Saving Energy for the Next Generation

STOCK CATALOG 1050

Electric Motors, Gearmotors and Drives Sub-Fractional to 700 HP

Effective December 6, 2010

New Products From: LEESON Lincoln Motors

Saving Energy for the Next Generation

Cover Designer

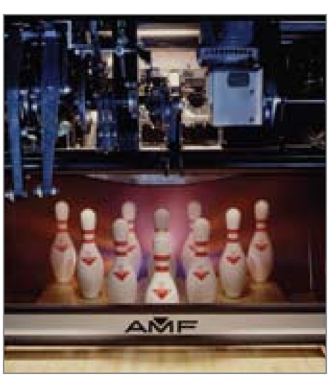
The LEESON 1050 Cover image was designed by Cindy Perez-Rondeau, in a company-wide cover design contest. Cindy has worked as a Marketing Communications Specialist at LEESON for 10 years. Her recent successes, were being the Project Lead for the re-design of leeson.com, and coordinating her first EASA Trade Show. She enjoys meeting new challenges, and continuously learning. For fun she likes to travel, read and spend time with family and friends.

TOUGH PERFORMI

FRACTIONAL

48-56 Frame

- Totally enclosed, Dripproof & Explosion Proof enclosures
- Rigid base, C-Face with rigid base and C-Face mountings available
- Stocked in both single and three phase
- Designs starting at 1/12 HP up to 3 HP
- Brake motors through 2 HP



Applications...

- Gear Reducers
- Pumps
- Machine Tools
- Fans and Blowers
- Material Handling
- Machine Tools
- Compressors
- Conveyors

AGRICULTURAL

48-286T Frame

- Designed especially for the farmer or the OEM
- Extra-high starting torque designs: General Purpose, Crop Dryer, Auger Drive, Fan Ventilation, Grain Stirring and more
- Manual and auto reset overload thermal protection
- Fully gasketed design for additional protection
- Sealed Bearings

Applications...

- Poultry Feeders
- Silo Unloaders
- Crop Drying
- Compressors
- Conveyors
- Pumps
- Barn Cleaners
- Grain Stirrers

WASHDOWN

56-215T Frame

- USDA-approved white epoxy paint
- Cast conduit box with stainless steel cover
- Internal corrosion resistant coatings on frame, base, endshields, rotor & stator
- Single phase motors have electronic encapsulated starting switch
- 100% stainless steel three phase designs available, 1/2 through 10 HP

Applications...

- Dairies
- Beverage Plants
- Food Processing
- Slaughter Houses
- Bakeries
- Pharmaceutical Plants
- Car Washes

WASH-THRU/ MULTIGUARD

56-445T Frame

- Pressure Encapsulated Technology
- ODP Designs
- Double-sealed bearings
- Premium class F Insulation System
- Steel Frame Construction
- Epoxy Painted – Wash-thru™ motors

Applications...

- Car Washes
- Food Processing Plants
- Conveyors
- High Dust and Moisture applications

NG MOTORS FOR GENERAL PURPOSE OR

DC MOTORS

- 1/4 HP through 3 HP available
- Permanent Magnet Designs
- Removable Bolt-on base
- NEMA C-face designs
- 115 or 230 volt input power ratings – 90 / 180 volt output
- 12, 24, 36 and 48 Volt Low Voltage Designs available
- PWM or SCR type controller rated
- High Starting Torque
- Permanently lubricated sealed bearings

Applications...

- Pumps
- Conveyors,
- Turntables
- Textile Machinery
- Reeling Equipment
- Medical Equipment
- Treadmills
- Solar Panels

AC & DC GEARMOTORS

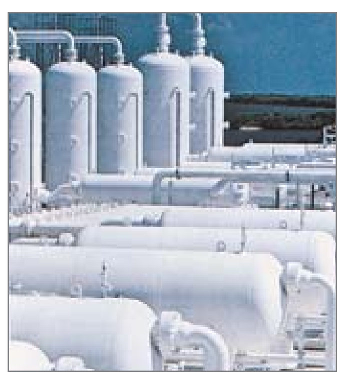
- AC – 115/230V single-phase and 230/460V three-phase designs
- DC – 90, 180 and low voltage designs
- Right-angle and Parallel Shaft designs
- Most common F.L. torque and RPM designs available
- Washdown Designs available
- Bison, Bodine and Dayton Direct Interchange

Applications...

- Conveyors
- Turn-tables
- Packaging Equipment
- Augers
- Food Processing Equipment

PUMP MOTORS

- JM/JP close coupled
- UL Listed Fire Pump - Lincoln
- Dripproof, Totally Enclosed, Washdown Duty
- EPAct Efficient designs available
- Jet Pump in single and three phase from 1/2 through 3
- Pool/Square flange available from 1/2 through 2 HP
- Stainless Steel Washdown



Applications...

- Centrifugal Pumps
- Hydraulic Pumps
- Water System Pumps
- Fire Pumps
- Turbine Pumps
- Vertical End Suction
- Propeller Pumps

EXPLOSION PROOF MOTORS

56-449T Frame

- Single phase fractional to Severe Duty 449T frame
- Class I Group D or Class I Groups C & D, Class II Groups F & G
- 1.15 service factor
- UL Listed for use with Inverters
- Available in EPAct & NEMA Premium™ Efficiency
- Severe Duty Features
- Rigid and C-face mounts available

Applications...

- Pumps
- Compressors
- Gear Reducers
- Machine Tools
- Conveyors
- PWM Drives
- Petroleum & Gasoline
- Grain Elevators
- Paint Booths

SPECIFIC DUTY APPLICATIONS

PREMIUM EFFICIENT MOTORS

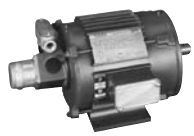
NEMA Premium

143-449T Frame

- Offers high efficiency levels that meet NEMA Premium™
- Built for high cycle or long run-time applications
- Dripproof, Totally Enclosed, Washdown and Explosion Proof enclosures
- Iris Insulation System - WATTSAVERe
- Comes with a full three year warranty

Applications...
- Pumps
- Gear Reducers
- Conveyors
- Compressors
- HVAC

CTAC INVERTER & VECTOR DUTY MOTORS



56-445T Frame

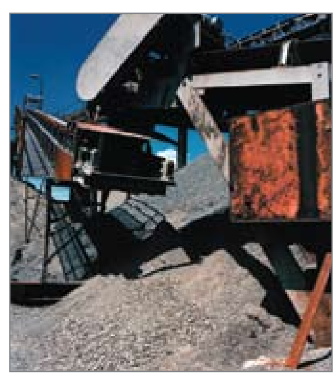
- 1/3 HP through 200 HP
- 1024 ppr encoder included designs available
- Class F Thermostat protection
- Precision balanced
- 0 – 60HZ constant and variable torque
- TENV and TEBC designs
- 3-Year Warranty

Applications...
- Material Handling
- Extruders
- Conveyors
- Machine Tools
- Transportation

CRUSHER DUTY MOTORS

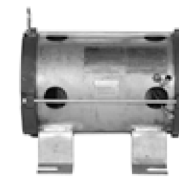
405T-447T Frame

- 100 HP through 400 HP
- 4140 grade high strength shaft material
- Inverter Rated
- Roller Bearing – Drive end bearing
- Class F thermostat protection
- Steel and Cast Iron Construction



Applications...
- Rock Crushers
- Pulverizers
- Mines and Quarries

ELEVATOR MOTORS



Submersible

- Intermittent Duty
- 15 HP through 50 HP
- Thermostat Protection
- Three bolt circles for various mounting arrangements
- L32 bracket conversion kit available
- 10 ft long leads
- 6 Floors at speeds up to 200 fpm

Hydraulic

- Belt Driven Pump type
- NEMA Dimensions
- Dual Rated – 80 & 120 Starts/Hour
- CSA Approved & UL Recognized
- Low Noise and Low Vibration Construction

VVVF (Variable Voltage Variable Frequency)

- 100 fpm to 500 fpm – up to 15 floors
- Encoder Feedback
- Thermostat Protection
- Low Noise Design
- Steel Frame Design

Applications...
- Passenger, freight and low-rise elevators
- Dumbwaiters
- Service Elevators
- Geared and Gearless Traction Elevators

LEESON® Lincoln™ MOTORS

Saving Energy for the Next Generation

E.I.S.A. Facts:

E.I.S.A. is an acronym for
Energy Independence & Securities Act

This law was signed on Dec. 19, 2007 and goes into effect on Dec. 19, 2010. All motor manufactures may not build motors that have a lower nameplate efficiency than the rules allow. Motors can be sold and shipped after Dec. 19, 2010, having the lower efficiency that were built before the deadline.

General Overview of Levels

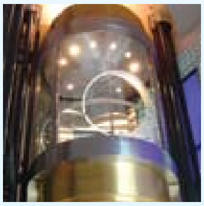
General purpose motors today that meet EPACT, will need to change to NEMA Premium. General purpose motors that were exempt from EPACT, due to voltage, mounting, etc…, will need to change to meet EPACT Motors that are exempt, include motors having special shafts, non-standard Hz, Inverter only motors and TENV motors.

For more information on EISA, please visit our website at: leeson.com/energy-efficient/EISAFacts.html

TABLE OF CONTENTS

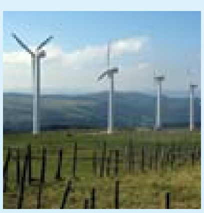
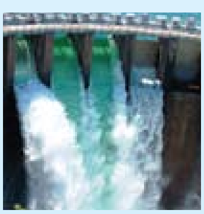
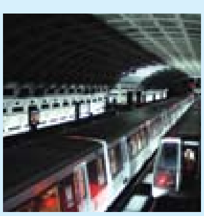
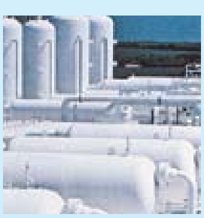
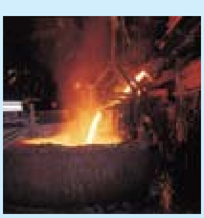
AC & DC MOTORS

THOUSANDS OF STOCK POWER TRANSMISSION SOLUTIONS





LEESON'S off-the-shelf product includes the Lincoln Motors line of Industrial AC motors. Together, we now offer over 6,000 stock motors, gearmotors, gear reducers and drives. All are built for industrial use and have numerous features making them easy to install in replacement and new applications.

MOTORS OF ALL TYPES

Stock motors include both AC and DC designs, from sub-fractional horsepower through hundreds of horsepower for general-purpose use and specific duty applications. All popular enclosures and configurations are available, along with some not-so-easy-to find items. Standard at no extra cost on all stock NEMA three phase motors (1 HP and larger) is LEESON's Inverter-Rated Insulation System (IRIS tm), which provides an extra margin of protection from inverter-induced voltage spikes. Lincoln Motors offers their "ULTIMATE E®" inverter-rated insulation system on their 1HP and larger frame three phase motors.

GEARING PRODUCTS

The LEESON product array includes both fractional and integral horsepower gear reducers. The popular IRONMAN® worm gear, in both solid and hollow output shaft designs, is a versatile workhorse. Our Stainless Steel line offers single worm, double worm and helical worm designs with ratios ranging from 5:1 through 3600:1 and center distances from 1.33" to 3.250". The NH Series has a narrow profile designed to fit tight space allocations in new or existing equipment. Plus, our heavy duty aluminum Electra-Gear speed reducers withstand the rigors of severe washdown and harsh environments. We also offer our Bravo® line of Aluminum Gear Reducers, a vent-free and oil-free alternative for machine designers.

The aluminum LeCENTRIC inline reducers provide bolt-in interchangeability with leading brands and are a lower cost alternative to cast iron. The IRONMAN® High Efficiency line is an industry leader in product offering, which includes Helical-Inline, Helical-Bevel, Helical-Worm and Parallel Shaft reducer and gearmotor designs.

ADJUSTABLE SPEED DRIVES

Speedmaster drives are a perfect fit with many types of the LEESON and Lincoln three-phase motors. Our Micro Series line of inverters is now available through 60 HP at 230 Volts and through 150 HP at 460 Volts. They also offer easy-to-use- "plain English" programming with built in PID software, making them a closed-loop drive, if needed. For applications through 25 HP, choose the 'SM-Plus Inverter, with its minuscule footprint, "big drive" features and wide range of accessories. If all you require is a "Shaft-turner" for your application needs, choose the SM-Series drive, having the same small footprint and many of the features of our SM-Plus Series, at a great price. We also offer a Sensorless Vector inverter, which offers 200% starting torque and when run with a vector duty motor, full output torque down to 1Hz.

We also offer a competitive line of SCR, PWM, Regenerative and Low Voltage DC Controls.

LEESON Electric and Lincoln Motors are subsidiaries of Regal-Beloit Corporation, a worldwide manufacturer of mechanical and electrical motion control products. LEESON and Lincoln sales offices and warehouses are located throughout North America.

CUSTOMIZED AND MODIFIED PRODUCTS

CUSTOM MOTORS, GEARBOXES & GEARMOTORS

LEESON is a leading designer and manufacturer of application-specific AC and DC motors and gearmotors in sub-fractional, fractional and integral horsepower sizes. We offer a database of over 30,000 custom designs, experienced application and design engineering teams, and the unique collaborative environment of the LEESON Design Center to ensure the best, most cost-effective custom motor solution.

CUSTOM MULTI-SPEED & LOW-SPEED MOTORS

LEESON's PDQ Modular Production Program utilizes specially designed and standard components to make almost any imaginable NEMA frame multi-speed or low-speed motor available when you need it. We pride ourselves on fast turnaround times on highly customized motors.

Custom motors include two, three and four-speed motors and speed ranges of 900, 720, 600, 450 and 300 RPMs. We also specialize in non-standard shaft designs.

For quotations, availability and application assistance, phone toll-free to our Canadian manufacturing facility at 1-800-463-1797.

MOD-SQUAD PROGRAM

Quick-turnaround stock motor modifications are available through the LEESON Motor Mod-Squad. Adding cords or switches, changing mountings, extending leads and incorporating various severe-duty features are among the many standard modifications offered.

MOD·SQUAD
MOTORS MODIFIED FAST

Modified stock gear reducers are offered on a quick-ship basis through the LEESON Gear Mod-Squad. A wide array of mountings, shaft extensions and other changes are available for 600 Series IRONMAN® reducers. In addition, modified stock Gear+Motor™ packages can be created, drawing on LEESON's extensive range of NEMA C face motors.

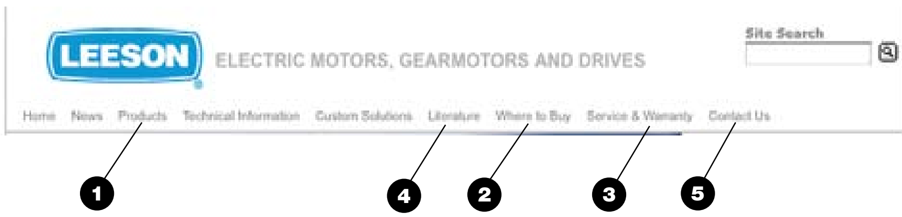
MOD·SQUAD
REDUCERS MODIFIED FAST

For complete stock products information, visit our online technical database at www.leeson.com/findaproduct.

OFFERINGS WITH CUSTOMERS IN MIND

LEESON.COM WEBSITE

LEESON's website is a user friendly site that offers the features listed below. Our customers also have access to LEeBIZ™, which is our e-business center and provides LEESON Distributor Partners with 24 hour, seven days a week access to stock availability, account status and product features.



1 Products

- View our off-the-shelf product offerings of over 6,000 items which include: AC and DC motors, sub-fhp motors and gearmotors, AC and DC adjustable speed drives, NEMA Gear+Motors™, and right-angle gear reducers.

2 How To Buy

- This field shows information on how to locate LEESON's nearest sales offices and warehouses as well as our authorized distributors.

3 Service & Support

- Locate our authorized service centers by state or country, or use our "search by zip code" field which will locate our nearest authorized service center to your location within a 100-mile radius. This section also lists our product warranty policy as well as outline some simple motor troubleshooting guides.

4 Literature

- View product sales bulletins and catalogs or download in Adobe Acrobat PDF format.
- View or download product manuals which include our AC and DC controls, gearboxes and brake kits, as well as technical information, including our motor basic training manual and product troubleshooting guides.
- Request literature field, where you can request our product literature to be mailed to you.

5 Contact Us

- Locations of our corporate offices in the USA, Canada, Europe and China.
- Ask LEESON questions on our product offerings and/or services.
- Comment to LEESON on our web page or offer suggestions on how we can improve LEESON.COM.

STATeam - Strategic Technical Application Team

Application Issues, We've Got Solutions.
Whether you require a motor that withstands temperatures, requires a special mounting, or any other application requirements, LEESON's STATeam has the solution for you.

The LEESON Strategic Technical Application Team is LEESON's group of experienced engineers with design, process, quality, and sales application experience ready to help you find your specific application solution.

More Expertise. More Speed. More Solutions. STATeam.

To find out more, simply call your local LEESON sales office and turn your idea into reality.

Application Information

AGENCY LISTINGS

UL and CSA

LESSON Electric and Lincoln Motors Fire Pump and Explosion Proof motors are UL Listed. Other motor types are UL Recognized, including models with inherent overheating protection as noted (i.e. thermally protected models). Leeson and Lincoln motors are also CSA Certified for both explosion proof and non-explosion proof enclosures.

AC Motors

Non-Explosion Proof	UL File No.	CSA File No.
NEMA 48-449 Frame	E49747	LR2025
NEMA 500 and 5000 Frame	—	LR2025*
IEC 63-90 Frame	E49747	LR2025
IEC 100-280 Frame	E49747	LR2025#
Thermally Protected motors	E6312	LR2025
Insulation Systems	E37900	LR2025
* Does not include coverage for use with VFD		
# Domestic product only		
Explosion Proof	**UL File No.**	**CSA File No.**
NEMA 56-326 Frame	E12044	LR47504
NEMA 364-449 Frame	E12044	LR21839
Fire Pump Motors	**UL File No.**	**CSA File No.**
NEMA 143-510	EX5190	LR2025
Class I, Division 2/Zone 2	**UL File No.**	**CSA File No.**
NEMA 48-449, 5000 Frame	—	LR21839
European ATEX Zone 2	**Intertek Certificate No.**	
NEMA 143-449, IEC 112-280	ITS06ATEX45370	

PMDC Motors + Gear Motors

Non-Explosion Proof	UL File No.	CSA File No.
NEMA 56-145	E49747	LR2025
AC Inverters	E161242	#
SpeedMaster SCR Controls	E132235	LR41380
FHP Speed Drives	E132235	_

- UL Certified for Canada under UL File E 1.67242

ATEX Directive (ATmospheres EXplosibles)

Mandatory by law, the European Union (EU) Directive 94/9/EC requires that electric motors for use in explosive atmospheres carry the CE mark, notified body identifier, Ex symbol, equipment group and category, plus the date code. See “European Installations” for additional details, located on the next page.

NEMA (National Electrical Manufacturers Ass’n)

LEESON Electric and Lincoln Motors’ are manufactured in accordance with all applicable areas of NEMA standards in MG1-2006. When applied in accordance with the “Guidelines for Application of Three Phase Motors on Variable Frequency Drives”, **LEESON Electric and Lincoln Motors’ are in full compliance with NEMA MG1-2006, Part 31, Section 4.4.2**, as pertaining to voltage spikes. 460 volt motors must withstand voltage spikes of up to 1426 volts; 575 volt motors must withstand spikes up to 1788 volts. See “Insulation Systems” for additional detail on this subject. **Website: www.nema.org**

Commitment to RoHS and WEEE European Directives

European Directive 2002/95/EC “Restriction of Use of Certain Hazardous Substances” (RoHS) and Directive 2002/96/EC “Directives on Waste Electrical and Electronic Equipment” (WEEE) were enacted to control the amount of certain hazardous substances contained in products shipped into the E.U. Restricted substances include lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated dipheynl ethers.

The scope of products covered, affecting motors, is:

- Large household appliances
- Small household appliances
- IT and telecommunications equipment
- Consumer equipment
- Electrical and electronic tools (except large scale stationary and industrial tools)
- Toys, leisure and sports equipment
- Automatic dispensers

The Directives do not currently apply to medical devices, monitoring and control instruments, spare parts for the repair or reuse of electrical and electronic equipment placed on the market before July 1, 2006, and most military and state security equipment.

Regal Beloit Corporation worked closely with suppliers to assure that product falling within the scope of these Directives meets the specified levels of these substances. The Directives took affect July 1st, 2006 however many products were converted in May and June. The products converted are motors in NEMA frame size 145 and below, both AC and DC motors with the following exceptions:

- Brake motors in 56-145 frame **will have to be ordered specifically as RoHS compliant.**
- **Some motors with specialty electro-mechanical components.**

ISO QUALITY CERTIFICATION

Affiliate of The Regal Beloit corporation. We are ISO 9001:2008 and our registrar is NSF-ISR. The certificate number for the corporation is C0026928-IS2.

leeson.com/Technical Information

Continued on next page.

Application Information

LEESON Electric and Lincoln Motors employ the use of Exxon POLYREX® EM grease, a specially formulated bearing grease designed for electric motors. POLYREX® EM provides superior lubricity, durability and resists corrosion, rust and washout. POLYREX® EM is a registered trademark of Mobil Corporation.

Maximum safe mechanical speed capability is a function of bearing size, type and grease selection, as well as rotor balance specifications. Consult the "Maximum Safe Mechanical Speed Limits" chart in the "Overspeed Capability" section.

Note that these values do not imply maximum constant horsepower RPM.

EFFICIENCY

The efficiency of a motor is the ratio of its useful power output to its total power input and is usually expressed in a percentage. LEESON Electric and Lincoln Motors offers standard, high efficient EPAct, and **NEMA Premium**® efficient ratings. Standard efficiency motors may only be used on applications that are exempt from legislated efficiencies. The high efficient motor line is in compliance with the Energy Policy Act of 1992 (EPAct) and/or Canadian efficiencies as set by NRCan. The Energy Independance and Security Act of 2007 (**EISA07**) will become law on December 19, 2010, requiring current EPAct-compliant motors to meet NEMA Premium® efficiencies, and most EPAct-exempt motors to meet EPAct levels. Premium efficient motors in this catalog meet NEMA Premium® unless otherwise noted.

The LEESON WattSAVERe® and Lincoln Ultimate-e™ line is a premium efficiency line, which exceeds mandated efficiencies of EPAct and /or NRCan. Unless otherwise noted, premium efficient motors in this catalog meet NEMA Premium® the newly promoted efficiency levels by NEMA and the Consortium for Energy Efficiency (CEE).

ELECTRICAL TYPE/STARTING METHOD

Motors in this catalog are capacitor start, split phase, permanent split capacitor, or three phase. Capacitor Start motors have high starting torque, high breakdown torque, and relatively low starting current. Split phase motors have medium starting torque and medium starting current. Permanent split capacitor motors have low starting torque and low starting current. Three phase motors have high starting, extra breakdown torque, and typically very low starting current. Single phase motors cannot be applied on variable frequency drives with three phase output.

ENCLOSURE AND METHOD OF COOLING

LEESON Electric and Lincoln Motors are available in various enclosures; Dripproof (DP), Dripproof Force Ventilated (DPFV), Totally Enclosed Fan Cooled (TEFC), Totally Enclosed Non-Ventilated (TENV), Totally Enclosed (TEAO) and Totally Enclosed Blower Cooled (TEBC). Application conditions will determine the type of motor enclosure required.

Dripproof motors have open enclosures and are suitable for indoor use and in relatively clean atmospheres. Dripproof motors have ventilating openings constructed so that drops of liquid or solid particles falling on the machine at an angle of not greater than 15 degrees from the vertical cannot enter the machine.

Totally enclosed motors are suitable for use in humid environments or dusty, contaminated atmospheres. Totally enclosed non-ventilated motors are NOT cooled by external means. Totally enclosed fan cooled motors are cooled by external means that are part of the motor but not in the internal workings of the motor. Totally enclosed air over motors are sufficiently cooled by external means, provided by the customer.

HAZARDOUS DUTY

Hazardous Duty motors are totally enclosed (fan cooled or non-ventilated) motors designed for applications in hazardous atmospheres containing explosive gases and/or combustible dusts.

North American installations

North American standards for electric motors generally fall into one of two divisions. Division 1 Explosion Proof motors are UL Listed in accordance with NFPA Class I (Flammable Gases) or Class II (Combustible Dusts) and Groups (gases or dusts), depending upon the atmosphere. Division 2 motors are CSA Certified and are marked similarly to Division 1 equipment. Inverter Duty motors through 449T frames are CSA Certified for use in Division 2 locations.

European installations

Motors for hazardous locations in Europe must meet a different set of standards and require different markings than those of North America. CENELEC sets the standards for equipment in hazardous locations for Europe. Motors for use in explosive atmospheres in Europe are often referred to as flameproof (Zone 1) or non-sparking (Zone 2) motors. These motors must comply with the ATEX Directive. The ATEX Directive covers all electrical equipment used in explosive atmospheres. To ensure compliance with the Directive, equipment must meet the essential ATEX requirements and carry the CE mark on the nameplate. Other information required on the nameplate includes the Ex symbol, group & category, Ex protection method, gas group, and temperature code, example (Ex II 3 G Ex nA IIC T3).

The tables on the next page describe LEESON Electric and Lincoln Motors capabilities by Area Classification and by Temperature Code.

LEESON Electric and Lincoln Motors Hazardous Duty Motor Area Classification Chart

Class I Area Classification (Flammable Gases, Vapors or Mists)				Class II Area Classification (Combustible Dusts)			
North America		Europe - ATEX③ (Category G - Gases)		North America		Europe - ATEX③ (Category D - Dusts)	
Division 1 Explosion Proof	Division 2 TEFC & TENV	Zone1 Flameproof	Zone 2 Non-Sparking	Division 1 Explosion Proof	Division2	Zone 21 Flameproof	Zone 22 Non-Sparking
Group A①	Group A	N/A	N/A	-	-	-	-
Group B②	Group B	N/A	N/A	-	-	-	-
Group C	Group C	N/A	N/A	-	-	-	-
Group D	Group D	N/A	N/A	-	-	-	-
-	-	N/A	-	Group E①	-	N/A	N/A
-	-	N/A	-	Group F	Group F①	N/A	N/A
-	-	N/A	-	Group G	Group G①	N/A	N/A

- \- Group is not applicable to that Division or Zone, or is not defined.
- ① Group is not available from LEESON Electric and Lincoln Motors.
- ② Contact factory representative for availability.
- ③ Currently not available.

LEESON Electric and Lincoln Motors Hazardous Duty Motor Temperature Code Chart

	TEMPERATURE CODES		Division 1 Explosion Proof / Flameproof		Division 2 / Non-Sparking
			Class I Area Classification (Flammable Gases, Vapors or Mists)	Class II Area Classification* (Combustible Dusts)	Class I Area Classification (Flammable Gases, Vapors or Mists)
Temp.	UL/CSA	ATEX	Division 1/Zone 1	Division 1/Zone 21	Division 2/Zone 2
280°C	T2A	T2(280)	Explosion Proof - Class I, Group D (Group C as noted)		
260°C	T2B	T2(260)			Severe Duty & IEEE-841 @ 1.15 S.F., Class I, Groups A,B,C,D (Sine wave power)
215°C	T2D	T2(215)			
200°C	T3	T3			
165°C	T3B	T3(165)	Explosion Proof - Class I, Group D (Group C as noted), Sine wave or PWM power	Explosion Proof - Class II, Groups F & G, Sine wave or PWM power	
160°C	T3C	T3(160)			
135°C	T4	T4			

* Class II, Division 2 motors are not available from LEESON Electric and Lincoln Motors.

Division I & II ambient range is -25°C to +40°C

Variable Speed Operation

Guidelines for Application of General Purpose, Three Phase, Single Speed Motors on Variable Frequency Drives Meets NEMA MG1-2006 Part 30 and Part 31 Section 4.4.2 Unless stated otherwise, motor nameplates do NOT include listed speed range.

ENCLOSURE	EFFICIENCY	VARIABLE TORQUE	CONSTANT TORQUE									
		ALL FRAMES	56	143-215		254-286		324-365		404-449	
NEMA Motors		ALL POLES	ALL POLES	2-Pole	4&6 Pole	2-Pole	4&6 Pole	2-Pole	4&6 Pole	2-Pole	4&6 Pole
ODP	Standard (EPAct exempt)	10:1	2:1	10:1	10:1	2:1	2:1	2:1	2:1	2:1	2:1
	EPAct compliant	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1
	NEMA Premium	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1
TEFC	Standard (EPAct exempt)	10:1	2:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1
	EPAct compliant	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1
	NEMA Premium	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1	10:1
TENV	EPAct compliant	10:1	10:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1
	NEMA Premium	10:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1	1000:1
Washdown TEFC	Standard (EPAct exempt)	10:1	10:1	10:1	10:1	N/A	N/A	N/A	N/A	N/A	N/A
	Premium & EPAct compliant	10:1	10:1	10:1	10:1	N/A	N/A	N/A	N/A	N/A	N/A
Washdown TENV	Standard (EPAct exempt)	10:1	10:1	10:1	10:1	N/A	N/A	N/A	N/A	N/A	N/A
	Premium & EPAct compliant	10:1	10:1	10:1	10:1	N/A	N/A	N/A	N/A	N/A	N/A
Explosion Proof	All efficiency levels	Explosion Proof motors must be properly nameplated with inverter duty information prior to use on VFD. Motors with automatic overload protectors cannot be used on VFDs.									
IEC Motors		ALL FRAMES	63-90	100-250	**Speedmaster® Inverter Duty/Vector Duty Motors & Lincoln CTAC® Motors**					ALL FRAMES	
All Enclosures	All efficiency levels	10:1	20:1	Up to 20:1						2000:1	

Lincoln Rolled Steel	ODP-280-360 Frame	2:1	Constant Torque
280 Frame and Higher	TEFC-280-360 Frame	2:1	Constant Torque
400 Frame and Higher -	Contact Sales Office		
Stock 90VDC and 180 VDC DC Motors		30:1	Rated Torque

Application Notes

Restricted use	DO NOT APPLY THE FOLLOWING MOTORS ON VARIABLE FREQUENCY DRIVES: Single Phase motors, Motors with inherent overload protection, Multi-Speed motors, Motors with 1.0 Service Factor on sine wave power. Fire Pump motors should not be used with variable frequency power supplies, due to the critical nature of these applications.
Hazardous Locations	Consult with LEESON Electric when applying motors and drives into Hazardous Locations, either Division/Zone 1 or Division/Zone 2 areas. UL and CSA policies prohibit the installation of bearing protection devices, such as shaft grounding brushes, rings or insulated bearings on motors in Hazardous Locations.

Maximum Cable Lengths from the Motor to Drive

PRODUCT DESCRIPTION	3 kHz CARRIER FREQUENCY (PHASE TO PHASE)*		
	230 VOLT	460 VOLT	575 VOLT
56-326 NEMA, 100-225 IEC Frames	600 ft.	125 ft.	40 ft.
364-5013 NEMA, 250-315 IEC Frames	1000 ft.	225 ft.	60 ft.
Motors with Corona Resistant Magnet Wire	1500 ft.	475 ft.	140 ft.
Motors with IRIS™ Insulation or Ultimate-e™ Spike Defense ™	Unlimited	Unlimited	650 ft.
Form-wound low voltage motors	Unlimited	Unlimited	650 ft.

* Higher carrier frequencies require shorter cable length to obtain normal (50Khrs) insulation life.

Standard Motor Insulation Systems

IRIS™ INSULATION SYSTEM	ULTIMATE SPIKE DEFENSE™
All LEESON 3-Phase Motors 1HP and above.	Lincoln Motors Premium Efficient
All Premium Efficient WattSAVERe® Motors	Lincoln Inverter Duty
	CTAC® Motors

Variable Speed Operation

VARIABLE SPEED INFORMATION

LEESON Electric and Lincoln Motors Vector-Duty and Inverter Duty motors, unless otherwise stated, are rated for continuous operation in a 40°C ambient and for altitudes up to 3300 feet (1000 meters) above sea level. Special application considerations, such as high or low ambient, intermittent ratings, high altitude, duty cycle rated, extended constant horsepower range, special base speed, voltage or frequency, or any other special requirements, should be reviewed by a factory representative.

It is the responsibility of the startup personnel during commissioning of the VFD/motor system to properly tune the drive to the motor for the specific application. The correct voltage boost and volts/hertz settings are application dependent and unique to each motor design. Procedures for these adjustments should be in your VFD user manual. Many Vector Duty and Inverter Duty motors in this catalog are equipped with thermostats; warranty coverage may be denied if they are not properly utilized.

WARNING ***Power factor correction capacitors should never be installed between the drive and the motor.***

INVERTER DUTY OR INVERTER RATED

"Inverter Duty" (often called "Inverter Rated") motors are suitable for use with Variable Frequency Drives, as long as operation is within the application guidelines published in this catalog. In general, LEESON Electric and Lincoln Motors' three phase, general purpose, NEMA Design B motors are considered "Inverter Duty", and meet or exceed the requirements of NEMA MG1, Part 30. As required under Federal law, these motors comply with EISA2007 efficiencies when operating from utility power.

Inverter Duty (Rated) motors are most often used in 10:1 speed range, variable torque or constant torque applications. A vector control is usually required for operation beyond 10:1 CT.

Refer to "Guidelines for Application of General Purpose, Single Speed Three Phase Motors on Variable Frequency Drives" in this section of this catalog for the allowable speed range and cable length restrictions (from VFD to motor). Additional detail regarding a specific product's capabilities is available on its catalog page, or by consulting your application engineer.

VECTOR DUTY – "Vector Duty" describes a class of motors that are used in conjunction with Open- (without encoder) or Closed-Loop (with encoder) Vector controls, that provide enhanced performance under low speed operating conditions, or in cases where torque (rather than speed) must be controlled. "Vector Duty" motors can be applied to Volts/Hertz (scalar) drives, as well.

LEESON Electric's Speedmaster® motors and Lincoln Motors' CTAC Motors, have been specifically designed for optimal operation on vector or volts/hertz controls. These motors feature a wide constant torque (up to 2000:1) and/or constant horsepower (up to 4:1) speed range and are performance-matched to all current technology IGBT drives. Vector Duty motors meet or exceed the requirements of NEMA MG1, Part 31, and are equipped with an enhanced insulation system (IRIS or Ultimate Spike Defense) to provide many years of trouble-free service. Consult the catalog page for each product's capabilities and features. As these motors are specifically designed for operation through an inverter, they are exempt from EISA2007.

VARIABLE TORQUE LOADS – Applications include fans, blowers and centrifugal pumps. Torque varies as the square of the speed, and horsepower as the cube of the speed. Operation below base speed significantly lightens the load on the motor. While most variable torque applications do not require the motor to operate below half speed, the motor is fully capable of operation to zero speed. Operation above base speed significantly adds to the load on the motor; therefore, a factory representative must review applications requiring variable torque above base speed. Refer to the application chart found on page 14 for use of general purpose three phase motors on variable frequency drives. A bypass circuit is often employed in Variable Torque applications. If this device is intended to be used, selection of a NEMA Design B motor is recommended, to withstand the inrush current during across-the-line starting.

CONSTANT TORQUE LOADS – Applications include conveyors, elevators, hoists, extruders, positive displacement pumps, mixers and converting equipment. Torque remains constant throughout the range of operation, and extra care should be taken in the proper application of motors, especially at very low speeds. Most constant torque applications don't require operation below 10:1 (i.e. 6 Hz operation on a 60 Hz motor), but an increasing number of applications historically reserved for servo and/or stepper systems are being served with motors capable of operation beyond 20:1…even up to 2000:1 (zero speed, constant torque). Refer to the application chart found on page 14 for use of general purpose three phase motors on variable frequency drives.

Applications requiring greater than 20:1 C.T. are ideal for LEESON Speedmaster® Inverter Duty/Vector Duty and Lincoln Vector Duty CTAC® motors. These motors provide full rated torque within their listed speed range, without exceeding a Class F temperature rating while under inverter power (many operate at Class B). Ratings in this catalog have been developed, based on extensive testing on IGBT inverters, set at a minimum 3 KHz (or equivalent) carrier frequency.

Vector Duty and Inverter Duty motors from LEESON Electric and Lincoln Motors are designed for operation at 150% of rated load for one minute, up to the base speed of the motor (overload capability declines to 100% as the motor reaches maximum constant HP speed). These motors accommodate constant horsepower operation to 1-1/2 to 2 times base speed, subject to the motor's maximum safe mechanical speed limit. Refer to the Maximum Safe Mechanical Speed Chart, as well as the performance section for each motor's capability.

Motors rated for zero RPM continuous duty (1000:1 or 2000:1) must be powered by vector drives to produce rated torque without overheating. Optimum zero speed and low-speed full torque performance may require a closed loop vector drive (with encoder feedback).

Continued on next page.

Variable Speed Operation

CONSTANT HORSEPOWER LOADS – Applications include coil winders, band saws, grinders, and turret lathes. Operation requires the motor to deliver the same horsepower rating, regardless of shaft speed. Torque increases at low speed and decreases at higher speed. Most general purpose motors can deliver constant horsepower up to 1 1/2 times base speed (consult a factory representative to verify performance). However, many constant HP applications require operation to twice base speed, and some, such as coil winders, up to 4 times base speed.

MOTOR GROUNDING - Frames and accessories of all motors must be grounded in accordance with the National Electric Code (NEC) Article 430. Refer to NEC Article 250 for general information on grounding. Proper grounding of inverter-driven motors is essential to protect personnel and livestock from inverter-sourced common mode voltages, which may reach hazardous levels on the frame of ungrounded or poorly grounded motors.

LOW INPUT VOLTAGE – If, due to lower utility supply voltage, the input voltage from the VFD to the motor is lower than the motor's rated voltage, de-rating of the motor's base frequency, horsepower, full load RPM, and constant HP RPM is required. The revised values can be calculated by multiplying by the ratio of the voltage change. For example, to operate a 460 volt motor from an inverter fed by 50 or 60 HZ, 400 volt utility power, the multiplier is 400/460 or 0.87.

The VFD can be reprogrammed to match the new base point values, allowing the motor to provide rated torque at rated current from the new base speed down to its original minimum Constant torque speed. The motor's CHP range will begin at the new base frequency and will be shortened by the same ratio as described above.

OVERSPEED CAPABILITY – Maximum safe mechanical speed capability is a function of bearing size and type, lubrication, rotor balancing technique and specifications, air gap, enclosure, frame construction and connection to the driven load. In addition, consideration must be given to ambient noise levels, as operation above base speed will increase motor noise and vibration, and reduce bearing life. Under no circumstances should bearing hub temperature exceed 100° C. Belted loads should not exceed 60 Hz operating RPM by more than 25% (NEMA "TS" shafts are not suitable for belted loads). Due to external cooling fans, TEFC (and Explosion Proof Fan Cooled) motors are limited to 4000 RPM maximum speed.

Maximum Safe Mechanical Speed Limits
(ODP, TENV, DPFV OR TEBC ENCLOSURES)
60 Hz base frequency

Frame Size	2-Pole	4, 6 or 8-Pole
56-184	7200	5400
213-256	5400	4200
284-286	5400	3600
324-326	4000	3600
364-365	4000	2800
404-449	3600	2800
5000 Fr	N/A	CALL
6800 Fr	N/A	CALL

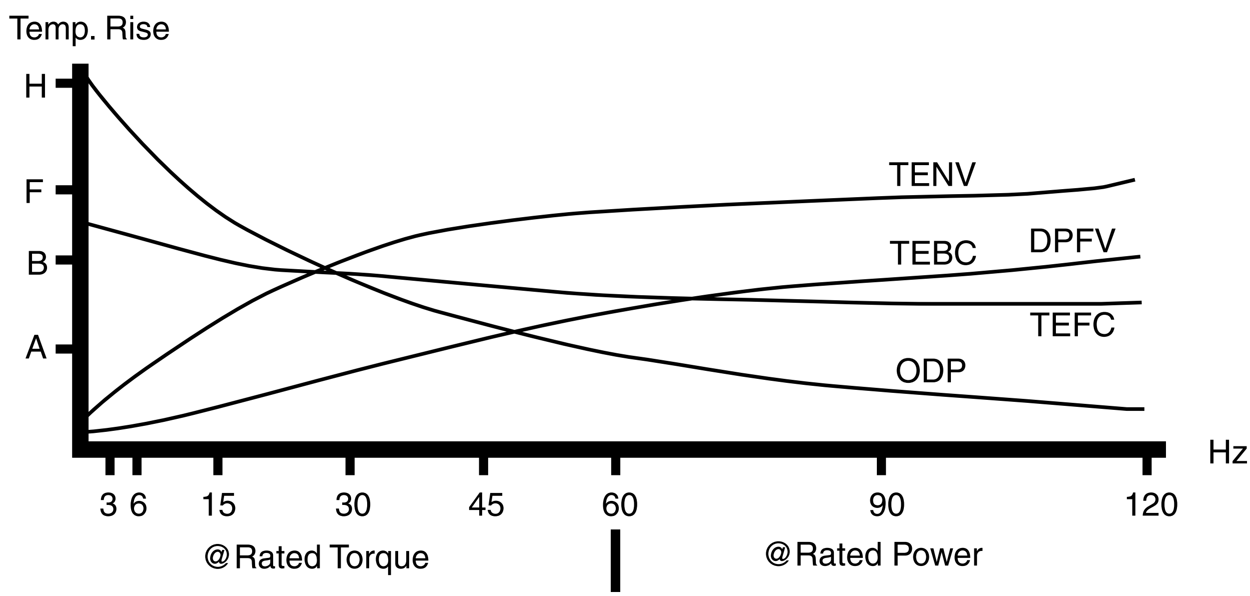
Variable Speed Operation

OTHER APPLICATION CONSIDERATIONS –

For proper selection, the following should be considered:

- Horsepower or torque requirements at various speeds.
- Desired speed range of the load and motor.
- Acceleration and deceleration rate requirements of the process being controlled.
- Starting requirements including the frequency of starting and a description of the load (reflected inertia at the motor, load torque during starting).
- Whether the application is a continuous process or duty cycle of starts, stops and speed changes.
- A general description of the type of application including the environment in which the VFD system components must operate (determines motor enclosure and/or explosion proof classification).
- Description of the available electrical power supply and wiring.
- Special performance requirements, if any.
- Whether the drive will be configured with a by-pass circuit. In case of its deployment, the motor will operate like its fixed speed counterpart and may require a NEMA B design which limits in-rush current, or selection of a larger motor starter or other protective circuitry.
- Load sharing
- Mounting and other mechanical considerations

Typical Temperature Rise Of Various Enclosures



LEESON® CAST IRON • THREE PHASE MOTORS

150 & 170 SERIES • RIGID BASE • GENERAL PURPOSE

NEMA Premium®

For reliable performance in heavy-duty industrial applications, nothing beats the LEESON Heavyweights. With their cast iron construction and 1.15 Service Factor, they are ideal for “tough to handle” applications.

But that’s only part of the story. LEESON 150 and 170-series cast iron motors are extremely versatile and can be field converted in minutes to a number of different configurations, including:

- Severe Duty TEFC (using cast iron fan guard kit)
- F2 mounting 180 frame or larger (by re-assembly)
- C face with rigid base (from stock or using C face kit)
- D flange with base (using D flange kit)

UL recognized and CSA certified.

LEESON’s Inverter Rated Insulation System (IRIS™) provides superior motor protection against voltage spikes induced by variable frequency drives. This *total insulation system* protects better than spike-resistant magnet wire alone. Specially formed phase insulation, cushioned and sleeved connections (from the leads all the way into the turns), and deep-penetrating, non-hygroscopic, high temperature varnish are just a few features contributing to the extra protection. All this plus second generation, spike-resistant magnet wire. The IRIS™ *total insulation system* is standard at no extra cost in all LEESON stock NEMA three-phase motors, 1 HP and larger.

