—	—	—	9549	16461	16698
A 90 3_13.7		—	—	—	—	—	—	9240	16176	16390
A 90 3_15.6		—	—	—	—	—	—	7268	14181	14418
A 90 3_16.9		—	—	—	—	—	—	7055	13990	14204
A 90 3_19.4		3539	—	—	—	—	5606	5558	12518	12589
A 90 3_21.0		3397	—	—	—	—	5487	5416	12399	12447
A 90 3_22.3		—	—	—	—	—	—	7743	14679	14893
A 90 3_24.1		—	—	—	—	—	—	7648	14584	14798
A 90 3_29.1		—	—	—	—	—	—	5772	12708	12922
A 90 3_31.5		—	—	—	—	—	—	5724	12637	12874
A 90 3_35.8		—	—	—	—	—	—	4774	11710	11924
A 90 3_38.8		—	—	—	—	—	—	4751	11663	11876
A 90 3_44.6		1924	—	—	—	—	4014	3943	10926	10974
A 90 3_48.3		1900	—	—	—	—	3990	3919	10903	10950
A 90 3_55.0		1568	—	—	—	2019	3420	3373	10380	10404
A 90 3_59.6		1568	—	—	—	1995	3420	3349	10356	10380
A 90 3_68.8		1140	—	—	—	1591	2993	2945	9929	9881
A 90 3_74.5		1116	—	—	—	1568	2993	2922	9905	9881
A 90 3_80.4		1021	—	—	—	1473	2874	2827	9786	9786
A 90 3_87.1		1021	—	—	—	1473	2874	2827	9786	9786
A 90 3_98.6		665	—	713	760	1116	2518	2470	9430	9477
A 90 3_106.8		665	—	713	736	1116	2518	2470	9430	9477
A 90 3_116.9		546	—	596	627	974	2399	2352	9287	9359
A 90 3_126.7		532	—	594	622	974	2399	2328	9287	9359
A 90 3_139.4		356	—	409	451	784	2209	2162	—	9169
A 90 3_151.0		—	—	71	102	456	1876	1805	—	8836

2.16 DIMENSIONS



Outline dimensions

	A	AC	B	BA	BB	BC	BD	D	E	FA	FB	G	H	J	OA	QB	QC	QD	QE
A 05 2	3.90	3.82	3.98	3.35	2.677 $^{+0}_{-0.0012}$	*M18x14 [mm]*	0.08	2.26	3.15	1.48	1.48	0.31	0.35	2.95	4.74	2.26	1.26	2.83	0.63
	99	*97*	*101*	*85*	*68* $^{+0}_{+0.030}$		*2*	*57.5*	*80*	*37.5*	*37.5*	*8*	*9*	*75*	*120.5*	*57.5*	*32*	*72*	*16*

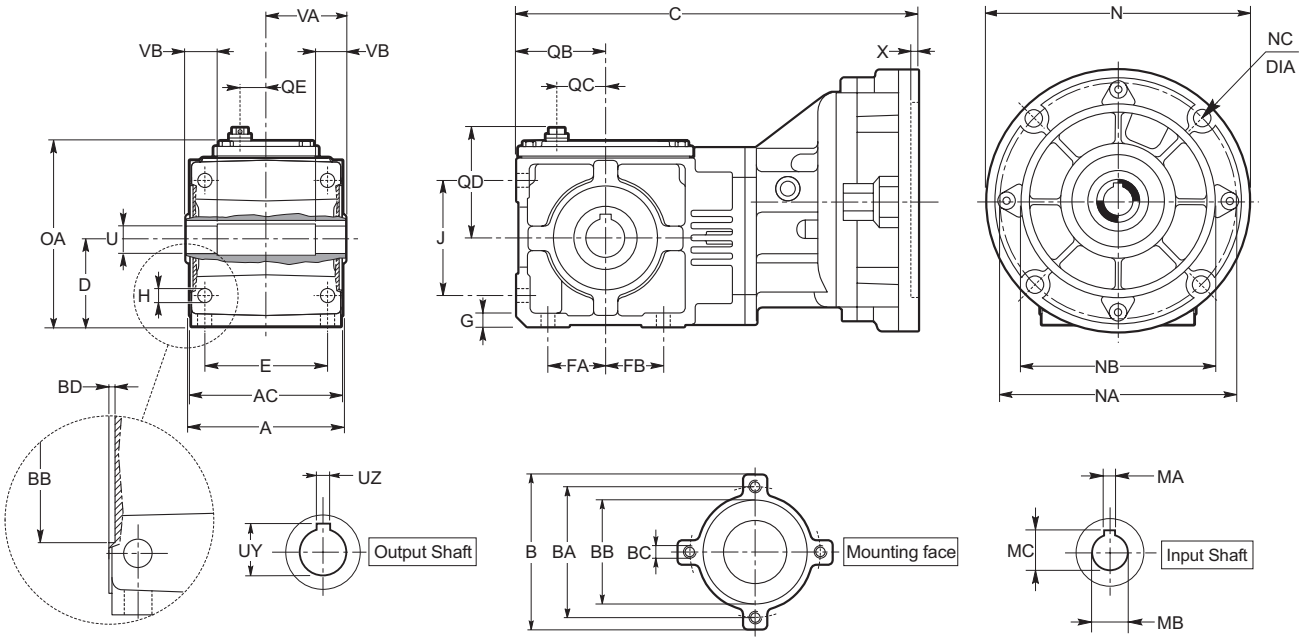
Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 05 2	**NUH**	1.000 $^{+0.011}_{+0.0003}$	1.114	0.250	1.95	0.98

Motor

	AB	C	CB	P	**Weight** [lbs / *kg*]
A 05 2_S05 M05	3.74 *95*	14.19 *360.5*	16.79 *426.5*	4.76 *121*	20 / *9*
A 05 2_S1 M1S	4.25 *108*	14.39 *365.5*	16.87 *428.5*	5.43 *138*	29 / *13*
A 05 2_S1 M1L	4.25 *108*	15.33 *389.5*	17.74 *450.5*	5.43 *138*	31 / *14*
A 05 2_S2 M2S	4.69 *119*	16.48 *418.5*	19.23 *488.5*	6.14 *156*	42 / *19*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	BD	D	E	FA	FB	G	H	J	OA	QB	QC	QD	QE
A 05 2	3.90	3.82	3.98	3.35	2.677 $^{+0}_{-0.0012}$	*M18x14 [mm]*	0.08	2.26	3.15	1.48	1.48	0.31	0.35	2.95	4.74	2.26	1.26	2.83	0.63
	99	*97*	*101*	*85*	*68* $^{+0}_{+0.030}$		*2*	*57.5*	*80*	*37.5*	*37.5*	*8*	*9*	*75*	*120.5*	*57.5*	*32*	*72*	*16*

Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 05 2	**NUH**	1.000 $^{+0.011}_{+0.0003}$	1.114	0.250	1.95	0.98

NEMA flange

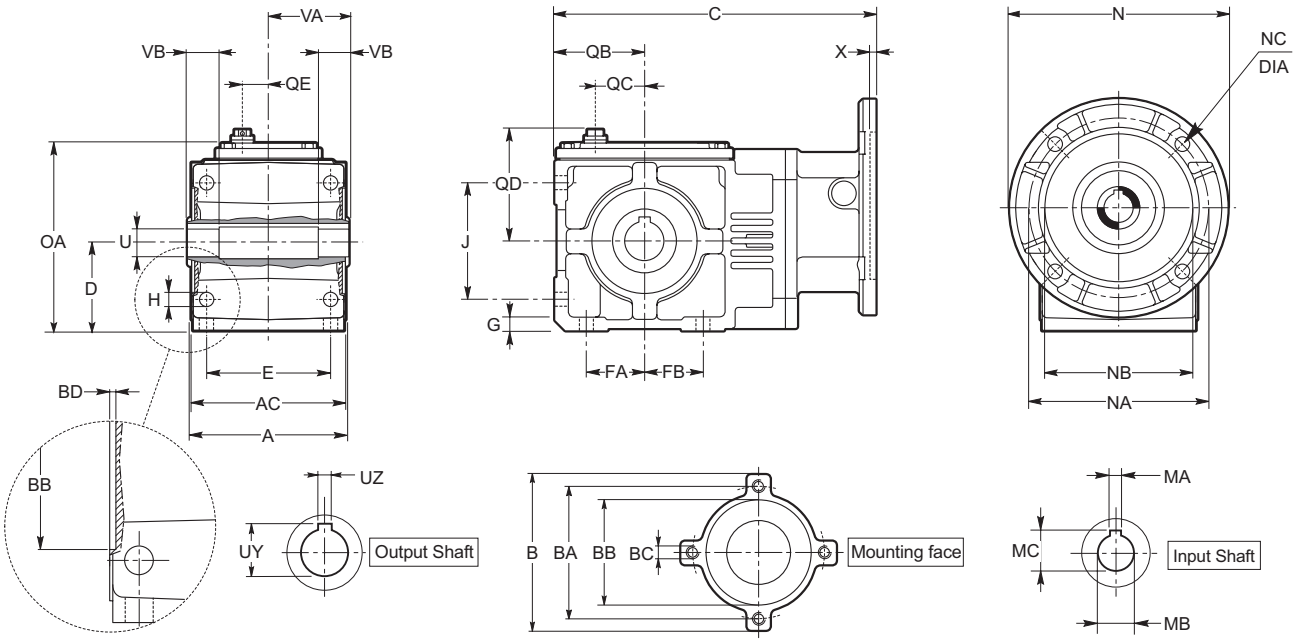
	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.196	11 / *5*

Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710

	C
	N56C
A 05 2	10.00 *254*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	BD	D	E	FA	FB	G	H	J	OA	QB	QC	QD	QE
A 05 2	3.90	3.82	3.98	3.35	2.677 $^{+0}_{-0.0012}$	*M18x14 [mm]*	0.08	2.26	3.15	1.48	1.48	0.31	0.35	2.95	4.74	2.26	1.26	2.83	0.63
	99	*97*	*101*	*85*	*68* $^{+0}_{+0.030}$		*2*	*57.5*	*80*	*37.5*	*37.5*	*8*	*9*	*75*	*120.5*	*57.5*	*32*	*72*	*16*

Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 05 2	**NUH**	1.000 $^{+0.011}_{+0.0003}$	1.114	0.250	1.95	0.98

IEC flange (mm)

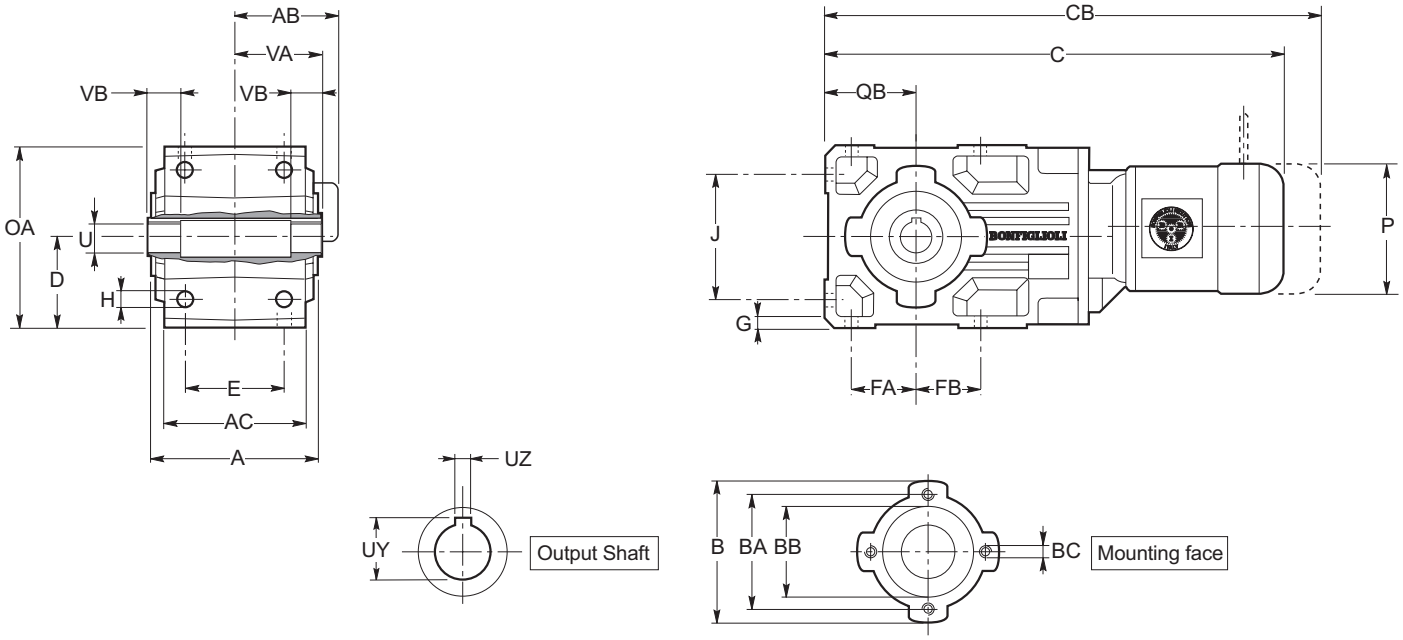
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	11 / *5*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	11 / *5*
P80	*200*	*165*	*130*	*M10x12*	*4*	12 / *5.5*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*

	C		
	P63	**P71**	**P80**
A 05 2	8.11 *206*	8.39 *213*	8.78 *223*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 10 2	4.61	3.74	4.72	3.94	3.150 $^{-0.0012}_{-0.0024}$	*M8x12 [mm]*	2.76	2.95	1.97	1.97	0.35	0.37	3.94	5.51	2.76
	117	*95*	*120*	*100*	*80* $^{-0.030}_{-0.060}$		*70*	*75*	*50*	*50*	*9*	*9.5*	*100*	*140*	*70*

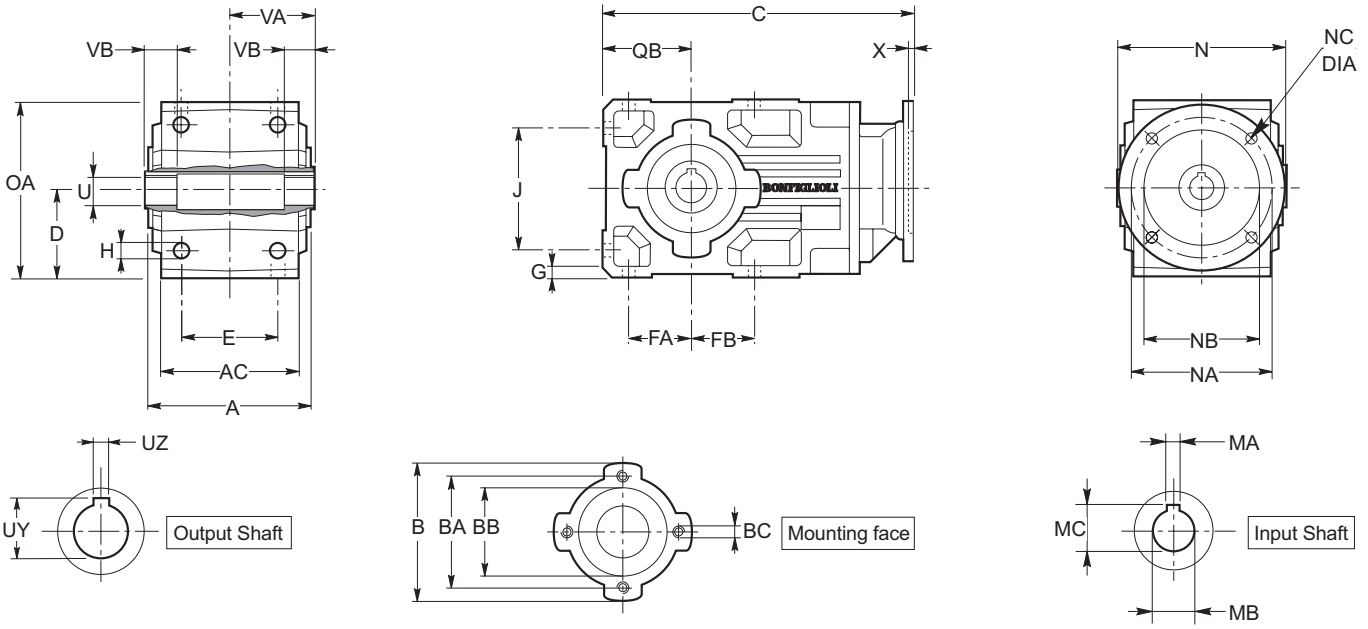
Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 10 2	**NUH**	1.000 $^{+0.0011}_{+0.0003}$	1.114	0.250	2.36	0.71

Motor

	AB	C	CB	P	Weight [lbs / *kg*]
A 10 2_S05 M05	3.74 *95*	16.08 *408.5*	18.68 *474.5*	4.76 *121*	31 / *14*
A 10 2_S1 M1S	4.25 *108*	16.28 *413.5*	18.76 *476.5*	5.43 *138*	35 / *16*
A 10 2_S1 M1L	4.25 *108*	17.22 *437.5*	19.63 *498.5*	5.43 *138*	37 / *17*
A 10 2_S2 M2S	4.69 *119*	18.37 *466.5*	21.12 *536.5*	6.14 *156*	49 / *22*
A 10 2_S3 M3S	5.59 *142*	20.06 *509.5*	23.84 *605.5*	7.68 *195*	66 / *30*
A 10 2_S3 M3L	5.59 *142*	21.32 *541.5*	24.90 *632.5*	7.68 *195*	82 / *37*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 10 2	4.61	3.74	4.72	3.94	3.150 $^{-0.0012}_{-0.0024}$	*M8x12 [mm]*	2.76	2.95	1.97	1.97	0.35	0.37	3.94	5.51	2.76
	117	*95*	*120*	*100*	*80* $^{-0.030}_{-0.060}$		*70*	*75*	*50*	*50*	*9*	*9.5*	*100*	*140*	*70*

Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 10 2	**NUH**	1.000 $^{+0.0011}_{+0.0003}$	1.114	0.250	2.36	0.71

NEMA flange

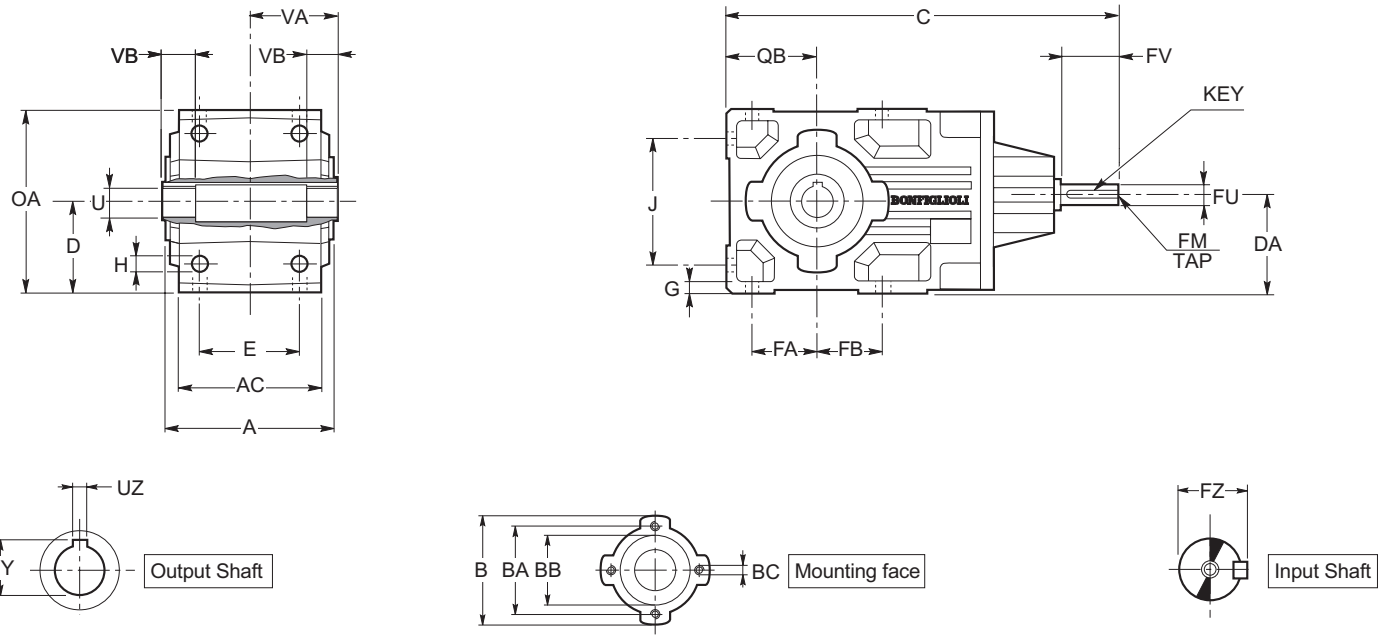
	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.196	18 / *8*
N140TC	6.496	5.875	4.500	0.394	0.196	20 / *9*
N180TC	8.996	7.250	8.500	0.551	0.216	29 / *13*

Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710
N140TC	0.188	0.875	0.964
N180TC	0.250	1.125	1.241

	C		
	N56C	**N140TC**	**N180TC**
A 10 2	11.91	11.91	12.66
	302.5	*302.5*	*321.5*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	G	H	J	OA	QB
A 10 2	4.61	3.74	4.72	3.94	3.150 $^{-0.0012}_{-0.0024}$	*M8x12 [mm]*	2.76	3.27	2.95	1.97	1.97	0.35	0.37	3.94	5.51	2.76
	117	*95*	*120*	*100*	*80* $^{-0.030}_{-0.060}$		*70*	*83*	*75*	*50*	*50*	*9*	*9.5*	*100*	*140*	*70*

Output shaft (Inch series)

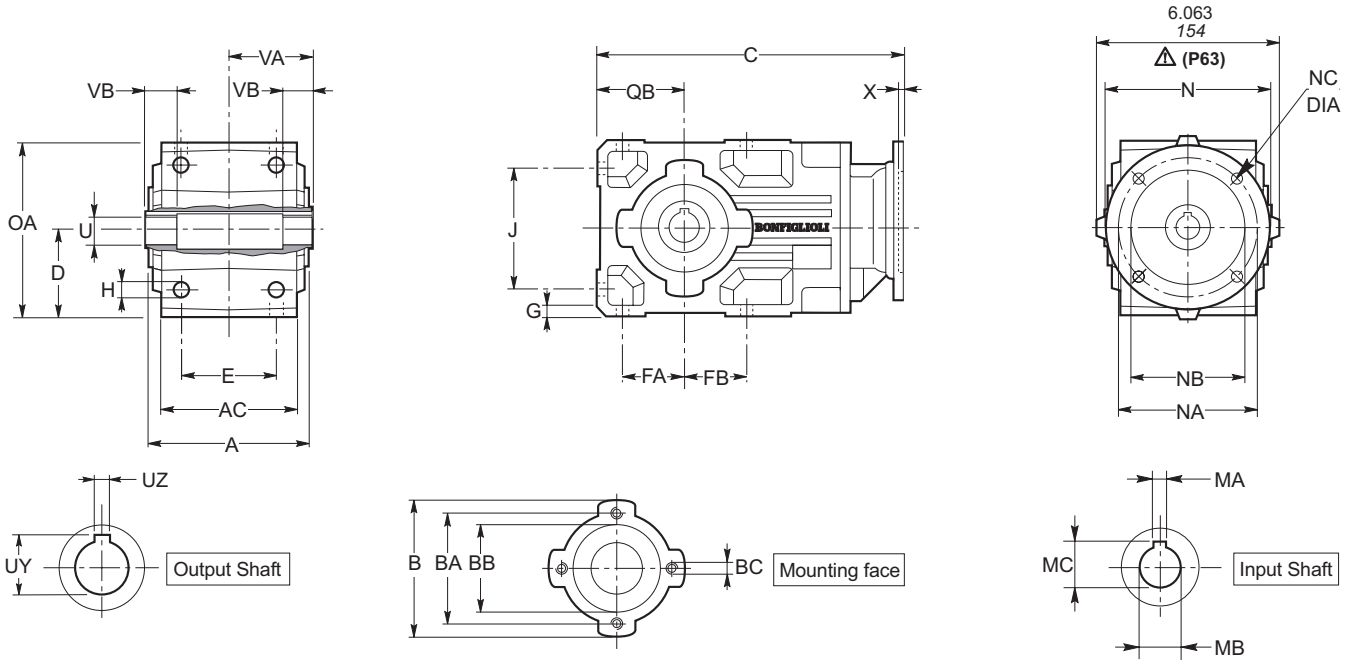
		U	UY	UZ	VA	VB
A 10 2	**NUH**	1.000 $^{+0.0011}_{+0.0003}$	1.114	0.250	2.36	0.71

Input shaft (Inch series)

		FU	FZ	FV	Key	FM
A 10 2	**NHS**	0.625 $^{+0}_{-0.0004}$	0.710	1.570	3/16 x 3/16 x 1 3/8	*M6x16 [mm]*

	C	Weight [lbs / *kg*]
A 10 2	11.40 *289.5*	18 / *8*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 10 2	4.61	3.74	4.72	3.94	3.150 $^{-0.0012}_{-0.0024}$	*M8x12 [mm]*	2.76	2.95	1.97	1.97	0.35	0.37	3.94	5.51	2.76
	117	*95*	*120*	*100*	*80* $^{-0.030}_{-0.060}$		*70*	*75*	*50*	*50*	*9*	*9.5*	*100*	*140*	*70*

Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 10 2	**NUH**	1.000 $^{+0.0011}_{+0.0003}$	1.114	0.250	2.36	0.71

IEC flange (mm)

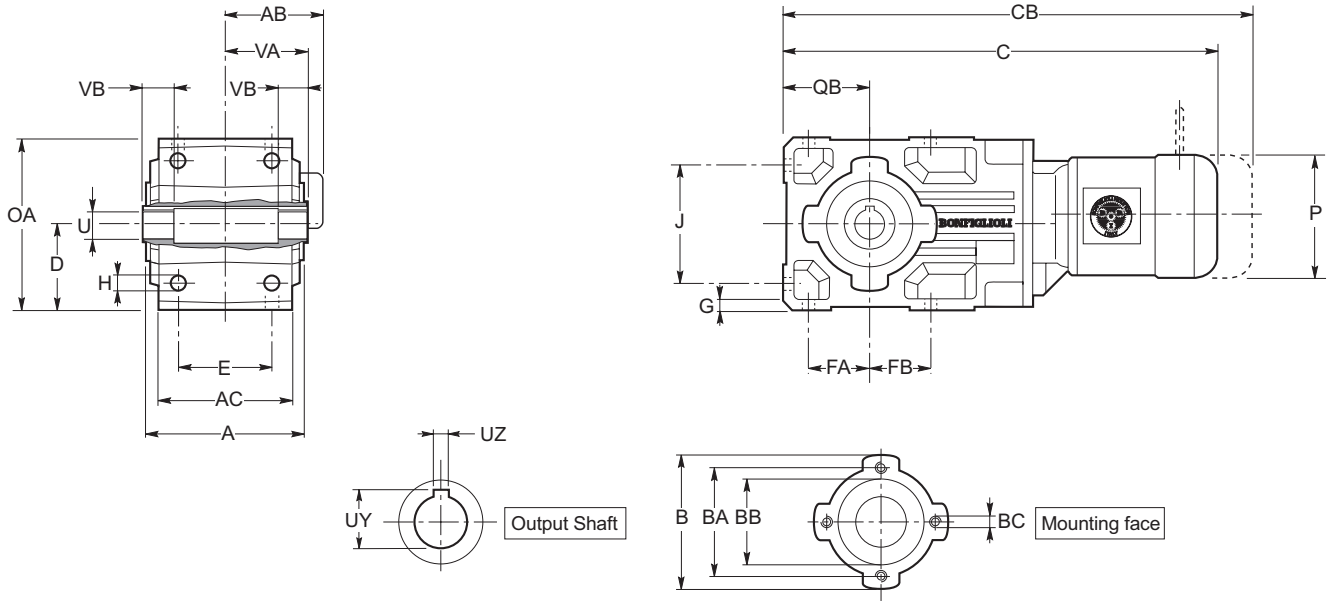
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	18 / *8*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	18 / *8*
P80, P90	*200*	*165*	*130*	*M10x12*	*4*	20 / *9*
P100, P112	*250*	*215*	*180*	*M12x16*	*4.5*	29 / *13*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*

	C		
	P63 P71	**P80 P90**	**P100 P112**
A 10 2	11.12	11.89	12.28
	282.5	*302*	*312*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 20 2, A 20 3	5.35	4.33	5.51	4.53	3.740 $^{-0.0014}_{-0.0028}$	*M8x15 [mm]*	3.15	3.54	2.36	2.36	0.35	0.37	4.72	6.30	3.15
	136	*110*	*140*	*115*	*95* $^{-0.036}_{-0.071}$		*80*	*90*	*60*	*60*	*9*	*9.5*	*120*	*160*	*80*

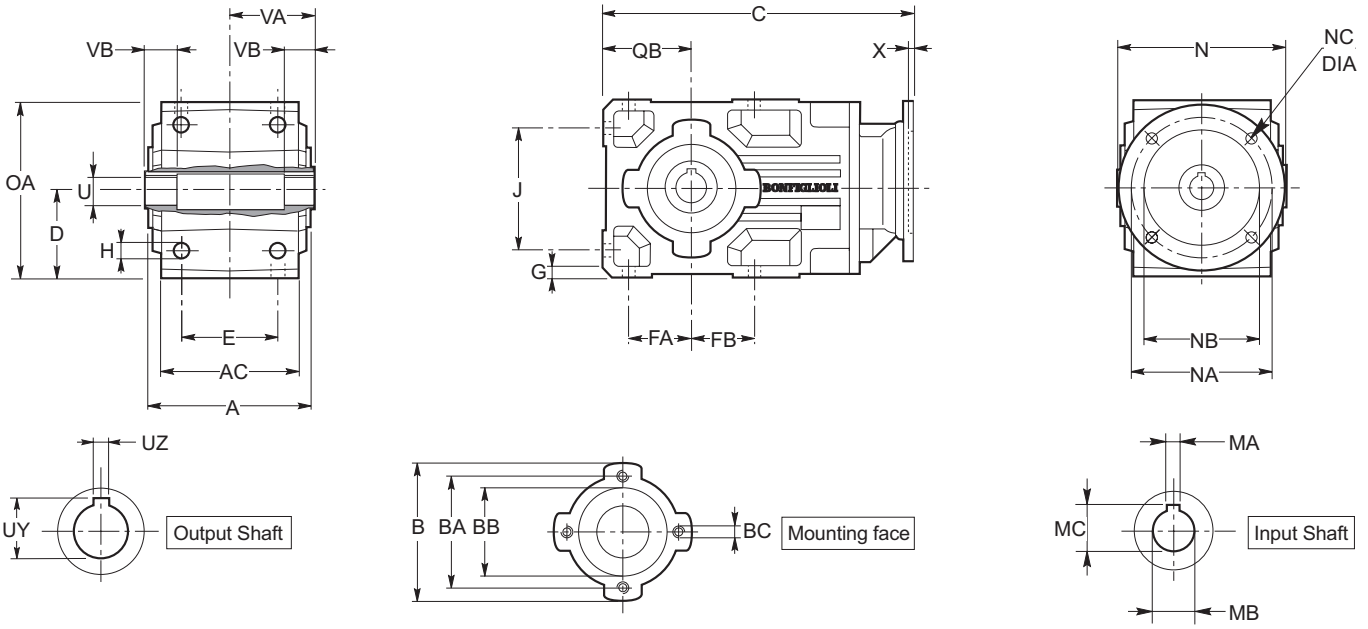
Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 20 2, A 20 3 NUH	1.250 $^{+0.0013}_{+0.0004}$	1.367	0.250	2.76	0.87

Motor

	AB	C	CB	P	Weight [lbs / *kg*]
A 20 2_S05 M05	3.74 *95*	17.01 *432*	19.61 *498*	4.76 *121*	40 / *18*
A 20 2_S1 M1S	4.25 *108*	17.20 *437*	19.69 *500*	5.43 *138*	42 / *19*
A 20 2_S1 M1L	4.25 *108*	18.15 *461*	20.55 *522*	5.43 *138*	46 / *21*
A 20 2_S2 M2S	4.69 *119*	19.29 *490*	22.05 *560*	6.14 *156*	57 / *26*
A 20 2_S3 M3S	5.59 *142*	20.98 *533*	24.76 *629*	7.68 *195*	75 / *34*
A 20 2_S3 M3L	5.59 *142*	22.24 *565*	25.83 *656*	7.68 *195*	90 / *41*
A 20 3_S05 M05	3.74 *95*	18.01 *457.5*	21.79 *553.5*	4.76 *121*	40 / *18*
A 20 3_S1 M1S	4.25 *108*	18.21 *462.5*	21.87 *555.5*	5.43 *138*	44 / *20*
A 20 3_S1 M1L	4.25 108	19.15 486.5	22.74 577.5	5.43 138	46 / *21*
A 20 3_S2 M2S	4.69 119	21.48 545.5	24.23 615.5	6.14 156	57 / *26*
A 20 3_S1 M3S	5.59 142	23.17 588.5	26.95 684.5	7.68 195	75 / *34*
A 20 3_S1 M3L	5.59 142	24.43 620.5	28.01 711.5	7.68 195	90 / *41*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 20 2, A 20 3	5.35	4.33	5.51	4.53	3.740 $^{-0.0014}_{-0.0028}$	*M8x15 [mm]*	3.15	3.54	2.36	2.36	0.35	0.37	4.72	6.30	3.15
	136	*110*	*140*	*115*	*95* $^{-0.036}_{-0.071}$		*80*	*90*	*60*	*60*	*9*	*9.5*	*120*	*160*	*80*

Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 20 2, A 20 3 NUH	1.250 $^{+0.0013}_{+0.0004}$	1.367	0.250	2.76	0.87

NEMA flange

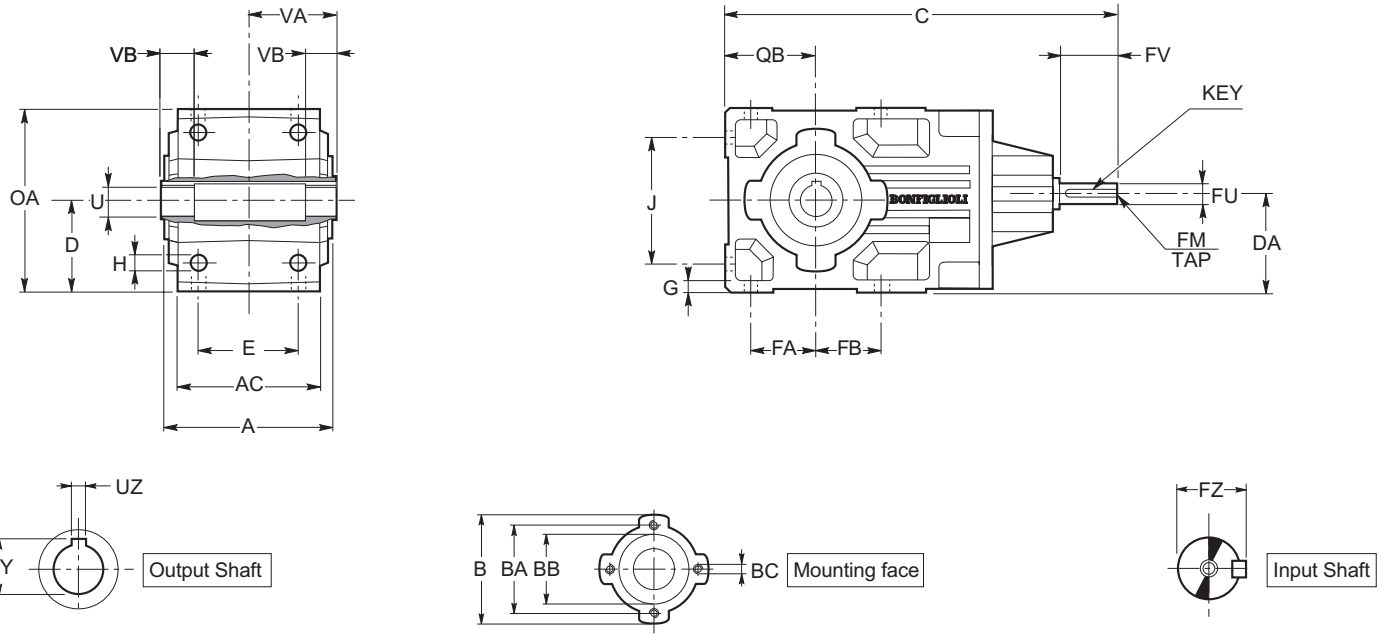
	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.196	26 / *12*
N140TC	6.496	5.875	4.500	0.394	0.196	29 / *13*
N180TC	8.996	7.250	8.500	0.551	0.216	37 / *17*

Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710
N140TC	0.188	0.875	0.964
N180TC	0.250	1.125	1.241

	C		
	N56C	**N140TC**	**N180TC**
A 20 2	12.83	12.83	13.58
	326	*326*	*345*
A 20 3	15.00	15.00	15.77
	381	*381*	*400.5*

Dimensions are inch / *mm*



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	G	H	J	OA	QB
A 20 2, A 20 3	5.35	4.33	5.51	4.53	3.740 $^{-0.0014}_{-0.0028}$	*M8x15 [mm]*	3.15	3.66	3.54	2.36	2.36	0.35	0.37	4.72	6.30	3.15
	136	*110*	*140*	*115*	*95* $^{-0.036}_{-0.071}$		*80*	*93*	*90*	*60*	*60*	*9*	*9.5*	*120*	*160*	*80*

Output shaft (Inch series)

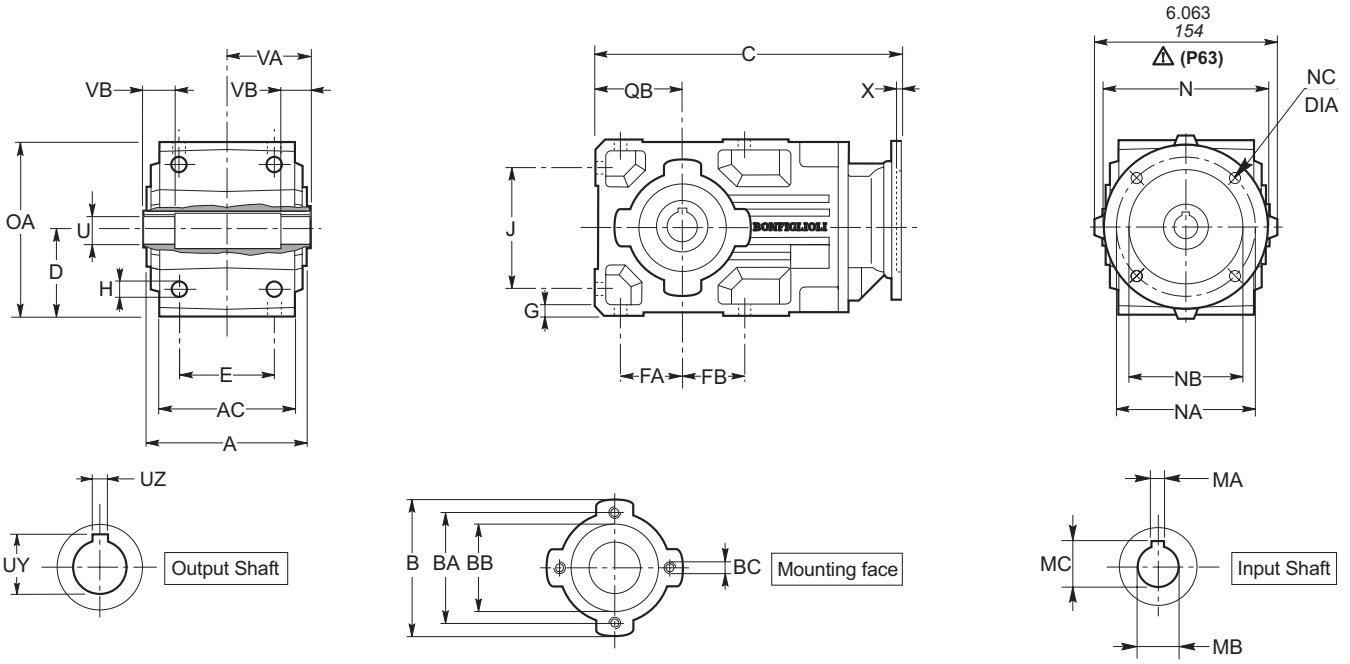
		U	UY	UZ	VA	VB
A 20 2, A 20 3	**NUH**	1.250 $^{+0.0013}_{+0.0004}$	1.367	0.250	2.76	0.87

Input shaft (Inch series)

		FU	FZ	FV	Key	FM
A 20 2	**NHS**	0.750 $^{+0}_{-0.0005}$	0.830	1.570	3/16 x 3/16 x 1 3/8	*M6x16 [mm]*
A 20 3	**NHS**	0.625 $^{+0}_{-0.0004}$	0.710	1.570	3/16 x 3/16 x 1 3/8	*M6x16 [mm]*

	C	Weight [lbs / *kg*]
A 20 2	14.02 *356*	27 / *12*
A 20 3	14.51 *368.5*	27 / *12*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 20 2, A 20 3	5.35	4.33	5.51	4.53	3.740 $^{-0.0014}_{-0.0028}$	*M8x15 [mm]*	3.15	3.54	2.36	2.36	0.35	0.37	4.72	6.30	3.15
	136	*110*	*140*	*115*	*95* $^{-0.036}_{-0.071}$		*80*	*90*	*60*	*60*	*9*	*9.5*	*120*	*160*	*80*

Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 20 2, A 20 3 NUH	1.250 $^{+0.0013}_{+0.0004}$	1.367	0.250	2.76	0.87

IEC flange (mm)

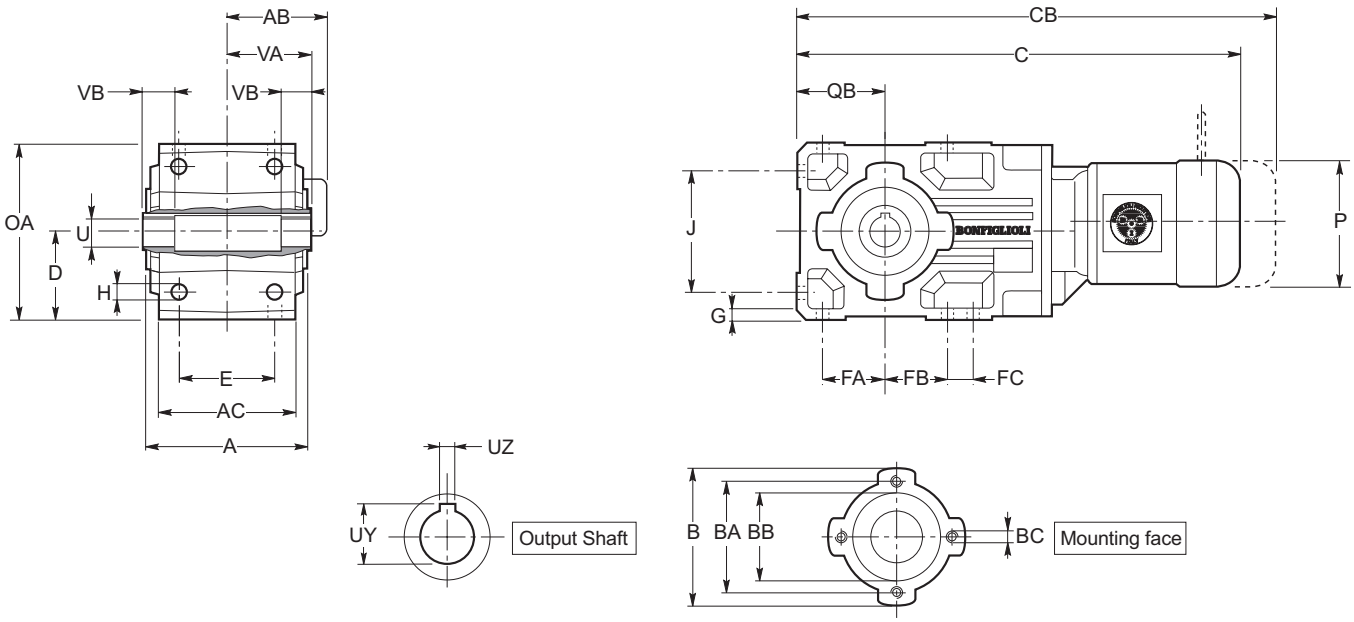
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	29 / *13*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	29 / *13*
P80, P90	*200*	*165*	*130*	*M10x12*	*4*	31 / *14*
P100, P112	*250*	*215*	*180*	*M12x16*	*4.5*	40 / *18*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*

	C		
	P63 P71	**P80 P90**	**P100 P112**
A 20 2	12.05	12.81	13.21
	306	*325.5*	*335.5*
A 20 3	14.23	15.00	15.39
	361.5	*381*	*391*

Dimensions are inch / *mm*



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	FC	G	H	J	OA	QB
A 30 2, A 30 3	6.14 *156*	5.12 *130*	5.51 *140*	4.53 *115*	3.740 $^{-0.0014}_{-0.0028}$ *95* $^{-0.036}_{-0.071}$	*M8x15 [mm]*	3.54 *90*	3.74 *95*	2.48 *63*	2.48 *63*	0.87 *22*	0.43 *11*	0.47 *12*	4.96 *126*	7.09 *180*	3.54 *90*

Output shaft (Inch series)

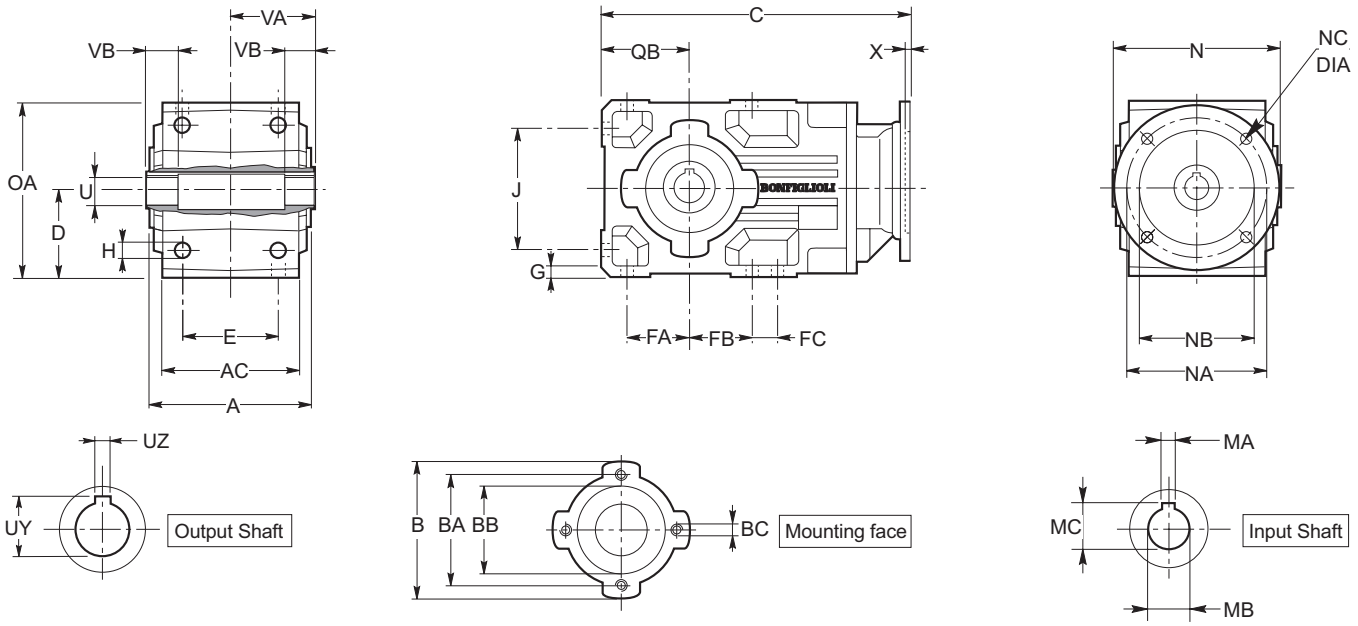
	U	UY	UZ	VA	VB
A 30 2, A 30 3 NUH	1.375 $^{+0.0013}_{+0.0004}$	1.518	0.312	3.15	0.98