INVERTER-RATED INSULATION SYSTEM
“NO-POKE”
IRIS™
INSULATION SYSTEM
MEETS NEMA MG 1 PART 30 & 31
FOR INVERTER-FED MOTORS
PROTECTED AGAINST VFD INDUCED VOLTAGE SPIKES

Stainless steel “full fact” nameplate with information on motor efficiency and power factor. Includes wiring diagram, bearing sizes, and motor weight.

Heavy-duty cast iron frame, endbells and conduit box.

High torques for hard-to-start loads. Torques exceed NEMA performance standards.

Energy performance verified by LEESON’s NVLAP-Certified testing laboratory.

Lubrication fittings on each end of motor (254T frame and larger). New Exxon POLYREX® EM lubricant for extended bearing life. Oversized bearings. Slotted-head pipe plug reliefs. Bearing caps protect against entry of grease into the motor.

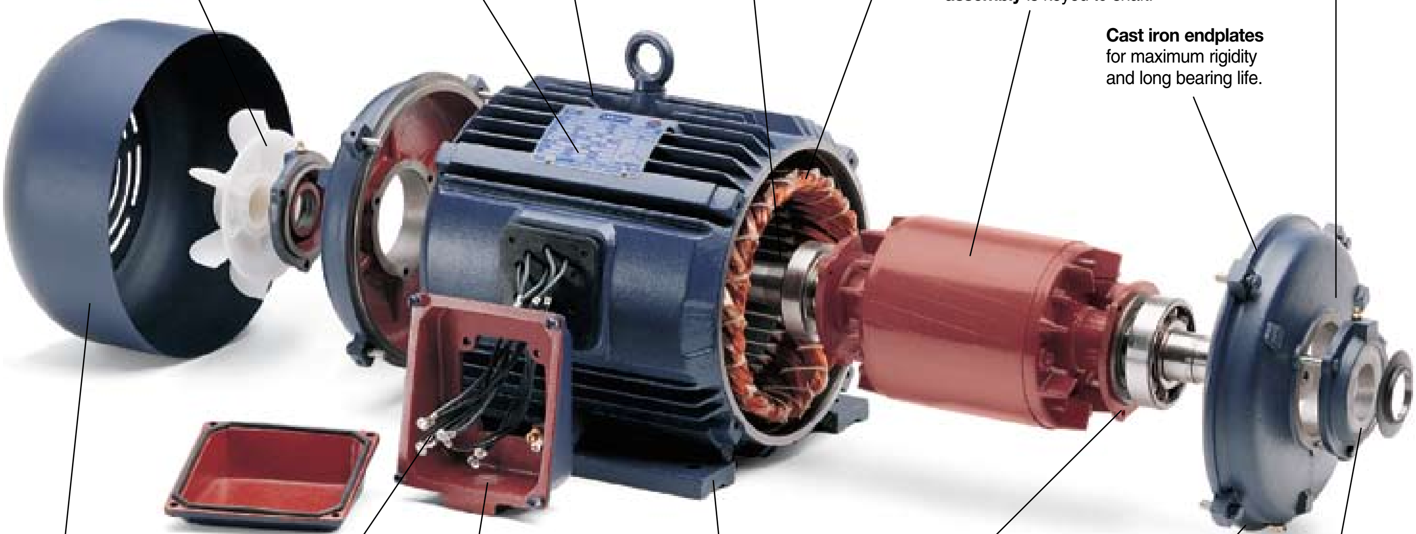
Non-sparking fan. Small size reduces noise and enhances efficiency. Fan keyed to shaft.

100% copper-wound Inverter Rated Insulation System is double-dipped and baked. Stator press-fitted and pinned to housing.

1.15 Service Factor provides extra margin of power. Class F insulation system with Class B or lower temperature rise. Many suitable for 50 Hz operation at 1.0 service factor. Contact factory for details.

Dynamically balanced rotor assembly is keyed to shaft.

Cast iron endplates for maximum rigidity and long bearing life.



Steel fan cover for optimum strength. Cast iron cover available for severe service.

Internal caps on shaft-end and lead-end bearings 254T frame and larger. 182T through 215T frame motors with C-faces have locked bearing on the shaft end only. Motors are suitable for all mounting positions.

Neoprene shaft slinger protects bearings by repelling moisture and other contaminants. Internal protection against rust and corrosion.

Oversized cast iron conduit box is gasketed and may be rotated in 90˚ increments. NPT threaded entrance.

One-way, corrosion resistant condensate drains. (TEFC models) release condensation and moisture.

12-Lead Delta windings (254T to 405T frame and larger) for across-the-line or wye delta starts. (182T & 215T frame motors are dual voltage with nine leads. Motors above 405T frame are single voltage with six leads. 575V motors have six leads, except 213T-215T which have three leads) Permanently marked leads with lugs for easy connection. Normally-closed thermostat standard on WATTSAVERe® designs.

Cast iron mounting feet. Precision-machined for accurate alignment. Dual mounting provisions (six mounting holes) on 184T, 215T, 256T, 286T, 326T, 365T, 405T, 445T, 447T and 449T frames.

The WATTSAVERe® line of premium efficiency motors is *inverter capable*. LEESON's unique IRIS™ voltage-spike-resistant insulation system is standard at no extra cost. WATTSAVERe® motors carry a three-year warranty in general purpose and inverter fed applications. These motors meet or exceed most utility rebate programs and the EPACT federally mandated efficiency levels. The efficiency ratings have been verified to IEEE 112B test standards by LEESON's NVLAP-Certified lab.

Cast iron 170 series motors can be field modified for forced ventilation service to extend the inverter-fed operating range and an encoder package is stocked for closed-loop vector inverter systems. These motors can be converted to IEEE841 compliant using the Custom PDQ Program. Contact LEESON.

Efficiencies meet or exceed NEMA Premium on all WATTSAVERe® motors.

Both 3/4 and full load efficiencies are listed on the stainless steel nameplate for your convenience in calculating realistic energy savings. Unique serial number identifies each motor and is stamped clearly on the metal nameplate.

Rugged cast iron construction on three phase, 1-350 HP models. These motors share features with normal efficiency 150 Series motors detailed on page 18. Add an optional cast iron fan guard for severe duty applications.

Independently verified efficiencies by the Canadian Standards Association, an internationally recognized testing laboratory. CSA Report Number EEV78720-1.

Three phase models suitable for inverter duty, as well as both 50 Hz and 60 Hz operation.

Premium efficiency motors finished with primer and chemical resistant green acrylic matte enamel. IP44 enclosure protection.

Modification to meet IEEE 841 available through Custom PDQ. (See page 114). Includes addition of watertight Inpro shaft seals, two-part epoxy finish, and plated hardware.

Meets or exceeds the 1997 mandated efficiency standards of the Energy Policy Act of 1992. Also meets or exceeds efficiency requirements of most electric utility rebate programs.

WATTSAVERe® motors comply with EISA 2007

One-way, corrosion resistant condensate drains. (TEFC models) release condensation and moisture.

Second-generation, high temperature, spike-resistant magnet wire for extended motor life. Stator impregnated with extra-heavy varnish system. 1.15 Service Factor. All WATTSAVERe® motors have Class F insulation with a Class B rise. Motors rated at 40 degrees C ambient.

LEESON's Inverter Rated Insulation System (IRIS™) provides superior protection against voltage spikes induced by variable frequency drives. This *total insulation system* protects better than spike-resistant magnet wire alone. Specially formed phase insulation, cushioned and sleeved connections (from the leads all the way into the turns), and deep-penetrating, non-hygroscopic, high temperature varnish are just a few features contributing to extra protection. All this plus second generation spike-resistant magnet wire.The IRIS™ *total insulation system* is standard at no extra cost in all LEESON stock NEMA three-phase motors, 1 HP and larger.

UL and CSA Recognition

THREE PHASE MOTORS - GENERAL PURPOSE

STANDARD, EPACT AND PREMIUM EFFICIENT WATTSAVERe MOTORS

NEMA Premium®




DRIP-PROOF / TOTALLY ENCLOSED FAN COOLED (TEFC)

HP	SYN RPM 60 Hz	Drip-Proof NEMA Frame	Drip-Proof Catalog Number	Drip-Proof App. Wgt. (lbs.)	Drip-Proof Voltage	Drip-Proof F.L. Amps 230V	Drip-Proof % F.L. Eff.	Drip-Proof "C" Dim. (Inches)	TEFC NEMA Frame	TEFC Catalog Number	TEFC App. Wgt. (lbs.)	TEFC Voltage	TEFC F.L. Amps 230V	TEFC % F.L. Eff.	TEFC "C" Dim. (Inches)
1/4	1800	…	…	…	…	…	…	…	48	101646.00	18	208-230/460	1.4	58.0	9.31
	1800	S56	100027.00	16	208-230/460	1.4	58.0	9.24	…	…	…	…	…	…	…
1/3	3600	48	101447.00	14	208-230/460	1.4	68.0	9.00	48	102684.00	18	208-230/460	1.4	68.0	8.81
	1800	48	100446.00	17	208-230/460	1.6	64.3	9.12	48	101647.00	21	208-230/460	1.6	64.3	9.31
	1800	S56	100028.00	18	208-230/460	1.6	64.3	9.49	S56	101079.00	22	208-230/460	1.6	64.3	9.69
	1800	S56	103017.00 [W]	23	208-230/460	1.3	77.0	10.24	S56	103019.00 [W]	24	208-230/460	1.3	77.0	10.19
	1200	56	110425.00	23	208-230/460	1.6	65.0	9.88	56	110441.00	23	208-230/460	1.6	65.0	10.81
1/2	3600	…	…	…	…	…	…	…	48	100905.00	18	208-230/460	1.8	69.0	9.94
	3600	S56	101448.00	17	208-230/460	1.8	69.0	9.38	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…	48	100961.00♣	21	208-230/460	2.0	73.0	9.56
	1800	S56	100029.00	20	208-230/460	2.0	68.0	9.99	S56	100913.00	24	208-230/460	2.0	73.0	9.94
	1800	S56	103018.00 [W]	26	208-230/460	1.8	77.0	10.74	S56	103020.00 [W]	27	208-230/460	1.8	77.0	10.69
	1200	56	110027.00	22	208-230/460	2.8	66.0	10.38	56	110353.00	26	208-230/460	2.4	70.0	11.31
	900	…	…	…	…	…	…	…	56	114618.00	31	208-230/460	2.4	69.0	11.81
3/4	3600	…	…	…	…	…	…	…	48	100960.00♣	21	208-230/460	2.4	79.0	10.44
	3600	S56	101449.00	20	208-230/460	2.4	79.0	9.88	56	110313.00	22	208-230/460	2.4	75.5	10.81
	1800	S56	100030.00	24	208-230/460	2.8	75.0	10.49	56	110034.00	22	208-230/460	2.8	77.0	10.81
	1800	56	116738.00 [W]	30	208-230/460	2.4	81.5	10.86	56	116739.00 [W]	31	208-230/460	2.4	81.5	11.31
	1200	56	110028.00	17	208-230/460	3.4	75.5	10.88	56	110275.00	33	208-230/460	3.0	75.5	11.81
	1200	…	…	…	…	…	…	…	143T	121009.00	34	208-230/460	3.0	75.5	12.75
	900	…	…	…	…	…	…	…	145T	121199.00	21	208-230/460	3.1	70.0	12.75
1	3600	56	110426.00	22	208-230/460	3.2	77.0	9.84	56	110145.00	24	208-230/460	3.2	77.0	10.81
	3600	56	116128.00 [W]	24	208-230/460	2.8	80.0	10.18	56	116129.00 [W]	24	208-230/460	2.8	80.0	11.31
	1800	56	110029.00	22	208-230/460	4.2	78.5	10.38	56	110035.00	30	208-230/460	3.8	77.0	11.31
	1800	56HZ	115827.00 ✲	24	208-230/460	4.2	78.5	11.13	56	116757.00 [W]	32	208-230/460	3.2	85.5	12.81
	1800	56	116752.00 [W]	36	208-230/460	3.2	85.5	11.68	56HZ	115830.00 ✲	33	208-230/460	3.8	77.0	12.75
	1800	143T	121003.00 [W]	36	208-230/460	3.2	85.5	12.12	143T	120921.00 [W]	32	208-230/460	3.2	85.5	13.25
	1800	…	…	…	…	…	…	…	143T	171640.60 [W]	50	208-230/460	3.2	85.5	13.46
	1200	…	…	…	…	…	…	…	56	113933.00	35	208-230/460	4.0	77.0	12.31
	1200	145T	121517.00 [W]	41	208-230/460	3.8	82.5	12.62	145T	121520.00 [W]	47	208-230/460	3.8	82.5	13.75
	1200	…	…	…	…	…	…	…	145T	171643.60 [W]	58	208-230/460	3.8	82.5	13.46
	900	…	…	…	…	…	…	…	182T	G131478.00	57	230/460	4.2	74.0	12.96
1½	3600	56	110429.00	29	208-230/460	4.2	81.5	10.84	56	110745.00♣	30	208-230/460	4.2	81.5	11.81
	3600	56	116753.00 [W] A	36	208-230/460	4.0	84.0	11.84	56	116758.00 [W] A	33	208-230/460	4.0	84.0	12.81
	3600	143T	121514.00 [W]	36	208-230/460	4.0	84.0	12.28	143T	121518.00 [W]	33	208-230/460	4.0	84.0	13.25
	3600	…	…	…	…	…	…	…	143T	171642.60 [W]	49	208-230/460	4.0	84.0	13.46
	1800	56	110430.00	27	208-230/460	5.6	78.5	10.88	56	110444.00	30	208-230/460	5.0	78.5	11.81
	1800	56	111309.00✦	33	208-230/460	5.6	78.5	10.88	…	…	…	…	…	…	…
	1800	56HZ	115825.00 ✲	34	208-230/460	5.6	78.5	11.13	56	116759.00 [W]	34	208-230/460	4.8	86.5	13.31
	1800	56	116754.00 [W]	35	208-230/460	4.8	86.5	12.22	56HZ	115829.00 ✲	37	208-230/460	5.0	78.5	12.75
	1800	145T	121004.00 [W]	35	208-230/460	4.8	86.5	12.62	145T	120922.00 [W]	34	208-230/460	4.8	86.5	13.75
	1800	…	…	…	…	…	…	…	145T	171646.60 [W]	54	208-230/460	4.8	86.5	13.46
	1200	…	…	…	…	…	…	…	56H	114930.00□	48	208-230/460	5.7	77.0	13.31
	1200	…	…	…	…	…	…	…	56HZ	116591.00 ✲	45	208-230/460	5.7	77.0	13.75
	1200	182T	131971.00 [W]	82	208-230/460	5.6	86.5	14.69	…	… [W]	…	…	…	…	…
	1200	…	…	…	…	…	…	…	182T	131980.00	89	208-230/460	5.6	87.5	15.96
	900	…	…	…	…	…	…	…	184T	G131479.00	68	230/460	5.6	77.0	13.96

□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
♣ 1.0 Service Factor.
✦ Automatic reset overload protection. Do not use with variable frequency drives.
✲ 56HZ motors have mounting holes for NEMA 56 and a standard NEMA 143-5T shaft.
[W] Premium efficiency WATTSAVERe® Motors. See page 19 for details.
A Subject to Availability.

Motors in this column have a 1.15 Service Factor, except as noted by ♣, which have a 1.0 Service Factor.

Catalog Numbers in Green are EPACT Motors.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

THREE PHASE MOTORS - GENERAL PURPOSE

STANDARD, EPACT AND PREMIUM EFFICIENT WATTSAVERe MOTORS



DRIP-PROOF / TOTALLY ENCLOSED FAN COOLED (TEFC)

HP	SYN RPM 60 Hz	DRIP-PROOF NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)	TEFC NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
2	3600	56	113292.00	33	208-230/460	5.6	82.5	11.34	56	111916.00	33	208-230/460	5.6	82.5	12.31
	3600	56	116755.00 W A	43	208-230/460	4.8	85.5	12.18	56	116760.00 W A	44	208-230/460	4.8	85.5	13.31
	3600	145T	121515.00 W	43	208-230/460	4.8	85.5	12.62	145T	121519.00 W	44	208-230/460	4.8	85.5	13.75
	3600	…	…	…	…	…	…	…	145T	171648.60 W	56	208-230/460	4.8	85.5	13.46
	1800	56H	113025.00□	32	208-230/460	6.2	78.5	11.38	56H	113026.00□	35	208-230/460	6.2	81.5	12.31
	1800	56HZ	115826.00	33	208-230/460	6.2	78.5	11.63	56HZ	115828.00□	37	208-230/460	6.2	81.5	12.75
	1800	56H	111310.00✦□ A	36	208-230/460	6.2	78.7	11.38	…	…	…	…	…	…	…
	1800	56H	116756.00 W	37	208-230/460	5.8	86.5	13.22	56H	116761.00 W	45	208-230/460	5.8	86.5	14.32
	1800	145T	121005.00 W	37	208-230/460	5.8	86.5	13.63	145T	120923.00 W	45	208-230/460	5.8	86.5	14.76
	1800	…	…	…	…	…	…	…	145T	171647.60 W	58	208-230/460	5.8	86.5	13.46
	1200	184T	131972.00 W	88	208-230/460	7.2	87.5	15.19	184T	131981.00 W	89	208-230/460	7.2	88.5	15.96
	900	…	…	…	…	…	…	…	213T	G140516.00	114	230/460	8.0	82.5	18.22
3	3600	56H	113293.00□	38	208-230/460	7.6	84.0	11.84	56H	114614.00□	40	208-230/460	7.6	84.0	13.25
	3600	145T	121516.00 W	45	208-230/460	7.2	86.5	12.62	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…	182T	131985.00 W	66	208-230/460	7.6	86.5	13.96
	1800	56HZ	116595.00	44	208-230/460	8.6	82.5	13.12	56HZ	116594.00	45	208-230/460	8.6	82.5	14.26
	1800	182T	131519.00 W	75	208-230/460	7.9	89.5	13.69	182T	131463.00 W	80	208-230/460	7.8	89.5	14.96
	1800	…	…	…	…	…	…	…	182T	171320.60 W	104	208-230/460	7.8	89.5	15.89
	1200	213T	171574.60 W	154	208-230/460	10.0	88.5	16.38	213T	171378.60 W	171	208-230/460	9.4	89.5	18.19
	900	215T	G151809.22	171	208-230/460	11.4	84.0	19.61	…	…	…	…	…	…	…
5	3600	184T	131986.00 W	86	208-230/460	12.0	86.5	15.19	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…	184T	131987.00 W	96	208-230/460	12.0	88.5	16.46
	1800	184T	131520.00 W	86	208-230/460	12.8	89.5	15.19	184T	131464.00 W	94	208-230/460	12.8	89.5	15.96
	1800	…	…	…	…	…	…	…	184T	171322.60 W	109	208-230/460	12.8	89.5	16.80
	1200	215T	171575.60 W	188	208-230/460	15.0	90.2	16.38	215T	171379.60 W	176	208-230/460	14.4	89.5	19.61
	900	…	…	…	…	…	…	…	254T	G151355.22	188	208-230/460	14.4	88.3	23.23
7½	3600	…	…	…	…	…	…	…	213T	170158.60 W	147	208-230/460	18.0	91.0	18.19
	3600	184T	131988.00 W	106	208-230/460	17.6	88.5	16.19	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…	213T	140756.00 W	156	208-230/460	17.8	90.2	19.84
	1800	213T	140470.00 W	133	208-230/460	20.6	91.0	16.25	213T	140450.00 W	144	208-230/460	21.4	91.7	18.70
	1800	213T	170142.60 W	160	208-230/460	19.8	91.0	16.38	213T	170157.60 W	155	208-230/460	18.6	91.7	18.19
	1200	254T	170145.60 W	291	208-230/460	22.4	91.7	20.94	254T	170122.60 W	249	208-230/460	22.2	91.7	23.19
	900	…	…	…	…	…	…	…	256T	G151356.22	300	208-230/460	20.0	87.7	24.96

Motors in this column have NEMA Service Factors—see page 274 for details.

Motors in this column have a 1.15 Service Factor, except as noted by ♣, which have a 1.0 Service Factor.

✦ Automatic reset overload protection. Do not use with variable frequency drives.
□ Combination 56H base motors have mounting holes for NEMA 56 and a standard NEMA 56 shaft.
✲ 56HZ motors have mounting holes for NEMA 56 standard shaft.
W Premium efficiency WATTSAVERe® Motors. See page 19 for details.
A Subject to Availability.

CONTINUED ON NEXT PAGE

Catalog Numbers in Green are EPACT Motors.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

All three phase motors, 1 HP and above, are inverter rated.

THREE PHASE MOTORS - GENERAL PURPOSE

EPACT EFFICIENT AND PREMIUM EFFICIENT WATTSAVERe MOTORS

NEMA Premium

DRIP-PROOF / TOTALLY ENCLOSED FAN COOLED (TEFC)

HP	SYN RPM 60 Hz	DRIP-PROOF NEMA Frame	DRIP-PROOF Catalog Number	DRIP-PROOF App. Wgt. (lbs.)	DRIP-PROOF Voltage	DRIP-PROOF F.L. Amps 230V	DRIP-PROOF % F.L. Eff.	DRIP-PROOF "C" Dim. (Inches)	TEFC NEMA Frame	TEFC Catalog Number	TEFC App. Wgt. (lbs.)	TEFC Voltage	TEFC F.L. Amps 230V	TEFC % F.L. Eff.	TEFC "C" Dim. (Inches)
10	3600	213T	**140753.00**	160	208-230/460	23.4	89.5	17.30	215T	**140755.00**	170	208-230/460	23.6	91.7	21.09
	3600	213T	**170143.60**	150	208-230/460	23.6	91.0	16.38	215T	**170159.60**	181	208-230/460	23.4	91.7	19.61
	1800	215T	**140472.00**	144	208-230/460	26.8	91.7	17.25	215T	**140451.00**	161	208-230/460	26.6	91.7	19.70
	1800	215T	**170144.60**	200	208-230/460	25.6	91.7	17.87	215T	**170140.60**	177	208-230/460	25.0	91.7	19.61
	1200	256T	**170146.60**	305	208-230/460	29.6	91.7	22.60	256T	**170123.60**	300	208-230/460	29.0	91.7	24.92
	900	…	…	…	…	…	…	…	284T	**G150282.22**	346	208-230/460	26.0	88.8	26.26
15	3600	215T	**140754.00**	170	208-230/460	35.0	91.0	18.55	215T	**170615.60**	200	208-230/460	35.0	92.4	19.61
	3600	215T	**170064.60**	175	208-230/460	34.6	91.0	17.87	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…	254T	**170062.60**	282	208-230/460	35.0	92.4	23.19
	1800	254T	**170065.60**	279	208-230/460	37.0	93.0	20.94	254T	**170066.60**	280	208-230/460	36.0	92.4	23.19
	1200	284T	**170067.60**	414	208-230/460	39.4	92.4	23.54	284T	**170068.60**	333	208-230/460	40.6	92.4	26.26
	900	…	…	…	…	…	…	…	286T	**G150261.22**	480	208-230/460	40.0	91.0	27.83
20	3600	254T	**170032.60**	275	208-230/460	46.0	93.0	20.94	256T	**170033.60**	316	208-230/460	46.0	92.4	24.92
	1800	256T	**170006.60**	324	208-230/460	51.0	93.0	22.60	256T	**170007.60**	322	208-230/460	49.0	93.0	24.92
	1200	286T	**170000.60**	467	208-230/460	55.0	92.4	25.00	286T	**170001.60**	392	208-230/460	54.0	91.7	27.83
	900	…	…	…	…	…	…	…	324T	**G150263.22**	640	208-230/460	54.0	91.0	29.53
25	3600	256T	**170034.60**	327	208-230/460	52.4	93.0	22.60	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…	284TS	**170035.60**	383	208-230/460	56.8	93.0	24.88
	1800	284T	**170009.60**	404	208-230/460	59.6	93.6	23.54	284T	**170011.60**	385	208-230/460	59.0	93.6	26.26
	1200	324T	**170002.60**	705	208-230/460	67.0	93.0	26.02	324T	**170003.60**	545	208-230/460	66.0	93.0	29.53
	900	…	…	…	…	…	…	…	326T	**150265.22**	700	208-230/460	63.0	90.2	31.02
30	3600	284TS	**170036.60**	396	208-230/460	67.0	94.1	22.17	286TS	**170037.60**	385	208-230/460	67.6	93.0	26.46
	1800	286T	**170013.60**	471	208-230/460	71.0	94.1	25.00	286T	**170015.60**	432	208-230/460	70.0	94.1	27.83
	1200	326T	**170004.60**	760	208-230/460	78.0	93.6	27.52	326T	**170005.60**	615	208-230/460	77.2	93.6	31.02
40	3600	286TS	**170038.60**	441	208-230/460	91.2	93.6	23.62	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…	324TS	**170039.60**	504	208-230/460	89.0	93.6	28.03
	1800	324T	**170017.60**	560	208-230/460	96.0	94.1	26.02	324T	**170019.60**	528	208-230/460	92.0	94.1	29.53
	1200	364T	**170147.60**	892	208-230/460	103.0	94.1	28.01	364T	**170096.60**	636	208-230/460	102.0	94.1	32.64

NOTE: 150 and 170 Series Drip-Proof and TEFC motors in NEMA frames 180T thru 447T can be field converted, by reassembly, to F2 conduit box locations.

CONTINUED ON NEXT PAGE

Catalog Numbers in Green are EPACT Motors.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

All LEESON Cast Iron Motors have a 1.15 Service Factor, Class F insulation.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

NEMA Premium

THREE PHASE MOTORS - GENERAL PURPOSE

EPACT EFFICIENT AND PREMIUM EFFICIENT WATTSAVERe MOTORS

LEESON

DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
50	3600	324TS	**170040.60**	548	208-230/460	112.0	94.1	24.53
	1800	326T	**170021.60**	614	208-230/460	118.0	94.5	27.52
	1200	365T	**170148.60**	918	208-230/460	128.0	94.5	33.62
60	3600	326TS	**170042.60**	590	208-230/460	136.0	94.1	26.02
	3600	…	…	…	…	…	…	…
	1800	364T	**170025.60**	716	208-230/460	139.0	94.1	31.54
	1200	404T	**170149.60**	1031	208-230/460	159.0	94.5	32.76
75	3600	364TS	**170044.60**	720	208-230/460	176.0	94.1	26.89
	1800	365T	**170029.60**	766	208-230/460	172.0	94.5	31.18
	1200	405T	**170150.60**	1095	208-230/460	196.0	94.5	34.25
100	3600	365TS	**170151.60**	775	208-230/460	226.0	94.5	29.06
	3600	…	…	…	…	…	…	…
	1800	404T	**170152.60**	1141	208-230/460	225.0	95.4	32.76
	1200	444T	**170255.60**	1975	460	118.0✦	95.4	40.00
125	3600	404TS	**170154.60**	1015	208-230/460	284.0	94.5	29.76
	3600	…	…	…	…	…	…	…
	1800	405T	**170155.60**	1292	230/460	280.0	95.4	34.25
	1800	…	…	…	…	…	…	…
	1200	445T	**170259.60**	2022	460	148.0✦	95.8	40.00
150	3600	405TS	**171449.60**	1085	460	169.0✦	94.5	31.26
	3600	…	…	…	…	…	…	…
	1800	444T	**171522.60**	2000	460	164.0✦	95.8	40.00
	1800	…	…	…	…	…	…	…
	1200	445T	**171576.60**	2040	460	206.0✦	95.8	40.00
200	3600	444TS	**171573.60**	1765	460	216.0✦	95.4	36.25
	3600	…	…	…	…	…	…	…
	1805	…	…	…	…	…	…	…
	1800	445T	**171523.60**	2037	460	229.0✦	95.8	40.00
	1200	447T	**171577.60**	2820	460	239.0✦	96.2	43.12
250	1800	…	…	…	…	…	…	…
	1800	445T	G151524.60	1940	460	284.0✦	94.5	40.00
300	1800	445T	G151525.60	1962	460	329.0✦	95.0	40.00
350	1800	445T	G151518.60	2041	460	392.0✦	94.1	40.00
	1800	…	…	…	…	…	…	…

TOTALLY ENCLOSED FAN COOLED (TEFC)

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
326TS	**170041.60**	554	208-230/460	111.0	94.5	29.53
326T	**170023.60**	587	208-230/460	117.0	94.5	31.02
365T	**170097.60**	672	208-230/460	124.0	94.1	33.62
…	…	…	…	…	…	…
364TS	**170043.60**	735	208-230/460	136.0	94.1	30.51
364T	**170027.60**	666	208-230/460	137.0	95.4	32.64
404T	**170098.60**	870	208-230/460	142.0	94.5	36.42
365TS	**170045.60**	780	208-230/460	169.0	94.5	31.50
365T	**170031.60**	733	208-230/460	171.0	95.8	33.62
405T	**170099.60**	975	208-230/460	176.0	95.0	37.91
…	…	…	…	…	…	…
405TS	**170160.60**	955	208-230/460	218.0	95.0	34.92
405T	**170087.60**	1070	208-230/460	225.0	95.4	37.91
444T	**170256.60**	1457	460	121.0✦	95.0	42.87
…	…	…	…	…	…	…
444TS	**171580.60**	1316	460	132.0	95.0	39.10
…	…	…	…	…	…	…
444T	**170369.60**	1950	460	137.5✦	95.4	42.87
445T	**170260.60**	1596	460	155.0✦	95.4	44.88
…	…	…	…	…	…	…
445TS	**171578.60**	1445	460	161.0	95.0	44.88
…	…	…	…	…	…	…
445T	**170371.60**	1627	460	163.0✦	95.8	44.88
445T	**171315.60**	2230	460	185.5✦	95.8	48.00
…	…	…	…	…	…	…
447TS	**171579.60**	1977	460	216.5	95.4	48.00
447T	**170352.60**	2227	460	216.0✦	96.2	48.00
447T	…	…	…	…	…	…
449T	**171316.60**	2542	460	241.5✦	96.2	52.80
449T	G151516.60	2425	460	274.0✦	95.0	52.80
…	…	…	…	…	…	…
449T	G151529.60	2558	460	327.0✦	95.4	52.80
…	…	…	…	…	…	…
449T	G151530.60	2710	460	402.0✦	95.4	52.80

✦ Full Load Amps 460 volt

Catalog Numbers in Green are EPACT Motors.

All LEESON Cast Iron Motors have a 1.15 Service Factor, Class F insulation.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

C FACE MOTORS • THREE PHASE

LESS BASE • GENERAL PURPOSE • STANDARD, EPACT & NEMA PREMIUM RATINGS

DRIP-PROOF • C FACE LESS BASE • THREE PHASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/6	1800	…	…	…	…	…	…	…
1/4	3600	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…
	1800	S56C	103014.00	19	208-230/460	1.4	58.0	9.24
	1800	…	…	…	…	…	…	…
1/3	3600	S56C	100375.00	15	208-230/460	1.4	68.0	9.31
	1800	…	…	…	…	…	…	…
	1800	S56C	100048.00	17	208-230/460	1.6	64.3	9.49
	1800	…	…	…	…	…	…	…
	1800	S56C	102695.00 [W]	22	208-230/460	1.3	77.0	10.24
	1200	…	…	…	…	…	…	…
	1200	…	…	…	…	…	…	…
1/2	3600	…	…	…	…	…	…	…
	3600	S56C	100056.00	17	208-230/460	1.8	69.0	9.31
	3600	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…
	1800	S56C	100049.00	21	208-230/460	2.0	68.0	9.99
	1800	…	…	…	…	…	…	…
	1800	S56C	102200.00 [W]	25	208-230/460	1.8	77.0	10.74
	1200	56C	110434.00 A	26	208-230/460	2.8	66.0	10.38
3/4	3600	S56C	10037800	20	208-230/460	2.4	79.0	9.81
	1800	S56C	100050.00	24	208-230/460	2.8	75.0	10.49
	1800	56C	114934.00 [W]	29	208-230/460	2.4	81.5	10.86
	1200	143TC	G120063.00 A	20	208-230/460	3.0	80.0	12.12
	1200	56C	116728.00 A	35	208-230/460	3.4	75.5	10.88
1	3600	56C	110111.00	22	208-230/460	3.2	77.0	9.88
	3600	…	…	…	…	…	…	…
	1800	143TC	G120172.00	30	208-230/460	3.1	82.5	11.68
	1800	56C	110043.00	22	208-230/460	4.2	78.5	10.38
	1800	56C	116740.00	32	208-230/460	3.4	85.5	11.68
	1800	143TC	121064.00 [W] A	32	208-230/460	3.4	85.5	12.12
	1200	145TC	G120082.00 A	35	208-230/460	3.6	80.0	12.62
	1200	…	…	…	…	…	…	…
	1200	…	…	…	…	…	…	…
1½	3600	143TC	G121668.00 A	35	208-230/460	4.0	82.5	11.78
	3600	56C	110437.00	27	208-230/460	4.2	81.5	10.84
	3600	…	…	…	…	…	…	…
	1800	145TC	G120081.00 A	37	208-230/460	4.4	84.0	12.12
	1800	56C	110044.00	27	208-230/460	5.6	78.5	10.88
	1800	56C	116741.00 [W]	36	208-230/460	5.6	86.5	12.68
	1800	143TC	121063.00 [W]	36	208-230/460	5.6	86.5	13.12
	1200	145TC	G121669.00 [W]	48	208-230/460	5.7	84.0	13.75
	1200	…	…	…	…	…	…	…

[W] Premium efficiency WATTSAVERe® Motors. See page 19 for details.
A Subject to Availability.

TEFC • C FACE LESS BASE • THREE PHASE

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
48CZ□	102662.00	15	208-230/460	.7	71.0	9.44
48CZ□	101965.00●	15	208-230/460	1.0	67.0	9.03
48CZ□	101966.00●	18	208-230/460	1.0	78.0	9.31
48CZ□	101981.00	17	208-230/460	1.4	58.0	8.94
S56C	101648.00●	17	208-230/460	1.0	78.0	9.56
S56C	101767.00	19	208-230/460	1.4	58.0	9.69
56C	110446.00●	20	208-230/460	1.2	77.0	9.90
48CZ□	102664.00	20	208-230/460	1.6	64.3	9.19
S56C	101769.00	20	208-230/460	1.6	64.3	9.69
S56C	102863.00●	19	208-230/460	1.3	77.0	9.56
S56C	102696.00 [W]	22	208-230/460	1.3	77.0	10.19
48C	101291.00●	20	208-230/460	1.8	73.0	9.56
56C	113311.00	22	208-230/460	1.6	65.0	10.81
48C	100449.00●	23	208-230/460	1.6	67.0	10.06
56C	110144.00●	25	208-230/460	1.6	82.5	10.40
56C	114176.00	19	208-230/460	2.0	72.0	10.31
48CZ□	100486.00●	24	208-230/460	1.6	78.0	10.31
48CZ□	102666.00	24	208-230/460	2.0	73.0	9.69
S56C	102861.00●	23	208-230/460	1.8	77.0	10.06
S56C	102860.00	19	208-230/460	2.0	73.0	10.19
S56C	101780.00 [W]	25	208-230/460	1.8	77.0	10.69
56C	110163.00	25	208-230/460	2.4	70.0	11.31
56C	110448.00	21	208-230/460	2.4	75.5	10.81
56C	110047.00	22	208-230/460	2.8	77.0	10.81
56C	114213.00 [W]	27	208-230/460	2.7	81.5	11.31
143TC	G120097.00	32	208-230/460	3.0	80.0	10.88
56C	112378.00	29	208-230/460	3.0	75.5	11.81
56C	110112.00	21	208-230/460	3.2	77.0	10.81
56C	116748.00 [W]	29	208-230/460	2.8	80.0	11.31
143TC	G120024.00	34	208-230/460	3.1	82.5	11.28
56C	110048.00	24	208-230/460	3.8	77.0	11.31
56C	114638.00 [W]	34	208-230/460	3.4	85.5	12.81
143TC	121067.00 [W]	36	208-230/460	3.4	85.5	13.25
145TC	G120098.00	35	208-230/460	3.6	80.0	12.28
56C	112379.00	32	208-230/460	4.0	77.0	12.31
56C	116749.00 [W]	47	208-230/460	3.8	82.5	13.75
143TC	G120105.00	27	208-230/460	4.0	82.5	11.78
56C	110192.00	28	208-230/460	4.2	81.5	11.81
56C	116750.00 [W] A	33	208-230/460	4.0	84.0	13.25
145TC	G120037.00	36	208-230/460	4.4	84.0	12.13
56C	110125.00	29	208-230/460	5.0	78.5	11.81
56C	116743.00 [W]	41	208-230/460	4.8	86.5	13.31
145TC	121066.00 [W]	41	208-230/460	4.8	86.5	13.75
182TC	G132249.00	82	208-230/460	5.6	85.5	14.96
56C	113634.00	39	208-230/460	5.7	77.0	13.31

□ Shaft extension has keyway and flat 180° apart for ease of mounting. Useable shaft is 1½" long by 1/2" diameter, 1/8" keyway.
● These motors are totally enclosed, non-ventilated—Others are fan cooled.

CONTINUED ON NEXT PAGE

Catalog Numbers in Green are EPACT Motors.

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

C FACE MOTORS • THREE PHASE

LEESON®

LESS BASE • GENERAL PURPOSE • STANDARD, EPACT & NEMA PREMIUM RATINGS

DRIP PROOF • C FACE LESS BASE • THREE PHASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
2	3600	143TC	G121670.00 A	45	208-230/460	5.2	84.0	12.18
	3600	56C	113894.00	31	208-230/460	5.6	82.5	11.34
	3600	…	…	…	…	…	…	…
	1800	145TC	G120035.00	46	208-230/460	6.0	84.0	12.62
	1800	56C	115553.00	32	208-230/460	6.2	78.5	11.19
	1800	56C	116742.00 [W]	41	208-230/460	5.8	86.5	13.18
	1800	145TC	121071.00 [W] A	41	208-230/460	5.8	86.5	13.62
	1200	184TC	G132059.00 A	81	208-230/460	7.2	85.5	13.63
3	3600	145TC	G121187.00	45	208-230/460	7.6	84.0	13.63
	3600	56C	114420.00	37	208-230/460	7.6	84.0	11.84
	3600	…	…	…	…	…	…	…
	1800	182TC	G131489.00	57	208-230/460	8.4	86.5	12.69
	1800	…	…	…	…	…	…	…
	1800	182TC	131518.00 [W] A	75	208-230/460	7.8	89.5	14.20
	1200	213TC	G140765.00	140	208-230/460	11.6	86.5	13.75
5	3600	145TC	G121664.00	47	208-230/460	12.4	85.5	13.75
	3600	182TC	G131779.00	64	208-230/460	12.2	85.5	13.20
	1800	184TC	G131490.00	69	208-230/460	13.2	87.5	13.69
	1800	184TC	131517.00 [W]	96	208-230/460	12.8	89.5	15.20
	1200	…	…	…	…	…	…	…
7½	3600	184TC	G131780.00	78	208-230/460	17.6	87.5	14.70
	3600	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…
	1800	213TC	G140580.00 A	144	208-230/460	20.6	88.5	15.75
	1800	213TC	140483.00 [W] A	132	208-230/460	20.6	91.0	16.25
10	3600	213TC	G140688.00	138	208-230/460	23.4	88.5	16.53
	3600	…	…	…	…	…	…	…
	1800	215TC	G140108.00	132	208-230/460	28.0	89.5	16.75
	1800	215TC	140485.00 [W] A	144	208-230/460	26.8	91.9	17.25
	1800	…	…	…	…	…	…	…
15	3600	215TC	G140689.00	145	208-230/460	34.0	89.5	19.28
	3600	…	…	…	…	…	…	…
	1800	254TC	G151682.60	265	208-230/460	37.6	91.0	21.32
20	3600	254TC	G151683.60	258	208-230/460	46.6	90.2	21.38
	1800	256TC	G151684.60	307	208-230/460	48.0	91.0	23.03
25	3600	256TC	G151685.60	292	208-230/460	57.0	91.0	22.60
	1800	284TC	G151686.60	388	208-230/460	59.6	91.7	23.54
30	3500	284TSC	G151687.60	373	208-230/460	70.4	91.0	25.00
	1800	…	…	…	…	…	…	…
40	1800	…	…	…	…	…	…	…
50	1800	…	…	…	…	…	…	…
60	1800	…	…	…	…	…	…	…

TEFC • C FACE LESS BASE • THREE PHASE

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
145TC	G120061.00	44	208-230/460	5.2	84.0	11.78
56C	111273.00	36	208-230/460	5.6	82.5	12.31
56C	116751.00 [W]	44	208-230/460	4.8	85.5	14.25
145TC	G120038.00	44	208-230/460	5.6	84.0	12.12
56C	110451.00	34	208-230/460	6.2	81.5	12.81
56C	116744.00 [W]	45	208-230/460	5.8	86.5	13.82
145TC	121065.00 [W]	45	208-230/460	5.8	86.5	14.26
184TC	G131525.00	75	208-230/460	7.2	86.5	14.69
145TC	G120993 .00	60	208-230/460	7.6	85.5	84.00
56C	111630.00	37	208-230/460	7.6	84.0	12.81
182TC	G131513.00	55	208-230/460	8.0	84.0	13.97
182TC	G131491.00	67	208-230/460	8.2	87.5	13.96
56C	113890.00♣	43	208-230/460	8.6	82.5	13.81
182TC	131503.00 [W]	72	208-230/460	7.8	89.5	14.96
S213TC	G131642.00	116	208-230/460	12.0	87.5	14.96
…	…	…	…	…	…	…
184TC	G131514.00	79	208-230/460	12.0	87.5	14.47
184TC	G131492.00	80	208-230/460	12.8	87.5	14.97
184TC	131501.00 [W]	90	208-230/460	12.8	89.5	15.97
215TC	G140535.00	142	208-230/460	17.6	87.5	18.21
184TC	G131510.00	90	208-230/460	16.8	88.5	15.97
S213TC	G131912.00	91	208-230/460	16.8	88.5	16.96
213TC	G151345.60	150	208-230/460	17.8	88.5	18.95
213TC	G141113.00	144	208-230/460	20.4	89.5	17.71
S213TC	G151346.60	153	208-230/460	19.2	89.5	18.95
…	…	…	…	…	…	…
213TC	140486.00 [W]	144	208-230/460	21.4	91.7	18.70
213TC	G140690.00	112	208-230/460	23.6	90.2	20.57
215TC	G151347.60	160	208-230/460	23.6	90.2	20.36
215TC	G140109.00	158	208-230/460	26.0	91.0	20.57
215TC	140484.00 [W]	160	208-230/460	26.6	91.7	19.70
215TC	G151348.60	173	208-230/460	25.2	91.0	20.36
215TC	G140691.00	158	208-230/460	36.0	90.2	20.57
215TC	G151349.60	240	208-230/460	35.0	90.2	23.80
254TC	G151350.60	262	208-230/460	37.0	91.0	23.80
256TC	G151351.60	252	208-230/460	46.2	90.2	25.50
256TC	G151352.60	315	208-230/460	48.2	91.0	25.50
…	…	…	…	…	…	…
284TC	G151507.60	355	208-230/460	58.8	92.4	26.26
…	…	…	…	…	…	…
286TC	G151508.60	422	208-230/460	69.8	92.4	27.83
324TC	G151509.60	562	208-230/460	90.0	93.0	29.53
326TC	G151510.60	620	208-230/460	93.0	93.0	31.02
364TC	G151519.60	689	208-230/460	93.6	93.6	32.64

† Class F insulated.
♣ These totally enclosed three phase motors have 1.0 service factors.
[W] Premium efficiency WATTSAVERe® Motors. See page 19 for details.
A Subject to Availability.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

Catalog Numbers in Green are EPACT Motors.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

LEESON®

C FACE MOTORS • THREE PHASE

WITH BASE • GENERAL PURPOSE • STANDARD & NEMA PREMIUM RATINGS

NEMA Premium®

DRIP PROOF • C FACE WITH BASE • THREE PHASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	S56C	100599.00	18	208-230/460	1.6	64.3	9.49
	1800	…	…	…	…	…	…	…
	1800	S56C	103021.00 [W] A	23	208-230/460	1.3	77.0	10.24
1/2	3600	S56C	100600.00	17	208-230/460	2.4	69.0	9.31
	3600	…	…	…	…	…	…	…
	1800	S56C	100601.00	20	208-230/460	2.0	68.0	9.99
	1800	…	…	…	…	…	…	…
	1800	S56C	103022.00 [W]	26	208-230/460	1.8	77.0	10.74
	1200	…	…	…	…	…	…	…
3/4	3600	S56C	102971.00 A	21	208-230/460	2.4	79.0	9.85
	1800	S56C	100602.00	25	208-230/460	2.8	75.0	10.49
	1800	56C	116762.00 [W]	30	208-230/460	2.4	81.5	10.86
	1200	…	…	…	…	…	…	…
	1200	…	…	…	…	…	…	…
1	3600	56C	116784.00 A	23	208-230/460	3.2	77.0	9.84
	1800	56C	110901.00	28	208-230/460	4.2	78.5	10.38
	1800	56C	116763.00 [W] A	33	208-230/460	3.4	85.5	11.68
	1800	…	…	…	…	…	…	…
	1800	145TC	121935.00	34	208-230/460	3.2	85.5	12.12
1½	3600	56C	116785.00 A	28	208-230/460	4.2	81.5	10.84
	3600	…	…	…	…	…	…	…
	1800	56C	110902.00	29	208-230/460	5.6	78.5	10.88
	1800	56C	116764.00 [W] A	37	208-230/460	5.6	86.5	12.68
	1800	143TC	121674.00 [W] A	34	208-230/460	3.4	85.5	12.12
	1800	145TC	121675.00 [W] A	37	208-230/460	5.6	86.5	13.12
	1200	…	…	…	…	…	…	…
	1200	…	…	…	…	…	…	…
2	3600	56C	114218.00	34	208-230/460	5.6	82.5	11.40
	3600	…	…	…	…	…	…	…
	1800	56HC	116630.00□	32	208-230/460	6.2	78.5	11.38
	1800	56HC	116765.00 [W]	42	208-230/460	5.8	86.5	13.18
	1800	145TC	121676.00 [W]	42	208-230/460	5.8	86.5	13.62
	1200	…	…	…	…	…	…	…
3	3600	…	…	…	…	…	…	…
	3600	145TC	121928.00 A	45	230/460	7.2	85.5	13.76
	3600	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…
	1800	…	…	…	……	…	…	…
	1800	56HCZ	116631.00□	38	208-230/460	8.6	82.5	13.62
	1800	182TC	132081.00 [W]	76	208-230/460	7.8	89.5	14.20
	1800	…	…	…	…	…	…	…
	1200	…	…	…	…	…	…	…

TEFC • C FACE WITH BASE • THREE PHASE

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
S56C	102921.00●	18	208-230/460	1.3	77.0	9.56
S56C	102922.00	19	208-230/460	1.3	77.0	10.19
S56C	102697.00 [W]	22	208-230/460	1.3	77.0	10.19
56C	110182.00● A	26	208-230/460	1.6	82.5	10.40
56C	114142.00	21	208-230/460	2.6	68.0	10.81
S56C	102919.00●	22	208-230/460	2.0	77.0	10.06
S56C	102917.00	19	208-230/460	2.0	73.0	10.19
S56C	102024.00 [W]	23	208-230/460	1.8	77.0	10.69
56C	110914.00	25	208-230/460	2.4	70.0	11.31
56C	110915.00	23	208-230/460	2.4	75.5	10.81
56C	110916.00	22	208-230/460	2.8	77.0	10.81
56C	114624.00 [W]	25	208-230/460	2.7	81.5	11.31
56C	116340.00	29	208-230/460	3.0	75.5	11.81
143TC	120485.00	34	208-230/460	3.0	75.5	13.25
56C	110181.00	24	208-230/460	3.2	77.0	10.81
56C	110912.00	24	208-230/460	3.6	77.0	11.31
56C	116745.00 [W]	34	208-230/460	3.4	85.5	12.81
143TC	121179.00 [W]	34	208-230/460	3.4	85.5	13.25
145TC	121936.00	47	208-230/460	3.8	81.5	13.75
56C	110917.00	29	208-230/460	4.2	81.5	11.81
143TC	121672.00 [W]	33	208-230/460	3.6	84.0	13.25
56C	110918.00	30	208-230/460	5.0	78.5	11.81
56C	116746.00 [W]	37	208-230/460	5.6	86.5	13.31
…	…	…	…	…	…	…
145TC	121180.00 [W]	37	208-230/460	5.6	86.5	13.75
56HC	114198.00□	41	208-230/460	5.7	77.0	13.31
56HCZ	116592.00✲	44	208-230/460	5.7	77.0	13.75
56C	113927.00	34	208-230/460	5.6	82.5	12.31
145TC	121673.00 [W]	44	208-230/460	4.8	85.5	13.75
56HC	116106.00□	36	208-230/460	6.2	81.5	12.81
56HC	116747.00□	43	208-230/460	5.8	86.5	13.82
145TC	121181.00 [W]	43	208-230/460	5.8	86.5	14.26
184TC	132243.00 [W]	93	208-230/460	7.2	88.5	15.96
56HC	114615.00♣□	38	208-230/460	7.6	84.0	12.81
145TC	121929.00	45	208-230/460	7.6	86.5	13.76
182TC	132079.00 [W]	70	208-230/460	7.6	86.5	13.96
182TC	171564.60	90	208-230/460	7.6	86.5	15.89
56HC	116107.00□	45	208-230/460	8.6	82.5	13.81
56HCZ	116388.00✲	46	208-230/460	8.6	82.5	14.25
182TC	131504.00 [W]	75	208-230/460	7.8	89.5	14.96
182TC	171565.60	104	208-230/460	7.8	89.5	15.89
215TC	140834.00	170	230/460	9.4	89.5	18.21

● These motors are totally enclosed, non-ventilated — Others are fan cooled.
♣ These totally enclosed three phase motors have 1.0 service factors.
□ Combination 56H base motors have mounting holes for NEMA 56 and standard NEMA 56C face and shaft.
✲ 56HCZ motors have mounting holes for NEMA 56 standard shaft.
[W] Premium efficiency WATTSAVER® Motors. See page 19 for details.
A Subject to Availability.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

CONTINUED ON NEXT PAGE

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

NEMA Premium

LEESON

C FACE MOTORS • THREE PHASE

WITH BASE • GENERAL PURPOSE • NEMA PREMIUM RATINGS

DRIP PROOF • C FACE WITH BASE • THREE PHASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
5	3600	182TC	**132242.00**	92	208-230/460	12.2	86.5	15.19
	3600	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…
	1800	184TC	**132082.00**	97	208-230/460	12.8	89.5	15.20
	1800	…	…	…	…	…	…	…
	1200	…	…	…	…	…	…	…
7½	3600	184TC	**132244.00**	106	208-230/460	17.6	88.5	16.19
	3600	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…
	1800	213TC	**140767.00**	132	208-230/460	20.6	91.0	16.25
	1800	213TC	**170170.60**	165	208-230/460	19.6	91.0	16.38
	1200	…	…	…	…	…	…	…
10	3600	213TC	**141111.00**	160	208-230/460	23.4	89.5	17.30
	3600	…	…	…	…	…	…	…
	3600	213TC	**170171.60**	192	208-230/460	27.6	89.5	16.38
	1800	215TC	**140768.00**	144	208-230/460	26.8	91.9	17.25
	1800	215TC	**170172.60**	198	208-230/460	26.0	91.7	18.62
	1200	…	…	…	…	…	…	…
15	3600	215TC	**170173.60**	200	208-230/460	34.6	90.2	17.87
	3600	215TC	**141119.00**	170	208-230/460	35.0	91.0	18.55
	1800	254TC	**170175.60**	276	208-230/460	37.0	93.0	20.94
	1800	…	…	…	…	…	…	…
	1200	…	…	…	…	…	…	
20	3600	254TC	**170070.60**	275	208-230/460	46.6	91.0	20.94
	3600	…	…	…	…	…	…	…
	1800	256TC	**170071.60**	324	208-230/460	51.0	93.0	22.60
	1800	…	…	…	…	…	…	…
25	3600	256TC	**171688.60**	327	208-230/460	52.1.0	91.7	22.60
	3600	…	…	…	…	…	…	…
	1800	284TC	**170073.60**	404	208-230/460	59.6	93.6	23.54
	1800	…	…	…	…	…	…	…
30	3600	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…
	1800	286TC	**171377.60**	471	208-230/460	71.0	94.1	25.00
	1800	…	…	…	…	…	…	…
40	3600	…	…	…	…	…	…	…
	1800	324TC	**170378.60**	560	208-230/460	96.0	94.1	26.02
50	3600	…	…	…	…	…	…	…
	1800	326TC	**170379.60**	614	208-230/460	118.0	94.5	27.52
60	3600	…	…	…	…	…	…	…
	1800	364TC	**171689.60**	716	208-230/460	139.0	95.0	28.01
	1800	…	…	…	…	…	…	…
75	3600	…	…	…	…	…	…	…
	1800	365TC	**171690.60**	766	208-230/460	172.0	95.0	31.18
	1800	…	…	…	…	…	…	…
100	1800	404TC	**171691.60**	1141	208-230/460	225.0	95.4	32.76
	1800	…	…	…	…	…	…	…

Motors in this column have NEMA Service Factors — see page 274 for details.

TEFC • C FACE WITH BASE • THREE PHASE

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
184TC	**171446.60**	105	208-230/460	12.0	88.5	16.80
184TC	**132080.00**	100	208-230/460	12.0	88.5	16.46
184TC	**171566.60**	109	208-230/460	12.8	89.5	16.80
…	…	…	…	…	…	…
184TC	**131502.00**	99	208-230/460	12.8	89.5	15.97
215TC	**171116.60**	180	208-230/460	14.4	89.5	19.61
…	…	…	…	…	…	…
213TC	**140770.00**	160	208-230/460	17.8	90.2	19.64
213TC	**170166.60**	156	208-230/460	18.0	89.5	18.19
213TC	**140521.00**	144	208-230/460	21.4	91.7	18.70
213TC	**170165.60**	155	208-230/460	18.6	91.7	18.19
254TC	**170138.60**	249	208-230/460	22.2	91.0	23.19
…	…	…	…	…	…	…
215TC	**140769.00**	175	208-230/460	23.6	91.7	21.09
215TC	**170168.60**	181	208-230/460	23.4	90.2	19.61
215TC	**140522.00**	160	208-230/460	26.6	91.7	19.70
215TC	**170167.60**	177	208-230/460	25.0	91.7	19.61
256TC	**170139.60**	300	208-230/460	29.0	91.0	24.92
…	…	…	…	…	…	…
254TC	**171586.00**	292	208-230/460	34.6	91.7	23.19
…	…	…	…	…	…	…
254TC	**171587.00**	290	208-230/460	36.0	92.4	23.19
284TC	**170104.60**	333	208-230/460	40.6	91.7	26.26
…	…	…	…	…	…	…
256TC	**171588.00**	326	208-230/460	46.0	92.4	24.92
…	…	…	…	…	…	…
256TC	**171589.00**	332	208-230/460	49.0	93.0	24.92
284TC	**170619.60**	393	208-230/460	56.8	93.0	24.88
284TSC	**171590.00**	393	208-230/460	56.8	93.0	25.88
…	…	…	…	…	…	…
284TC	**171591.00**	395	208-230/460	59.0	94.0	26.26
286TSC	**170108.60**	400	208-230/460	69.2	93.0	27.83
286TC	**170620.60**	400	208-230/460	69.2	93.0	26.46
…	…	…	…	…	…	…
286TC	**171592.00**	442	208-230/460	70.0	93.6	27.83
324TSC	**170110.60**	574	208-230/460	89.0	93.6	28.03
324TC	**171593.00**	538	208-230/460	92.0	94.1	29.53
326TSC	**170112.60**	604	208-230/460	112.0	93.0	29.53
326TC	**171594.00**	597	208-230/460	117.0	94.5	31.02
364TSC	**170114.60**	860	208-230/460	139.0	93.6	30.51
…	…	…	…	…	…	…
364TC	**171595.00**	676	208-230/460	137.0	95.4	32.64
365TSC	**171115.60**	773	208-230/460	172.0	93.6	31.49
…	…	…	…	…	…	…
365TC	**171596.00**	743	208-230/460	170.0	95.8	33.62
…	…	…	…	…	…	…
405TC	**171597.00**	1002	208-230/460	225.0	95.4	37.91

Motors in this column have 1.15 Service Factors, except noted by ♣ which have a 1.00 Service Factor.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

WATTSAVERe® PREMIUM EFFICIENCY MOTORS

GENERAL PURPOSE • SINGLE PHASE • FHP THREE PHASE

WATTSAVERe® PREMIUM EFFICIENCY HIGH TORQUE

WATTSAVERe® Premium Efficiency Motors provide enhanced operating efficiencies, cooler operating temperatures, and reduced running amperage. See page 19 for complete list of features.

SINGLE PHASE • TEFC • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56	**113765.00**☆	27	115/208-230	Man.	1.7	76.0	10.81
1/2	1800	56	**113766.00**☆	30	115/208-230	Man.	2.5	78.0	11.31
3/4	1800	56	**113767.00**☆	35	115/208-230	Man.	3.2	82.0	11.81
1	1800	56	**113768.00**☆	37	115/208-230	Man.	4.2	83.0	12.31
1 1/2	1800	56H	**113769.00**☆□ **A**	43	115/208-230	Man.	6.5	84.0	13.31
2	1800	56HZ	**113770.00**☆■ **A**	49	230	Man.	8.2	85.0	14.25

WATTSAVERe® PREMIUM EFFICIENCY FAN MOTORS

Premium efficiency motors for agricultural and industrial belted-fan applications.

Features include quiet bearings, resilient cradle base, and quiet flow-through ventilation. Class "F" insulated, with spade connectors on terminal board for quick and easy installation.

SINGLE PHASE • DRIP-PROOF • RESILIENT BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 115V	% F.L. Eff.	"C" Dim. (Inches)
1/4	1800	48	**101602.00**	19	115	Auto.	2.5	71.0	10.39
1/3	1800	48	**101405.00**	19	115	Auto.	3.2	75.0	10.39
1/2	1800	48	**101585.00**	25	115	Auto.	4.6	76.0	11.39

② These combination 56H base motors have mounting holes for 56 and 143-5T, and a 1/2" diameter shaft with flat 1 1/2" long.

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.

□ Combination 56 H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.

■ Combination 56 HZ base has mounting holes for NEMA 56 and 143-5T and a standard NEMA 145T frame shaft of 7/8" diameter.

FHP MOTORS FOR AC DRIVES

- Compact 48-frame design with keyed shaft
- Class F insulation
- 20:1 Constant torque rated
- Inverter IRIS™ insulation system
- 1/2" diameter keyed shaft with 48-C Face
- 115/230V 3-phase design optimized for FHP drives

THREE PHASE • TEFC • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/6	1800	48CZ	**102792.00 A**	25	1.25	56.0	8.94
1/4	1800	48CZ	**102793.00 A**	26	1.4	58.0	8.94
1/3	1800	48CZ	**102794.00 A**	28	1.6	64.3	9.19
1/2	1800	48CZ	**102795.00 A**	30	1.8	77.0	10.19

A Subject to Availability.

All three phase motors, 1 HP and above, are inverter rated.

SPEEDMASTER® INVERTER-DUTY/ VECTOR DUTY MOTORS

2000:1 CONSTANT TORQUE

Features:

Class H inverter-rated IRIS™ insulation system
Constant torque operation from 0 to base RPM rating on Vector Drives
Constant HP operation to twice base RPM rating for 143T-256T frame, 1.5 x base RPM for all other sizes
Designed for optimum performance with IGBT inverters – not for across-the-line starting
C-face with rigid base through 100HP
Normally closed thermostats (one per phase)
Continuous duty at 40° C ambient
1.0 Service Factor (Class "B" rise on TEBC motors)
Premium quality, cast iron frame and endbells
284T and larger are blower-cooled with a separately powered three-phase blower motor to provide added cooling at low speeds
Ball bearings (Roller bearings available 360-frame and larger)
Field convertible to F2 mounting
Encoder provisions included on opposite drive end (See Encoder Kits this page)
UL Recognized and CSA Certified
Three-year warranty
Meets NEMA MG1, parts 30 and 31

Applications:

Designed for inverter or vector applications where up to a 2000:1 constant torque speed range is required. Typical uses include: material handling, machine tools, conveyors, crane and hoist, metal processing, test stands, pumps, compressors, textile processing, and other industrial machinery installed in dusty or dirty environments.

THREE PHASE • TOTALLY ENCLOSED • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	RPM Max.†	"C" Dim. (Inches)
1	1800	143TC	**810548.00●**	61	230/460	3.0	5400	13.68
1½	1800	145TC	**810547.00●**	68	230/460	4.6	5400	14.68
2	1800	145TC	**810546.00●**	70	230/460	6.0	5400	14.68
3	1800	182TC	**811320.00●**	110	230/460	8.0	5400	16.68
5	1800	184TC	**811322.00●**	118	230/460	13.4	5400	17.69
7½	1800	213TC	**810157.00●**	180	230/460	21.0	4200	20.56
10	1800	215TC	**810140.00●**	290	230/460	26.0	4200	22.74
15	1800	254TC	**810066.00●**	320	230/460	39.0	4200	25.12
	1200	284TC	**810068.00 A**	440	230/460	40.0	3600	37.48
20	1800	256TC	**810007.00●**	435	230/460	52.0	4200	27.13
	1200	286TC	**810001.00 A**	450	230/460	52.4	3600	37.48
25	1800	284TC	**810011.00 A**	438	230/460	65.0	3600	37.48
	1200	324TC	**810003.00**	620	230/460	67.0	3600	40.41
30	1800	286TC	**810015.00**	520	230/460	74.0	4200	38.98
	1200	326TC	**810005.00**	700	230/460	82.0	3600	41.91
40	1800	324TC	**810019.00 A**	620	230/460	100.0	3600	40.41
	1200	364TC	**810096.00**	975	230/460	104.0	2700	42.78
50	1800	326TC	**810023.00 A**	640	230/460	120.0	3600	41.91
	1200	365TC	**810097.00**	1029	230/460	180.0	2700	43.78
60	1800	364TC	**810027.00**	975	230/460	147.0	2700	42.78
	1200	404TC	**810098.00 A**	1322	230/460	142.0	2700	46.72
75	1800	365TC	**810031.00**	1050	230/460	180.0	2700	43.78
	1200	405TC	**810099.00 A**	1350	230/460	180.0	2700	49.28
100	1800	405TC	**810087.00**	1400	230/460	230.0	2700	49.28
	1200	444TC	**811367.00+**	2050	230/460	250.0	2700	52.72
125	1800	444T	**811369.00+**	2000	460	138.0①	2700	52.72
150	1800	445T	**811371.00+A**	2321	460	170.0①	2700	54.72
200	1800	445T	**810503.00+A**	2450	460	230.0①	2700	54.72
250	1800	449T	**811516.00+A**	3210	460	295.0①	2700	63.21
300	1800	449T	**811529.00+A**	3410	460	330.0①	2700	63.21
350	1800	449T	**811530.00+A**	3520	460	385.0①	2700	63.21

● These motors are Totally Enclosed, Non-Ventilated (TENV) — Others are Totally Enclosed Blower-Cooled (TEBC).
† Contact LEESON for applications requiring higher speeds.
\+ Contact LEESON for production leadtime on these items.
① Amps at 460 volts
A Subject to Availability.

ENCODER KITS* FOR SPEEDMASTER® 2000:1 MOTORS

Description	Enclosure	Frame	Brand/Model	PPR	Catalog Number
Encoders					
Modular Mount, 5-15 VDC, with EPIC connector	TENV	143-256T	Northstar SL56	1024	**E175927.00**
Shaft Mount, 5-26 VDC, with 10 pin connector	TENV	143-256T	Dynapar HS35	1024	**E175928.00**
Shaft Mount, 5-26 VDC, with 10 pin connector	TENV	143-256T	BEI HS35	1024	**E175929.00**
Shaft Mount, 5-26 VDC, with 10 pin connector	TENV	143-256T	Dynapar HS35	2048	**E175930.00**
Shaft Mount, 5-26 VDC, with 10 pin connector	TENV	143-256T	BEI HS35	2048	**E175931.00**
Modular Mount, 5-15 VDC (Encoder Conduit Box Required)	TEBC	284-449T	Northstar SL56	1024	**E175921.00**
Shaft Mount, 5-26 VDC (Encoder Conduit Box Required)	TEBC	284-449T	Dynapar HS35	1024	**E175922.00**
Shaft Mount, 5-26 VDC (Encoder Conduit Box Required)	TEBC	284-449T	BEI HS35	1024	**E175923.00**
Shaft Mount, 5-26 VDC (Encoder Conduit Box Required)	TEBC	284-449T	Dynapar HS35	2048	**E175924.00**
Shaft Mount, 5-26 VDC (Encoder Conduit Box Required)	TEBC	284-449T	BEI HS35	2048	**E175925.00**
Conduit Box Required for all TEBC Units	—	—	—	—	**ECB175926.00**

* Shipped separately for field installation.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

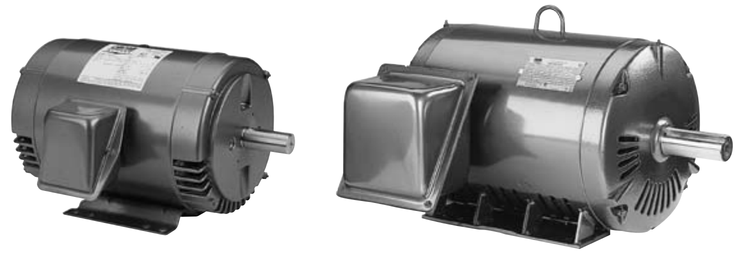
Lincoln MOTORS

ODP

208, 230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT AND C-FACE
1/4 TO 500 HP

NEMA Premium

Signature Series MOTORS



Frames 48 - 256T

Features:
- Industry leading 1.25 service factor*
- Two levels of premium efficiency - P efficiency codes meet and B efficiency codes exceed the energy efficiency requirements of the United States and Canada.
- Nameplated for 50 Hz and 208 V/60 Hz Operation
- Continuous Duty
- Inverter-Rated
- Premium Insulation Systems –
  48 & 56 frames: Class B
  143T-215T frames: Class F
- UL Recognized Component Listing and CSA

Applications:
For use where water and dust exposure is minimal. Ideally suited for use on pumps, compressors, blowers, fans and other standard industrial applications.

* P and B efficiency codes.

Frames 284T - 449T

Features:
- Industry leading 1.25 service factor through 200 HP*
- Superior speed-torque curves - most models* nameplated Design B & C
- Two levels of premium efficiency - P efficiency codes meet Epact and B efficiency codes meet NEMA Premium energy efficiency requirements of the United States and Canada.
- Nameplated for 50 Hz and 208 V/60 Hz Operation
- Continuous Duty
- Inverter-Rated
- Premium Class F Plus Insulation system
- Y-delta start capability frames 284T-449T
- UL Recognized Component Listing and CSA certified
- Shielded ball bearing for direct coupled applications. Contact your local sales office for belted applications.

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	48	62.0	1.35	230/460	SPD4S0.25T61	**LM24866**	19
1/3	3600	56	66.0	1.35	230/460	SRD2S0.33T61	**LM24867**	18
	1800	S56	67.0	1.35	230/460	SRD4S0.33T61	**LM24152**	15
	1200	56	62.0	1.35	230/460	SRD6S0.33T61	**LM24868**	19
1/2	3600	56	66.0	1.25	230/460	SRD2S0.5T61	**LM24869**	22
	1800	S56	70.0	1.25	230/460	SRD4S0.5T61	**LM24098**	17
	1200	56	68.0	1.25	230/460	SRD6S0.5T61	**LM24146**	22
3/4	3600	56	74.0	1.25	230/460	SRD2S0.75T61	**LM24870**	21
	1800	S56	75.5	1.25	230/460	SRD4S0.75T61	**LM24099**	20
	1200	56	76.5	1.15	230/460	SRD6S0.75T61	**LM24162**	26
1	3600	56	74.0	1.25	230/460	SRD2S1T61	**LM24155**	24
	1800	S56	76.5	1.15	230/460	SRD4S1T61	**LM24111**	22
	1800	143T	85.5	1.15	230/460	SSD4B1T61	**LM24871**	35
	1200	56H	75.5	1.15	230/460	SRD6S1T61	**LM24872**	29
	1200	145T	82.5	1.25	230/460	SSD6B1T61	**LM32726**	48
	900	182T	74.0	1.15	230/460	SSD8P1T61	**LM33126**	55
1 1/2	3600	56	80.0	1.15	230/460	SRD2S1.5T61	**LM24874**	23
	3600	143T	84.0	1.25	230/460	SSD2B1.5T61	**LM32727**	28
	1800	56H	80.0	1.15	230/460	SRD4S1.5T61	**LM24117**	28
	1800	145T	85.5	1.15	230/460	SSD4B1.5T61	**LM24875**	45
	900	184T	75.5	1.15	230/460	SSD8P1.5T61	**LM32728**	88

Product numbers in red are STOCK items.

Specifications are subject to change without notice

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
2	3600	56H	80.0	1.15	230/460	SRD2S2T61	LM24877	25
	3600	145T	85.5	1.25	230/460	SSD2B2T61	LM33137	28
	1800	56H	81.5	1.15	230/460	SRD4S2T61	LM24106	36
	1800	145T	86.5	1.25	230/460	SSD4B2T61	LM24169	48
	900	213T	85.5	1.15	230/460	SSD8P2T61	LM32730	115
3	3600	56H	84.0	1.15	230/460	SRD2S3T61	LM24878	33
	3600	145T	85.5	1.25	230/460	SSD2B3T61	LM32731	33
	1800	182T	89.5	1.25	230/460	SSD4B3T61	LM24222	56
	1200	213T	88.5	1.25	230/460	SSD6B3T61	LM32733	104
	900	215T	86.5	1.15	230/460	SSD8P3T61	LM32688	134
5	3600	182T	86.5	1.25	230/460	SSD2B5T61	LM32734	88
	1800	184T	89.5	1.25	230/460	SSD4B5T61	LM24202	91
	1200	215T	87.5	1.25	230/460	SSD6B5T61	LM32735	135
	900	254T	87.5	1.15	230/460	SSD8P5T61	LM32736	175
7 1/2	3600	213T	88.5	1.15	230/460	SSD2B7.5T61	LM32737	88
	1800	213T	91.0	1.25	230/460	SSD4B7.5T61	LM24194	121
	1200	254T	90.2	1.25	230/460	SSD6B7.5T61	LM32738	150
	900	256T	88.5	1.15	230/460	SSD8P7.5T61	LM32739	167
10	3600	213T	89.5	1.25	230/460	SSD2B10T61	LM32740	138
	1800	215T	91.7	1.25	230/460	SSD4B10T61	LM24193	155
	1200	256T	91.7	1.25	230/460	SSD6B10T61	LM32742	221
15	3600	215T	90.2	1.25	230/460	SSD2B15T61	LM32743	135
	1800	254T	93.0	1.25	230/460	CCD4B15T61	LM24190	300
	1800	254T	93.0	1.25	230/460	SSD4B15T61	LM32744	215
	1200	284T	91.7	1.25	230/460	CCD6B15T61Y	LM31244	420
20	3600	254T	91.0	1.25	230/460	SSD2B20T61	LM32745	161
	1800	256T	93.0	1.25	230/460	CCD4B20T61	LM24199	350
	1800	256T	93.0	1.25	230/460	SSD4B20T61	LM32746	233
	1200	286T	92.4	1.25	230/460	CCD6B20T61Y	LM30273	462
25	3600	256T	91.7	1.25	230/460	SSD2B25T61	LM32747	200
	1800	284T	93.6	1.25	230/460	CCD4B25T61Y	LM29576	350
	1800	284TS	93.6	1.25	230/460	CCD4B25TS61Y	LM32748	348
	1200	324T	93.0	1.25	230/460	SD6B25T61Y	LM13809	469
30	3600	284TS	93.0	1.25	230/460	SD2B30TS61Y	LM13966	348
	3600	284T	91.7	1.25	230/460	SD2B30T61Y	LM32687	348
	1800	286T	94.1	1.25	230/460	CCD4B30T61Y	LM29577	400
	1800	286TS	94.1	1.25	230/460	CCD4B30TS61Y	LM32749	400
	1200	326T	93.6	1.25	230/460	SD6B30T61Y	LM13810	522

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Lincoln MOTORS

ODP

208, 230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT AND C-FACE
1/4 TO 500 HP

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
40	3600	286TS	93.6	1.25	230/460	SD2B40TS61Y	**LM13969**	389
	3600	286T	92.4	1.25	230/460	SD2B40T61Y	**LM32750**	389
	1800	324T	94.1	1.25	230/460	SD4B40T61Y	**LM13811**	469
	1800	324TS	94.1	1.25	230/460	SD4B40TS61Y	**LM32751**	469
	1200	364T	94.1	1.25	230/460	SD6B40T61Y	**LM13924**	712
50	3600	324TS	94.1	1.25	230/460	SD2B50TS61Y	**LM13812**	469
	3600	324T	93.0	1.25	230/460	SD2B50T61Y	**LM32752**	469
	1800	326T	95.0	1.25	230/460	SD4B50T61Y	**LM13813**	522
	1800	326TS	94.5	1.25	230/460	SD4B50TS61Y	**LM32674**	522
	1200	365T	94.5	1.25	230/460	SD6B50T61Y	**LM13927**	763
60	3600	326TS	94.5	1.25	230/460	SD2B60TS61Y	**LM13814**	522
	3600	326T	93.6	1.25	230/460	SD2B60T61Y	**LM32682**	522
	1800	364T	95.0	1.25	230/460	SD4B60T61Y	**LM14813**	712
	1800	364TS	95.0	1.25	230/460	SD4B60TS61Y	**LM32753**	712
	1200	404T	94.5	1.25	230/460	SD6B60T61Y	**LM13944**	882
75	3600	364TS	94.5	1.25	230/460	SD2B75TS61Y	**LM14812**	712
	3600	364T	93.6	1.25	230/460	SD2B75T61Y	**LM32754**	712
	1800	365T	95.0	1.25	230/460	SD4B75T61Y	**LM14815**	763
	1800	365TS	95.0	1.25	230/460	SD4B75TS61Y	**LM32755**	763
	1200	405T	94.5	1.25	230/460	SD6B75T61Y	**LM13947**	958
100	3600	365TS	95.0	1.25	230/460	SD2B100TS61Y	**LM14814**	763
	3600	365T	93.6	1.25	230/460	SD2B100T61Y	**LM32756**	763
	1800	404T	95.4	1.25	230/460	SD4B100T61Y	**LM13943**	882
	1800	404TS	95.4	1.25	230/460	SD4B100TS61Y	**LM32757**	882
	1200	444T	95.4	1.15	460	SD6B100T64Y	**LM13815**	1277
125	3600	404TS	95.0	1.25	230/460	SD2B125TS61Y	**LM13942**	882
	3600	404T	94.1	1.25	230/460	SD2B125T61Y	**LM32758**	882
	1800	405T	95.4	1.25	230/460	SD4B125T61Y	**LM13946**	958
	1800	405TS	95.4	1.25	230/460	SD4B125TS61Y	**LM32759**	958
	1200	445T	95.4	1.15	460	SD6B125T64Y	**LM13816**	1438
150	3600	405TS	95.4	1.25	230/460	SD2B150TS61Y	**LM13945**	958
	1800	444T	95.8	1.25	460	SD4B150T64Y	**LM13817**	1277
	1800	444TS	95.8	1.25	460	SD4B150TS64Y	**LM32760**	1277
	1200	445T	95.4	1.15	460	SD6B150T64Y	**LM13818**	1438

Product numbers in red are STOCK items.

Specifications are subject to change without notice

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
200	3600	444TS	95.8	1.25	460	SD2B200TS64Y	**LM13819**	1277
	1800	445T	96.2	1.25	460	SD4B200T64Y	**LM13820**	1438
	1800	445TS	95.8	1.25	460	SD4B200TS64Y	**LM32761**	1449
	1200	449T	95.8	1.15	460	SD6B200T64Y	**LM16239**	2112
250	3600	445TS	95.8	1.15	460	SD2B250TS64Y	**LM13822**	1438
	3600	445TS	94.5	1.15	460	SD2P250TS64Y	**LM13761**	1438
	1800	445T	96.2	1.15	460	SD4B250T64Y	**LM13823**	1438
	1800	447T	96.2	1.15	460	SD4B250T64Y	**LM16235**	1745
	1800	445T	95.4	1.25	460	SD4P250T64Y	**LM13762**	1438
	1800	445TS	95.4	1.15	460	SD4P250TS64Y	**LM15466**	1438
	1200	447T	95.4	1.00	460	SD6B250T64Y	**LM13824**	1745
	1200	449T	95.4	1.15	460	SD6B250T64Y	**LM17958**	2112
300	3600	447TS	95.8	1.15	460	SD2B300TS64Y	**LM13825**	1745
	3600	447TS	95.0	1.15	460	SD2P300TS64Y	**LM13764**	1745
	1800	447T	96.2	1.15	460	SD4B300T64Y	**LM13826**	1745
	1800	449T	96.5	1.15	460	SD4B300T64Y	**LM16238**	2112
	1800	447T	95.4	1.15	460	SD4P300T64Y	**LM13765**	1745
	1800	449T	95.4	1.15	460	SD4P300T64Y	**LM16227**	2112
	1800	447TS	95.4	1.15	460	SD4P300TS64Y	**LM22758**	1745
350	3600	447TS	95.8	1.15	460	SD2B350TS64Y	**LM13828**	1745
	3600	449TS	95.8	1.15	460	SD2B350TS64Y	**LM16237**	2112
	3600	447TS	95.0	1.15	460	SD2P350TS64Y	**LM13767**	1745
	3600	449TS	95.0	1.15	460	SD2P350TS64Y	**LM16226**	2112
	1800	447T	96.2	1.15	460	SD4B350T64Y	**LM13829**	1745
	1800	449T	96.2	1.15	460	SD4B350T64Y	**LM17957**	2112
	1800	447T	95.0	1.00	460	SD4P350T64Y	**LM13768**	1745
	1800	449T	95.4	1.15	460	SD4P350T64Y	**LM17954**	2112
	1800	447TS	95.0	1.00	460	SD4P350TS64Y	**LM15159**	1745
400	3600	449TS	96.2	1.15	460	SD2B400TS64Y	**LM13831**	2112
	3600	449TS	95.4	1.15	460	SD2P400TS64Y	**LM13770**	2112
	1800	449T	95.8	1.15	460	SD4B400T64Y	**LM13832**	2112
	1800	449T	95.4	1.15	460	SD4P400T64Y	**LM13771**	2112
	1800	449TS	95.4	1.15	460	SD4P400TS64Y	**LM22759**	2112

C-FACE WITH FEET

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/3	1800	S56	67.0	1.35	230/460	SRD4S0.33TC61	**LM24277**	15
1/2	3600	56C	66.0	1.25	230/460	SRD2S0.5TC61	**LM24879**	18
	1800	S56	70.0	1.25	230/460	SRD4S0.5TC61	**LM24880**	17
	1200	56C	68.0	1.25	230/460	SRD6S0.5TC61	**LM24881**	33

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Lincoln™ MOTORS

ODP

208, 230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT AND C-FACE
1/4 TO 500 HP

C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
3/4	3600	56C	74.0	1.25	230/460	SRD2S0.75TC61	**LM24882**	21
	1800	S56	75.5	1.25	230/460	SRD4S0.75TC61	**LM24267**	20
	1200	56C	76.5	1.15	230/460	SRD6S0.75TC61	**LM24883**	26
1	3600	56C	74.0	1.25	230/460	SRD2S1TC61	**LM24884**	24
	1800	S56	76.5	1.15	230/460	SRD4S1TC61	**LM24346**	22
	1800	143TC	85.5	1.25	230/460	SSD4B1TC61	**LM32762**	34
	1200	56HC	75.5	1.15	230/460	SRD6S1TC61	**LM24885**	29
	1200	145TC	80.0	1.25	230/460	SSD6B1TC61	**LM32763**	48
1 1/2	3600	56C	80.0	1.15	230/460	SRD2S1.5TC61	**LM24887**	23
	3600	143TC	84.0	1.25	230/460	SSD2B1.5TC61	**LM32764**	28
	1800	56HC	80.0	1.15	230/460	SRD4S1.5TC61	**LM24889**	28
	1800	145TC	86.5	1.15	230/460	SSD4B1.5TC61	**LM32765**	40
	1200	182TC	86.5	1.15	230/460	SSD6B1.5TC61	**LM32766**	80
2	3600	56HC	80.0	1.15	230/460	SRD2S2TC61	**LM24891**	25
	3600	145TC	85.5	1.25	230/460	SSD2B2TC61	**LM32767**	28
	1800	56HC	81.5	1.15	230/460	SRD4S2TC61	**LM24345**	36
	1800	145TC	86.5	1.25	230/460	SSD4B2TC61	**LM32768**	44
	1200	184TC	87.5	1.25	230/460	SSD6B2TC61	**LM32769**	74
3	3600	56HC	84.0	1.15	230/460	SRD2S3TC61	**LM24894**	33
	3600	145TC	85.5	1.25	230/460	SSD2B3TC61	**LM32770**	33
	1800	182TC	89.5	1.25	230/460	SSD4B3TC61	**LM32771**	83
	1200	213TC	88.5	1.25	230/460	SSD6B3TC61	**LM32772**	104
5	3600	182TC	86.5	1.15	230/460	SSD2B5TC61	**LM32773**	83
	1800	184TC	89.5	1.25	230/460	SSD4B5TC61	**LM32774**	93
	1200	215TC	89.5	1.25	230/460	SSD6B5TC61	**LM32775**	135
7 1/2	3600	184TC	88.5	1.15	230/460	SSD2B7.5TC61	**LM32776**	105
	1800	213TC	91.0	1.25	230/460	SSD4B7.5TC61	**LM32666**	115
	1200	254TC	90.2	1.25	230/460	SSD6B7.5TC61	**LM32777**	150
10	3600	213TC	89.5	1.25	230/460	SSD2B10TC61	**LM32778**	138
	1800	215TC	91.7	1.25	230/460	SSD4B10TC61	**LM32649**	138
	1200	256TC	91.7	1.25	230/460	SSD6B10TC61	**LM32779**	221
15	3600	215TC	90.2	1.15	230/460	SSD2B15TC61	**LM32780**	135
	1800	254TC	96.0	1.25	230/460	SSD4B15TC61	**LM32781**	215
	1200	284TC	91.7	1.25	230/460	CCD6B15TC61Y	**LM31247**	420
	1200	284TC	91.7	1.25	230/460	SD6B15TC61Y	**LM32806**	355
20	3600	254TC	91.0	1.25	230/460	SSD2B20TC61	**LM32782**	161
	1800	256TC	93.0	1.25	230/460	SSD4B20TC61	**LM32783**	233
	1200	286TC	92.4	1.25	230/460	CCD6B20TC61Y	**LM31248**	462
25	3600	256TC	91.7	1.25	230/460	SSD2B25TC61	**LM32784**	207
	1800	284TC	93.6	1.25	230/460	CCD4B25TC61Y	**LM31245**	430
	1800	284TSC	91.7	1.25	230/460	CCD4B24TSC61Y	**LM32785**	350
	1200	324TC	93.0	1.25	230/460	SD6B25TC61Y	**LM14535**	479
30	3600	284TSC	93.0	1.25	230/460	SD2B30TSC61Y	**LM17382**	355
	1800	286TC	94.1	1.25	230/460	SD4B30TC61Y	**LM31246**	489
	1800	286TSC	4.1	1.25	230/460	CCD4B30TSC61Y	**LM32786**	400
	1200	326TC	93.6	1.25	230/460	SD6B30TC61Y	**LM13836**	532

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Lincoln™ MOTORS

C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
40	3600	286TSC	93.6	1.25	230/460	SD2B40TSC61Y	**LM17384**	396
	1800	324TC	94.1	1.25	230/460	SD4B40TC61Y	**LM13837**	479
	1800	324TSC	94.1	1.25	230/460	SD4B40TSC61Y	**LM32684**	479
	1200	364TC	94.1	1.25	230/460	SD6B40TC61Y	**LM15571**	724
50	3600	324TSC	94.1	1.25	230/460	SD2B50TSC61Y	**LM13838**	479
	3600	324TSC	94.5	1.25	230/460	SD2P50TSC61Y	**LM13839**	479
	1800	326TC	94.5	1.25	230/460	SD4B50TC61Y	**LM13839**	532
	1800	326TSC	94.5	1.25	230/460	SD4B50TSC61Y	**LM32655**	532
	1200	365TC	94.5	1.25	230/460	SD6B50TC61Y	**LM15574**	775
60	3600	326TSC	94.5	1.25	230/460	SD2B60TSC61Y	**LM13840**	532
	1800	364TC	95.0	1.25	230/460	SD4B60TC61Y	**LM15570**	724
	1800	364TSC	94.5	1.25	230/460	SD4B60TSC61Y	**LM32787**	724
	1200	404TC	94.5	1.25	230/460	SD6B60TC61Y	**LM17385**	898
75	3600	364TSC	95.0	1.25	230/460	SD2B75TSC61Y	**LM15569**	724
	1800	365TC	95.0	1.25	230/460	SD4B75TC61Y	**LM15573**	775
	1800	365TSC	95.0	1.25	230/460	SD4B75TSC61Y	**LM32656**	775
	1200	405TC	95.4	1.25	230/460	SD6B75TC61Y	**LM17386**	974
100	3600	365TSC	95.0	1.25	230/460	SD2B100TSC61Y	**LM15572**	775
	1800	404TC	95.4	1.25	230/460	SD4B100TC61Y	**LM17387**	898
	1800	404TSC	95.4	1.25	230/460	SD4B100TSC61Y	**LM32788**	898
	1200	444TC	95.4	1.15	460	SD6B100TC64Y	**LM13791**	1298
125	3600	404TSC	95.0	1.25	230/460	SD2B125TSC61Y	**LM17388**	898
	1800	405TSC	95.4	1.25	230/460	SD4B125TSC61Y	**LM32657**	974
	1200	445TC	95.4	1.15	460	SD6B125TC64Y	**LM13792**	1459
150	3600	405TSC	95.4	1.25	230/460	SD2B150TSC61Y	**LM17390**	974
	1800	444TC	95.8	1.25	460	SD4B150TC64Y	**LM13793**	1298
	1800	444TSC	95.8	1.25	460	SD4B150TSC64Y	**LM32789**	1298
	1200	445TC	95.4	1.15	460	SD6B150TC64Y	**LM13794**	1459
200	3600	444TSC	95.8	1.25	460	SD2B200TSC64Y	**LM13795**	1298
	1800	445TC	96.2	1.25	460	SD4B200TC64Y	**LM13796**	1459
	1800	445TSC	95.8	1.25	460	SD4B200TSC64Y	**LM32677**	1470
	1200	447TC	95.4	1.15	460	SD6B200TC64Y	**LM13797**	1766

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Lincoln MOTORS

ODP

208, 230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT AND C-FACE
1/4 TO 500 HP