Motor

	AB	C	CB	P	Weight [lbs / *kg*]
A 30 2_S1 M1S	4.25 *108*	18.27 *464*	20.75 *527*	5.43 *138*	51 / *23*
A 30 2_S1 M1L	4.25 *108*	19.21 *488*	21.61 *549*	5.43 *138*	53 / *24*
A 30 2_S2 M2S	4.69 *119*	20.35 *517*	23.11 *587*	6.14 *156*	64 / *29*
A 30 2_S3 M3S	5.59 *142*	22.05 *560*	25.83 *656*	7.68 *195*	84 / *38*
A 30 2_S3 M3L	5.59 *142*	23.31 *592*	26.89 *683*	7.68 *195*	99 / *45*
A 30 3_S05 M05	3.74 *95*	20.33 *516.5*	22.93 *582.5*	4.76 *121*	49 / *22*
A 30 3_S1 M1S	4.25 *108*	20.53 *521.5*	23.01 *584.5*	5.43 *138*	53 / *24*
A 30 3_S1 M1L	4.25 *108*	21.48 *545.5*	23.88 *606.5*	5.43 *138*	57 / *26*
A 30 3_S2 M2S	4.69 *119*	22.62 *574.5*	25.37 *644.5*	6.14 *156*	64 / *29*
A 30 3_S3 M3S	5.59 *142*	24.31 *617.5*	28.09 *713.5*	7.68 *195*	84 / *38*
A 30 3_S3 M3L	5.59 *142*	25.57 *649.5*	29.15 *740.5*	7.68 *195*	99 / *45*

Dimensions are $\frac{\text{inch}}{mm}$

Shaft mount - NEMA C - face adapter



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	FC	G	H	J	OA	QB
A 30 2, A 30 3	6.14	5.12	5.51	4.53	3.740 $^{-0.0014}_{-0.0028}$	*M8x15 [mm]*	3.54	3.74	2.48	2.48	0.87	0.43	0.47	4.96	7.09	3.54
	156	*130*	*140*	*115*	*95* $^{-0.036}_{-0.071}$		*90*	*95*	*63*	*63*	*22*	*11*	*12*	*126*	*180*	*90*

Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 30 2, A 30 3 NUH	1.375 $^{+0.0013}_{+0.0004}$	1.518	0.312	3.15	0.98

NEMA flange

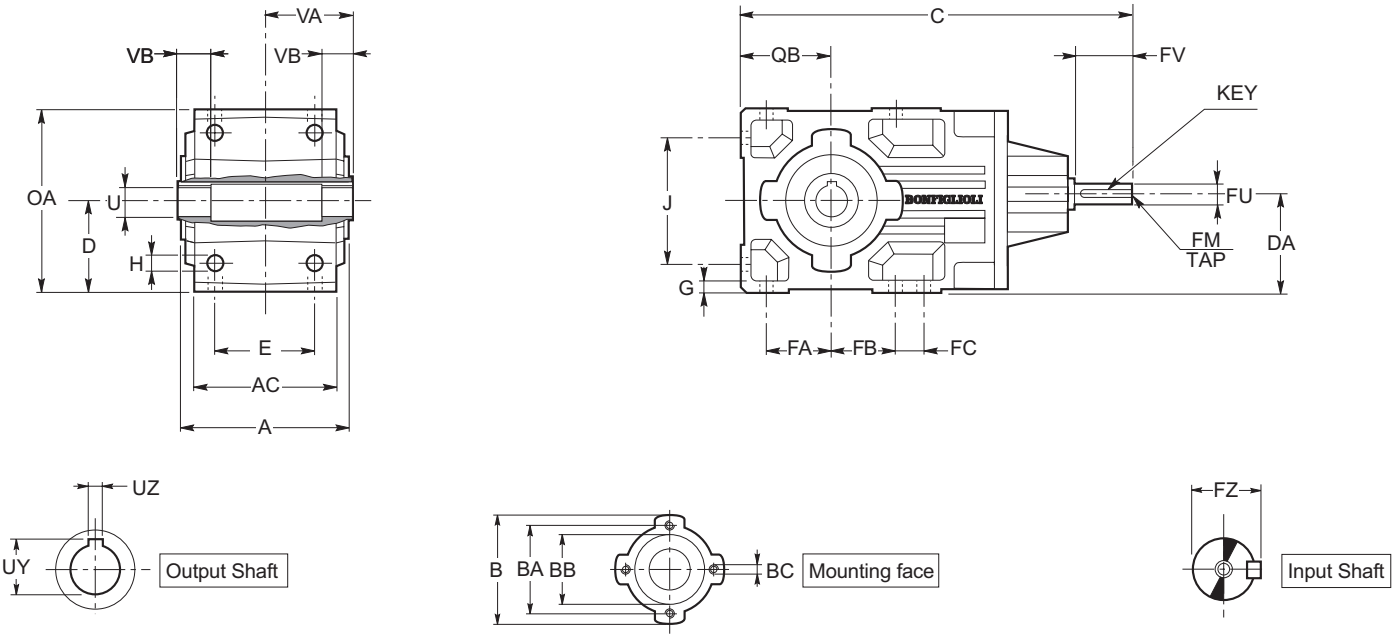
	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.196	35 / *16*
N140TC	6.496	5.875	4.500	0.394	0.196	37 / *17*
N180TC	8.996	7.250	8.500	0.551	0.216	44 / *20*

Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710
N140TC	0.188	0.875	0.964
N180TC	0.250	1.125	1.241

	C		
	N56C	**N140TC**	**N180TC**
A 30 2	13.90	13.90	14.65
	353	*353*	*372*
A 30 3	16.16	16.16	16.91
	410.5	*410.5*	*429.5*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	FC	G	H	J	OA	QB
A 30 2, A 30 3	6.14	5.12	5.51	4.53	3.740 $^{-0.0014}_{-0.0028}$	*M8x15*	3.54	4.27	3.74	2.48	2.48	0.87	0.43	0.47	4.96	7.09	3.54
	156	*130*	*140*	*115*	*95* $^{-0.036}_{-0.071}$	*[mm]*	*90*	*108.5*	*95*	*63*	*63*	*22*	*11*	*12*	*126*	*180*	*90*

Output shaft (Inch series)

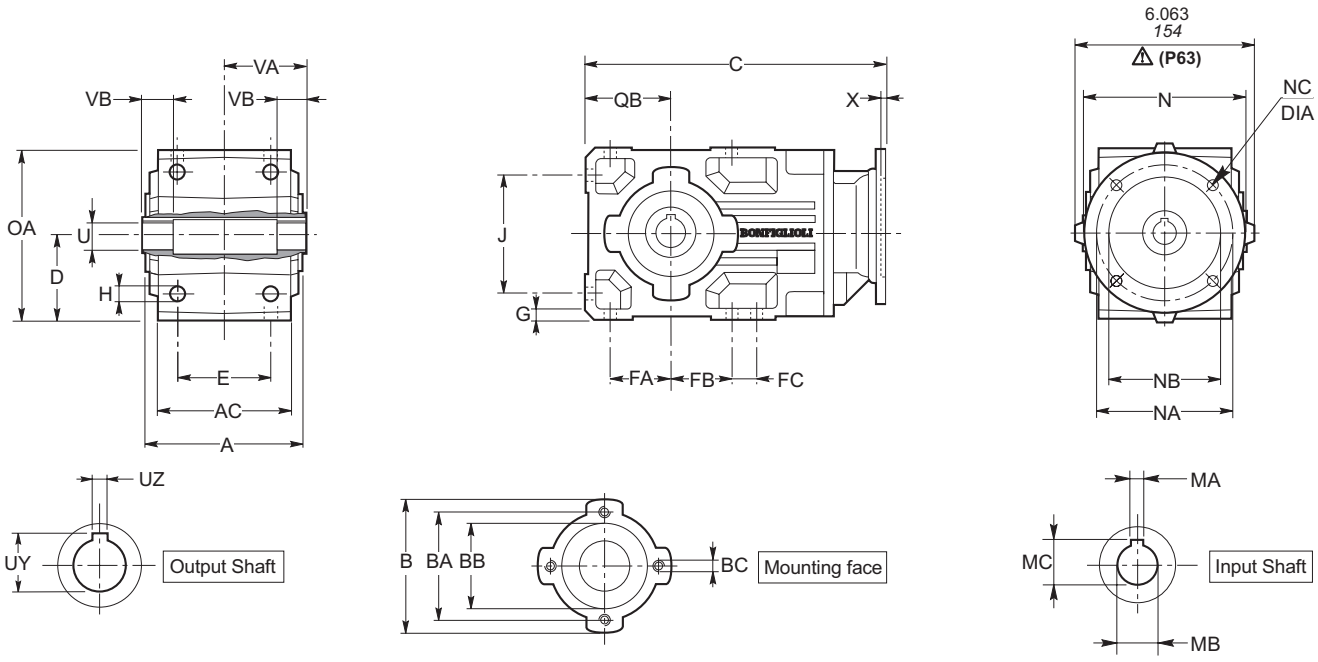
		U	UY	UZ	VA	VB
A 30 2, A 30 3	**NUH**	1.375 $^{+0.0013}_{+0.0004}$	1.518	0.312	3.15	0.98

Input shaft (Inch series)

		FU	FZ	FV	Key	FM
A 30 2	**NHS**	0.750 $^{+0}_{-0.0005}$	0.830	1.570	3/16 x 3/16 x 1 3/8	*M6x16 [mm]*
A 30 3	**NHS**	0.625 $^{+0}_{-0.0004}$	0.710	1.570	3/16 x 3/16 x 1 3/8	*M6x16 [mm]*

	C	Weight [lbs / *kg*]
A 30 2	15.08 *383*	38 / *17*
A 30 3	15.65 *397.5*	38 / *17*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	FC	G	H	J	OA	QB
A 30 2, A 30 3	6.14	5.12	5.51	4.53	3.740 $^{-0.0014}_{-0.0028}$	*M8x15 [mm]*	3.54	3.74	2.48	2.48	0.87	0.43	0.47	4.96	7.09	3.54
	156	*130*	*140*	*115*	*95* $^{-0.036}_{-0.071}$		*90*	*95*	*63*	*63*	*22*	*11*	*12*	*126*	*180*	*90*

Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 30 2, A 30 3 NUH	1.375 $^{+0.0013}_{+0.0004}$	1.518	0.312	3.15	0.98

IEC flange (mm)

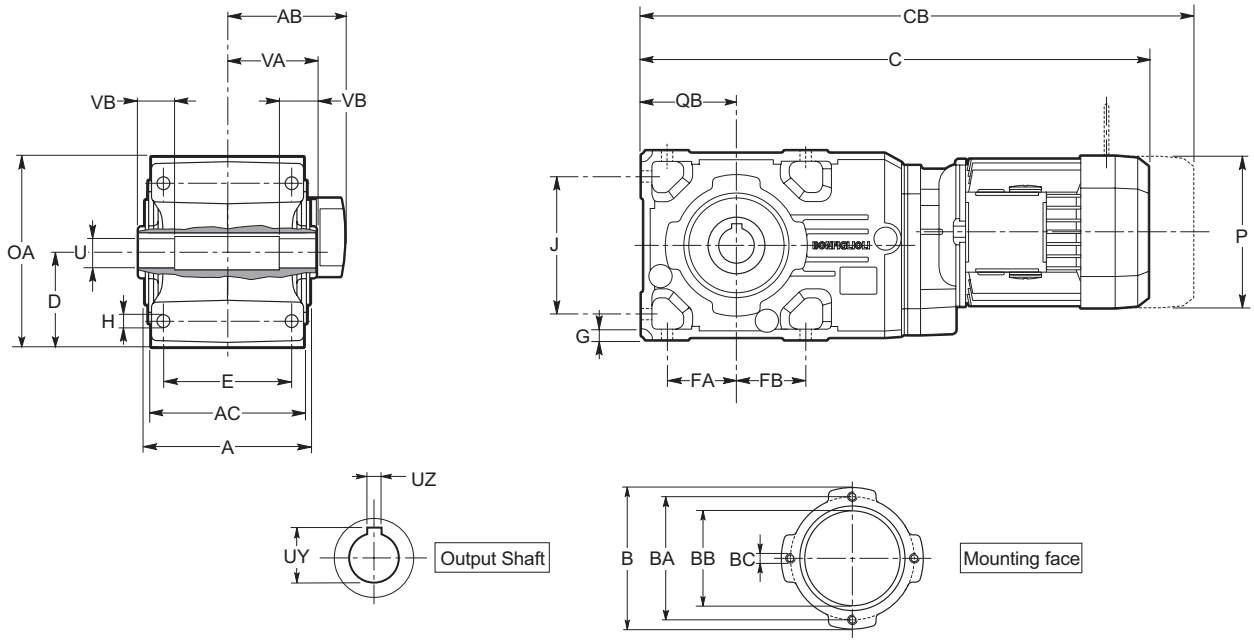
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	38 / *17*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	38 / *17*
P80, P90	*200*	*165*	*130*	*M10x12*	*4*	40 / *18*
P100, P112	*250*	*215*	*180*	*M12x16*	*4*	49 / *22*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*

	C		
	P63 P71	**P80 P90**	**P100 P112**
A 30 2	13.11	13.88	14.27
	333	*352.5*	*362.5*
A 30 3	15.37	16.14	16.54
	390.5	*410*	*420*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 35 2, A 35 3	6.54 *166*	6.30 *160*	5.91 *150*	5.12 *130*	4.331 $^{-0.0014}_{-0.0027}$ *110* $^{-0.036}_{-0.071}$	*M10x17 [mm]*	3.94 *100*	5.31 *135*	2.87 *73*	2.87 *73*	0.43 *11*	0.47 *12*	5.75 *146*	7.87 *200*	3.94 *100*

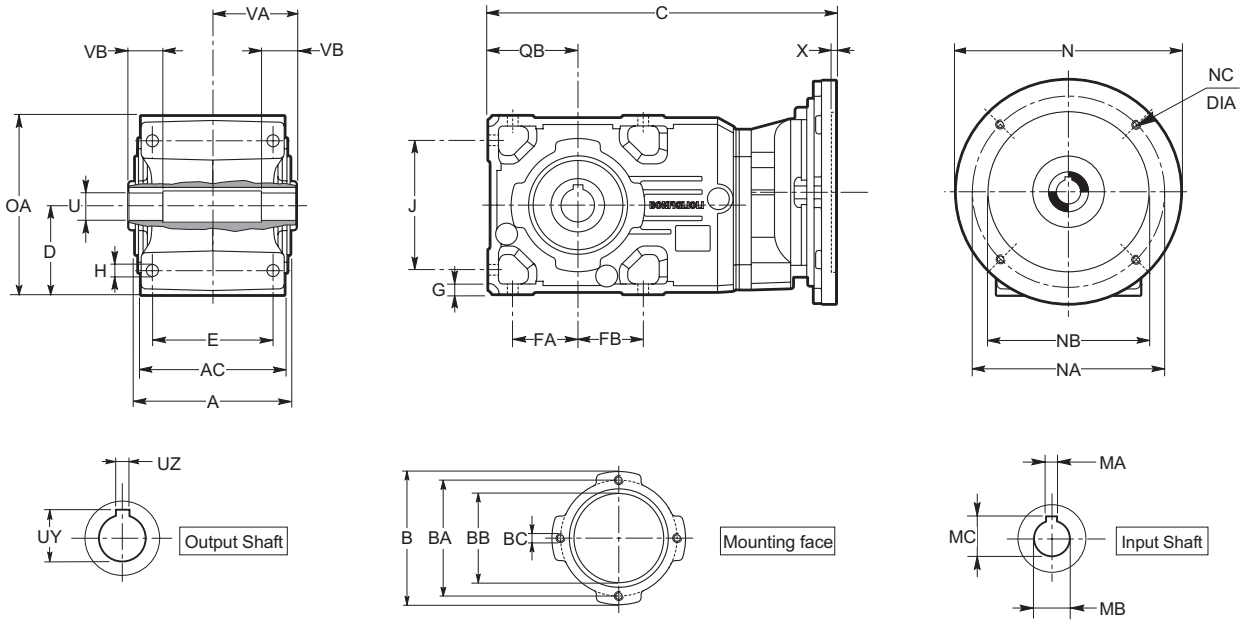
Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 35 2, A 35 3 NUH	1.500 $^{+0.0013}_{+0.0004}$	1.669	0.375	3.48	1.38

Motor

	AB	C	CB	P	Weight [lbs / *kg*]
A 35 2_S1 M1S	4.25 *108*	19.31 *490.5*	21.79 *553.5*	5.43 *138*	77 / *35*
A 35 2_S1 M1L	4.25 *108*	20.26 *514.5*	22.66 *575.5*	5.43 *138*	79 / *36*
A 35 2_S2 M2S	4.69 *119*	21.16 *537.5*	24.15 *613.5*	6.14 *156*	90 / *41*
A 35 2_S3 M3S	5.59 *142*	23.09 *586.5*	26.87 *682.5*	7.68 *195*	110 / *50*
A 35 2_S3 M3L	5.59 *142*	24.35 *618.5*	27.93 *709.5*	7.68 *195*	126 / *57*
A 35 2_S4 M4S	7.60 *193*	28.60 *726.5*	32.89 *835.5*	10.16 *258*	154 / *70*
A 35 2_S4 M4L	7.60 *193*	28.60 *726.5*	32.89 *835.5*	10.16 *258*	168 / *76*
A 35 3_S05 M05S	3.74 *95*	21.38 *543*	23.98 *609*	4.76 *121*	75 / *34*
A 35 3_S1 M1S	4.25 *108*	21.57 *548*	24.06 *611*	5.43 *138*	79 / *36*
A 35 3_S1 M1L	4.25 *108*	22.52 *572*	24.92 *633*	5.43 *138*	84 / *38*
A 35 3_S2 M2S	4.69 *119*	23.43 *595*	26.42 *671*	6.14 *156*	90 / *41*
A 35 3_S3 M3S	11.54 *293*	25.20 *640*	29.13 *740*	7.68 *195*	110 / *50*
A 35 3_S3 M3L	12.80 *325*	26.61 *676*	30.20 *767*	7.68 *195*	126 / *57*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 35 2, A 35 3	6.54	6.30	5.91	5.12	4.331 $^{-0.0014}_{-0.0027}$	*M10x17 [mm]*	3.94	5.31	2.87	2.87	0.43	0.47	5.75	7.87	3.94
	166	*160*	*150*	*130*	*110* $^{-0.036}_{-0.071}$		*100*	*135*	*73*	*73*	*11*	*12*	*146*	*200*	*100*

Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 35 2, A 35 3 NUH	1.500 $^{+0.0013}_{+0.0004}$	1.669	0.375	3.48	1.38

NEMA flange

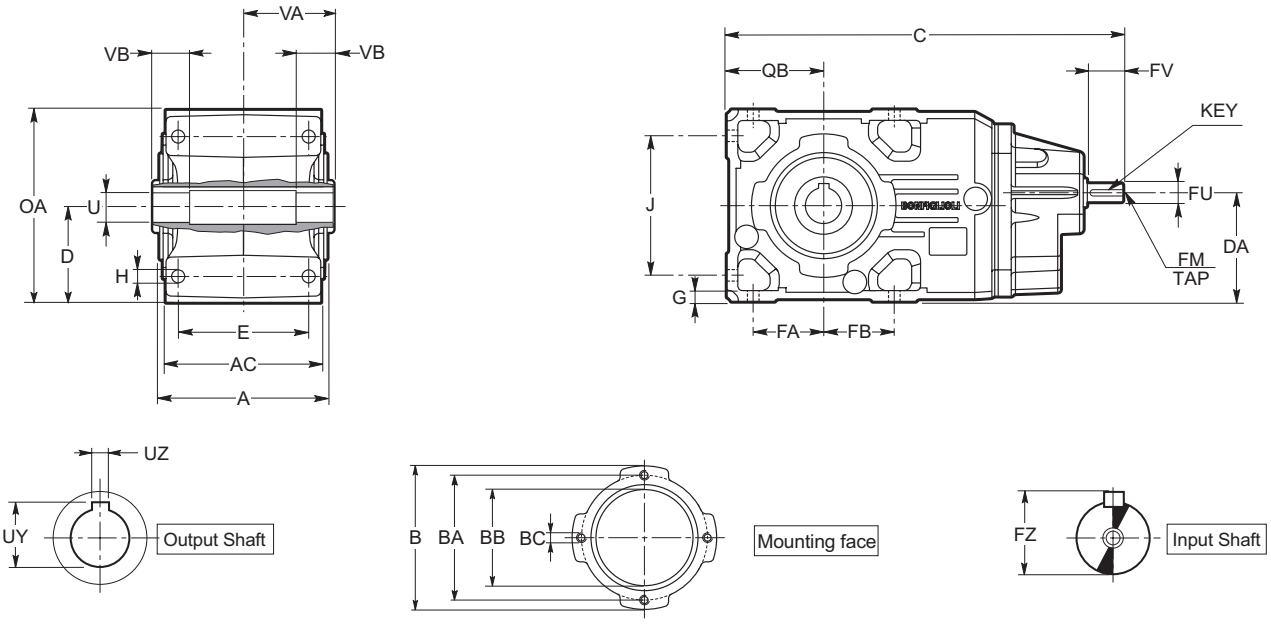
	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.393	0.196	38 / *17*
N140TC	6.496	5.875	4.500	0.393	0.196	40 / *18*
N180TC	8.996	7.250	8.500	0.530	0.216	40 / *18*
N210TC	8.996	7.250	8.500	0.530	0.216	49 / *22*

Hollow input shaft

	MA	MB	MC
N56C	0.187	0.625	0.710
N140TC	0.187	0.875	0.980
N180TC	0.250	1.125	1.240
N210TC	8.996	1.375	1.520

	C			
	N56C	**N140TC**	**N180TC**	**N210TC**
A 35 2	14.94	14.94	15.69	16.91
	379.5	*379.5*	*398.5*	*429.5*
A 35 3	17.20	17.20	17.95	—
	437	*437*	*456*	

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	G	H	J	OA	QB
A 35 2, A 35 3	6.54	6.30	5.91	5.12	4.331 $^{-0.0014}_{-0.0027}$	*M10x17 [mm]*	3.94	4.45	5.31	2.87	2.87	0.43	0.47	5.75	7.87	3.94
	166	*160*	*150*	*130*	*110* $^{-0.036}_{-0.071}$		*100*	*113*	*135*	*73*	*73*	*11*	*12*	*146*	*200*	*100*

Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 35 2, A 35 3 NUH	1.500 $^{+0.0013}_{+0.0004}$	1.669	0.375	3.48	1.38

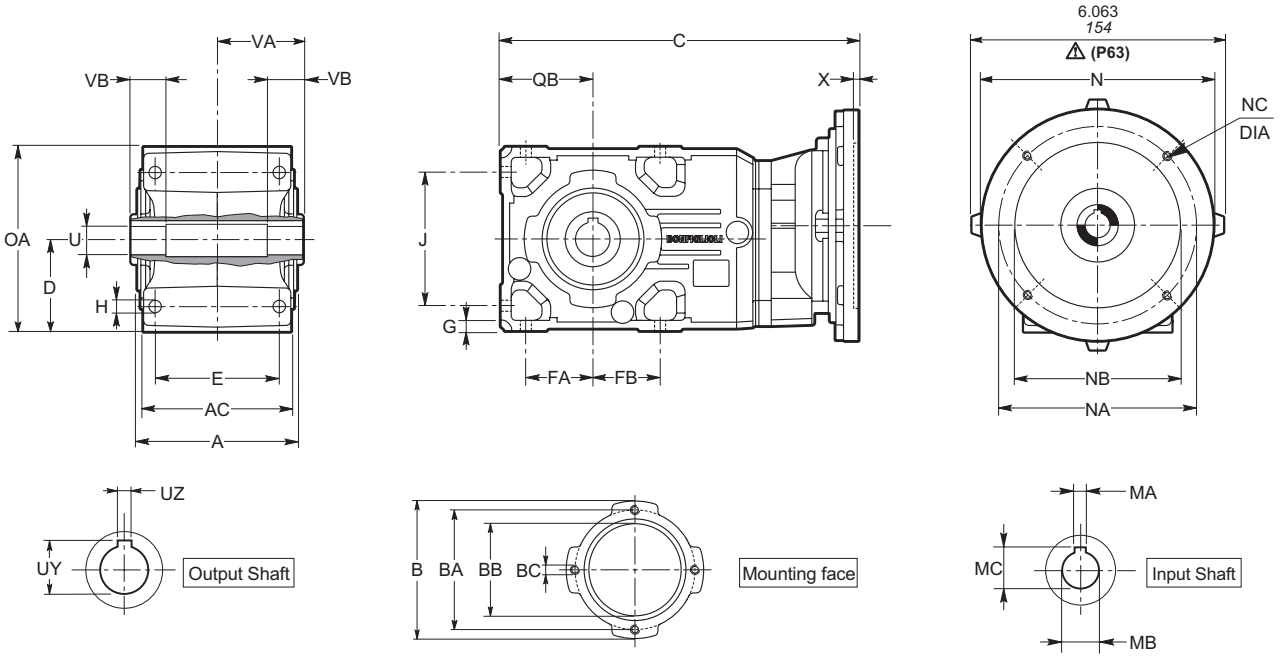
Input shaft (Inch series)

	FU	FZ	FV	Key	FM
A 35 2 NHS	0.750 $^{+0}_{-0.0005}$	0.830	1.570	3/16 x 3/16 x 1 3/8	*M6x16 [mm]*
A 35 3 NHS	0.625 $^{+0}_{-0.0004}$	0.710	1.570	3/16 x 3/16 x 1 3/8	*M6x16 [mm]*

	C	Weight [lbs / *kg*]
A 35 2	16.12 *410*	64 / *29*
A 35 3	16.69 *424*	64 / *29*

Dimensions are $\frac{\text{inch}}{mm}$

Shaft mount - IEC B5 motor adapter



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 35 2, A 35 3	6.54	6.30	5.91	5.12	4.331 $^{-0.0014}_{-0.0027}$	*M10x17 [mm]*	3.94	5.31	2.87	2.87	0.43	0.47	5.75	7.87	3.94
	166	*160*	*150*	*130*	*110* $^{-0.036}_{-0.071}$		*100*	*135*	*73*	*73*	*11*	*12*	*146*	*200*	*100*

Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 35 2, A 35 3 NUH	1.500 $^{+0.0013}_{+0.0004}$	1.669	0.375	3.48	1.38

IEC flange (mm)

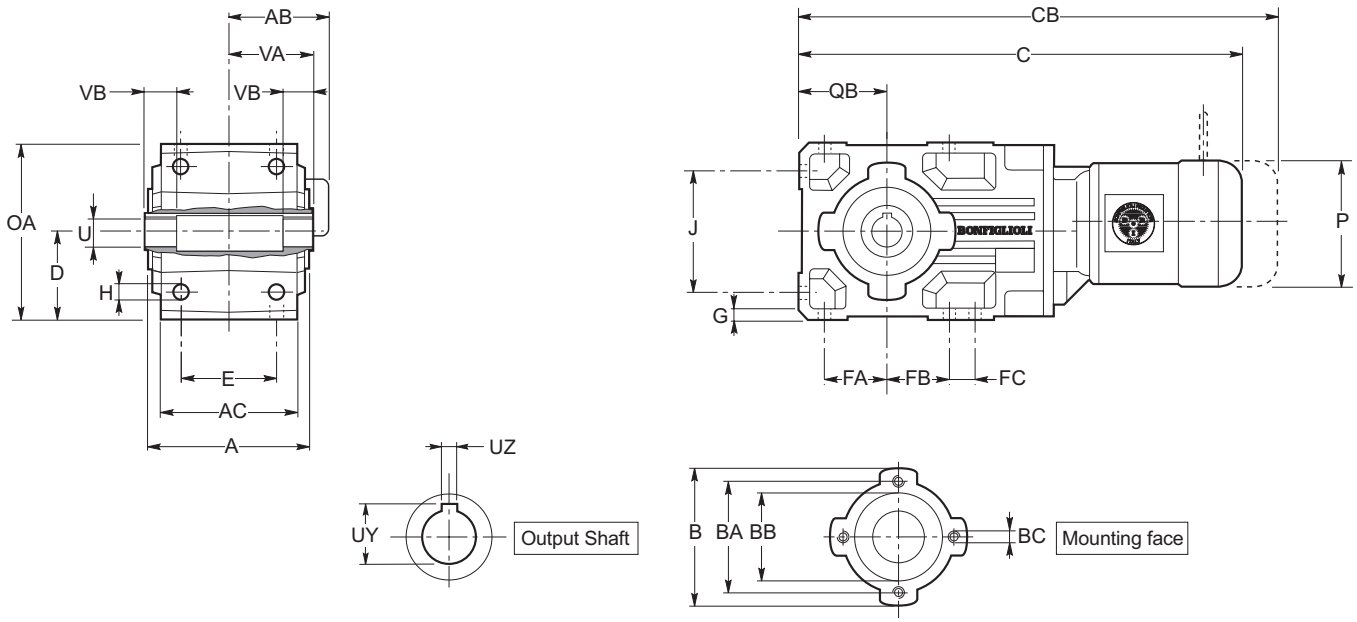
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*5*	*62 / 28*
P71	*160*	*130*	*110*	*M8x16*	*5*	*62 / 28*
P80, P90	*200*	*165*	*130*	*M10x12*	*6*	*64 / 29*
P100, P112	*250*	*215*	*180*	*M12x16*	*7*	*71 / 32*
P132	*300*	*265*	*230*	*14*	*8*	*77 / 35*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*
P132	*10*	*38*	*41.3*

	C			
	P63 P71	**P80 P90**	**P100 P112**	**P132**
A 35 2	14.15	14.92	15.31	16.75
	359.5	*379*	*389*	*425.5*
A 35 3	16.42	17.19	17.58	—
	417	*436.5*	*446.5*	

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	FC	G	H	J	OA	QB
A 41 2, A 41 3	7.17	6.10	7.87	6.50	5.118 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	4.41	4.72	3.15	3.15	0.79	0.51	0.55	6.30	8.82	4.41
	182	*155*	*200*	*165*	*130* $^{-0.043}_{-0.083}$		*112*	*120*	*80*	*80*	*20*	*13*	*14*	*160*	*224*	*112*

Output shaft (Inch series)

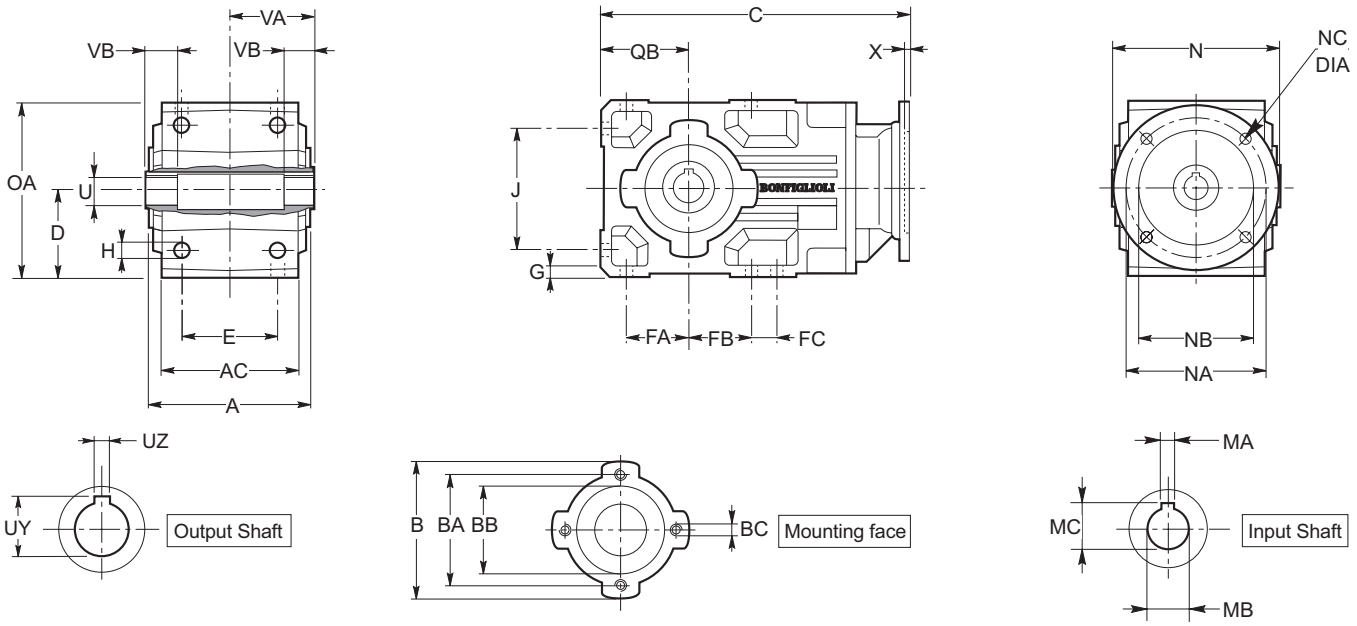
	U	UY	UZ	VA	VB
A 41 2, A 41 3 NUH	1.625 $^{+0.0013}_{+0.0004}$	1.796	0.375	3.66	1.18

Motor

	AB	C	CB	P	Weight [lbs / *kg*]
A 41 2_S1 M1S	4.25 108	19.92 506	22.40 569	5.43 138	95 / *43*
A 41 2_S1 M1L	4.25 108	20.87 530	23.27 591	5.43 138	97 / *44*
A 41 2_S2 M2S	4.69 119	22.01 559	24.76 629	6.14 156	108 / *49*
A 41 2_S3 M3S	5.59 142	23.70 602	27.48 698	7.68 195	128 / *58*
A 41 2_S3 M3L	5.59 142	24.96 634	28.54 725	7.68 195	143 / *65*
A 41 2_S4 M4S	7.60 193	29.21 742	33.50 851	10.16 258	201 / *91*
A 41 2_S4 M4L	7.60 193	29.21 742	33.50 851	10.16 258	243 / *110*
A 41 3_S05 M05	3.74 95	22.15 562.5	24.74 628.5	4.76 121	101 / *46*
A 41 3_S1 M1S	4.25 108	22.34 567.5	24.82 630.5	5.43 138	106 / *48*
A 41 3_S1 M1L	4.25 108	23.29 591.5	25.69 652.5	5.43 138	108 / *49*
A 41 3_S2 M2S	4.69 119	24.43 620.5	27.19 690.5	6.14 156	128 / *58*
A 41 3_S3 M3S	5.59 142	26.12 663.5	29.90 759.5	7.68 195	137 / *62*
A 41 3_S3 M3L	5.59 142	27.38 695.5	30.96 786.5	7.68 195	150 / *68*

Dimensions are $\frac{\text{inch}}{mm}$

Shaft mount - NEMA C - face adapter



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	FC	G	H	J	OA	QB
A 41 2, A 41 3	7.17	6.10	7.87	6.50	5.118 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	4.41	4.72	3.15	3.15	0.79	0.51	0.55	6.30	8.82	4.41
	182	*155*	*200*	*165*	*130* $^{-0.043}_{-0.083}$		*112*	*120*	*80*	*80*	*20*	*13*	*14*	*160*	*224*	*112*

Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 41 2, A 41 3 NUH	1.625 $^{+0.0013}_{+0.0004}$	1.796	0.375	3.66	1.18

NEMA flange

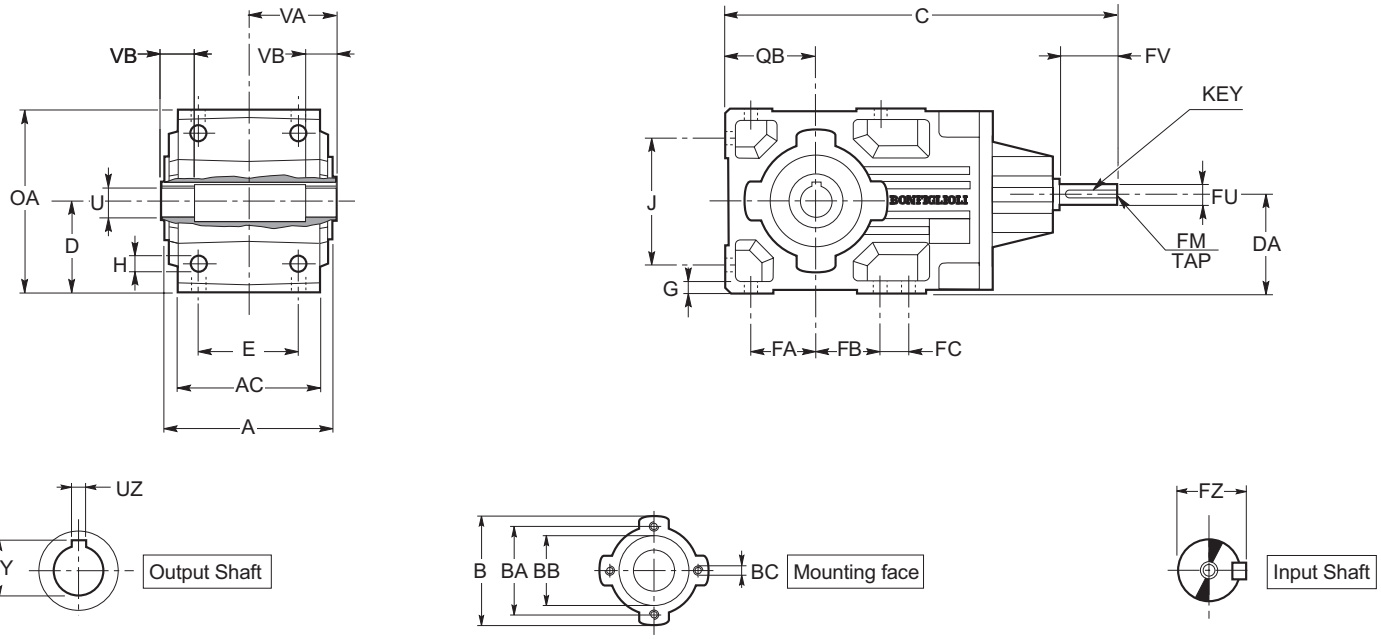
	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.196	84 / *38*
N140TC	6.496	5.875	4.500	0.394	0.196	86 / *39*
N180TC	8.996	7.250	8.500	0.551	0.216	95 / *43*
N210TC	8.996	7.250	8.500	0.551	0.216	101 / *46*

Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710
N140TC	0.188	0.875	0.964
N180TC	0.250	1.125	1.241
N210TC	0.312	1.375	1.518

	C			
	N56C	**N140TC**	**N180TC**	**N210TC**
A 41 2	15.55	15.55	16.30	17.54
	395	*395*	*414*	*445.5*
A 41 3	17.97	17.97	18.72	—
	456.5	*456.5*	*475.5*	

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	FC	G	H	J	OA	QB
A 41 2, A 41 3	7.17	6.10	7.87	6.50	5.118 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	4.41	5.10	4.72	3.15	3.15	0.79	0.51	0.55	6.30	8.82	4.41
	182	*155*	*200*	*165*	*130* $^{-0.043}_{-0.083}$		*112*	*129.5*	*120*	*80*	*80*	*20*	*13*	*14*	*160*	*224*	*112*

Output shaft (Inch series)

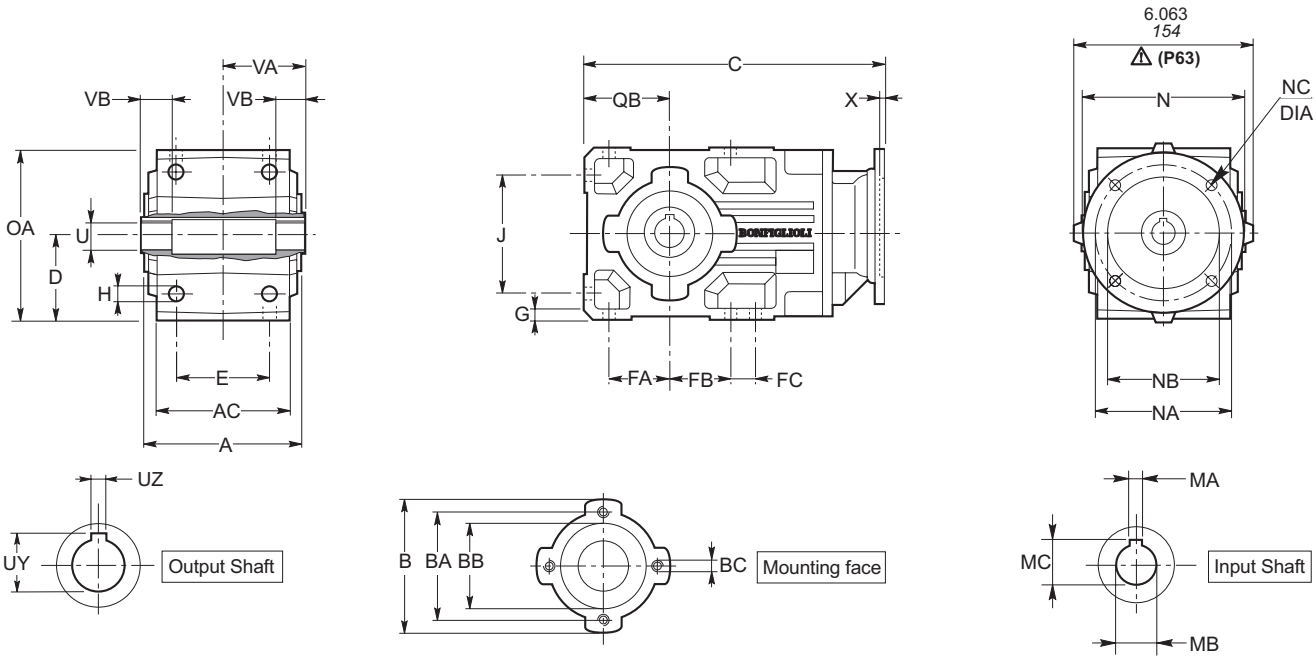
	U	UY	UZ	VA	VB
A 41 2, A 41 3 NUH	1.625 $^{+0.0013}_{+0.0004}$	1.796	0.375	3.66	1.18

Input shaft (Inch series)

	FU	FZ	FV	Key	FM
A 41 2 NHS	1.000 $^{+0}_{-0.0005}$	1.110	1.970	1/4 x 1/4 x 1 3/4	*M8x19 [mm]*
A 41 3 NHS	0.750 $^{+0}_{-0.0004}$	0.830	1.570	3/16 x 3/16 x 1 3/8	*M6x16 [mm]*

	C	Weight [lbs / *kg*]
A 41 2	18.27 *464*	91 / *41*
A 41 3	19.15 *486.5*	88 / *40*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	FC	G	H	J	OA	QB
A 41 2, A 41 3	7.17	6.10	7.87	6.50	5.118 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	4.41	4.72	3.15	3.15	0.79	0.51	0.55	6.30	8.82	4.41
	182	*155*	*200*	*165*	*130* $^{-0.043}_{-0.083}$		*112*	*120*	*80*	*80*	*20*	*13*	*14*	*160*	*224*	*112*

Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 41 2, A 41 3 NUH	1.625 $^{+0.0013}_{+0.0004}$	1.796	0.375	3.66	1.18

IEC flange (mm)

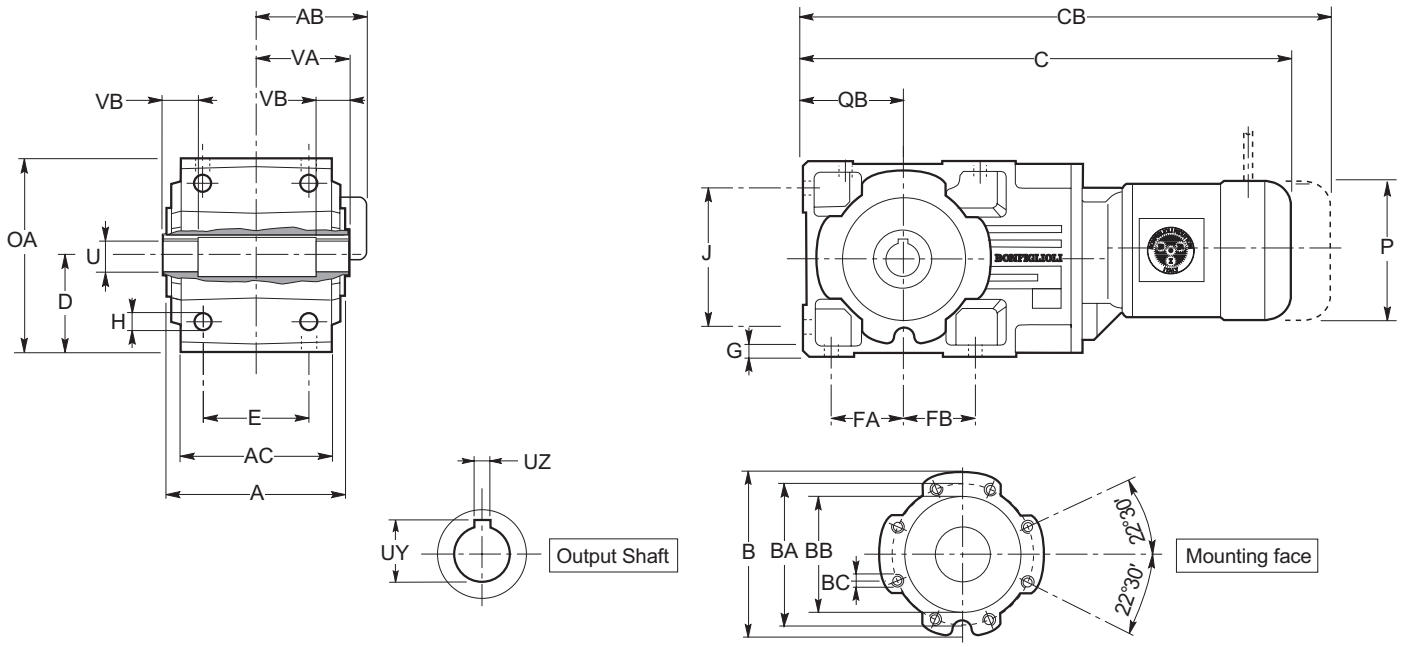
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	86 / *39*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	86 / *39*
P80, P90	*200*	*165*	*130*	*M10x12*	*4*	88 / *44*
P100, P112	*250*	*215*	*180*	*M12x16*	*4.5*	97 / *44*
P132	*300*	*265*	*230*	*14*	*5*	101 / *46*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*

	C			
	P63 P71	**P80 P90**	**P100 P112**	**P132**
A 41 2	14.76	15.53	15.93	17.36
	375	*394.5*	*404.5*	*441*
A 41 3	17.19	17.95	18.35	—
	436.5	*456*	*466*	

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 50 2, A 50 3, A 50 4	8.62	7.28	9.84	8.46	7.087 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	5.51	5.91	4.04	4.04	0.55	0.63	8.07	11.02	5.51
	219	*185*	*250*	*215*	*180* $^{-0.043}_{-0.083}$		*140*	*150*	*103*	*103*	*14*	*16*	*205*	*280*	*140*

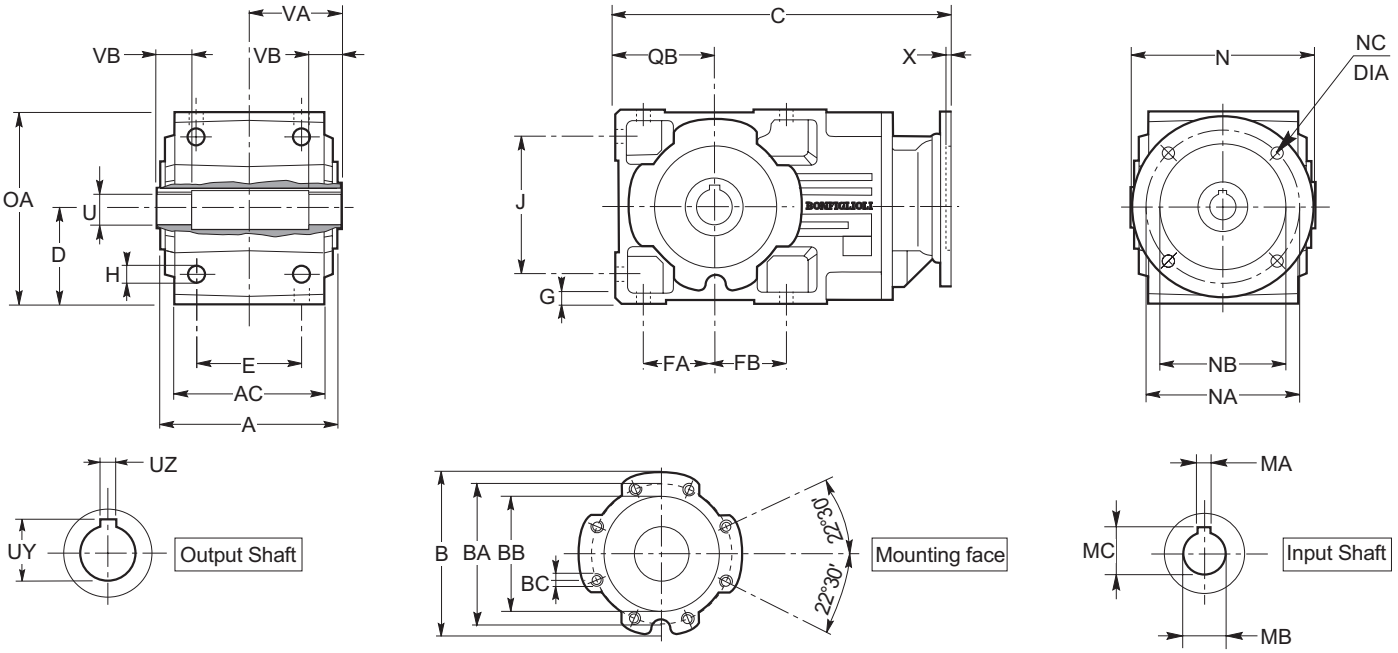
Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 50 2, A 50 3, A 50 4 NUH	2.000 $^{+0.0016}_{+0.0004}$	2.223	0.500	4.50	1.58