C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
250	3600	445TSC	95.8	1.15	460	SD2B250TSC64Y	**LM13798**	1459
	3600	445TSC	94.5	1.15	460	SD2P250TSC64Y	**LM13787**	1459
	1800	445TC	96.2	1.15	460	SD4B250TC64Y	**LM13799**	1459
	1800	445TC	95.4	1.25	460	SD4P250TC64Y	**LM13788**	1459
	1800	445TSC	95.4	1.15	460	SD4P250TSC64Y	**LM20695**	1459
	1200	447TC	95.4	1.00	460	SD6B250TC64Y	**LM13841**	1766
300	3600	447TSC	95.8	1.15	460	SD2B300TSC64Y	**LM13842**	1766
	3600	447TSC	95.0	1.15	460	SD2P300TSC64Y	**LM13790**	1766
	1800	447TC	96.2	1.15	460	SD4B300TC64Y	**LM13843**	1766
	1800	447TC	95.4	1.15	460	SD4P300TC64Y	**LM15312**	1766
	1200	449TC	95.4	1.00	460	SD6B300TC64Y	**LM13844**	2133
	1200	449TC	95.4	1.00	460	SD6P300TC64Y	**LM13801**	2133
350	3600	447TSC	95.8	1.15	460	SD2B350TSC64Y	**LM13845**	1766
	3600	447TSC	95.0	1.15	460	SD2P350TSC64Y	**LM13802**	1766
	1800	447TC	96.2	1.15	460	SD4B350TC64Y	**LM13846**	1766
	1800	447TC	95.4	1.15	460	SD4P350TC64Y	**LM13803**	1766
400	3600	449TSC	96.2	1.15	460	SD2B400TSC64Y	**LM13848**	2133
	3600	449TSC	95.4	1.15	460	SD2P400TSC64Y	**LM13805**	2133
	1800	449TC	95.8	1.15	460	SD4B400TC64Y	**LM13849**	2133
	1800	449TC	95.4	1.15	460	SD4P400TC64Y	**LM13806**	2133
450	3600	449TSC	95.8	1.15	460	SD2B450TSC64Y	**LM13850**	2133
	3600	449TSC	95.8	1.00	460	SD2P450TSC64Y	**LM13807**	2133
	1800	449TC	96.2	1.15	460	SD4B450TC64Y	**LM13718**	2133
	1800	449TC	95.8	1.00	460	SD4P450TC64Y	**LM13808**	2133

C-FACE FOOTLESS

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/3	3600	56C	66.0	1.35	230/460	SRD2S0.33TCN61	**LM24909**	19
	1800	S56	67.0	1.35	230/460	SRD4S0.33TCN61	**LM24910**	15
1/2	3600	56C	66.0	1.25	230/460	SRD2S0.5TCN61	**LM24911**	19
	1800	S56	70.0	1.25	230/460	SRD4S0.5TCN61	**LM24912**	17
	1200	56C	68.0	1.25	230/460	SRD6S0.5TCN61	**LM24913**	21
3/4	3600	56C	74.0	1.25	230/460	SRD2S0.75TCN61	**LM24914**	20
	1800	56C	75.5	1.15	230/460	SRD4S0.75TCN61	**LM24915**	20
1	3600	56C	74.0	1.25	230/460	SRD2S1TCN61	**LM24916**	22
	1800	S56	76.5	1.15	230/460	SRD4S1TCN61	**LM24917**	22
	1800	143TC	77.0	1.15	230/460	SSD4P1TCN61	**LM32790**	27
1 1/2	3600	56C	80.0	1.15	230/460	SRD2S1.5TCN61	**LM24919**	23
	1800	56HC	80.0	1.15	230/460	SRD4S1.5TCN61	**LM24160**	27
	1800	145TC	80.0	1.15	230/460	SSD4P1.5TCN61	**LM32791**	29
2	3600	56HC	80.0	1.15	230/460	SRD2S2TCN61	**LM24921**	25
	1800	56HC	81.5	1.15	230/460	SRD4S2TCN61	**LM24131**	33
	1800	145TC	84.0	1.15	230/460	SSD4P2TCN61	**LM32792**	35
3	3600	56HC	84.0	1.15	230/460	SRD2S3TCN61	**LM24923**	31
	3600	145TC	86.5	1.15	230/460	SSD2P3TCN61	**LM32793**	33
	1800	182TC	81.5	1.15	230/460	SSD4P3TCN61	**LM32794**	63
5	1800	184TC	87.5	1.25	230/460	SSD4P5TCN61	**LM24234**	93
7 1/2	1800	213TC	88.5	1.15	230/460	SSD4P7.5TCN61	**LM32800**	95
10	1800	215TC	89.5	1.15	230/460	SSD4P10TCN61	**LM32801**	128

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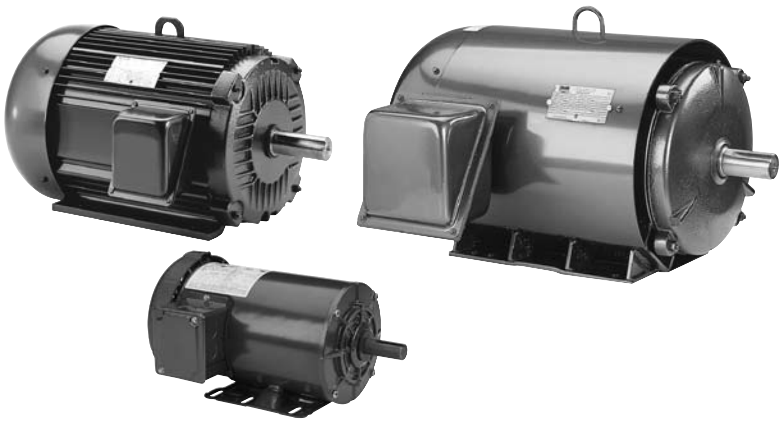
NEMA Premium

ALUMINUM AND STEEL FRAME - TEFC

208, 230/460 AND 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/4 TO 400 HP

Lincoln MOTORS

Signature Series MOTORS



Frames 48 - 215T

Features:

- Industry leading 1.25 service factor*
- Nameplated for 50 Hz and 208 V/60 Hz Operation
- Continuous Duty
- Inverter-Rated
- Construction materials (reference Model Number) - SPF, SRF & SSF: steel frame/cast aluminum brackets
- Premium Insulation Systems –
  48 & 56 frames: Class B
  143T-215T frames: Class F
- UL Recognized Component Listing and CSA certified

THIS QUALITY MOTOR IS Inverter-Rated Any Drive No Filters Required EXCEEDS MG1 PART 31 INSULATION SPECS

Frames 182T - 449T

Features:

- Industry leading 1.25 service factor through 75 HP*
- Superior speed-torque curves – most models* nameplated Design B & C
- Two levels of premium efficiency – P efficiency codes meet EPACT and B efficiency codes meet NEMA Premium energy efficiency requirements of the United States and Canada.
- Nameplated for 50 Hz and 208 V/60 Hz Operation
- Continuous Duty
- Inverter-Rated
- Construction Materials (reference Model Number) –
  AF, AAF: extruded aluminum frame and cast iron brackets
  SF: steel frame and cast iron brackets
- Premium Class F Plus Insulation system
- Y-delta start capability frames 284T-449T
- UL Recognized Component Listing and CSA certified
- Shielded ball bearing for direct coupled applications. Contact your local sales office for belted applications.

Applications:
For use where exposure to water, dust and corrosives exists. Ideally suited for use on pumps, compressors, fans, blowers, conveyors, machine tools and other industrial applications.

* P and B efficiency codes.

Lincoln MOTORS

TEFC

208, 230/460 AND 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/4 TO 400 HP

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	48	62.5	1.15	230/460	SPF4S0.25T61	**LM24929**	17
1/3	1800	48	65.5	1.15	230/460	SPF4S0.33T61	**LM24930**	20
	1800	S56	65.5	1.15	230/460	SRF4S0.33T61	**LM24107**	16
	1200	56	62.0	1.15	230/460	SRF6S0.33T61	**LM24931**	22
1/2	3600	56	69.0	1.15	230/460	SRF2S0.5T61	**LM24165**	22
	1800	48	70.0	1.15	230/460	SPF4S0.5T61	**LM24932**	23
	1800	S56	70.0	1.15	230/460	SRF4S0.5T61	**LM24073**	18
	1200	56	68.0	1.15	230/460	SRF6S0.5T61	**LM24105**	24
	900	143T	66.0	1.15	230/460	SSF8S0.5T61	**LM24291**	31
3/4	3600	56	74.0	1.15	230/460	SRF2S0.75T61	**LM24133**	23
	1800	S56	75.5	1.15	230/460	SRF4S0.75T61	**LM24075**	30
	1200	56	74.0	1.15	230/460	SRF6S0.75T61	**LM24136**	28
	1200	143T	74.0	1.15	230/460	SSF6S0.75T61	**LM24103**	29
	900	145T	70.0	1.15	230/460	SSF8S0.75T61	**LM24276**	49
1	3600	56	74.0	1.15	230/460	SRF2S1T61	**LM24094**	24
	1800	56	77.0	1.15	230/460	SRF4S1T61	**LM24078**	27
	1800	143T	85.5	1.25	230/460	SSF4B1T61	**LM32796**	41
	1200	145T	82.5	1.25	230/460	SSF6B1T61	**LM33121**	34
	1200	56H	78.5	1.15	230/460	SRF6S1T61	**LM24159**	35
	900	182T	74.0	1.15	230/460	AAF8P1T61	**LM32662**	64
1 1/2	3600	56	80.0	1.15	230/460	SRF2S1.5T61	**LM24144**	34
	3600	143T	84.0	1.25	230/460	SSF2B1.5T61	**LM33122**	32
	1800	56H	80.0	1.15	230/460	SRF4S1.5T61	**LM24118**	30
	1800	145T	86.5	1.25	230/460	SSF4B1.5T61	**LM33123**	45
	1200	182T	87.7	1.25	230/460	AAF6B1.5T61	**LM15648**	83
	900	184T	77.0	1.15	230/460	AAF8P1.5T61	**LM32798**	71
2	3600	56H	82.5	1.15	230/460	SRF2S2T61	**LM24347**	39
	3600	145T	85.5	1.25	230/460	SSF2B2T61	**LM33124**	31
	1800	56H	82.5	1.15	230/460	SRF4S2T61	**LM24097**	40
	1800	145T	86.5	1.25	230/460	SSF4B2T61	**LM33125**	41
	1200	184T	88.5	1.25	230/460	AAF6B2T61	**LM15651**	92
	900	213T	82.5	1.15	230/460	AF8P2T61	**LM32799**	101
3	3600	56H	84.0	1.15	230/460	SRF2S3T61	**LM24935**	51
	3600	182T	87.5	1.25	230/460	AAF2B3T61	**LM15646**	83
	1800	182T	90.2	1.25	230/460	AAF4B3T61	**LM15647**	83
	1800	182T	89.5	1.15	230/460	SSF4B3T61	**LM32741**	77
	1800	182T	89.5	1.25	230/460	AAF4B3T61AP23	**LM70009**	60
	1200	213T	89.5	1.25	230/460	AF6B3T61	**LM16030**	127
	900	215T	84.0	1.15	230/460	AF8P3T61	**LM32664**	119

Product numbers in red are STOCK items.

Specifications are subject to change without notice

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
5	3600	184T	89.5	1.25	230/460	AAF2B5T61	LM15649	92
	1800	184T	90.2	1.25	230/460	AAF4B5T61	LM15650	92
	1800	184T	87.5	1.15	230/460	SSF4B5T61	LM32295	85
	1800	184T	87.5	1.25	230/460	AAF4B5T61AP23	LM70010	75
	1200	215T	89.5	1.25	230/460	AF6B5T61	LM16033	138
	1200	215T	89.5	1.15	230/460	SSF6B5T61	LM32802	140
	900	254T	85.5	1.15	230/460	AF8P5T61	LM32803	159
7 1/2	3600	213T	91.0	1.25	230/460	AF2B7.5T61	LM28968	127
	3600	213T	89.5	1.15	230/460	SSF2B7.5T61	LM32804	109
	1800	213T	91.0	1.25	230/460	AF4B7.5T61	LM16029	127
	1800	213T	91.0	1.15	230/460	SSF4B7.5T61	LM32805	115
	1800	213T	91.0	1.25	230/460	AAF4B7.5T61AP23	LM70011	110
	1200	254T	91.0	1.25	230/460	AF6B7.5T61	LM15672	209
	900	256T	85.5	1.15	230/460	AF8P7.5T61	LM32807	195
10	3600	215T	91.0	1.25	230/460	AF2B10T61	LM16031	138
	3600	215T	90.2	1.15	230/460	SSF2B10T61	LM32808	126
	1800	215T	91.7	1.25	230/460	AF4B10T61	LM16032	138
	1800	215T	91.7	1.15	230/460	SSF4B10T61	LM32809	135
	1800	215T	91.7	1.25	230/460	AAF4B1061AP23	LM70012	125
	1200	256T	91.0	1.25	230/460	AF6B10T61	LM15675	236
15	3600	254T	91.7	1.25	230/460	AAF2B15T61	LM15670	209
	1800	254T	92.4	1.25	230/460	AAF4B15T61	LM15671	209
	1200	284T	92.4	1.25	230/460	AF6B15T61Y	LM13962	363
20	3600	256T	91.7	1.25	230/460	AF2B20T61	LM15673	236
	1800	256T	93.0	1.25	230/460	AAF4B20T61	LM15674	236
	1200	286T	93.0	1.25	230/460	AF6B20T61Y	LM13965	408
25	3600	284TS	93.0	1.25	230/460	AF2B25TS61Y	LM13960	363
	3600	284T	91.7	1.25	230/460	AF2B25T61Y	LM32811	363
	1800	284T	94.1	1.25	230/460	AF4B25T61Y	LM13961	363
	1800	284TS	93.6	1.25	230/460	AF4B25TS61Y	LM32812	363
	1200	324T	93.0	1.25	230/460	SF6B25T61Y	LM13696	504

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TEFC

208, 230/460 AND 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/4 TO 400 HP

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
30	3600	286TS	93.0	1.25	230/460	AF2B30TS61Y	**LM13963**	408
	3600	286T	93.6	1.25	230/460	AF2B30T61Y	**LM32813**	408
	1800	286T	94.5	1.25	230/460	AF4B30T61Y	**LM13964**	408
	1800	286TS	93.6	1.25	230/460	AF4B30TS61Y	**LM32814**	408
	1200	326T	93.0	1.25	230/460	SF6B30T61Y	**LM13697**	558
40	3600	324TS	94.1	1.25	230/460	SF2B40TS61Y	**LM13698**	504
	3600	324T	94.1	1.25	230/460	SF2B40T61Y	**LM32671**	504
	1800	324T	94.1	1.25	230/460	SF4B40T61Y	**LM13699**	504
	1800	324TS	94.1	1.25	230/460	SF4B40TS61Y	**LM32686**	504
	1200	364T	94.5	1.25	230/460	SF6B40T61Y	**LM13918**	765
50	3600	326TS	94.1	1.25	230/460	SF2B50TS61Y	**LM13700**	558
	3600	326T	94.1	1.25	230/460	SF2B50T61Y	**LM32669**	558
	1800	326T	95.0	1.25	230/460	SF4B50T61Y	**LM13701**	558
	1800	326TS	94.5	1.25	230/460	SF4B50TS61Y	**LM32815**	558
	1200	365T	94.5	1.25	230/460	SF6B50T61Y	**LM13921**	822
60	3600	364TS	95.0	1.25	230/460	SF2B60TS61Y	**LM14808**	765
	3600	364T	94.5	1.25	230/460	SF2B60T61Y	**LM32816**	765
	1800	364T	95.0	1.25	230/460	SF4B60T61Y	**LM14809**	765
	1800	364TS	94.5	1.25	230/460	SF4B60TS61Y	**LM32676**	765
	1200	404T	94.5	1.15	230/460	SF6B60T61Y	**LM13938**	918
75	3600	365TS	95.0	1.25	230/460	SF2B75TS61Y	**LM14810**	822
	3600	365T	95.0	1.25	230/460	SF2B75T61Y	**LM32729**	822
	1800	365T	95.0	1.15	230/460	SF4B75T61Y	**LM14811**	822
	1800	365TS	95.0	1.25	230/460	SF4B75TS61Y	**LM32672**	822
	1200	405T	94.5	1.15	230/460	SF6B75T61Y	**LM13941**	1002
100	3600	405TS	94.5	1.15	230/460	SF2B100TS61Y	**LM13939**	1002
	3600	405T	95.4	1.15	230/460	SF2B100T61Y	**LM32818**	1002
	1800	405T	95.4	1.15	230/460	SF4B100T61Y	**LM13940**	1002
	1800	405TS	95.4	1.15	230/460	SF4B100TS61Y	**LM32819**	1002
	1200	444T	95.4	1.15	460	SF6B100T64Y	**LM13702**	1351
125	3600	444TS	95.0	1.15	460	SF2B125TS64Y	**LM13703**	1351
	1800	444T	96.2	1.15	460	SF4B125T64Y	**LM13704**	1351
	1800	444TS	96.2	1.15	460	SF4B125TS64Y	**LM32820**	1351
	1200	445T	95.0	1.15	460	SF6B125T64Y	**LM13705**	1531

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FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
150	3600	445TS	95.8	1.15	460	SF2B150TS64Y	**LM13706**	1531
	1800	445T	96.2	1.15	460	SF4B150T64Y	**LM13707**	1531
	1800	445TS	96.2	1.15	460	SF4B150TS64Y	**LM32679**	1504
	1200	447T	95.8	1.15	460	SF6B150T64Y	**LM16231**	1812
200	3600	447TS	95.4	1.15	460	SF2B200TS64Y	**LM16229**	1812
	3600	445TS	95.4	1.15	460	SF2B200TS64Y	**LM13709**	1531
	1800	447T	96.2	1.15	460	SF4B200T64Y	**LM16230**	1812
	1800	445T	96.2	1.15	460	SF4B200T64Y	**LM13710**	1531
	1800	445TS	96.2	1.15	460	SF4B200TS64Y	**LM32821**	1504
	1200	447T	95.8	1.15	460	SF6B200T64Y	**LM13711**	1812
250	3600	449TS	96.5	1.15	460	SF2B250TS64Y	**LM16232**	2185
	3600	447TS	96.2	1.15	460	SF2B250TS64Y	**LM13712**	1812
	3600	449TS	95.4	1.15	460	SF2P250TS64Y	**LM16222**	2185
	3600	447TS	95.4	1.00	460	SF2P250TS64Y	**LM13556**	1812
	1800	449T	96.5	1.15	460	SF4B250T64Y	**LM16233**	2185
	1800	447T	96.2	1.15	460	SF4B250T64Y	**LM13713**	1812
	1800	449T	95.0	1.15	460	SF4P250T64Y	**LM16223**	2185
	1800	447T	95.0	1.15	460	SF4P250T64Y	**LM13557**	1812
	1800	447TS	95.0	1.15	460	SF4P250TS64Y	**LM14751**	1812
300	3600	449TS	96.2	1.15	460	SF2B300TS64Y	**LM13715**	2185
	3600	449TS	95.4	1.15	460	SF2P300TS64Y	**LM13559**	2185
	1800	449T	96.5	1.15	460	SF4B300T64Y	**LM17956**	2185
	1800	447T	96.2	1.15	460	SF4B300T64Y	**LM13716**	1812
	1800	449T	95.4	1.15	460	SF4P300T64Y	**LM17953**	2185
	1800	449TS	95.4	1.15	460	SF4P300TS64Y	**LM18347**	2185
	1800	447T	95.4	1.00	460	SF4P300T64Y	**LM13560**	1812
	1800	447TS	95.4	1.00	460	SF4P300TS64Y	**LM18319**	1812
350	3600	449TS	95.8	1.15	460	SF2B350TS64Y	**LM13719**	2185
	3600	449TS	95.4	1.00	460	SF2P350TS64Y	**LM13562**	2185
	1800	449T	96.2	1.15	460	SF4B350T64Y	**LM13720**	2185
	1800	449T	95.4	1.15	460	SF4P350T64Y	**LM13563**	2185
400	3600	449TS	95.8	1.00	460	SF2B400TS64Y	**LM13721**	2185
	3600	449TS	95.4	1.00	460	SF2P400TS64Y	**LM13564**	2185
	1800	449T	96.2	1.15	460	SF4B400T64Y	**LM13722**	2185
	1800	449T	95.4	1.00	460	SF4P400T64Y	**LM13565**	2185

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Lincoln MOTORS

TEFC

208, 230/460 AND 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/4 TO 400 HP

C-FACE WITH FEET

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	S56	62.5	1.15	230/460	SRF4S0.25TC61	**LM24946**	21
1/3	1800	S56	65.5	1.15	230/460	SRF4S0.33TC61	**LM24114**	21
	1200	56C	62.0	1.15	230/460	SRF6S0.33TC61	**LM24948**	22
1/2	3600	56C	69.0	1.15	230/460	SRF2S0.5TC61	**LM24129**	22
	1800	S56	70.0	1.15	230/460	SRF4S0.5TC61	**LM24074**	18
	1200	56C	68.0	1.15	230/460	SRF6S0.5TC61	**LM24104**	24
	900	143TC	66.0	1.15	230/460	SSF8S0.5TC61	**LM24949**	31
3/4	3600	56C	74.0	1.15	230/460	SRF2S0.75TC61	**LM24134**	22
	1800	S56	75.5	1.15	230/460	SRF4S0.75TC61	**LM24076**	20
	1200	56C	74.0	1.15	230/460	SRF6S0.75TC61	**LM24140**	26
	1200	143TC	74.0	1.15	230/460	SSF6S0.75TC61	**LM24273**	28
	900	145TC	70.0	1.15	230/460	SSF8S0.75TC61	**LM24265**	49
1	3600	56C	74.0	1.15	230/460	SRF2S1TC61	**LM24126**	25
	1800	56C	77.0	1.15	230/460	SRF4S1TC61	**LM24079**	28
	1800	143TC	85.5	1.25	230/460	SSF4B1TC61	**LM32822**	41
	1200	56HC	78.5	1.15	230/460	SRF6S1TC61	**LM24349**	38
	1200	145TC	82.5	1.25	230/460	SSF6B1TC61	**LM32823**	47
	900	182TC	74.0	1.15	230/460	AAF8P1TC61	**LM32692**	68
1 1/2	3600	56C	80.0	1.15	230/460	SRF2S1.5TC61	**LM24135**	41
	3600	143TC	84.0	1.25	230/460	SSF2B1.5TC61	**LM32824**	41
	1800	56HC	80.0	1.15	230/460	SRF4S1.5TC61	**LM24095**	31
	1800	145TC	86.5	1.25	230/460	SSF4B1.5TC61	**LM32825**	44
	1200	182TC	87.5	1.25	230/460	AAF6B1.5TC61	**LM16728**	95
	1200	182TC	87.5	1.15	230/460	SSF6B1.5TC61	**LM32826**	54
	900	184TC	77.0	1.15	230/460	AAF8P1.5TC61	**LM32827**	75
2	3600	56HC	82.5	1.15	230/460	SRF2S2TC61	**LM24121**	38
	3600	145TC	85.5	1.25	230/460	SSF2B2TC61	**LM32828**	40
	1800	56HC	82.5	1.15	230/460	SRF4S2TC61	**LM24081**	50
	1800	145TC	86.5	1.25	230/460	SSF4B2TC61	**LM32829**	46
	1200	184TC	87.5	1.25	230/460	AAF6B2TC61	**LM16739**	104
	1200	184TC	88.5	1.15	230/460	SSF6B2TC61	**LM32830**	56
	900	213TC	82.5	1.15	230/460	AAF8P2TC61	**LM32831**	107
3	3600	56HC	84.0	1.15	230/460	SRF2S3TC61	**LM24953**	53
	3600	182TC	87.5	1.25	230/460	AAF2B3TC61	**LM16741**	95
	1800	182TC	90.2	1.25	230/460	AAF4B3TC61	**LM16742**	95
	1800	213TC	89.5	1.25	230/460	AAF4B3TC61AP23	**LM71009**	75
	1200	213TC	89.5	1.25	230/460	AF6B3TC61	**LM16744**	138
	1200	213TC	89.5	1.15	230/460	SSF6B3TC61	**LM32833**	90
	900	215TC	84.0	1.15	230/460	AF8P3TC61	**LM32834**	125
5	3600	184TC	89.5	1.25	230/460	AAF2B5TC61	**LM16745**	104
	1800	184TC	90.2	1.25	230/460	AAF4B5TC61	**LM16747**	104
	1800	184TC	90.2	1.25	230/460	AAF4B3TC61AP23	**LM71010**	85
	1200	215TC	89.5	1.25	230/460	AF6B5TC61	**LM16748**	149
	1200	215TC	89.5	1.15	230/460	SSF6B5TC61	**LM32835**	115
	900	254TC	85.5	1.15	230/460	AF8P5TC61	**LM32836**	167

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C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
7 1/2	3600	213TC	91.0	1.25	230/460	AAF2B7.5TC61	**LM16750**	138
	3600	213TC	91.0	1.25	230/460	SSF2B7.5TC61	**LM32837**	110
	1800	213TC	91.0	1.25	230/460	AF4B7.5TC61	**LM16752**	138
	1800	213TC	91.7	1.25	230/460	AF4B7.5TC61AP23	**LM71011**	138
	1800	213TC	91.7	1.15	230/460	SSF4B7.5TC61	**LM32838**	135
	1200	254TC	91.0	1.25	230/460	AAF6B7.5TC61	**LM16753**	221
	900	256TC	85.5	1.15	230/460	AF8P7.5TC61	**LM32839**	203
10	3600	215TC	91.0	1.25	230/460	AF2B10TC61	**LM16755**	149
	3600	215TC	90.0	1.15	230/460	SSF2B10TC61	**LM32840**	125
	1800	215TC	91.0	1.25	230/460	AF4B10TC61	**LM16757**	149
	1800	215TC	91.7	1.25	230/460	AAF4B10TC61AP23	**LM71012**	149
	1800	215TC	91.7	1.15	230/460	SSF4B10TC61	**LM32841**	135
	1200	256TC	91.0	1.25	230/460	AF6B10TC61	**LM16759**	248
15	3600	254TC	91.0	1.25	230/460	AF2B15TC61	**LM16761**	221
	1800	254TC	92.4	1.25	230/460	AF4B15TC61	**LM16762**	221
	1200	284TC	91.7	1.25	230/460	AF6B15TC61Y	**LM16764**	370
20	3600	256TC	91.7	1.25	230/460	AF2B20TC61	**LM16766**	248
	1800	256TC	93.0	1.25	230/460	AF4B20TC61	**LM16767**	248
	1200	286TC	93.0	1.25	230/460	AF6B20TC61Y	**LM16769**	415
25	3600	284TSC	91.7	1.25	230/460	AF2B25TSC61Y	**LM16770**	370
	1800	284TC	94.1	1.25	230/460	AF4B25TC61Y	**LM16772**	370
	1800	284TSC	92.4	1.25	230/460	AF4B25TSC61Y	**LM32654**	370
	1200	324TC	93.0	1.25	230/460	SF6B25TC61Y	**LM13723**	514
30	3600	286TSC	92.4	1.25	230/460	AF2B30TSC61Y	**LM16773**	415
	1800	286TC	94.5	1.25	230/460	AF4B30TC61Y	**LM16774**	415
	1800	286TSC	93.6	1.25	230/460	AF4B30TSC61Y	**LM32842**	415
	1200	326TC	93.0	1.25	230/460	SF6B30TC61Y	**LM13724**	568
40	3600	324TSC	93.6	1.25	230/460	SF2B40TSC61Y	**LM13725**	514
	1800	324TC	94.1	1.25	230/460	SF4B40TC61Y	**LM13726**	514
	1800	324TSC	94.1	1.25	230/460	SF4B40TSC61Y	**LM32652**	514
	1200	364TC	94.5	1.25	230/460	SF6B40TC61Y	**LM15565**	777
50	3600	326TSC	94.1	1.25	230/460	SF2B50TSC61Y	**LM13727**	568
	1800	326TC	95.0	1.25	230/460	SF4B50TC61Y	**LM13728**	568
	1800	326TSC	94.5	1.25	230/460	SF4B50TSC61Y	**LM32843**	568
	1200	365TC	94.5	1.25	230/460	SF6B50TC61Y	**LM15568**	834

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Lincoln™ MOTORS

TEFC

208, 230/460 AND 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/4 TO 400 HP

C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
60	3600	364TSC	95.0	1.25	230/460	SF2B60TSC61Y	**LM15562**	777
	1800	364TC	95.0	1.25	230/460	SF4B60TC61Y	**LM15563**	777
	1800	364TSC	95.00	1.25	230/460	SF4B60TSC61Y	**LM32665**	777
	1200	404TC	94.5	1.15	230/460	SF6B60TC61Y	**LM16716**	934
75	3600	365TSC	95.0	1.25	230/460	SF2B75TSC61Y	**LM15566**	834
	1800	365TC	95.4	1.15	230/460	SF4B75TC61Y	**LM15567**	834
	1800	365TSC	95.4	1.25	230/460	SF4B75TSC61Y	**LM32653**	834
	1200	405TC	94.5	1.15	230/460	SF6B75TC61Y	**LM16717**	1018
100	3600	405TSC	95.8	1.15	230/460	SF2B100TSC61Y	**LM16719**	1018
	1800	405TC	95.4	1.15	230/460	SF4B100TC61Y	**LM15263**	1018
	1800	405TSC	95.4	1.15	230/460	SF4B100TSC61Y	**LM32659**	1018
	1200	444TC	95.4	1.15	460	SF6B100TC64Y	**LM13729**	1372
125	3600	444TSC	95.0	1.15	460	SF2B125TSC64Y	**LM13730**	1372
	1800	444TC	96.2	1.15	460	SF4B125TC64Y	**LM13731**	1372
	1800	444TSC	95.4	1.15	460	SF4B125TSC64Y	**LM32844**	1372
	1200	445TC	95.0	1.15	460	SF6B125TC64Y	**LM13732**	1552
150	3600	445TSC	96.2	1.15	460	SF2B150TSC64Y	**LM13733**	1552
	1800	445TC	96.2	1.15	460	SF4B150TC64Y	**LM13734**	1552
	1800	445TSC	95.0	1.15	460	SF4B150TSC64Y	**LM32845**	1525
	1200	445TC	95.8	1.15	460	SF6B150TC64Y	**LM13735**	1552
200	3600	445TSC	96.2	1.15	460	SF2B200TSC64Y	**LM13736**	1552
	1800	445TC	96.2	1.15	460	SF4B200TC64Y	**LM13737**	1552
	1800	445TSC	96.2	1.15	460	SF4B200TSC64Y	**LM32660**	1525
250	3600	447TSC	96.2	1.15	460	SF2B250TSC64Y	**LM13739**	1833
	3600	447TSC	95.4	1.00	460	SF2P250TSC64Y	**LM13582**	1833
	1800	447TC	96.2	1.15	460	SF4B250TC64Y	**LM13740**	1833
	1800	447TC	95.0	1.15	460	SF4P250TC64Y	**LM13583**	1833
300	3600	449TSC	96.2	1.15	460	SF2B300TSC64Y	**LM13742**	2206
	3600	449TSC	95.4	1.15	460	SF2P300TSC64Y	**LM13585**	2206
	1800	447TC	96.2	1.15	460	SF4B300TC64Y	**LM13743**	1833
	1800	449TC	95.4	1.15	460	SF4P300TC64Y	**LM19193**	2206
	1800	447TC	95.4	1.00	460	SF4P300TC64Y	**LM15308**	1833

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C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
350	3600	449TSC	95.8	1.15	460	SF2B350TSC64Y	**LM13745**	2206
	3600	449TSC	95.4	1.00	460	SF2P350TSC64Y	**LM13588**	2206
	1800	449TC	96.2	1.15	460	SF4B350TC64Y	**LM13746**	2206
	1800	449TC	95.4	1.15	460	SF4P350TC64Y	**LM15400**	2206
400	3600	449TSC	95.8	1.00	460	SF2B400TSC64Y	**LM13747**	2206
	3600	449TSC	95.4	1.00	460	SF2P400TSC64Y	**LM13590**	2206
	1800	449TC	96.2	1.15	460	SF4B400TC64Y	**LM13748**	2206
	1800	449TC	95.4	1.00	460	SF4P400TC64Y	**LM13591**	2206

C-FACE FOOTLESS

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	56C	62.5	1.15	230/460	SRF4S0.25TCN61	**LM24964**	14
1/3	1800	S56	65.5	1.15	230/460	SRF4S0.33TCN61	**LM24093**	15
	1200	56C	62.0	1.15	230/460	SRF6S0.33TCN61	**LM24858**	21
1/2	3600	56C	69.0	1.15	230/460	SRF2S0.5TCN61	**LM24138**	22
	1800	S56	70.0	1.15	230/460	SRF4S0.5TCN61	**LM24083**	17
	1200	56C	68.0	1.15	230/460	SRF6S0.5TCN61	**LM24128**	23
	900	143TC	66.0	1.15	230/460	SSF8S0.5TCN61	**LM24965**	31
3/4	3600	56C	74.0	1.15	230/460	SRF2S0.75TCN61	**LM24151**	22
	1800	S56	75.5	1.15	230/460	SRF4S0.75TCN61	**LM24077**	21
	1200	56C	74.0	1.15	230/460	SRF6S0.75TCN61	**LM24153**	26
	1200	143TC	74.0	1.15	230/460	SSF6S0.75TCN61	**LM24966**	29
	900	145TC	70.0	1.15	230/460	SSF8S0.75TCN61	**LM24967**	49
1	3600	56C	74.0	1.15	230/460	SRF2S1TCN61	**LM24139**	24
	1800	56C	77.0	1.15	230/460	SRF4S1TCN61	**LM24080**	27
	1800	143TC	82.5	1.25	230/460	SSF4P1TCN61	**LM24148**	28
	1200	56HC	78.5	1.15	230/460	SRF6S1TCN61	**LM24130**	33
	1200	145TC	77.0	1.15	230/460	SSF6P1TCN61	**LM32846**	33
1 1/2	3600	56C	80.0	1.15	230/460	SRF2S1.5TCN61	**LM24096**	26
	3600	143TC	82.5	1.15	230/460	SSF2P1.5TCN61	**LM32810**	27
	1800	56C	80.0	1.15	230/460	SRF4S1.5TCN61	**LM24112**	29
	1800	145TC	84.0	1.25	230/460	SSF4P1.5TCN61	**LM24149**	31
	1200	182TC	85.5	1.15	230/460	SSF6S1.5TCN61	**LM32847**	69
2	3600	56HC	82.5	1.15	230/460	SRF2S2TCN61	**LM24132**	29
	3600	145TC	84.0	1.15	230/460	SSF2P2TCN61	**LM32678**	30
	1800	56HC	82.5	1.15	230/460	SRF4S2TCN61	**LM24084**	39
	1800	145TC	85.5	1.25	230/460	SSF4P2TCN61	**LM24125**	39
3	3600	56HC	84.0	1.15	230/460	SRF2S3TCN61	**LM24975**	40
	3600	145TC	85.5	1.15	230/460	SSF2S3TCN61	**LM32848**	40
	1800	145TC	87.5	1.15	230/460	SSF4P3TCN61	**LM32849**	50
	1800	182TC	90.2	1.25	230/460	AAF4B3TCN61	**LM16824**	95
	1800	182TC	87.5	1.25	230/460	AAF4P3TCN61	**LM16298**	95
	1200	213TC	87.5	1.15	230/460	SSF6P3TCN61	**LM32850**	75

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Lincoln MOTORS

TEFC

208, 230/460 AND 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/4 TO 400 HP

C-FACE FOOTLESS (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
5	1800	184TC	90.2	1.25	230/460	AAF4B5TCN61	**LM16825**	104
	1800	184TC	87.5	1.25	230/460	AAF4P5TCN61	**LM16299**	104
	1200	215TC	87.5	1.15	230/460	SSF6P5TCN61	**LM32851**	80
7 1/2	3600	213TC	88.5	1.15	230/460	SSF2P7.5TCN61	**LM32852**	80
	1800	213TC	91.0	1.25	230/460	AF4B7.5TCN61	**LM16826**	138
	1800	213TC	89.5	1.25	230/460	AF4P7.5TCN61	**LM16300**	138
	1800	213TC	89.5	1.15	230/460	SSF4P7.5TCN61	**LM32853**	103
10	3600	215TC	89.5	1.15	230/460	SSF2P10TCN61	**LM32854**	102
	1800	215TC	91.0	1.25	230/460	AF4B10TCN61	**LM16827**	149
	1800	215TC	89.5	1.25	230/460	AF4P10TCN61	**LM16301**	149
	1800	215TC	89.5	1.15	230/460	SSF4P10TCN61	**LM32855**	135
15	3600	215TC	90.2	1.15	230/460	SSF2P15TCN61	**LM32832**	125
	1800	254TC	91.7	1.25	230/460	AF4B15TCN61	**LM16828**	221
	1800	254TC	91.0	1.25	230/460	AF4P15TCN61	**LM16302**	221
20	1800	256TC	91.7	1.25	230/460	AF4B20TCN61	**LM16829**	248
	1800	256TC	91.0	1.25	230/460	AF4P20TCN61	**LM16303**	248

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NEMA Premium

TEFC CAST IRON

208, 230/460 VOLTS • 3-PHASE
FOOT MOUNT
1 TO 400 HP

Lincoln MOTORS

Features:
- Cast iron frame and end brackets, cast iron fan shroud on frames 324T and larger.
- AP21 Models have steel fan guards
- Industry leading 1.25 service factor on some sizes
- NEMA premium efficiency
- 1 to 200 HP
- Inverter-Rated*
- Continuous Duty
- Premium Class F Insulation system
- Shielded ball bearing for direct coupled applications. Contact your local sales office for belted applications.

Applications:
For use where exposure to water, dust and corrosives exists. Ideally suited for use on pumps, compressors, fans, blowers, conveyors, machine tools and other industrial applications.