Motor

	AB	C	CB	P	Weight [lbs / *kg*]
A 50 2_S1 M1S	4.25	23.05	25.53	5.43	148 / *67*
A 50 3_S1 M1S	*108*	*585.5*	*648.5*	*138*	
A 50 2_S1 M1L	4.25	24.00	26.40	5.43	152 / *69*
A 50 3_S1 M1L	*108*	*609.5*	*670.5*	*138*	
A 50 2_S2 M2S	4.69	25.14	27.89	6.14	172 / *78*
A 50 3_S2 M2S	*119*	*638.5*	*708.5*	*156*	
A 50 2_S3 M3S	5.59	26.83	30.61	7.68	179 / *81*
A 50 3_S3 M3S	*142*	*681.5*	*777.5*	*195*	
A 50 2_S3 M3L	5.59	28.09	31.67	7.68	194 / *88*
A 50 3_S3 M3L	*142*	*713.5*	*804.5*	*195*	
A 50 2_S4 M4S	7.60	32.34	36.63	10.16	251 / *114*
A 50 3_S4 M4S	*193*	*821.5*	*930.5*	*258*	
A 50 2_S4 M4L	7.60	32.34	36.63	10.16	293 / *133*
A 50 3_S4 M4L	*193*	*821.5*	*930.5*	*258*	
A 50 2_S4 M4LC	7.60	33.72	37.62	10.16	311 / *141*
A 50 3_S4 M4LC	*193*	*856.5*	*955.5*	*258*	
A 50 4_S1 M1S	4.25	25.87	28.35	5.43	150 / *68*
	108	*657*	*720*	*138*	
A 50 4_S1 M1L	4.25	26.81	29.21	5.43	154 / *70*
	108	*681*	*742*	*138*	
A 50 4_S2 M2S	4.69	27.95	30.71	6.14	165 / *75*
	119	*710*	*780*	*156*	
A 50 4_S3 M3S	5.59	29.65	33.43	7.68	168 / *76*
	142	*753*	*849*	*195*	
A 50 4_S3 M3L	5.59	30.91	34.49	7.68	172 / *78*
	142	*785*	*876*	*195*	

Dimensions are inch / *mm*



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 50 2, A 50 3, A 50 4	8.62 *219*	7.28 *185*	9.84 *250*	8.46 *215*	7.087 $^{-0.0017}_{-0.0033}$ *180* $^{-0.043}_{-0.083}$	*M12x19 [mm]*	5.51 *140*	5.91 *150*	4.04 *102.5*	4.04 *103*	0.55 *14*	0.63 *16*	8.07 *205*	11.02 *280*	5.51 *140*

Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 50 2, A 50 3, A 50 4	**NUH**	2.000 $^{+0.0016}_{+0.0004}$	2.223	0.500	4.50	1.58

NEMA flange

	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.196	137 / *62*
N140TC	6.496	5.875	4.500	0.394	0.196	139 / *63*
N180TC	8.996	7.250	8.500	0.551	0.216	148 / *67*
N210TC	8.996	7.250	8.500	0.551	0.216	150 / *68*
N250TC	13.780	7.250	8.500	0.551	0.216	159 / *72*
N280TC	13.780	9.000	10.500	0.551	0.216	159 / *72*

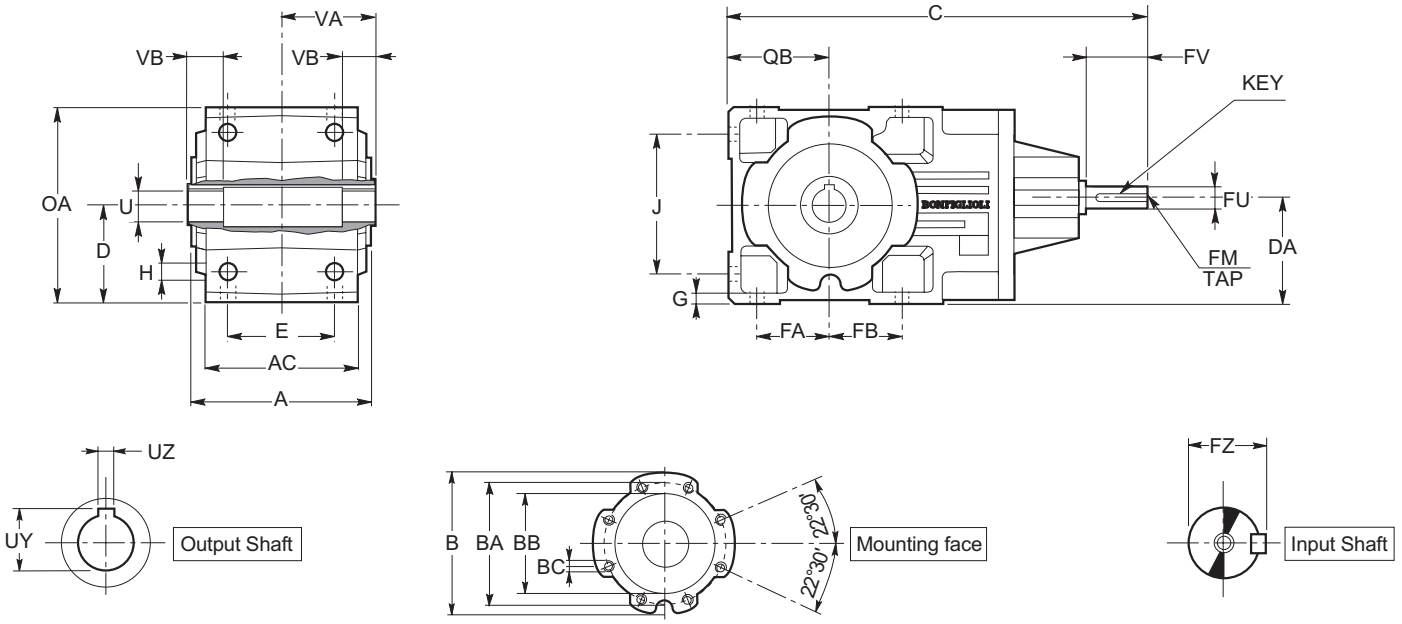
Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710
N140TC	0.188	0.875	0.964
N180TC	0.250	1.125	1.241
N210TC	0.312	1.375	1.518
N250TC	0.375	1.625	1.796
N280TC	0.500	1.875	2.102

	C					
	N56C	**N140TC**	**N180TC**	**N210TC**	**N250TC**	**N280TC**
A 50 2, A 50 3	18.68 *474.5*	18.68 *474.5*	19.43 *493.5*	20.67 *525*	23.46 *596*	23.66 *601*
A 50 4	21.50 *546*	21.50 *546*	22.24 *565*	—	—	—

Dimensions are $\frac{\text{inch}}{mm}$

Solid input / hollow output shaft A 50 2 A 50 3 A 50 4



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	G	H	J	OA	QB
A 50 2, A 50 3, A 50 4	8.62	7.28	9.84	8.46	7.087 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	5.51	6.06	5.91	4.04	4.04	0.55	0.63	8.07	11.02	5.51
	219	*185*	*250*	*215*	*180* $^{-0.043}_{-0.083}$		*140*	*154*	*150*	*103*	*103*	*14*	*16*	*205*	*280*	*140*

Output shaft (Inch series)

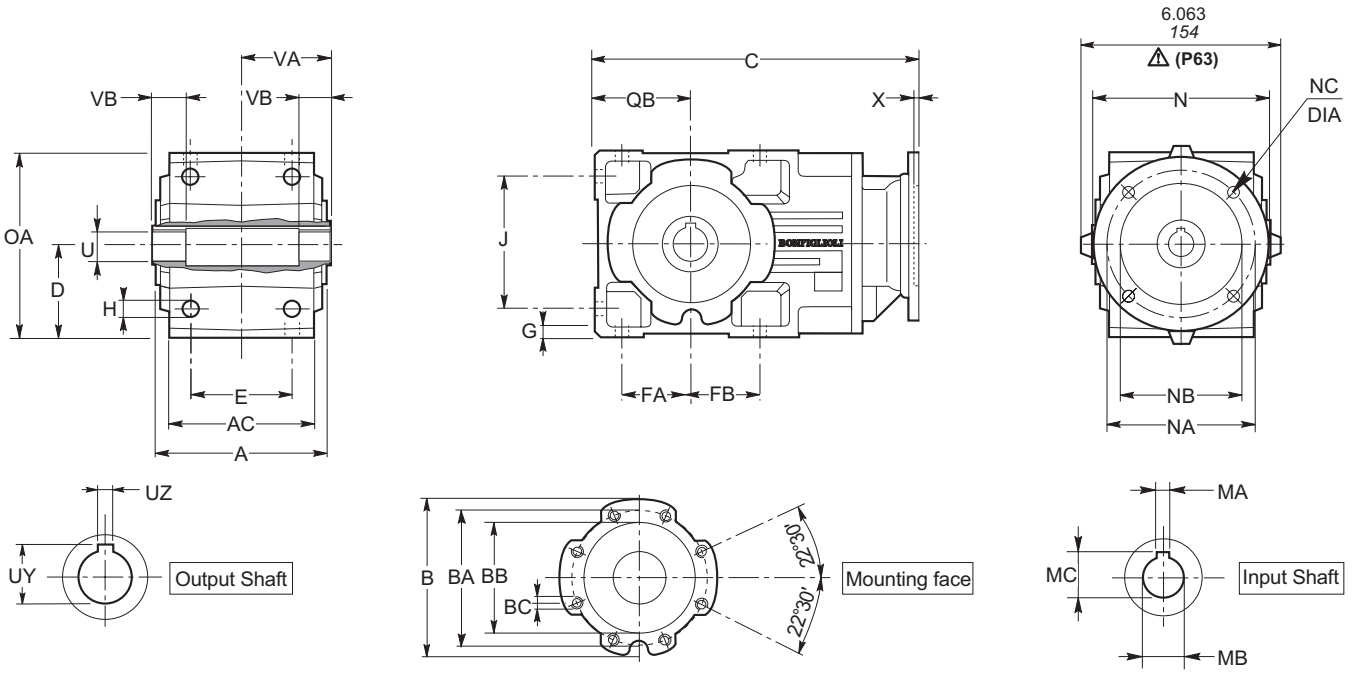
		U	UY	UZ	VA	VB
A 50 2, A 50 3, A 50 4	**NUH**	2.000 $^{+0.0016}_{+0.0004}$	2.223	0.500	4.50	1.58

Input shaft (Inch series)

		FU	FZ	FV	Key	FM
A 50 2, A 50 3	**NHS**	1.000 $^{+0}_{-0.0005}$	1.110	1.970	1/4 x 1/4 x 1 3/4	*M8x19 [mm]*
A 50 4	**NHS**	0.750 $^{+0}_{-0.0005}$	0.830	1.570	3/16 x 3/16 x 1 3/8	*M6x16 [mm]*

	C	Weight [lbs / *kg*]
A 50 2, A 50 3	21.40 *543.5*	168 / *76*
A 50 4	22.68 *576*	170 / *77*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 50 2, A 50 3, A 50 4	8.62	7.28	9.84	8.46	7.087 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	5.51	5.91	4.04	4.04	0.55	0.63	8.07	11.02	5.51
	219	*185*	*250*	*215*	*180* $^{-0.043}_{-0.083}$		*140*	*150*	*102.5*	*103*	*14*	*16*	*205*	*280*	*140*

Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 50 2, A 50 3, A 50 4	**NUH**	2.000 $^{+0.0016}_{+0.0004}$	2.223	0.500	4.50	1.58

IEC flange (mm)

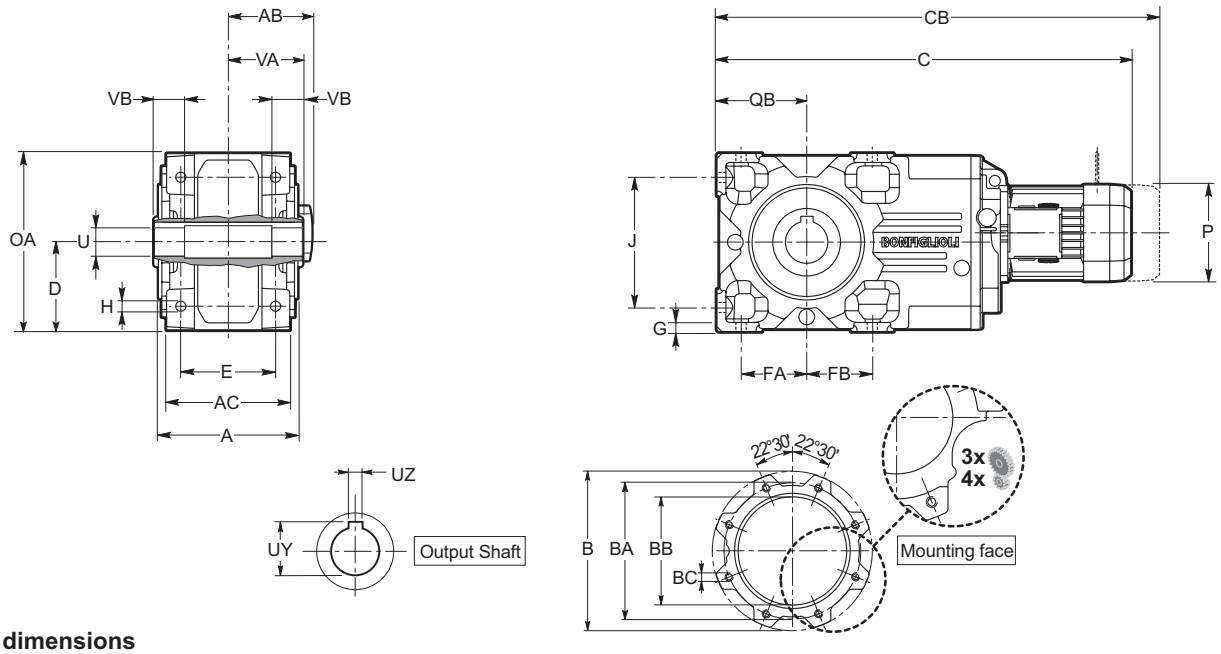
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	137 / *62*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	137 / *62*
P80, P90	*200*	*165*	*130*	*M10x12*	*4*	139 / *63*
P100, P112	*250*	*215*	*180*	*M12x16*	*4.5*	148 / *67*
P132	*300*	*265*	*230*	*14*	*5*	150 / *68*
P160, P180	*350*	*300*	*250*	*18*	*6*	159 / *72*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*
P132	*10*	*38*	*41.3*
P160	*12*	*42*	*45.3*
P180	*14*	*48*	*51.8*

	C				
	P63 P71	**P80 P90**	**P100 P112**	**P132**	**P160 P180**
A 50 2, A 50 3	17.89	18.66	19.06	20.49	22.48
	454.5	*474*	*484*	*520.5*	*571*
A 50 4	20.71	21.48	21.87	—	—
	526	*545.5*	*555.5*		

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 55 2, A 55 3, A55 4	8.27 *210*	7.68 *195*	9.84 *250*	8.46 *215*	7.087 $^{-0.0017}_{-0.0033}$ *180* $^{-0.043}_{-0.083}$	*M12x19 [mm]*	5.51 *140*	5.91 *150*	4.04 *102.5*	4.04 *102.5*	0.55 *14*	0.63 *16*	8.07 *205*	11.02 *280*	5.51 *140*

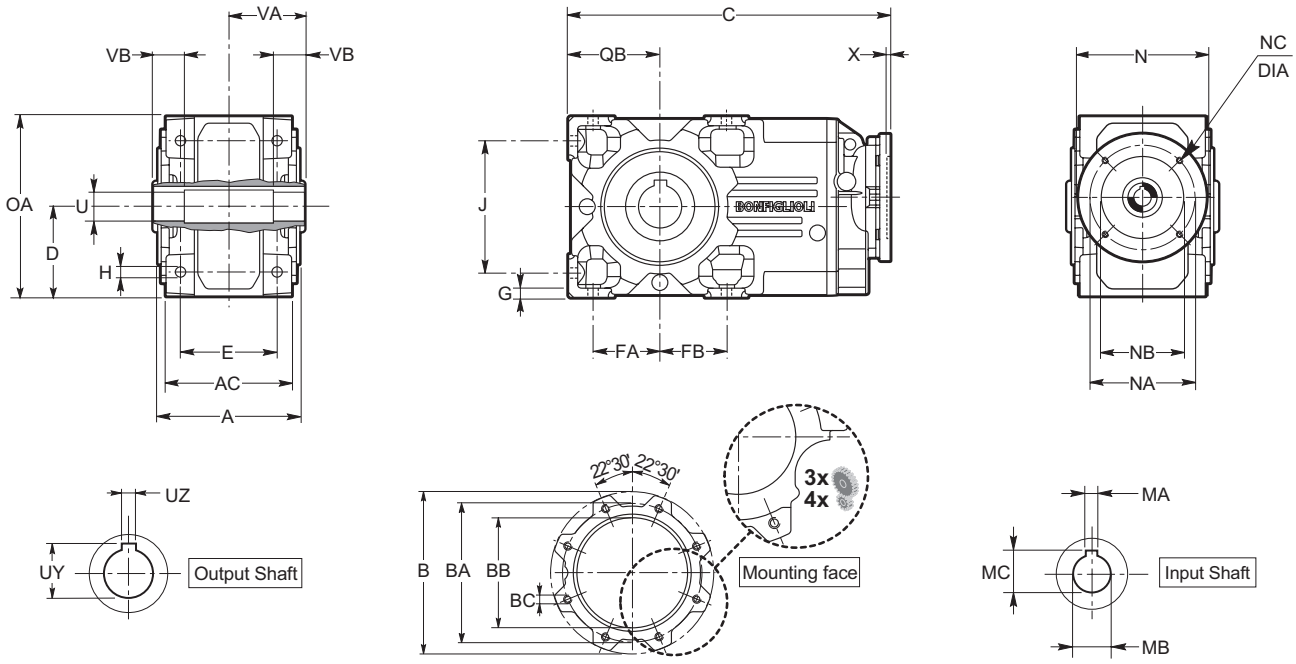
Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 55 2, A 55 3, A55 4 NUH	2.187 $^{+0.0016}_{+0.0004}$	2.414	0.500	4.50	1.58

Motor

	AB	C	CB	P	Weight [lbs / *kg*]
A 55 3_S1 M1S	4.25 *108*	23.76 *603.5*	26.24 *666.5*	5.43 *138*	181 / *82*
A 55 3_S1 M1L	4.25 *108*	24.70 *627.5*	27.11 *688.5*	5.43 *138*	185 / *84*
A 55 2_S2 M2S **A 55 3_S2 M2S**	4.69 *119*	25.85 *656.5*	28.60 *726.5*	6.14 *156*	203 / *92*
A 55 2_S3 M3S **A 55 3_S3 M3S**	5.59 *142*	27.54 *699.5*	31.32 *795.5*	7.68 *195*	218 / *99*
A 55 2_S3 M3L **A 55 3_S3 M3L**	5.59 *142*	28.80 *731.5*	32.38 *822.5*	7.68 *195*	238 / *108*
A 55 2_S4 M4 **A 55 3_S4 M4**	7.60 *193*	33.05 *839.5*	37.34 *948.5*	10.16 *258*	337 / *153*
A 55 2_S4 M4LC **A 55 3_S4 M4LC**	7.60 *193*	34.43 *874.5*	38.33 *973.5*	10.16 *258*	355 / *161*
A 55 2_S5 M5S **A 55 3_S5 M5S**	9.65 *245*	35.30 *896.5*	40.81 *1036.5*	12.20 *310*	425 / *193*
A 55 2_S5 M5L **A 55 3_S5 M5L**	9.65 *245*	37.03 *940.5*	42.54 *1080.5*	12.20 *310*	461 / *209*
A 55 4_S1 M1S	4.25 *108*	26.57 *675*	29.06 *738*	5.43 *138*	183 / *83*
A 55 4_S1 M1L	4.25 *108*	27.52 *699*	29.92 *760*	5.43 *138*	187 / *85*
A 55 4_S2 M2S	4.69 *119*	28.66 *728.0*	31.42 *798*	6.14 *156*	198 / *90*
A 55 4_S3 M3S	5.59 *142*	30.35 *771*	34.13 *867*	7.68 *195*	216 / *98*
A 55 4_S3 M3L	5.59 *142*	31.61 *803*	35.20 *894*	7.68 *195*	231 / *105*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 55 2, A 55 3, A55 4	8.27 *210*	7.68 *195*	9.84 *250*	8.46 *215*	7.087 $^{-0.0017}_{-0.0033}$ *180* $^{-0.043}_{-0.083}$	*M12x19 [mm]*	5.51 *140*	5.91 *150*	4.04 *102.5*	4.04 *102.5*	0.55 *14*	0.63 *16*	8.07 *205*	11.02 *280*	5.51 *140*

Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 55 2, A 55 3, A55 4	**NUH**	2.187 $^{+0.0016}_{+0.0004}$	2.414	0.500	4.50	1.58

NEMA flange

	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.197	165 / *75*
N140TC	6.496	5.875	4.500	0.394	0.197	168 / *76*
N180TC	8.996	7.250	8.500	0.551	0.216	176 / *80*
N210TC	8.996	7.250	8.500	0.531	0.216	194 / *88*
N250TC	13.780	7.250	8.500	0.551	0.216	260 / *118*
N280TC	13.740	9.000	10.500	0.551	0.216	265 / *120*

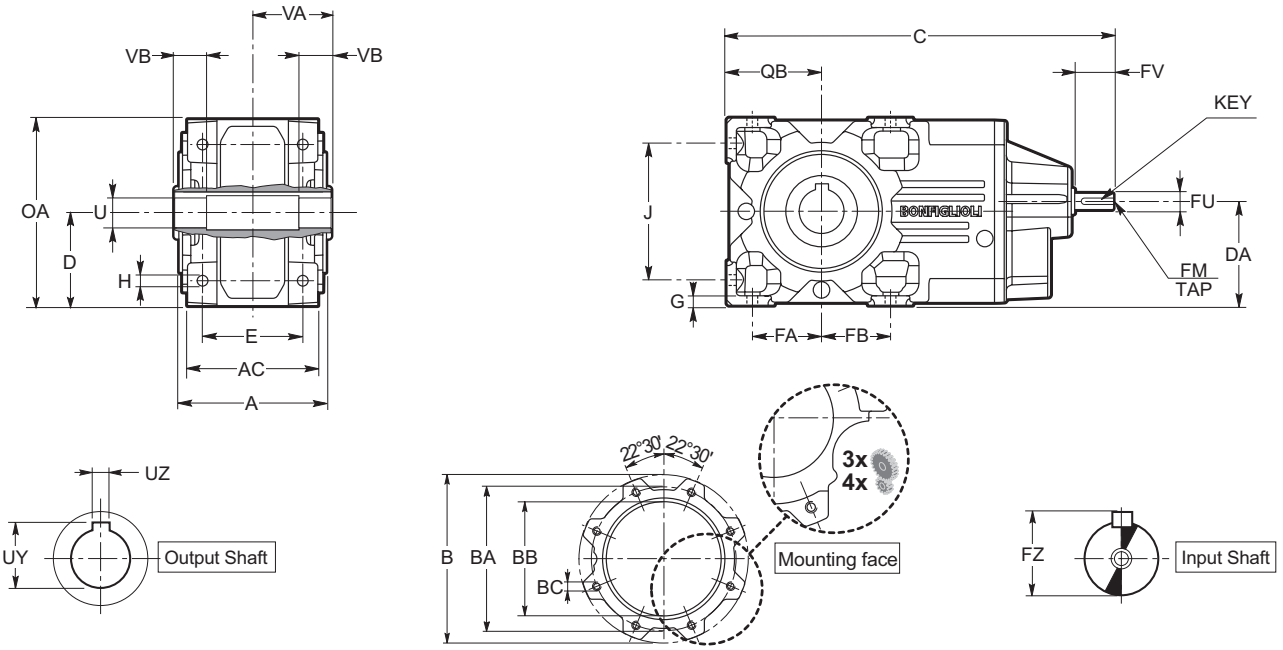
Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710
N140TC	0.188	0.875	0.964
N180TC	0.250	1.125	1.241
N210TC	0.312	1.375	1.518
N250TC	0.375	1.625	1.796
N280TC	0.500	1.875	2.102

	C					
	N56C	**N140TC**	**N180TC**	**N210TC**	**N250TC**	**N280TC**
A 55 2	—	19.39 *493*	20.14 *512*	21.38 *543*	24.17 *614*	24.37 *619*
A 55 3	19.39 *493*	19.39 *493*	20.14 *512*	21.38 *543*	24.17 *614*	24.37 *619*
A 55 4	22.21 *564*	22.21 *564*	22.95 *583*	—	—	—

Dimensions are $\frac{\text{inch}}{mm}$

Solid input / hollow output shaft A 55 2 A 55 3 A 55 4



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	G	H	J	OA	QB
A 55 2, A 55 3, A55 4	8.27	7.68	9.84	8.46	7.087 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	5.51	6.08	5.91	4.04	4.04	0.55	0.63	8.07	11.02	5.51
	210	*195*	*250*	*215*	*180* $^{-0.043}_{-0.083}$		*140*	*154.5*	*150*	*102.5*	*102.5*	*14*	*16*	*205*	*280*	*140*

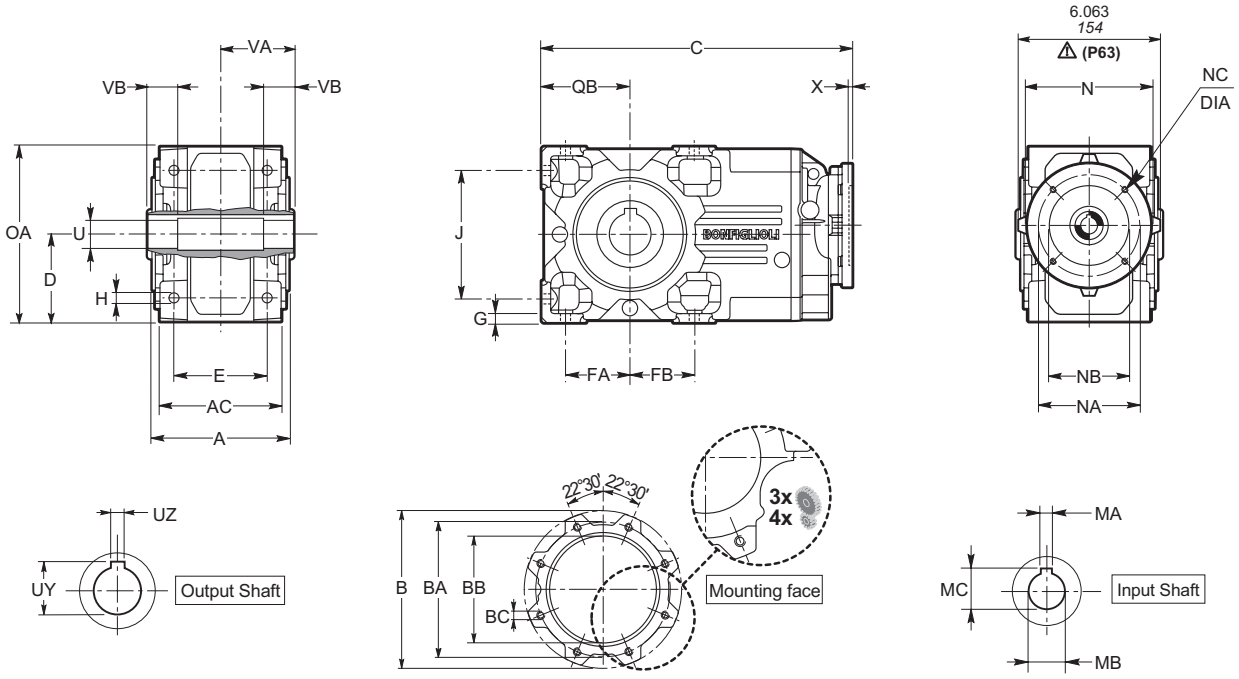
Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 55 2, A 55 3, A55 4	**NUH**	2.187 $^{+0.0016}_{+0.0004}$	2.414	0.500	4.50	1.58

Input shaft (Inch series)

		FU	FZ	FV	Key	FM
A 55 2, A 55 3	**NHS**	1.000 $^{+0}_{-0.0005}$	1.110	1.970	1/4 x 1/4 x 1 3/4	*M8x19 [mm]*
A 55 4	**NHS**	0.750 $^{+0}_{-0.0005}$	0.831	1.570	3/16 x 3/16 x 1 3/8	*M6x16 [mm]*

	C	Weight [lbs / *kg*]
A 55 2, A 55 3	22.11 *561.5*	212 / *96*
A 55 4	23.39 *594*	203 / *92*



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 55 2, A 55 3, A55 4	8.27 *210*	7.68 *195*	9.84 *250*	8.46 *215*	7.087 $^{-0.0017}_{-0.0033}$ *180* $^{-0.043}_{-0.083}$	*M12x19 [mm]*	5.51 *140*	5.91 *150*	4.04 *102.5*	4.04 *102.5*	0.55 *14*	0.63 *16*	8.07 *205*	11.02 *280*	5.51 *140*

Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 55 2, A 55 3, A55 4	**NUH**	2.187 $^{+0.0016}_{+0.0004}$	2.414	0.500	4.50	1.58

IEC flange (mm)

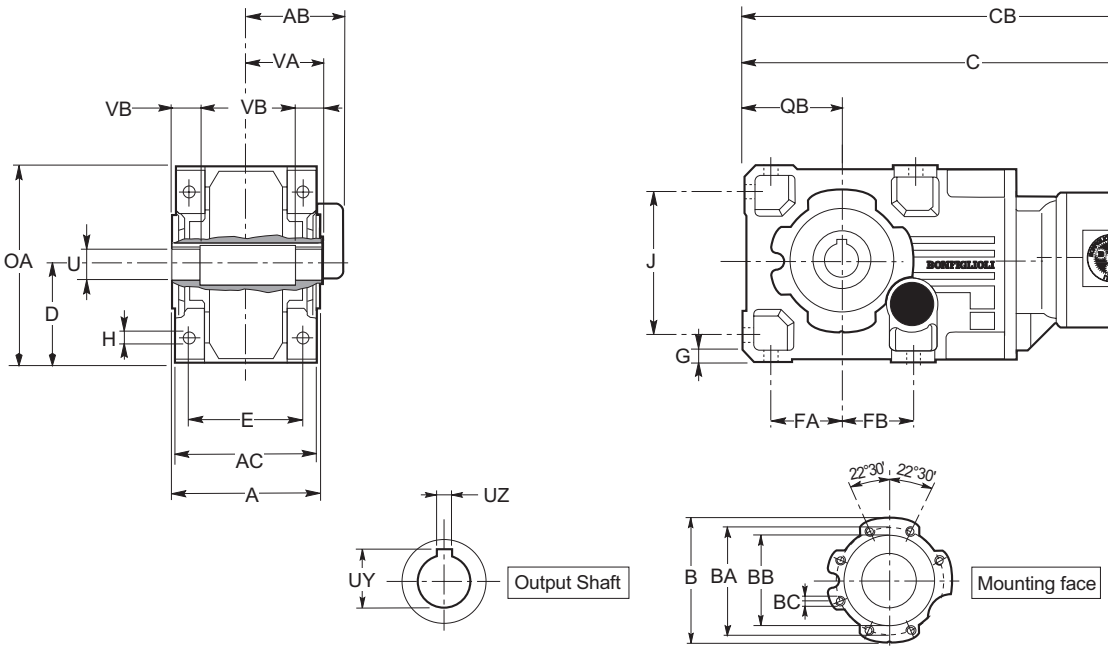
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	165 / *75*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	165 / *75*
P80, P90	*200*	*165*	*130*	*M10x12*	*4*	179 / *81*
P100, P112	*250*	*215*	*180*	*M12x16*	*4.5*	187 / *85*
P132	*300*	*265*	*230*	*14*	*5*	205 / *93*
P160, P180	*350*	*300*	*250*	*18*	*5.5*	243 / *110*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*
P132	*10*	*38*	*41.3*
P160	*12*	*42*	*45.3*
P180	*14*	*48*	*51.8*

	C				
	P63 P71	**P80 P90**	**P100 P112**	**P132**	**P160 P180**
A 55 2	—	19.37 *492*	19.76 *502*	21.20 *538.5*	23.19 *589*
A 55 3	18.60 *472.5*	19.37 *492*	19.76 *502*	21.20 *538.5*	23.19 *589*
A 55 4	21.42 *544*	22.19 *563.5*	22.58 *573.5*	—	—

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 60 2, A 60 3, A 60 4	9.41	9.25	9.84	8.46	7.087 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	6.50	7.68	4.82	4.82	0.63	0.73	9.65	12.99	6.50
	239	*235*	*250*	*215*	*180* $^{-0.043}_{-0.083}$		*165*	*195*	*123*	*123*	*16*	*18.5*	*245*	*330*	*165*

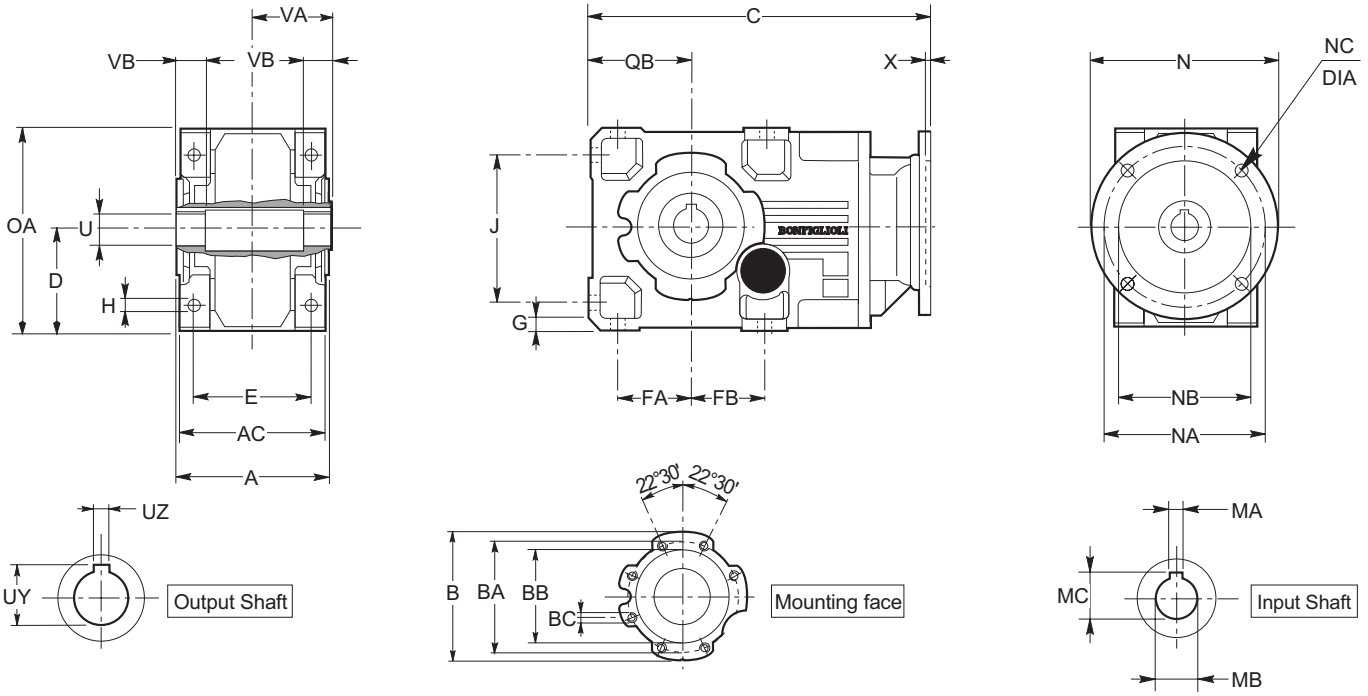
Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 60 2, A 60 3, A 60 4 NUH	2.625 $^{+0.0016}_{+0.0004}$	2.905	0.625	4.92	1.97

Motor

	AB	C	CB	P	Weight [lbs / *kg*]
A 60 2_S2 M2S	4.69	27.58	30.33	6.14	218 / *99*
A 60 3_S2 M2S	*119*	*700.5*	*770.5*	*156*	
A 60 2_S3 M3S	5.59	29.27	33.05	7.68	220 / *100*
A 60 3_S3 M3S	*142*	*743.5*	*839.5*	*195*	
A 60 2_S3 M3L	5.59	30.53	34.11	7.68	236 / *107*
A 60 3_S3 M3L	*142*	*775.5*	*866.5*	*195*	
A 60 2_S4 M4S	7.60	33.29	37.58	10.16	293 / *133*
A 60 3_S4 M4S	*193*	*845.5*	*954.5*	*258*	
A 60 2_S4 M4L	7.60	36.12	40.02	10.16	335 / *152*
A 60 3_S4 M4L	*193*	*917.5*	*1016.5*	*258*	
A 60 2_S4 M4LC	7.60	36.12	40.02	10.16	353 / *160*
A 60 3_S4 M4LC	*193*	*917.5*	*1016.5*	*258*	
A 60 2_S5 M5S	9.65	38.19	43.70	12.20	423 / *192*
A 60 3_S5 M5S	*245*	*970*	*1110*	*310*	
A 60 2_S5 M5L	9.65	39.92	45.43	12.20	459 / *208*
A 60 3_S5 M5L	*245*	*1014*	*1154*	*310*	
A 60 4_S1 M1S	4.25	28.27	30.75	5.43	207 / *94*
	108	*718*	*781*	*138*	
A 60 4_S1 M1L	4.25	29.21	31.61	5.43	209 / *95*
	108	*742*	*803*	*138*	
A 60 4_S2 M2S	4.69	30.35	33.11	6.14	220 / *100*
	119	*771*	*841*	*156*	
A 60 4_S3 M3S	5.59	32.05	35.83	7.68	240 / *109*
	142	*814*	*910*	*195*	
A 60 4_S3 M3L	5.59	33.31	36.89	7.68	256 / *116*
	142	*846*	*937*	*195*	

Dimensions are inch / *mm*



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 60 2, A 60 3, A 60 4	9.41	9.25	9.84	8.46	7.087 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	6.50	7.68	4.82	4.82	0.63	0.73	9.65	12.99	6.50
	239	*235*	*250*	*215*	*180* $^{-0.043}_{-0.083}$		*165*	*195*	*122.5*	*123*	*16*	*18.5*	*245*	*330*	*165*

Output shaft (Inch series)

		U	UY	UZ	VA	VB
A 60 2, A 60 3, A 60 4	**NUH**	2.625 $^{+0.0016}_{+0.0004}$	2.905	0.625	4.92	1.97

NEMA flange

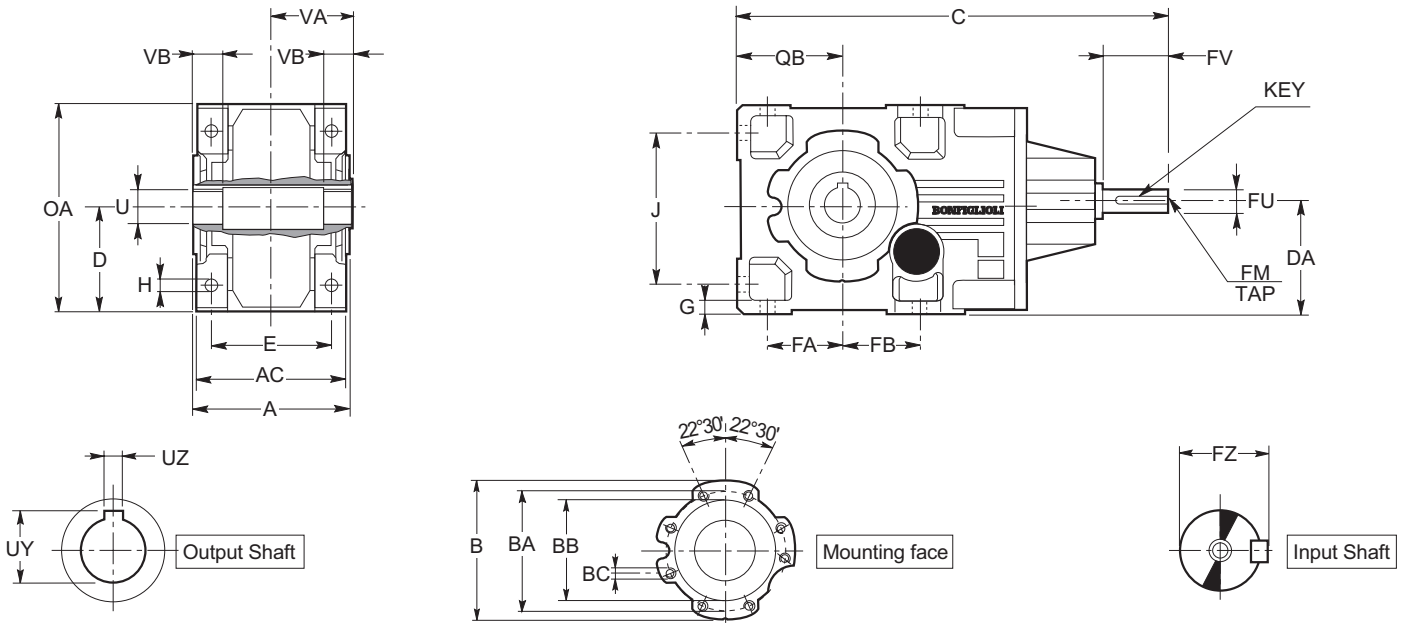
	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.196	194 / *88*
N140TC	6.496	5.875	4.500	0.394	0.196	198 / *90*
N180TC	8.996	7.250	8.500	0.551	0.216	207 / *94*
N210TC	8.996	7.250	8.500	0.551	0.216	201 / *91*
N250TC	13.780	7.250	8.500	0.551	0.216	212 / *96*
N280TC	13.780	9.000	10.500	0.551	0.216	212 / *96*

Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710
N140TC	0.188	0.875	0.964
N180TC	0.250	1.125	1.241
N210TC	0.312	1.375	1.518
N250TC	0.375	1.625	1.796
N280TC	0.500	1.875	2.102

	C					
	N56C	**N140TC**	**N180TC**	**N210TC**	**N250TC**	**N280TC**
A 60 2, A 60 3	21.12	21.12	24.87	23.11	25.91	26.10
	536.5	*536.5*	*555.5*	*587*	*658*	*663*
A 60 4	23.90	23.90	24.65	25.89	—	—
	607	*607*	*626*	*657.5*		

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	G	H	J	OA	QB
A 60 2, A 60 3, A 60 4	9.41	9.25	9.84	8.46	7.087 $^{-0.0017}_{-0.0033}$	*M12x19 [mm]*	6.50	7.13	7.68	4.82	4.82	0.63	0.73	9.65	12.99	6.50
	239	*235*	*250*	*215*	*180* $^{-0.043}_{-0.083}$		*165*	181	*195*	*123*	*123*	*16*	*18.5*	*245*	*330*	*165*

Output shaft (Inch series)

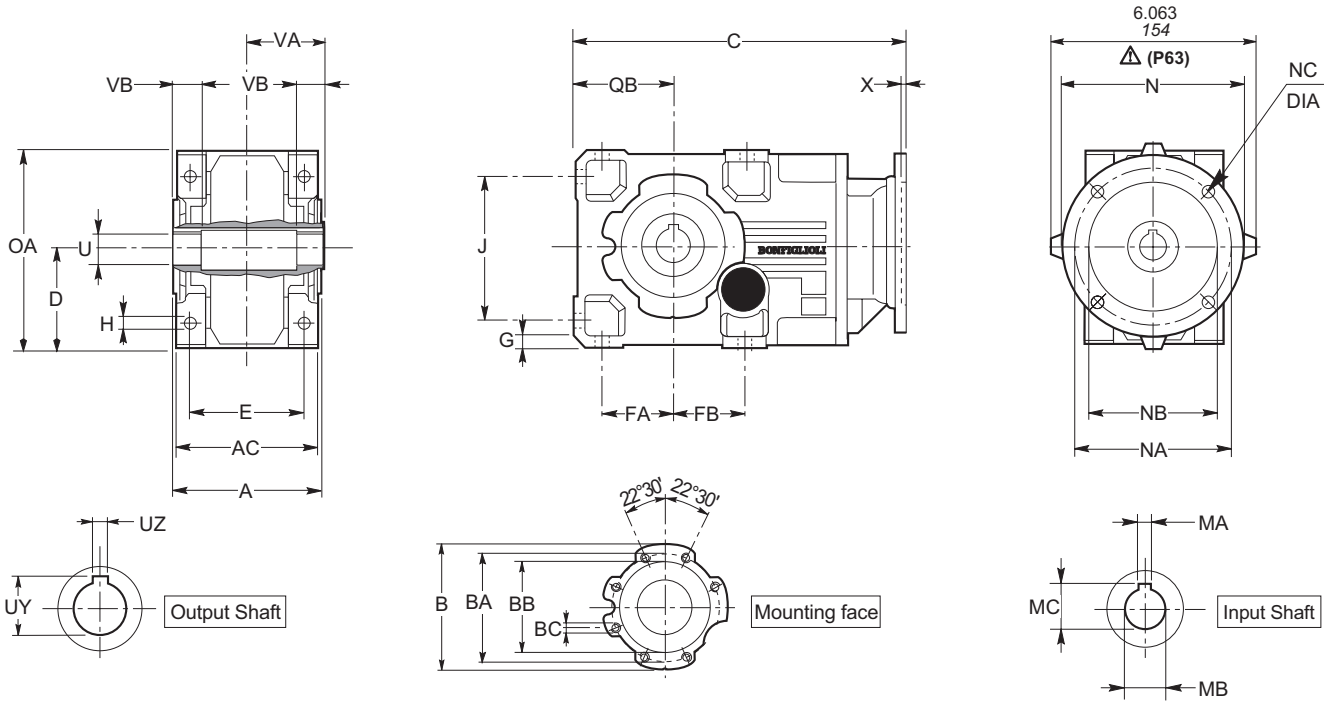
		U	UY	UZ	VA	VB
A 60 2, A 60 3, A 60 4	**NUH**	2.625 $^{+0.0016}_{+0.0004}$	2.905	0.625	4.92	1.97

Input shaft (Inch series)

		FU	FZ	FV	Key	FM
A 60 2, A 60 3	**NHS**	1.125 $^{+0}_{-0.0005}$	1.230	2.360	1/4 x 1/4 x 2 5/32	*M10x22 [mm]*
A 60 4	**NHS**	1.000 $^{+0}_{-0.0005}$	1.110	1.970	1/4 x 1/4 x 1 3/4	*M8x19 [mm]*

	C	Weight [lbs / *kg*]
A 60 2, A 60 3	24.92 *633*	292 / *119*
A 60 4	26.61 *676*	231 / *105*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 60 2, A 60 3, A 60 4	9.41 *239*	9.25 *235*	9.84 *250*	8.46 *215*	7.087 $^{-0.0017}_{-0.0033}$ *180* $^{-0.043}_{-0.083}$	*M12x19 [mm]*	6.50 *165*	7.68 *195*	4.82 *122.5*	4.82 *123*	0.63 *16*	0.73 *18.5*	9.65 *245*	12.99 *330*	6.50 *165*

Output shaft (Inch series)

	U	UY	UZ	VA	VB
A 60 2, A 60 3, A 60 4 NUH	2.625 $^{+0.0016}_{+0.0004}$	2.905	0.625	4.92	1.97

IEC flange (mm)

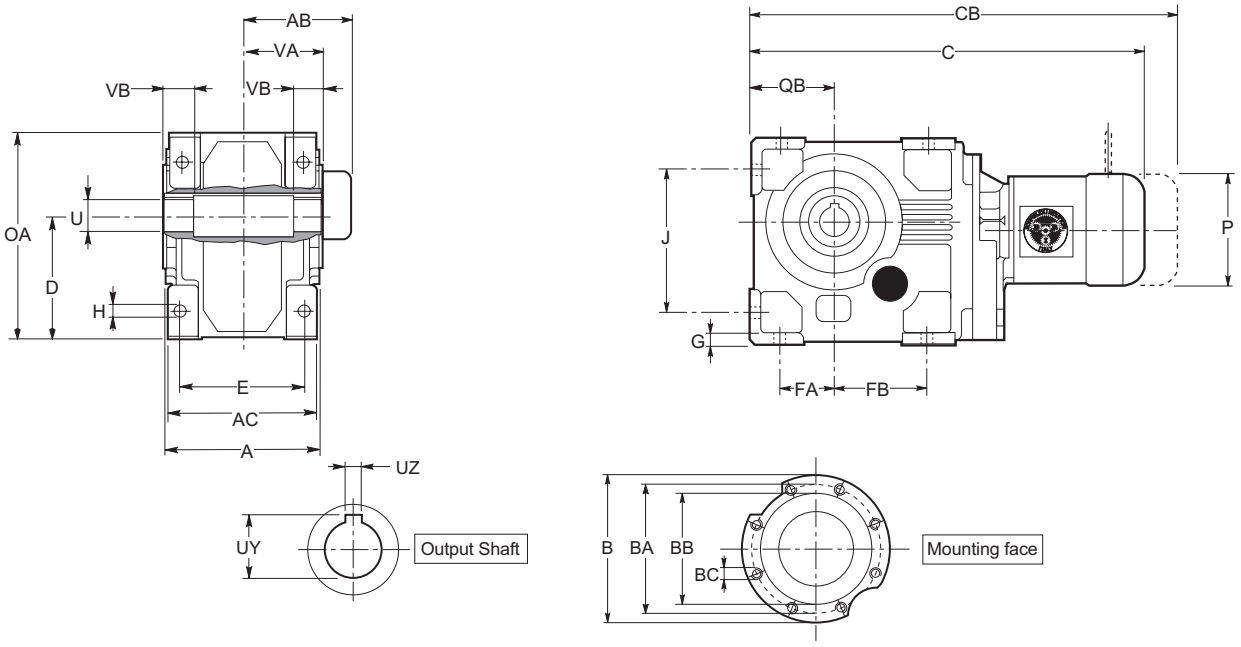
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	194 / *88*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	194 / *88*
P80, P90	*200*	*165*	*130*	*M10x12*	*4*	198 / *90*
P100, P112	*250*	*215*	*180*	*M12x16*	*4.5*	207 / *94*
P132	*300*	*265*	*230*	*14*	*5*	201 / *91*
P160, P180	*350*	*300*	*250*	*18*	*6*	212 / *96*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*
P132	*10*	*38*	*41.3*
P160	*12*	*42*	*45.3*
P180	*14*	*48*	*51.8*

	C				
	P63 P71	**P80 P90**	**P100 P112**	**P132**	**P160 P180**
A 60 2, A 60 3	—	21.10 *536*	21.50 *546*	22.89 *581.5*	24.92 *633*
A 60 4	23.11 *587*	23.88 *606.5*	24.27 *616.5*	—	—

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 70 3, A 70 4	11.22 *285*	11.02 *280*	10.63 *270*	9.25 *235*	8.071 $^{-0.0020}_{-0.0038}$ *205* $^{-0.050}_{-0.096}$	*M14x22 [mm]*	9.02 *229*	9.06 *230*	4.33 *110*	7.24 *184*	0.71 *18*	0.87 *22*	11.57 *294*	15.12 *384*	6.10 *155*

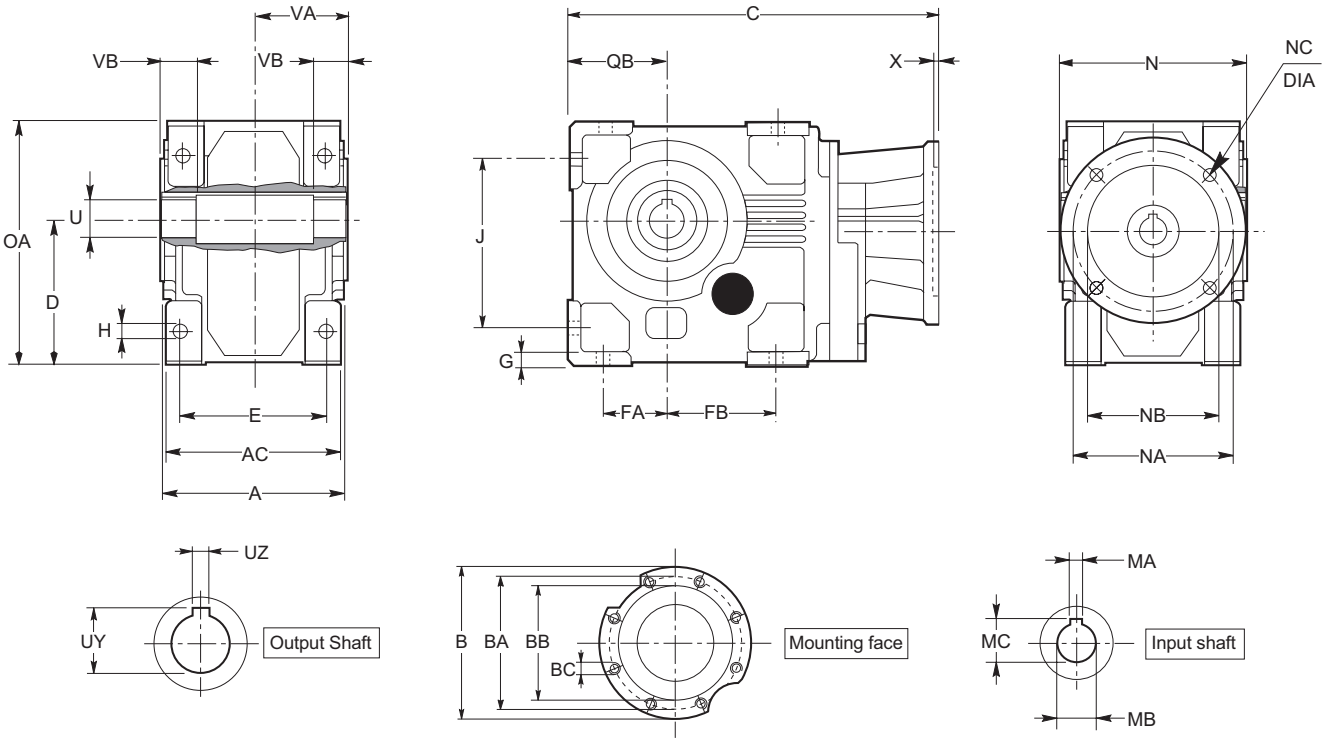
Output shaft

		U	UY	UZ	VA	VB
A 70 3, A 70 4	**NUH**	2.750 $^{+0.0016}_{+0.0004}$	3.032	0.625	6.00	2.36

Motor

	AB	C	CB	P	**Weight** [lbs / *kg*]
A 70 3_S2 M2S	4.69 *119*	27.11 *688.5*	29.86 *758.5*	6.14 *156*	343 / *156*
A 70 3_S3 M3S	5.59 *142*	28.80 *731.5*	32.58 *827.5*	7.68 *195*	362 / *164*
A 70 3_S3 M3L	5.59 *142*	30.06 *763.5*	33.64 *854.5*	7.68 *195*	377 / *171*
A 70 3_S4 M4S	7.60 *193*	34.35 *872.5*	38.64 *981.5*	10.16 *258*	434 / *197*
A 70 3_S4 M4L	7.60 *193*	34.35 *872.5*	38.64 *981.5*	10.16 *258*	476 / *216*
A 70 3_S4 M4LC	7.60 *193*	35.73 *907.5*	39.63 *1006.5*	10.16 *258*	494 / *224*
A 70 3_S5 M5S	9.65 *245*	37.72 *958*	43.23 *1098*	12.20 *310*	565 / *256*
A 70 3_S5 M5L	9.65 *245*	39.45 *1002*	44.96 *1142*	12.20 *310*	600 / *272*
A 70 4_S1 M1S	4.25 *108*	27.03 *686.5*	29.51 *749.5*	5.43 *138*	339 / *154*
A 70 4_S1 M1L	4.25 *108*	27.97 *710.5*	30.37 *771.5*	5.43 *138*	342 / *155*
A 70 4_S2 M2S	4.69 *119*	29.11 *739.5*	31.87 *809.5*	6.14 *156*	352 / *160*
A 70 4_S3 M3S	5.59 *142*	30.81 *782.5*	34.59 *878.5*	7.68 *195*	371 / *168*
A 70 4_S3 M3L	5.59 *142*	32.07 *814.5*	35.65 *905.5*	7.68 *195*	387 / *175*
A 70 4_S4 M4L	7.60 *193*	36.32 *922.5*	40.61 *1031.5*	10.16 *258*	444 / *201*
A 70 4_S4 M4S	7.60 *193*	36.32 *922.5*	40.61 *1031.5*	10.16 *258*	486 / *220*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 70 3, A 70 4	11.22	11.02	10.63	9.25	8.071 $^{-0.0020}_{-0.0038}$	*M14x22 [mm]*	9.02	9.06	4.33	7.24	0.71	0.87	11.57	15.12	6.10
	285	*280*	*270*	*235*	*205* $^{-0.050}_{-0.096}$		*229*	*230*	*110*	*184*	*18*	*22*	*294*	*384*	*155*

Output shaft

		U	UY	UZ	VA	VB
A 70 3, A 70 4	**NUH**	2.750 $^{+0.0016}_{+0.0004}$	3.032	0.625	6.00	2.36

NEMA flange

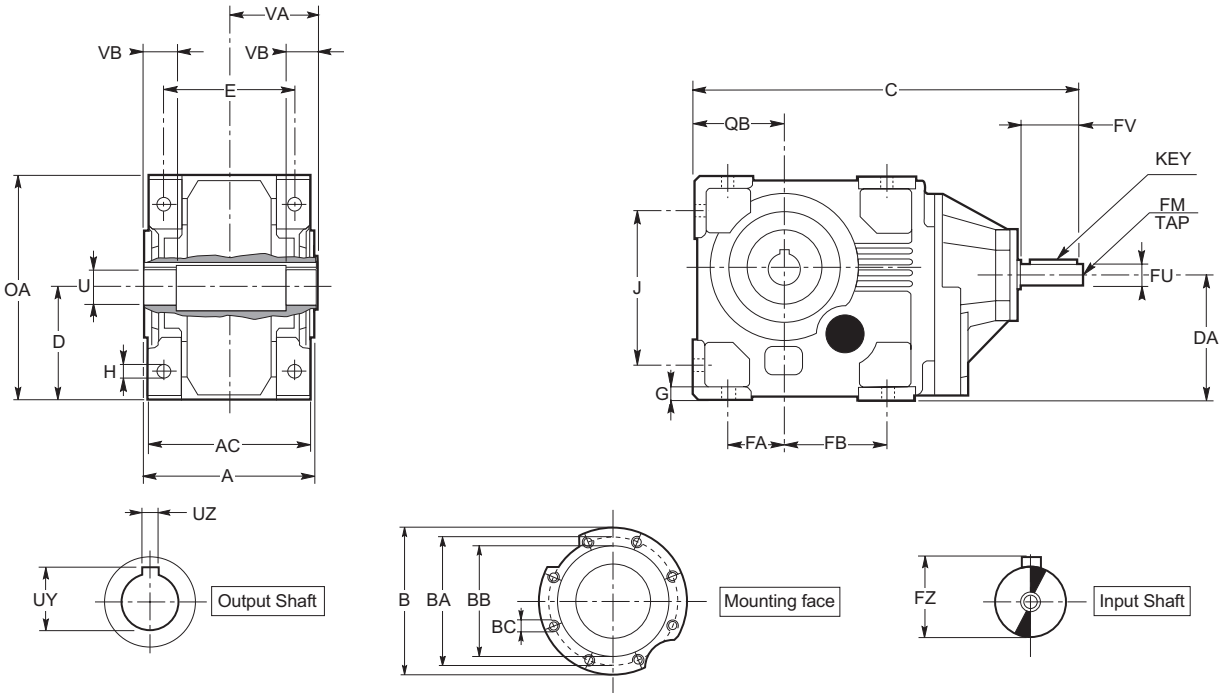
	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.196	322 / *146*
N140TC	6.496	5.875	4.500	0.394	0.196	324 / *147*
N180TC	8.996	7.250	8.500	0.551	0.216	326 / *148*
N210TC	8.996	7.250	8.500	0.551	0.216	346 / *157*
N250TC	13.780	7.250	8.500	0.551	0.216	373 / *169*
N280TC	13.780	9.000	10.500	0.551	0.216	373 / *169*

Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710
N140TC	0.188	0.875	0.964
N180TC	0.250	1.125	1.241
N210TC	0.312	1.375	1.518
N250TC	0.375	1.625	1.796
N280TC	0.500	1.875	2.102

	C					
	N56C	**N140TC**	**N180TC**	**N210TC**	**N250TC**	**N280TC**
A 70 3	—	20.65	21.40	22.64	25.63	25.83
		524.5	*543.5*	*575*	*651*	*656*
A 70 4	22.66	22.66	23.41	24.65	—	—
	575.5	*575.5*	*594.5*	*626*		

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	G	H	J	OA	QB
A 70 3, A 70 4	11.22	11.02	10.63	9.25	8.071 $^{-0.0020}_{-0.0038}$	*M14x22 [mm]*	9.02	8.35	9.06	4.33	7.24	0.71	0.87	11.57	15.12	6.10
	285	*280*	*270*	*235*	*205* $^{-0.050}_{-0.096}$		*229*	*212*	*230*	*110*	*184*	*18*	*22*	*294*	*384*	*155*

Output shaft

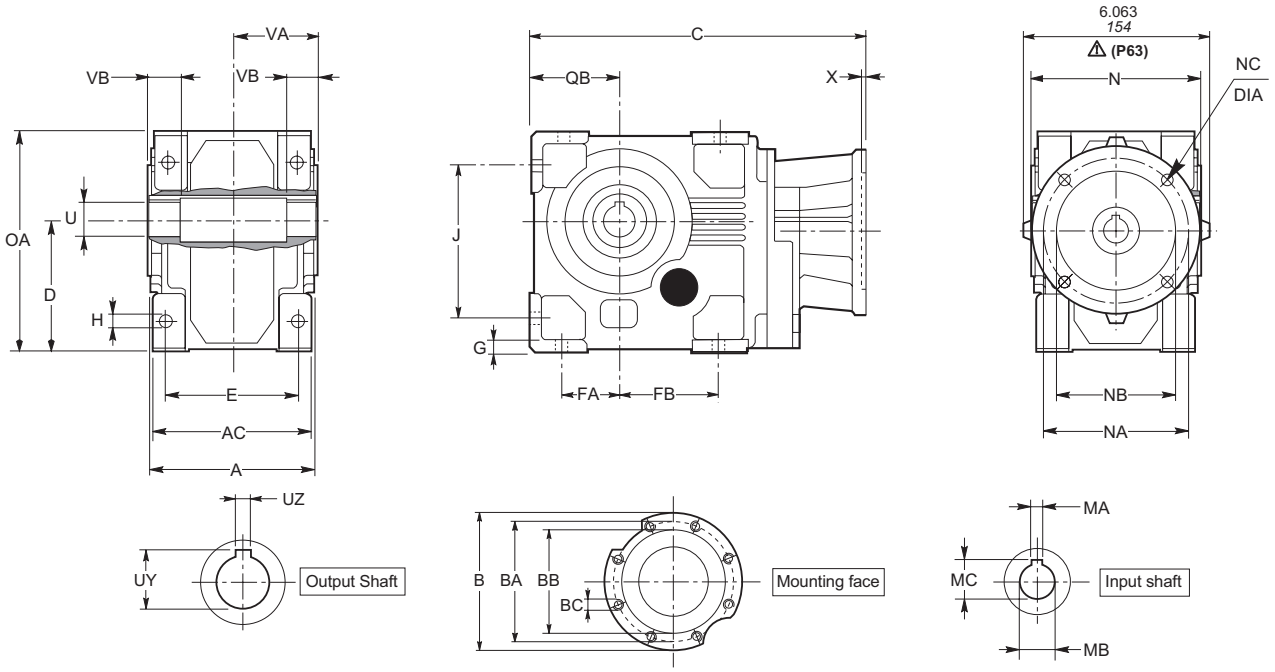
		U	UY	UZ	VA	VB
A 70 3, A 70 4	**NUH**	2.750 $^{+0.0016}_{+0.0004}$	3.032	0.625	6.00	2.36

Input shaft

		FU	FZ	FV	Key	FM
A 70 3	**NHS**	1625 $^{+0}_{-0.0006}$	1.791	4.250	3/8 x 3/8 x 4	*M12x28 [mm]*
A 70 4	**NHS**	1.000 $^{+0}_{-0.0005}$	1.110	1.970	3/4 x 3/4 x 1 3/4	*M8x19 [mm]*

	C	Weight [lbs / *kg*]
A 70 3	27.81 *706.5*	364 / *165*
A 70 4	25.37 *644.5*	328 / *149*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 70 3, A 70 4	11.22	11.02	10.63	9.25	8.071 $^{-0.0020}_{-0.0038}$	*M14x22 [mm]*	9.02	9.06	4.33	7.24	0.71	0.87	11.57	15.12	6.10
	285	*280*	*270*	*235*	*205* $^{-0.050}_{-0.096}$		*229*	*230*	*110*	*184*	*18*	*22*	*294*	*384*	*155*

Output shaft

		U	UY	UZ	VA	VB
A 70 3, A 70 4	**NUH**	2.750 $^{+0.0016}_{+0.0004}$	3.032	0.625	6.00	2.36

IEC flange (mm)

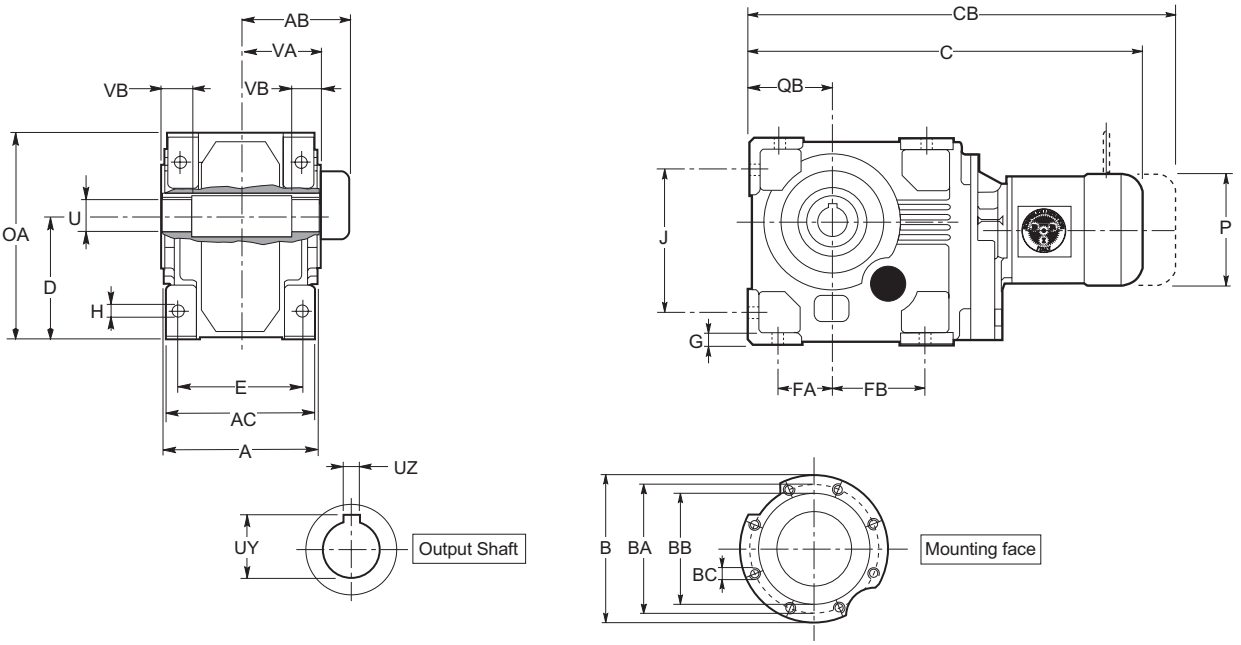
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	322 / *146*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	322 / *146*
P80, P90	*200*	*165*	*130*	*M10x12*	*4*	324 / *147*
P100, P112	*250*	*215*	*180*	*M12x16*	*4.5*	326 / *148*
P132	*300*	*265*	*230*	*14*	*5*	346 / *157*
P160, P180	*350*	*300*	*250*	*18*	*6*	373 / *169*
P200	*400*	*350*	*300*	*M16x25*	*7*	395 / *179*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*
P132	*10*	*38*	*41.3*
P160	*12*	*42*	*45.3*
P180	*14*	*48*	*51.8*
P200	*16*	*55*	*59.3*

	C					
	P63 P71	**P80 P90**	**P100 P112**	**P132**	**P160 P180**	**P200**
A 70 3	—	20.63 524	21.02 534	22.46 570.5	24.65 626	25.63 651
A 70 4	21.87 555.5	22.64 575	23.03 585	24.35 618.5	—	—

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 80 3, A 80 4	13.39 *340*	12.99 *330*	11.81 *300*	10.43 *265*	9.055 $^{-0.0020}_{-0.0038}$ *230* $^{-0.050}_{-0.096}$	*M16x28 [mm]*	10.71 *272*	10.83 *275*	4.80 *122*	8.23 *209*	0.91 *23*	1.02 *26*	13.03 *331*	17.99 *457*	7.28 *185*

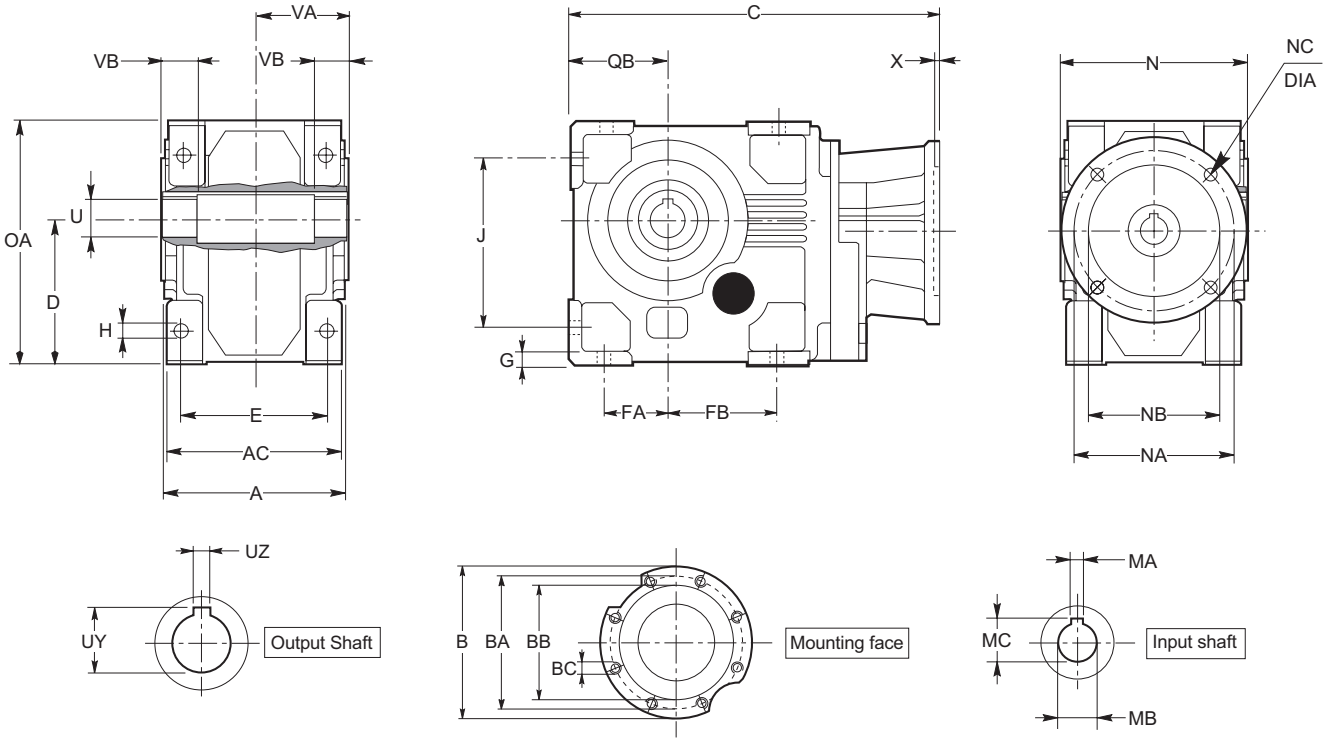
Output shaft

		U	UY	UZ	VA	VB
A 80 3, A 80 4	**NUH**	3.250 $^{+0.0019}_{+0.0005}$	3.586	0.750	7.09	3.15

Motor

	AB	C	CB	P	**Weight** [lbs / *kg*]
A 80 3_S3 M3S	5.59 *142*	31.87 *809.5*	35.65 *905.5*	7.68 *195*	582 / *264*
A 80 3_S3 M3L	5.59 *142*	33.13 *841.5*	36.71 *932.5*	7.68 *195*	597 / *271*
A 80 3_S4 M4S	7.60 *193*	37.38 *949.5*	41.67 *1058.5*	10.16 *258*	655 / *297*
A 80 3_S4 M4L	7.60 *193*	37.38 *949.5*	41.67 *1058.5*	10.16 *258*	697 / *316*
A 80 3_S4 M4LC	7.60 *193*	38.76 *984.5*	42.66 *1083.5*	10.16 *258*	714 / *324*
A 80 3_S5 M5S	9.65 *245*	40.79 *1036*	46.30 *1176*	12.20 *310*	785 / *356*
A 80 3_S5 M5L	9.65 *245*	42.52 *1080*	48.03 *1220*	12.20 *310*	820 / *372*
A 80 4_S1 M1S	4.25 *108*	30.57 *776.5*	33.05 *839.5*	5.43 *138*	545 / *247*
A 80 4_S1 M1L	4.25 *108*	31.52 *800.5*	33.92 *861.5*	5.43 *138*	549 / *249*
A 80 4_S2 M2S	4.69 *119*	32.66 *829.5*	35.41 *899.5*	6.14 *156*	560 / *254*
A 80 4_S3 M3S	5.59 *142*	34.35 *872.5*	38.13 *968.5*	7.68 *195*	578 / *262*
A 80 4_S3 M3L	5.59 *142*	35.61 *904.5*	39.19 *995.5*	7.68 *195*	593 / *269*
A 80 4_S4 M4L	7.60 *193*	39.86 *1012.5*	44.15 *1121.5*	10.16 *258*	650 / *295*
A 80 4_S4 M4S	7.60 *193*	39.86 *1012.5*	44.15 *1121.5*	10.16 *258*	692 / *314*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 80 3, A 80 4	13.39	12.99	11.81	10.43	9.055 $^{-0.0020}_{-0.0038}$	*M16x28 [mm]*	10.71	10.83	4.80	8.23	0.91	1.02	13.03	17.99	7.28
	340	*330*	*300*	*265*	*230* $^{-0.050}_{-0.096}$		*272*	*275*	*122*	*209*	*23*	*26*	*331*	*457*	*185*

Output shaft

		U	UY	UZ	VA	VB
A 80 3, A 80 4	**NUH**	3.250 $^{+0.0019}_{+0.0005}$	3.586	0.750	7.09	3.15

NEMA flange

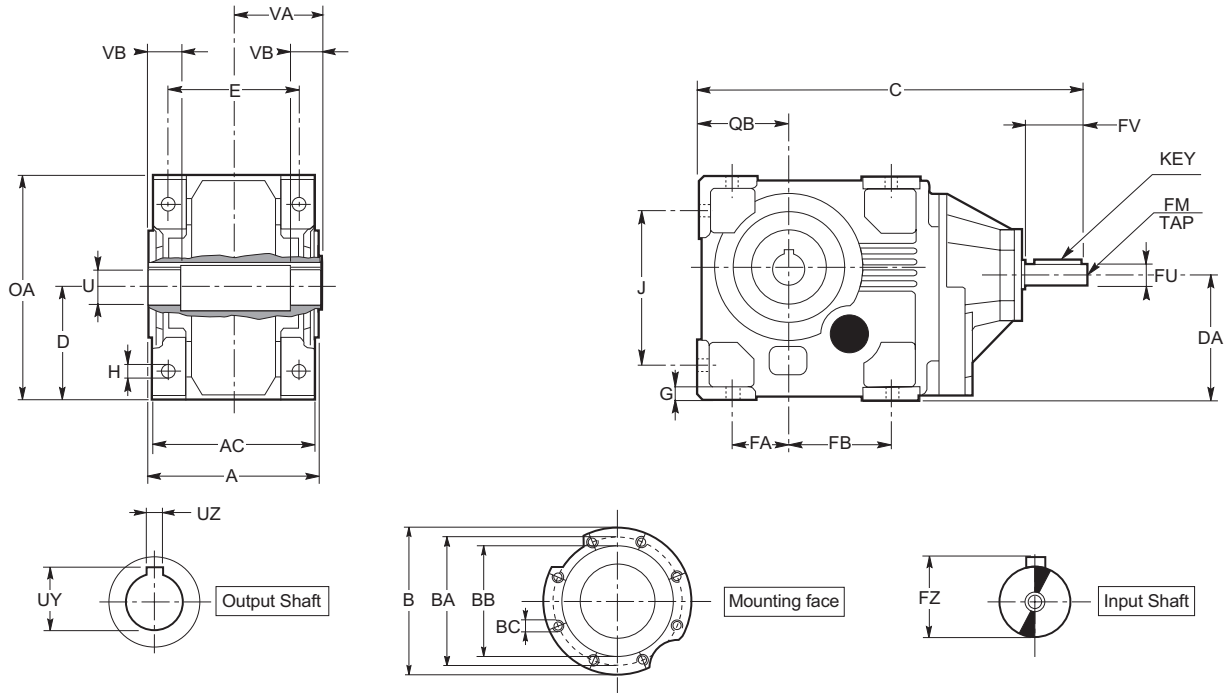
	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.196	547 / *248*
N140TC	6.496	5.875	4.500	0.394	0.196	549 / *249*
N180TC	8.996	7.250	8.500	0.551	0.216	551 / *250*
N210TC	8.996	7.250	8.500	0.551	0.216	571 / *259*
N250TC	13.780	7.250	8.500	0.551	0.216	591 / *268*
N280TC	13.780	9.000	10.500	0.551	0.216	592 / *268*
N320TC	17.717	11.000	12.500	0.669	0.216	657 / *298*

Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710
N140TC	0.188	0.875	0.964
N180TC	0.250	1.125	1.241
N210TC	0.312	1.375	1.518
N250TC	0.375	1.625	1.796
N280TC	0.500	1.875	2.102
N320TC	0.500	2.125	2.350

	C						
	N56C	**N140TC**	**N180TC**	**N210TC**	**N250TC**	**N280TC**	**N320TC**
A 80 3	—	—	24.47 *621.5*	25.71 *653*	28.70 *729*	28.90 *734*	31.75 *806.5*
A 80 4	26.20 *665.5*	26.20 *665.5*	26.95 *684.5*	28.19 *716*	—	—	—

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	G	H	J	OA	QB
A 80 3, A 80 4	13.39	12.99	11.81	10.43	9.055 $^{-0.0020}_{-0.0038}$	M16x28 [mm]	10.71	9.92	10.83	4.80	8.23	0.91	1.02	13.03	17.99	7.28
	340	330	300	265	230 $^{-0.050}_{-0.096}$		272	*252*	275	122	209	23	26	331	457	185

Output shaft

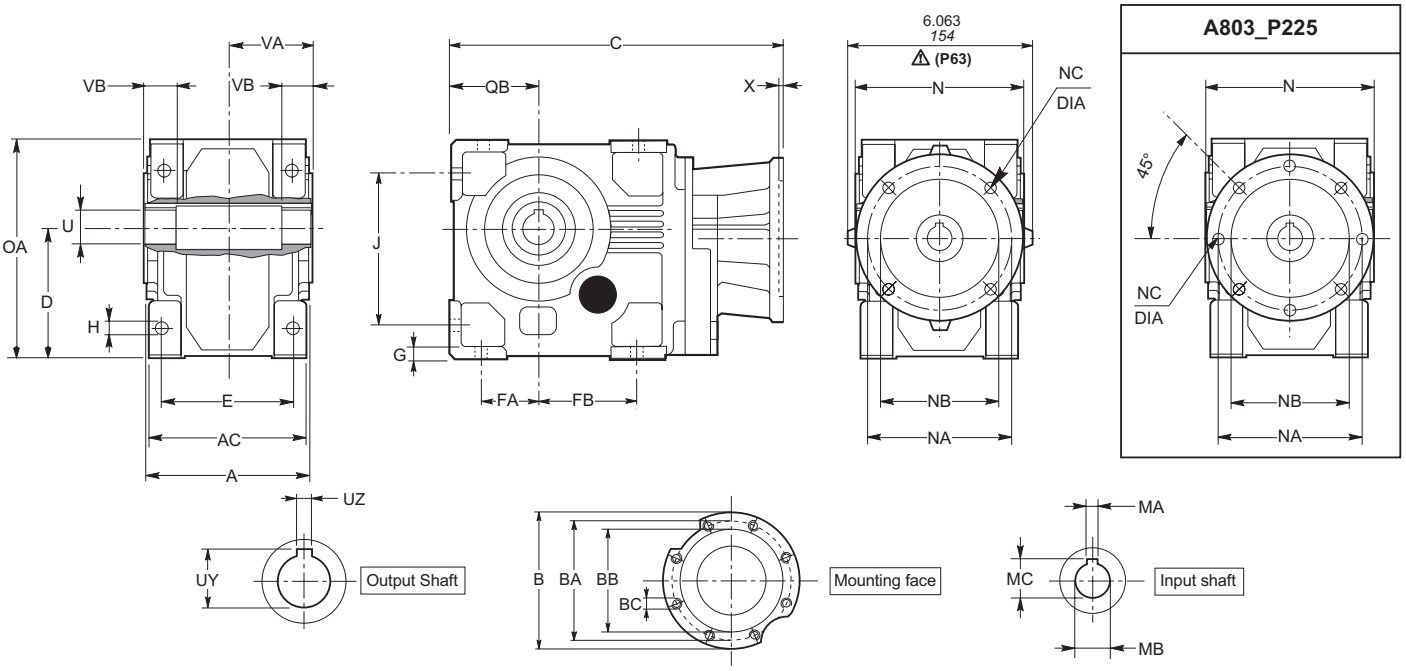
		U	UY	UZ	VA	VB
A 80 3, A 80 4	**NUH**	3.250 $^{+0.0019}_{+0.0005}$	3.586	0.750	7.09	3.15

Input shaft

		FU	FZ	FV	Key	FM
A 80 3	**NHS**	1.625 $^{+0}_{-0.0006}$	1.791	4.250	3/8 x 3/8 x 4	*M12x28 [mm]*
A 80 4	**NHS**	1.000 $^{+0}_{-0.0005}$	1.110	1.970	3/4 x 3/4 x 1 3/4	*M8x19 [mm]*

	C	Weight [lbs / *kg*]
A 80 3	30.88 *784.5*	584 / *265*
A 80 4	28.94 *735*	551 / *250*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 80 3, A 80 4	13.39	12.99	11.81	10.43	9.055 $^{-0.0020}_{-0.0038}$	*M16x28 [mm]*	10.71	10.83	4.80	8.23	0.91	1.02	13.03	17.99	7.28
	340	*330*	*300*	*265*	*230* $^{-0.050}_{-0.096}$		*272*	*275*	*122*	*209*	*23*	*26*	*331*	*457*	*185*

Output shaft

		U	UY	UZ	VA	VB
A 80 3, A 80 4	**NUH**	3.250 $^{+0.0019}_{+0.0005}$	3.586	0.750	7.09	3.15

IEC flange (mm)

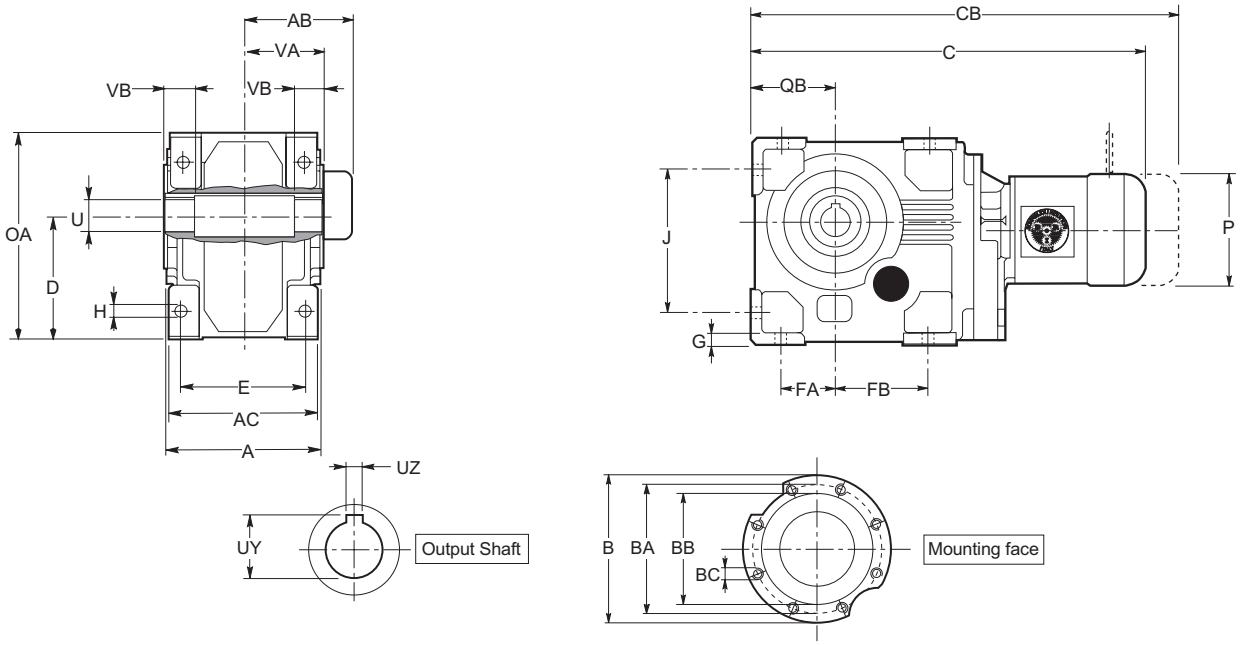
	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	547 / *248*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	547 / *248*
P80, P90	*200*	*165*	*130*	*M10x12*	*4*	549 / *249*
P100, P112	*250*	*215*	*180*	*M12x16*	*4.5*	551 / *250*
P132	*300*	*265*	*230*	*14*	*5*	571 / *259*
P160, P180	*350*	*300*	*250*	*18*	*6*	591 / *268*
P200	*400*	*350*	*300*	*M16x25*	*7*	615 / *279*
P225	*450*	*400*	*350*	*18*	*6*	657 / *298*

Hollow input shaft

	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*
P132	*10*	*38*	*41.3*
P160	*12*	*42*	*45.3*
P180	*14*	*48*	*51.8*
P200	*16*	*55*	*59.3*
P225	*18*	*60*	*64.4*

	C						
	P63 P71	**P80 P90**	**P100 P112**	**P132**	**P160 P180**	**P200**	**P225**
A 80 3	—	23.70	24.09	25.53	27.72	28.70	30.49
		602	*612*	*648.5*	*704*	*729*	*774.5*
A 80 4	25.41	26.18	26.57	28.01	—	—	—
	645.5	*665*	*675*	*711.5*			

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 90 3, A 90 4	15.35 *390*	14.76 *375*	13.78 *350*	11.81 *300*	9.843 $^{-0.0020}_{-0.0038}$ *250* $^{-0.050}_{-0.096}$	*M20x33 [mm]*	12.80 *325*	12.40 *315*	6.10 *155*	10.04 *255*	1.18 *30*	1.02 *26*	16.14 *410*	21.65 *550*	8.86 *225*

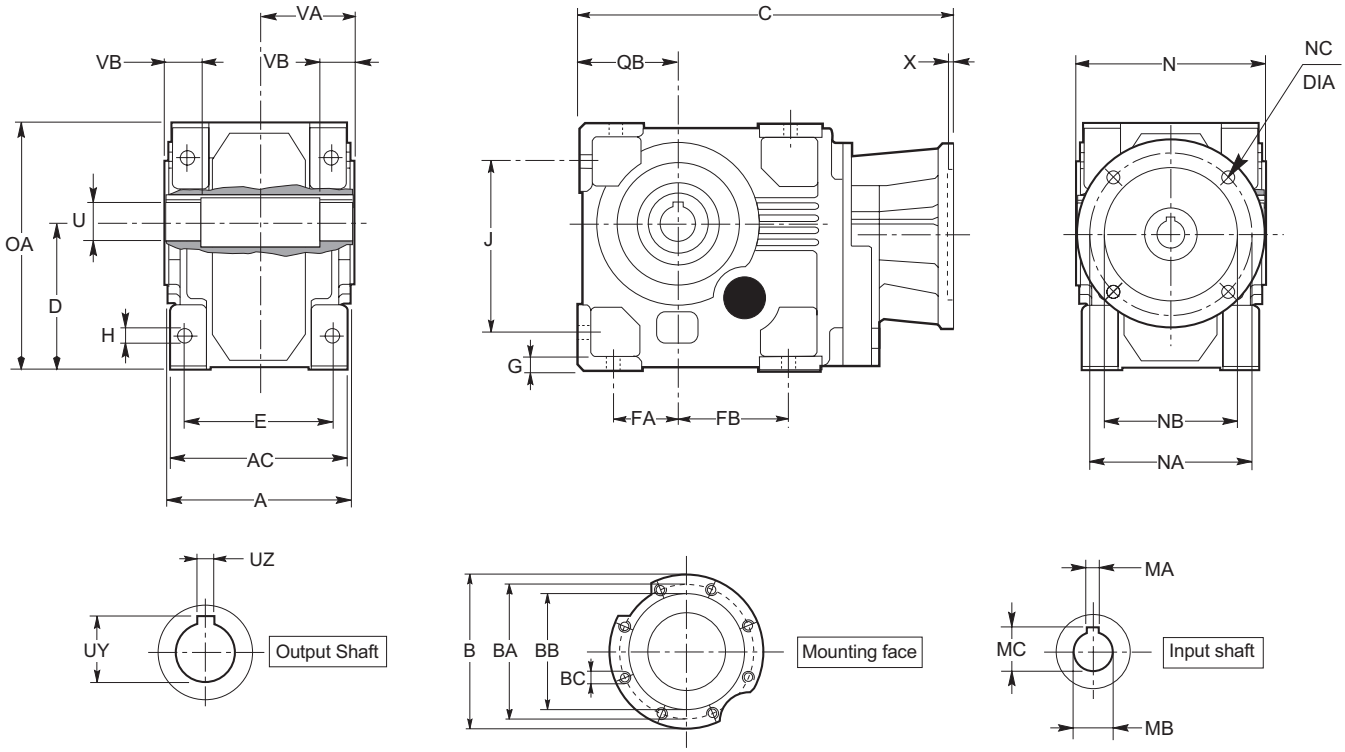
Output shaft

		U	UY	UZ	VA	VB
A 90 3, A 90 4	**NUH**	3.625 $^{+0.0019}_{+0.0005}$	4.014	0.875	7.50	3.15

Motor

	AB	C	CB	P	**Weight** [lbs / *kg*]
A 90 3_S3 M3S	5.59 *142*	36.63 *930.5*	40.41 *1026.5*	7.68 *195*	926 / *420*
A 90 3_S3 M3L	5.59 *142*	37.89 *962.5*	41.48 *1053.5*	7.68 *195*	941 / *427*
A 90 3_S4 M4S	7.60 *193*	42.15 *1070.5*	46.44 *11795*	10.16 *258*	999 / *453*
A 90 3_S4 M4L	7.60 *193*	42.15 *1070.5*	46.44 *1179.5*	10.16 *258*	1041 / *472*
A 90 3_S4 M4LC	7.60 *193*	43.52 *1105.5*	47.42 *1204.5*	10.16 *258*	1058 / *480*
A 90 3_S5 M5S	9.65 *245*	45.55 *1157*	51.06 *1297*	12.20 *310*	1129 / *512*
A 90 3_S5 M5L	9.65 *245*	47.28 *1201*	52.80 *1341*	12.20 *310*	1164 / *528*
A 90 4_S1 M1S	4.25 *108*	36.12 *917.5*	38.60 *980.5*	5.43 *138*	906 / *411*
A 90 4_S1 M1L	4.25 *108*	37.07 *941.5*	39.47 *1002.5*	5.43 *138*	908 / *412*
A 90 4_S2 M2S	4.69 *119*	38.21 *970.5*	40.96 *1040.5*	6.14 *156*	939 / *426*
A 90 4_S3 M3S	5.59 *142*	39.90 *1013.5*	43.68 *1109.5*	7.68 *195*	957 / *434*
A 90 4_S3 M3L	5.59 *142*	41.16 *1045.5*	44.74 *1136.5*	7.68 *195*	972 / *441*
A 90 4_S4 M4L	7.60 *193*	45.41 *1153.5*	49.70 *1262.5*	10.16 *258*	1030 / *467*
A 90 4_S4 M4S	7.60 *193*	45.41 *1153.5*	49.70 *1262.5*	10.16 *258*	1071 / *486*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 90 3, A 90 4	15.35	14.76	13.78	11.81	9.843 $^{-0.0020}_{-0.0038}$	*M20x33 [mm]*	12.80	12.40	6.10	10.04	1.18	1.02	16.14	21.65	8.86
	390	*375*	*350*	*300*	*250* $^{-0.050}_{-0.096}$		*325*	*315*	*155*	*255*	*30*	*26*	*410*	*550*	*225*