ULTIMATE E

THIS QUALITY MOTOR IS Inverter-Rated Any Drive No Filters Required EXCEEDS MG1 PART 31 INSULATION SPECS

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1	1800	143T	85.5	1.25	230/460	CCN4B1T61	**LM24102**	56
	1200	145T	80.0	1.15	230/460	CCF6B1T61	**LM15856**	56
1 1/2	3600	143T	84.0	1.15	230/460	CCF2B1.5T61	**LM15854**	54
	1800	145T	84.0	1.25	230/460	CCN4B1.5T61	**LM25637**	62
	1200	182T	87.5	1.15	230/460	CCF6B1.5T61	**LM15868**	112
2	3600	145T	85.5	1.15	230/460	CCN2B2T61	**LM15857**	71
	1800	145T	86.5	1.15	230/460	CCN4B2T61	**LM24127**	64
	1200	184T	88.5	1.15	230/460	CCN6B2T61	**LM15871**	126
3	3600	182T	86.5	1.15	230/460	CCN2B3T61	**LM15866**	107
	1800	182T	89.5	1.15	230/460	CCF4B3T61	**LM25638**	82
	1800	182T	89.5	1.25	230/460	CCF4B3T61AP21	**LM60026**	104
	1200	213T	89.5	1.15	230/460	CCF6B3T61	**LM15880**	173
	1200	213T	89.5	1.25	230/460	CCF6B3T61AP21	**LM60027**	170
5	3600	184T	88.5	1.15	230/460	CCF2B5T61	**LM15869**	108
	1800	184T	90.2	1.15	230/460	CCF4B5T61	**LM24195**	117
	1800	184T	89.5	1.25	230/460	CCF4B5T61AP21	**LM60029**	109
	1200	215T	89.5	1.15	230/460	CCF6B5T61	**LM15883**	203
	1200	215T	89.5	1.25	230/460	CCF6B5T61AP21	**LM60030**	176
7 1/2	3600	213T	89.5	1.15	230/460	CCF2B7.5T61	**LM15878**	192
	3600	213T	89.5	1.25	230/460	CCF2B7.5T61AP21	**LM60031**	147
	1800	213T	91.7	1.15	230/460	CCF4B7.5T61	**LM24209**	194
	1800	213T	91.7	1.25	230/460	CCF4B7.5T61AP21	**LM60032**	155
	1200	254T	91.0	1.15	230/460	CCF6B7.5T61	**LM15892**	223
	1200	254T	91.0	1.25	230/460	CCF6B7.5T61AP21	**LM60033**	249
10	3600	215T	90.2	1.15	230/460	CCF2B10T61	**LM15881**	218
	3600	215T	90.2	1.25	230/460	CCF2B10T61AP21	**LM60034**	181
	1800	215T	91.7	1.15	230/460	CCF4B10T61	**LM24213**	213
	1800	215T	91.7	1.25	230/460	CCF4B10T61AP21	**LM60035**	177
	1200	256T	91.0	1.15	230/460	CCF6B10T61	**LM15895**	368
	1200	256T	91.0	1.25	230/460	CCF6B10T61AP21	**LM60036**	300

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Lincoln MOTORS

TEFC CAST IRON

208, 230/460 VOLTS • 3-PHASE
FOOT MOUNT
1 TO 400 HP

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
15	3600	254T	91.0	1.15	230/460	CCF2B15T61	LM15890	384
	3600	254T	91.0	1.25	230/460	CCF2B15T61AP21	LM60037	282
	1800	254T	92.4	1.15	230/460	CCF4B15T61	LM24208	322
	1800	254T	92.4	1.25	230/460	CCF4B15T61AP21	LM60038	280
	1200	284T	91.7	1.15	230/460	CCF6B15T61Y	LM15793	483
	1200	284T	91.7	1.25	230/460	CCF6B15T61AP21	LM60039	333
20	3600	256T	92.4	1.15	230/460	CCF2B20T61	LM15893	385
	3600	256T	91.0	1.25	230/460	CCF2B20T61AP21	LM60040	316
	1800	256T	93.0	1.15	230/460	CCF4B20T61	LM24207	368
	1800	256T	93.0	1.25	230/460	CCF4B20T61AP21	LM60041	322
	1200	286T	91.7	1.15	230/460	CCF6B20T61Y	LM15796	515
	1200	286T	91.7	1.25	230/460	CCF6B20T61AP21	LM60042	392
25	3600	284TS	91.7	1.15	230/460	CCF2B25TS61Y	LM15791	461
	3600	284TS	91.7	1.25	230/460	CCF2B25T61AP21	LM60043	383
	1800	284T	93.6	1.15	230/460	CCF4B25T61Y	LM15792	495
	1800	284T	93.6	1.25	230/460	CCF4B25T61AP21	LM60044	385
	1200	324T	93.0	1.15	230/460	CCF6B25T61Y	LM19747	637
	1200	324T	93.0	1.25	230/460	CCF6B25T61AP21	LM60045	545
30	3600	286TS	91.7	1.15	230/460	CCF2B30TS61Y	LM15794	496
	3600	286TS	91.7	1.25	230/460	CCF2B30T61AP21	LM60046	385
	1800	286T	93.6	1.15	230/460	CCF4B30T61Y	LM15795	519
	1800	286T	93.6	1.25	230/460	CCF4B30T61AP21	LM60047	432
	1200	326T	93.0	1.15	230/460	CCF6B30T61Y	LM19748	689
	1200	326T	93.0	1.25	230/460	CCF6B30T61AP21	LM60048	615
40	3600	324TS	94.4	1.15	230/460	CCF2B40TS61Y	LM19749	664
	3600	324TS	92.4	1.25	230/460	CCF2B40T61AP21	LM60049	504
	1800	324T	94.1	1.15	230/460	CCF4B40T61Y	LM19750	602
	1800	324T	93.0	1.25	230/460	CCF4B40T61AP21	LM60050	528
	1200	364T	94.1	1.15	230/460	CCF6B40T61Y	LM19751	835
	1200	364T	94.1	1.25	230/460	CCF6B40T61AP21	LM60051	636
50	3600	326TS	93.0	1.15	230/460	CCF2B50TS61Y	LM19752	732
	3600	326TS	93.0	1.25	230/460	CCF2B50T61AP21	LM60052	554
	1800	326T	94.5	1.15	230/460	CCF4B50T61Y	LM19753	744
	1800	326T	94.5	1.25	230/460	CCF4B50T61AP21	LM60053	587
	1200	365T	94.1	1.15	230/460	CCF6B50T61Y	LM19754	955
	1200	365T	94.1	1.25	230/460	CCF6B50T61AP21	LM60054	672
60	3600	364TS	93.6	1.15	230/460	CCF2B60TS61Y	LM19755	918
	3600	364TS	93.6	1.25	230/460	CCF2B60T61AP21	LM60055	735
	1800	364T	95.0	1.15	230/460	CCF4B60T61Y	LM19756	980
	1800	364T	95.0	1.25	230/460	CCF4B60T61AP21	LM60056	666
	1200	404T	94.5	1.15	230/460	CCF6B60T61Y	LM19757	1156
	1200	404T	94.5	1.25	230/460	CCF6B60T61AP21	LM60057	870
75	3600	365TS	93.6	1.15	230/460	CCF2B75TS61Y	LM19758	1001
	3600	365TS	93.6	1.25	230/460	CCF2B75T61AP21	LM60058	780
	1800	365T	95.4	1.15	230/460	CCF4B75T61Y	LM19759	1018
	1800	365T	95.4	1.25	230/460	CCF4B75T61AP21	LM60059	733
	1200	405T	94.5	1.15	230/460	CCF6B75T61Y	LM19760	1280
	1200	405T	94.5	1.25	230/460	CCF6B75T61AP21	LM60060	975
100	3600	405TS	94.1	1.25	230/460	CCF2B100T61AP21	LM60061	955
	1800	405T	95.4	1.15	230/460	CCF4B100T61Y	LM19762	1338
	1800	405T	95.4	1.25	230/460	CCF4B100T61AP21	LM60062	1070
	1200	444T	95.0	1.25	230/460	CCF6B100T64AP21	LM60063	1457

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FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
125	3600	444TS	95.0	1.25	230/460	CCF2B125T64AP21	LM60064	1950
	1800	444T	95.4	1.15	460	CCF4B125T64Y	LM19765	1874
	1800	444T	95.4	1.25	230/460	CCF4B125T64AP21	LM60065	1596
	1200	445T	95.0	1.25	230/460	CCF6B125T64AP21	LM60066	1316
150	3600	445TS	95.0	1.25	230/460	CCF2B150T64AP21	LM60067	1627
	1800	445T	95.8	1.15	460	CCF4B150T64Y	LM19768	2070
	1800	445T	95.8	1.25	230/460	CCF4B150T64AP21	LM60068	2230
	1200	445/447T	95.8	1.25	230/460	CCF6B150T64AP21	LM60069	1445
200	3600	445/447TS	95.4	1.25	230/460	CCF2B200T64AP21	LM60070	2227
	1800	445/7T	96.2	1.25	230/460	CCF4B200T64AP21	LM60071	2542
	1200	447/9T	95.8	1.25	230/460	CCF6B200T64AP21	LM60072	1977
250	3600	449TS	95.4	1.15	460	CCF2P250TS64Y	LM19571	2685
	1800	449T	95.0	1.15	460	CCF4P250T64Y	LM19572	2760
	1200	449T	95.4	1.15	460	CCF6P250T64Y	LM30826	3408
300	3600	449TS	95.4	1.15	460	CCF2P300TS64Y	LM19574	2850
	1800	449T	95.0	1.15	460	CCF4P300T64Y	LM19575	2980
	1200	449T	95.4	1.00	460	CCF6P300T64Y	LM19576	3440
350	3600	449TS	95.4	1.15	460	CCF2P350TS64Y	LM19577	3050
	1800	449T	95.4	1.15	460	CCF4P350T64Y	LM19578	3218
400	1800	449T	95.8	1.00	460	CCF4P400T64Y	LM19580	3263

C-FACE

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
3	3600	182TC	86.5	1.25	230/460	CCF2B3TC61AP21	LM62016	97
	1800	182TC	89.5	1.25	230/460	CCF4B3TC61AP21	LM62017	104
5	3600	184TC	88.5	1.25	230/460	CCF2B5TC61AP21	LM62019	105
	1800	184TC	89.5	1.25	230/460	CCF4B5TC61AP21	LM62020	109
7 1/2	3600	213TC	89.5	1.25	230/460	CCF2B7.5TC61AP21	LM62085	155
	1800	213TC	91.7	1.25	230/460	CCF4B7.5TC61AP21	LM62024	160
10	3600	213TC	90.2	1.25	230/460	CCF2B10TC61AP21	LM62025	181
	1800	215TC	91.7	1.25	230/460	CCF4B10TC61AP21	LM62026	181
15	3600	215TC	91.0	1.25	230/460	CCF2B15TC61AP21	LM62028	282
	1800	254TC	92.4	1.25	230/460	CCF4B15TC61AP21	LM62029	280
20	3600	256TC	91.0	1.25	230/460	CCF2B20TC61AP21	LM62031	316
	1800	256TC	93.0	1.25	230/460	CCF4B20TC61AP21	LM62032	322
25	3600	284TSC	91.7	1.25	230/460	CCF2B25TC61AP21	LM62034	383
	1800	284TC	93.6	1.25	230/460	CCF4B25TC61AP21	LM62035	385
30	1800	286TC	93.6	1.25	230/460	CCF4B30TC61AP21	LM62038	432
40	1800	324TC	94.1	1.25	230/460	CCF4B40TC61AP21	LM62041	528
50	1800	326TC	94.5	1.25	230/460	CCF4B50TC61AP21	LM62044	587
60	1800	364TC	95.0	1.25	230/460	CCF4B60TC61AP21	LM62047	666
75	1800	365TC	95.4	1.25	230/460	CCF4B75TC61AP21	LM62050	733
100	1800	405TC	95.4	1.25	230/460	CCF4B100TC61AP21	LM62053	1070

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Lincoln MOTORS

TEFC 15 TO 60 HZ CONSTANT TORQUE INVERTER DUTY

230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 400 HP


Features:

- **4:1 Constant torque speed range at continuous duty of 15-60 Hz.**
- **Variable torque speed range with open loop drive of 0-60 Hz.**
- **Constant horsepower speed range of 2x base speed (56-256T frames) or 1.5x base speed* (284T-449T frames).**
- **Wider speed ranges possible on intermittent duty**
- Ultimate Spike Defense™ Insulation System
- 1.00 service factor on PWM waveform, 1.15 service factor or better on sine-wave power.
- Precision dynamic balanced rotor assembly
- Thermal overload protection (Class F thermostats)
- Made in the U.S.A.

Applications:

For use in constant torque (conveyors, machine tools) or variable torque (pumps, fans) variable speed applications within the stated speed range of the motor.

In a very small percentage of installations, bearing currents can develop in motors operated by PWM-based adjustable-speed drives. Contact your local sales office to review ways of eliminating bearing currents.

* Actual speed not to exceed "RPM MAX" listed for specific motor.

FOOT MOUNT

HP	SYN RPM @ 60 Hz	RPM Max	Frame	FL Nom Eff (%)	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/3	1800	4000	56	72.0	230/460	SRF4S0.33T61Q40	**LM22644**	28
1/2	3600	4000	56	70.0	230/460	SRF2S0.5T61Q40	**LM22646**	28
	1800	4000	56	74.0	230/460	SRF4S0.5T61Q40	**LM22648**	28
	1200	4000	56	70.0	230/460	SRF6S0.5T61Q40	**LM22650**	28
3/4	3600	4000	56	74.0	230/460	SRF2S0.75T61Q40	**LM22652**	28
	1800	4000	56	77.0	230/460	SRF4S0.75T61Q40	**LM22654**	28
	1200	4000	56	72.0	230/460	SRF6S0.75T61Q40	**LM22656**	36
1	3600	4000	56	75.5	230/460	SRF2S1T61Q40	**LM22658**	28
	1800	4000	56	78.5	230/460	SRF4S1T61Q40	**LM22660**	28
	1800	4000	143T	82.5	230/460	SSF4P1T61Q40	**LM26097**	46
	1200	4000	145T	80.0	230/460	SSF6P1T61Q40	**LM26383**	51
1 1/2	3600	4000	56	78.5	230/460	SRF2S1.5T61Q40	**LM22662**	28
	3600	4000	143T	82.5	230/460	SSF2P1.5T61Q40	**TBD**	46
	1800	4000	56H	80.0	230/460	SRF4S1.5T61Q40	**LM22664**	28
	1800	4000	145T	84.0	230/460	SSF4P1.5T61Q40	**LM26098**	51
	1200	4000	182T	85.5	230/460	AAF6P1.5T61Q40	**LM21188**	83
2	3600	4000	56H	78.5	230/460	SRF2S2T61Q40	**LM22666**	36
	3600	4000	145T	84.0	230/460	SSF2P2T61Q40	**TBD**	51
	1800	4000	145T	84.0	230/460	SSF4P2T61Q40	**LM25991**	51
	1200	4000	184T	86.5	230/460	AAF6P2T61Q40	**LM21191**	92
3	3600	4000	182T	85.5	230/460	AAF2P3T61Q40	**LM21189**	83
	1800	4000	182T	87.5	230/460	AAF4P3T61Q40	**LM21190**	83
	1200	4000	213T	87.5	230/460	AF6P3T61Q40	**LM21194**	127
5	3600	4000	184T	87.5	230/460	AAF2P5T61Q40	**LM21192**	92
	1800	4000	184T	87.5	230/460	AAF4P5T61Q40	**LM21193**	92
	1200	4000	215T	87.5	230/460	AAF6P5T61Q40	**LM21197**	138

Product numbers in red are STOCK items.

Specifications are subject to change without notice

TEFC 15 TO 60 HZ CONSTANT TORQUE INVERTER DUTY

Lincoln MOTORS

230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 400 HP

FOOT MOUNT (cont'd)

HP	SYN RPM @ 60 Hz	RPM Max	Frame	FL Nom Eff (%)	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
7 1/2	3600	4600	G213T	88.5	230/460	AF2P7.5T61Q40	LM21195	127
	1800	4600	213T	89.5	230/460	AF4P7.5T61Q40	LM21196	127
	1200	4400	254T	89.5	230/460	AAF6P7.5T61Q40	LM21200	209
10	3600	4600	G215T	89.5	230/460	AF2P10T61Q40	LM21198	138
	1800	4600	215T	89.5	230/460	AF4P10T61Q40	LM21199	138
	1200	4400	256T	89.5	230/460	AAF6P10T61Q40	LM21203	236
15	3600	4400	G254T	90.2	230/460	AAF2P15T61Q40	LM21201	209
	1800	4400	254T	91.0	230/460	AF4P15T61Q40	LM21202	209
	1200	4200	284T	90.2	230/460	AF6P15T61YQ40	LM21206	363
20	3600	4400	256T	90.2	230/460	AF2P20T61Q40	LM21204	236
	1800	4400	256T	91.0	230/460	AF4P20T61Q40	LM21205	236
	1200	4200	286T	90.2	230/460	AF6P20T61YQ40	LM21209	408
25	3600	4200	284TS	91.0	230/460	AF2P25TS61YQ40	LM21207	363
	1800	4200	284T	92.4	230/460	AF4P25T61YQ40	LM21208	363
	1200	4000	324T	91.7	230/460	SF6P25T61YQ40	LM21212	504
30	3600	4200	286TS	91.0	230/460	AF2P30TS61YQ40	LM21210	408
	1800	4200	286T	92.4	230/460	AF4P30T61YQ40	LM21211	408
	1200	4000	326T	91.7	230/460	SF6P30T61YQ40	LM21215	570
40	3600	4000	324TS	91.7	230/460	SF2P40TS61YQ40	LM21213	504
	1800	4000	324T	93.0	230/460	SF4P40T61YQ40	LM21214	504
	1200	3800	364T	93.0	230/460	SF6P40T61YQ40	LM21218	765
50	3600	4000	326TS	92.4	230/460	SF2P50TS61YQ40	LM21216	558
	1800	4000	326T	93.0	230/460	SF4P50T61YQ40	LM21217	558
	1200	3800	365T	93.0	230/460	SF6P50T61YQ40	LM21221	822
60	3600	3800	364TS	93.0	230/460	SF2P60TS61YQ40	LM21219	765
	1800	3800	364T	93.6	230/460	SF4P60T61YQ40	LM21220	765
	1200	3600	404T	93.6	230/460	SF6P60T61YQ40	LM21224	918
75	3600	3800	365TS	93.0	230/460	SF2P75TS61YQ40	LM21222	822
	1800	3800	365T	94.1	230/460	SF4P75T61YQ40	LM21223	822
	1200	3600	405T	93.6	230/460	SF6P75T61YQ40	LM21225	1002
100	3600	3600	405TS	93.6	230/460	SF2P100TS61YQ40	LM21226	1002
	1800	3600	405T	94.5	230/460	SF4P100T61YQ40	LM21227	1002
	1200	3000	444T	94.1	460	SF6P100T64YQ40	LM21228	1351
125	3600	3600	444TS	94.5	460	SF2P125TS64YQ40	LM21229	1351
	1800	3000	444T	94.5	460	SF4P125T64YQ40	LM21230	1351
	1200	3000	445T	94.1	460	SF6P125T64YQ40	LM21231	1504
150	3600	3600	445TS	94.5	460	SF2P150TS64YQ40	LM21232	1504
	1800	3000	445T	95.0	460	SF4P150T64YQ40	LM21233	1504
	1200	3000	445T	95.0	460	SF6P150T64YQ40	LM21234	1504
200	3600	3600	445TS	95.0	460	SF2P200TS64YQ40	LM21235	1504
	1800	3000	445T	95.0	460	SF4P200T64YQ40	LM21236	1504
	1200	3000	447T	95.0	460	SF6P200T64YQ40	LM21237	1812
250	3600	3600	449TS	95.4	460	SF2P250TS64YQ40	LM21240	2185
	1800	2800	447T	95.0	460	SF4P250T64YQ40	LM21238	1812

Product numbers in red are STOCK items.

Lincoln MOTORS

TEFC 15 TO 60 HZ CONSTANT TORQUE INVERTER DUTY

230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 400 HP

FOOT MOUNT (cont'd)

HP	SYN RPM @ 60 Hz	RPM Max	Frame	FL Nom Eff (%)	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
300	3600	3600	449TS	95.4	460	SF2P300TS64YQ40	**LM21242**	2185
	1800	2800	449T	95.4	460	SF4P300T64YQ40	**LM21239**	2185
350	3600	3600	449TS	95.8	460	SF2B350TS64YQ40	**LM21243**	2185
	1800	2800	449T	95.4	460	SF4P350T64YQ40	**LM21244**	2185

C-FACE WITH FEET

HP	SYN RPM @ 60 Hz	RPM Max	Frame	FL Nom Eff (%)	Volts	Product Model Number	Approx Shpg Number	Wght (lbs)
1/3	1800	4000	56C	72.0	230/460	SRF4S0.33TC61Q40	**LM22645**	33
1/2	3600	4000	56C	70.0	230/460	SRF2S0.5TC61Q40	**LM22647**	33
	1800	4000	56C	74.0	230/460	SRF4S0.5TC61Q40	**LM22649**	33
	1200	4000	56C	70.0	230/460	SRF6S0.5TC61Q40	**LM22651**	33
3/4	3600	4000	56C	74.0	230/460	SRF2S0.75TC61Q40	**LM22653**	33
	1800	4000	56C	77.0	230/460	SRF4S0.75TC61Q40	**LM22655**	33
	1200	4000	56C	72.0	230/460	SRF6S0.75TC61Q40	**LM22657**	28
1	3600	4000	56C	75.5	230/460	SRF2S1TC61Q40	**LM22659**	33
	1800	4000	56C	78.5	230/460	SRF4S1TC61Q40	**LM22661**	28
	1800	4000	143TC	82.5	230/460	SSF4P1TC61Q40	**LM26081**	52
	1200	4000	145TC	80.0	230/460	SSF6P1TC61Q40	**LM26323**	57
1 1/2	3600	4000	56C	78.5	230/460	SRF2S1.5TC61Q40	**LM22663**	28
	3600	4000	143TC	82.5	230/460	SSF2P1.5TC61Q40	**TBD**	52
	1800	4000	56HC	80.0	230/460	SRF4S1.5TC61Q40	**LM22665**	36
	1800	4000	145TC	84.0	230/460	SSF4P1.5TC61Q40	**LM26008**	57
	1200	4000	182TC	85.5	230/460	AAF6P1.5TC61Q40	**LM22822**	95
2	3600	4000	56HC	78.5	230/460	SRF2S2TC61Q40	**LM22667**	36
	3600	4000	145TC	84.0	230/460	SSF2P2TC61Q40	**TBD**	57
	1800	4000	145TC	84.0	230/460	SSF4P2TC61Q40	**LM25962**	57
	1200	4000	184TC	86.5	230/460	AAF6P2TC61Q40	**LM22825**	104
3	3600	4000	182TC	85.5	230/460	AAF2P3TC61Q40	**LM22826**	95
	1800	4000	182TC	87.5	230/460	AAF4P3TC61Q40	**LM22827**	95
	1200	4600	213TC	87.5	230/460	AF6P3TC61Q40	**LM22828**	138
5	3600	4000	184TC	87.5	230/460	AAF2P5TC61Q40	**LM22829**	104
	1800	4000	184TC	87.5	230/460	AAF4P5TC61Q40	**LM22830**	104
	1200	4600	215TC	87.5	230/460	AF6P5TC61Q40	**LM31434**	149
7 1/2	3600	4600	G213TC	88.5	230/460	AF2P7.5TC61Q40	**LM22832**	138
	1800	4600	213TC	89.5	230/460	AAF4P7.5TC61Q40	**LM22833**	138
	1200	4400	254TC	89.5	230/460	AF6P7.5TC61Q40	**LM22834**	221
10	3600	4600	G215TC	89.5	230/460	AF2P10TC61Q40	**LM22835**	149
	1800	4600	215TC	89.5	230/460	AF4P10TC61Q40	**LM22836**	149
	1200	4400	256TC	89.5	230/460	AF6P10TC61Q40	**LM22837**	248
15	3600	4400	G254TC	90.2	230/460	AF2P15TC61Q40	**LM22838**	221
	1800	4400	254TC	91.0	230/460	AF4P15TC61Q40	**LM22839**	221
20	3600	4400	256TC	90.2	230/460	AF2P20TC61Q40	**LM22840**	248
	1800	4400	256TC	91.0	230/460	AF4P20TC61Q40	**LM22841**	248

Product numbers in red are STOCK items.

Specifications are subject to change without notice

ODP • 30 TO 60 HZ CONSTANT TORQUE INVERTER DUTY

Lincoln MOTORS

230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 400 HP

Features:

- **10:1 Constant torque speed range at continuous duty of 6-60 Hz.**
- **Variable torque speed range with open loop drive of 0-60 Hz.**
- **Constant horsepower speed range of 2x base speed (56-256T frames) or 1.5x base speed* (284T-449T frames).**
- Ultimate Spike Defense™ Insulation System
- 1.00 service factor on PWM waveform,
  1.15 service factor or better on sine-wave power.
- Precision dynamic balanced rotor assembly
- Thermal overload protection (Class F thermostats)
- Warranty: 42 months from date of manufacture and 36 months from date of installation which ever period expires first.
- Made in the U.S.A.

Applications:

For use in constant torque (conveyors, machine tools) or variable torque (pumps, fans) variable speed applications within the stated speed range of the motor.

* Actual speed not to exceed "RPM MAX" listed for specific motor.

FOOT MOUNT

HP	SYN RPM @ 60 Hz	RPM Max	Frame	FL Nom Eff (%)	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1	1800	5000	143T	82.5	230/460	SSD4P1T61Q40	**LM21148**	55
1 1/2	1800	5000	145T	84.0	230/460	SSD4P1.5T61Q40	**LM21151**	68
2	1800	5000	145T	84.0	230/460	SSD4P2T61Q40	**LM21153**	68
3	1800	4800	182T	86.5	230/460	SSD4P3T61Q40	**LM21157**	82
5	1800	4800	184T	87.5	230/460	SSD4P5T61Q40	**LM21159**	71
7 1/2	1800	4600	213T	88.5	230/460	SSD4P7.5T61Q40	**LM21162**	141
10	1800	4600	215T	89.5	230/460	SSD4P10T61Q40	**LM21165**	168
	1200	4400	256T	90.2	230/460	SSD6P10T61Q40	**LM21170**	255
15	1800	4400	254T	91.0	230/460	SSD4P15T61Q40	**LM21168**	245
20	1800	4400	256T	91.0	230/460	SSD4P20T61Q40	**LM21171**	255
25	1800	4000	284T	91.7	230/460	SD4P25T61YQ40	**LM21174✣**	N/A
	1800	4000	284T	91.7	230/460	CCD4P25T61YQ40	**LM29579**	350
30	1800	4000	286T	92.4	230/460	SD4P30T61YQ40	**LM21177✣**	N/A
	1800	4000	286T	92.4	230/460	CCD4P30T61YQ40	**LM29936**	400
40	1800	4000	324T	93.0	230/460	SD4P40T61YQ40	**LM21180**	469
50	1800	4000	326T	93.0	230/460	SD4P50T61YQ40	**LM21118**	522
60	1800	3600	364T	94.0	230/460	SD4P60T61YQ40	**LM21121**	595
75	1800	3800	365T	94.1	230/460	SD4P75T61YQ40	**LM21124**	763
100	1800	3600	404T	94.1	230/460	SD4P100T61YQ40	**LM21127**	882
125	1800	3600	405T	94.5	230/460	SD4P125T61YQ40	**LM30727**	958

✣ Contact your local sales office for availability.

Product numbers in red are STOCK items.

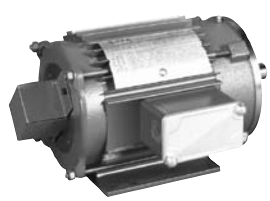
Specifications are subject to change without notice

TOTALLY ENCLOSED • 0 TO 60 HZ CONSTANT TORQUE INVERTER DUTY CTAC®

230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 200 HP

Features:

- **2000:1 constant torque speed range of 0-60 Hz at continuous duty (range on RF models is 6-60Hz).**
- **Variable torque speed range of 0-60 Hz.**
- **Constant horsepower speed range of 2x base speed (56-256T frames) or 1.5x base speed* (284T-445T frames).**
- **Wider speed ranges possible on intermittent duty**
- Ultimate Spike Defense™ Insulation System
- Ideally suited for IGBT power
- 1.00 SF, 40°C ambient on PWM waveform
- C-Face standard on frames 56-256T
- Precision dynamic balanced rotor assembly
- Over temperature protection (Class F thermostat)
- Provision for mounting feedback device - Q10 models
- TEBC - 3 phase blower motor standard
- Warranty on CTAC motor, 42 months from date of manufacture and 36 months from date of installation which ever period expires first.
  Warranty on TEBC blower motor 30 months from date of manufacture and 24 months from date of installation which ever period expires first.
- Made In U.S.A.



Applications:

Suitable for use in extruders, conveyors, machine tools and other process industries with constant torque, variable speed loads.

In a very small percentage of installations, bearing currents can develop in motors operated by PWM-based adjustable-speed drives. Contact your local sales office to review ways of eliminating bearing currents.

* Actual speed not to exceed “RPM MAX” listed for specific motor.

C-FACE WITH FEET (56-256T)

HP	SYN RPM @ 60 Hz	RPM Max	Frame	Enclosure	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/3	1800	4000	56C	TEFC	230/460	SRF4S0.33TC61Q20	**LM10336**	26
1/2	1800	4000	56C	TEFC	230/460	SRF4S0.5TC61Q20	**LM24264**	28
	1200	4000	56HC	TEFC	230/460	SRF6S0.5TC61Q20	**LM10338**	41
3/4	1800	4000	56HC	TEFC	230/460	SRF4S0.75TC61Q20	**LM10339**	36
1	1800	4000	56HC	TEFC	230/460	SRF4S1TC61Q20	**LM10340**	41
	1800	5000	145TC	TENV	230/460	SSN4S1TC61Q10	**LM26359**	62
	1200	4800	182TC	TENV	230/460	AAN6S1TC61Q10	**LM06103**	78
	900	4800	184TC	TENV	230/460	AAN8S1TC61Q10	**LM06105**	90
1 1/2	1800	5000	145TC	TENV	230/460	SSN4S1.5TC61Q10	**LM26233**	65
	1200	4800	184TC	TENV	230/460	AAN6S1.5TC61Q10	**LM06109**	90
	900	4600	213TC	TENV	230/460	AN8S1.5TC61Q10	**LM06111**	121
2	1800	4800	182TC	TENV	230/460	AAN4S2TC61Q10	**LM06113**	74
	1200	4600	213TC	TENV	230/460	AN6S2TC61Q10	**LM06115**	121
	900	4600	215TC	TENV	230/460	AN8S2TC61Q10	**LM06117**	121

Product numbers in red are STOCK items.

Specifications are subject to change without notice

TOTALLY ENCLOSED • 0 TO 60 HZ CONSTANT TORQUE INVERTER DUTY CTAC®

Lincoln™ MOTORS

230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 200 HP

C-FACE WITH FEET (56-256T) & FOOT MOUNT (284T-445T)

HP	SYN RPM @ 60 Hz	RPM Max	Frame	Enclosure	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
3	1800	4800	184TC	TENV	230/460	AAN4S3TC61Q10	**LM06119**	86
	1200	4600	215TC	TENV	230/460	AN6S3TC61Q10	**LM06121**	135
	900	4400	254TC	TENV	230/460	AN8S3TC61Q10	**LM06123**	186
5	1800	4600	213TC	TENV	230/460	AN4S5TC61Q10	**LM06125**	115
	1200	4400	254TC	TENV	230/460	AN6S5TC61Q10	**LM06127**	200
	900	4400	256TC	TENV	230/460	AN8S5TC61Q10	**LM06129**	219
7 1/2	1800	4600	215TC	TENV	230/460	AN4S7.5TC61Q10	**LM06131**	115
	1200	4400	256TC	TENV	230/460	AN6S7.5TC61Q10	**LM06133**	219
10	1800	4400	256TC	TENV	230/460	AN4S10TC61Q10	**LM06135**	211
15	1200	4200	284T	TEBC	230/460	SB6H15T61Q10	**LM03140**	350
20	1200	4200	286T	TEBC	230/460	SB6H20T61Q10	**LM03156**	420
25	1800	4200	284T	TEBC	230/460	SB4H25T61Q10	**LM03188**	350
	1200	4000	324T	TEBC	230/460	SB6H25T61Q10	**LM03204**	490
30	1800	4200	286T	TEBC	230/460	SB4H30T61Q10	**LM03236**	420
	1200	4000	326T	TEBC	230/460	SB6H30T61Q10	**LM03252**	550
40	1800	4000	324T	TEBC	230/460	SB4H40T61Q10	**LM03284**	420
	1200	3800	364T	TEBC	230/460	SB6H40T61YQ10	**LM03300**	670
50	1800	4000	326T	TEBC	230/460	SB4H50T61Q10	**LM03332**	490
	1200	3800	365T	TEBC	230/460	SB6H50T61YQ10	**LM03348**	740
60	1800	3800	364T	TEBC	230/460	SB4H60T61YQ10	**LM03376**	670
	1200	3600	404T	TEBC	230/460	SB6H60T61YQ10	**LM03396**	880
75	1800	3800	365T	TEBC	230/460	SB4H75T61YQ10	**LM03424**	740
	1200	3600	405T	TEBC	230/460	SB6H75T61YQ10	**LM03444**	1000
100	1800	3600	405T	TEBC	230/460	SB4H100T61YQ10	**LM03472**	1000
	1200	3000	444T	TEBC	460	SB6H100T64YQ10	**LM03490**	1290
125	1800	3000	444T	TEBC	460	SB4H125T64YQ10	**LM03516**	1290
	1200	3000	445T	TEBC	460	SB6H125T64YQ10	**LM03536**	1480
150	1800	3000	445T	TEBC	460	SB4H150T64YQ10	**LM03564**	1480
200	1800	3000	445T	TEBC	460	SB4H200T64YQ10	**LM03596**	1480

Product numbers in red are STOCK items.

Specifications are subject to change without notice

TOTALLY ENCLOSED • 0 TO 60 HZ CONSTANT TORQUE VECTOR DUTY CTAC®

FOOT MOUNT & C-FACE
1/3 TO 200 HP

Features:

- **2000:1 constant torque speed range of 0-60 Hz at continuous duty with closed-loop drive.**
- **Variable torque speed range of 0-60 Hz.**
- **Constant horsepower speed range of 2x base speed (56-256T frames) or 1.5x base speed* (284T-445T frames).**
- Ultimate Spike Defense™ Insulation System
- Ideally suited for IGBT power
- 1.00 SF, 40°C ambient on PWM waveform
- C-Face standard on frames 56-256T
- Precision dynamic balanced rotor assembly
- Over temperature protection (Class F thermostat)
- 1024 ppr encoder with differential line driver
- Separate terminal box or conduit with terminal block for feedback termination
- TEBC – 3 phase blower motor standard
- Warranty: (CTAC motor) 42 months from date of manufacture and 36 months from date of installation which ever period expires first. Feedback device and blower motor (TEBC) 30 months from date of manufacture and 24 months from date of installation which ever period expires first.
- Made In U.S.A.

Applications:

For use in demanding industrial applications where premium construction and performance are required. Suitable for use in extruders, conveyors, machine tools and other process industries with constant torque, variable speed loads.

In a very small percentage of installations, bearing currents can develop in motors operated by PWM-based adjustable-speed drives. Contact your local sales office to review ways of eliminating bearing currents.

* Actual speed not to exceed "RPM MAX" listed for specific motor.

C-FACE WITH FEET (56-256T)

HP	SYN RPM @ 60 Hz	RPM Max	Frame	Enclosure	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/3	1800	5000	56C	TENV	230/460	SRN4S0.33TC61Q15	**LM10346**	43
1/2	1800	5000	56C	TENV	230/460	SRN4S0.5TC61Q15	**LM10347**	43
	1200	5000	56HC	TENV	230/460	SRN6S0.5TC61Q15	**LM10348**	43
3/4	1800	5000	56HC	TENV	230/460	SRN4S0.75TC61Q15	**LM10349**	54
1	1800	5000	56HC	TENV	230/460	SRN4S1TC61Q15	**LM10350**	54
	1800	5000	145TC	TENV	230/460	SSN4S1TC61Q15	**LM26109**	82
	1200	4800	182TC	TENV	230/460	AAN6S1TC61Q15	**LM03973**	98
	900	4800	184TC	TENV	230/460	AAN8S1TC61Q15	**LM03975**	110
1 1/2	1800	5000	145TC	TENV	230/460	SSN4S1.5TC61Q15	**LM26278**	85
	1200	4800	184TC	TENV	230/460	AAN6S1.5TC61Q15	**LM03981**	110
	900	4600	213TC	TENV	230/460	AN8S1.5TC61Q15	**LM03983**	141
2	1800	4800	182TC	TENV	230/460	AAN4S2TC61Q15	**LM03987**	98
	1200	4600	213TC	TENV	230/460	AN6S2TC61Q15	**LM03989**	141
	900	4600	215TC	TENV	230/460	AAN8S2TC61Q15	**LM03991**	141

Product numbers in red are STOCK items.

Product numbers in red are STOCK items.

Specifications are subject to change without notice

TOTALLY ENCLOSED • 0 TO 60 HZ CONSTANT TORQUE VECTOR DUTY CTAC®

FOOT MOUNT & C-FACE
1/3 TO 200 HP

C-FACE WITH FEET (56-256T) & FOOT MOUNT (284T-445T)

HP	SYN RPM @ 60 Hz	RPM Max	Frame	Enclosure	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
3	1800	4800	184TC	TENV	230/460	AAN4S3TC61Q15	**LM03995**	110
	1200	4600	215TC	TENV	230/460	AN6S3TC61Q15	**LM03997**	155
	900	4400	254TC	TENV	230/460	AN8S3TC61Q15	**LM03999**	206
5	1800	4600	213TC	TENV	230/460	AAN4S5TC61Q15	**LM04003**	115
	1200	4400	254TC	TENV	230/460	AN6S5TC61Q15	**LM04005**	220
	900	4400	256TC	TENV	230/460	AN8S5TC61Q15	**LM04007**	239
7 1/2	1800	4600	215TC	TENV	230/460	AN4S7.5TC61Q15	**LM31463**	155
	1200	4400	256TC	TENV	230/460	AN6S7.5TC61Q15	**LM04013**	239
10	1800	4400	256TC	TENV	230/460	AN4S10TC61Q15	**LM30572**	235
15	1200	4200	284T	TEBC	230/460	CCB6S15T61Q15	**LM31961**	490
20	1200	4200	286T	TEBC	230/460	SB6H20T61Q15	**LM03157**	420
25	1800	4200	284T	TEBC	230/460	SB4H25T61Q15	**LM03189**	350
	1200	4000	324T	TEBC	230/460	SB6H25T61Q15	**LM03205**	490
30	1800	4200	286T	TEBC	230/460	SB4H30T61Q15	**LM03237**	420
	1200	4000	326T	TEBC	230/460	SB6H30T61Q15	**LM03253**	550
40	1800	4000	324T	TEBC	230/460	SB4H40T61Q15	**LM03285**	550
	1200	3800	364T	TEBC	230/460	SB6H40T61Q15	**LM03301**	670
50	1800	4000	326T	TEBC	230/460	SB4H50T61Q15	**LM03333**	550
	1200	3800	365T	TEBC	230/460	SB6H50T61YQ15	**LM03349**	740
60	1800	3800	364T	TEBC	230/460	SB4H60T61YQ15	**LM03377**	690
	1200	3600	404T	TEBC	230/460	SB6H60T61YQ15	**LM03397**	1000
75	1800	3800	365T	TEBC	230/460	SB4P75T61YQ15	**LM03425**	740
	1200	3600	405T	TEBC	230/460	SB6H75T61YQ15	**LM03445**	1000
100	1800	3600	405T	TEBC	230/460	SB4H100T61YQ15	**LM03473**	1000
	1200	3000	444T	TEBC	460	SB6H100T64YQ15	**LM03491**	1290
125	1800	3000	444T	TEBC	460	SB4H125T64YQ15	**LM03517**	1290
	1200	3000	445T	TEBC	460	SB6H125T64YQ15	**LM03537**	1480
150	1800	3000	445T	TEBC	460	SB4H150T64YQ15	**LM03565**	1490
200	1800	3000	445T	TEBC	460	SB4H200T64YQ15	**LM03597**	1500

Product numbers in red are STOCK items.

Specifications are subject to change without notice

SEVERE DUTY WATTSAVER PLUS & IEEE PREMIUM EFFICIENT MOTORS

NEMA Premium

General Specifications:

Designed specifically to meet severe duty environments that you may find in applications such as chemical plants, foundries, pulp and paper mills, waste management facilities, refineries, above ground mines or other applications that demand corrosion protection for long motor life and dependability.

Mechanical Protection Features:

- Full cast iron construction
- Two-part Epoxy paint
- Inpro Shaft Seal on output shaft and Forsheda seal on non-drive end
- Internal corrosion protection
- Regreasable bearings 250 Frame and above
- Three Year warranty
- Stainless Steel nameplate
- Corrosion Resistant hardware

Electrical Performance and Protection Features:

- 1.15 Service Factor
- Meets IP 55 enclosure protection
- Dual voltage design
- Normally Closed Thermostats

Standards and Approvals:

- UL and CSA recognized
- Construction is CSA Certified for safety report number LR62104
- UL recognized construction, file number E57948

SEVERE DUTY • WATTSAVER PLUS

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
3	1800	182T	**171623.60**	112	208-230/460	7.8	90.2	16.64
	1200	213T	**171634.60**	180	208-230/460	9.4	89.5	18.69
5	1800	184T	**171630.60**	120	208-230/460	12.8	89.5	17.30
	1200	215T	**171635.60**	186	208-230/460	14.4	89.5	20.11
7½	3600	213T	**171616.60**	155	208-230/460	18	91.0	18.69
	1800	213T	**171622.60**	165	208-230/460	18.6	91.7	18.69
	1200	254T	**171636.60**	263	208-230/460	22.2	91.7	23.69
10	3600	215T	**171617.60**	190	208-230/460	23	91.7	20.11
	1800	215T	**171631.60**	187	208-230/460	25	91.7	20.11
	1200	256T	**171637.60**	312	208-230/460	29	91.7	25.42
15	3600	254T	**171620.60**	294	208-230/460	34.6	92.4	23.69
	1800	254T	**171632.60**	294	208-230/460	36	92.4	23.69
	1200	284T	**171638.60**	346	208-230/460	40.6	92.4	26.76
20	3605	256T	**171621.60**	330	208-230/460	46	92.4	25.42
	1800	256T	**171633.60**	335	208-230/460	49	93.0	25.42
	1200	286T	**171639.60**	405	208-230/460	54	92.4	28.33

General Specifications:

Designed for harsh environments that you may find in refineries, above-ground mines, foundries, paper and pulp mills, cement plants or other severe duty applications requiring a premium efficient motor.

Mechanical Protection Features:

- Inpro Shaft Seals installed
- Re-greasable bearings by using extended grease tubes.
- Five-year warranty
- Two part epoxy painted
- Brass breather and drain plug

Electrical Performance and Protection Features:

- Tested to IEEE-841 Standards
- Actual test and vibration Data supplied with each motor
- Meets NEMA MG1 – 1.26.6 Waterproof Specification
- Nameplate stamped to Division 2 CSA certification for hazardous locations, Class 1 Groups A, B, C, D, Temperature code T2B
- Meets NEMA Premium Efficient standards
- 1.15 Service Factor
- Class F Insulation System

Standards and Approvals:

- UL Recognized and CSA Certified
- Tested to IEEE45 USCG Marine Duty, API RP14F for offshore platforms
- Meets IP56

IEEE 841 PREMIUM EFFICIENT MOTORS

HP	SYN RPM	NEMA Frame	IEEE 841 Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 460V	% F.L. Eff.	"C" Dim. (Inches)
1	1800	143T	**811541.00 A**	55	460	1.5	85.5	10.43
1½	3600	143T	**811542.00 A**	58	460	2.0	86.5	10.43
	1800	145T	**811543.00 A**	65	460	2.2	84.0	11.43
2	3600	145T	**811544.00 A**	68	460	2.5	85.5	11.43
	1800	145T	**811545.00 A**	68	460	3.0	85.5	11.43
3	3600	182T	**811546.00**	105	460	3.8	87.5	12.71
	1800	182T	**811547.00**	100	460	4.0	90.2	12.71
5	3600	184T	**811548.00 A**	142	460	5.9	89.5	16.19
	1800	184T	**811549.00**	130	460	6.2	90.2	16.19
7½	3600	213T	**811550.00 A**	200	460	8.9	91.7	17.18
	1800	213T	**811551.00**	200	460	9.6	91.7	19.73
10	3600	215T	**811552.00**	218	460	11.2	91.7	20.97
	1800	215T	**811553.00**	225	460	12.5	91.7	19.73
15	3600	254T	**811554.00**	345	460	17.5	91.7	23.52
	1800	254T	**811555.00**	350	460	18.8	92.4	23.52
20	3600	256T	**811556.00**	375	460	23.4	92.4	25.27
	1800	256T	**811557.00 A**	425	460	24.1	93.0	25.27
25	3600	284TS	**811558.00 A**	481	460	28.1	93.6	24.97
	1800	284T	**811559.00 A**	478	460	31.0	93.6	26.34
30	3600	286TS	**811560.00**	500	460	33.8	93.6	26.44
	1800	286T	**811561.00**	525	460	36.5	94.1	27.84
40	3600	324TS	**811562.00**	656	460	47	93.6	27.37
	1800	324T	**811563.00**	700	460	47.5	94.1	28.87
50	3600	326TS	**811564.00**	725	460	58	93.6	28.87
	1800	326T	**811565.00**	775	460	60	94.5	30.37
60	3600	364TS	**811566.00**	925	460	67	94.5	29.38
	1800	364T	**811567.00**	1000	460	69	95	31.50
75	3600	365TS	**811568.00**	1002	460	84	94.5	30.38
	1800	365T	**811569.00**	1100	460	86	95.4	32.50
100	3600	405TS	**811570.00**	1295	460	108	95	34.12
	1800	405T	**811571.00**	1330	460	113	95.4	37.12

A Subject to Availability.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

TEFC SEVERE DUTY

208, 230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1 TO 800 HP

Bring On Your Severe Environment; These Motors Can Take It.

Pulp and paper mills, foundries, chemical plants...you name the severe environment application, these motors will deliver reliable service beyond what you thought possible.

Meets Ford EM1-1996 Spec.

The 460 volt (3 lead) design of these motors meets the demanding T frame motor requirements of Ford's EM1-1996 specification (look for "F" in Notes column).

Vary the Speed, Keep the Motor; Reap the Benefits

Lincoln Severe Duty motors are inverter-rated for use with any brand drive at any carrier frequency. And to make matters as simple and inexpensive as possible, we don't require installation of filters or any other power conditioning devices.

* 182T - 444T frames.

Features:
- Full cast iron construction
- NEMA premium efficiency - 1 to 200 HP
- Nameplated for 50 Hz & 208 V/60 Hz operation – simplifies your motor selection and reduces your inventory requirements – see "Notes" column.
- Continuous Duty
- Premium Class F Insulation System
- Y-delta start capability 284T frames and larger (reference "Y" in Model Number)
- Shielded ball bearing for direct coupled applications. Contact your local sales office for belted applications.

Applications:
For use in the severe environments found in the process industries such as pulp and paper mills, chemical plants, foundries, textile mills and automotive manufacturing facilities.

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1	1800	143T	85.5	1.25	230/460	CCS4B1T61	**LM32856**	59
	1200	145T	82.5	1.25	230/460	CCS6B1T61	**LM32857**	57
1 1/2	3600	143T	84.0	1.25	230/460	CCS2B1.5T61	**LM32858**	56
	1800	145T	86.5	1.25	230/460	CCS4B1.5T61	**LM32859**	62
	1200	182T	87.5	1.25	230/460	CCS6B1.5T61	**LM32860**	112
2	3600	145T	85.5	1.25	230/460	CCS2B2T61	**LM32861**	71
	1800	145T	86.5	1.25	230/460	CCS4B2T61	**LM32862**	64
	1200	184T	88.5	1.25	230/460	CCS6B2T61	**LM32863**	126

Product numbers in red are STOCK items.

Specifications are subject to change without notice

AC MOTORS

Lincoln MOTORS

TEFC SEVERE DUTY

208, 230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1 TO 800 HP

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
3	3600	182T	88.5	1.25	230/460	CCS2B3T61	**LM32864**	107
	1800	182T	89.5	1.25	230/460	CCS4B3T61T5	**LM16644**	104
	1200	213T	89.5	1.25	230/460	CCS6B3T61	**LM32865**	173
5	3600	184T	89.5	1.25	230/460	CCS2B5T61	**LM32866**	108
	1800	184T	89.5	1.25	230/460	CCS4B5T61T5	**LM16650**	109
	1200	215T	89.5	1.25	230/460	CCS6B5T61	**LM32867**	203
7 1/2	3600	213T	89.5	1.25	230/460	CCS2B7.5T61	**LM32868**	192
	1800	213T	89.5	1.25	230/460	CCS4P7.5T61	**LM32869**	194
	1200	254T	91.7	1.15	230/460	CCS6B7.5T61YT5	**LM16656**	249
10	3600	215T	90.2	1.25	230/460	CCS2B10T61	**LM32870**	218
	1800	215T	91.7	1.25	230/460	CCS4B10T61	**LM16919**	213
	1200	256T	91.0	1.25	230/460	CCS6B10T61	**LM32871**	368
15	3600	254T	91.0	1.25	230/460	CCS2B15T61	**LM32872**	384
	1800	254T	92.4	1.25	230/460	CCS4B15T61	**LM32873**	322
	1200	284T	91.7	1.25	230/460	CCS6B15T61Y	**LM32874**	483
20	3600	256T	91.0	1.25	230/460	CCS2B20T61	**LM32875**	385
	1800	256T	93.0	1.25	230/460	CCS4B20T61	**LM32876**	368
	1200	286T	91.7	1.25	230/460	CCS6B20T61Y	**LM32877**	515
25	3600	284TS	91.7	1.25	230/460	CCS2B25TS61Y	**LM32878**	461
	1800	284T	93.6	1.25	230/460	CCS4B25T61Y	**LM32879**	495
	1200	324T	93.0	1.25	230/460	CCS6P25T61Y	**LM32880**	637
30	3600	286TS	91.7	1.25	230/460	CCS2B30TS61Y	**LM32881**	496
	1800	286T	93.6	1.25	230/460	CCS4B30T61Y	**LM32882**	519
	1200	326T	93.0	1.25	230/460	CCS6B30T61Y	**LM32883**	689
40	3600	324TS	92.4	1.25	230/460	CCS2B40TS61Y	**LM32884**	664
	1800	324T	94.1	1.25	230/460	CCS4B40T61Y	**LM32885**	602
	1200	364T	94.1	1.25	230/460	CCS6B40T61Y	**LM32886**	835
50	3600	326TS	93.0	1.25	230/460	CCS2B50TS61Y	**LM32685**	732
	1800	326T	94.5	1.25	230/460	CCS4B50T61Y	**LM32887**	744
	1200	365T	94.1	1.25	230/460	CCS6B50T61Y	**LM32888**	955
60	3600	364TS	93.6	1.25	230/460	CCS2B60TS61Y	**LM32889**	918
	1800	364T	95.0	1.25	230/460	CCS4B60T61Y	**LM32890**	980
	1200	404T	94.5	1.15	230/460	CCS6B60T61Y	**LM32891**	1156
75	3600	365TS	93.6	1.25	230/460	CCS2B75TS61Y	**LM32892**	1001
	1800	365T	95.4	1.15	230/460	CCS4B75T61Y	**LM32893**	1018
	1200	405T	94.5	1.25	230/460	CCS6B75T61Y	**LM32894**	1280
100	3600	405TS	94.1	1.25	230/460	CCS2B100TS61Y	**LM32895**	1296
	1800	405T	95..4	1.25	230/460	CCS4B100T61Y	**LM32896**	1338
	1200	444T	95.0	1.25	460	CCS6B100T64Y	**LM32897**	1874
125	3600	444TS	95.0	1.15	460	CCS2B125TS64Y	**LM32898**	1874
	1800	444T	95.4	1.15	460	CCS4B125T64Y	**LM32899**	1874
	1200	445T	95.0	1.15	460	CCS6B125T64	**LM32900**	2042

Product numbers in red are STOCK items.

Specifications are subject to change without notice

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
150	3600	445TS	95.0	1.15	460	CCS2B150TS64Y	**LM32901**	2099
	1800	445T	95.8	1.15	460	CCS4B150T64Y	**LM32902**	2070
	1200	445T	95.8	1.15	460	CCS6B150T64Y	**LM32903**	2042
200	3600	445TS	95.4	1.15	460	CCS2B200TS64Y	**LM32904**	2332
	1800	445T	96.2	1.15	460	CCS4B200T64Y	**LM32905**	2305
	1200	449T	95.8	1.15	460	CCS6B200T64Y	**LM32906**	3087
250	3600	449TS	95.4	1.15	460	CCS2P250TS64Y	**LM15717**	2572
	3600	449TS	95.4	1.15	460	CCS2P250TS64	**LM22908**	2572
	1800	449T	95.4	1.15	460	CCS4P250T64Y	**LM14643**	2572
	1800	449T	95.4	1.15	460	CCS4P250T64	**LM17594**	2572
	1200	449T	95.4	1.15	460	CCS6P250T64Y	**LM15723**	2883
	1200	449T	95.4	1.15	460	CCS6P250T64	**LM17597**	2883
300	3600	449TS	95.4	1.15	460	CCS2P300TS64Y	**LM15721**	2883
	3600	449TS	95.4	1.15	460	CCS2P300TS64	**LM17601**	2883
	1800	449T	95.4	1.15	460	CCS4P300T64Y	**LM14642**	2572
	1800	449T	95.4	1.15	460	CCS4P300T64	**LM22909**	2572
	1200	449T	95.4	1.00	460	CCS6P300T64Y	**LM15722**	2883
	1200	449T	95.4	1.00	460	CCS6P300T64	**LM17598**	2883
350	3600	449TS	95.4	1.15	460	CCS2P350TS64Y	**LM15720**	2883
	3600	449TS	95.4	1.15	460	CCS2P350TS64	**LM17602**	2883
	1800	449T	95.4	1.15	460	CCS4P350T64Y	**LM14645**	2883
	1800	449T	95.4	1.15	460	CCS4P350T64	**LM17599**	2883
	1200	5011LS	95.8	1.15	460	CCS6P350LS64Y	**LM22210**	5500
400	1800	449T	95.8	1.00	460	CCS4P400T64Y	**LM14644**	2883
	1800	449T	95.8	1.00	460	CCS4P400T64	**LM17600**	2883
	1200	5011	95.8	1.15	460	CCS6P400L64Y	**LM22211**	5500
450	1800	5011LS	95.8	1.15	460	CCS4P450LS64Y	**LM22212**	5500
	1200	5011LS	96.2	1.15	460	CCS6P450LS64Y	**LM27292**	5500
500	1800	5011LS	96.2	1.15	460	CCS4P500LS64Y	**LM22213**	5500
	1200	5013LS	96.2	1.15	460	CCS6P500LS64Y	**LM27293**	7200
600	1800	5011LS	96.5	1.15	460	CCS4P600LS64Y	**LM22489**	5500
700	1800	5013LS	96.5	1.15	460	CCS4P700LS64Y	**LM27295**	7200

Product numbers in red are STOCK items.

Specifications are subject to change without notice

SINGLE PHASE MOTORS
RIGID BASE • CAPACITOR START • GENERAL PURPOSE




		DRIP-PROOF							TOTALLY ENCLOSED FAN COOLED (TEFC)						
HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/12	1800	…	…	…	…	…	…	…	42	**092111.00**	14	115/208-230	None	1.1	8.94
1/8	1800	…	…	…	…	…	…	…	42	**092114.00**	16	115/208-230	None	1.6	9.44
1/6	1800	…	…	…	…	…	…	…	42	**092116.00**	17	115/208-230	None	2.1	9.44
	1800	…	…	…	…	…	…	…	48	**102012.00**	17	115/208-230	None	2.0	9.06
	1200	…	…	…	…	…	…	…	48	**102013.00**	23	115/208-230	None	1.9	10.31
1/4	3600	…	…	…	…	…	…	…	42	**092112.00**	19	115/208-230	None	2.1	9.94
	1800	…	…	…	…	…	…	…	48	**102014.00**	20	115/208-230	None	2.7	9.06
	1800	48	**101423.00**	16	115/208-230	Man.	2.7	8.87	48	**101446.00✣**	18	115/208-230	Man.	2.7	9.06
	1800	48	**100115.00**	16	115/208-230	Auto.	2.7	8.87	…	…	…	…	…	…	…
	1800	S56	**100000.00**	17	115/208-230	Auto.	2.7	9.24	…	…	…	…	…	…	…
	1200	…	…	…	…	…	…	…	48	**102015.00**	23	115/208-230	None	3.2	11.31
	1200	…	…	…	…	…	…	…	56	**114617.00**	30	115/208-230	None	2.8	11.81
1/3	3600	…	…	…	…	…	…	…	48	**102016.00**	21	115/208-230	None	2.8	9.06
	3600	S56	**100336.00**	26	115/208-230	None	2.8	8.99	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…	48	**100955.00**	19	115/208-230	None	3.3	9.56
	1800	…	…	…	…	…	…	…	48	**102018.00**	20	115/208-230	Man.	3.3	9.56
	1800	48	**100116.00**	17	115/208-230	Auto.	3.3	8.87	…	…	…	…	…	…	…
	1800	S56	**100006.00**	18	115/208-230	None	3.3	9.24	S56	**102931.00✣**	23	115/208-230	None	3.1	10.44
	1800	S56	**100588.00**	18	115/208-230	Man.	3.3	9.24	S56	**102933.00**	23	115/208-230	Man.	3.1	10.44
	1800	S56	**100001.00**	18	115/208-230	Auto.	3.3	9.24	S56	**102932.00**	23	115/208-230	Auto.	3.1	10.44
	1200	…	…	…	…	…	…	…	48	**102019.00**	28	115/208-230	None	3.1	11.56
	1200	56	**110001.00**	29	115/208-230	None	3.9	10.88	56	**110009.00**	34	115/208-230	None	3.6	12.31
1/2	3600	48	**100184.00**	19	115/208-230	None	3.4	9.62	48	**102020.00**	27	115/208-230	None	3.5	9.31
	3600	S56	**100337.00**	20	115/208-230	None	3.4	9.99	S56	**102905.00**	22	115/208-230	None	3.5	9.94
	3600	S56	**100052.00**	21	115/208-230	Man.	3.4	9.99	S56	**102904.00**	25	115/208-230	Man.	3.5	9.94
	1800	48	**100338.00**	20	115/208-230	None	4.4	9.62	48	**100956.00**	22	115/208-230	None	4.0	10.31
	1800	S56	**100007.00**	21	115/208-230	None	4.4	9.99	S56	**102906.00✣**	22	115/208-230	None	4.0	10.69
	1800	S56	**100004.00**	21	115/208-230	Man.	4.4	9.99	S56	**102909.00✣**	22	115/208-230	Man.	4.0	10.69
	1800	S56	**100002.00**	20	115/208-230	Auto.	4.4	9.99	S56	**102908.00✣**	24.5	115/208-230	Auto.	4.0	10.69
	1200	56	**110002.00**	32	115/208-230	None	5.0	11.38	56	**110011.00**	38	115/208-230	None	4.9	12.81
3/4	3600	S56	**100340.00**	24	115/208-230	None	4.9	10.49	56	**110276.00**	26	115/208-230	None	5.0	11.31
	3600	S56	**100053.00**	24	115/208-230	Man.	4.9	10.49	56	**110108.00**	26	115/208-230	Man.	5.0	11.31
	1800	S56	**100008.00**	26	115/208-230	None	5.4	10.99	56	**110013.00✣**	29	115/208-230	None	5.4	11.31
	1800	S56	**100005.00**	25	115/208-230	Man.	5.4	10.99	56	**110022.00✣**	29	115/208-230	Man.	5.4	11.31
	1800	S56	**101544.00☆ A**	28	115/208-230	Man.	4.0	11.24	…	…	…	…	…	…	…
	1800	S56	**100003.00**	25	115/208-230	Auto.	5.4	10.99	56	**110017.00✣**	26	115/208-230	Auto.	5.4	11.31
	1200	56H	**110003.00□**	44	115/208-230	None	6.4	12.88	56H	**110400.00☆□**	43	115/208-230	None	5.3	13.31
1	3600	56	**110360.00**	28	115/208-230	None	6.0	10.84	56	**110059.00**	28	115/208-230	None	6.0	11.81
	3600	56	**110097.00**	28	115/208-230	Man.	6.0	10.84	56	**110142.00**	28	115/208-230	Man.	6.0	11.81
	1800	56	**110004.00**	28	115/208-230	None	6.4	10.88	56	**110209.00✣**	30	115/208-230	None	7.0	11.81
	1800	56	**110167.00**	30	115/208-230	Man.	6.4	10.88	56	**110023.00✣**	29	115/208-230	Man.	6.4	11.81
	1800	56	**113630.00☆**	31	115/208-230	Man.	5.3	10.88	…	…	…	…	…	…	…
	1800	56	**110000.00**	28	115/208-230	Auto.	6.4	10.88	56	**110018.00✣**	29	115/208-230	Auto.	6.4	12.31
	1800	143T	**120044.00**	38	115/208-230	None	6.4	11.13	143T	**120025.00✣**	34	115/208-230	None	6.4	12.75
	1800	143T	**120003.00**	33	115/208-230	Man.	6.4	11.13	143T	**120008.00✣**	31	115/208-230	Man.	6.4	12.75
	1800	143T	**120000.00**	32	115/208-230	Auto.	6.4	11.13	…	…	…	…	…	…	…
	1200	…	…	…	…	…	…	…	145T	**120043.00☆**	49	115/230	None	6.7	14.25

□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
✣ These totally enclosed single phase motors have 1.15 Service Factors.
A Subject to Availability.

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Specifications are subject to change without notice

SINGLE PHASE MOTORS

LEESON®

RIGID BASE • CAPACITOR START • GENERAL PURPOSE

DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1½	3600	56	**110361.00**	29	115/208-230	None	8.2	10.84
	3600	56	**110110.00**	28	115/208-230	Man.	8.2	10.84
	3600	56	**113631.00**☆	36	115/208-230	Man.	6.2	11.34
	3600	143T	**120107.00 A**	32	115/208-230	None	8.2	11.28
	1800	56H	**110005.00**☆□	37	115/208-230	None	8.6	11.84
	1800	56H	**110006.00**☆□	38	115/208-230	Man.	8.6	11.84
	1800	56H	**113266.00**☆□	42	115/208-230	Man.	6.7	12.38
	1800	…	…	…	…	…	…	…
	1800	145T	**120042.00**☆	38	115/208-230	None	8.6	12.28
	1800	145T	**120004.00**☆	40	115/208-230	Man.	8.6	12.28
	1800	145T	**120001.00**☆	40	115/208-230	Auto.	8.6	12.28
	1200	…	…	…	…	…	…	…
2	3600	56	**110363.00**	37	115/208-230	None	10.0	11.84
	3600	56	**110362.00**	38	115/208-230	Man.	10.0	12.34
	3600	56	**113632.00**☆ **A**	38	115/208-230	Man.	8.6	11.34
	3600	145T	**120106.00 A**	40	115/208-230	None	10.0	12.28
	3600	…	…	…	…	…	…	…
	1800	56H	**116704.00**□☆	45	115/208-203	Man.	8.6	12.88
	1800	145T	**120067.00**☆	42	115/230	None	10.5	13.28
	1800	145T	**120879.00**☆	51	115/208-230	Man.	8.6	13.31
	1800	182T	**131515.00**	56	115/208-230	None	12.4	13.19
	1800	182T	**131536.00**	63	115/208-230	Man.	12.4	13.19
	1800	182T	**131535.00**	63	115/208-230	Auto.	12.4	13.19
	1200	…	…	…	…	…	…	…
3	3600	56H	**116706.00**□	39	230	Man.	15.0	12.38
	3600	…	…	…	…	…	…	…
	3600	182T	**131636.00**	74	115/208-230	None	14.0	14.18
	1800	184T	**131534.00**	69	115/230	None	16.9	14.19
	1800	184T	**131561.00**	76	115/230	Man.	16.9	14.19
	1800	184T	**131851.00**☆	72	208-230	Man.	13.7	15.22
	1800	184T	**131530.00**	69	115/230	Auto.	16.9	14.19
5	3600	56H	**116708.00**□☆	45	230	Man.	20.8	13.34
	3600	184T	**131616.00**	84	208-230	None	22.0	14.69
	3600	…	…	…	…	…	…	…
	1800	184T	**131537.00**☆	83	208-230	None	21.0	14.69
	1800	184T	**131560.00**☆	82	208	None	23.2	14.69
	1800	184T	**131622.00**☆	82	208-230	Man.	21.0	14.69
7½	3600	184T	**132044.00**☆	110	208-230	Tstat	31.0	16.69
	3600	213T	**140680.00**☆	112	208-230	None	29.5	16.55
	1800	215T	**140155.00**☆	113	230	None	36.0	17.26
10	3600	215T	**140681.00**☆	135	208-230	None	37.0	18.05
	1800	215TZ	**140311.00**☆✓	140	230	None	43.0	19.76

TOTALLY ENCLOSED FAN COOLED (TEFC)

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
56	**110094.00**	31.5	115/208-230	None	8.5	12.31
56	**110109.00**	31	115/208-230	Man.	8.5	12.31
…	…	…	…	…	…	…
143T	**120130.00**	36	115/208-230	None	8.5	13.25
56H	**110253.00**☆□	38	115/208-230	None	8.6	12.81
56H	**113333.00**☆□	38	115/208-230	Man.	8.6	12.81
…	…	…	…	…	…	…
56H	**110019.00**☆□	38	115/208-230	Auto.	8.6	12.81
145T	**120026.00**☆	44	115/208-230	None	8.6	13.25
145T	**120009.00**☆	42	115/208-230	Man.	8.6	13.25
…	…	…	…	…	…	…
184T	**131526.00**	69	115/208-230	None	11.0	15.46
56H	**110352.00**✣□†	41	115/208-230	None	10.0	13.31
56H	**110402.00**✣□†	41	115/208-230	Man.	10.0	13.31
…	…	…	…	…	…	…
145T	**120036.00**✣†	42	115/208-230	None	10.0	13.75
145T	**120395.00**✣†	44	115/208-230	Man.	10.0	13.75
…	…	…	…	…	…	…
145T	**121507.00**†☆	48	115/208-230	None	9.2	13.75
145T	**120867.00**☆	48	115/208-230	Man.	9.2	13.75
182T	**131509.00**	65	115/208-230	None	12.4	14.46
…	…	…	…	…	…	…
…	…	…	…	…	…	…
215T	**140747.00**☆ **A**	118	115/208-230	None	11.2	18.71
56H	**116705.00**□☆	53	208-230	Man.	14.0	13.81
145T	**120341.00**☆	46	230	None	13.0	14.25
182T	**131637.00**	78	115/208-230	None	13.4	14.96
184T	**131533.00**	83	115/230	None	16.8	16.46
184T	**131855.00**☆	88	230	Man.	13.6	14.96
…	…	…	…	…	…	…
…	…	…	…	…	…	…
…	…	…	…	…	…	…
184T	**131549.00**☆	93	230	None	19.8	16.96
184T	**132042.00**☆	103	230	Man.	19.8	16.97
184T	**131538.00**☆	95	230	None	23.0	17.46
…	…	…	…	…	…	…
184T	**131856.00**☆	95	230	Man.	21.0	15.96
…	…	…	…	…	…	…
213T	**140684.00**☆	120	208-230	None	32.0	18.34
215T	**140120.00**☆	169	230	None	33.6	20.21
215T	**140685.00**☆	138	208-230	None	41.5	19.84
215T	**140581.00**☆	202	230	None	40.0	20.71

□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
✓ Motor with standard diameter shaft, 1.0" longer than standard.
† Class F insulated.
✣ These totally enclosed single phase motors have 1.15 Service Factors.
A Subject to Availability.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

C FACE MOTORS • SINGLE PHASE

LESS BASE • CAPACITOR START • GENERAL PURPOSE

DRIP-PROOF • C FACE LESS BASE • SINGLE PHASE / TEFC • C FACE LESS BASE • SINGLE PHASE

		DRIP-PROOF							TEFC						
HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/6	1800	…	…	…	…	…	…	…	48CZ☛	**102661.00**	14	115/208-230	None	2.0	9.19
1/4	1800	…	…	…	…	…	…	…	48CZ☛	**101765.00**	18	115/208-230	None	2.7	9.19
	1800	S56C	**100023.00**	17	115/208-230	None	2.7	9.24	S56C	**102868.00●✣**	22	115/208-230	None	2.3	9.80
	1800	S56C	**101521.00**	17	115/208-230	Auto.	2.7	9.24	S56C	**102866.00**	18	115/208-230	None	2.7	9.44
1/3	3600	S56C	**100354.00**	17	115/208-230	None	2.8	8.99	S56C	**102870.00**	20	115/208-230	None	2.8	9.44
	3600	S56C	**100355.00**	17	115/208-230	Auto.	2.8	8.99	S56C	**102873.00●**	24	115/208-230	None	1.9	9.30
	1800	…	…	…	…	…	…	…	48CZ☛	**102663.00**	19	115/208-230	None	3.3	9.69
	1800	S56C	**100024.00**	17	115/208-230	None	3.3	9.24	S56C☛	**101766.00✣**	22	115/208-230	None	3.3	9.94
	1800	S56C	**100018.00**	18	115/208-230	Man.	3.3	9.24	S56C	**102867.00●✣**	23	115/208-230	None	2.6	10.30
	1800	S56C	**101522.00**	17	115/208-230	Auto.	3.3	9.24	S56C	**102869.00●✣**	25	115/208-230	Man.	2.6	10.30
1/2	3600	S56C	**100356.00**	19	115/208-230	None	3.4	9.99	S56C	**102864.00✣**	22	115/208-230	None	3.5	9.94
	3600	S56C	**100054.00**	18	115/208-230	Auto.	3.4	9.99	S56C	**102872.00✣**	25	115/208-230	Man.	3.5	9.94
	1800	…	…	…	…	…	…	…	48CZ☛	**102665.00 A**	22	115/208-230	None	4.0	10.44
	1800	S56C	**100025.00**	19	115/208-230	None	4.4	9.99	S56C	**102862.00✣**	21	115/208-230	None	4.0	10.69
	1800	S56C	**100019.00**	21	115/208-230	Man.	4.4	9.99	S56C	**102865.00✣**	22	115/208-230	Man.	4.0	10.69
	1800	S56C	**100020.00**	20	115/208-230	Auto.	4.4	9.99	S56C	**102871.00**	24	115/208-230	Auto.	4.0	10.69
	1200	56C	**110381.00**	32	115/208-230	None	5.0	11.38	56C	**110411.00**	37	115/208-230	None	4.9	12.81
3/4	3600	S56C	**100357.00**	24	115/208-230	None	4.9	10.49	56C	**110413.00**	26	115/208-230	None	5.0	11.31
	3600	S56C	**100055.00**	24	115/208-230	Auto.	4.9	10.49	56C	**110412.00**	28	115/208-230	Man.	5.0	11.31
	1800	S56C	**100026.00**	24	115/208-230	None	5.4	10.99	56C	**110057.00✣**	25	115/208-230	None	5.4	11.31
	1800	S56C	**100021.00**	24	115/208-230	Man.	5.4	10.99	56C	**110040.00✣**	26	115/208-230	Man.	5.4	11.31
	1800	S56C	**101523.00**	26	115/208-230	Auto.	5.4	10.99	56C	**110308.00✣**	28	115/208-230	Auto.	5.4	11.31
	1200	56C	**110382.00**	46	115/208-230	None	6.4	12.88	56C	**110414.00☆**	42	115/208-230	None	5.3	13.31
1	3600	56C	**110384.00**	28	115/208-230	None	6.0	10.88	56C	**110416.00✣**	28	115/208-230	None	6.0	11.81
	3600	56C	**113337.00 A**	28	115/208-230	Auto.	6.0	10.84	56C	**110415.00**	28	115/208-230	Man.	6.0	11.81
	1800	56C	**110220.00**	30	115/208-230	None	6.4	10.88	56C	**110058.00✣**	33	115/208-230	None	6.4	11.81
	1800	56C	**110036.00**	27	115/208-230	Man.	6.4	10.88	56C	**110041.00✣**	29	115/208-230	Man.	6.4	11.81
	1800	143TC	**121002.00 A**	31	115/208-230	None	6.4	11.28	143TC	**121001.00 A**	32	115/208-230	None	6.4	12.25
1½	3600	56C	**110387.00 A**	28	115/208-230	None	8.2	10.84	6C	**110419.00**	31	115/208-230	None	8.5	12.31
	3600	56C	**113336.00**	28	115/208-230	Auto.	8.2	10.84	56C	**110418.00**	31	115/208-230	Man.	8.5	12.31
	3600	…	…	…	…	…	…	…	143TC	**120101.00**	36	115/208-230	None	8.5	12.75
	1800	56C	**110388.00☆**	38	115/208-230	None	8.6	11.84	56C	**110420.00☆**	37	115/208-230	None	8.6	12.81
	1800	56C	**110037.00☆**	39	115/208-230	Man.	8.6	11.84	56C	**110042.00☆**	40	115/208-230	Man.	8.6	12.81
	1800	…	…	…	…	…	…	…	145TC	**120017.00☆**	40	115/208-230	None	8.6	13.75
2	3600	56C	**110390.00**	37	115/208-230	None	10.0	11.84	56C	**110422.00✣**	40	115/208-230	None	10.0	13.31
	3600	56C	**113335.00 A**	36	115/208-230	Auto.	10.0	11.84	56C	**110421.00✣†**	41	115/208-230	Man.	10.0	13.31
	3600	145TC	**121184.00 A**	37	115/208-230	None	10.0	12.28	145TC	**120102.00✣†**	43	115/208-230	None	10.0	13.75
	1800	…	…	…	…	…	…	…	56C	**112136.00☆**	41	115/230	None	9.2	13.31
	1800	145TC	**120073.00☆**	49	115/208-230	None	10.5	13.28	145TC	**120060.00☆**	45	115/230	Man.	10.0	14.25
	1800	…	…	…	…	…	…	…	182TC	**131516.00**	64	115/208-230	None	12.4	14.47
3	3600	56C	**113334.00**	36	230	Auto.	15.0	11.84	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…	145TC	**120824.00☆**	56	230	Man.	13.0	14.25
	1800	184TC	**131544.00**	73	115/208-230	None	16.9	14.19	184TC	**131545.00**	82	115/208-230	None	16.8	16.47
5	3600	184TC	**131777.00☆A**	70	208-230	None	22.2	14.69	184TC	**131778.00☆**	81	208-230	None	19.8	16.97
	1800	184TC	**131539.00☆A**	81	230	None	21.0	14.69	184TC	**131540.00☆**	104	230	None	23.0	17.47

Motors in this column have NEMA Service Factors - see page 274 for details.

Motors in this column have NEMA Service Factors except as noted by ✣, which have 1.15 Service Factors.

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
✣ These totally enclosed single phase motors have 1.15 Service Factors.
● These motors are totally enclosed, non-ventilated—Others are fan cooled.
† Class F insulated.
☛ Shaft extension has keyway and flat 180° apart for ease of mounting.
Useable shaft is 1 1/2" long by 1/2" diameter, 1/8" keyway.
A Subject to Availability.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

C FACE MOTORS • SINGLE PHASE

WITH BASE • CAPACITOR START • GENERAL PURPOSE

LEESON®

DRIP-PROOF • C FACE WITH BASE • SINGLE PHASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/4	1800	…	…	…	…	…	…	…
1/3	3600	…	…	…	…	…	…	…
	1800	S56C	**103023.00**	18	115/208-230	None	3.3	9.24
	1800	S56C	**103083.00 A**	18	115/208-230	Man.	3.3	9.24
	…	…	…	…	…	…	…	…
1/2	3600	S56C	**103024.00**	20	115/208-230	None	3.4	9.99
	1800	S56C	**101651.00**	21	115/208-230	None	4.4	9.99
	1800	S56C	**103084.00**	21	115/208-230	Man.	4.4	9.99
3/4	3600	S56C	**103025.00 A**	24	115/208-230	None	4.9	10.49
	1800	S56C	**101650.00**	27	115/208-230	None	5.4	10.99
	1800	S56C	**103086.00**	27	115/208-230	Man.	5.4	10.99
1	3600	56C	**116769.00 A**	28	115/208-230	None	6.0	10.84
	3600	…	…	…	…	…	…	…
	1800	56C	**113930.00**	34	115/208-230	None	6.4	10.88
	1800	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…
1½	3600	56C	**116770.00 A**	35	115/208-230	None	6.2	11.34
	3600	56C	**114214.00☆ A**	35	115/208-230	Man.	6.2	11.34
	3600	…	…	…	…	…	…	…
	1800	56HC	**113932.00☆□**	39	115/208-230	None	8.6	11.84
	1800	56HC	**113700.00☆□**	38	115/208-230	Man.	7.2	11.84
	1800	…	…	…	…	…	…	…
2	3600	56C	**116771.00 A**	35	115/208-230	None	8.6	11.34
	3600	56C	**114215.00☆**	35	115/208-230	Man.	8.6	11.34
	3600	…	…	…	…	…	…	…
	3600	…	…	…	…	…	…	…
	1800	56HC	**113281.00☆□**	45	115/208-230	Man.	8.6	12.88
	1800	145TC	**120992.00 A**	45	115/230	None	10.5	13.28
	1800	…	…	…	…	…	…	…
3	3600	…	…	…	…	…	…	…
	3600	56HC	**116707.00□☆**	41	230	Man.	15.0	12.38
	3600	…	…	…	…	…	…	…
	3600	182TC	**132083.00☆ A**	74	115/208-230	None	14.0	14.18
	1800	184TC	**131629.00**	70	115/208-230	Man.	16.9	14.19
	1800	184TC	**131853.00☆**	87	208-230	Man.	15.4	15.96
5	3600	56HC	**116709.00□☆**	46	230	Man.	20.8	13.34
	3600	184TC	**131781.00☆**	70	208-230	None	22.2	14.19
	1800	184TC	**131630.00☆**	77	208-230	Man.	21.0	14.69
7½	3600	184TC	**132043.00☆ A**	112	208-230	Tstat	31.0	16.69
	1800	215TC	**140806.00**	120	208-230	None	36	17.26
10	3600	…	…	…	…	…	…	…
	1800	…	…	…	…	…	…	…

Motors in this column have NEMA Service Factors - see page 274 for details.

TEFC • C FACE WITH BASE • SINGLE PHASE

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
S56C	**102916.00**	22	115/208-230	None	2.7	9.69
S56C	**102929.00**	22	115/208-230	None	2.8	9.69
S56C	**102930.00**	24	115/208-230	None	3.1	10.44
S56C	**102082.00**	24	115/208-230	Man.	3.1	10.31
S56C	**102910.00●✣**	25	115/208-230	None	2.6	10.31
S56C	**102903.00**	25	115/208-230	None	3.5	9.94
S56C	**102907.00✣**	22	115/208-230	None	4.0	10.69
S56C	**103085.00**	22	115/208-230	Man.	4.0	10.69
56C	**112135.00**	26	115/208-230	None	5.0	11.31
56C	**110905.00✣**	26	115/208-230	None	5.4	11.31
56C	**116922.00**	26	115/208-230	Man.	5.4	11.31
56C	**110180.00**	28	115/208-230	None	6.0	11.81
56C	**115877.00**	28	115/208-230	Man.	6.0	11.81
56C	**110908.00✣**	30	115/208-230	None	6.4	11.81
56C	**115879.00**	32	115/208-230	Man.	6.4	11.81
143TC	**121680.00**	32	115/208-230	None	6.4	12.25
…	…	…	…	…	…	…
56C	**110909.00**	34	115/208-230	None	8.5	12.31
56C	**115024.00☆**	35	115/208-230	Man.	6.2	12.31
56HC	**110910.00☆□**	39	115/208-230	None	8.6	12.81
56HC	**116703.00□✣☆**	42	115/208-230	Man.	8.6	12.81
145TC	**121681.00**	40	115/208-230	None	8.6	13.75
56HC	**113931.00□†**	46	115/208-230	None	10.0	13.31
56HC	**114995.00□☆**	42	115/208-230	Man.	9.2	13.31
56HC	**115878.00✣†□ A**	43	115/208-230	Man.	10.0	13.31
145TC	**121008.00✣†**	43	115/208-230	None	10.0	13.75
…	…	…	…	…	…	…
145TC	**120274.00☆**	49	115/230	None	9.2	14.25
145TC	**121465.00☆**	44	115/208-230	Man.	9.2	13.75
145TC	**121825.00**	47	230	None	13	14.43
56HC	**115048.00□☆**	53	208-230	Man.	14.0	13.31
145TC	**121060.00☆**	51	230	Man.	13.0	14.25
…	…	…	…	…	…	…
184TC	**131631.00**	84	115/208-230	Man.	16.8	16.47
184TC	**131857.00☆**	104	230	Man.	13.7	17.61
…	…	…	…	…	…	…
184TC	**131632.00☆✣**	103	230	Man.	19.8	16.97
184TC	**131633.00☆**	86	230	Man.	23.0	16.97
213TC	**140694.00☆**	120	208-230	None	32.0	19.07
215TC	**140807.00**	171	208-230	None	33.6	20.21
215TC	**140695.00☆**	138	208-230	None	41.5	20.57
215TC	**140678.00☆**	152	230	None	40.0	20.71

Motors in this column have NEMA Service Factors except as denoted by ✣, which have 1.15 Service Factors.

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
✣ These totally enclosed single phase motors have 1.15 Service Factors.
● These motors are totally enclosed, non-ventilated — Others are fan cooled.
□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-145T and standard NEMA 56C face and shaft.
† Class F insulated.
A Subject to Availability.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

Lincoln MOTORS

Signature Series ODP GENERAL PURPOSE

115, 208 AND 230 VOLTS • 1-PHASE
FOOT MOUNT AND C-FACE
1/4 TO 10 HP

Features:
- Durable rolled steel frame construction
- NEMA Design B performance
- Meet or exceed NEMA Service Factors
- Maintenance-free double sealed ball bearings
- Continuous Duty
- Premium Class B Insulation system
- Durable, easy-to-read mylar nameplate
- UL Recognized Component Listing and CSA certified

Applications:
For use where water and dust exposure is moderate. Ideally suited for use on pumps, compressors, blowers, fans and other standard industrial applications.

See page 68 for ODP Single Phase motors with built-in overload protection.

FOOT MOUNT

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	S56	1.35	115/208-230	SPD4S0.25T1C6028	**LM24457**	17
	1200	56	1.35	115/208-230	SRD6S0.25T1C6028	**LM24541**	17
1/3	3600	48	1.15	115/208-230	SPD2S0.33T1C6028	**LM24467**	16
	1800	S56	1.35	115/208-230	SRD4S0.33T1C6028	**LM24570**	18
	1200	S56	1.15	115/208-230	SRD6S0.33T1C6028	**LM24540**	24
1/2	3600	48	1.25	115/208-230	SPD2S0.5T1C6028	**LM24465**	18
	1800	S56	1.25	115/208-230	SRD4S0.5T1C6028	**LM24551**	22
	1200	56	1.25	115/208-230	SRD6S0.5T1C6028	**LM24542**	30
3/4	3600	S56	1.25	115/208-230	SRD2S0.75T1C6028	**LM24674**	21
	1800	S56	1.25	115/208-230	SRD4S0.75T1B6028	**LM24502**	26
	1200	56	1.15	115/208-230	SRD6S0.75T1C6028	**LM24543**	38
1	3600	S56	1.25	115/208-230	SRD2S1T1B6028	**LM24525**	23
	1800	56	1.15	115/208-230	SRD4S1T1C6028	**LM24580**	30
	1800	143T*	1.15	115/208-230	SSD4S1T1C6028	**LM24675**	33
1 1/2	3600	56	1.15	115/208-230	SRD2S1.5T1B6028	**LM24524**	25
	3600	143T*	1.15	115/208-230	SSD2S1.5T1C6028	**LM24676**	30
	1800	56H*	1.15	115/208-230	SRD4S1.5T1C6028	**LM24583**	40
	1800	145T*	1.15	115/208-230	SSD4S1.5T1C6028	**LM24687**	41
2	3600	56H*	1.15	115/208-230	SRD2S2T1B6028	**LM24624**	35
	3600	145T*	1.15	115/208-230	SSD2S2T1B6028	**LM24806**	40
	1800	145T*	1.15	115/208-230	SSD4S2T1B6028	**LM24677**	49
	1800	182T	1.15	115/208-230	SS182D4S2T1C6028	**LM24678**	65
3	3600	182T	1.15	115/208-230	SS182D2S3T1C6028	**LM24679**	57
	1800	184T	1.15	115/208-230	SS184D4S3T1C6028	**LM24680**	78
5	3600	184T	1.15	208-230	SS184D2S5T1C6008	**LM24681**	78
	1800	184T	1.15	208-230	SSD4S5T1B6008	**LM24682**	87
7 1/2	1800	215T	1.15	208-230	SS215D4S7.5T1B6008	**LM24683**	118
10	1800	215T	1.15	208-230	SSD4S10T1B6008	**LM24684**	140

* 56H, 143T and 145T Combination Base with 12 mounting holes.

Product numbers in red are STOCK items.

Specifications are subject to change without notice

C-FACE WITH FEET

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/2	1800	56C	1.25	115/208-230	SRD4S0.5TLC1C6028	**LM24697**	22
3/4	1800	56C	1.25	115/208-230	SRD4S0.75TLC1B6028	**LM24699**	26
1	1800	56C	1.15	115/208-230	SRD4S1TLC1C6028	**LM24700**	30
1 1/2	1800	56HC	1.15	115/208-230	SRD4S1.5TLC1C6028	**LM24701**	40
2	1800	145TC	1.15	115/208-230	SSD4S2TLC1B6028	**LM24698**	50

C-FACE FOOTLESS

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	S56	1.35	115/208-230	SRD4S0.25TLCN1C6028	**LM24569**	17
1/3	3600	S56	1.15	115/208-230	SRD2S0.33TLCN1C6028	**LM24688**	16
	1800	S56	1.35	115/208-230	SRD4S0.33TLCN1C6028	**LM24571**	17
1/2	3600	S56	1.25	115/208-230	SRD2S0.5TLCN1C6028	**LM24689**	17
	1800	S56	1.25	115/208-230	SRD4S0.5TLCN1C6028	**LM24555**	21
	1200	56C	1.25	115/208-230	SRD6S0.5TLCN1C6028	**LM24544**	33
3/4	3600	S56	1.25	115/208-230	SRD2S0.75TLCN1C6028	**LM24690**	19
	1800	S56	1.25	115/208-230	SRD4S0.75TLCN1B6028	**LM24505**	25
	1200	56C	1.15	115/208-230	SRD6S0.75TLCN1C6028	**LM24691**	37
1	3600	S56	1.25	115/208-230	SRD2S1TLCN1B6028	**LM24526**	24
	1800 1800	56C 143TC	1.15 1.15	115/208-230 115/208-230	SRD4S1TLCN1C6028 SSD4S1TLCN1C6028	**LM24586** **LM24692**	29 32
1 1/2	3600	56C	1.15	115/208-230	SRD2S1.5TLCN1B6028	**LM24523**	26
	1800	56HC	1.15	115/208-230	SRD4S1.5TLCN1C6028	**LM24587**	39
2	3600 3600	56HC 145TC	1.15 1.15	115/208-230 115/208-230	SRD2S2TLCN1B6028 SSD2S2TLCN1B6028	**LM24527** **LM24693**	35 40
	1800 1800	56C 145TC	1.15 1.15	115/208-230 115/208-230	SRD4S2TLCN1B6028 SSD4S2TLCN1B6028	**LM24507** **LM24694**	45 50
3	1800	184TC	1.15	115/208-230	SS184D4S3TLCN1C6028	**LM24695**	85
5	1800	184TC	1.15	208-230	SSD4S5TLCN1B6008	**LM24696**	94

* 56H, 143T and 145T Combination Base with 12 mounting holes.

Lincoln MOTORS

Signature Series ODP GENERAL PURPOSE OVERLOAD PROTECTION

115, 208 AND 230 VOLTS • 1-PHASE
FOOT MOUNT
1/4 TO 2 HP

Features:
- Built-in thermal overload protection
- Durable rolled steel frame construction
- NEMA Design B performance
- Meet or exceed NEMA Service Factors
- Maintenance-free double sealed ball bearings
- Continuous Duty
- Premium Class B Insulation system
- Durable, easy-to-read mylar nameplate
- UL Recognized Component Listing and CSA certified

Applications:
For use where water and dust exposure is moderate. Ideally suited for use on pumps, compressors, blowers, fans and other standard industrial applications where thermal overload protection is desired.

CAUTION **A motor with an auto reset protector (TP2 suffix) must not be used where automatic restarting (after motor cool-down) would endanger personnel or equipment. Such applications should use a manual reset protector (TP1).**

FOOT MOUNT

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1/4	1800	48	1.35	115/208-230	SPD4S0.25T1C6028TP1	**LM24458**	ML	17
1/3	1800	S56	1.35	115/208-230	SRD4S0.33T1C6028TP1	**LM24550**	ML	18
	1800	S56	1.35	115/208-230	SRD4S0.33T1C6028TP2	**LM24549**	AT	18
1/2	1800	S56	1.25	115/208-230	SRD4S0.5T1C6028TP1	**LM24553**	ML	23
	1800	S56	1.25	115/208-230	SRD4S0.5T1C6028TP2	**LM24552**	AT	22
3/4	1800	S56	1.25	115/208-230	SRD4S0.75T1B6028TP1	**LM24504**	ML	25
	1800	S56	1.25	115/208-230	SRD4S0.75T1B6028TP2	**LM24503**	AT	25
1	1800	56	1.15	115/208-230	SRD4S1T1C6028TP1	**LM24582**	ML	29
	1800	56	1.15	115/208-230	SRD4S1T1C6028TP2	**LM24581**	AT	29
1 1/2	1800	56H*	1.15	115/208-230	SRD4S1.5T1C6028TP1	**LM24585**	ML	40
2	1800	145T*	1.15	115/208-230	SSD4S2T1B6028TP1	**LM24685**	ML	50

* 56H, 143T and 145T Combination Base with 12 mounting holes.

NOTES:
ML = Manual Overload
AT = Automatic Overload

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Signature Series

TEFC GENERAL PURPOSE

115, 208 AND 230 VOLTS • 1-PHASE
FOOT MOUNT AND C-FACE
1/4 TO 10 HP

Lincoln MOTORS

Features:
- Durable rolled steel frame construction
- NEMA Design B performance
- Maintenance-free double sealed ball bearings
- Continuous Duty
- Premium Class B Insulation system
- Durable, easy-to-read mylar nameplate
- UL Recognized Component Listing and CSA certified

Applications:
For use where exposure to water, dust and dirt exists. Ideally suited for use on pumps, compressors, fans, conveyors and other industrial equipment.

See page 71 for TEFC Single Phase motors with built-in overload protection.

FOOT MOUNT

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	S56	1.15	115/208-230	SRF4S0.25T1C6028	**LM24606**	18
	1200	56	1.15	115/208-230	SRF6S0.25T1C6028	**LM24545**	25
1/3	3600	S56	1.15	115/208-230	SRF2S0.33T1C6028	**LM24705**	19
	1800	56	1.15	115/208-230	SRF4S0.33T1C6028	**LM24597**	19
	1200	56	1.15	115/208-230	SRF6S0.33T1C6028	**LM24546**	28
1/2	3600	56	1.15	115/208-230	SRF2S0.5T1C6028	**LM24706**	23
	1800	S56	1.15	115/208-230	SRF4S0.5T1C6028	**LM24627**	24
	1200	56	1.15	115/208-230	SRF6S0.5T1B6028	**LM24496**	36
3/4	3600	56	1.15	115/208-230	SRF2S0.75T1C6028	**LM24707**	30
	1800	56	1.15	115/208-230	SRF4S0.75T1C6028	**LM24607**	30
	1200	56	1.15	115/208-230	SRF6S0.75T1B6028	**LM24497**	41
1	3600	56	1.15	115/208-230	SRF2S1T1C6028	**LM24708**	31
	1800	56	1.15	115/208-230	SRF4S1T1C6028	**LM24610**	32
	1800	143T*	1.15	115/208-230	SSF4S1T1C6028	**LM24709**	34
1 1/2	3600	56H*	1.15	115/208-230	SRF2S1.5T1B6028	**LM24531**	35
	3600	143T*	1.15	115/208-230	SSF2S1.5T1B6028	**LM24710**	39
	1800	56H*	1.15	115/208-230	SRF4S1.5T1B6028	**LM24513**	41
	1800	145T*	1.15	115/208-230	SSF4S1.5T1B6028	**LM24711**	42
2	3600	56H*	1.15	115/208-230	SRF2S2T1B6028	**LM24533**	40
	3600	145T*	1.15	115/208-230	SSF2S2T1B6028	**LM24712**	41
	1800	182T	1.15	115/208-230	SS182F4S2T1B6028	**LM24713**	54
3	3600	145T*	1.15	208-230	SS145F2S3T1B6008	**LM24714**	48
	3600	182T	1.00	115/208-230	SSF2S3T1B6028	**LM24715**	69
	1800	184T	1.00	115/208-230	SS184F4S3T1C6028	**LM24716**	99
5	3600	184T	1.00	208-230	SSF2S5T1B6008	**LM24717**	98
	1800	184T	1.00	208-230	SSF4S5T1B6008	**LM24718**	98
7 1/2	3600	213T	1.00	208-230	SSF2S7.5T1B6008	**LM24719**	120
	1800	215T	1.00	208-230	SS215F4S7.5T1B6008	**LM24720**	133
10	3600	215T	1.00	208-230	SSF2S10T1B6008	**LM24721**	138
	1800	215T	1.00	230	SSF4S10T1B66	**LM24722**	155

* 56H, 143T and 145T Combination Base with 12 mounting holes.