Output shaft

		U	UY	UZ	VA	VB
A 90 3, A 90 4	**NUH**	3.625 $^{+0.0019}_{+0.0005}$	4.014	0.875	7.50	3.15

NEMA flange

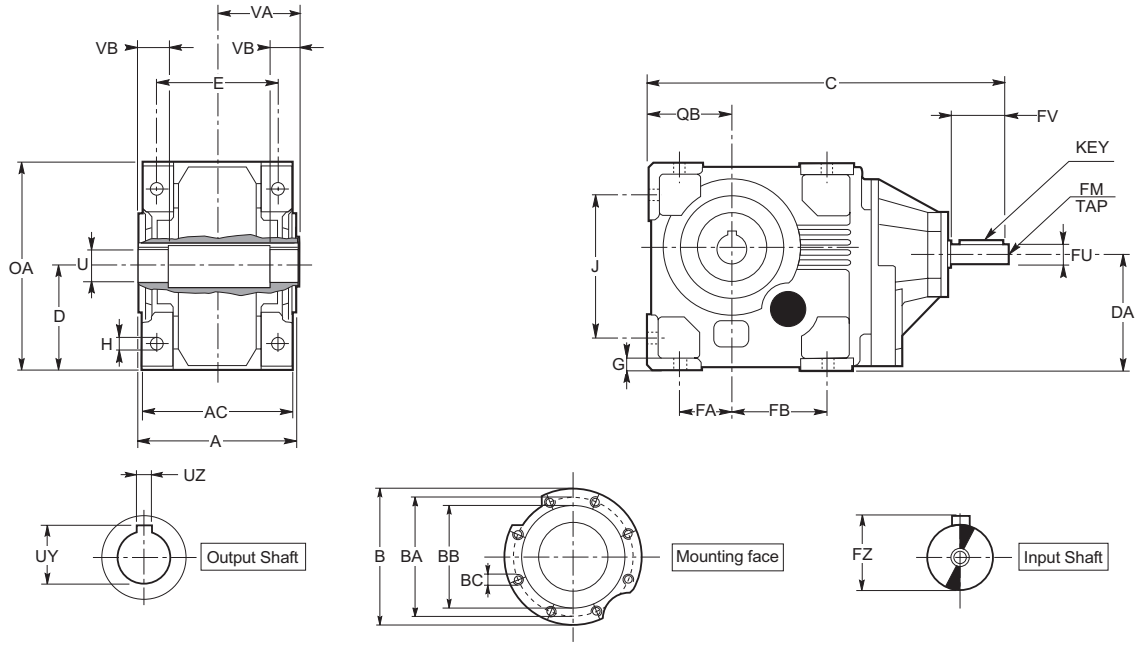
	N	NA	NB	NC	X	Weight [lbs / *kg*]
N56C	6.496	5.875	4.500	0.394	0.196	908 / *412*
N140TC	6.496	5.875	4.500	0.394	0.196	910 / *413*
N180TC	8.996	7.250	8.500	0.551	0.216	915 / *415*
N210TC	8.996	7.250	8.500	0.551	0.216	933 / *423*
N250TC	13.780	7.250	8.500	0.551	0.216	957 / *434*
N280TC	13.780	9.000	10.500	0.551	0.216	957 / *434*
N320TC	17.717	11.000	12.500	0.669	0.216	1041 / *472*

Hollow input shaft

	MA	MB	MC
N56C	0.188	0.625	0.710
N140TC	0.188	0.875	0.964
N180TC	0.250	1.125	1.241
N210TC	0.312	1.375	1.518
N250TC	0.375	1.625	1.796
N280TC	0.500	1.875	2.102
N320TC	0.500	2.125	2.350

	C						
	N56C	**N140TC**	**N180TC**	**N210TC**	**N250TC**	**N280TC**	**N320TC**
A 90 3	—	—	29.23	30.47	33.46	33.66	36.52
			742.5	*774*	*850*	*855*	*927.5*
A 90 4	31.75	31.75	32.50	33.74	—	—	—
	806.5	*806.5*	*825.5*	*857*			

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	DA	E	FA	FB	G	H	J	OA	QB
A 90 3, A 90 4	15.35	14.76	13.78	11.81	9.843 $^{-0.0020}_{-0.0038}$	*M20x33 [mm]*	12.80	11.81	12.40	6.10	10.04	1.18	1.02	16.14	21.65	8.86
	390	*375*	*350*	*300*	*250* $^{-0.050}_{-0.096}$		*325*	*300*	*315*	*155*	*255*	*30*	*26*	*410*	*550*	*225*

Output shaft

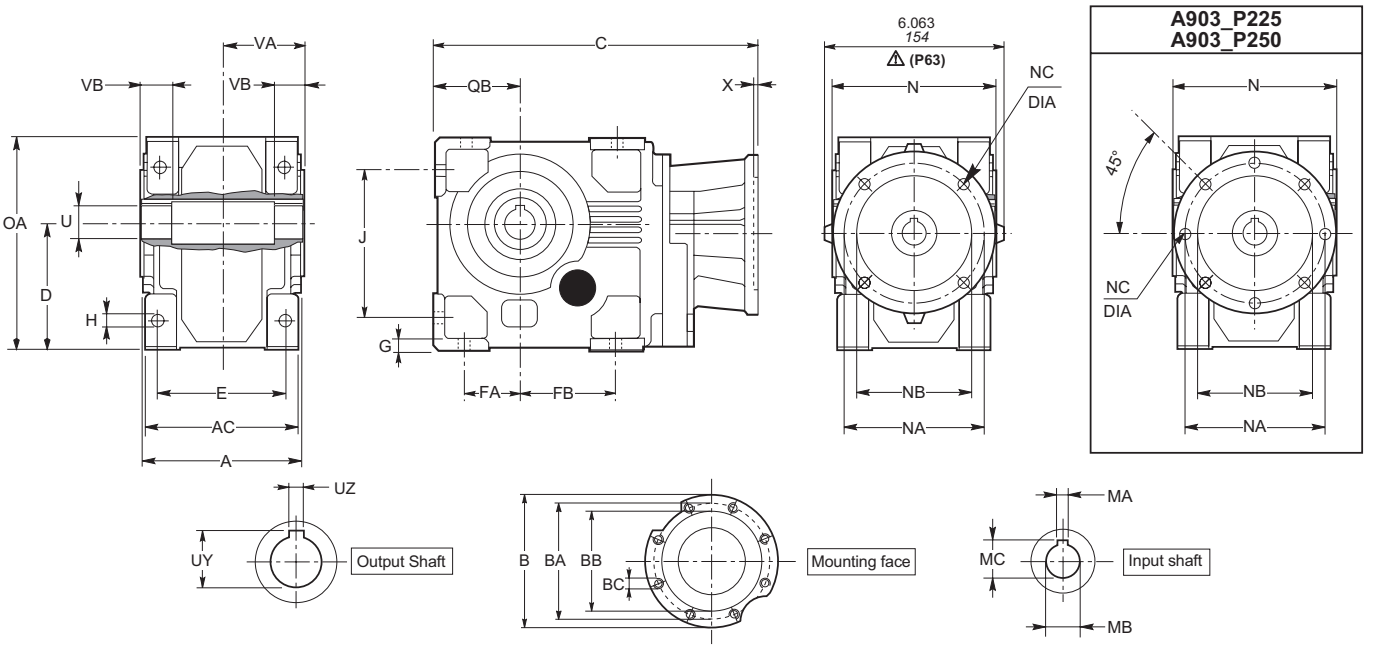
		U	UY	UZ	VA	VB
A 90 3, A 90 4	**NUH**	3.625 $^{+0.0019}_{+0.0005}$	4.014	0.875	7.50	3.15

Input shaft

		FU	FZ	FV	Key	FM
A 90 3	**NHS**	2.125 $^{+0}_{-0.0007}$	2.345	5.000	1/2 x 1/2 x 4 3/4	*M16x36 [mm]*
A 90 4	**NHS**	1.000 $^{+0}_{-0.0005}$	1.110	1.970	1/4 x 1/4 x 1 3/4	*M8x19 [mm]*

	C	Weight [lbs / *kg*]
A 90 3	39.21 *996*	1025 / *465*
A 90 4	34.47 *875.5*	915 / *415*

Dimensions are $\frac{\text{inch}}{mm}$



Outline dimensions

	A	AC	B	BA	BB	BC	D	E	FA	FB	G	H	J	OA	QB
A 90 3, A 90 4	15.35	14.76	13.78	11.81	9.843 $^{-0.0020}_{-0.0038}$	*M20x33 [mm]*	12.80	12.40	6.10	10.04	1.18	1.02	16.14	21.65	8.86
	390	*375*	*350*	*300*	*250* $^{-0.050}_{-0.096}$		*325*	*315*	*155*	*255*	*30*	*26*	*410*	*550*	*225*

Output shaft

	U	UY	UZ	VA	VB
A 90 3, A 90 4 NUH	3.625 $^{+0.0019}_{+0.0005}$	4.014	0.875	7.50	3.15

IEC flange (mm)

	N	NA	NB	NC	X	Weight [lbs / *kg*]
P63	*140*	*115*	*95*	*M8x19*	*4*	906 / *411*
P71	*160*	*130*	*110*	*M8x16*	*4.5*	908 / *412*
P80, P90	*200*	*165*	*130*	*M10x12*	*4*	910 / *413*
P100, P112	*250*	*215*	*180*	*M12x16*	*4.5*	915 / *415*
P132	*300*	*265*	*230*	*14*	*5*	933 / *423*
P160, P180	*350*	*300*	*250*	*18*	*6*	957 / *434*
P200	*400*	*350*	*300*	*M16x25*	*7*	961 / *436*
P225	*450*	*400*	*350*	*18*	*6*	1041 / *472*
P250	*550*	*500*	*450*	*18*	*6*	1047 / *475*

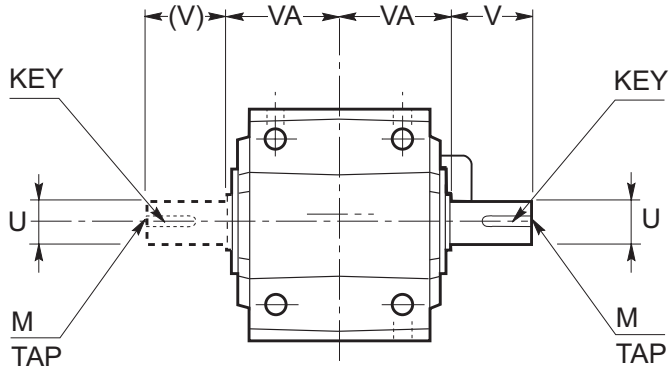
Hollow input shaft

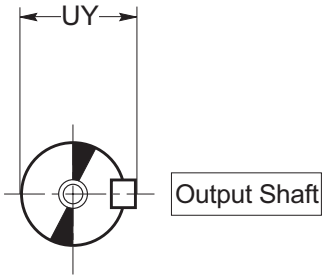
	MA	MB	MC
P63	*4*	*11*	*12.8*
P71	*5*	*14*	*16.3*
P80	*6*	*19*	*21.8*
P90	*8*	*24*	*27.3*
P100, P112	*8*	*28*	*31.3*
P132	*10*	*38*	*41.3*
P160	*12*	*42*	*45.3*
P180	*14*	*48*	*51.8*
P200	*16*	*55*	*59.3*
P225	*18*	*60*	*64.4*
P250	*18*	*65*	*69.4*

	C							
	P63 P71	**P80 P90**	**P100 P112**	**P132**	**P160 P180**	**P200**	**P225**	**P250**
A 90 3	—	28.46	28.86	30.30	32.48	33.46	35.26	36.44
		723	*733*	*769.5*	*825*	*850*	*895.5*	*925.5*
A 90 4	30.96	31.73	32.13	33.56	35.55	—	—	—
	786.5	*806*	*816*	*852.5*	*903*			

Dimensions are $\frac{\text{inch}}{mm}$

Foot mount A 05...A 90 (single shaft extension)



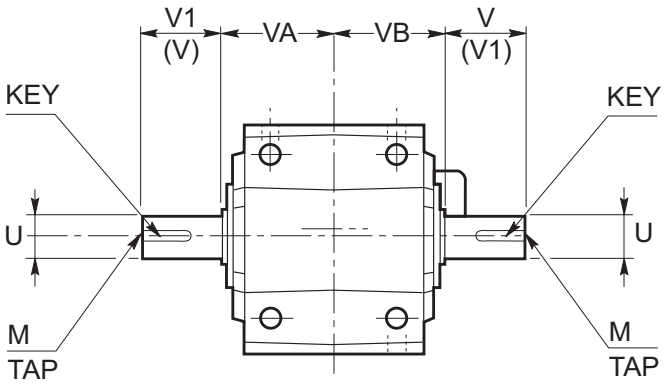


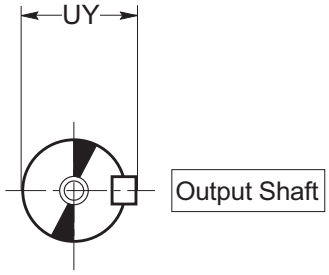
Output shaft (NUR inch series)

Model		U	UY	V	VA	Key	M
A 05	**NUR**	1.000 $^{+0}_{-0.0005}$	1.109	2.000	2.244 *57*	1/4 x 1/4 x 1 3/4	*M8x19 [mm]*
A 10	**NUR**	1.000 $^{+0}_{-0.0005}$	1.109	2.000	2.480 *63*	1/4 x 1/4 x 1 3/4	*M8x19 [mm]*
A 20	**NUR**	1.250 $^{+0}_{-0.0006}$	1.360	2.500	2.874 *73*	1/4 x 1/4 x 2 5/32	*M10x22 [mm]*
A 30	**NUR**	1.375 $^{+0}_{-0.0006}$	1.510	2.750	3.268 *83*	5/16 x 5/16 x 2 3/8	*M10x22 [mm]*
A 35	**NUR**	1.500 $^{+0.0013}_{-0.0004}$	1.663	3.000	3.484 *88.5*	3/8 x 3/8 x 2 7/8	*M12x28 [mm]*
A 41	**NUR**	1.625 $^{+0}_{-0.0006}$	1.790	3.250	3.661 *93*	3/8 x 3/8 x 2 7/8	*M12x228 [mm]*
A 50	**NUR**	2.000 $^{+0}_{-0.0007}$	2.220	4.000	4.646 *118*	1/2 x 1/2 x 3 3/4	*M16x36 [mm]*
A 55	**NUR**	2.188 $^{+0}_{-0.0007}$	2.409	4.375	4.734 *120*	1/2 x 1/2 x 3 3/4	*M20x42 [mm]*
A 60	**NUR**	2.625 $^{+0}_{-0.0007}$	2.900	5.250	4.921 *125*	5/8 x 5/8 x 5	*M20x42 [mm]*
A 70	**NUR**	2.750 $^{+0}_{-0.0008}$	3.027	5.250	6.004 *152.5*	5/8 x 5/8 x 5	*M20x42 [mm]*
A 80	**NUR**	3.250 $^{+0}_{-0.0009}$	3.581	6.750	7.087 *180*	3/4 x 3/4 x 6 1/2	*M24x50 [mm]*
A 90	**NUR**	3.625 $^{+0}_{-0.0009}$	4.009	8.313	8.071 *205*	7/8 x 7/8 x 8	*M24x50 [mm]*

Dimension are $\frac{\text{inch}}{mm}$

Foot mount A 05...A 60 (double shaft extension)



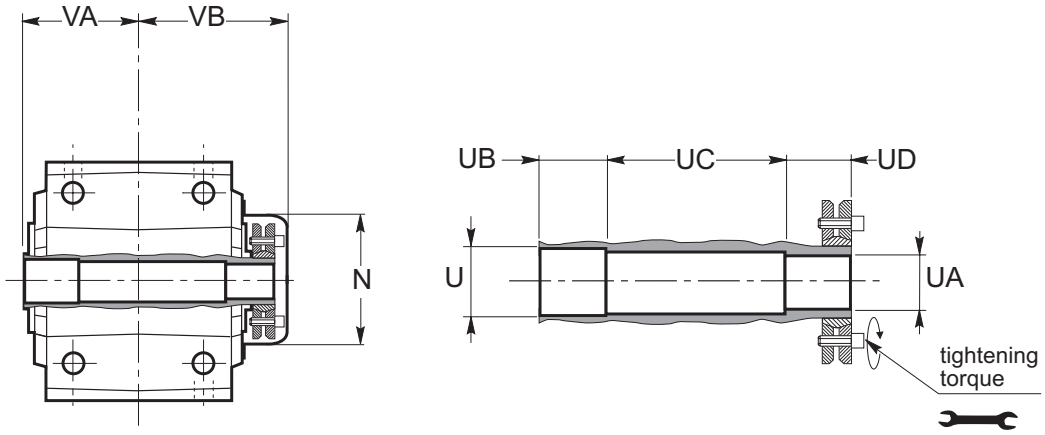


Output shaft (NUD inch series)

Model		U	UY	V	V1	VA	VB	Key	M
A 05	**NUD**	1.000 $^{+0}_{-0.0005}$	1.109	2.076	2.000	2.244 *58.0*	2.168 *56.0*	1/4 x 1/4 x 1 3/4	*M8x19 [mm]*
A 10	**NUD**	1.000 $^{+0}_{-0.0005}$	1.109	2.076	2.000	2.559 *66.0*	2.483 *64.0*	1/4 x 1/4 x 1 3/4	*M8x19 [mm]*
A 20	**NUD**	1.250 $^{+0}_{-0.0006}$	1.360	2.548	2.500	2.953 *76.0*	2.904 *74.5*	1/4 x 1/4 x 2 5/32	*M10x22 [mm]*
A 30	**NUD**	1.375 $^{+0}_{-0.0006}$	1.510	2.798	2.750	3.347 *86.0*	3.298 *85.0*	5/16 x 5/16 x 2 3/8	*M10x22 [mm]*
A 35	**NUD**	1.500 $^{+0.0013}_{-0.0004}$	1.663	3.000	3.000	3.484 *89.5*	3.484 *89.5*	3/8 x 3/8 x 2 7/8	*M12x28 [mm]*
A 41	**NUD**	1.625 $^{+0}_{-0.0006}$	1.790	3.326	3.250	3.898 *100.0*	3.822 *98.0*	3/8 x 3/8 x 2 7/8	*M12x28 [mm]*
A 50	**NUD**	2.000 $^{+0}_{-0.0007}$	2.220	4.056	4.000	4.734 *121.5*	4.678 *120.0*	1/2 x 1/2 x 3 3/4	*M16x36 [mm]*
A 55	**NUD**	2.188 $^{+0}_{-0.0007}$	2.409	4.414	4.375	4.734 *121.5*	4.695 *120.5*	1/2 x 1/2 x 3 3/4	*M20x42 [mm]*
A 60	**NUD**	2.625 $^{+0}_{-0.0007}$	2.900	5.290	5.250	5.158 *132.5*	5.117 *131.5*	5/8 x 5/8 x 5	*M20x42 [mm]*

Dimension are $\frac{\text{inch}}{mm}$

Shaft mount with shrink disc A 05...A 90

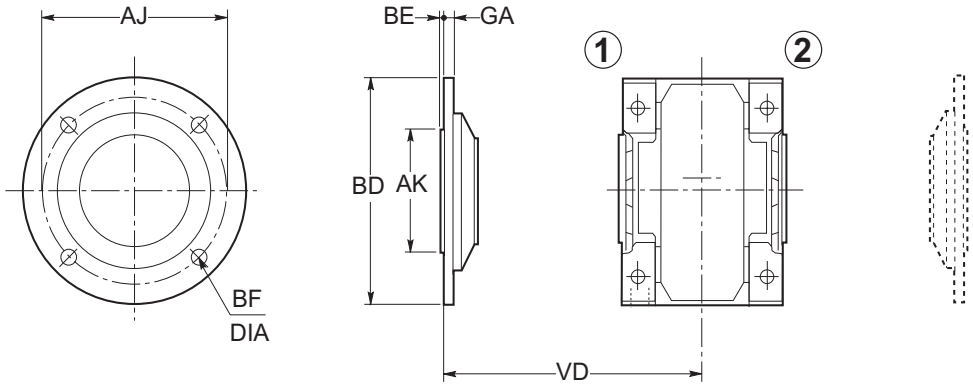


Output shaft

Model	tightening torque [lb·in / *Nm*]	U	UA	UB	UC	UD	VA	VB	N
A 05	128	1.063	0.984	1.339	2.500	1.339	2.047	3.602	2.677
	14.5	*27*	*25*	*34*	*63.5*	*34*	*52*	*91.5*	*68*
A 10	128	1.260	1.181	1.417	3.051	1.417	2.362	4.055	3.346
	14.5	*32*	*30*	*36*	*77.5*	*36*	*60*	*103*	*85*
A 20	128	1.457	1.378	1.654	3.524	1.614	2.756	4.547	3.937
	14.5	*37*	*35*	*42*	*89.5*	*41*	*70*	*115.5*	*100*
A 30	128	1.654	1.575	1.969	3.760	1.890	3.150	4.941	3.937
	14.5	*42*	*40*	*50*	*95.5*	*48*	*80*	*125.5*	*100*
A 35	128	1.654	1.575	2.087	4.331	1.890	3.484	5.236	4.449
	14.5	*42*	*40*	*52.5*	*110*	*48*	*88.5*	*133*	*113*
A 41	128	1.850	1.772	2.047	4.862	1.909	3.661	5.819	5.315
	14.5	*47*	*45*	*52*	*123.5*	*48.5*	*93*	*147.8*	*195*
A 50	310	2.244	2.165	1.890	6.142	2.441	4.488	7.051	7.283
	35	*57*	*55*	*48*	*156*	*62*	*114*	*179.1*	*185*
A 55	310	2.441	2.362	1.969	6.142	2.441	4.498	6.969	7.205
	35	*62*	*60*	*50*	*156*	*62*	*114.25*	*177*	*183*
A 60	310	2.835	2.756	1.969	7.008	2.638	4.921	7.461	7.283
	35	*72*	*70*	*50*	*178*	*67*	*125*	*189.5*	*185*
A 70	310	3.228	3.150	3.622	6.811	3.543	6.024	8.366	8.268
	35	*82*	*80*	*92*	*173*	*90*	*153*	*212.5*	*210*
A 80	611	3.622	3.543	4.016	8.504	3.937	7.087	9.764	9.055
	69	*92*	*90*	*102*	*216*	*100*	*180*	*248*	*230*
A 90	611	4.016	3.937	3.150	12.638	2.756	8.071	11.063	9.843
	69	*102*	*100*	*80*	*321*	*70*	*205*	*281*	*250*

Dimension are inch / *mm*

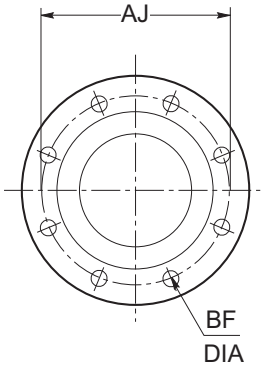
Flange options for A 05...A 41



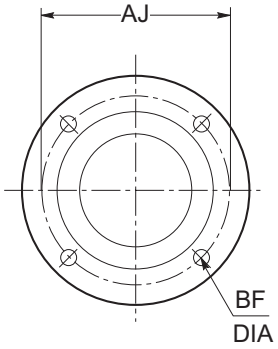
		AJ	AK		BD	BE	BF	GA	VD
A 05	**F_A**	3.543	2.756	+0.0018 +0	4.528	0.138	4x 0.413	0.472	3.366
		90	*70*	*+0.046 +0*	*115*	*3.5*	*4x 10.5*	*12*	*85.5*
	F_B	3.937	3.150	+0.0005 -0.0004	4.724	0.157	4x 0.256	0.315	3.150
		100	*80*	*+0.013 -0.009*	*120*	*4*	*4x 6.5*	*8*	*80*
A 10	**F_A**	5.118	4.331	-0.0014 -0.0028	6.299	0.118	4x 0.354	0.394	3.602
		130	*110*	*-0.036 -0.071*	*160*	*3*	*4x 9*	*10*	*91.5*
	F_B	6.496	5.118	-0.0017 -0.0033	7.874	0.138	4x 0.433	0.433	3.602
		165	*130*	*-0.043 -0.083*	*200*	*3.5*	*4x 11*	*11*	*91.5*
	F_C	8.465	7.087	-0.0017 -0.0033	9.843	0.157	4x 0.551	0.512	3.602
		215	*180*	*-0.043 -0.083*	*250*	*4*	*4x 14*	*13*	*91.5*
A 20	**F_A**	5.118	4.331	-0.0014 -0.0028	6.299	0.118	4x 0.354	0.394	4
		130	*110*	*-0.036 -0.071*	*160*	*3*	*4x 9*	*10*	*122.5*
	F_B	6.496	5.118	-0.0017 -0.0033	7.874	0.138	4x 0.433	0.433	4.173
		165	*130*	*-0.043 -0.083*	*200*	*3.5*	*4x 11*	*11*	*106*
	F_C	8.465	7.087	-0.0017 -0.0033	9.843	0.157	4x 0.551	0.512	4.173
		215	*180*	*-0.043 -0.083*	*250*	*4*	*4x 14*	*13*	*106*
A 30	**F_A**	5.118	4.331	-0.0014 -0.0028	6.299	0.118	4x 0.354	0.394	4.567
		130	*110*	*-0.036 -0.071*	*160*	*3*	*4x 9*	*10*	*116*
	F_B	6.496	5.118	-0.0017 -0.0033	7.874	0.138	4x 0.433	0.433	4.567
		165	*130*	*-0.043 -0.083*	*200*	*3.5*	*4x 11*	*11*	*116*
	F_C	8.465	7.087	-0.0017 -0.0033	9.843	0.157	4x 0.551	0.512	4.567
		215	*180*	*-0.043 -0.083*	*250*	*4*	*4x 14*	*13*	*116*
A 35	**F_A**	8.465	7.087	-0.0017 -0.0033	9.843	0.157	4x 0.551	0.512	4.823
		215	*180*	*-0.043 -0.083*	*250*	*4*	*4x 14*	*13*	*122.5*
	F_B	10.433	9.055	-0.0020 -0.0038	11.811	0.157	4x 0.551	0.630	4.823
		265	*230*	*-0.050 -0.096*	*300*	*4*	*4x 14*	*16*	*122.5*
A 41	**F_A**	8.465	7.087	-0.0017 -0.0033	9.843	0.157	4x 0.433	0.512	5.020
		215	*180*	*-0.043 -0.083*	*250*	*4*	*4x 14*	*13*	*127.5*
	F_B	10.433	9.055	-0.002 -0.0038	11.811	0.157	4x 0.551	0.63	5.020
		265	*230*	*-0.05 -0.096*	*300*	*4*	*4x 14*	*16*	*127.5*
	F_C	11.811	9.843	-0.002 -0.0038	13.780	0.197	4x 0.709	0.709	5.020
		300	*250*	*-0.05 -0.096*	*350*	*5*	*4x 18*	*18*	*127.5*

Dimensions are $\frac{\text{inch}}{mm}$

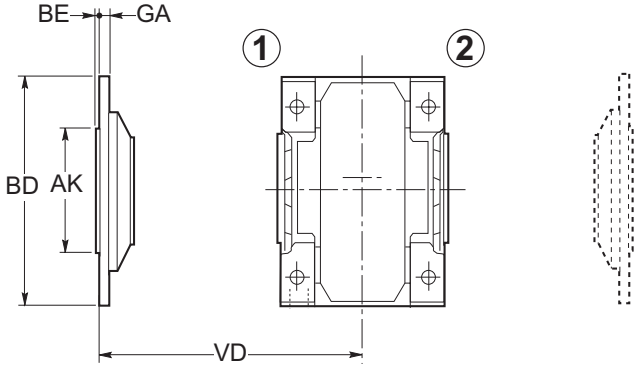
Flange options for A 50...A 90



A70...A90



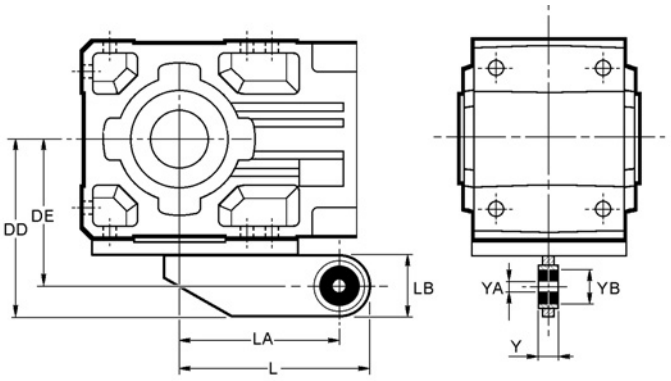
A50...A60



		AJ	AK		BD	BE	BF	GA	VD
A 50	F_A	10.433	9.055	-0.002 -0.0038	11.811	0.157	4x 0.433	0.63	6.299
		265	*230*	*-0.05* *-0.096*	*300*	*4*	*4x 14*	*16*	*160*
	F_B	11.811	9.843	-0.002 -0.0039	13.780	0.197	4x 0.709	0.709	6.299
		300	*250*	*-0.05* *-0.098*	*350*	*5*	*4x 18*	*18*	*160*
	F_C	13.780	11.811	-0.0022 -0.0043	15.748	0.197	4x 0.709	0.787	6.299
		350	*300*	*-0.056* *-0.108*	*400*	*5*	*4x 18*	*20*	*160*
A 55	F_A	10.433	9.055	-0.002 -0.0038	11.811	0.197	4x 0.551	0.63	6.299
		265	*230*	*-0.05* *-0.096*	*300*	*5*	*4x 14*	*16*	*160*
	F_B	11.811	9.843	-0.002 -0.0038	13.780	0.197	4x 0.709	0.709	6.299
		300	*250*	*-0.05* *-0.096*	*350*	*5*	*4x 18*	*18*	*160*
	F_C	13.780	11.811	-0.002 -0.0038	15.748	0.197	4x 0.709	0.787	6.299
		350	*300*	*-0.05* *-0.096*	*400*	*5*	*4x 18*	*20*	*160*
A 60	F_A	10.433	9.055	-0.002 -0.0038	11.811	0.157	4x 0.433	0.63	6.692
		265	*230*	*-0.05* *-0.096*	*300*	*4*	*4x 14*	*16*	*170*
	F_B	11.811	9.843	-0.002 -0.0039	13.780	0.197	4x 0.709	0.709	6.692
		300	*250*	*-0.05* *-0.098*	*350*	*5*	*4x 18*	*18*	*170*
	F_C	13.780	11.811	-0.002 -0.0038	15.748	0.197	4x 0.709	0.787	6.692
		350	*300*	*-0.05* *-0.096*	*400*	*5*	*4x 18*	*20*	*170*
A 70	F_A	15.748	13.780	-0.0024 -0.0047	17.717	0.197	8x 0.709	0.866	8.661
		400	*350*	*-0.062* *-0.119*	*450*	*5*	*8x 18*	*22*	*220*
	F_B	19.685	17.717	-0.0027 -0.0052	21.654	0.197	8x 0.709	0.945	8.661
		500	*450*	*-0.068* *-0.131*	*550*	*5*	*8x 18*	*24*	*220*
A 80	F_A	15.748	13.780	-0.0024 -0.0047	17.717	0.197	8x 0.709	0.866	9.843
		400	*350*	*-0.062* *-0.119*	*450*	*5*	*8x 18*	*22*	*250*
	F_B	19.685	17.717	-0.0027 -0.0052	21.654	0.197	8x 0.709	0.945	9.843
		500	*450*	*-0.068* *-0.131*	*550*	*5*	*8x 18*	*24*	*250*
A 90	F_A	19.685	17.717	-0.0027 -0.0052	21.654	0.197	8x 0.709	0.945	11.024
		500	*450*	*-0.068* *-0.131*	*550*	*5*	*8x 18*	*24*	*280*

Dimensions are $\frac{\text{inch}}{mm}$

2.17 TORQUE ARM



	DD	DE	L	LA	LB	Y	YA	YB
A 05	4.547	3.563	4.134	3.150	1.969	0.787	0.394	1.181
	115.5	*90.5*	*105*	*80*	*50*	*20*	*10*	*30*
A 10	5.433	4.252	5.827	4.646	2.362	0.787	0.394	1.181
	138	*108*	*148*	*118*	*60*	*20*	*10*	*30*
A 20	5.827	4.646	6.575	5.394	2.362	0.787	0.394	1.181
	148	*118*	*167*	*137*	*60*	*20*	*10*	*30*
A 30	6.693	5.315	7.283	5.906	2.756	0.984	0.787	1.575
	170	*135*	*185*	*150*	*70*	*25*	*20*	*40*
A 35	7.087	5.709	7.874	6.496	2.756	0.984	0.787	1.575
	180	*145*	*200*	*165*	*70*	*25*	*20*	*40*
A 40	7.559	6.181	9.252	7.874	2.756	0.984	0.787	1.575
	192	*157*	*235*	*200*	*70*	*25*	*20*	*40*
A 50	9.646	7.874	11.614	9.843	3.543	1.575	1.260	2.205
	245	*200*	*295*	*250*	*90*	*40*	*32*	*56*
A 55	9.646	7.874	11.614	9.843	3.543	1.575	1.260	2.205
	245	*200*	*295*	*250*	*90*	*40*	*32*	*56*
A 60	10.630	8.858	13.583	11.811	3.543	1.575	1.260	2.205
	270	*225*	*345*	*300*	*90*	*40*	*32*	*56*
A 70	13.150	11.380	11.614	9.843	3.543	1.575	1.260	2.205
	334	*289*	*295*	*250*	*90*	*40*	*32*	*56*
A 80	16.614	14.055	14.370	11.811	5.118	2.362	1.654	3.071
	422	*357*	*365*	*300*	*130*	*60*	*42*	*78*
A 90	18.700	16.142	16.338	13.780	5.118	2.362	1.654	3.071
	475	*410*	*415*	*350*	*130*	*60*	*42*	*78*

Torque arm comes complete with fasteners

Dimensions are $\frac{\text{inch}}{mm}$

3.0 BONFIGLIOLI ELECTRIC MOTORS

3.1 GENERAL INFORMATION

BONFIGLIOLI RIDUTTORI three-phase AC induction motors and brake motors are designed for continuous operation, IEC dimensional standard and comply electrically with all relevant standards including NEMA MG1.

They are supplied either integral (M type) to a BONFIGLIOLI gear unit or flanged design (BN type).

The motors also comply with national standards adapted to IEC 60034-1 as charted along side.

(C1)

Canada	CSA C22.2 N° 100
Great Britain	BS5000 / BS 4999
Germany	DIN VDE 0530
Australia	AS 1359
Belgium	NBNC 51 - 101
Norway	NEK – IEC 34
France	NF C 51
Austria	OEVE M 10
Switzerland	SEV 3009
Netherlands	NEN 3173
Sweden	SS 426 01 01

Abbreviations and units

Symb.	U.m.	Description
cos φ	–	Power factor
η	–	Efficiency
f_m	–	Intermittence adjustment factor
f_t	–	Ambient temperature factor
I	–	Cyclic duration factor
I_n	[A]	Rated current
I_s	[A]	Locked rotor current
J_c	[lb·ft^2]	Load inertia
J_m	[lb·ft^2]	Motor inertia
n	[rpm]	Speed
K_c	–	Torque factor
K_d	–	Load factor
K_i	–	Inertia factor
T_b	[lb·in]	Brake torque
T_n	[lb·in]	Motor rated torque
T_a	[lb·in]	Mean starting torque
T_k	[lb·in]	Breakdown torque
T_L	[lb·in]	Load torque
T_s	[lb·in]	Locked rotor torque
P_b	[W]	Power absorbed by brake coil
P_n	[W]	Rated power output
t_1	[ms]	Brake release time
t_{1s}	[ms]	Shorter brake release time
t_2	[ms]	Brake reaction time
t_{2c}	[ms]	Faster reaction time
t_a	[°C/ °F]	Ambient temperature
t_f	[min]	Operating time at constant load
t_r	[min]	Rest time
W	[lb•ft]	Brake work between two successive adjustments
W_{max}	[lb•ft]	Max permissible brake work
Z	[1/h]	Permissible starts per hour
Z_0	[1/h]	Permissible starts per hour (unloaded, I=50%)

Conversion table for commonly used metric – imperial units

Length

1 in	=	25.40 mm	= 0.0254 m
1 ft	=	304.8 mm	= 0.3048 m
1 yd	=	914.4 mm	= 0.9144 m

Area

1 in^2	=	645.16 mm^2	= 0.645×10^{-3} m^2
1 ft^2	=	92.9×10^3 mm^2	= 92.9× 10^3 m^2
1 yd^2	=	836×10^3 mm^2	= 0.8361 m^2

Volume

1 in^3	=	16.4×10^{-3} dm^3	= 16.4×10^{-6} m^3
1 ft^3	=	28.32 dm^3	= 28.3×10^{-3} m^3

Force – Weight

1 lbm	=	2.2046 kg
1 lbf	=	4.4482 N

Torque

1 lb in	=	0.1129 Nm
1 lb ft	=	1.3558 Nm

Power

1 hp	=	0.7457 kW

Moment of inertia

1 lb ft^2	=	4.214×10^{-2}	kg m^2
1 lb in s^2	=	1.12985×10^{-1}	kg m^2
1 lb ft s^2	=	1.35582	kg m^2

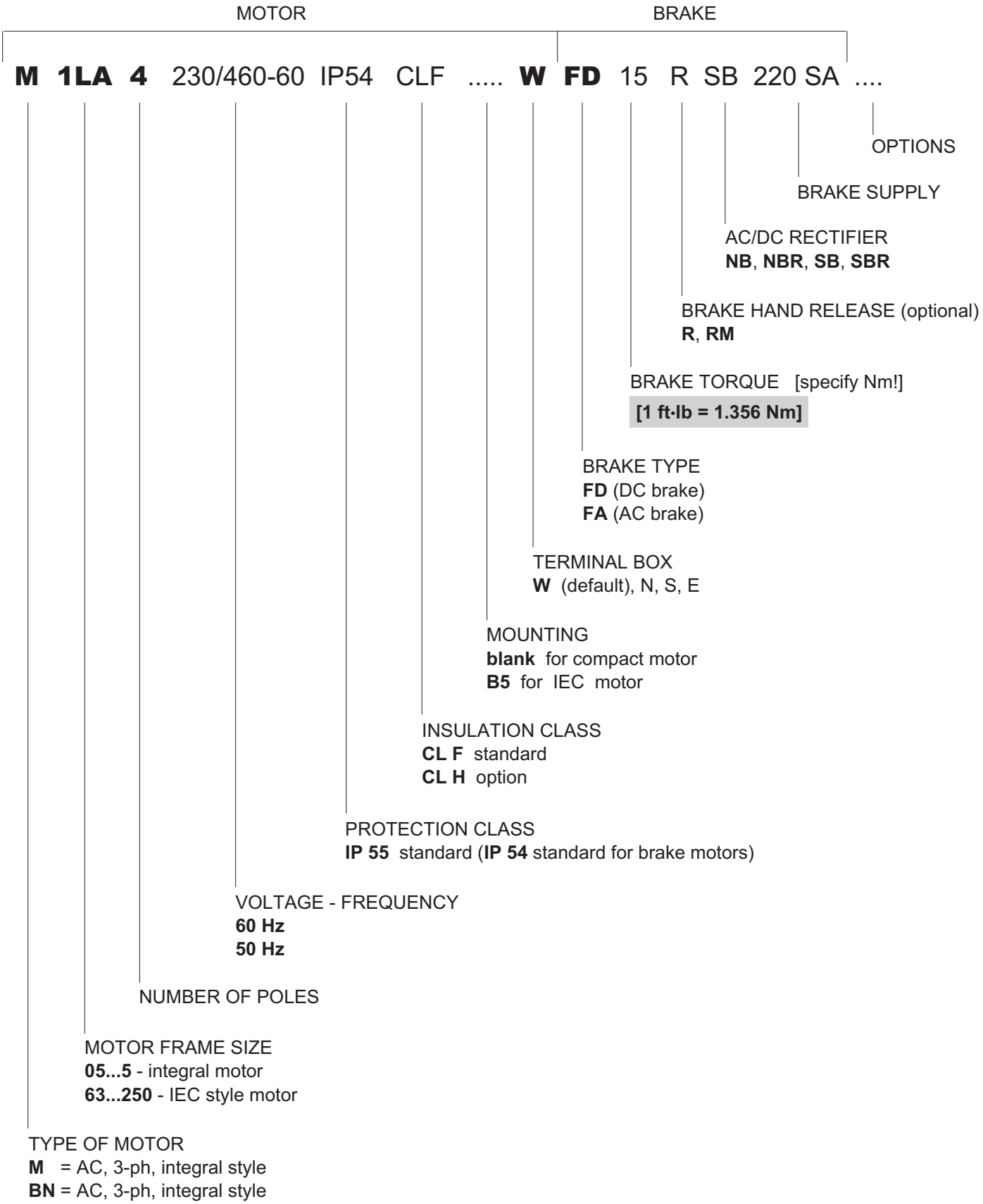
Pressure – stress

1 lb/in^2	=	6.89×10^{-3}	N/mm^2
1 lb/ft^2	=	47.88	N/m^2

Temperature

t [°F]	=	$\frac{5}{9}$ x [t – 32]	[°C]
T [°C]	=	$\left(\frac{9}{5}\text{ x T} + 32\right)$	[°F]

3.2 MOTOR ORDERING NUMBERS



US power mains voltages and the corresponding rated voltages to be specified for the motor are indicated in the following table:

(C2)

Frequency	Mains voltage	V_{mot}
60 Hz	208 V	**200 V**
	240 V	**230 V**
	480 V	**460 V**
	600 V	**575 V**

Motors with YY/Y connection (e.g. 230/460-60; 220/440-60) feature, as standard, a 9-stud terminal board.
For DC brake motors type BN_FD, the rectifier is fed with 1-phase 230V a.c., factory pre-wired in the motor terminal box as standard.

Brake power supply for brake motors is as follows:

(C3)

BN_FD **M_FD**	
Wired to terminal box 1~230V a.c.	
BN_FA **M_FA**	
	Specify
Separate power supply 230V Δ - 60Hz	**230SA**
Separate power supply 460V Y - 60Hz	**460SA**

Tolerances

As per the IEC standards applicable the tolerances here after apply to the following quantities.

(C4)

-0.15 (1 - η) P ≤ 75 hp	Efficiency
-(1 - cosφ)/6 min 0.02 max 0.07	Power factor
±20% *	Slip
+20%	Locked rotor current
-15% +25%	Locked rotor torque
-10%	Max. torque

* ± 30% for motors with Pn < 0.75 hp

CUS

Motors for USA and Canada

BN and M motors are available in NEMA Design C configuration (concerning electrical characteristics), certified to CSA (Canadian standard) C22.2 No. 100 and UL (Underwriters Laboratory) UL 1004. By specifying the option CUS the name plate is marked with both symbols shown here below.

C US

3.3 MECHANICAL CHARACTERISTICS

IP..

Enclosures

Motors are provided as totally enclosed fan-cooled (TEFC) according to NEMA MG1 1-26-2 1998 and they are designed for IP 55 (IP 54 for brake motors) degree of protection in accordance with NEMA MG1- 5 / IEC 60034-5 Standards. Higher degree of protection (IP 56, or IP 55 for brake motors) is available on request.
The following table provides an overview of the available degree of protection.
Regardless of the protection class specified on order, motors to be installed outdoors require protection against direct sunlight and in addition – when they are to be installed with the shaft downwards – a drip cover to keep out water and solid matter (option **RC**).

(C5)

		IP 54	IP 55	IP 56
		n.a.	standard	at request
BN_FD **BN_FA**	**M_FD** **M_FD**	standard	at request	n.a.

Cooling

The motors are self ventilated (IEC 411 / NEMA MG1-6) and are equipped with a plastic fan working in both directions. The motors must be installed allowing sufficient space between fan cowl and the nearest wall to ensure

free air intake and allow access for maintenance purposes on motor and brake, if supplied.
Independent, forced air ventilation (IEC 416 / NEMA MG1-6) can be supplied on request (option U1).
This solution enables to increase the motor duty factor when driven by an inverter and operating at reduced speed.

Direction of rotation

Rotation is possible in both directions. If terminals U1, V1, and W1 are connected to line phases L1, L2 and L3, clockwise rotation (looking from drive end) is obtained. For counterclockwise rotation, switch two phases.

Noise

Noise levels, measured using the method prescribed by ISO 1680 Standards, are within the maximum levels specified by Standards CEI EN 60034-9.

Vibrations and balancing

Rotor shafts are balanced with half key fitted and fall within the vibration class N, as per Standard CEI EN 60034-14. If a further reduced noise level is required improved balancing can be optionally requested (class N).
Table below shows the value for the vibration velocity for standard (N) and improved (R) balancing.

(C6)

Vibration class	Angular velocity	Limits of the vibration velocity [mm/s]	
	n [rpm]	**BN 56…BN 132 M05…M4**	**BN 160MR…BN 200 M5**
N	$600 \le n \le 3600$	1.8	2.8
R	$600 \le n \le 1800$	0.71	1.12
	$1800 < n \le 3600$	1.12	1.8

Values refer to measures with freely suspended motor in unloaded conditions.

Winding connection and motor terminal box

Standard terminal board has 9 studs for YY-Y dual-voltage winding and 6 studs for star/delta winding configuration (single-speed motors).

An earth terminal located in the terminal box is provided as standard on all motors.
For DC brake motors, the AC/DC rectifier is supplied in the terminal box and it is provided with adequately connected terminals.
All connections must be carried out according to the diagrams inside the terminal box or in the instruction manual.

Cable entry

(C7)

		Cable entry (metric thread)	Max cable diam. [mm]
BN 63	**M 05**	2 x M20	13
BN 71	**M 1**	2 x M25	17
BN 80 - BN 90	**M 2**	2 x M25	17
BN 100	**M 3**	2 x M32	21
		2 x M25	17
BN 112	**—**	2 x M32 2 x M25	17
BN 132...BN 160MR	**M 4**	4 x M32	21
BN 160M...BN 200L	**M 5**	2 x M40	29

Bearings

Life lubricated preloaded radial ball bearings are used, types are shown in the chart here under.
Calculated endurance lifetime L_{10}, as per ISO 281, in unloaded condition, exceeds 40000 hrs.
DE = drive end
NDE = non drive end

(C8)

	DE	NDE	
	M, M_FD, M_FA	**M**	**M_FD, M_FA**
M05	6004 2Z C3	6201 2Z C3	6201 2RS C3
M1	6004 2Z C3	6202 2Z C3	6202 2RS C3
M2	6007 2Z C3	6204 2Z C3	6204 2RS C3
M3	6207 2Z C3	6206 2Z C3	6206 2RS C3
M4	6309 2Z C3	6208 2Z C3	6208 2RS C3
M5	6309 2Z C3	6209 2Z C3	6209 2RS C3

(C9)

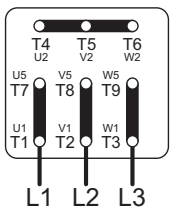
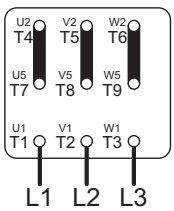
	DE	NDE	
	BN, BN_FD, BN_FA	BN	BN_FD, BN_FA
BN 56	6201 2Z C3	6201 2Z C3	-
BN 63	6201 2Z C3	6201 2Z C3	6201 2Z C3
BN 71	6202 2Z C3	6202 2Z C3	6202 2Z C3
BN 80	6204 2Z C3	6204 2Z C3	6204 2Z C3
BN 90	6205 2Z C3	6205 2Z C3	6205 2Z C3
BN 100	6206 2Z C3	6206 2Z C3	6206 2Z C3
BN 112	6306 2Z C3	6306 2Z C3	6306 2Z C3
BN 132	6308 2Z C3	6308 2Z C3	6308 2Z C3
BN 160MR	6309 2Z C3	6308 2Z C3	6308 2Z C3
BN 160M/L	6309 2Z C3	6309 2Z C3	6309 2Z C3
BN 180M	6210 2Z C3	6309 2Z C3	6309 2Z C3
BN 180L	6310 2Z C3	6310 2Z C3	6310 2Z C3
BN 200L	6312 2Z C3	6310 2Z C3	6310 2Z C3

3.4 ELECTRICAL CHARACTERISTICS

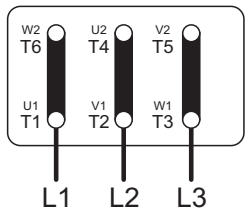
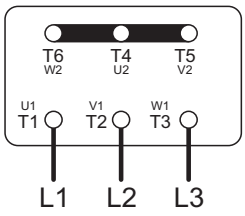
Voltage

Motors can operate on any voltage within the range of 200 – 690 Volts. Voltage to be <600 V for CSA/UL motors. Voltage values available as standard are 230/460V-60 Hz and 575V-60Hz.
Other voltage values may be available on request.

(C10)

Low Voltage	High Voltage
230V - 60Hz	460V - 60Hz
200V - 50Hz	400V - 50Hz
Single-Speed / Dual-Voltage	
Low Voltage YY	High Voltage Y
	

(C11)

Low Voltage	High Voltage
200V - 50Hz	346V - 50Hz
208V - 60Hz	360V - 60Hz
220V - 50Hz	380V - 50Hz
230V - 50Hz	400V - 50Hz
240V - 50Hz	415V - 50Hz
330V - 60Hz	575V - 60Hz
Single-Speed / Dual-Voltage	
Low Voltage Δ	High Voltage Y
	

Rated horsepower

Motor outputs shown in this catalogue are based on continuous operation at 40 °C [100 °F] ambient temperature and maximum elevation not exceeding 3300 feet (1000 m) above the sea level.
Motors can operate at higher ambient temperatures with output adjusted in accordance with the chart (C12) here below.

(C12)

Ambient temperature [°F]	100	115	120	130	140
Power output as a % of rated power	100%	95%	90%	85%	80%

Should a derating factor higher than 15% apply, contact our Technical Service.

Insulation class

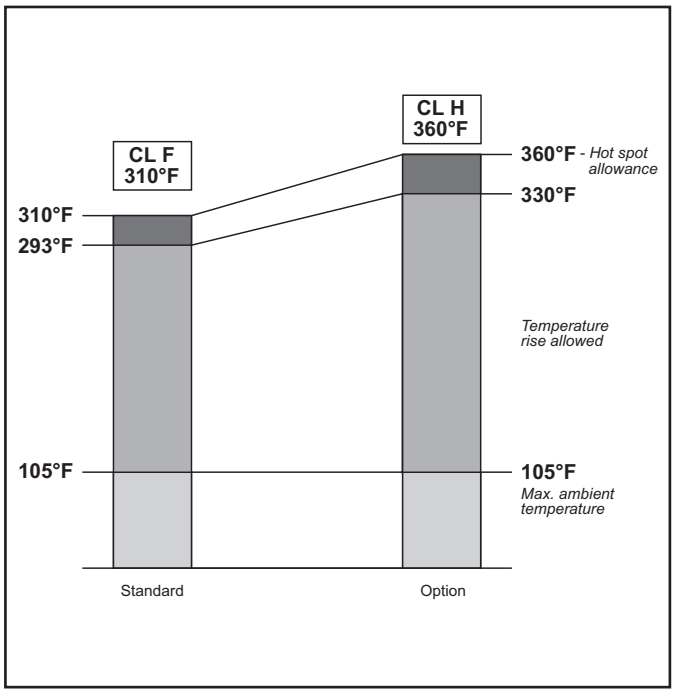
CL F

Bonfiglioli motors use class **F** insulating materials (enamelled wire, insulators, impregnation resins) as compared to the standard motor.

CL H

Motors manufactured in higher insulation class **H** are available at request.
In standard motors, the stator windings temperature rise normally stays below the 80 K limit corresponding to class B over temperature.
A careful selection of insulating components makes the motors compatible with tropical climates and normal vibration.
For applications involving the presence of aggressive chemicals or high humidity, contact Bonfiglioli Engineering for assistance with product selection.

(C13)



Types of duty

Unless otherwise indicated, the power rating of motors specified in the catalogue refers to continuous duty S1.
For motors used under conditions other than S1, the type of duty required is definied with reference to CEI EN 60034-1 Standards.
In particular, for intermittent duties type S2 and S3, power can be adjusted with respect to continuous duty through multipliers listed in table (C14) applicable to single speed motors.

$$f_m = \frac{P\ (S2...S8)}{P\ (S1)}$$

(C14)

	Duty						
	S2			S3 *			S4 - S8
	Cycle duration (min)			Cyclic duration factor (I)			Consult factory
	10	30	60	25%	40%	60%	
f_m	1.35	1.15	1.05	1.25	1.15	1.1	

* Cycle duration must, in any event, be equal to or less than 10 minutes; if this time is exceeded, please contact our Technical Service.

Cycle duration factor:

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

t_f = operating time at constant load
t_r = rest time

Limited duration duty S2

This type of duty is characterized by operation at constant load for a limited time, which is shorter than the time required to reach thermal equilibrium, followed by a rest period of sufficient duration to restore ambient temperature in the motor.

Periodical intermittent duty S3

This type of duty is characterized by a sequence of identical operation cycles, each including a constant load operation period and a rest period.
For this type of duty, the starting current does not significantly influence overtemperature.

Inverter-driven motors

The electric motors of series BN and M may be used in combination with PWM inverters with rated voltage at transformer input up to 500 V.Standard motors use a phase insulating system with separators, class 2 enam-

elled wire and class H impregnation resins (1600V peak-to-peak voltage pulse capacity and rise edge t_s > 0.1µs at motor terminals). Table (C15) shows the typical torque/speed curves referred to S1 duty for motors with base frequency f_b = 60 Hz.
Because ventilation is somewhat impaired in operation at lower frequencies (approx. 30 Hz), standard motors with incorporated fan (IC411) require adequate torque derating or - alternately - the addition of a separate supply fan cooling.
Above base frequency, upon reaching the maximum output voltage of the inverter, the motor enters a steady-power field of operation, and shaft torque drops with ratio (f/f_b).
As motor maximum torque decreases with $(f/f_b)^2$, the allowed overloading must be reduced progressively.

(C15)

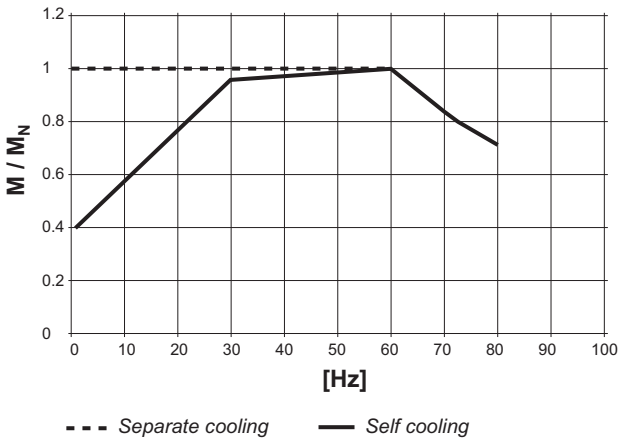


Table (C16) reports the mechanical limit speed for motor operation above rated frequency:

(C16)

		n [rpm]		
		2p	4p	6p
≤ **BN 112**	**M05…M3**	5200	4000	3000
BN 132...BN 200L	**M4, M5**	4500	4000	3000

Above rated speed, motors generate increased mechanical vibration and fan noise. Class R rotor balancing is highly recommended in these applications. Installing a separate supply fan cooling may also be advisable.

Indipendent fan cooling and brake (if fitted) must always be connected direct to mains power supply.

Permissible starts per hour Z

The rating charts of brakemotors lend the permitted number of starts Z_0, based on 50% intermittence and for unloaded operation.
The catalogue value represents the maximum number of starts per hour for the motor without exceeding the rated temperature for the insulation class F.
To give a practical example for an application characterized by inertia J_c, drawing power P_r and requiring mean torque at start-up T_L the actual number of starts per hour for the motor can be calculated approximately through the following equation:

$$Z = \frac{Z_0 \times K_c \times K_d}{K_J}$$

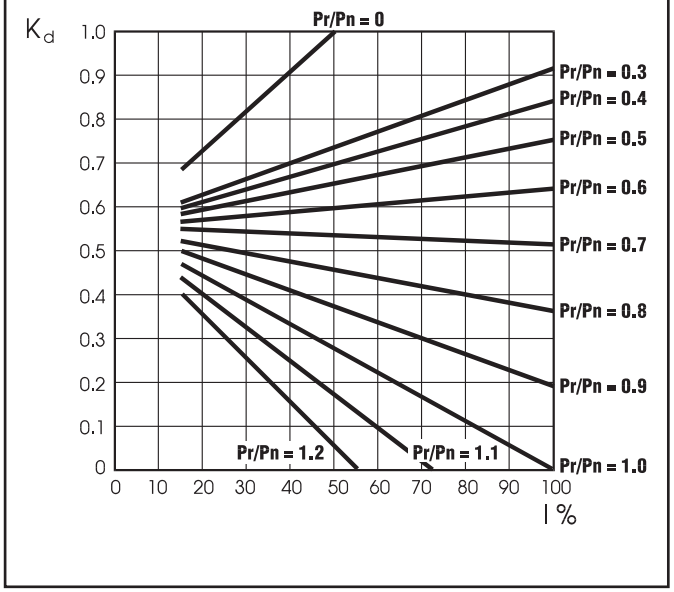
where:

$$K_J = \frac{J_m + J_c}{J_m} = \text{inertia factor}$$

$$K_c = \frac{T_a - T_L}{T_a} = \text{torque factor}$$

K_d = load factor (see table C16)

(C17)



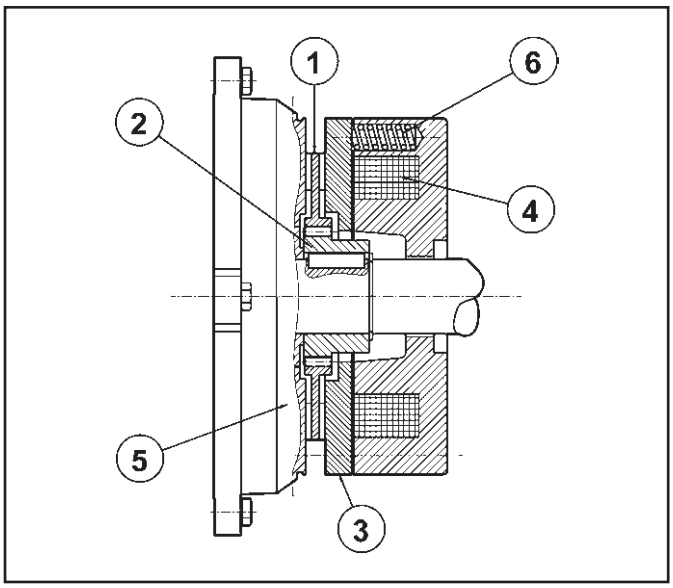
If actual starts per hour is within permitted value (Z) it may be worth checking that braking work is compatible with brake (thermal) capacity W_{max} also given in table (C22) and dependent on the number of switches (s/h).

3.5 BRAKE MOTORS

Operation

Versions with incorporated brake use spring-applied DC (FD option) or AC (FA option) brakes.
All brakes are designed to provide fail-safe operation, meaning that they are applied by spring-action in the event of a power failure.

(C18)



Key:
① brake disc
② disc carrier
③ pressure plate
④ brake coil
⑤ motor rear shield
⑥ brake springs

When power is disconnected, the springs push the armature plate against the brake disc. The disc becomes trapped between the armature plate and motor shield and stops the shaft from rotating.
When the coil is energized, a magnetic field attracts the armature plate, so that the brake disc – which is integral with the motor shaft – is released.

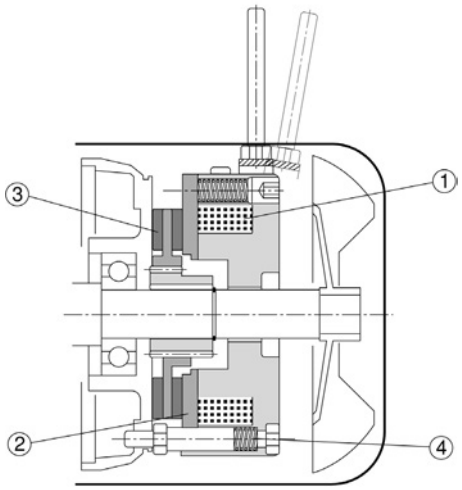
Most significant features

- High braking torques (normally $T_b \approx 2\ T_n$), braking torque adjustment.
- Steel brake disc with double friction lining (low-wear, asbestos-free lining).
- Hexagonal socket head on motor shaft end (N.D.E.) for manual rotation (not compatible with options PS, RC, TC, U1, U2, EN1, EN2, EN3).
- Manual release lever.
- Corrosion-proof treatment on all brake surfaces.
- Class F insulation

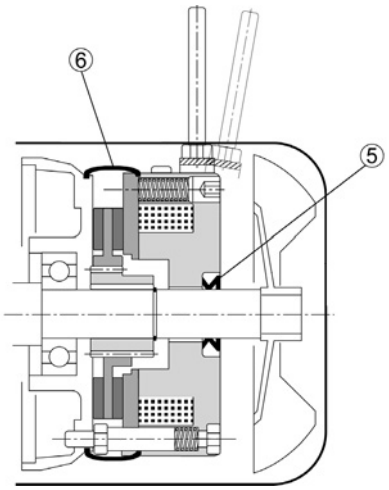
3.6 DC BRAKE MOTORS TYPE BN_FD

Frame sizes: BN 63 … BN 200L

(C19)



IP 54 (DEFAULT FOR BRAKE MOTORS)



IP 55 (OPTIONAL ON BRAKE MOTORS)

Direct current electromagnetic brake bolted onto motor shield. Preloading springs provide axial positioning of magnet body.
Brake disc slides axially on steel hub fitted onto motor shaft with anti-vibration spring.
Brake torque factory setting is indicated in the corresponding motor rating charts.
Braking torque may be modified by changing the type and/or number of springs.
At request, motors may be equipped with manual release lever with automatic return (**R**) or system for holding brake in the released position (**RM**).

See table (C33) for available release lever locations.
FD brakes ensure excellent dynamic performance with low noise. DC brake operating characteristics may be optimized to meet application requirements by choosing from the various rectifier/power supply and wiring connection options available.

Protection class

Standard protection class is IP54.
Brake motor FD is also available in protection class **IP 55**, which incorporates the following variants:

① V-ring at N.D.E. of motor shaft
② dust and water-proof rubber boot
③ stainless steel shim placed between motor shield and brake disc
④ stainless steel hub
⑤ stainless steel brake disc

FD brake power supply

A rectifier housed into the terminal box feeds the DC brake coil. Wiring connection across rectifier and brake coil is performed at the factory.
On single-speed motors, rectifier is pre-wired to the motor terminal board.
Rectifier standard power supply voltage V_B is as indicated in the following table (C20), regardless of mains frequency:

(C20)

2, 4, 6 P					**1 speed**
		**BN_FD / M_FD** V_{mot} ± 10% 3 ~	**BN_FD / M_FD** V_B ± 10% 1 ~	brake connected to terminal board power supply	separate power supply
BN 63…BN 200	**M05...M5**	230/460 V – 60 Hz	230 V	standard	specify **V_B SA** or **V_B SD**

The diode half-wave rectifier ($V_{dc} \approx 0{,}45 \times V_{ac}$) is available in versions **NB**, **SB**, **NBR** e **SBR**, as detailed in the table (C21). Rectifier **SB** with electronic energizing control over-energizes the electromagnet upon power-up to cut brake release response time and then switches to normal half-wave operation once the brake has been released.

Use of the **SB** rectifier is mandatory in the event of:

- high number of operations per hour
- reduced brake release response time
- brake is exposed to extreme thermal stress

Rectifiers **NBR** or **SBR** are available for applications requiring quick brake release response.

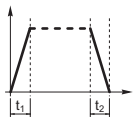
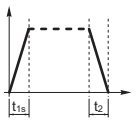
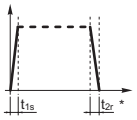
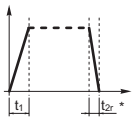
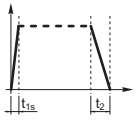
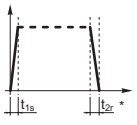
These rectifiers complement the **NB** and **SB** types as their electronic circuit incorporates a static switch that de-energizes the brake quickly in the event voltage is missing.

This arrangement ensures short brake release response time with no need for additional external wiring and contacts.

Optimum performance of rectifiers **NBR** and **SBR** is achieved with separate brake power supply.

Available voltages: 230V ± 10%.

(C21)

		Brake	~/= Standard	~/= At request
BN 63	**M05**	**FD 02**	**NB** 	**SB,** 
BN 71	**M1**	**FD 03**		
		FD 53		**SBR,** 
BN 80	**M2**	**FD 04**		
BN 90S	**—**	**FD 14**		
BN 90L	**—**	**FD 05**		**NBR** 
BN 100	**M3**	**FD 15**		
—		**FD 55**	**SB** 	**SBR** 
BN 112	**—**	**FD 06S**		
BN 132...160MR	**M4**	**FD 56**		
BN 160L - BN 180M	**M5**	**FD 06**		
BN 180L - NM 200L	**—**	**FD 07**		

(*) $t_{2c} < t_{2r} < t_2$

FD brake technical specifications

The table (C22) shows the technical specifications of DC brakes type FD.

(C22)

Brake	Brake torque T_b [lb·in] Springs			Release		Braking		W_{max} per each brake operation [lb·ft]			W	P
				t_1	t_{1s}	t_2	t_{2c}					
	6	4	2	[ms]	[ms]	[ms]	[ms]	10 s/h	100 s/h	1000 s/h	[lb·ftx10^6]	[W]
FD02	—	31	15	30	15	80	9	3300	1050	130	11	17
FD03	44	31	15	50	20	100	12	5200	1400	170	18	24
FD53	66	44	22	60	30	100	12					
FD04 / **FD14**	133	88	44	80	35	140	15	7400	2300	260	27	33
FD05	354	230	115	130	65	170	20	13300	3300	370	37	45
FD15	354	230	115	130	65	170	20					
FD55	487	327	159	—	65	170	20					
FD06S	831	354	177	—	80	220	25	15000	3500	400	52	55
FD56	—	664	327	—	90	150	20	21500	5500	600	59	65
FD06		885	443		100	150	20					
FD07	1328	885	443	—	120	200	25	29500	6900	750	96	65
FD08*	2200	1770	1500	—	140	350	30	44500	10300	1100	170	100
FD09**	3540	2650	1770	—	200	450	40	51500	7600	1250	170	120

* brake torque values obtained with 9, 7 and 6 springs, respectively

** brake torque values obtained with 12, 9 and 6 springs, respectively

Key:

t_1 = brake release time with half-wave rectifier

t_{1s} = brake release time with over-energizing rectifier

t_2 = brake engagement time with AC line disconnect and separate power supply

t_{2c} = brake engagement time with AC and DC line disconnect.
Values for t_1, t_{1s}, t_2, t_{2c} indicated in the tab. (C23) are referred to brake set at maximum torque, medium air gap and rated voltage

W_{max} = max energy per each brake operation

W = braking energy between two successive air gap adjustments

P_b = brake power absorption at normal ambient temperature

T_b = static braking torque (±15%)

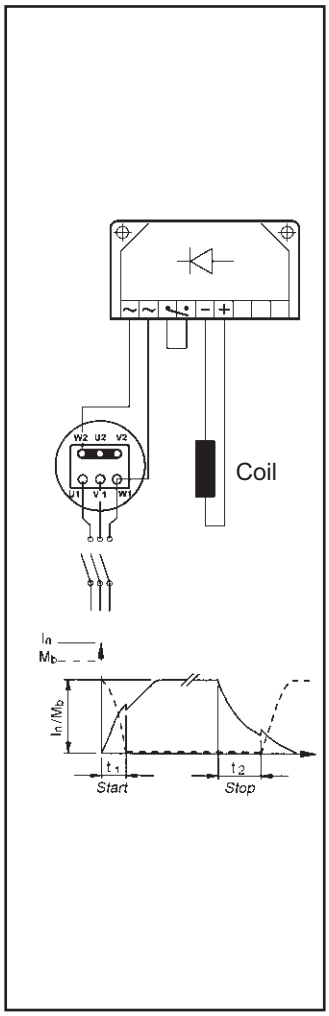
[s/h] = starts per hour

FD brake connections

On standard single-speed motors, the rectifier is connected to the motor terminal board at the factory.

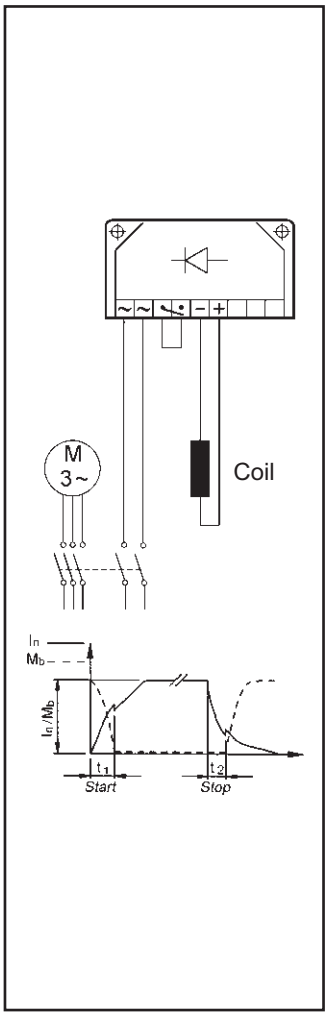
Because the load is of the inductive type, brake control and DC line switch must use contacts from the usage class AC-3 to IEC 60947-4-1.

(C23)



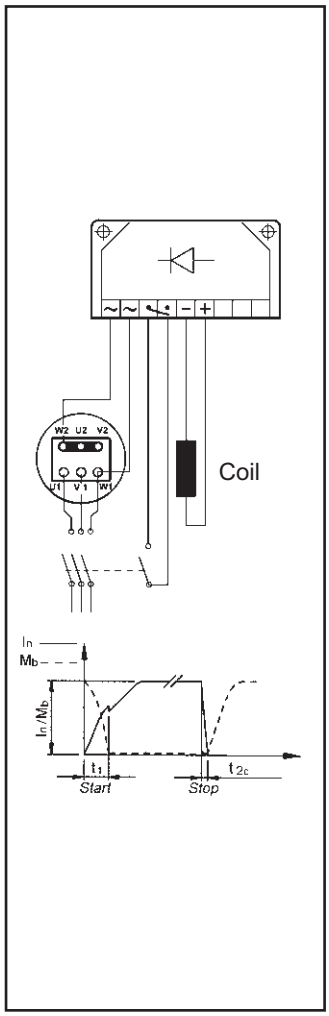
Brake supply from motor terminals and A.C. line disconnect. Longer stop time t_2, dependent on motor time constants. Use when no particular braking performance is required.

(C24)



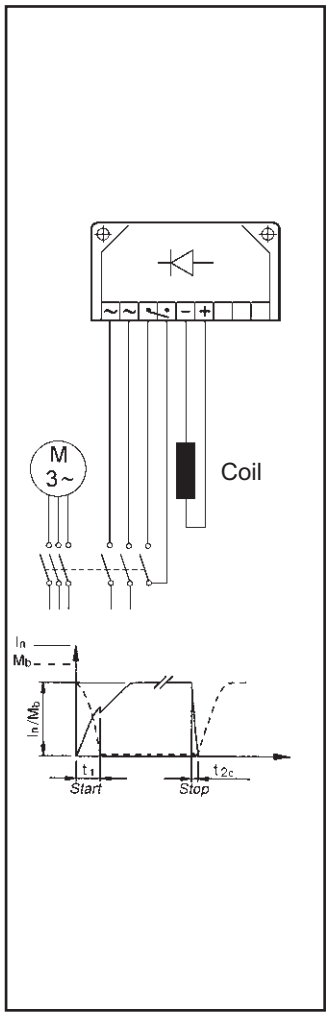
Separate power supply to brake coil and A.C. line disconnect.
Stopping time is independent on motor. See table C22

(C25)



Brake coil energized from motor terminals, both A.C. and D.C. line switch off.
Rapid stopping time, t_{2c}. See table C22

(C26)

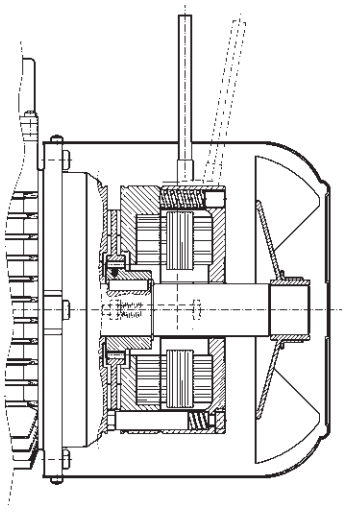


Separate power supply to brake coil. Both A.C. and D.C. line disconnect.
Rapid stopping time to t_{2c} value, see table C22

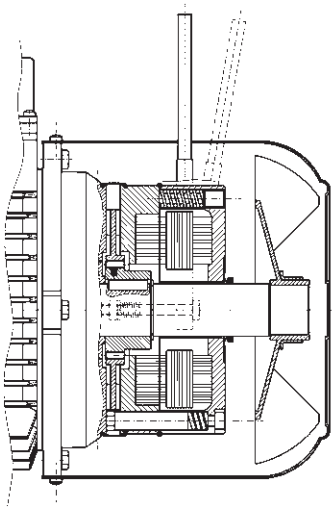
3.7 AC BRAKE MOTORS TYPE BN_FA

Frame sizes: BN 63 … BN 180M

(C27)



IP 54



IP 55

Electromagnetic brake operates from three-phase **alternated current** power supply and is bolted onto motor rear shield. Preloaded springs provide axial positioning of the magnet body.
Steel brake disc slides axially on steel hub fitted onto motor shaft with anti-vibration spring.
Brake torque factory setting is indicated in the corresponding motor rating charts.
Spring preloading screws provide stepless braking torque adjustment.
Torque adjustment range is 30% $T_{bMAX} < T_b < T_{bMAX}$ (where T_{bMAX} is maximum braking torque as shown in tab. (C29).
Thanks to their high dynamic characteristics, FA brakes are ideal for heavy-duty applications as well as applications requiring frequent stop/starts and fast response time.

Motors may be equipped with manual release lever with automatic return (**R**) at request. See table (C33) for available lever locations.

Degree of protection

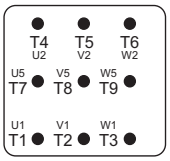
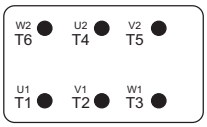
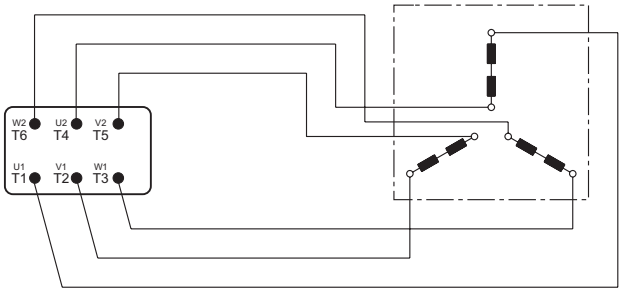
Standard degree of protection is IP54.
Brake motor BN_FA is also available with degree of protection **IP 55**, which incorporates the following variants:

- V-ring at N.D.E. of motor shaft
- water-proof rubber grommet
- O-ring

FA brake power supply

Depending on motor voltage the brake may require the supply voltage to be specified, or not, as detailed in the diagram below. Special voltages in the 24...690 V range may be available on request.

(C28)

<table>
<tr><th>Motor voltage - V_{mot}</th><th>Brake voltage - V_B</th><th>Specify</th><th colspan="2">Brake wiring scherme</th></tr>
<tr><td rowspan="2">230/460 V YY/Y
60 Hz</td><td>230 Δ - 60 Hz</td><td>230SA</td><td rowspan="2">Motor terminal board
 
</td><td rowspan="2">Auxiliary terminal board
 
</td></tr>
<tr><td>460 Y - 60 Hz</td><td>460SA</td></tr>
<tr><td>330/575 V Δ/Y
60 Hz</td><td>330/575 V Δ/Y
60 Hz</td><td>not
required</td><td colspan="2">Motor terminal board
 
</td></tr>
</table>

Technical specifications of FA brakes

(C29)

Brake	Brake torque T_b [lb·in]	Release t_1 [ms]	Braking t_2 [ms]	W_{max} [lb·ft] 10 s/h	W_{max} [lb·ft] 100 s/h	W_{max} [lb·ft] 1000 s/h	W [lb·ftx10^6]	P_b [VA]
FA 02	31	4	20	4500	1400	180	15	60
FA 03	66	4	40	7000	1900	230	25	80
FA 04	133	6	60	10000	3100	350	30	110
FA 14								
FA 05	354	8	90	18000	4500	500	50	250
FA 15								
FA 06S	530	16	120	20000	4800	550	70	470
FA 06	663	16	140	29000	7400	800	80	550
FA 07	1328	16	180	40000	9300	1000	130	600
FA 08	2200	20	200	60000	14000	1500	230	1200

Key:

T_b = max static braking torque (±15%)
t_1 = brake release time
t_2 = brake engagement time
W_{max} = max energy per brake operation (brake thermal capacity)
W = braking energy between two successive air gap adjustments
P_b = power drawn by brake at 20° (50 Hz)
[s/h] = starts per hour

NOTE

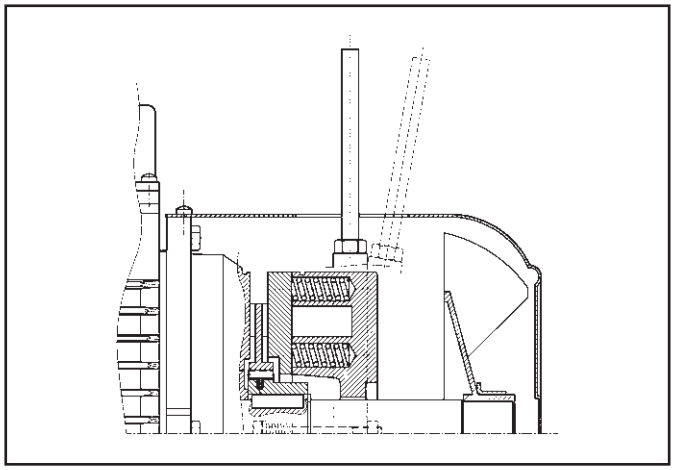
Values t_1 and t_2 in the table refer to a brake set at rated torque, medium air gap and rated voltage.

3.8 - BRAKE RELEASE SYSTEMS

Spring-applied brakes type **FD** and **FA** may be equipped with optional manual release devices. These are typically used for manually releasing the brake before servicing any machine or plant parts operated by the motor.

R

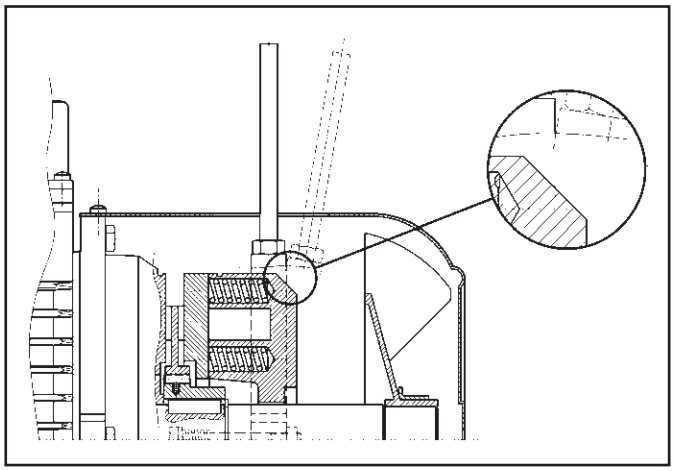
(C30)



A return spring brings the release lever back in the original position.

RM

(C31)



On motors type BN_FD, it the option RM is specified, the release lever may be locked in the ”release” position by tightening the lever until lever end becomes engaged with a brake housing projection.

The availability for the two lever options is charted here below:

(C32)

	R	RM
BN_FD	BN 63...BN 200	BN 63...BN 160MR
M_FD	M 05...M 5	M 05...M 4LC
BN_FA	BN 63...BN 180M	n.a.
M_FA	M 05...M 5	

Release lever arrangement

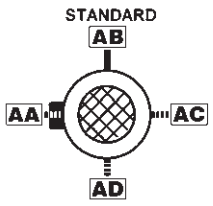
Unless otherwise specified, the release lever is located 90° away from the terminal box – identified by letters [**AB**] in the diagram below – in a clockwise direction on both options **R** and **RM**.
Alternative lever positions [**AA**], [**AC**] and [**AD**] are also possible when the corresponding option is specified:

(C33)

AA

AC

AD



Fly-wheel data (F1)

The table below shows values of weight and inertia of flywheel (option F1). Overall dimensions of motors remain unchanged. The option is available for DC brake-motors only.

(C34)

Main data for flywheel			
		Fly-wheel weight [lbs]	Fly-wheel inertia [lb • ft^2] x 10^{-5}
BN 63	**M05**	0.31	2.7
BN 71	**M1**	0.51	5.7
BN 80	**M2**	0.76	11.4
BN 90 **BN 90 L**	**–**	1.14	22.3
BN 100	**M3**	1.58	35.4
BN 112	**–**	2.19	62.4
BN 132 S **BN 132 M**	**M4**	2.81	108.6

3.9 - OPTIONS

Thermal protective devices

In addition to the standard protection provided by the magneto-thermal device, motors can be supplied with built-in thermal probes to protect the winding against overheating caused, by insufficient ventilation or by an intermittent duty.
This additional protection should always be specified for servoventilated motors (IC416).

E3

Thermistors

These are semi-conductors having rapid resistance variation when they are close to the rated switch off temperature.
Variations of the R = f(T) characteristic are specified under DIN 44081, IEC 34-11 Standards.
These elements feature several advantages: compact dimensions, rapid response time and, being contact-free, absolutely no wear.
Positive temperature coefficient thermistors are normally used (also known as PTC “cold conductor resistors”).
Unlike bimetallic thermostates, they cannot directly intervene on currents of energizing coils, and must therefore be connected to a special control unit (triggering apparatus) to be interfaced with the external connections.
Thus protected, three PTCs connected in series are installed in the winding, the terminals of which are located on the auxiliary terminal-board.

Bimetallic thermostates

These types of protective devices house a bimetal disk. When the rated switch off temperature is reached, the disk switches the contacts from their initial rest position.
As temperature falls, the disk and the contacts automatically return to rest position.
Three bimetallic thermostates connected in series are usually employed, with normally closed contacts. The terminals are located in an auxiliary terminal-board.

H1

Anti-condensation heaters

Where an application involves high humidity or extreme temperature fluctuation, motors may be equipped with an anti-condensate heater.
A single-phase power supply is available in the auxiliary terminal board inside the main terminal box. Values for the absorbed power are listed here below:

(C35)

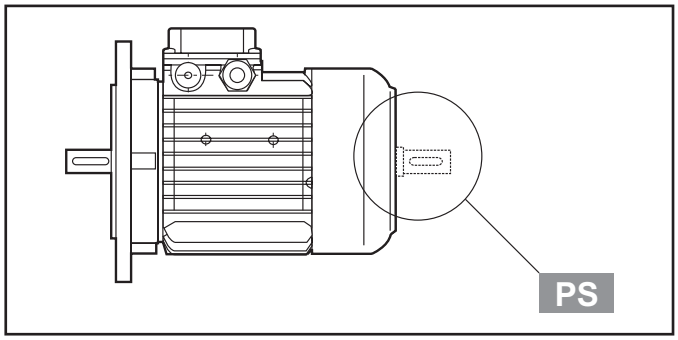
		**H1**
		1~ 230V ± 10%
		P [W]
BN 56...BN 80	**M0...M2**	10
BN 90...BN 160MR	**M3 - M4**	25
BN 160M...BN 180M	**M5**	50
BN 180L...BN 200L	**–**	50

Warning!
Always disconnect power supply to the anti-condensante heater before operating the motor.

PS

Second shaft extension

(C36)



This option is not compatible with variants RC, TC, U1, U2, EN1, EN2, EN3. For shaft dimensions please see motor dimensions tables.

AL AR

Backstop device

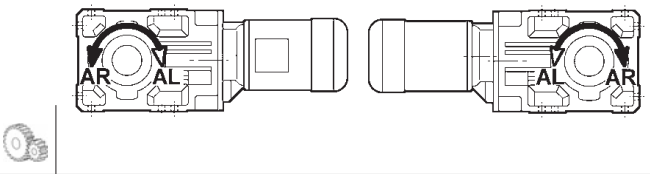
For applications where backdriving must be avoided, a backstop device on the motor itself is available for gearmotors with integral M Series motors.

While allowing rotation in the direction required, this device operates instantaneously in case of a power failure, preventing the shaft from running back.
The anti run-back device is life lubricated with special grease for this specific application.
When ordering, customers should indicate the required rotation direction, AL or AR, Table (C37) shows the direction of free rotation of the gearbox, on the basis of which the correct option must be selected.

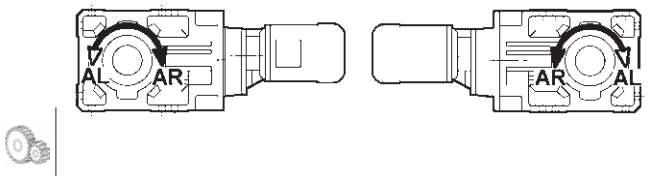
Never use the anti run-back device to prevent reverse rotation caused by faulty electrical connection.

Table (C38) shows rated and maximum locking torques for the anti run-back devices.
A diagram of the device can be seen in Table (C39).
Overall dimensions are same as the corresponding brake motor.

(C37)



2x	A 05	A 10	A 20	A 30	A 35	A 41	A 50	A 60
3x	A 60	A 70	A 80	A 90				
4x	A 50	A 55						

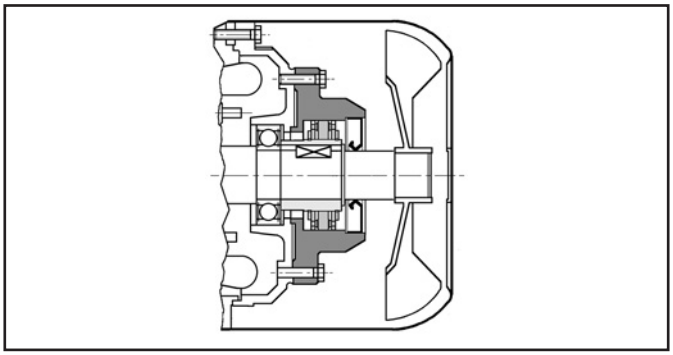


2x	A 55					
3x	A 20	A 30	A 35	A 41	A 50	A 55
4x	A 60	A 70	A 80	A 90		

(C38)

	Rated locking torque [lb·in]	Max. locking torque [lb·in]	Release speed [rpm]
M1	53	90	750
M2	140	240	650
M3	480	815	520
M4	970	1815	430

(C39)



Ventilation

Motors are cooled through outer air blow (IC 411 according to CEI EN 60034-6) and are equipped with a plastic radial fan, which operates in both directions.
Ensure that fan cover is installed at a suitable distance from the closest wall so to allow air circulation and servicing of motor and brake, if fitted.
On request, motors can be supplied with independently power-supplied forced ventilation system starting from BN 71 or M1 size.
Motor is cooled by an axial fan with independent power supply and fitted on the fan cover (IC 416 cooling system).
This option comes handy for inverter driven motors so that constant torque operation is possible even at low speed or when high starting frequencies are needed.
Motors with rear shaft projection (PS option) are excluded.

(C40)

Power supply					
		**V a.c.** ± 10%	**Hz**	**P** [W]	**I** [A]
BN 71	**M1**	1~ 230	50 / 60	22	0.12
BN 80	**M2**			22	0.12
BN 90	**–**			40	0.30
BN 100 (*)	**M3**			50	0.25
BN 112	**–**	3~ 230 Δ / 400Y		50	0.26 / 0.15
BN 132S	**M4S**			110	0.38 / 0.22
BN 132M... BN160MR	**M4L**				
BN 160... BN 180M	**M5**	3~460	60	210	1.25 / 0.72

This variant features two options, designated **U1** and **U2**, having the same length overall.
Longer side of fan cover (ΔL) is specified for both models in the table below. Overall dimension can be reckoned from motor size table.

(C41)

Extra length for servoventilated motors [in]			
		ΔL_1 add for standard motor	ΔL_2 add for brakemotor
BN 71	**M1**	3.66	1.26
BN 80	**M2**	5.00	2.17
BN 90	**–**	5.16	1.89
BN 100	**M3**	4.69	1.10
BN 112	**–**	5.12	1.22
BN 132S	**M4S**	6.34	2.01
BN 132M	**M4L**	6.34	2.01

U1

Fan wiring terminals are housed in a separate terminal box.
In brake motors of size BN 71...BN 160MR, with **U1** model, the release lever cannot be positioned to AA.

U2

Fan terminals are wired in the motor terminal box.
The U2 option does not apply to motors BN 160 through BN 200L, with the only exception of motor BN 160MR for which the option is available instead and to motors with option CUS (compliant to norms CSA and UL)..

(C42)

(*)			**V a.c.** ± 10%	**Hz**	**P** [W]	**I** [A]
	BN 100_U2	**M3**	3~ 230 Δ / 400Y	50/60	40	0.12 / 0.09

RC

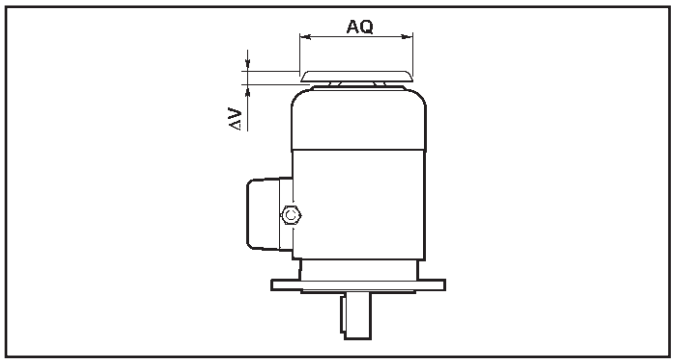
Drip cover

The drip cover protects the motor from dripping and avoids the ingress of solid bodies. It is recommended when motor is installed in a vertical position with the shaft downwards. Relevant dimensions are indicated in the table (C43). The drip cover is not compatible with variants PS, EN1, EN2, EN3.

(C43)

		**AQ** [in]	**ΔV** [in]
BN 63	**M05**	4.65	0.95
BN 71	**M1**	5.28	1.06
BN 80	**M2**	5.98	0.98
BN 90	**–**	6.61	1.18
BN 100	**M3**	7.48	1.10
BN 112	**–**	8.31	1.26
BN 132...BN 160MR	**M4**	10.00	1.26
BN 160M...BN 180M	**M5**	11.89	1.42
BN 180L...BN 200L	**–**	13.39	1.42

(C44)



TC

Textile canopy

Option TC is a cover variant for textile industry environments, where lint may obstruct the fan grid and prevent a regular flow of cooling air.
This option is not compatible with variants EN1, EN2, EN3. Overall dimensions are the same as drip cover type RC.

Feedback units

Motors may be combined with three different types of encoders to achieve feedback circuits.
Configurations with double-extended shaft (PS) and rain canopy (RC, TC) are not compatible with the installation of the encoder.

EN1

Incremental encoder, V_{IN}= 5 V, line-driver output RS 422.

EN2

Incremental encoder, V_{IN}=10-30 V, line-driver output RS 422.

EN3

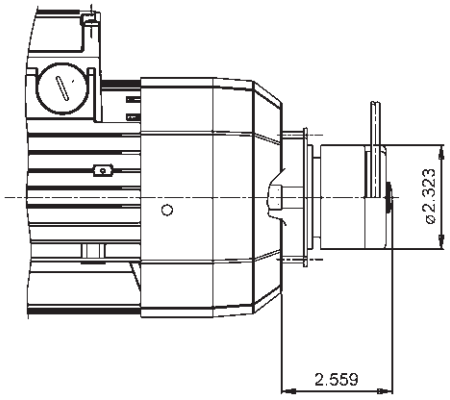
Incremental encoder, V_{IN}=12-30 V, push-pull output 12-30 V.

(C45)

	EN1	EN2	EN3
Interface	RS 422	RS 422	push-pull
Power supply voltage [V]	4...6	10...30	12...30
Output voltage [V]	5	5	12...30
No-load operating current [mA]	120	100	100
No. of pulses per revolution	1024		
No. of signals	6 (A, B, C + inverted signals)		
Max. output frequency [kHz]	300	300	200
Max. speed [rpm]	600 (900 rpm x 10s)		
Temperature range [°C]	-20...+70		
Protection class	IP 65		

(C46)

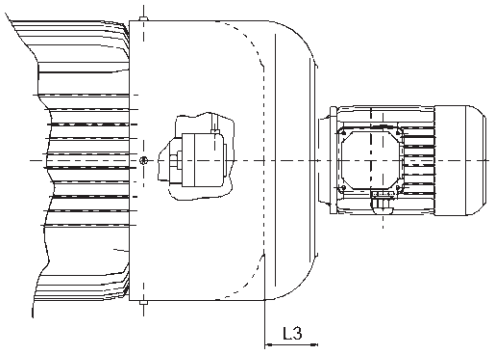
EN1, EN2, EN3



BN 63...BN 200L	**M05...M5**
BN 63_FD...BN 200L_FD	**M05_FD...M5_FD**
BN 63_FA...BN 200L_FA	**M05_FA...M5_FA**

(C47)

EN_ + U1



		L3
BN 160M...BN 180M	**M5**	2.835
BN 180L...BN 200L	**-**	3.228
BN 160M_FD...BN 180M_FD	**M5_FD**	1.378
BN 180L_FD...BN 200L_FD	**-**	1.614

If the encoder device (options EN1, EN2, EN3) is specified on motors BN71...BN160MR and M1...M4, along with the independent fan cooling (options U1, U2), the extra length of motor is coincident with that of the correspondent U1 and U2 execution.