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Lincoln MOTORS

Signature Series **TEFC GENERAL PURPOSE**

115, 208 AND 230 VOLTS • 1-PHASE
FOOT MOUNT AND C-FACE
1/4 TO 10 HP

C-FACE WITH FEET

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	S56	1.15	115/208-230	SRF4S0.25TLC1C6028	LM24723	17
1/3	3600	56C	1.15	115/208-230	SRF2S0.33TLC1C6028	LM24724	21
	1800	S56	1.15	115/208-230	SRF4S0.33TLC1C6028	LM24600	19
1/2	3600	56C	1.15	115/208-230	SRF2S0.5TLC1C6028	LM24725	23
	1800	S56	1.15	115/208-230	SRF4S0.5TLC1C6028	LM24628	24
3/4	3600	56C	1.15	115/208-230	SRF2S0.75TLC1C6028	LM24726	30
	1800	56C	1.15	115/208-230	SRF4S0.75TLC1C6028	LM24615	30
1	3600	56C	1.15	115/208-230	SRF2S1TLC1C6028	LM24727	31
	1800	56C	1.15	115/208-230	SRF4S1TLC1C6028	LM24616	32
1 1/2	3600	56HC	1.15	115/208-230	SRF2S1.5TLC1B6028	LM24539	35
	1800	56HC	1.15	115/208-230	SRF4S1.5TLC1B6028	LM24728	41
2	3600	56HC	1.15	115/208-230	SRF2S2TLC1B6028	LM24729	40
	3600	145TC	1.15	115/208-230	SSF2S2TLC1B6028	LM24730	40
	1800	145TC	1.15	115/230	SSF4S2TLC1B6028	LM24731	52
3	3600	145TC	1.15	208-230	SS145F2S3TLC1B6008TP1	LM29441	48

C-FACE FOOTLESS

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	S56	1.15	115/208-230	SRN4S0.25TLCN1C6028	LM24733	18
1/3	3600	S56	1.15	115/208-230	SRN2S0.33TLCN1C6028	LM24734	20
	1800	S56	1.15	115/208-230	SRF4S0.33TLCN1C6028	LM24598	19
	1200	56C	1.15	115/208-230	SRF6S0.33TLCN1C6028	LM24735	28
1/2	3600	56C	1.15	115/208-230	SRF2S0.5TLCN1C6028	LM24736	23
	1800	56C	1.15	115/208-230	SRF4S0.5TLCN1C6028	LM24599	24
	1200	S56	1.15	115/208-230	SRF6S0.5TLCN1B6028	LM24737	36
3/4	3600	56C	1.15	115/208-230	SRF2S0.75TLCN1C6028	LM24738	30
	1800	56C	1.15	115/208-230	SRF4S0.75TLCN1C6028	LM24613	30
	1200	56C	1.15	115/208-230	SRF6S0.75TLCN1B6028	LM24739	41
1	3600	56C	1.15	115/208-230	SRF2S1TLCN1C6028	LM24740	31
	1800	56C	1.15	115/208-230	SRF4S1TLCN1C6028	LM24614	32
	1800	143TC	1.15	115/208-230	SSF4S1TLCN1C6028	LM24741	35
1 1/2	3600	56C	1.15	115/208-230	SRF2S1.5TLCN1B6028	LM24535	35
	1800	56C	1.15	115/208-230	SRF4S1.5TLCN1B6028	LM24622	41
2	3600	56C	1.15	115/208-230	SRF2S2TLCN1B6028	LM24530	40
3	3600	145TC	1.15	208-230	SS145F2S3TLCN1B6008	LM24742	48

* 56H, 143T and 145T Combination Base with 12 mounting holes.

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Signature Series

TEFC GENERAL PURPOSE OVERLOAD PROTECTION

115, 208 AND 230 VOLTS • 1-PHASE
FOOT MOUNT
1/3 TO 3 HP

Features:
- Built-in thermal overload protection
- Durable rolled steel frame construction
- NEMA Design B performance
- Maintenance-free double sealed ball bearings
- Continuous Duty
- Premium Class B Insulation system
- Durable, easy-to-read mylar nameplate
- UL Recognized Component Listing and CSA certified

Applications:
For use where exposure to water, dust and dirt exists. Ideally suited for use on pumps, compressors, fans, conveyors and other industrial equipment where thermal overload protection is desired.

CAUTION **A motor with an auto reset protector (TP2 suffix) must not be used where automatic restarting (after motor cool-down) would endanger personnel or equipment. Such applications should use a manual reset protector (TP1).**

FOOT MOUNT

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1/3	1800	S56	1.15	115/208-230	SRF4S0.33T1C6028TP1	**LM24602**	ML	20
	1800	S56	1.15	115/208-230	SRF4S0.33T1C6028TP2	**LM24601**	AT	19
1/2	3600	56	1.15	115/208-230	SRF2S0.5T1C6028TP1	**LM24743**	ML	23
	1800	S56	1.15	115/208-230	SRF4S0.5T1C6028TP1	**LM24604**	ML	24
	1800	S56	1.15	115/208-230	SRF4S0.5T1C6028TP2	**LM24603**	AT	24
3/4	3600	56	1.15	115/208-230	SRF2S0.75T1C6028TP1	**LM24744**	ML	26
	1800	56	1.15	115/208-230	SRF4S0.75T1C6028TP1	**LM24609**	ML	30
	1800	56	1.15	115/208-230	SRF4S0.75T1C6028TP2	**LM24608**	AT	30
1	3600	56	1.15	115/208-230	SRF2S1T1C6028TP1	**LM24745**	ML	31
	1800	56	1.15	115/208-230	SRF4S1T1C6028TP1	**LM24612**	ML	32
	1800	56	1.15	115/208-230	SRF4S1T1C6028TP2	**LM24611**	AT	32
1 1/2	3600	56H*	1.15	115/208-230	SRF2S1.5T1B6028TP1	**LM24532**	ML	35
	1800	56H*	1.15	115/208-230	SRF4S1.5T1B6028TP1	**LM24515**	ML	41
	1800	56H*	1.15	115/208-230	SRF4S1.5T1B6028TP2	**LM24514**	AT	41
	1800	145T	1.15	115/208-230	SSF4S1.5T1B6028TP1	**LM24746**	ML	43
2	3600	56H*	1.15	115/208-230	SRF2S2T1B6028TP1	**LM24534**	ML	40
	3600	145T	1.15	115/208-230	SSF2S2T1B6028TP1	**LM24747**	ML	40
3	3600	145T	1.15	208-230	SS145F2S3T1B6028TP1	**LM24748**	ML	48

NOTES:
ML = Manual Overload
AT = Automatic Overload

Product numbers in red are STOCK items.

Specifications are subject to change without notice

LEESON®

AGRICULTURAL MOTORS
GENERAL PURPOSE • SINGLE PHASE

FARM DUTY • GENERAL PURPOSE

Heavy duty single phase Hi-Torque Motors designed specifically for severe “farm duty” applications.

Mechanical Features:
Gasketed capacitor housing and conduit boxes provide protection in all environments.
Double sealed ball bearings prelubricated with Exxon POLYREX® EM grease having operating temperature range of –20°F to +350°F and special formulation to provide extra bearing protection.
Rubber boot over manual protector reset button provides weather protection.

Electrical Features:
Low temperature manual overload protector protects against extreme overload.
Class “F” copper windings and varnish.
Capacitor start provides high starting torque with normal starting current.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

HIGH TORQUE • RIGID BASE SINGLE PHASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	“C” Dim. (Inches)
1/3	1800	56	**113256.00**	20	115/208-230	Man.	3.2	10.81
1/2	1800	56	**110086.00**	22	115/208-230	Man.	4.4	10.81
3/4	1800	56	**110087.00**	26	115/208-230	Man.	5.4	11.31
1	1800	56	**110088.00**	30	115/208-230	Man.	7.0	11.81
	1800	143T	**121569.00**	30	115/208-230	Man.	7.0	12.75
1½	1800	56H	**110089.00**☆□	41	115/208-230	Man.	8.6	12.61
	1800	56HZ/ 145T	**113938.00**■	39	115/208-230	Man.	8.6	13.25
2	1800	56HZ/ 145T	**110090.00**☆■	43	230	Man.	9.2	13.75
	1800	182T	**131541.00**	50	115/208-230	Man.	12.4	14.46
3	1800	184T	**131542.00**	83	230	Man.	19.0	16.46
5	1800	184T	**131543.00**☆	96	230	Man.	20.5	17.46
7½	1800	215T	**140707.00**☆	144	230	Man.	32.0	20.21
10	1800	215T	**140706.00**☆	152	230	Man.	40.0	20.71

EXTRA HI-TORQUE RIGID BASE SINGLE PHASE • TEFC

Extra Hi-Torque rated 5, 7½ and 10 HP Motors deliver starting torque as high as 300-400% of motor’s full load torque with all mechanical and electrical features listed above.

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	“C” Dim. (Inches)
2	1800	182T	**131541.00**	50	115/208-230	Man.	12.4	14.46
3	1800	184T	**131542.00**	83	230	Man.	19.0	16.46
5	1800	215T	**140203.00**☆	119	230	Man.	24.0	18.71
	1800	215TZ	**140223.00**☆♦	150	230	Man.	24.0	18.71
7½	1800	215T	**140130.00**☆	144	230	Man.	33.6	20.21
	1800	215TZ	**140209.00**☆♦	141	230	Man.	33.6	20.21
10	1800	215T	**140414.00**☆	156	230	Man.	40.0	20.71

HIGH TORQUE C FACE LESS BASE SINGLE PHASE • TEFC

NEMA C Face Motor designed with overspeed protection on mechanical centrifugal starting switch.

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	“C” Dim. (Inches)
1/3	1800	56C	**113290.00**	28	115/208-230	Man.	3.2	10.81
1/2	1800	56C	**110492.00**	22	115/208-230	Man.	4.4	10.81
3/4	1800	56C	**110493.00**	29	115/208-230	Man.	5.4	11.31
1	1800	56C	**110494.00**	33	115/208-230	Man.	7.0	11.81
1½	1800	56C	**110495.00**☆	43	115/208-230	Man.	8.6	12.31
2	1800	145TC	**120855.00**†☆	45	230	Man.	9.2	13.75
3	1800	184TC	**131603.00**	104	230	Man.	19.0	16.47
5	1800	184TC	**131602.00**☆	104	230	Man.	20.5	17.47

HIGH TORQUE C FACE WITH BASE SINGLE PHASE • TEFC

NEMA C Face Motor designed with overspeed protection on mechanical centrifugal starting switch.

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	“C” Dim. (Inches)
1/3	1800	56C	**116485.00**	29	115/208-230	Man.	3.2	10.81
1/2	1800	56C	**116486.00**	23	115/208-230	Man.	4.4	10.81
3/4	1800	56C	**116487.00**	30	115/208-230	Man.	5.4	11.31
1	1800	56C	**116488.00**	34	115/208-230	Man.	7.0	11.81
1½	1800	56HC	**116489.00**☆	44	115/208-230	Man.	8.6	12.81
2	1800	145TC	**121625.00**†☆	46	230	Man.	9.2	13.75
3	1800	184TC	**131994.00**	105	230	Man.	19.0	16.47
5	1800	184TC	**131995.00**☆	105	230	Man.	20.5	17.47

■ Combination 56 HZ base has mounting holes for NEMA 56 and 143-5T and a standard NEMA 145T frame shaft of 7/8” diameter.
□ Combination 56H base has mounting holes for NEMA 56 and 143-5T and a standard NEMA 56 frame shaft.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
† Class F insulated.
♦ These motors have a NEMA 215T base mounting pattern and shaft height of 5.25”, with usable length of 3³/₈” and diameter of 1¹/₈” with standard key.

Specifications are subject to change without notice

TWO-WINDING VARIABLE TORQUE PSC TYPE FOR SHAFT MOUNTED FAN APPLICATIONS

These fan and blower duty motors are designed for dependable, *energy saving* performance in applications where the fan is mounted on the shaft of the motor.The permanent split capacitor design does not require a centrifugal switch, resulting in higher reliability than on other types of single phase motors. This design is also more energy efficient and less expensive to operate.

These motors may be operated at listed speed or two speed operation may be achieved by using the proper auxiliary switch. They are suitable for variable speed by adjusting the voltage to the motor using a variable voltage control, except as noted by ∇.

Overload protected with an automatic reset protector. Grounding provisions. Totally enclosed, dust tight design, with resilient mounting for quiet operation. Lubricated with quiet running high temperature lubricant. Corrosion resistant finish for tough applications. Because of the inherently low starting torques of this design, these motors are not suitable for belt driven fan applications. They must be mounted within the air stream of the driven fan.

SINGLE PHASE • PSC • TEAO • RESILIENT BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/4	1800	48Z*	**100803.00**	19	115/230	Auto.	1.4	10.66
	1200	48Z*	**100824.00**	20	115/230	Auto.	1.4	10.66
	1200	S56Z*	**100805.00**	22	115/230	Auto.	1.4	11.06
1/3	1800	48Z*	**100804.00**	21	115/230	Auto.	1.6	10.66
	1800	S56H	**100767.00**	22	115/230	Auto.	1.6	10.31
	1800	56HY	**111348.00**②	24	115/230	Auto.	1.7	13.44
	1200	48Z*	**100825.00**	25	115/230	Auto.	1.8	11.16
	1200	S56HZ*	**100806.00**	27	115/230	Auto.	1.8	11.56
1/2	1800	56HZ*	**111323.00**	30	115/230	Auto.	2.6	12.56
	1800	S56H	**100768.00**	36	115/230	Auto.	2.2	10.81
	1200	48Z*	**101645.00**	33	115/230	Auto.	2.8	11.16
	1200	56HZ*	**111321.00**□	37	115/230	Auto.	3.0	13.56
	900	48YZ✪	**M099836.00**∇	24	115/230	Auto.	3.0	11.55
	900	56HZ*	**111919.00**□∇	40	115/230	Auto.	3.2	13.56
3/4	1800	56HZ*	**111324.00**	34	115/230	Auto.	3.5	13.06
	1800	56H	**111266.00**	36	115/230	Auto.	3.5	12.31
	1200	56HZ*	**111322.00**□∇	44	115/230	Auto.	4.0	13.56
1	1800	56HZ	**111267.00**	39	115/230	Auto.	4.4	12.81

These motors have a 1.0 Service Factor

SINGLE PHASE • PSC TYPE • RIGID BASE TOTALLY ENCLOSED AIR OVER (TEAO)

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/4	1800	48Y	**101252.00**∇	19	115/208-230	Auto.	1.5	10.90
	1800	48Y	**100699.00**	19	115/230	Auto.	1.4	10.65
	1800	48Y	**M099799.00**	19	115/230	Auto.	1.5	10.79
	1200	48Y	**M099260.00**	21	115/230	Auto.	1.2	10.83
1/3	1800	48Y	**M090253.00**∇	22	115/230	Auto.	1.8	10.47
	1800	48Y	**101253.00**∇	22	115/208-230	Auto.	1.9	10.65
	1800	48Y	**100700.00**	22	115/230	Auto.	1.6	10.65
	1800	56Y	**111202.00**①	24	115/230	Auto.	1.7	12.00
	1800	48Y	**M099800.00**	22	115/230	Auto.	1.8	10.79
	1200	48Y	**M099261.00**	21	115/230	Auto.	1.5	11.34
	1200	S56Y	**100604.00**	23	115/230	Auto.	1.8	11.40
1/2	1800	S56Y	**101176.00**✓∇	26	115/230	Auto.	3.5	10.40
	1800	48Y	**100701.00**	29	115/230	Auto.	2.5	12.15
	1800	48Y	**M099801.00**	29	115/230	Auto.	2.5	10.79
	1200	48Y	**M099946.00**	26	115/230	Auto.	2.5	11.81
3/4	1200	56HZ	**M099847.00**	36	115/230	Auto.	3.6	13.56

- * The useable shaft of this motor is 3/4" longer than NEMA standard to accommodate fan on shaft mountings. 48Z is 1/2" diameter by $2^1/_4$". 56Z is 5/8" diameter, $2^5/_8$" long. All have 1" extended through bolts. Except Catalog Numbers 100805 and 100806 which are extended 1/4".
- ∇ Suitable for single speed operation only.
- □ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
- ① Has provisions for belly band and pedestal fan mount–no rigid base.
- ② In addition to resilient base, this motor has provisions for belly band and pedestal fan mount.
- ✓ This split phase start, capacitor run motor is suitable for belt drive within the airflow of the fan.
- ✪ Shaft is 5/8" by 2.0"
- ✽✽ Shaft is 5/8" by 2 5/8"
- ✽ Shaft is 3/4" by 3 1/2"

CAST IRON RODENT SCREEN MOTORS

Open Drip Proof designs having Rodent screens. Typically used in AG fan and blower applications.

Features include:

- NEMA Premium efficiency
- Rodent Screens
- Re-greasable Bearings
- 1.25 Service Factor
- Class F insulation
- Inverter Duty Insulation System
- UL Recognized and CSA certified

THREE-PHASE - OPEN DRIP PROOF - RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	Eff.	"C" Dim. (Inches)
15	1800	254T	**170540.60**	279	208-230/460	37.0	93.0	20.9
20	1800	256T	**170541.60**	324	208-230/460	51.0	93.0	22.6
30	1800	286T	**170542.60**	471	208-230/460	71.0	93.6	23.5

LEESON AGRICULTURAL MOTORS
SINGLE AND THREE PHASE

AERATION FAN MOTORS
BELT-DRIVEN • DUST-TIGHT

Totally enclosed air over motors, dust-tight, suitable for shaft-mounted fans or belt driven fans. Capacitor start designs. Designed to be used within the airflow of the driven fan, these motors offer protection from the environment and are finished in epoxy enamel to resist corrosion in tough atmospheres. Lubricated with high temperature Exxon POLYREX® EM lubricant. Grounding provisions. Fully gasketed. Single phase motors have built-in terminal panel for quick, easy connections.

SINGLE PHASE • CAPACITOR START • TEAO • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
3/4	3600	56	**111332.00⑦**	27	115/230	None	5.0	10.90
1	3600	56	**111333.00⑦**	29	115/230	None	6.0	10.90
1½	3600	56	**111949.00⑦**	32	115/230	None	8.5	11.40
	3600	143TZ	**120374.00⑧**	31	115/230	None	8.5	11.84
2	3600	145TZ	**120375.00⑧**	41	230	None	10.0	13.34
3	3600	145T	**120376.00☆**	45	230	None	12.8	13.84

THREE PHASE • TEAO • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3/4	3600	56Z	**111334.00⑦**	21	208-230/460	2.4	75.5	9.90
1	3600	56Z	**111335.00⑦**	22	208-230/460	3.2	77.0	9.90
1½	3600	143TZ	**120377.00⑧**	31	208-230/460	4.2	82.5	11.34
2	3600	145TZ	**120378.00⑧**	34	208-230/460	5.6	82.5	11.84
3	3600	145T	**120379.00⑧**	38	230/460	7.6	84.0	12.34

CROP DRYER MOTORS

Open air over, fan-on-shaft design motors for crop drying applications. Designed for continuous duty operation. Class F insulation system. Thermostats provide thermal overload protection on all units. Extra nameplate included for remote mounting. Keyed shaft with 1/4-20 UNC tapped hole in end.

Capacitors supplied on single phase models. All models include sealed bearings, rodent screens, gray epoxy paint and 34" leads exiting the motor at 12 o'clock.

SINGLE PHASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
5-7	3600	182TZ	**131847.00**	91	230	T-Stat	27.2-35.0	16.44
7.5-10	3600	182TZ	**131848.00**	95	230	T-Stat	31.0-42.0	16.44
10-15	3600	215TZ	**140640.00**	159	230	T-Stat	39.5-61.5	20.42
	3600	215TZ	**141084.00♠**	159	230	T-stats	40	20.08

♠ = Extra High Starting Torque

THREE PHASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
5-7.5	3600	184TZ	**131849.00**	70	208-230/460	T-Stat	19.0	13.94
7.5-10	3600	184TZ	**131850.00**	85	208-230/460	T-Stat	24.2	15.44
10-15	3600	215TZ	**140641.00**	95	208-220/440	T-Stat	40.0	17.41

GRAIN STIRRING MOTORS
DUST-TIGHT

Dust-Tight Motors designed to operate inside agricultural storage bins for stirring grain, corn and other agricultural products.

Mechanical Features:

External cast aluminum cooling fan at shaft end keeps grain from obstructing fan operation. Prelubricated double shielded ball bearings packed with Exxon POLYREX® EM grease (temperature range –20°F to +350°F). Totally enclosed construction with gasketed conduit box and capacitor cases. Moisture drain hole in endshield opposite shaft for vertical shaft up mounting. Rugged 205 bearing shaft-end. Shaft is 7/8" diameter, useable length of 15/16". "BA" dimension is 3 5/8".

Electrical Features:

Energy-saving, extra high torque designs.

SINGLE PHASE • RIGID BASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1½	1800	56HZ	**111330.00☆**	42	115/208-230	Man.	8.6	12.31

THREE PHASE • RIGID BASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1½	1800	56HZ	**111329.00**	38	208-230/460	5.4	80.0	11.81

These Grain Stirring motors have NEMA Service Factor of 1.0

⑦ Standard 5/8" diameter shaft with keyway plus 3/4" deep hole drilled and tapped to 1/4-20 UNC in end of shaft to facilitate mounting of some fan blades.
⑧ Standard 7/8" diameter shaft with keyway plus 3/4" deep hole drilled and tapped to 1/4-20 UNC in end of shaft to facilitate mounting of some fan blades.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

CATFISH POND MOTORS

Specially designed for aeration systems used on aquaculture ponds, these motors are designed for dependable outdoor applications. Typically C-face connected to a right-angle gearbox and installed on a floating aeration platform.

Hi-torque motors are epoxy-painted with a corrosion-resistant interior coating. Stainless hardware, fan guard, lifting lug, and conduit box cover for maximum protection against corrosion. Drain holes in the conduit box and in four positions on each end of the frame to purge condensate and moisture that may enter the motor. Ball bearings are double-sealed and lubricated with Exxon POLYREX® EM high temperature, moisture resistant lubricant.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

SINGLE AND THREE PHASE • C FACE WITH BASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Phase	F.L. Amps 460V	"C" Dim. (Inches)
10	1800	215TC	**140705.00✲**	204	230	1	40.0	20.71
	1800	215TC	**140833.00**	169	208-230/460	3	23.6	19.7

✲ Single phase motor has manual reset overload protection

IRRIGATION BOOSTER PUMP MOTOR

Threaded-shaft jet pump motor for shaft-down mounting. TEFC with rain canopy. Locked bearing on shaft end, for longer motor life. Neoprene shaft flinger repels moisture. Drain holes in C face and conduit box. Epoxy paint and fully gasketed. Stator impregnated with extra-heavy varnish system.

THREE PHASE • IRRIGATION BOOSTER • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 460V	% F.L. Eff.	"C" Dim. (Inches)
2	3600	56J	**112991.00**	33	460	2.8	84.0	14.34

IRRIGATION DRIVE MOTORS

Specially designed for pivoting irrigation systems exposed to severe weather environments and operating conditions.

Mechanical Features:
Double sealed ball bearings prelubricated with Exxon POLYREX® EM grease having an operating temperature range of –20°F to +350°F and special formulation to provide extra long life and moisture resistance. Moisture drain holes at shaft-end of motor. Die cast aluminum conduit box fully gasketed. Epoxy paint for corrosion resistance. Externally fan cooled with rain canopy over cooling fan, for shaft down mounting.

Electrical Features:
"Extra high" starting torque, Class "F" copper windings. Specially treated windings for excessive moisture conditions. Capable of multiple starts and stops. Automatic protector for overload and low voltage protection.

C FACE LESS BASE • THREE PHASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1	1800	56C	**111304.00**	30	460	2.4	75.0	12.34

These Irrigation Drive motors have a 1.25 Service Factor.

MILK TRANSFER PUMP MOTOR

General Specifications:
Totally enclosed non-ventilated motor. Direct replacement for Surge milk pumps, Babson motor #27732.

Mechanical Features:
Special moisture resistant design with double sealed ball bearings.
Bearings and bearing cavities packed with high temperature moisture resistant lubricant. Drain holes to expel moisture and water. Epoxy paint.

Electrical Features:
Permanent split capacitor design for reliability and improved efficiency. High temperature Class F insulation system. Requires 30 MFD, 370 VAC capacitor, separately mounted – not supplied.

SINGLE PHASE • RIGID BASE • TENV

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	56CZ	**113939.00**	42	230	None	4.5	13.07

POULTRY MOTORS
SINGLE AND THREE PHASE

FEED-AUGER DRIVE MOTORS DUST-TIGHT

Dust-tight, capacitor start motor with your choice of field proven electronic or protected mechanical starting switch—both eliminate damage caused when motor is over-speeded by obstructed auger.

Ball bearing, heavy duty industrial quality designs for high overload capacity. Side mounted conduit box. Flange mounts directly to drive assembly. Fully gasketed to keep out feed dust. Has screw driver slot in rear shaft. Continuous duty, with manual thermal overload protection. **Motors of 3/4 HP and less in the two adjacent charts have shaft of ½" diameter x 1½" length, with flat; motors 1 HP and larger have ⅝" diameter x 1.97" length, with key.**

SINGLE PHASE • TEFC • 60 HERTZ

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1800	48YZ	**101159.00**	21	115/230	Man.	3.1	10.47
	1800	48YZ	**101435.00⑨**	21	115/230	Man.	3.1	10.47
1/2	1800	48YZ	**101120.00**	22	115/208-230	Man.	4.0	10.72
	1800	48YZ	**101436.00⑨**	22	115/208-230	Man.	4.0	10.47
3/4	1800	48YZ	**101119.00**	24	115/208-230	Man.	5.4	11.47
	1800	48YZ	**101437.00⑨**	28	115/230	Man	5.4	11.47
1	1800	56YZ	**112615.00**	35	115/230	Man.	7.0	12.11
	1800	56YZ	**113302.00⑨**	35	115/208-230	Man.	7.0	12.61
1½	1800	56YZ	**113280.00☆**	47	115/208-230	Man.	6.5	13.62
	1800	56YZ	**113301.00☆⑨**	44	115/230	Man.	6.5	13.62

SINGLE PHASE • TEFC • 50 HERTZ

HP	SYN RPM 50 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 220V	"C" Dim. (Inches)
1/2	1800	48YZ	**101643.00⑨A**	26	110/220	Man.	4.0	11.47
3/4	1800	48YZ	**101644.00⑨A**	30	110/220	Man.	5.8	12.22
1	1800	56YZ	**113906.00⑨A**	39	110/220	Man.	6.4	12.61
1½	1800	56YZ	**113907.00⑨A**	48	110/220	Man.	8.6	13.61

HATCHERY AND INCUBATOR FAN MOTORS

Cat. No. 101341

Cat. No. 114102

SINGLE PHASE • TEAO

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/4	1800	48Y	**101341.00**	17	115/230	Auto.	1.4	8.93
1/2-0.22	1800/1200	56H	**114102.00**	33	115	Auto.	❈❈ 9.3-5.6	11.81

General Specifications:

Capacitor-type replacement motors for hatchery and incubator fan motors.

Catalog number 101341 is a permanent split capacitor motor for fan on shaft incubator fans. Band mounted, with 1" long extended through bolts for fan shroud. Shaft diameter ½" by 2¼", with full length flat. Connections in end of motor through ½"-14 NPT tap. UL Listed thermal overload. 15 MFD, 370V run capacitor shipped loose with motor.

Catalog number 114102 is a split phase two-speed motor, dust-tight and totally enclosed for belt driven hatchery cooling fans. Resilient base. With UL Listed automatic thermal overload. Requires no capacitor.

Mechanical Features:

Double shielded ball bearings permanently lubricated with Exxon POLYREX® EM lubricant having a temperature range of –40°F to +320°F and special formulation for extra long life and moisture resistance.

FEATHER PICKER MOTORS

Motors with the dimensions to replace the MEYN drive motor. Phosphatized or stainless, drilled and tapped metric shaft for easy mounting. Special duty rating with extra high breakdown torques for superior performance on this demanding application. See page 25 for complete listing of WASHGUARD features.

Totally enclosed fan cooled construction, sealed bearings, condensate drains, USDA approved food-safe tough white epoxy finish.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

THREE PHASE • TEFC

HP/KW	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
2	1800	145T	**121934.00**	54	208-230/460	7.0	86.5	14.76
2❖	1200	184TZ	**132246.00**	96	230/460	7.2	88.5	15.96
2/1.5❖	1200	112M◗	**132247.00**	96	230/460	7.2	88.5	15.96
3	1800	56HZ	**115751.00■**	45	208-230/460	8.6	82.5	14.25
	1800	145T	**121944.00♠**	45	230/460	8.6	82.5	14.25

Note: Catalog Number 115751 has a 303 stainless steel shaft.

■ Combination 56HZ base has mounting holes for NEMA 56 and a standard NEMA 145T frame shaft of 7/8" diameter.
❖ These motors have a 1.5 continuous duty service factor, 3 HP continuous.
◗ IEC frame. See page 310 for dimensions.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
⑨ Mechanical centrifugal starting switch with overspeed protection, others have electronic switch.
❈❈ F.L. Amps listed are for high speed and low speeds, respectively, at 115 volts.
A Subject to Availability.
♠ Inverter Duty Only Motor

INDUSTRY-AG • 115-208/230V • TEFC 1725 RPM • HIGH TORQUE RIGID BASE

Industry-Ag is a new line of heavy duty single phase hi-torque motors built to withstand the tough applications in industry and agriculture.

Mechanical Features: Gasketed capacitor housing and conduit boxes provide protection in all environments. Double sealed ball bearings provide extra bearing protection.

Rubber boot over manual protector reset button provides weather protection.

Electrical Features: Manual thermal protector protects against overload. Capacitor start provides high starting torque with normal starting current.

RIGID BASE • 115-208/230V • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (in.)
1/3	1800	56	**M002256.00**	24	115-208/230	Man.	2.9	11.00
1/2	1800	56	**M009086.00**	27	115-208/230	Man.	3.9	11.00
3/4	1800	56	**M009087.00**	30	115-208/230	Man.	5.0	11.50
1	1800	56	**M009088.00**	34	115-208/230	Man.	6.8	11.50
1½	1800	56	**M009089.00**	41	115-208/230	Man.	9.0	12.88
2	1800	56HZ	**M009090.00**	48	230	Man.	9.5	14.00
C Flange		56	**M064076.00**	3	—	—	—	—

C FACE LESS BASE • 115-208/230 • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (in.)
1/3	1800	56C	**M002290.00**	24	115-208/230	Man.	2.9	10.81
1/2	1800	56C	**M009492.00**	27	115-208/230	Man.	3.9	10.81
3/4	1800	56C	**M009493.00**	30	115-208/230	Man.	5.0	11.31
1	1800	56C	**M009494.00**	34	115-208/230	Man.	6.8	11.81

VARIABLE SPEED HIGH-PERFORMANCE AG FAN MOTORS

The all new *PERFORMA+* brings fan motor performance to a new level. These high-efficiency motors feature exceptional variable speed performance.

Features:

Water-tight connection end compartment with removable cover, houses the capacitor, thermal protector and wiring—allowing unimpeded airflow over the motor frame.

Locked, double-sealed bearings for all angle mounting, including vertical shaft up.

Oil seal in drive end repels moisture and contaminants.

Class F insulation with Class B rise.

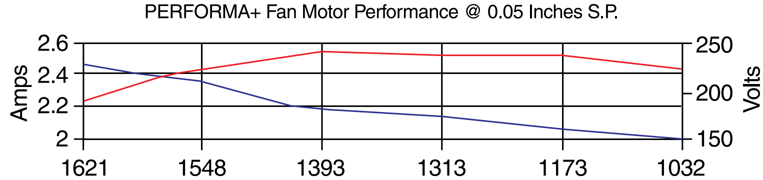
Permanent split capacitor type design eliminates the centrifugal switch for "three phase" type reliability.

Automatic thermal overload protection.

TEAO • RIGID BASE • EXTENDED THRU-BOLTS

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	Shaft Length (in.)	"C" Dim. (in.)
1/4	1800	48Y	**M099899.00**	18	115-208/230	Auto.	1.3	2	11.30
	1200	48Y	**M099460.00**	21	115/208-230	Auto.	1.3	2	11.80
1/3	1800	48Y	**M099900.00**	19	115-208/230	Auto.	1.8	2	11.30
	1200	48Y	**M099461.00**	22	115/208-230	Auto.	1.9	2	11.80
1/2	1800	48Y	**M099901.00**	22	115-208/230	Auto.	2.6	2	11.70
	1200	48Y	**M099462.00**	25	115/208-230	Auto.	2.8	2	12.20

PERFORMA+ Fan Motor Performance @ 0.05 Inches S.P.



Variable speed graph for catalog M099901 using a Norsol Vari-Vent control.

AGRICULTURAL FAN MOTORS BELT DRIVE • TEAO

FHP motors designed for use in agricultural belted fan applications. These motors feature capacitor start/capacitor run configuration for hi-efficiency. They should be mounted in the airstream for proper cooling. They also feature a heavy gauge steel frame with rigid 56/140 combination base.

HIGH-EFFICIENCY • SINGLE PHASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Eff.	Over-load Prot.	F.L. Amps 230V	"C" Dim. (in.)
1/2	1800	56	**M009580.00**	27	115/208-230	–	–	–	–
3/4	1800	56H	**M009581.00**	30	115/208-230	82	Auto.	3.4	10.83
1	1800	56H	**M009782.00**	37	115/208-230	85	Auto.	4.3	11.80
1½	1800	56H	**M009594.00**	39	115/208-230	78	Auto.	6.8	12.60
2	1800	145T	**M009595.00**①	47	230	82	Auto	9.5	12.80

① Motor M009595 has a frame mounted conduit box.

Lincoln MOTORS

Signature Series TEFC FARM DUTY/AGRICULTURE

115, 208 & 230 VOLTS • 1-PHASE
FOOT MOUNT • OVERLOAD PROTECTION
1/3 TO 10 HP

Features:
- Two designs to choose from: High Torque (HT) and Extra High Torque (EHT)
- Fully gasketed construction and shaft slingers for operation in dirty environments
- Manual reset thermal protector
- Condensate drains
- Continuous duty

Applications:

High Torque – HT

Feeders, conveyors, fans, compressors, spray washers, grinders, elevators, pumps and other demanding agricultural applications that require high starting torque.

Extra High Torque – EHT

Silo unloaders, barn cleaners, bunk feeders, conveyors, and other machinery requiring extra high starting torque in demanding farm duty environments. Motors have 300% and greater starting torque.

HIGH TORQUE - HT

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1/3	1800	56	1.15	115/208-230	SRF4S0.33T1C6028AP7TP1	LM24789	ML	24
1/2	1800	56	1.15	115/208-230	SRF4S0.5T1C6028AP7TP1	LM24790	ML	25
3/4	1800	56	1.15	115/208-230	SRF4S0.75T1C6028AP7TP1	LM24791	ML	30
1	1800	56	1.15	115/208-230	SRF4S1T1C6028AP7TP1	LM24792	ML	32
	1800	143T	1.15	115/208-230	SSF4S1T1C6028AP7TP1	LM24793	ML	35
1 1/2	1800	56H*	1.15	115/208-230	SRF4S1.5T1B6028AP7TP1	LM24794	ML	41
	1800	145T	1.15	115/208-230	SSF4S1.5T1B6028AP7TP1	LM24795	ML	42
2	1800	182T	1.15	115/230	SS182F4S2T1C6027AP7TP1	LM24796	ML	64
3	1800	184T	1.15	230	SS184F4S3T1C66AP7TP1	LM24797	ML	92
5	1800	184T	1.15	230	SSF4S5T1B66AP7TP1	LM24798	ML	90
7 1/2	1800	215T	1.15	230	SS215F4S7.5T1B66AP7TP1	LM24799	ML	130

EXTRA HIGH TORQUE - EHT

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
2	1800	182TZ	1.15	115/230	SS182F4S2TZ1C6027AP8TP1-1	LM24800	ML	67
3	1800	184T	1.15	230	SS184F4S3T1C66AP8TP1	LM24801	ML	85
5	1800	184T	1.15	208-230	SSF4S5T1B6008AP8TP1	LM24802	ML	125
	1800	213TZ	1.15	230	SS213F4S5TZ1B66AP8TP1-1	LM24803	ML	126
7 1/2	1800	215TZ	1.15	230	SS215F4S7.5TZ1B66AP8TP1-1	LM24804	ML	125
10	1800	215T	1.00	230	SSF4S10T1B66AP8TP1	LM24805	ML	150

*56H, 143T and 145T Combination Base with 12 mounting holes.
ML = Manual Overload Protection

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Signature Series AGRICULTURE FAN

115/230 VOLTS • 1-PHASE
FOOT MOUNT, BELT DRIVE • OVERLOAD PROTECTION
1/2 TO 1 HP

Lincoln MOTORS

Features:
- Capacitor start/capacitor run design for higher efficiency and reduced current draw
- Ball bearings
- Continuous duty
- Fully gasketed

Applications:
Designed for demanding agricultural belt drive fan applications such as poultry house fans and barn exhaust fans. The 1 HP model is totally enclosed, air over and must be mounted in the airstream for proper cooling.

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1/2	1800	56Z	1.00	115/230	SRN4S0.5TZ1B6027TP2-1	LM24776	AT	21
1	1800	56Z	1.00	115/230	SRA4S1TZ1B6027TP2-1	LM24777	AT	32

AT = Automatic Overload Protection

Signature Series AGRICULTURE FAN

115/230 VOLTS • 1-PHASE, PSC VARIABLE SPEED
RESILIENT BASE-THRU BOLT • OVERLOAD PROTECTION
1/4 TO 1/2 HP

Lincoln MOTORS

Features:
- TEAO, continuous duty
- Extended thru bolts
- 1/2” dia. x 2-1/2” long shaft with two flats, 90° apart
- Fully gasketed

Applications:
Designed for demanding agricultural fan applications such as poultry house and barn exhaust fans. Must be mounted in the airstream for proper cooling.

Variable speed capabilities when used with a single-phase speed control unit – NOT supplied by Lincoln. AP11 models are designed for lower temperature rise throughout a greater speed range.

HP	Speed (RPM)	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1/4	1625	48Z	1.00	115/230	SPA4S0.25TZRY1A6027AP11-1	LM24445	AT	20
	1625	48Z	1.00	115/230	SPA4S0.25TZRY1A6027AP10-1	LM24447	AT	17
	1075	48Z	1.00	115/230	SPA6S0.25TZRY1A6027AP10-1	LM24442	AT	14
1/3	1625	48Z	1.00	115/230	SPA4S0.33TZRY1A6027AP11-1	LM24450	AT	23
	1625	48Z	1.00	115/230	SPA4S0.33TZRY1A6027AP10-1	LM24448	AT	17
	1075	48Z	1.00	115/230	SPA6S0.33TZRY1A6027AP10-1	LM24443	AT	15
1/2	1625	48Z	1.00	115/230	SPA4S0.5TZRY1A6027AP11-1	LM24446	AT	23
	1625	48Z	1.00	115/230	SPA4S0.5TZRY1A6027AP10-1	LM24449	AT	21
	1075	48Z	1.00	115/230	SPA6S0.5TZRY1A6027AP10-1	LM24444	AT	19

AT = Automatic Overload Protection

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Lincoln MOTORS

Signature Series AGRICULTURE FAN

115 VOLTS • 1-PHASE
DIRECT DRIVE-THRU BOLT • OVERLOAD PROTECTION
1/4 TO 1/3 HP

Features:
- Totally Enclosed
- 1/2” extended thru-bolts
- Shafts:
  48Y frame – 1/2” dia. x 1-1/2” long shaft with flat
  48YZ frame – 1/2” dia. x 2-1/2” long shaft with two flats, 90° apart
- Continuous duty
- Fully gasketed

Applications:
Designed for demanding direct drive agricultural fan applications such as poultry house fans and barn exhaust fans.

Two speed designs must be mounted in airstream for proper cooling.

SINGLE SPEED

HP	Speed (RPM)	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1/4	1725	48Y	1.00	115	SPN4S0.25TZNY1S6001TP1-1	**LM24488**	ML	10

TWO SPEED

HP	Speed (RPM)	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1/4	1725/1140	48YZ	1.00	115	SPA4/6/1S0.25/0.25TZNY1S6001TP2-1	**LM24492**	AT	17
1/3	1725/1140	48YZ	1.00	115	SPA4/6/1S0.33/0.33TZNY1S6001TP2-1	**LM24491**	AT	18

AT = Automatic Overload Protection
ML = Manual Overload Protection

Lincoln MOTORS

Signature Series AGRICULTURE FAN

115 & 230 VOLTS • 1-PHASE
RESILIENT BASE-THRU BOLT • OVERLOAD PROTECTION
1/4 TO 1/2 HP

Features:
- Totally Enclosed, Air Over
- Extended thru-bolts on 48Z frame
- Shafts:
  48Z – 1/2” diameter x 2-1/2” long shaft with two flats
  56Z – 1/2” diameter x 2-1/2” long shaft with key
- Includes 5/8” dia. shaft adapter sleeve with key
- Continuous duty
- Fully gasketed

Applications:
Designed for demanding agricultural fan applications such as poultry house fans and barn exhaust fans.

Motor must be mounted in airstream for proper cooling.

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1/4	1800	48Z	1.00	115	SPA4S0.25TZRY1S6001TP2-1	**LM24487**	AT	17
1/3	1800	48Z	1.00	115	SPA4S0.33TZRY1S6001TP2-1	**LM24486**	AT	21
1/2	1800	56Z	1.00	115/230	SRA4S0.5TZR1S6027TP2-1	**LM24809**	AT	24

AT = Automatic Overload Protection

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Signature Series

AERATION FAN, HVAC

Lincoln MOTORS

115 & 230 VOLTS • 1-PHASE
FOOT MOUNT • OVERLOAD PROTECTION
1 TO 3 HP

Features:
- Totally Enclosed, Air Over
- Capacitor start design provides high starting torque
- 18” leads for ease of connection
- Shaft has keyway and 1/4-20 UNC tapped hole
- Double sealed ball bearings for maintenance free operation.
- Warranty: 18 months from date of manufacture and 12 months from date of installation which ever period expires first.

Applications:
Direct drive vane axial fans. These TEAO motors must be mounted in airstream for proper cooling.

*56H, 143T and 145T Combination Base with 12 mounting holes.