3.10 COMPACT MOTOR RATING CHARTS

2 POLE - 3600 rpm - S1

60 Hz

P_n			n	T_n	η	cosφ	I_n at 460V	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW		rpm	lb·in	%		A				1)	2)	1)		lb·in	**NB**	**SB**	2)		lb·in		2)
0.25	0.18	**M 05A 2**	3380	4.7	60	0.74	0.53	4.1	3.0	3.2	0.0048	0.0062	7.1	**FD 02**	15	2700	3300	10.8	**FA 02**	15	3300	10.4
0.33	0.25	**M 05B 2**	3400	6.1	65	0.75	0.63	4.9	3.2	3.3	0.0055	0.0071	7.9	**FD 02**	15	2700	3300	11.7	**FA 02**	15	3300	11.2
0.5	0.37	**M 05C 2**	3420	9.2	69	0.76	0.89	5.5	3.3	3.5	0.0062	0.0078	10.6	**FD 02**	30	2500	3000	14.3	**FA 02**	30	3000	13.9
0.75	0.55	**M 1SD 2**	3450	13.7	76	0.75	1.23	6.2	3.4	3.9	0.0097	0.0126	12.8	**FD 03**	44	2200	2700	18.7	**FA 03**	44	2700	18.1
1	0.75	**M 1LA 2**	3440	18.3	77	0.75	1.62	6.2	3.8	4.1	0.0119	0.0145	15.2	**FD 03**	44	1500	2100	21	**FA 03**	44	2100	21
1.5	1.1	**M 2SA 2**	3430	27.6	77	0.76	2.40	6.2	3.8	3.9	0.0214	0.0252	19.4	**FD 04**	88	1200	1600	28	**FA 04**	88	1600	28
2	1.5	**M 2SB 2**	3420	36.8	80	0.81	2.89	6.0	3.3	3.5	0.0271	0.0309	23	**FD 04**	133	1000	1300	32	**FA 04**	133	1300	32
3	2.2	**M 3SA 2**	3430	55	81	0.83	4.2	6.0	2.4	2.5	0.0570	0.0665	34	**FD 15**	230	800	1000	49	**FA 15**	230	1000	51
5	3.7	**M 3LB 2**	3490	92	84	0.83	6.7	6.7	2.9	3.2	0.0926	0.102	49	**FD 15**	354	360	500	62	**FA 15**	354	500	64
7.5	5.5	**M 4SA 2**	3490	135	83	0.86	9.8	6.4	2.7	3.0	0.240	0.266	72	**FD 06**	440		400	101	**FA 06**	440	400	104
10	7.5	**M 4SB 2**	3490	181	82	0.88	13.0	6.2	2.8	3.2	0.318	0.344	88	**FD 06**	440		350	117	**FA 06**	440	350	143
15	11	**M 4LC 2**	3510	271	87	0.88	18.3	6.9	2.7	3.0	0.499		132									
20	15	**M 5SB 2**	3510	359	86	0.90	24.2	6.0	2.5	2.7	0.808		154									
25	18.5	**M 5SC 2**	3520	449	88	0.91	29.2	6.9	2.8	3.0	0.998		183									
30	22	**M 5LA 2**	3520	537	88	0.91	35.1	6.9	2.8	3.1	1.164		209									

1) without brake
2) with brake

4 POLE - 1800 rpm - S1

60 Hz

P_n			n	T_n	η	cosφ	I_n at 460V	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW		rpm	lb·in	%		A				1)	2)	1)		lb·in	**NB**	**SB**	2)		lb·in		2)
0.12	0.09	**M 0B 4**	1670	4.5	59	0.52	0.37	2.8	2.9	2.9	0.0036		6.4									
0.16	0.12	**M 05A 4**	1690	6.0	60	0.57	0.44	3.3	2.4	2.5	0.0048	0.0062	7.1	**FD 02**	15	7000	9000	10.8	**FA 02**	15	9000	10.4
0.25	0.18	**M 05B 4**	1670	9.4	58	0.60	0.65	3.2	2.8	2.9	0.0055	0.0071	7.9	**FD 02**	30	7000	9000	11.7	**FA 02**	30	9000	11.2
0.33	0.25	**M 05C 4**	1670	12.4	64	0.64	0.77	3.3	2.5	2.6	0.0078	0.0093	10.6	**FD 02**	30	6000	8000	14.3	**FA 02**	30	8000	13.9
0.50	0.37	**M 1SD 4**	1700	18.5	66	0.73	0.96	4.5	2.6	2.8	0.0164	0.0190	12.1	**FD 03**	44	4800	7500	18.1	**FA 03**	44	7500	17.4
0.75	0.55	**M 1LA 4**	1710	27.6	72	0.70	1.37	4.9	3.0	3.1	0.0216	0.0242	15.2	**FD 53**	66	3400	7000	21	**FA 53**	66	7000	21
1	0.75	**M 2SA 4**	1720	36.6	78	0.75	1.61	6.2	3.4	3.5	0.0482	0.0523	20	**FD 04**	133	3000	6000	29	**FA 04**	133	6000	29
1.5	1.1	**M 2SB 4**	1720	55	78	0.76	2.33	6.3	3.4	3.5	0.0594	0.0641	23	**FD 04**	133	2000	4200	32	**FA 04**	133	4200	32
2	1.5	**M 3SA 4**	1720	73	82	0.73	3.15	5.7	2.9	3.3	0.0808	0.0903	34	**FD 15**	230	1500	3000	49	**FA 15**	230	3000	51
3	2.2	**M 3LA 4**	1720	110	81	0.73	4.67	5.5	2.7	2.9	0.0960	0.105	37	**FD 15**	354	1000	2700	53	**FA 15**	354	2700	53
5	3.7	**M 3LC 4**	1730	182	84	0.74	7.5	5.6	2.8	3.1	0.145	0.154	51	**FD 55**	480		1200	64	**FA 55**	480	1200	66
7.5	5.5	**M 4SA 4**	1730	273	84	0.84	9.8	6.3	2.9	3.1	0.506	0.530	93	**FD 56**	664		850	121	**FA 06**	664	850	124
10	7.5	**M 4LA 4**	1740	362	85	0.84	13.2	6.1	2.9	3.0	0.641	0.665	112	**FD 06**	885		700	141	**FA 06**	885	700	143
15	11	**M 4LC 4**	1740	543	88	0.81	19.4	6.5	3.1	3.2	0.855	0.907	143	**FD 07**	1328		600	179	**FA 07**	1328	600	183
20	15	**M 5SB 4**	1750	720	90	0.84	24.9	5.8	2.3	2.7	1.544	1.781	187	**FD 08**	1770		400	254	**FA 08**	1770	400	251
25	18.5	**M 5LA 4**	1760	895	90	0.83	31.1	5.8	2.5	3.1	1.876	2.054	223	**FD 08**	2210		300	289	**FA 08**	2210	300	287

1) without brake
2) with brake

6 POLE - 1200 rpm - S1

60 Hz

P_n			n	T_n	η	cosφ	I_n	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW		rpm	lb·in	%		A				1)	2)	1)		lb·in	**NB**	**SB**	2)		lb·in		2)
0.12	0.09	**M 05A 6**	1100	6.9	47	0.46	0.52	2.4	2.9	2.9	0.0081	0.0095	9.5	**FD 02**	30	7000	10000	13.2	**FA 02**	30	10000	12.8
0.16	0.12	**M 05B 6**	1100	9.2	49	0.54	0.57	2.3	2.4	2.4	0.0088	0.0102	10.1	**FD 02**	30	7000	10000	13.9	**FA 02**	30	10000	13.4
0.25	0.18	**M 1SC 6**	1100	14.3	61	0.65	0.57	3.3	2.6	2.8	0.0200	0.0226	11.2	**FD 03**	44	6500	10000	17.2	**FA 03**	44	10000	16.5
0.33	0.25	**M 1SD 6**	1100	18.9	64	0.65	0.75	3.2	2.6	2.7	0.0259	0.0290	13.9	**FD 03**	44	6200	8000	19.8	**FA 03**	44	8000	19.2
0.50	0.37	**M 1LA 6**	1100	28.6	66	0.65	1.08	3.3	2.6	2.7	0.0306	0.0330	16.1	**FD 53**	66	4000	7000	22	**FA 03**	66	7000	21
0.75	0.55	**M 2SA 6**	1140	41.4	76	0.66	1.38	4.9	3.2	3.4	0.0594	0.0641	23	**FD 04**	133	3800	5000	32	**FA 04**	133	5000	32
1	0.75	**M 2SB 6**	1140	55	76	0.61	2.03	4.4	2.8	3.0	0.0665	0.0713	25	**FD 04**	133	2700	5000	34	**FA 04**	133	5000	34
1.5	1.1	**M 3SA 6**	1140	83	74	0.68	2.74	4.4	2.4	2.8	0.147	0.157	37	**FD 15**	230	2300	4500	51	**FA 15**	230	4500	53
2	1.5	**M 3LA 6**	1140	111	76	0.66	3.75	4.5	2.4	2.8	0.195	0.204	46	**FD 15**	354	1500	3000	60	**FA 15**	354	3000	62
3	2.2	**M 3LC 6**	1140	166	77	0.68	5.3	5.1	2.6	2.9	0.226	0.235	51	**FD 55**	480		1500	64	**FA 15**	480	1500	66
5	3.7	**M 4LA 6**	1150	274	80	0.79	7.3	6.1	2.5	3.1	0.701	0.724	95	**FD 06**	885		900	123	**FA 06**	885	900	126
7.5	5.5	**M 4LB 6**	1140	414	82	0.75	11.2	5.4	2.7	2.9	0.910	0.964	119	**FD 07**	1328		800	154	**FA 07**	1328	800	159
10	7.5	**M 5SA 6**	1160	543	85	0.82	13.5	5.8	2.3	2.8	1.758	1.936	152	**FD 08**	1500		550	216	**FA 08**	1500	550	216
15	11	**M 5SB 6**	1160	815	84	0.83	19.8	5.8	2.5	2.9	2.304	2.482	196	**FD 08**	1770		400	262	**FA 08**	1770	400	260

1) without brake
2) with brake

2 POLE - 3000 rpm - S1

50 Hz

Bonfiglioli Riduttori

P_n			n	T_n		η	cosφ	I_n	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW		rpm	lb·in		%		A				1)	2)	1)		lb·in	**NB**	**SB**	2)		lb·in		2)
0.25	0.18	**M 05A 2**	2730	5.6		60	0.77	0.56	3.0	2.1	2.0	0.0048	0.0062	7.1	**FD 02**	15	3900	4800	10.8	**FA 02**	15	4800	10.4
0.33	0.25	**M 05B 2**	2740	7.7		66	0.76	0.72	3.3	2.3	2.3	0.0055	0.0071	7.9	**FD 02**	15	3900	4800	11.7	**FA 02**	15	4800	11.2
0.5	0.37	**M 05C 2**	2800	11.2		69	0.78	0.99	3.9	2.6	2.6	0.0062	0.0078	10.6	**FD 02**	30	3600	4500	14.3	**FA 02**	30	4500	13.9
0.75	0.55	**M 1SD 2**	2820	16.5		76	0.76	1.37	5.0	2.9	2.8	0.0097	0.0126	12.8	**FD 03**	44	2900	4200	18.7	**FA 03**	44	4200	18.1
1	0.75	**M 1LA 2**	2810	23.0		77	0.76	1.86	5.1	3.1	2.8	0.0119	0.0145	15.2	**FD 03**	44	1900	3300	21	**FA 03**	44	3300	21
1.5	1.1	**M 2SA 2**	2800	33.6	EFF 2	76	0.81	2.57	4.8	2.8	2.4	0.0214	0.0252	19.4	**FD 04**	88	1500	3000	26	**FA 04**	88	3000	28
2	1.5	**M 2SB 2**	2800	45	EFF 2	79	0.81	3.4	4.9	2.7	2.4	0.0271	0.0309	23	**FD 04**	133	1300	2600	22	**FA 04**	133	2600	32
3	2.2	**M 3SA 2**	2850	65		80	0.78	5.1	5.2	2.1	1.8	0.0570	0.0665	34	**FD 15**	230	1100	2400	49	**FA 15**	230	2400	51
5.5	4	**M 3LB 2**	2870	118	EFF 2	84	0.8	8.6	5.9	2.7	2.5	0.0926	0.102	49	**FD 15**	354	450	900	62	**FA 15**	354	900	64
7.5	5.5	**M 4SA 2**	2890	161	EFF 2	86	0.84	11.0	6.0	2.6	2.2	0.240	0.266	73	**FD 06**	440		600	101	**FA 06**	440	600	104
10	7.5	**M 4SB 2**	2900	221	EFF 2	87	0.85	14.6	6.4	2.6	2.2	0.318	0.344	88	**FD 06**	440		550	117	**FA 06**	440	550	119
15	11	**M 4LC 2**	2920	319	EFF 2	89	0.88	20.2	7.0	2.9	2.5	0.499		132									
20	15	**M 5SB 2**	2930	434	EFF 2	90	0.86	28.1	7.1	2.6	2.3	0.808		154									
25	18.5	**M 5SC 2**	2930	531	EFF 2	90	0.86	34	7.6	2.7	2.3	0.998		183									
30	22	**M 5LA 2**	2930	637	EFF 2	91	0.88	40	7.8	2.6	2.4	1.164		209									

1) without brake
2) with brake

4 POLE - 1500 rpm - S1

50 Hz

P_n			n	T_n		η	cosφ	I_n	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW		rpm	lb·in		%		A				1)	2)	1)		lb·in	**NB**	**SB**	2)		lb·in		2)
0.12	0.09	**M 0B 4**	1350	5.7		52	0.60	0.42	2.6	2.5	2.4	0.0036		6.4									
0.16	0.12	**M 05A 4**	1350	7.5		60	0.62	0.47	2.6	1.9	1.8	0.0048	0.0062	7.1	**FD 02**	15.5	10000	13000	10.8	**FA 02**	15.5	13000	10.4
0.25	0.18	**M 05B 4**	1320	11.5		55	0.67	0.71	2.6	2.2	2.0	0.0055	0.0071	7.9	**FD 02**	31.0	10000	13000	11.7	**FA 02**	31.0	13000	11.2
0.33	0.25	**M 05C 4**	1340	15.8		65	0.69	0.80	2.7	2.1	1.9	0.0078	0.0093	10.6	**FD 02**	31.0	7800	10000	14.3	**FA 02**	31.0	10000	13.9
0.50	0.37	**M 1SD 4**	1370	23.0		67	0.76	1.05	3.7	2	1.9	0.0164	0.0190	12.1	**FD 03**	44.3	6000	9400	18.1	**FA 03**	44.3	9400	17.4
0.75	0.55	**M 1LA 4**	1380	33.6		69	0.74	1.55	4.1	2.3	2.3	0.0216	0.0242	15.2	**FD 53**	66	4300	8700	21	**FA 03**	66	8700	21
1	0.75	**M 2SA 4**	1400	45.1		75	0.78	1.85	4.9	2.7	2.5	0.0482	0.0523	20	**FD 04**	133	4100	7800	29	**FA 04**	133	7800	29
1.5	1.1	**M 2SB 4**	1400	66		76	0.78	2.66	5.1	2.8	2.5	0.0594	0.0641	23	**FD 04**	133	2600	5300	32	**FA 04**	133	5300	32
2	1.5	**M 3SA 4**	1410	90		80	0.77	3.5	4.6	2.1	2.1	0.0808	0.0903	34	**FD 15**	230	2800	4900	49	**FA 15**	230	4900	51
3	2.2	**M 3LA 4**	1410	132		81	0.75	5.2	4.5	2.2	2.0	0.0960	0.105	37	**FD 15**	354	2600	4700	53	**FA 15**	354	4700	53
5.5	4	**M 3LC 4**	1400	239		83	0.78	9.0	4.7	2.3	2.2	0.145	0.154	51	**FD 55**	487		1300	64	**FA 15**	487	1300	66
7.5	5.5	**M 4SA 4**	1440	319		86	0.80	11.5	5.5	2.3	2.2	0.506	0.530	93	**FD 56**	664		1050	121	**FA 06**	664	1050	123
10	7.5	**M 4LA 4**	1440	443		87	0.80	15.6	5.7	2.5	2.4	0.641	0.665	112	**FD 06**	885		950	141	**FA 07**	885	950	143
15	11	**M 4 LC 4**	1440	646		88	0.81	22.2	5.9	2.7	2.5	0.855	0.907	143	**FD 07**	1328		850	179	**FA 07**	1328	850	183
20	15	**M 5SB 4**	1460	867		90	0.81	29.7	5.9	2.3	2.1	1.544	1.781	187	**FD 08**	1770		750	254	**FA 08**	1770	750	251
25	18.5	**M 5LA 4**	1460	1071		90	0.81	37	6.2	2.6	2.5	1.876	2.054	223	**FD 08**	2213		700	289	**FA 08**	2213	700	287

1) without brake
2) with brake

6 POLE - 1000 rpm - S1

50 Hz

P_n			n	T_n	η	cosφ	I_n at 400V	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW		rpm	lb·in	%		A				1)	2)	1)		lb·in	**NB**	**SB**	2)		lb·in		2)
0.12	0.09	**M 05A 6**	880	8.7	41	0.53	0.60	2.1	2.1	1.8	0.0081	0.0095	9.5	**FD 02**	31.0	9000	14000	13.2	**FA 02**	31.0	14000	12.8
0.16	0.12	**M 05B 6**	870	11.7	45	0.60	0.64	2.1	1.9	1.7	0.0088	0.0102	10.1	**FD 02**	31.0	9000	14000	13.9	**FA 02**	31.0	14000	13.4
0.25	0.18	**M 1SC 6**	900	16.9	56	0.69	0.67	2.6	1.9	1.7	0.0200	0.0226	11.2	**FD 03**	44.3	8100	13500	17.2	**FA 03**	44.3	13500	16.5
0.33	0.25	**M 1SD 6**	900	23.9	62	0.71	0.82	2.6	1.9	1.7	0.0259	0.0290	13.9	**FD 03**	44.3	7800	13000	19.8	**FA 03**	44.3	13000	19.2
0.50	0.37	**M 1LA 6**	910	34.5	66	0.69	1.17	3.0	2.4	2.0	0.0306	0.0330	16.1	**FD 53**	66	5100	9500	22	**FA 03**	66	9500	21
0.75	0.55	**M 2SA 6**	920	50	70	0.69	1.64	3.9	2.6	2.2	0.0594	0.0641	23	**FD 04**	133	4800	7200	32	**FA 04**	133	7200	32
1	0.75	**M 2SB 6**	920	69	70	0.65	2.38	3.8	2.5	2.2	0.0665	0.0713	25	**FD 04**	133	3400	6400	34	**FA 04**	133	6400	34
1.5	1.1	**M 3SA 6**	920	101	72	0.69	3.2	3.9	2.3	2.0	0.147	0.157	37	**FD 15**	230	2700	5000	51	**FA 15**	230	5000	53
2	1.5	**M 3LA 6**	940	135	73	0.72	4.1	4.0	2.1	2.0	0.195	0.204	46	**FD 15**	354	1900	4100	60	**FA 15**	354	4100	62
3	2.2	**M 3LC 6**	930	204	75	0.71	6	4.6	2.0	1.9	0.226	0.235	51	**FD 55**	487		1900	64	**FA 15**	487	1900	66
5	4	**M 4LA 6**	950	354	78	0.77	9.6	5.5	2.0	1.8	0.701	0.724	95	**FD 06**	885		1200	123	**FA 07**	885	1200	126
7.5	5.5	**M 4LB 6**	945	496	80	0.78	12.7	5.9	2.1	1.9	0.910	0.964	119	**FD 07**	1328		1050	154	**FA 07**	1328	1050	159
10	7.5	**M 5SA 6**	955	664	84	0.81	15.9	5.9	2.2	2.0	1.758	1.936	152	**FD 08**	1505		900	216	**FA 08**	1505	900	216
15	11	**M 5SB 6**	960	965	87	0.81	22.5	6.5	2.5	2.3	2.304	2.482	196	**FD 08**	1770		800	262	**FA 08**	1770	800	260

1) without brake
2) with brake

3.11 IEC MOTOR RATING CHARTS

2 POLE - 3600 rpm - S1

60 Hz

P_n				n	T_n	η	cosφ	I_n	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW			rpm	lb·in	%		A				1)	2)	1)		lb·in	**NB**	**SB**	2)		lb·in		2)
0.25	0.18	**BN 63A**	**2**	3360	4.7	58	0.74	0.55	3.7	2.9	3.0	0.0048	0.0062	7.7	**FD 02**	15	2700	3300	10.7	**FA 02**	15	3300	11.0
0.33	0.25	**BN 63B**	**2**	3370	6.2	61	0.73	0.69	4.2	2.9	3.0	0.0055	0.0071	8.6	**FD 02**	15	2700	3300	11.5	**FA 02**	15	3300	11.9
0.5	0.37	**BN 71A**	**2**	3420	9.2	71	0.77	0.86	5.8	3.3	3.8	0.0082	0.0109	11.9	**FD 03**	30	2400	3200	16.6	**FA 03**	30	3200	17.2
0.75	0.55	**BN 71B**	**2**	3450	13.7	76	0.75	1.23	6.2	3.4	3.9	0.0097	0.0126	13.7	**FD 03**	44	2200	2700	18.2	**FA 03**	44	2700	19.0
1	0.75	**BN 80A**	**2**	3440	18.3	76	0.76	1.62	5.9	3.1	3.7	0.0185	0.0223	19.0	**FD 04**	44	1400	1700	26	**FA 04**	44	1700	27
1.5	1.1	**BN 80B**	**2**	3430	27.6	77	0.76	2.40	6.2	3.8	3.9	0.0214	0.0252	21	**FD 04**	88	1200	1600	27	**FA 04**	88	1600	29
2	1.5	**BN 90SA**	**2**	3480	36.2	79	0.78	3.04	7.3	3.6	3.8	0.0297	0.0335	27	**FD 14**	133	750	1000	34	**FA 14**	133	1000	36
3	2.2	**BN 90L**	**2**	3490	54	81	0.79	4.4	7.3	3.8	3.9	0.0397	0.0435	31	**FD 05**	230	750	1000	41	**FA 05**	230	1000	46
5	3.7	**BN 100LB**	**2**	3490	90	84	0.83	6.7	6.7	2.9	3.2	0.0926	0.102	51	**FD 15**	354	360	500	59	**FA 15**	354	500	66
7.5	5.5	**BN 132SA**	**2**	3490	135	83	0.86	9.8	6.4	2.7	3.0	0.240	0.266	77	**FD 06**	440		400	98	**FA 06**	440	400	108
10	7.5	**BN 132SB**	**2**	3490	181	82	0.88	13.0	6.2	2.8	3.2	0.318	0.344	93	**FD 06**	440		350	113	**FA 06**	440	350	123
15	11	**BN 160MR**	**2**	3510	271	87	0.88	18.3	6.9	2.7	3.0	0.499		143									
20	15	**BN 160MB**	**2**	3510	359	86	0.90	24.2	6.0	2.5	2.7	0.808		185									
25	18.5	**BN 160L**	**2**	3520	449	88	0.91	29.2	6.9	2.8	3.0	0.998		214									
30	22	**BN 180M**	**2**	3520	537	88	0.91	35.1	6.9	2.8	3.1	1.164		240									
40	30	**BN 200L**	**2**	3530	716	89	0.91	46.2	6.9	2.6	3.0	1.829		309									

1) without brake
2) with brake

4 POLE - 1800 rpm - S1

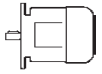
60 Hz

P_n				n	T_n	η	cosφ	I_n at 460V	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW			rpm	lb·in	%		A				1)	2)	1)		lb·in	**NB**	**SB**	2)		lb·in		2)
0.08	0.06	**BN 56A**	**4**	1670	3.0	53	0.55	0.26	2.9	3.1	3.1	0.0036		6.8									
0.12	0.09	**BN 56B**	**4**	1670	4.5	59	0.52	0.37	2.8	2.9	2.9	0.0036		6.8									
0.16	0.12	**BN 63A**	**4**	1650	6.1	55	0.64	0.43	3.1	2.4	2.5	0.0048	0.0062	7.7	**FD 02**	15	7000	9000	11.5	**FA 02**	15	9000	11.0
0.25	0.18	**BN 63B**	**4**	1670	9.4	58	0.59	0.68	3.1	2.8	2.9	0.0055	0.0071	8.6	**FD 02**	30	7000	9000	12.3	**FA 02**	30	9000	11.9
0.33	0.25	**BN 71A**	**4**	1700	12.2	64	0.74	0.65	4.3	2.6	2.7	0.0138	0.0164	11.2	**FD 03**	30	6000	8500	17.2	**FA 03**	30	8500	16.5
0.50	0.37	**BN 71B**	**4**	1700	18.5	66	0.73	0.97	4.5	2.6	2.8	0.0164	0.0190	13.0	**FD 03**	44	4800	7500	19.0	**FA 03**	44	7500	18.3
0.75	0.55	**BN 80A**	**4**	1710	27.6	73	0.75	1.28	4.9	3.0	3.0	0.0356	0.0394	18.1	**FD 04**	89	3400	7000	27	**FA 04**	89	7000	26
1	0.75	**BN 80B**	**4**	1720	36.6	78	0.75	1.60	6.2	3.4	3.5	0.0482	0.0523	22	**FD 04**	133	3000	6000	30	**FA 04**	133	6000	30
1.5	1.1	**BN 90S**	**4**	1720	55	78	0.74	2.43	5.7	3.1	3.4	0.0499	0.0546	27	**FD 14**	133	3000	7000	36	**FA 14**	133	7000	36
2	1.5	**BN 90LA**	**4**	1720	73	81	0.74	3.12	6.6	3.3	3.6	0.0665	0.0760	30	**FD 05**	230	2200	4700	43	**FA 05**	230	4700	45
3	2.2	**BN 100LA**	**4**	1720	110	81	0.73	4.8	5.5	2.7	2.9	0.0960	0.105	40	**FD 15**	354	1000	2700	55	**FA 15**	354	2700	55
5	3.7	**BN 100LC**	**4**	1730	182	84	0.74	7.5	5.6	2.8	3.1	0.145	0.154	55	**FD 55**	480		1200	66	**FA 15**	480	1200	64
5.5	4	**BN 112M**	**4**	1730	200	85	0.76	8.0	7.0	3.1	3.4	0.233	0.254	66	**FD 06S**	530		850	88	**FA 06S**	530	850	93
7.5	5.5	**BN 132S**	**4**	1730	273	84	0.84	10.0	6.3	2.9	3.1	0.506	0.530	97	**FD 56**	664		850	126	**FA 06**	664	850	128
10	7.5	**BN 132MA**	**4**	1740	362	85	0.84	13.1	6.1	2.9	3.0	0.641	0.665	117	**FD 06**	885		700	146	**FA 07**	885	700	157
15	11	**BN 160MR**	**4**	1740	543	88	0.81	19.4	6.5	3.1	3.2	0.855	0.907	154	**FD 07**	1328		600	190	**FA 07**	1328	600	194
20	15	**BN 160L**	**4**	1750	720	90	0.84	24.8	5.8	2.3	2.7	1.544	1.722	218	**FD 08**	1770		400	284	**FA 08**	1770	400	282
25	18.5	**BN 180M**	**4**	1760	895	90	0.83	31.3	5.8	2.5	3.1	1.876	2.054	254	**FD 08**	2210		300	320	**FA 08**	2210	300	317

1) without brake
2) with brake

6 POLE - 1200 rpm - S1

60 Hz

P_n				n	T_n	η	$\cos\varphi$	I_n	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW			rpm	lb·in	%		at 460V A				1)	2)	1)		lb·in	**NB**	**SB**	2)		lb·in		2)
0.12	0.09	**BN 63A**	**6**	1100	6.9	47	0.50	0.48	2.8	2.9	2.9	0.0081	0.0095	10.1	**FD 02**	30	7000	10000	13.9	**FA 02**	30	10000	13.4
0.16	0.12	**BN 63B**	**6**	1100	9.2	50	0.55	0.55	2.4	2.4	2.7	0.0088	0.0102	10.8	**FD 02**	30	7000	10000	14.6	**FA 02**	30	10000	14.1
0.25	0.18	**BN 71A**	**6**	1100	14.3	61	0.65	0.57	3.3	2.6	2.8	0.0200	0.0226	12.1	**FD 03**	44	6500	10000	18.1	**FA 03**	44	10000	17.4
0.33	0.25	**BN 71B**	**6**	1100	18.9	64	0.65	0.75	3.2	2.6	2.7	0.0259	0.0285	14.8	**FD 03**	44	6200	8000	21	**FA 03**	44	8000	20
0.50	0.37	**BN 80A**	**6**	1130	27.9	67	0.65	1.07	3.9	2.6	2.8	0.0499	0.0546	22	**FD 04**	88	4100	5500	30	**FA 04**	88	5500	30
0.75	0.55	**BN 80B**	**6**	1140	41.4	76	0.66	1.38	4.9	3.2	3.4	0.0594	0.0641	25	**FD 04**	133	3800	5000	34	**FA 04**	133	5000	33
1	0.75	**BN 90S**	**6**	1140	55	73	0.63	2.05	4.5	2.9	3.1	0.0618	0.0665	29	**FD 14**	133	2700	4000	37	**FA 14**	133	4000	37
1.5	1.1	**BN 90L**	**6**	1140	83	75	0.65	2.83	4.3	2.8	2.9	0.0784	0.0879	33	**FD 05**	230	2000	3500	46	**FA 05**	230	3500	49
2	1.5	**BN 100LA**	**6**	1140	111	76	0.66	3.75	4.5	2.4	2.8	0.195	0.204	49	**FD 15**	354	1500	3000	62	**FA 15**	354	3000	64
3	2.2	**BN 112M**	**6**	1150	164	81	0.69	4.9	5.5	2.8	2.9	0.400	0.420	71	**FD 06S**	530		1250	93	**FA 06S**	530	1250	97
5	3.7	**BN 132MA**	**6**	1150	274	80	0.79	7.3	6.1	2.5	3.1	0.701	0.724	97	**FD 06**	885		900	128	**FA 07**	885	900	139
7.5	5.5	**BN 132MB**	**6**	1140	414	82	0.75	11.2	5.4	2.7	2.9	0.910	0.964	123	**FD 07**	1328		800	159	**FA 07**	1328	800	163
10	7.5	**BN 160M**	**6**	1160	543	85	0.82	13.5	5.8	2.3	2.8	1.758	1.936	183	**FD 08**	1500		550	247	**FA 08**	1500	550	249
15	11	**BN 160L**	**6**	1160	815	84	0.83	19.8	5.8	2.5	2.9	2.304	2.482	227	**FD 08**	1770		400	293	**FA 08**	1770	400	293

1) without brake
2) with brake

2 POLE - 3000 rpm - S1

50 Hz

P_n hp	P_n kW		n rpm	T_n lb·in		η %	cosφ	I_n at 400V A	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft² 1)	J_m lb·ft² 2)	Weight lbs 1)	Brake type	T_b lb·in	Z_o 1/h rectifier NB	Z_o 1/h rectifier SB	Weight lbs 2)	Brake type	T_b lb·in	Z_o 1/h	Weight lbs 2)
0.25	0.18	**BN 63A 2**	2730	5.6		59.9	0.77	0.56	3.0	2.1	2.0	0.0048	0.0062	7.7	**FD 02**	15	3900	4800	11.5	**FA 02**	15	4800	11.0
0.33	0.25	**BN 63B 2**	2740	7.7		66.0	0.76	0.72	3.3	2.3	2.3	0.0055	0.0071	8.6	**FD 02**	15	3900	4800	12.3	**FA 02**	15	4800	11.9
0.5	0.37	**BN 71A 2**	2820	11.1		73.8	0.76	0.95	4.8	2.8	2.6	0.0082	0.0109	11.9	**FD 03**	30	3000	4100	17.9	**FA 03**	30	4200	17.2
0.75	0.55	**BN 71B 2**	2820	16.5		76.0	0.76	1.37	5.0	2.9	2.8	0.0097	0.0126	13.7	**FD 03**	44	2900	4200	19.6	**FA 03**	44	4200	19.0
1	0.75	**BN 80A 2**	2810	23.0		76.2	0.81	1.75	4.8	2.6	2.2	0.0185	0.0223	19.0	**FD 04**	44	1700	3200	28	**FA 04**	44	3200	27
1.5	1.1	**BN 80B 2**	2800	33.6	EFF 2	76.4	0.81	2.57	4.8	2.8	2.4	0.0214	0.0252	21	**FD 04**	88	1500	3000	30	**FA 04**	88	3000	29
2	1.5	**BN 90SA 2**	2870	44	EFF 2	82.0	0.80	3.3	5.9	2.7	2.6	0.0297	0.0335	27	**FD 14**	133	900	2200	36	**FA 14**	133	2200	36
3	2.2	**BN 90L 2**	2880	65	EFF 2	82.7	0.80	4.8	6.3	2.9	2.7	0.0397	0.0435	31	**FD 05**	230	900	2200	44	**FA 05**	230	2200	46
5.5	4	**BN 100LB 2**	2870	118	EFF 2	84.3	0.80	8.6	5.9	2.7	2.5	0.0926	0.102	51	**FD 15**	354	450	900	64	**FA 15**	354	1000	66
7.50	5.5	**BN 132SA 2**	2890	161	EFF 2	86.1	0.84	11.0	6.0	2.6	2.2	0.240	0.266	77	**FD 06**	440		600	106	**FA 06**	440	600	108
10	7.5	**BN 132SB 2**	2900	221	EFF 2	87.2	0.85	14.6	6.4	2.6	2.2	0.318	0.344	93	**FD 06**	440		550	121	**FA 06**	440	550	123
15	11	**BN 160MR 2**	2920	319	EFF 2	89.1	0.88	20.2	7.0	2.9	2.5	0.499		143									
20	15	**BN 160MB 2**	2930	434	EFF 2	89.6	0.86	28.1	7.1	2.6	2.3	0.808		185									
25	18.5	**BN 160L 2**	2930	531	EFF 2	90.4	0.86	34	7.6	2.7	2.3	0.998		214									
30	22	**BN 180M 2**	2930	637	EFF 2	91.3	0.88	40	7.8	2.6	2.4	1.164		240									
40	30	**BN 200L 2**	2930	867	EFF 2	91.9	0.89	53	7.9	2.7	2.9	1.829		309									

1) without brake
2) with brake

4 POLE - 1500 rpm - S1

50 Hz

P_n			n	T_n		η	cosφ	I_n	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW		rpm	lb·in		%		at 400V A				1)	2)	1)		lb·in	NB	SB	2)		lb·in		2)
0.08	0.06	**BN 56A 4**	1340	3.8		46.8	0.65	0.28	2.6	2.3	2.0	0.0036		6.8									
0.12	0.09	**BN 56B 4**	1350	5.7		51.7	0.60	0.42	2.6	2.5	2.4	0.0036		6.8									
0.16	0.12	**BN 63A 4**	1350	7.5		59.8	0.62	0.47	2.6	1.9	1.8	0.0048	0.0062	7.7	**FD 02**	15	10000	13000	11.5	**FA 02**	15	13000	11.0
0.25	0.18	**BN 63B 4**	1320	11.5		54.8	0.67	0.71	2.6	2.2	2.0	0.0055	0.0071	8.6	**FD 02**	30	10000	13000	12.3	**FA 02**	30	13000	11.9
0.33	0.25	**BN 71A 4**	1380	15.3		63.7	0.73	0.78	3.3	1.9	1.7	0.0138	0.0164	11.2	**FD 03**	30	7700	11000	17.2	**FA 03**	30	11000	16.5
0.50	0.37	**BN 71B 4**	1370	23.0		66.8	0.76	1.05	3.7	2.0	1.9	0.0164	0.0190	13.0	**FD 03**	44	6000	9400	19.0	**FA 03**	44	9400	18.3
0.75	0.55	**BN 80A 4**	1390	33.6		72.0	0.77	1.43	4.1	2.3	2.0	0.0356	0.0394	18.1	**FD 04**	89	4100	8000	27	**FA 04**	89	8000	26
1	0.75	**BN 80B 4**	1400	45		75.0	0.78	1.85	4.9	2.7	2.5	0.0482	0.0523	22	**FD 04**	133	4100	7800	30	**FA 04**	133	7800	30
1.5	1.1	**BN 90S 4**	1400	66	EFF 2	76.5	0.77	2.70	4.6	2.6	2.2	0.0499	0.0546	27	**FD 14**	133	4800	8000	36	**FA 14**	133	8000	36
2	1.5	**BN 90LA 4**	1390	91	EFF 2	78.7	0.77	3.6	5.3	2.8	2.4	0.0665	0.0760	30	**FD 05**	230	3400	6000	43	**FA 05**	230	6000	45
3	2.2	**BN 100LA 4**	1410	132	EFF 2	81.1	0.75	5.2	4.5	2.2	2.0	0.0960	0.105	40	**FD 15**	354	2600	4700	55	**FA 15**	354	4700	55
4	3	**BN 100LB 4**	1410	177	EFF 2	82.6	0.77	6.8	5	2.3	2.2	0.128	0.154	49	**FD 15**	354	2400	4400	62	**FA 15**	354	4400	64
5.5	4	**BN 112M 4**	1430	239	EFF 2	84.4	0.81	8.4	5.6	2.7	2.5	0.233	0.254	66	**FD 06S**	530	—	1400	88	**FA 06S**	530	2100	93
7.5	5.5	**BN 132S 4**	1440	319	EFF 2	86.3	0.80	11.5	5.5	2.3	2.2	0.506	0.530	97	**FD 56**	664	—	1050	126	**FA 06**	664	1200	128
10	7.5	**BN 132MA 4**	1440	443	EFF 2	87.0	0.80	15.6	5.7	2.5	2.4	0.641	0.665	117	**FD 06**	885	—	950	146	**FA 07**	885	1000	157
15	11	**BN 160MR 4**	1440	646	EFF 2	88.4	0.81	22.2	5.9	2.7	2.5	0.855	0.907	154	**FD 07**	1328	—	850	190	**FA 07**	1328	850	194
20	15	**BN 160L 4**	1460	867	EFF 2	89.9	0.81	29.7	5.9	2.3	2.1	1.544	1.722	218	**FD 08**	1770	—	750	284	**FA 08**	1770	750	282
25	18.5	**BN 180M 4**	1460	1071	EFF 2	90.0	0.81	37	6.2	2.6	2.5	1.876	2.054	254	**FD 08**	2210	—	700	320	**FA 08**	2210	700	317

1) without brake
2) with brake

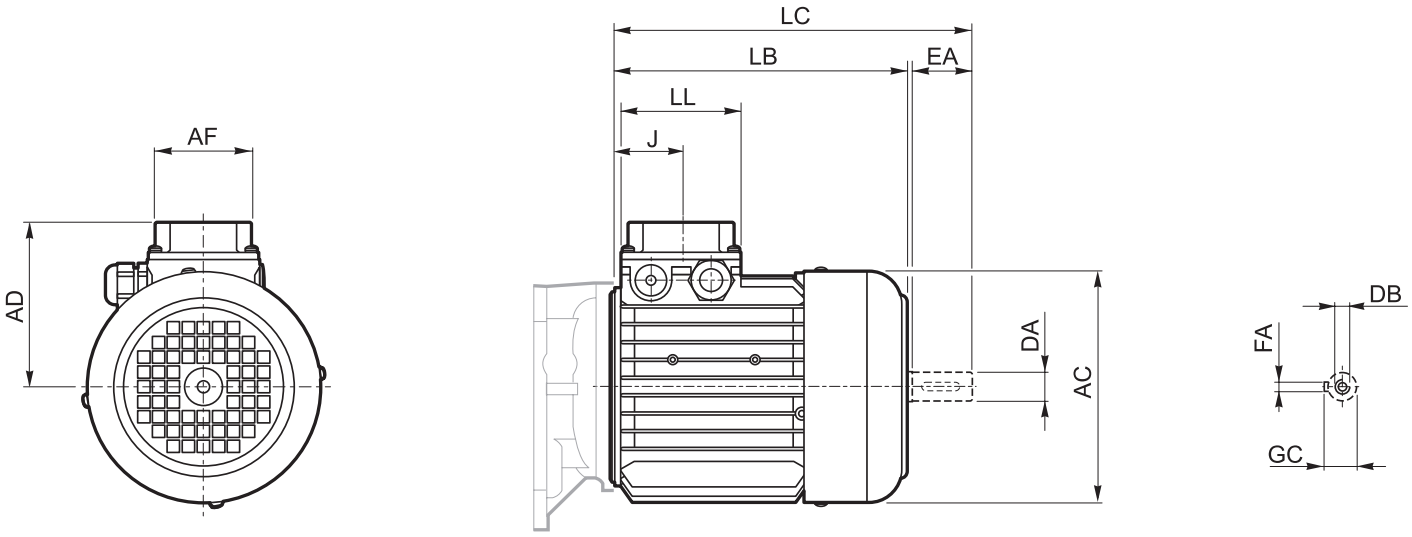
6 POLE - 1000 rpm - S1

50 Hz

P_n				n	T_n	η	cosφ	I_n at 400V	$\frac{I_s}{I_n}$	$\frac{T_s}{T_n}$	$\frac{T_k}{T_n}$	J_m lb·ft²		Weight lbs	Brake type	T_b	Z_o 1/h rectifier		Weight lbs	Brake type	T_b	Z_o 1/h	Weight lbs
hp	kW			rpm	lb·in	%		A				1)	2)	1)		lb·in	NB	SB	2)		lb·in		2)
0.12	0.09	**BN 63A**	**6**	880	8.7	41	0.53	0.60	2.1	2.1	1.8	0.0081	0.0095	4.6	**FD 02**	30	9000	14000	6.3	**FA 02**	30	14000	6.1
0.16	0.12	**BN 63B**	**6**	870	11.7	45	0.60	0.64	2.1	1.9	1.7	0.0088	0.0102	4.9	**FD 02**	30	9000	14000	6.6	**FA 02**	30	14000	6.4
0.25	0.18	**BN 71A**	**6**	900	16.9	56	0.69	0.67	2.6	1.9	1.7	0.0200	0.0226	5.5	**FD 03**	44	8100	13500	8.2	**FA 03**	44	13500	7.9
0.33	0.25	**BN 71B**	**6**	900	23.9	62	0.71	0.82	2.6	1.9	1.7	0.0259	0.0285	6.7	**FD 03**	44	7800	13000	9.4	**FA 03**	44	13000	9.1
0.50	0.37	**BN 80A**	**6**	910	34.5	68	0.68	1.15	3.2	2.2	2.0	0.0499	0.0546	9.9	**FD 04**	88	5200	8500	13.8	**FA 04**	88	8500	13.7
0.75	0.55	**BN 80B**	**6**	920	50	70	0.69	1.64	3.9	2.6	2.2	0.0594	0.0641	11.3	**FD 04**	133	4800	7200	15.2	**FA 04**	133	7200	15.1
1	0.75	**BN 90S**	**6**	920	69	69	0.68	2.31	3.8	2.4	2.2	0.0618	0.0665	12.6	**FD 14**	133	3400	6500	16.8	**FA 14**	133	6500	16.7
1.5	1.1	**BN 90L**	**6**	920	101	72	0.69	3.2	3.9	2.3	2.0	0.0784	0.0879	15	**FD 05**	230	2700	5000	21	**FA 05**	230	5000	22
2	1.5	**BN 100LA**	**6**	940	135	73	0.72	4.1	4	2.1	2.0	0.195	0.204	22	**FD 15**	354	1900	4100	28	**FA 15**	354	4100	29
3	2.2	**BN 112M**	**6**	940	195	78	0.73	5.6	4.8	2.2	2.0	0.400	0.420	32	**FD 06S**	530	—	2100	42	**FA 06S**	530	2100	44
5.5	4	**BN 132MA**	**6**	950	354	78	0.77	9.6	5.5	2.0	1.8	0.701	0.724	45	**FD 06**	885	—	1200	58	**FA 07**	885	1200	63
7.5	5.5	**BN 132MB**	**6**	945	496	80	0.78	12.7	5.9	2.1	1.9	0.910	0.964	56	**FD 07**	1328	—	1050	72	**FA 07**	1328	1050	74
10	7.5	**BN 160M**	**6**	955	664	84	0.81	15.9	5.9	2.2	2.0	1.758	1.936	83	**FD 08**	1500	—	900	112	**FA 08**	1500	900	113
15	11	**BN 160L**	**6**	960	965	87	0.81	22.5	6.5	2.5	2.3	2.304	2.482	103	**FD 08**	1770	—	800	133	**FA 08**	1770	800	133

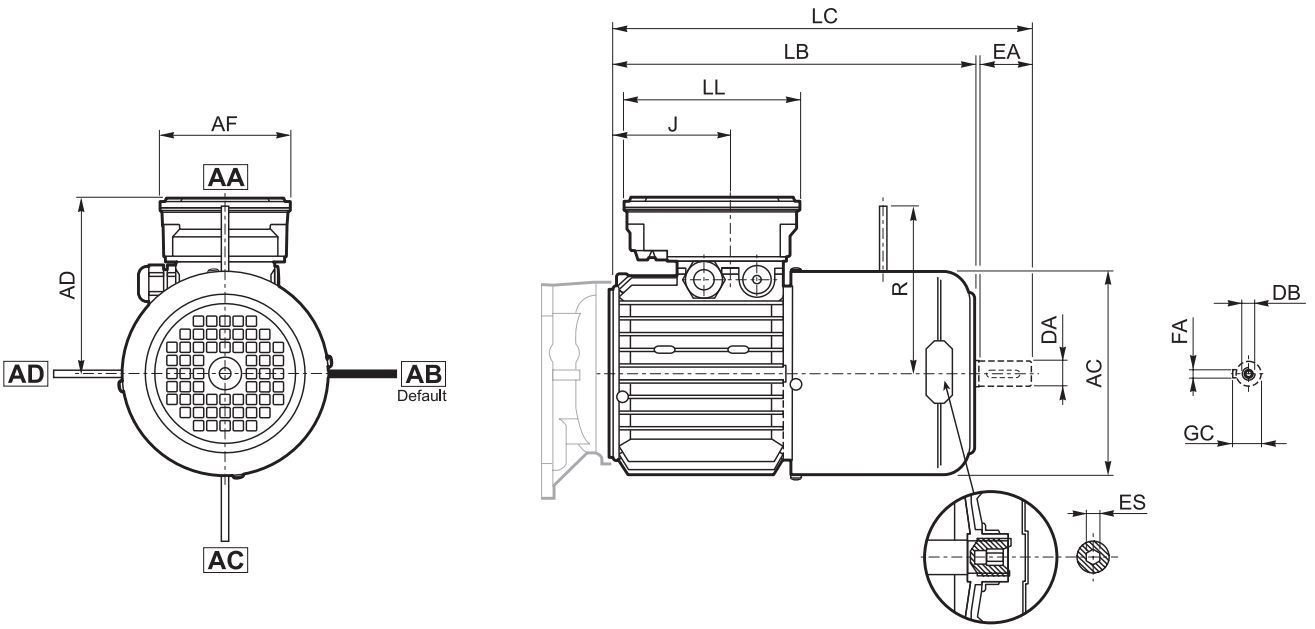
1) without brake
2) with brake

3.12 DIMENSIONS



	Rear shaft end					Motor						
	DA	**EA**	**DB**	**FA**	**GC**	**AC**	**LB**	**LC**	**AF**	**LL**	**J**	**AD**
M 0	0.35 *9*	0.79 *20*	*M3*	0.12 *3*	0.40 *10.2*	4.33 *110*	5.24 *133*	6.10 *155*	2.91 *74*	3.15 *80*	1.65 *42*	3.58 *91*
M 05	0.43 *11*	0.91 *23*	*M4*	0.16 *4*	0.49 *12.5*	4.76 *121*	6.50 *165*	7.52 *191*	2.91 *74*	3.15 *80*	1.89 *48*	3.74 *95*
M 1	0.55 *14*	1.18 *30*	*M5*	0.20 *5*	0.63 *16*	5.43 *138*	7.36 *187*	8.62 *219*	2.91 *74*	3.15 *80*	1.77 *45*	4.25 *108*
M 2 S	0.75 *19*	1.57 *40*	*M6*	0.24 *6*	0.85 *21.5*	6.14 *156*	7.95 *202*	9.65 *245*	2.91 *74*	3.15 *80*	1.73 *44*	4.69 *119*
M 3 S	1.10 *28*	2.36 *60*	*M10*	0.31 *8*	1.22 *31*	7.68 *195*	9.06 *230*	11.54 *293*	3.86 *98*	3.86 *98*	2.11 *53.5*	5.59 *142*
M 3 L	1.10 *28*	2.36 *60*	*M10*	0.31 *8*	1.22 *31*	7.68 *195*	10.31 *262*	12.80 *325*	3.86 *98*	3.86 *98*	2.11 *53.5*	5.59 *142*
M 4	1.50 *38*	3.15 *80*	*M12*	0.39 *10*	1.61 *41*	10.16 *258*	14.21 *361*	17.48 *444*	4.65 *118*	4.65 *118*	2.54 *64.5*	7.60 *193*
M 4 LC	1.50 *38*	3.15 *80*	*M12*	0.39 *10*	1.61 *41*	10.16 *258*	15.59 *396*	18.86 *479*	4.65 *118*	4.65 *118*	2.54 *64.5*	7.60 *193*
M 5 S	1.50 *38*	3.15 *80*	*M12*	0.39 *10*	1.61 *41*	12.20 *310*	16.46 *418*	19.76 *502*	7.36 *187*	7.36 *187*	3.03 *77*	9.65 *245*
M 5 L	1.50 *38*	3.15 *80*	*M12*	0.39 *10*	1.61 *41*	12.20 *310*	18.19 *462*	21.50 *546*	7.36 *187*	7.36 *187*	3.03 *77*	9.65 *245*

Dimensions are $\frac{\text{inch}}{mm}$

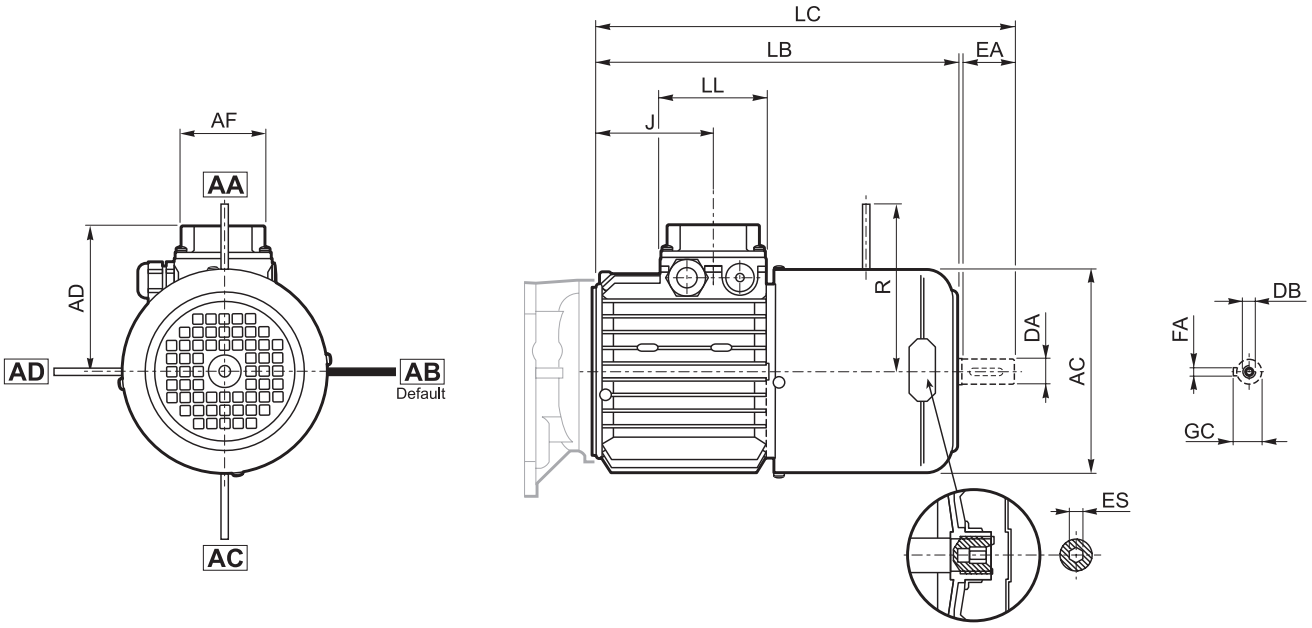


	Rear shaft end					Motor								
	DA	**EA**	**DB**	**FA**	**GC**	**AC**	**LB**	**LC**	**AF**	**LL**	**J**	**AD**	**R**	**ES**
M 05	0.43 *11*	0.91 *23*	*M4*	0.16 *4*	0.49 *12.5*	4.76 *121*	9.09 *231*	10.08 *256*	3.86 *98*	5.24 *133*	1.89 *48*	4.69 *119*	3.78 *96*	0.20 *5*
M 1	0.55 *14*	1.18 *30*	*M5*	0.20 *5*	0.63 *16*	5.43 *138*	9.76 *248*	11.02 *280*	3.86 *98*	5.24 *133*	2.87 *73*	5.20 *132*	4.06 *103*	0.20 *5*
M 2 S	0.75 *19*	1.57 *40*	*M6*	0.24 *6*	0.85 *21.5*	6.14 *156*	10.71 *272*	12.36 *314*	3.86 *98*	5.24 *133*	3.46 *88*	5.63 *143*	5.08 *129*	0.20 *5*
M 3 S	1.10 *28*	2.36 *60*	*M10*	0.31 *8*	1.22 *31*	7.68 *195*	12.83 *326*	15.31 *389*	4.33 *110*	6.50 *165*	4.90 *124.5*	6.10 *155*	6.30 *160*	0.24 *6*
M 3 L	1.10 *28*	2.36 *60*	*M10*	0.31 *8*	1.22 *31*	7.68 *195*	13.90 *353*	16.38 *416*	4.33 *110*	6.50 *165*	4.90 *124.5*	6.10 *155*	6.30 *160*	0.24 *6*
M 4	1.50 *38*	3.15 *80*	*M12*	0.39 *10*	1.61 *41*	10.16 *258*	18.50 *470*	21.77 *553*	5.51 *140*	7.40 *188*	7.30 *185.5*	8.27 *210*	8.03 *204 (1)*	0.24 *6*
M 4 LC	1.50 *38*	3.15 *80*	*M12*	0.39 *10*	1.61 *41*	10.16 *258*	19.49 *495*	22.76 *578*	5.51 *140*	7.40 *188*	2.54 *64.5*	8.27 *210*	8.90 *226*	0.24 *6*
M 5 S	1.50 *38*	3.15 *80*	*M12*	0.39 *10*	1.61 *41*	12.20 *310*	21.97 *558*	25.28 *642*	7.36 *187*	7.36 *187*	3.03 *77*	9.65 *245*	10.47 *266*	—
M 5 L	1.50 *38*	3.15 *80*	*M12*	0.39 *10*	1.61 *41*	12.20 *310*	23.70 *602*	27.01 *686*	7.36 *187*	7.36 *187*	3.03 *77*	9.65 *245*	10.47 *266*	—

1) For FD07 brake value R=226

ES hexagon is not supplied with PS option

Dimensions are $\frac{\text{inch}}{mm}$

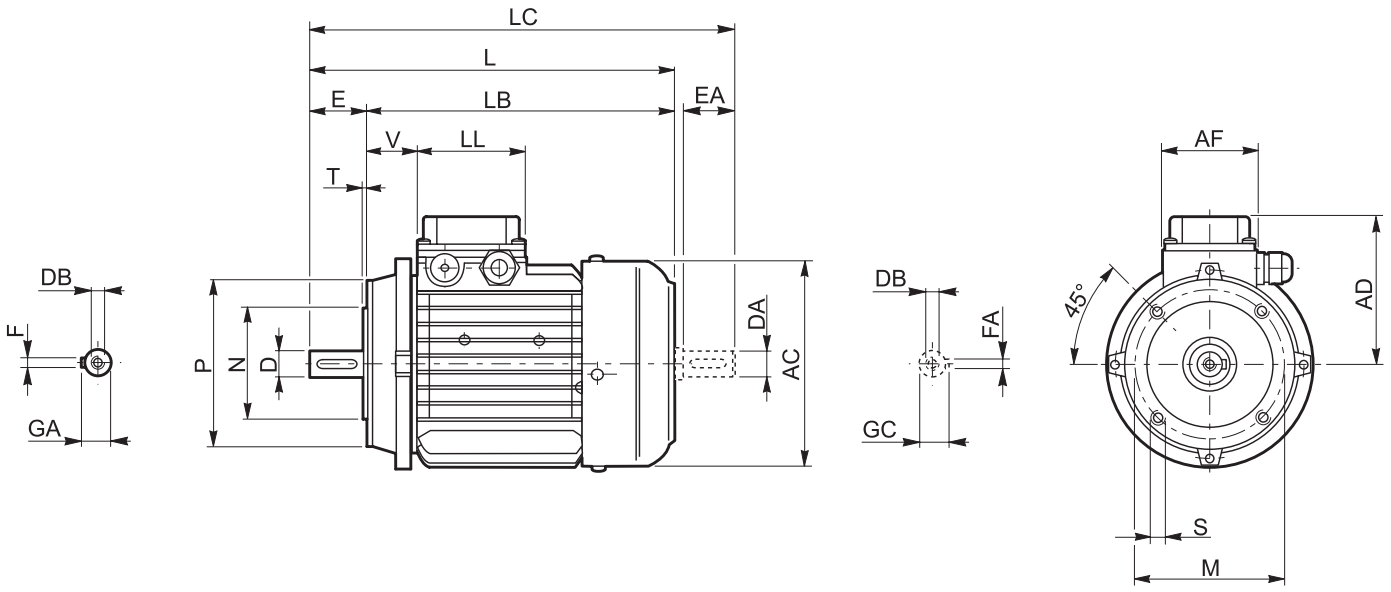


	Rear shaft end					Motor								
	DA	**EA**	**DB**	**FA**	**GC**	**AC**	**LB**	**LC**	**AF**	**LL**	**J**	**AD**	**R**	**ES**
M 05	0.43 *11*	0.91 *23*	*M4*	0.16 *4*	0.49 *12.5*	4.76 *121*	9.09 *231*	10.08 *256*	2.91 *74*	3.15 *80*	1.89 *48*	3.74 *95*	4.57 *116*	0.20 *5*
M 1	0.55 *14*	1.18 *30*	*M5*	0.20 *5*	0.63 *16*	5.43 *138*	9.76 *248*	11.02 *280*	2.91 *74*	3.15 *80*	2.87 *73*	4.25 *108*	4.88 *124*	0.20 *5*
M 2 S	0.75 *19*	1.57 *40*	*M6*	0.24 *6*	0.85 *21.5*	6.14 *156*	10.71 *272*	12.36 *314*	2.91 *74*	3.15 *80*	3.46 *88*	4.69 *119*	5.28 *134*	0.20 *5*
M 3 S	1.10 *28*	2.36 *60*	*M10*	0.31 *8*	1.22 *31*	7.68 *195*	12.83 *326*	15.31 *389*	3.86 *98*	3.86 *98*	4.90 *124.5*	5.59 *142*	6.30 *160*	0.24 *6*
M 3 L	1.10 *28*	2.36 *60*	*M10*	0.31 *8*	1.22 *31*	7.68 *195*	13.90 *353*	16.38 *416*	3.86 *98*	3.86 *98*	4.90 *124.5*	5.59 *142*	6.30 *160*	0.24 *6*
M 4	1.50 *38*	3.15 *80*	*M14*	0.39 *10*	1.61 *41*	10.16 *258*	18.50 *470*	21.77 *553*	4.65 *118*	4.65 *118*	7.30 *185.5*	7.60 *193*	7.87 *200 (1)*	0.24 *6*
M 4 LC	1.50 *38*	3.15 *80*	*M14*	0.39 *10*	1.61 *41*	10.16 *258*	19.49 *495*	22.76 *578*	4.65 *118*	4.65 *118*	2.54 *64.5*	7.60 *193*	8.54 *217*	0.24 *6*
M 5 S	1.50 *38*	3.15 *80*	*M12*	0.39 *10*	1.61 *41*	12.20 *310*	21.97 *558*	25.28 *642*	7.36 *187*	7.36 *187*	3.03 *77*	9.65 *245*	9.72 *247*	—
M 5 L	1.50 *38*	3.15 *80*	*M12*	0.39 *10*	1.61 *41*	12.20 *310*	23.70 *602*	27.01 *686*	7.36 *187*	7.36 *187*	3.03 *77*	9.65 *245*	9.72 *247*	—

1) For FD07 brake value R=226

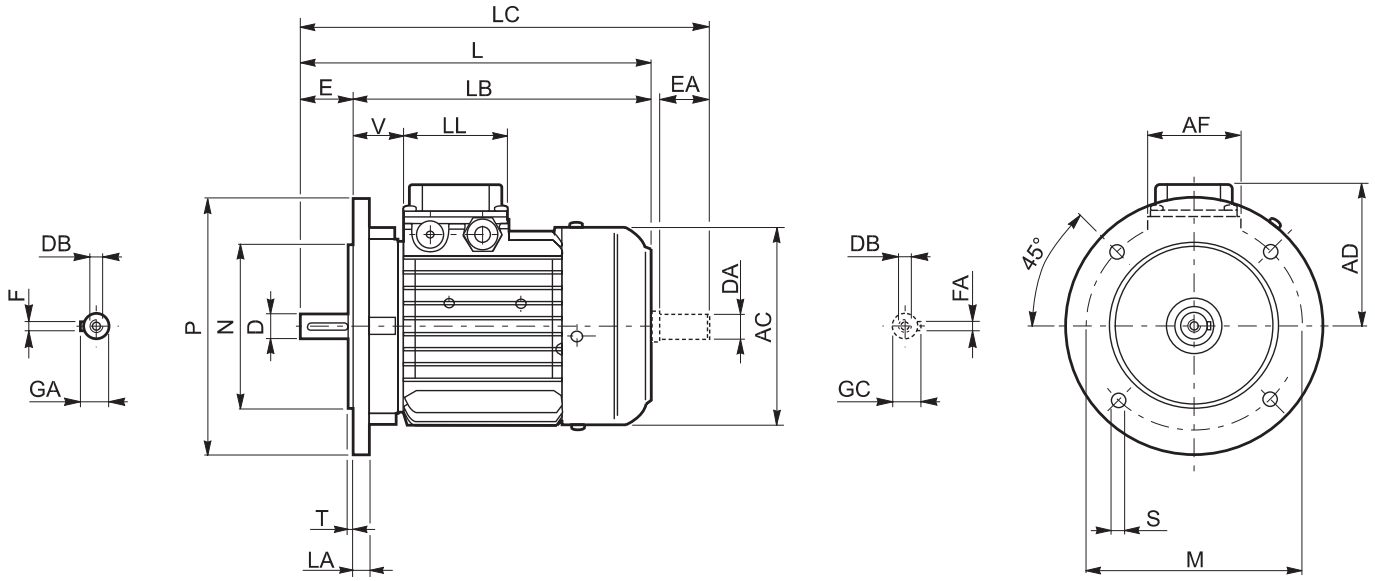
ES hexagon is not supplied with PS option

Dimensions are $\frac{\text{inch}}{mm}$



	Shaft					Flange					Motor							
	D **DA**	**E** **EA**	**DB**	**GA** **GC**	**F** **FA**	**M**	**N**	**P**	**S**	**T**	**AC**	**L**	**LB**	**LC**	**AD**	**AF**	**LL**	**V**
BN 56	0.35 *9*	0.79 *20*	*M3*	0.40 *10.2*	0.12 *3*	2.56 *65*	1.97 *50*	3.15 *80*	*M5*	0.10 *2.5*	4.33 *110*	7.28 *185*	6.50 *165*	8.15 *207*	3.58 *91*	2.91 *74*	3.15 *80*	1.34 *34*
BN 63	0.43 *11*	0.91 *23*	*M4*	0.49 *12.5*	0.16 *4*	2.95 *75*	2.36 *60*	3.54 *90*	*M5*	0.10 *2.5*	4.76 *121*	8.15 *207*	7.24 *184*	9.13 *232*	3.74 *95*	2.91 *74*	3.15 *80*	1.02 *26*
BN 71	0.55 *14*	1.18 *30*	*M5*	0.63 *16*	0.20 *5*	3.35 *85*	2.76 *70*	4.13 *105*	*M6*	0.10 *2.5*	5.43 *138*	9.80 *249*	8.62 *219*	11.06 *281*	4.25 *108*	2.91 *74*	3.15 *80*	1.46 *37*
BN 80	0.75 *19*	1.57 *40*	*M6*	0.85 *21.5*	0.24 *6*	3.94 *100*	3.15 *80*	4.72 *120*	*M6*	0.12 *3*	6.14 *156*	10.79 *274*	9.21 *234*	12.40 *315*	4.69 *119*	2.91 *74*	3.15 *80*	1.50 *38*
BN 90	0.94 *24*	1.97 *50*	*M8*	1.06 *27*	0.31 *8*	4.53 *115*	3.74 *95*	5.51 *140*	*M8*	0.12 *3*	6.93 *176*	12.83 *326*	10.87 *276*	14.88 *378*	5.24 *133*	3.86 *98*	3.86 *98*	1.73 *44*
BN 100	1.10 *28*	2.36 *60*	*M10*	1.22 *31*	0.31 *8*	5.12 *130*	4.33 *110*	6.30 *160*	*M8*	0.14 *3.5*	7.68 *195*	14.41 *366*	12.05 *306*	16.89 *429*	5.59 *142*	3.86 *98*	3.86 *98*	1.97 *50*
BN 112	1.10 *28*	2.36 *60*	*M10*	1.22 *31*	0.31 *8*	5.12 *130*	4.33 *110*	6.30 *160*	*M8*	0.14 *3.5*	8.62 *219*	15.16 *385*	12.80 *325*	17.64 *448*	6.18 *157*	3.86 *98*	3.86 *98*	2.05 *52*
BN 132	1.50 *38*	3.15 *80*	*M12*	1.61 *41*	0.39 *10*	6.50 *165*	5.12 *130*	7.87 *200*	*M10*	0.16 *4*	10.16 *258*	19.41 *493*	16.26 *413*	22.68 *576*	7.60 *193*	4.65 *118*	4.65 *118*	2.28 *58*

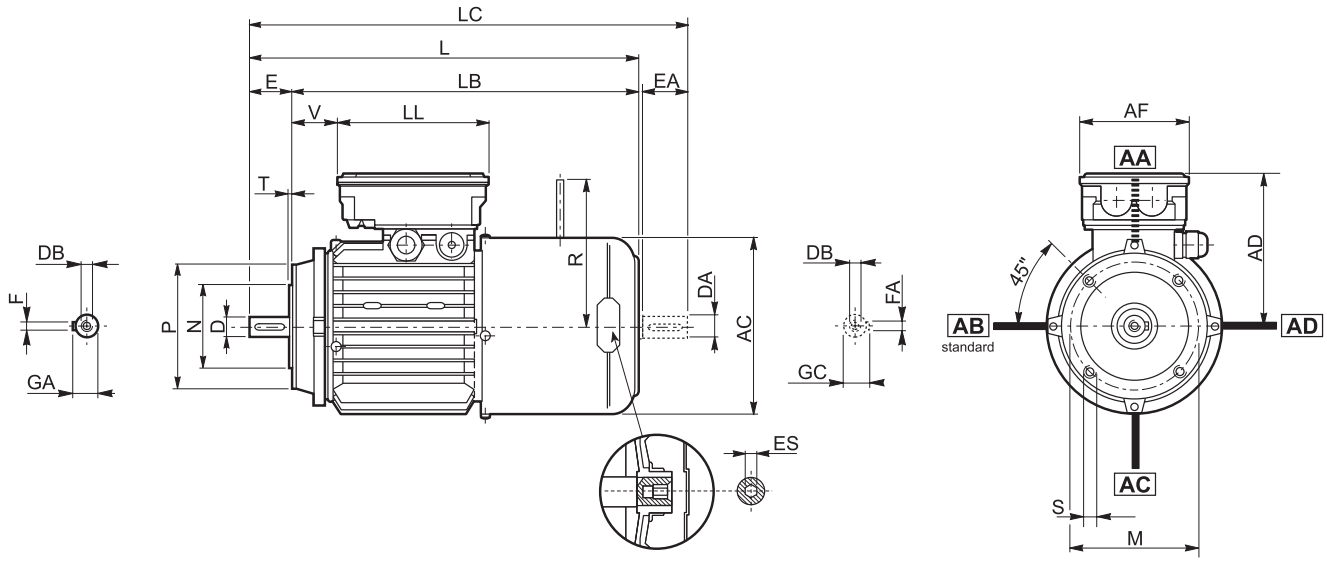
Dimensions are $\frac{\text{inch}}{mm}$



	Shaft					Flange						Motor							
	D **DA**	**E** **EA**	**DB**	**GA** **GC**	**F** **FA**	**M**	**N**	**P**	**S**	**T**	**LA**	**AC**	**L**	**LB**	**LC**	**AD**	**AF**	**LL**	**V**
BN 56	0.35 *9*	0.79 *20*	*M3*	0.40 *10.2*	0.12 *3*	3.94 *100*	3.15 *80*	4.72 *120*	0.28 *7*	0.12 *3*	0.31 *8*	4.33 *110*	7.28 *185*	6.50 *165*	8.15 *207*	3.58 *91*	2.91 *74*	3.15 *80*	1.34 *34*
BN 63	0.43 *11*	0.91 *23*	*M4*	0.49 *12.5*	0.16 *4*	4.53 *115*	3.74 *95*	5.51 *140*	0.37 *9.5*	0.12 *3*	0.39 *10*	4.76 *121*	8.15 *207*	7.24 *184*	9.13 *232*	3.74 *95*	2.91 *74*	3.15 *80*	1.02 *26*
BN 71	0.55 *14*	1.18 *30*	*M5*	0.63 *16*	0.20 *5*	5.12 *130*	4.33 *110*	6.30 *160*	0.37 *9.5*	0.12 *3*	0.39 *10*	5.43 *138*	9.80 *249*	8.62 *219*	11.06 *281*	4.25 *108*	2.91 *74*	3.15 *80*	1.46 *37*
BN 80	0.75 *19*	1.57 *40*	*M6*	0.85 *21.5*	0.24 *6*	6.50 *165*	5.12 *130*	7.87 *200*	0.45 *11.5*	0.14 *3.5*	0.45 *11.5*	6.14 *156*	10.79 *274*	9.21 *234*	12.40 *315*	4.69 *119*	2.91 *74*	3.15 *80*	1.50 *38*
BN 90	0.94 *24*	1.97 *50*	*M8*	1.06 *27*	0.31 *8*	6.50 *165*	5.12 *130*	7.87 *200*	0.45 *11.5*	0.14 *3.5*	0.45 *11.5*	6.93 *176*	12.83 *326*	10.87 *276*	14.88 *378*	5.24 *133*	3.86 *98*	3.86 *98*	1.73 *44*
BN 100	1.10 *28*	2.36 *60*	*M10*	1.22 *31*	0.31 *8*	8.46 *215*	7.09 *180*	9.84 *250*	0.55 *14*	0.16 *4*	0.55 *14*	7.68 *195*	14.45 *367*	12.09 *307*	16.89 *429*	5.59 *142*	3.86 *98*	3.86 *98*	1.97 *50*
BN 112	1.10 *28*	2.36 *60*	*M10*	1.22 *31*	0.31 *8*	8.46 *215*	7.09 *180*	9.84 *250*	0.55 *14*	0.16 *4*	0.59 *15*	8.62 *219*	15.16 *385*	12.80 *325*	17.64 *448*	6.18 *157*	3.86 *98*	3.86 *98*	2.05 *52*
BN 132	1.49 *38*	3.14 *80*	*M12*	1.61 *41*	0.39 *10*	10.43 *265*	9.05 *230*	11.81 *300*	0.55 *14*	0.15 *4*	0.79 *20*	10.15 *258*	19.40 *493*	16.25 *413*	22.67 *576*	7.59 *193*	4.64 *118*	4.64 *118*	2.28 *58*
BN 160 MR	1.65 *42*	4.33 *110*	*M16*	1.77 *45*	0.47 *12*	11.81 *300*	9.84 *250*	13.77 *350*	0.72 *18.5*	0.19 *5*	0.59 *15*	10.15 *258*	22.12 *562*	17.79 *452*	25.39 *645*	7.59 *193*	4.64 *118*	4.64 *118*	8.58 *218*
	1.49 *38 (1)*	3.14 *80 (1)*	*M12 (1)*	1.61 *41 (1)*	0.39 *10 (1)*														
BN 160 M **BN 160 L**	1.65 *42*	4.33 *110*	*M16*	1.77 *45*	0.47 *12*	11.81 *300*	9.84 *250*	13.77 *350*	0.72 *18.5*	0.19 *5*	0.59 *15*	1.22 *310*	23.46 *596*	19.13 *486*	26.77 *680*	9.64 *245*	7.36 *187*	7.36 *187*	2.00 *51*
	1.49 *38(1)*	3.14 *80 (1)*	*M12 (1)*	1.61 *41 (1)*	0.39 *10 (1)*														
BN 180 M	1.88 *48*	4.33 *110*	*M16*	2.02 *51.5*	0.55 *14*	11.81 *300*	9.84 *250*	13.77 *350*	0.72 *18.5*	0.19 *5*	0.59 *15*	1.22 *310*	25.19 *640*	20.86 *530*	28.50 *724*	9.64 *245*	7.36 *187*	7.36 *187*	2.00 *51*
	1.49 *38 (1)*	4.33 *110 (1)*	*M12 (1)*	1.61 *41 (1)*	0.39 *10 (1)*														
BN 180 L	1.88 *48*	4.33 *110*	*M16*	2.02 *51.5*	0.55 *14*	11.81 *300*	9.84 *250*	13.77 *350*	0.72 *18.5*	0.19 *5*	0.70 *18*	13.70 *348*	27.87 *708*	23.54 *598*	32.40 *823*	10.27 *261*	7.36 *187*	7.36 *187*	2.04 *52*
	1.65 *42 (1)*	4.33 *110 (1)*	*M16 (1)*	1.77 *45 (1)*	0.47 *12 (1)*														
BN 200 L	2.16 *55*	4.33 *110*	*M20*	2.32 *59*	0.62 *16*	13.77 *350*	11.81 *300*	15.74 *400*	0.72 *18.5*	0.19 *5*	0.70 *18*	13.70 *348*	28.42 *722*	24.09 *612*	32.95 *837*	10.27 *261*	7.36 *187*	7.36 *187*	2.59 *66*
	1.65 *42 (1)*	4.33 *110 (1)*	*M16 (1)*	1.77 *45 (1)*	0.47 *12 (1)*														

1) These values refer to the rear shaft end.

Dimensions are $\frac{\text{inch}}{mm}$

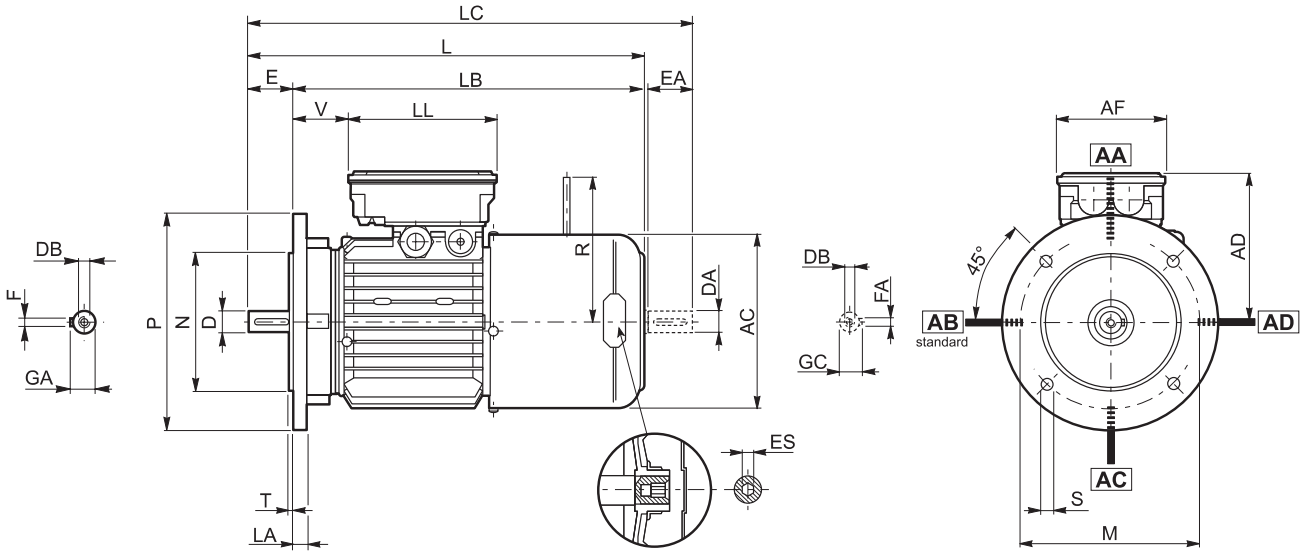


	Shaft					Flange					Motor									
	D **DA**	**E** **EA**	**DB**	**GA** **GC**	**F** **FA**	**M**	**N**	**P**	**S**	**T**	**AC**	**L**	**LB**	**LC**	**AD**	**AF**	**LL**	**V**	**R**	**ES**
BN 63	0.43 *11*	0.91 *23*	*M4*	0.49 *12.5*	0.16 *4*	2.95 *75*	2.36 *60*	3.54 *90*	*M5*	0.10 *2.5*	4.76 *121*	10.71 *272*	9.80 *249*	11.69 *297*	4.69 *119*	3.86 *98*	5.24 *133*	0.55 *14*	3.78 *96*	0.20 *5*
BN 71	0.55 *14*	1.18 *30*	*M5*	0.63 *16*	0.20 *5*	3.35 *85*	2.76 *70*	4.13 *105*	*M6*	0.10 *2.5*	5.43 *138*	12.20 *310*	11.02 *280*	13.46 *342*	5.20 *132*	3.86 *98*	5.24 *133*	0.98 *25*	4.06 *103*	0.20 *5*
BN 80	0.75 *19*	1.57 *40*	*M6*	0.85 *21.5*	0.24 *6*	3.94 *100*	3.15 *80*	4.72 *120*	*M6*	0.12 *3*	6.14 *156*	13.62 *346*	12.05 *306*	15.28 *388*	5.63 *143*	3.86 *98*	5.24 *133*	1.61 *41*	5.08 *129*	0.20 *5*
BN 90 S	0.94 *24*	1.97 *50*	*M8*	1.06 *27*	0.31 *8*	4.53 *115*	3.74 *95*	5.51 *140*	*M8*	0.12 *3*	6.93 *176*	16.10 *409*	14.13 *359*	18.15 *461*	5.75 *146*	4.33 *110*	6.50 *165*	1.54 *39*	5.08 *129*	0.24 *6*
BN 90 L	0.94 *24*	1.97 *50*	*M8*	1.06 *27*	0.31 *8*	4.53 *115*	3.74 *95*	5.51 *140*	*M8*	0.12 *3*	6.93 *176*	16.10 *409*	14.13 *359*	18.15 *461*	5.75 *146*	4.33 *110*	6.50 *165*	1.54 *39*	6.30 *160*	0.24 *6*
BN 100	1.10 *28*	2.36 *60*	*M10*	1.22 *31*	0.31 *8*	5.12 *130*	4.33 *110*	6.30 *160*	*M8*	0.14 *3.5*	7.68 *195*	18.03 *458*	15.67 *398*	20.51 *521*	6.10 *155*	4.33 *110*	6.50 *165*	2.44 *62*	6.30 *160*	0.24 *6*
BN 112	1.10 *28*	2.36 *60*	*M10*	1.22 *31*	0.31 *8*	5.12 *130*	4.33 *110*	6.30 *160*	*M8*	0.14 *3.5*	8.62 *219*	19.06 *484*	16.69 *424*	21.54 *547*	6.69 *170*	4.33 *110*	6.50 *165*	2.87 *73*	7.83 *199*	0.24 *6*
BN 132	1.50 *38*	3.15 *80*	*M12*	1.61 *41*	0.39 *10*	6.50 *165*	5.12 *130*	7.87 *200*	*M10*	0.16 *4*	10.16 *258*	23.74 *603*	20.59 *523*	27.01 *686*	8.27 *210*	5.51 *140*	7.40 *188*	4.80 *122*	8.03 *204 (1)*	0.24 *6*

1) For FD07 brake value R=226

ES hexagon is not supplied with PS option

Dimensions are $\frac{\text{inch}}{mm}$

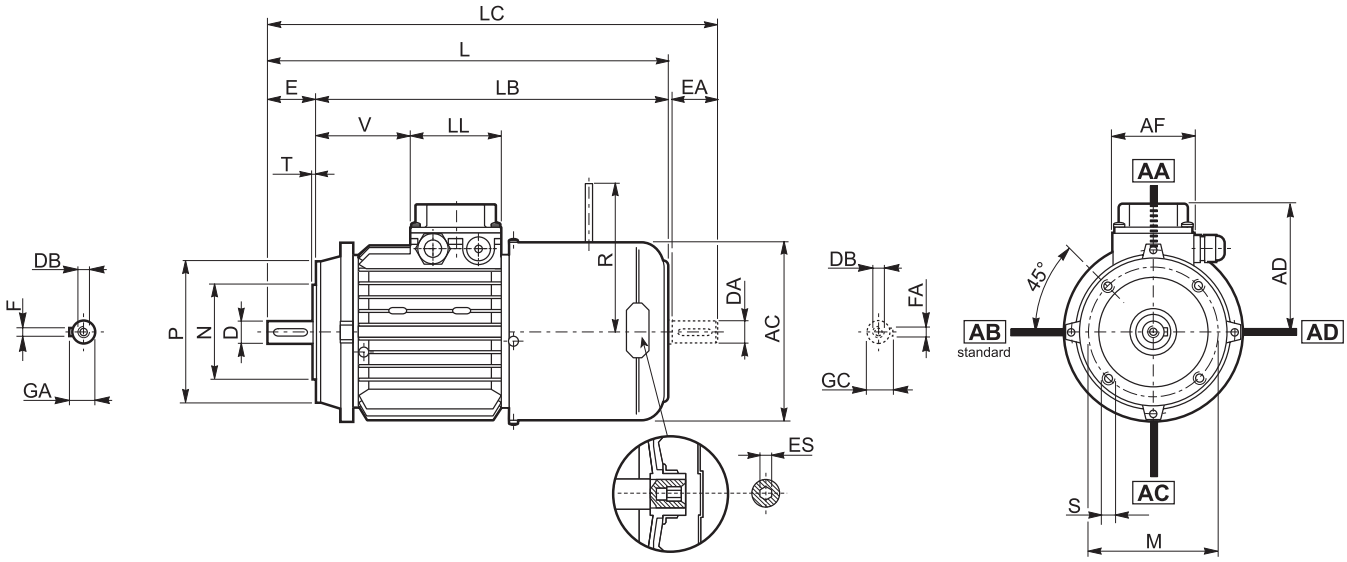


	Shaft					Flange						Motor									
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V	R	ES
BN 63	0.43 *11*	0.91 *23*	*M4*	0.49 *12.5*	0.16 *4*	4.53 *115*	3.74 *95*	5.51 *140*	0.37 *9.5*	0.12 *3*	0.39 *10*	4.76 *121*	10.71 *272*	9.80 *249*	11.69 *297*	4.69 *119*	3.86 *98*	5.24 *133*	0.55 *14*	3.78 *96*	0.20 *5*
BN 71	0.55 *14*	1.18 *30*	*M5*	0.63 *16*	0.20 *5*	5.12 *130*	4.33 *110*	6.30 *160*	0.37 *9.5*	0.14 *3.5*	0.39 *10*	5.43 *138*	12.20 *310*	11.02 *280*	13.46 *342*	5.20 *132*	3.86 *98*	5.24 *133*	0.98 *25*	4.06 *103*	0.20 *5*
BN 80	0.75 *19*	1.57 *40*	*M6*	0.85 *21.5*	0.24 *6*	6.50 *165*	5.12 *130*	7.87 *200*	0.45 *11.5*	0.14 *3.5*	0.45 *11.5*	6.14 *156*	13.62 *346*	12.05 *306*	15.28 *388*	5.63 *143*	3.86 *98*	5.24 *133*	1.61 *41*	5.08 *129*	0.20 *5*
BN 90 S	0.94 *24*	1.97 *50*	*M8*	1.06 *27*	0.31 *8*	6.50 *165*	5.12 *130*	7.87 *200*	0.45 *11.5*	0.14 *3.5*	0.45 *11.5*	6.93 *176*	16.10 *409*	14.13 *359*	18.15 *461*	5.75 *146*	4.33 *110*	6.50 *165*	1.54 *39*	5.08 *129*	0.24 *6*
BN 90 L	0.94 *24*	1.97 *50*	*M8*	1.06 *27*	0.31 *8*	6.50 *165*	5.12 *130*	7.87 *200*	0.45 *11.5*	0.14 *3.5*	0.45 *11.5*	6.93 *176*	16.10 *409*	14.13 *359*	18.15 *461*	5.75 *146*	4.33 *110*	6.50 *165*	1.54 *39*	6.30 *160*	0.24 *6*
BN 100	1.10 *28*	2.36 *60*	*M10*	1.22 *31*	0.31 *8*	8.46 *215*	7.09 *180*	9.84 *250*	0.55 *14*	0.16 *4*	0.55 *14*	7.68 *195*	18.03 *458*	15.67 *398*	20.51 *521*	6.10 *155*	4.33 *110*	6.50 *165*	2.44 *62*	6.30 *160*	0.24 *6*
BN 112	1.10 *28*	2.36 *60*	*M10*	1.22 *31*	0.31 *8*	8.46 *215*	7.09 *180*	9.84 *250*	0.55 *14*	0.16 *4*	0.59 *15*	8.62 *219*	19.06 *484*	16.69 *424*	21.54 *547*	6.69 *170*	4.33 *110*	6.50 *165*	2.87 *73*	7.83 *199*	0.24 *6*
BN 132	1.49 *38*	3.14 *80*	*M12*	1.61 *41*	0.39 *10*	10.43 *265*	9.05 *230*	11.81 *300*	0.55 *14*	0.15 *4*	0.79 *20*	10.15 *258*	23.74 *603*	20.59 *523*	27.00 *686*	8.27 *210*	5.51 *140*	7.40 *188*	4.80 *122*	8.03 *204 (2)*	0.23 *6*
BN 160 MR	*1.65* *42*	*4.33* *110*	*M16*	*1.77* *45*	0.47 *12*	11.81 *300*	9.84 *250*	13.77 *350*	0.72 *18.5*	0.19 *5*	0.59 *15*	10.15 *258*	26.45 *672*	22.12 *562*	29.72 *755*	8.27 *210*	5.51 *140*	7.40 *188*	6.34 *161*	8.89 *226*	0.23 *6*
	1.49 *38 (1)*	3.14 *80 (1)*	*M12 (1)*	1.61 *41 (1)*	0.39 *10 (1)*																
BN 160 M **BN 160 L**	1.65 *42*	4.33 *110*	*M16*	1.77 *45*	0.47 *12*	11.81 *300*	9.84 *250*	13.77 *350*	0.72 *18.5*	0.19 *5*	0.59 *15*	1.22 *310*	28.97 *736*	24.64 *626*	32.28 *820*	9.64 *245*	7.36 *187*	7.36 *187*	2.00 *51*	8.89 *226*	—
	1.49 *38 (1)*	3.14 *80 (1)*	*M12 (1)*	1.61 *41 (1)*	0.39 *10 (1)*																
BN 180 M	1.88 *48*	4.33 *110*	*M16*	2.02 *51.5*	0.55 *14*	11.81 *300*	9.84 *250*	13.77 *350*	0.72 *18.5*	0.19 *5*	0.59 *15*	1.22 *310*	30.70 *780*	26.37 *670*	34.01 *864*	9.64 *245*	7.36 *187*	7.36 *187*	2.00 *51*	8.89 *226*	—
	1.49 *38 (1)*	3.14 *80 (1)*	*M12 (1)*	1.61 *41 (1)*	0.39 *10 (1)*																
BN 180 L	1.88 *48*	4.33 *110*	*M16*	2.02 *51.5*	0.55 *14*	11.81 *300*	9.84 *250*	13.77 *350*	0.72 *18.5*	0.19 *5*	0.70 *18*	13.70 *348*	34.09 *866*	29.76 *756*	38.62 *981*	10.27 *261*	7.36 *187*	7.36 *187*	2.04 *52*	12.00 *305*	—
	1.65 *42 (1)*	4.33 *110 (1)*	*M16 (1)*	1.77 *45 (1)*	0.47 *12 (1)*																
BN 200 L	2.16 *55*	4.33 *110*	*M20*	2.32 *59*	0.62 *16*	13.77 *350*	11.81 *300*	15.74 *400*	0.72 *18.5*	0.19 *5*	0.70 *18*	13.70 *348*	34.56 *878*	30.23 *768*	39.09 *993*	10.27 *261*	7.36 *187*	7.36 *187*	2.51 *64*	*12.00* *305*	—
	1.65 *42 (1)*	4.33 *110 (1)*	*M16 (1)*	1.77 *45 (1)*	0.47 *12 (1)*																

1) These values refer to the rear shaft end.
2) For FD07 brake value R=226

ES hexagon is not supplied with PS option

Dimensions are $\frac{\text{inch}}{mm}$



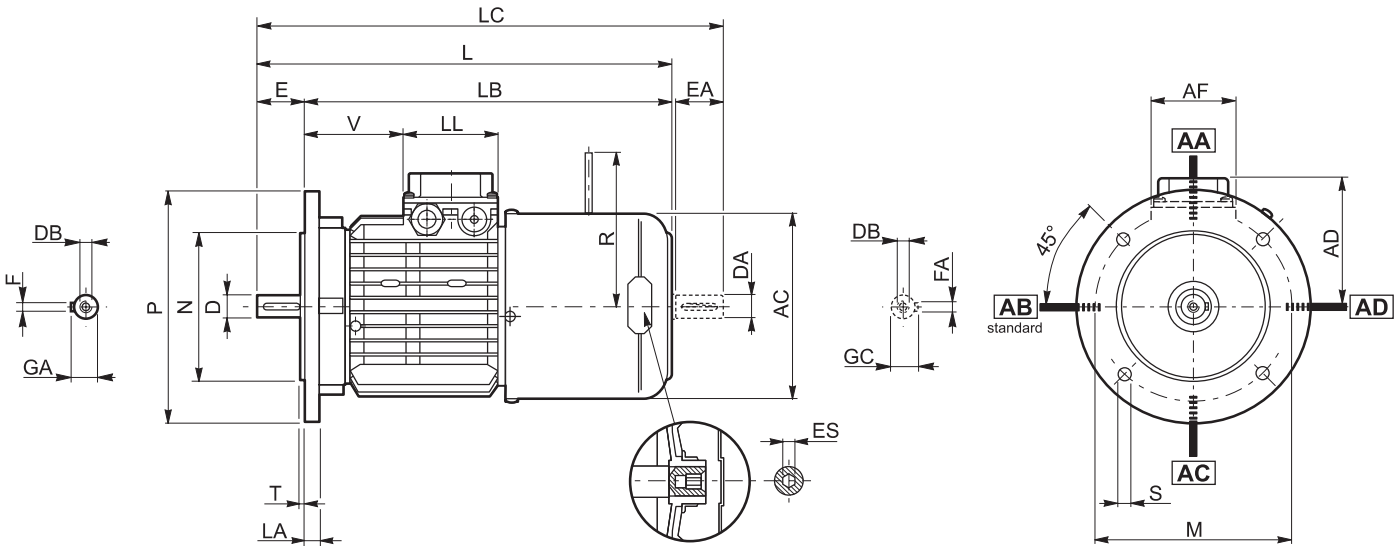
	Shaft					Flange					Motor									
	D **DA**	**E** **EA**	**DB**	**GA** **GC**	**F** **FA**	**M**	**N**	**P**	**S**	**T**	**AC**	**L**	**LB**	**LC**	**AD**	**AF**	**LL**	**V**	**R**	**ES**
BN 63	0.43 *11*	0.91 *23*	*M4*	0.49 *12.5*	0.16 *4*	2.95 *75*	2.36 *60*	3.54 *90*	*M5*	0.10 *2.5*	4.76 *121*	10.71 *272*	9.80 *249*	4.69 *119*	3.74 *95*	2.91 *74*	3.15 *80*	1.02 *26*	4.57 *116*	0.20 *5*
BN 71	0.55 *14*	1.18 *30*	*M5*	0.63 *16*	0.20 *5*	3.35 *85*	2.76 *70*	4.13 *105*	*M6*	0.10 *2.5*	5.43 *138*	12.20 *310*	11.02 *280*	13.46 *342*	4.25 *108*	2.91 *74*	3.15 *80*	2.68 *68*	4.88 *124*	0.20 *5*
BN 80	0.75 *19*	1.57 *40*	*M6*	0.85 *21.5*	0.24 *6*	3.94 *100*	3.15 *80*	4.72 *120*	*M6*	0.12 *3*	6.14 *156*	13.62 *346*	12.05 *306*	15.28 *388*	4.69 *119*	2.91 *74*	3.15 *80*	3.27 *83*	5.28 *134*	0.20 *5*
BN 90	0.94 *24*	1.97 *50*	*M8*	1.06 *27*	0.31 *8*	4.53 *115*	3.74 *95*	5.51 *140*	*M8*	0.12 *3*	6.93 *176*	16.10 *409*	14.13 *359*	18.15 *461*	5.24 *133*	3.86 *98*	3.86 *98*	3.74 *95*	6.30 *160*	0.24 *6*
BN 100	1.10 *28*	2.36 *60*	*M10*	1.22 *31*	0.31 *8*	5.12 *130*	4.33 *110*	6.30 *160*	*M8*	0.14 *3.5*	7.68 *195*	18.03 *458*	15.67 *398*	20.51 *521*	5.59 *142*	3.86 *98*	3.86 *98*	4.69 *119*	6.30 *160*	0.24 *6*
BN 112	1.10 *28*	2.36 *60*	*M10*	1.22 *31*	0.31 *8*	5.12 *130*	4.33 *110*	6.30 *160*	*M8*	0.14 *3.5*	8.62 *219*	19.06 *484*	16.69 *424*	21.54 *547*	6.18 *157*	3.86 *98*	3.86 *98*	5.04 *128*	7.80 *198*	0.24 *6*
BN 132	1.50 *38*	3.15 *80*	*M12*	1.61 *41*	0.39 *10*	6.50 *165*	5.12 *130*	7.87 *200*	*M10*	0.16 *4*	10.16 *258*	23.74 *603*	20.59 *523*	27.01 *686*	7.60 *193*	4.65 *118*	4.65 *118*	7.09 *180*	7.87 *200 (1)*	0.24 *6*

1) For FD07 brake value R=226

ES hexagon is not supplied with PS option.

For motors type BN..FA, the terminal box sizes AD, AF, LL, V are the same as for BN..FD.

Dimensions are $\frac{\text{inch}}{mm}$



	Shaft					Flange						Motor									
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V	R	ES
BN 63	0.43	0.91	*M4*	0.49	0.16	4.53	3.74	5.51	0.37	0.12	0.39	4.76	10.71	9.80	11.69	3.74	2.91	3.15	1.02	4.57	0.20
	11	*23*		*12.5*	*4*	*115*	*95*	*140*	*9.5*	*3*	*10*	*121*	*272*	*249*	*297*	*95*	*74*	*80*	*26*	*116*	*5*
BN 71	0.55	1.18	*M5*	0.63	0.20	5.12	4.33	6.30	0.37	0.14	0.39	5.43	12.20	11.02	13.46	4.25	2.91	3.15	2.68	4.88	0.20
	14	*30*		*16*	*5*	*130*	*110*	*160*	*9.5*	*3.5*	*10*	*138*	*310*	*280*	*342*	*108*	*74*	*80*	*68*	*124*	*5*
BN 80	0.75	1.57	*M6*	0.85	0.24	6.50	5.12	7.87	0.45	0.14	0.45	6.14	13.62	12.05	15.28	4.69	2.91	3.15	3.27	5.28	0.20
	19	*40*		*21.5*	*6*	*165*	*130*	*200*	*11.5*	*3.5*	*11.5*	*156*	*346*	*306*	*388*	*119*	*74*	*80*	*83*	*134*	*5*
BN 90	0.94	1.97	*M8*	1.06	0.31	6.50	5.12	7.87	0.45	0.14	0.45	6.93	16.10	14.13	18.15	5.24	3.86	3.86	3.74	6.30	0.24
	24	*50*		*27*	*8*	*165*	*130*	*200*	*11.5*	*3.5*	*11.5*	*176*	*409*	*359*	*461*	*133*	*98*	*98*	*95*	*160*	*6*
BN 100	1.10	2.36	*M10*	1.22	0.31	8.46	7.09	9.84	0.55	0.16	0.55	7.68	18.03	15.67	20.51	5.59	3.86	3.86	4.69	6.30	0.24
	28	*60*		*31*	*8*	*215*	*180*	*250*	*14*	*4*	*14*	*195*	*458*	*398*	*521*	*142*	*98*	*98*	*119*	*160*	*6*
BN 112	1.10	2.36	*M10*	1.22	0.31	8.46	7.09	9.84	0.55	0.16	0.59	8.62	19.06	16.69	21.54	6.18	3.86	3.86	5.04	7.80	0.24
	28	*60*		*31*	*8*	*215*	*180*	*250*	*14*	*4*	*15*	*219*	*484*	*424*	*547*	*157*	*98*	*98*	*128*	*198*	*6*
BN 132	1.49	3.14	*M12*	1.61	0.39	10.43	9.05	11.81	0.55	0.15	0.79	10.15	23.74	20.59	27.00	7.59	4.64	4.64	7.08	7.87	0.23
	38	*80*		*41*	*10*	*265*	*230*	*300*	*14*	*4*	*20*	*258*	*603*	*523*	*686*	*193*	*118*	*118*	*180*	*200 (2)*	*6*
BN 160 MR	*1.65*	*4.33*	*M16*	*1.77*	0.47																
	42	*110*		*45*	*12*	11.81	9.84	13.77	0.72	0.19	0.59	10.15	26.45	22.12	29.72	7.59	4.64	4.64	8.58	8.54	0.23
	1.49	3.14	*M12 (1)*	1.61	0.39	*300*	*250*	*350*	*18.5*	*5*	*15*	*258*	*672*	*562*	*755*	*193*	*118*	*118*	*218*	*217*	*6*
	38 (1)	*80 (1)*		*41 (1)*	*10 (1)*																
BN 160 M **BN 160 L**	1.65	4.33	*M16*	1.77	0.47																
	42	*110*		*45*	*12*	11.81	9.84	13.77	0.72	0.19	0.59	1.22	28.97	24.64	32.28	9.64	7.36	7.36	2.00	9.72	—
	1.49	3.14	*M12 (1)*	1.61	0.39	*300*	*250*	*350*	*18.5*	*5*	*15*	*310*	*736*	*626*	*820*	*245*	*187*	*187*	*51*	*247*	
	38 (1)	*80 (1)*		*41 (1)*	*10 (1)*																
BN 180 M	1.88	4.33	*M16*	2.02	0.55																
	48	*110*		*51.5*	*14*	11.81	9.84	13.77	0.72	0.19	0.59	1.22	30.70	26.37	34.01	9.64	7.36	7.36	2.00	9.72	—
	1.49	3.14	*M12 (1)*	1.61	0.39	*300*	*250*	*350*	*18.5*	*5*	*15*	*310*	*780*	*670*	*864*	*245*	*187*	*187*	*51*	*247*	
	38 (1)	*80 (1)*		*41 (1)*	*10 (1)*																

1) These values refer to the rear shaft end.

2) For FD07 brake value R=226

ES hexagon is not supplied with PS option.

Dimensions AD, AF, LL and V, relevant to terminal box of motors BN…FA featuring the separate brake supply (option SA), are coincident with corresponding dimensions of same-size BN…FD motors.

Dimensions are $\frac{\text{inch}}{mm}$

R1	
	Description
150	Dimensions V and VA corrected for the NUR version of units A70, A80 and A90.

120628

Bonfiglioli

power, control and green solutions

Bonfiglioli has been designing and developing innovative and reliable power transmission and control solutions for industry, mobile machinery and renewable energy applications since 1956.

Bonfiglioli Riduttori S.p.A.
Via Giovanni XXIII, 7/A
40012 Lippo di Calderara di Reno
Bologna, Italy

tel: +39 051 647 3111
fax: +39 051 647 3126
bonfiglioli@bonfiglioli.com
www.bonfiglioli.com