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1	3600	56Z	1.15	115/230	SRA2S1TZ1C6027L10MB6TP2-1	LM24786	AT	29
1 1/2	3600	143TZ*	1.15	115/230	SSA2S1.5TZ1C6027L10MB6TP2-1	LM24787	AT	35
3	3600	145TZ*	1.15	230	SS145A2S3TZ1B66L10MB6TP2-1	LM24788	AT	52

AT = Automatic Overload Protection

Signature Series

AUGER DRIVE

Lincoln MOTORS

115, 208 & 230 VOLTS • 1-PHASE
N-FLANGE FOOTLESS • OVERLOAD PROTECTION
1/3 TO 1-1/2 HP

Features:
- Totally Enclosed, Fan Cooled
- NEMA “N”, two bolt flange mounting
- Shafts:
  3/4 HP & smaller - 1/2” dia. x 1-1/2” long with flat
  1 HP & larger - 5/8” dia. x 2” long with key
- Continuous duty
- Fully gasketed, side mounted terminal box
- Mechanical start switch protected from overspeeded auger drive
- Extended fan-end shaft with flats for manually jogging auger drive
- Warranty: 18 months from date of manufacture and 12 months from date of installation which ever period expires first.

Applications:
Replacement motors for poultry feed auger drive systems. Bolts to existing gearbox for easy installation.

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1/3	1800	48N	1.00	115/230	SPF4S0.33TADN1C6027TP1	LM24462	ML	23
1/2	1800	48N	1.00	115/230	SPF4S0.5TADN1C6027TP1	LM24463	ML	23
3/4	1800	56NZ	1.00	115/208-230	SRF4S0.75TZADN1C6028TP1-1	LM24812	ML	31
1	1800	56NZ	1.00	115/208-230	SRF4S1TZADN1C6028TP1-1	LM24813	ML	32
1 1/2	1800	56NZ	1.00	115/208-230	SRF4S1.5TZADN1C6028TP1-1	LM24814	ML	41

ML = Manual Overload Protection

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Lincoln MOTORS

Signature Series CROP DRYER

230 VOLTS • 1-PHASE & 208-220/440 VOLTS • 3-PHASE
FOOT MOUNT • OVERLOAD PROTECTION
3 TO 15 HP

Features:
- Dripproof/Air Over, continuous duty
- Maintenance-free double sealed ball bearings
- Keyed shaft with 1/4-20 UNC tapped hole in end
- 40" long leads for ease of installation (1-phase)
- 30" long leads exit elbow connector (3-phase)
- Fully gasketed terminal box
- Special rotor balance for reduced vibration
- Epoxy coated rotor
- Warranty: 18 months from date of manufacture and 12 months from date of installation which ever period expires first.
- Frame mounted capacitors on LM24778-80.
  Capacitors shipped loose on LM24781-82.
- Extra nameplate included for remote mounting

Applications:
Crop dryers with air over/fan on shaft designs.

SINGLE PHASE

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
3 - 4 1/2	3600	145TZ	1.00	230	SSD2S3-4.5TZ1B66QS10-1	**LM24778**	AT	46
5 - 7	3600	184TZ	1.00	230	SS184D2S5-7TZ1C66QS11-1	**LM24779**	TT	76
7 - 10	3600	184TZ	1.00	230	SSD2S7-10TZ1B66QS11-1	**LM24780**	TT	102
7 - 9	3600	184TZ	1.00	230	SSD2S7-9TZ1C66QS11-1	**LM24781**	TT	88
10 - 15	3600	215TZ	1.00	230	SS215D2S10-15TZ1C66QS11-1	**LM24782**	TT	135

THREE PHASE

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
5 - 7	3600	184TZ	1.00	208-220/440	SS184D2S5-7TZ6029QS12-1	**LM24783**	TT	70
7 - 10	3600	184TZ	1.00	208-220/440	SSD2S7-10TZ6029QS12-1	**LM24784**	TT	83
10 - 15	3600	215TZ	1.00	208-220/440	SS215D2S10-15TZ6029QS12-1	**LM24785**	TT	115

AT = Automatic Overload Protection
TT = Thermostat Overload Protection

Lincoln MOTORS

Signature Series GRAIN STIRRING

115/208-230 VOLTS • 1-PHASE
FOOT MOUNT
1-1/2 HP

Features:
- TEFC, continuous duty
- Maintenance-free double sealed ball bearings
- 7/8" diameter shaft
- Fully gasketed construction and fan/fan guard on shaft end keep grain dust out of motor
- Warranty: 18 months from date of manufacture and 12 months from date of installation which ever period expires first.

Applications:
Grain stirring systems inside grain bins.

HP	SYN RPM	Frame	SF	Volts	Model Number	Product Number	Notes	Approx Shpg Wght (lbs)
1 1/2	1800	56HZ	1.15	115/208-230	SRF4S1.5TZ1B6028AP9-2	**LM24521**		47

Product numbers in red are STOCK items.

Specifications are subject to change without notice

WASHGUARD MOTORS AVAILABLE IN FIVE STYLES

PREMIUM WASHGUARD ALL-STAINLESS

Maximum service in critically clean or corrosive environments

- All exterior components of stainless steel
- Endshields o-ring sealed to frame
- IEEE 841 severe-duty features standard
- Meets demanding pharmaceutical requirements, also excellent for chemical-processing applications
- Meets IP56 enclosure protection
- Incorporates all WASHGUARD mechanical and electrical features, plus IRIS™ insulation system
- IRIS™ insulation system
- BISSC certified for baking industry

AC motor catalog listings on page 92
DC motor catalog listings on page 161

IEC Motors now available

FHP ELECTRIC MOTORS

WASHGUARD SST ALL-STAINLESS

Stainless Steel Tough for demanding washdown applications

- All exterior components of 300 series stainless steel, including motor frame, endshield and conduit box castings
- Moisture resistant sealant between frame and endbells
- Full-fact nameplate is laser-etched on the motor frame
- Built to withstand the demanding washdown environments found in the food processing, chemical processing and beverage industries
- No paint or coatings of any type are used on the exterior of the motor
- Four locations for T-drains provided on each endshield
- IRIS™ insulation system
- Meets IP55 enclosure protection
- Three phase motors are suitable for use on VFDs
- 10:1 ratio for constant or variable torque at 1.0 SF

Catalog listings on page 90

WASHGUARD II STAINLESS FRAME

Superior, extended life in severe environments

- Paint-free exterior—stainless frame and conduit box lid, specially processed endshields and conduit box housing
- Etched stainless steel nameplate
- Proven WASHGUARD mechanical and electrical features
- IRIS™ insulation system
- BISSC certified for baking industry
- Meets IP55 enclosure protection
- Three phase motors are suitable for use on VFDs
- 10:1 ratio for constant or variable torque at 1.0 SF

Catalog listings on page 88

WASHGUARD WHITE EPOXY

Enhanced performance in wet, humid areas

- Our original moisture-shedding “duck” motor
- USDA-approved white epoxy finish
- Stainless steel shaft, conduit box cover, nameplate, fan guard
- Special gaskets, slingers and seals
- Four endshield drains
- Moisture-resistant interior components
- IRIS™ insulation system
- Single-phase, three-phase and DC SCR models
- Meets IP55 enclosure protection
- Three phase motors are suitable for use on VFDs
- 10:1 ratio for constant or variable torque at 1.0 SF

Catalog listings on pages 85-87

EXTREME DUCK

Revolutionary Designed Stainless Steel Motors are built to be the last Stainless Steel Washdown motors you will ever need!

- Meet EPACT for non-exempt when tested without shaft seals
- Total winding encapsulation using an Epoxy Resin
- LEESON’s exclusive IRIS™ Inverter-Rated Insulation System
- Motors are UL component recognized
- CSA Energy Efficiency Verification
- Construction is CSA Certified for safety
- All exterior components are 300-Series stainless steel
- Protech Bearing isolator used for the output shaft seal
- Double Lip Viton shaft seal used on non-drive output shaft on TEFC motors
- Minimal exterior fasteners, no through-bolt design and screw on conduit box covers
- Pre-lubricated double-sealed bearings
- Rotor/Cartridge, “Q-CAR,” for quick access to bearings
- Rigid Cast Base for rugged applications
- Full fact nameplate is laser etched
- BISSC certified for baking industry

Catalog listings on page 95

Specifications are subject to change without notice

LEESON®

WASHGUARD MOTORS

WASHDOWN SERVICE

Premium Efficiency Washguard Motors - Now Available!

WASHGUARD MOTORS ARE BUILT TO HANDLE HIGH-PRESSURE WASHDOWNS!*

Stainless-steel or white polypropylene fan guard on all WASHGUARD frames.

Composite fan is chemically-inert and static-free. Fan is positively positioned on shaft. On TEFC designs only.

Stainless-steel, "full-fact" nameplate includes information on motor efficiency and connections. Readable even after repeated washdowns.

USDA-approved, white epoxy finish for superior protection and resistance to caustic cleaning solutions.

Encapsulated starting switch (single-phase WASHGUARD motors) uses a patented, field-proven design that is immune to moisture, shock and vibration. No moving parts or exposed contacts to become corroded or inoperable.

Moisture-resistant shaft system includes 303 stainless-steel shaft and lubricated, spring-loaded contact seals in each endshield. Patented V-ring Forsheda seal on shaft end to deflect water (see inset). Double-sealed, oversized bearings lubricated with Exxon POLYREX® EM high temperature, moisture-resistant lubricant. Bearing cavities packed to further retard entrance of moisture.

WASHGUARD White Epoxy Model Shown

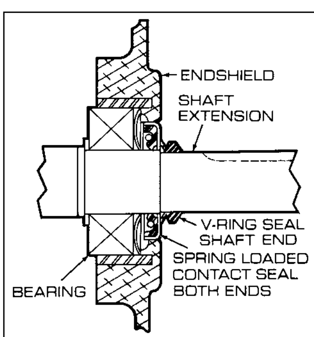
Cast, oversized conduit box with tough, high-temperature nitrile gaskets and stainless-steel cover and hardware. Oversized design with threaded entrance. All machined fits are sealed and nylon gaskets are used under bolt heads.

Interior coatings protect against moisture and corrosion. Frame, base, endshields, rotor, and interior components are protected by enamel and polyester compounds of outstanding adhesion and resistance to moisture, acids, alkalies, and oils. Efficiencies meet EPACT mandates for *covered* motors when tested without shaft seals. High temperature, moisture resistant IRIS insulation system assures long life on inverter service. Windings are immersed and cured in polyester insulating compound.

INVERTER-RATED INSULATION SYSTEM "NO-POKE" IRIS INSULATION SYSTEM MEETS NEMA MG 1 PART 30 & 31 FOR INVERTER-FED MOTORS PROTECTED AGAINST VFD INDUCED VOLTAGE SPIKES

Four condensate drains in each endshield (at three, six, nine, and twelve o'clock) purge condensate and water which may enter the motor.

Meets or exceeds EISA mandates Dec. 2010



Contact seal and V-ring seal retard water from high pressure washdown.

*** Also excellent for applications requiring a motor that is "tropicalized"!**

QUICK REFERENCE

WASHGUARD MOTORS

WHITE EPOXY • SINGLE PHASE & DC

SINGLE PHASE • TEFC • RIGID BASE

Featuring Electronic Solid State Encapsulated Switch

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/2	1800	56	**112431.00**	24	115/208-230	None	4.4	10.81
3/4	1800	56	**112432.00**	31	115/208-230	None	5.4	11.31
1	1800	56	**112626.00**	33	115/208-230	None	6.4	11.81
	1800	143T	**120589.00**	34	115/208-230	None	6.4	12.25
1½	1800	145T	**120590.00**	47	115/208-230	None	9.5	13.75
2	1800	182T	**131571.00**	60	115/208-230	None	12.6	13.46

SINGLE PHASE • TEFC • C FACE LESS BASE

Featuring Electronic Solid State Encapsulated Switch

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/3	3600	56C	**114310.00**	25	115/208-230	None	2.6	10.69
	1800	56C	**114311.00**	27	115/208-230	None	3.2	10.69
1/2	3600	56C	**114312.00**	25	115/208-230	None	3.6	10.69
	1800	56C	**114313.00**	29	115/208-230	None	4.4	11.19
3/4	3600	56C	**114314.00**	31	115/208-230	None	5.0	11.69
	1800	56C	**114315.00**	31	115/208-230	None	5.4	11.69
1	3600	56C	**114316.00**	29	115/208-230	None	6.0	12.19
	1800	56C	**114317.00**	34	115/208-230	None	6.4	12.19
1½	3600	56C	**114318.00**	36	115/208-230	None	8.5	12.69
	1800	56C	**114319.00**	43	115/208-230	None	9.5	13.69

SINGLE PHASE • TEFC • C FACE WITH BASE

Featuring Electronic Solid State Encapsulated Switch

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/3	3600	56C	**113580.00**	27	115/208-230	None	2.6	10.69
	1800	56C	**112526.00**	28	115/208-230	None	3.2	10.69
1/2	3600	56C	**113581.00**	25	115/208-230	None	3.6	10.69
	1800	56C	**112527.00**	28	115/208-230	None	4.4	11.19
3/4	3600	56C	**113582.00**	31	115/208-230	None	5.0	11.69
	1800	56C	**112528.00**	30	115/208-230	None	5.4	11.69
1	3600	56C	**113583.00**	31	115/208-230	None	6.0	12.19
	1800	56C	**112529.00**	33	115/208-230	None	6.4	12.19
1½	3600	56C	**113584.00**	36	115/208-230	None	8.5	12.69
	1800	56HC	**113300.00**	45	115/208-230	None	9.5	13.69
2	3600	56HC	**114637.00**	43	115/208-230	None	10.0	13.69

DC • SCR RATED 90 & 180 VOLTS
TENV • C FACE WITH REMOVABLE BASE

HP	Full Load RPM	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC	F.L. Amps DC	"C" Dim. (Inches)
1/4	1800	S56C	**108423.00**	23	90	115	2.7	10.69
	1800	S56C	**098375.00 A**	21	180	230	1.4	10.22
1/3	1800	S56C	**108424.00**	26	90	115	3.5	11.69
	1800	S56C	**098376.00 A**	22	180	230	1.7	10.22
1/2	1800	S56C	**108226.00**	38	90	115	4.9	13.69
	1800	S56C	**108227.00**	43	180	230	2.4	13.69
3/4	1800	S56C	**108228.00**	53	90	115	7.0	15.69
	1800	S56C	**108229.00**	50	180	230	3.5	15.69
1	1800	S56C	**108230.00****	45	90	115	10.0	15.81
	1800	S56C	**108231.00****	42	180	230	5.0	14.81
1½	1800	S56C	**108232.00****	50	180	230	7.6	15.81

** These motors are totally enclosed fan cooled.

A Subject to Availability.

All Washdown Duty motors have Class F Insulation.

WASHGUARD MOTORS SHED WATER LIKE A DUCK!

WASHGUARD MOTORS

WHITE EPOXY • THREE PHASE • STANDARD, EPACT & NEMA PREMIUM RATINGS

THREE PHASE • TENV and TEFC C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/4	1800	56C	113649.00●	19	208-230/460	1.1	68.0	9.56
1/3	3600	56C	116640.00●	19	208-230/460	1.1	77.0	10.08
	1800	56C	113954.00●	19	208-230/460	1.3	72.0	9.56
	1800	56C	116642.00	19	208-230/460	1.7	68.0	10.69
1/2	3600	56C	116643.00●	22	208-230/460	1.6	82.5	10.06
	1800	56C	113473.00●	22	208-230/460	1.8	78.5	10.06
	1800	56C	116644.00	22	208-230/460	2.0	74.0	11.19
3/4	3600	56C	113022.00●	23	208-230/460	2.4	84.0	11.06
	1800	56C	113019.00●	28	208-230/460	2.5	80.0	10.56
	1800	56C	116645.00	28	208-230/460	2.8	77.0	11.69
1	3600	56C	113023.00●	35	208-230/460	2.6	85.5	11.56
	1800	56C	113020.00●	32	208-230/460	3.2	80.0	11.56
	1800	56C	116646.00	32	208-230/460	3.8	77.0	11.69
	1800	143TC	120760.00●	35	208-230/460	3.2	80.0	11.75
	1800	143TC	G121652.00	33	208-230/460	3.1	82.5	13.25
1½	3600	56C	113024.00●	42	208-230/460	3.8	84.0	12.56
	1800	56C	113021.00●	44	208-230/460	4.2	84.0	13.06
	1800	56C	116647.00	44	208-230/460	5.0	78.5	12.69
	1800	145TC	120761.00●	47	208-230/460	4.2	84.0	13.25
	1800	145TC	G121655.00	45	208-230/460	4.4	84.0	13.25
2	3600	56C	113593.00●	47	208-230/460	5.0	84.0	13.06
	3600	145TC	121040.00●	45	208-230/460	5.0	84.0	13.12
	1800	56C	114616.00	48	208-230/460	6.2	81.5	12.69
	1800	145TC	G120762.00	47	208-230/460	5.6	84.0	13.75
3	3600	56C	115976.00	39	208-230/460	7.6	84.0	13.19
	3600	145TC	G120987.00	48	208-230/460	7.6	85.5	13.75
	1800	182TC	G131596.00	81	208-230/460	7.6	87.5	14.47
5	3600	184TC	G131595.00	75	208-230/460	12.0	87.5	14.47
	1800	184TC	G131597.00	95	208-230/460	13.0	87.5	14.97
7½	3600	S213TC	G131594.00	102	208-230/460	16.8	88.5	17.47
	1800	213TC	G140467.00	145	208-230/460	20.4	89.5	17.71
10	3600	215TC	G140737.00	170	208-230/460	24.0	89.5	20.57
	1800	215TC	G140465.00	180	208-230/460	26.0	89.5	18.71
15	3600	215TC	G140738.00 A	140	208-230/460	36.0	90.2	20.57

THREE PHASE • TENV and TEFC C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/4	1800	56C	112523.00	21	208-230/460	1.1	67.0	10.69
1/3	3600	56C	116641.00● A	22	208-230/460	1.1	77.0	10.08
	1800	56C	112547.00	22	208-230/460	1.7	68.0	10.69
1/2	3600	56C	113588.00●	26	208-230/460	1.5	82.5	10.58
	1800	56C	113586.00●	23	208-230/460	1.8	78.5	10.06
	1800	56C	112429.00†	22	208-230/460	2.0	74.0	11.19
	1200	56C	115743.00●	24	208-230/460	2.3	77.0	11.56
3/4	3600	56C	113589.00●	24	208-230/460	2.4	84.0	11.08
	1800	56C	113587.00●	30	208-230/460	2.5	80.0	10.56
	1800	56C	112430.00	26	208-230/460	2.8	77.0	11.19
	1200	56HC	115744.00●□	25	208-230/460	3.0	78.5	13.06
1	3600	56C	113590.00●	34	208-230/460	2.6	85.5	11.58
	1800	56C	112524.00	27	208-230/460	3.8	77.0	11.69
	1800	143TC	121867.00	37	208-230/460	3.2	85.5	13.25
	1200	56HC	115745.00□	35	208-230/460	4.0	77.0	13.08
1½	3600	56C	113591.00●	44	208-230/460	3.8	84.0	12.56
	1800	145TC	121871.00	53	208-230/460	4.8	86.5	13.25
	1800	56C	112643.00	32	208-230/460	5.0	78.5	12.19
	1200	56HC	115746.00□	31	208-230/460	5.7	77.0	14.18
2	3600	56HC	113592.00●♣	48	208-230/460	5.0	84.0	13.06
	3600	145TC	121039.00●	43	208-230/460	4.8	85.5	13.12
	1800	56C	112644.00	36	208-230/460	6.2	81.5	12.69
	1800	145TC	121868.00	49	208-230/460	5.8	86.5	13.75
3	3600	145TC	121870.00	46	208-230/460	7.6	89.5	13.75
	1800	182TC	132198.00	80	208-230/460	7.8	89.5	14.47
5	3600	184TC	132200.00	79	208-230/460	12.0	88.5	14.47
	1800	184TC	132201.00	84	208-230/460	12.8	89.5	14.97
7½	3600	184TC	132199.00	94	208-230/460	17.8	89.5	14.97
	3600	213TC	141120.00	140	208-230/460	17.8	89.5	17.47
	1800	213TC	140822.00	135	208-230/460	21.4	91.7	17.71
10	3600	215TC	140823.00	129	208-230/460	23.6	90.2	20.57
	1800	215TC	140821.00	145	208-230/460	26.6	91.7	18.71

THREE PHASE • TEFC • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1800	56	112427.00	24	208-230/460	2.0	74.0	10.81
3/4	1800	56	112428.00	27	208-230/460	2.8	77.0	10.81
1	1800	56	112627.00	26	208-230/460	3.8	77.0	11.31
	1800	143T	121865.00	35	208-230/460	3.1	85.5	12.75
1½	1800	145T	121869.00	51	208-230/460	4.4	86.5	12.75
2	1800	145T	121866.00	46	208-230/460	5.6	86.5	13.75
3	1800	56HZ	115751.00■	45	208-230/460	8.6	82.5	14.25
	1800	182T	132196.00	69	208-230/460	8.2	89.5	13.96
5	3600	184T	132202.00	75	208-230/460	12.0	88.5	14.46
	1800	184T	132197.00	85	208-230/460	13.0	89.5	14.96
7½	3600	184T	132203.00 A	87	208-230/460	16.8	89.5	15.96
	3600	S213T	132204.00 A	87	208-230/460	16.8	89.5	16.59
	1800	213T	140819.00	131	208-230/460	20.4	91.7	17.21
10	1800	215T	140820.00	165	208-230/460	26.0	91.7	18.71

THREE PHASE • 575 VOLTS TEFC • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/4	1800	56C	112520.00 A	24	575	0.44	68.0	10.69
1/3	1800	56C	112521.00 A	22	575	0.68	68.0	10.69
1/2	1800	56C	112483.00	28	575	0.8	74.0	10.69
3/4	1800	56C	112484.00	24	575	1.12	77.0	11.19
1	1800	56C	112522.00	30	575	1.5	77.0	11.69

■ Combination 56HZ base has mounting holes for NEMA 56 and 143-5T and a standard NEMA 145T frame shaft of 7/8" diameter.
● These motors are totally enclosed, non ventilated—Others are fan cooled.
♣ These totally enclosed three phase motors have 1.0 service factors.
□ Combination 56H base motors have mounting holes for NEMA 56 and a standard NEMA 56 shaft.
A Subject to Availability.

All Washdown Duty motors have Class F Insulation.

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

Specifications are subject to change without notice

WASHGUARD MOTORS

WHITE EPOXY • THREE PHASE & BRAKEKITS™ • STANDARD & EPACT RATINGS

THREE PHASE • TEFC • JM PUMP

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1	1800	143JM	G121579.00 **A**	41	208-230/460	3.1	82.5	16.25
1½	3600	143JM	G121580.00 **A**	33	208-230/460	4.0	82.5	16.25
	1800	145JM	G121581.00 **A**	47	208-230/460	4.4	84.0	16.25
2	3600	145JM	G121582.00	50	208-230/460	5.2	84.0	16.25
	1800	145JM	G121583.00	49	208-230/460	5.6	84.0	16.75
3	3600	145JM	G121584.00	54	208-230/460	7.6	85.5	16.75
	1800	182JM	G131967.00	79	208-230/460	8.2	87.5	16.75
5	3600	184JM	G131968.00	81	208-230/460	12.0	87.5	16.75
	1800	184JM	G131969.00	95	208-230/460	13.0	87.5	17.63
7½	3600	184JM	G131970.00	110	208-230/460	16.8	88.5	18.25
	1800	213JM	G140733.00	135	208-230/460	20.4	89.5	19.50
10	3600	215JM	G140734.00	142	208-230/460	24.0	89.5	22.20
	1800	215JM	G140735.00 **A**	150	208-230/460	26.0	89.5	21.70
15	3600	215JM	G140736.00	160	208-230/460	36.0	90.2	22.20

JET PUMP • THREADED SHAFT THREE PHASE • TEFC • C-FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3/4	3600	56J	**116774.00**	23	208-230/460	2.4	75.5	10.81
1	3600	56J	**116775.00**	35	208-230/460	3.2	77.0	10.81
1½	3600	56J	**116776.00**	42	208-230/460	4.2	81.5	11.81
2	3600	56J	**116777.00**	47	208-230/460	5.6	82.5	12.31
3	3600	56J	**116778.00**	49	208-230/460	7.6	84.0	13.25

JET PUMP • THREADED SHAFT THREE PHASE • TEFC • C-FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3/4	3600	56J	**116779.00**	24	208-230/460	2.4	75.5	10.81
1	3600	56J	**116780.00**	36	208-230/460	3.2	77.0	10.81
1½	3600	56J	**116781.00**	43	208-230/460	4.2	81.5	11.81
2	3600	56J	**116782.00**	48	208-230/460	5.6	82.5	12.31
3	3600	56J	**116783.00**	50	208-230/460	7.6	84.0	13.25

WASHGUARD • TENV/TEFC • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56C	3	**116466.00● A**	40	208-230/460	1.3	72.0	14.00
1/2	1800	56C	3	**116467.00●**	42	208-230/460	1.8	78.5	14.50
3/4	1800	56C	6	**116468.00● A**	44	208-230/460	2.5	80.0	15.00
1	1800	56C	6	**116469.00●**	48	208-230/460	3.2	80.0	15.50
	1800	143TC	6	**121616.00● A**	49	208-230/460	3.2	80.0	16.06
1½	1800	145TC	10	G121617.00	50	208-230/460	4.4	84.0	19.01
2	1800	145TC	10	G121618.00 **A**	62	208-230/460	5.6	84.0	19.01

WASHGUARD • TENV/TEFC • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56C	3	**116462.00● A**	39	208-230/460	1.3	72.0	14.00
1/2	1800	56C	3	**116463.00●**	41	208-230/460	1.8	78.5	14.50
3/4	1800	56C	6	**116464.00● A**	43	208-230/460	2.5	80.0	15.00
1	1800	56C	6	**116465.00●**	45	208-230/460	3.2	80.0	15.50
	1800	143TC	6	**121613.00● A**	46	208-230/460	3.2	80.0	15.56
1½	1800	145TC	10	**121614.00**	49	208-230/460	5.0	78.5	18.01
2	1800	145TC	10	**121615.00 A**	61	208-230/460	6.2	81.5	18.51

A Subject to Availability.

All Washdown Duty motors have Class F Insulation.

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

Catalog Numbers in Green are EPACT Motors.

WASHGUARD COUPLER BRAKES

Solid die-cast aluminum Stearns NEMA 4X coupler brake converts any TEFC or TENV 56C thru 145TC motor to a fail-safe brakemotor by mounting between the C-face motor and driven equipment. Food safe white epoxy finish. BISSC Certified. Adds 5" to the overall length of 56C thru 145TC WASHGUARD TEFC or TENV motors. Includes all mounting components.

For Both Single and Three Phase Motors

Cat. No. 115/208-230V Single Phase	Cat. No. 208-230/460V Three Phase	Cat. No. 575V Three Phase	Brake Rating (ft-lbs)	Max. HP @ 1725 rpm	Mounts to NEMA Frame	Coupler Brake Output Shaft and Face	App. Wt. (lbs.)
175566.00	**175567.00**	**175568.00**	3	1	56C	⅝", 56C	13
175572.00	**175573.00**	**175574.00**	6	2	56C/143-5TC	⅝", 56C	14

Larger coupler brakes on page 119.

WASHGUARD BRAKEKITS™

Kit of components including a Stearns NEMA 4X brake to convert 56 thru 145T frame stock TEFC only motors to fail-safe brakemotors. Food safe white epoxy finish. BISSC Certified. Adds 5 1/8" to the overall length of 56 thru 145T WASHGUARD TEFC motors.

WASHGUARD Brakekits™ have the same convenient assembly method as general purpose models.

For 230/460V Three Phase and 230V Single Phase Motors

Brake Rating (ft-lbs)	Mounts to NEMA Frame	Max. HP @ 1725rpm	Cat. No. 208-230/460 V Brake Coil Voltage	App. Wt. (lbs.)
3	56/143-5T	1	**175616.00** **175771.00②**	24
6	56/143-5T	2	**175617.00** **175772.00②**	36
10	56/143-5T	3	**175618.00** **175773.00②**	43

② For 56/145 frame motors having a "B" for the suffix letter for the date code and having a face mount fan guard.

Specifications are subject to change without notice

LEESON WASHGUARD II MOTORS

STAINLESS FRAME • THREE PHASE • STANDARD, EPACT & NEMA PREMIUM RATINGS

Super Duck

LEESON Severe Duty, *stainless frame,* WASHGUARD II motors are designed for superior extended service in severe environments. Typical applications include food processing areas requiring frequent sanitation procedures using high pressure cleaning with concentrated caustic solutions, areas of high humidity and in chemical environments.

Mechanical Protection Features
These motors have an *entirely paint free exterior* with 300 series stainless steel motor body, conduit box lid, shaft extension, hardware, fasteners and an etched motor data plate.

To enhance chemical and corrosion resistance, all surfaces of the endbells and conduit box are processed using a U.S. Department of Agriculture approved technique. This proprietary process has been tested and qualified for more than 2,500 hours of salt spray endurance for external surfaces, and 1,000 hours for internal surfaces. This process has proven successful in food washdown applications and has shown excellent corrosion resistance.

Shaft seals, slingers and one-way stainless steel drains retard entrance of contaminants and water into the motor. Multiple, repositional drains provided for all angle mounting, release any water that does enter the motor from hose downs or condensation. Chemically resistant, tough nitrile gaskets and a threaded entrance for power connection also restrict entrance to the motor's interior. Nylon gaskets are used to seal bolt heads.

Bearings used are double sealed and prelubricated with moisture resistant Exxon POLYREX® EM high temperature lubricant.

Electrical Performance and Protection Features
Efficiencies meet EPACT mandates for *covered* motors when tested without shaft seals. High temperature, moisture resistant IRIS insulation system assures long life on inverter service. Windings are immersed and cured in polyester insulating compound. **All Washdown Duty motors have Class F Insulation.**

Standards and Approvals
UL component recognized, file number E57948, guide number PRGY2. Energy efficiency ratings are verified by an independent testing laboratory.

CSA Energy Efficiency Verification Program, report number EEV 78720-1.

Construction is CSA Certified for safety report number LR33543.

WASHGUARD II motors are certified to the Baking Industry Sanitation Standard #29 and listed under BISSC authorization number 769.

STAINLESS FRAME • TENV▶ • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1800	56C	**114394.00**	30	208-230/460	1.6	78.5	11.06
3/4	1800	56C	**114395.00**	34	208-230/460	2.3	80.0	11.56
1	1800	56C	**114437.00**	44	208-230/460	3.0	81.5	12.06
	1800	143TC	**121109.00**	40	208-230/460	3.0	81.5	12.13
1½	1800	56C	**114581.00▶**	45	208-230/460	4.4	84.0	12.69
	1800	145TC	**G121350.00▶**	45	208-230/460	4.4	82.5	13.25
2	1800	56C	**114582.00▶**	51	208-230/460	5.6	84.0	13.69
	1800	145TC	**G121351.00▶**	52	208-230/460	5.6	84.0	13.75

▶ All ratings TENV except 1 1/2 & 2 HP, which is TEFC with stainless steel fan cover and chemically inert fan.

STAINLESS FRAME • TENV▶ • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1800	56HC	**114560.00□**	34	208-230/460	1.6	78.5	11.56
3/4	1800	56HC	**114561.00□**	38	208-230/460	2.3	80.0	12.06
1	1800	56HC	**114562.00□**	45	208-230/460	2.3	81.5	12.06
	1800	143TC	**121165.00**	45	208-230/460	2.3	81.5	12.13
1½	1800	145TC	**121912.00▶**	47	208-230/460	4.4	86.5	13.25
2	1800	145TC	**121913.00▶**	54	208-230/460	5.6	86.5	13.75

▶ All ratings TENV except 1 1/2 & 2 HP, which is TEFC with stainless steel fan cover and chemically inert fan.
□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-145T and standard NEMA 56C face and shaft.

CHEMICAL RESISTANCE RATING CHART

CHEMICAL	CONCENTRATION	COMPONENT-RESISTANCE: STAINLESS STEEL PARTS	COMPONENT-RESISTANCE: ENDBELLS & CONDUIT BOX
WATER:			
De-Ionized Boiling	100%	Excellent	Excellent
Salt (Immersed)	30%	Excellent	Excellent
Salt (Spray)	5%	Excellent	Excellent
Tap - 250°F/120°C @ 10,000 PSI	100%	Excellent	Excellent
ACIDS:			
Hydrochloric	35%	Poor	Very Good
Sulfuric	25%	Poor	Excellent
Nitric	35%	Excellent	Good
Picric	Saturated Solution	Excellent	Very Good
BASE:			
Caustic	100%	Excellent	Excellent
Caustic	12.5 pH	Excellent	Excellent
Caustic - 125°F/50°C	9.5 pH	Excellent	Excellent
SOLVENTS:	--	Excellent	Excellent

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

WASHGUARD ALL-STAINLESS MOTORS

ALL-STAINLESS • THREE PHASE • STANDARD, EPACT & NEMA PREMIUM RATINGS

WASHGUARD SST

This member of LEESON's family of tough ducks is designed for long life in demanding washdown applications. LEESON's FHP WASHGUARD SST All-Stainless motors are Stainless Steel Tough!

Built with all stainless steel external components to prevent corrosion and well sealed against moisture and condensation to protect internal components, the Washguard SST all-stainless motors are able to withstand the severe washdown environments found in the food processing, chemical processing, and beverage industries.

CHEMICAL RESISTANCE RATING CHART

CHEMICAL	CONCENTRATION	ALL STAINLESS COMPONENTS
WATER:		
De-Ionized Boiling	100%	Excellent
Salt (Immersed)	30%	Excellent
Salt (Spray)	5%	Excellent
Tap - 250°F/120°C @ 10,000 PSI	100%	Excellent
ACIDS:		
Hydrochloric	35%	Poor
Sulfuric	25%	Poor
Nitric	35%	Excellent
Picric	Saturated Solution	Excellent
BASE:		
Caustic	100%	Excellent
Caustic	12.5 pH	Excellent
Caustic - 125°F/50°C	9.5 pH	Excellent
SOLVENTS:	–	Excellent

CONFORMITE EUROPEENE

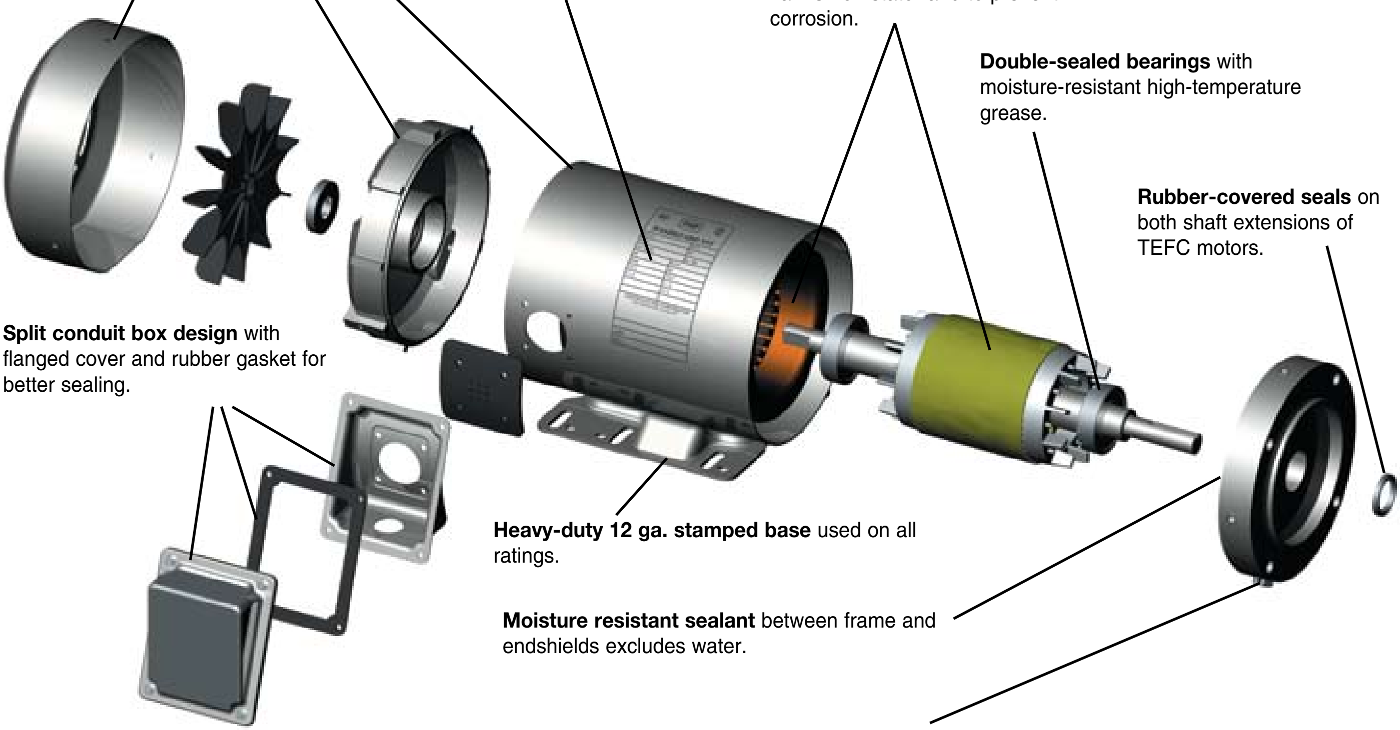
300-Series stainless steel exterior components – frame, base, endshields, shaft extension, fan guard, hardware, conduit box and cover – for maximum corrosion resistance.

Laser-etched full-fact nameplate on motor frame.

Anti-corrosion coating applied to rotor and heavy polyester varnish on stator and to prevent corrosion.

Double-sealed bearings with moisture-resistant high-temperature grease.

Rubber-covered seals on both shaft extensions of TEFC motors.



Split conduit box design with flanged cover and rubber gasket for better sealing.

Heavy-duty 12 ga. stamped base used on all ratings.

Moisture resistant sealant between frame and endshields excludes water.

Four condensate drains in each endshield (at three, six, nine and twelve o'clock) provide locations to purge condensate and water, which may enter the motor.
T-drains provided for effective drainage without allowing water to splash inside the motor. T-drain for opposite shaft end is installed at six o'clock position (and can be relocated easily). T-drain for shaft end is shipped loose for customer installation at low point of motor.

WASHGUARD ALL-STAINLESS MOTORS

ALL-STAINLESS • SINGLE-PHASE & THREE-PHASE • STANDARD, EPACT & NEMA PREMIUM RATINGS

WASHGUARD SST

Mechanical Protection Features:

All exterior components – frame, base, endshields, fan guard, shaft, hardware, conduit box and cover – are made from 300 series stainless steel for maximum corrosion resistance. Nameplate data is permanently laser-etched into the motor frame – no Mylar nameplate that can wash off or riveted metal nameplate to trap dirt. No paint or any type of coating is used on the exterior of the motor.

Sealant is applied to endshield and frame fits before assembly to prevent water entry. Shaft seals on both ends of TEFC motors – shaft end only on TENV. Double-sealed bearings have high performance Exxon Polyrex EM grease. Conduit box is fully gasketed half-split design with flanged cover and body gasket with lead separator. Anti-corrosion coating on rotor prevents corrosion. Four quadrant drain locations on each endbell allow drainage of condensation in any mounting position. Stainless steel T-drains are provided to prevent liquids from splashing into the drain locations. Motors are shipped with a T-drain assembled in the six o'clock position on the opposite endshield. Another T-drain is shipped loose in the conduit box for installation at the lowest point of the shaft-end endshield. For a totally sealed motor, a spare pipe plug is included to replace the pre-installed T-drain.

Mechanical performance is further enhanced by over-sized bearings, heavy 12 gauge base, shaft-end bearing is locked internally to limit axial endplay, and specially designed shaft extension resists breakage at bearing journal.

Electrical Performance and Protection Features:

FHP Washguard SST full load efficiencies meet EPACT standards for non-exempt motors when tested without shaft seals. For extra moisture resistance, windings are immersed and cured in polyester insulating varnish. LEESON's exclusive IRIS™ Inverter-Rated Insulation System provides extra protection and long life, especially in inverter driven applications.

10:1 Constant Torque Operation

Standards and Approvals:

UL component recognized, file number E57948, guide number PRGY2. Energy efficiency ratings are verified by an independent testing laboratory.

CSA Energy Efficiency Verification Program, report number EEV 78720-1.

Construction is CSA Certified for safety report number LR33543.

Motor is CE marked for European acceptance.

THREE-PHASE • TENV/TEFC • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	3600	56C	191200.00●	29	208-230/460	1.0	74.0	9.78
	1800	56C	191201.00●	30	208-230/460	1.3	78.5	9.78
1/2	3600	56C	191203.00●	32	208-230/460	1.5	77.0	9.78
	1800	56C	191204.00●	33	208-230/460	1.6	81.5	9.78
	1200	56C	191414.00●	36	208-230/460	2.0	78.5	9.76
3/4	3600	56C	191206.00●	33	208-230/460	2.0	78.5	9.78
	1800	56C	191207.00●	38	208-230/460	2.3	82.5	9.78
	1200	56C	191415.00●	49	208-230/460	3.0	80.0	11.30
1	3600	56HC	191209.00❑	41	208-230/460	2.6	80.0	13.77
	3600	143TC	191486.00	42	208-230/460	2.6	80.0	13.62
	1800	56C	191291.00●①	46	208-230/460	3.0	81.5	11.00
	1800	56HC	191211.00❑	47	208-230/460	3.0	82.5	13.77
	1800	143TC	191487.00	48	208-230/460	3.0	85.5	13.62
	1200	56HC	191417.00	49	208-230/460	3.8	82.5	13.10
	1200	145TC	191493.00	49	208-230/460	3.8	82.5	13.20
1½	3600	56HC	191215.00❑	48	208-230/460	3.8	82.5	13.77
	3600	143TC	191488.00	49	208-230/460	3.8	84.0	13.62
	1800	56HC	191217.00❑	48	208-230/460	4.8	84.0	13.77
	1800	145TC	191489.00	49	208-230/460	4.8	86.5	13.62
2	3600	56HC	191221.00❑	49	208-230/460	5.0	84.0	13.77
	3600	145TC	191490.00	50	208-230/460	5.0	85.5	13.62
	1800	56HC	191223.00❑	52	208-230/460	5.8	84.0	13.77
	1800	145TC	191491.00	53	208-230/460	5.8	86.5	13.62
3	3600	145TC	191492.00	62	208-230/460	7.4	86.5	14.12

● These motors are totally enclosed, non-ventilated—Others are fan cooled.
❑ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
① 10:1 Constant Torque Operation

SINGLE-PHASE • TENV/TEFC • C FACE W/BASE

HP	SYN RPM	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	56C	191474.00	29.5	115/208-230	3.1	11.1
	1800	56C	191475.00	31.5	115/208-230	4.1	11.1
3/4	3600	56C	191476.00	31.5	115/208-230	4.5	11.8
	1800	56C	191477.00	39.0	115/208-230	4.9	11.8
1	3600	56C	191478.00	39.0	115/208-230	6.2	12.3
	1800	56C	191479.00	42.5	115/208-230	6.8	12.3
1½	3600	56C	191480.00	42.5	115/208-230	8.8	13.2
	1800	56C	191481.00	52.5	115/208-230	9.5	13.2
2	3600	145TC	191482.00	64.5	115/208-230	10.8	14.2
	1800	145TC	191483.00	64.5	115/208-230	9.0	14.2

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.
Catalog numbers in Green are EPACT Motors.

THREE-PHASE • TENV/TEFC • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56C	191202.00●	30	208-230/460	1.3	78.5	9.78
1/2	1800	56C	191205.00●	33	208-230/460	1.6	81.5	9.78
	1200	56C	191419.00●	35	208-230/460	2.0	78.5	9.76
3/4	1800	56C	191208.00●	38	208-230/460	2.3	82.5	9.78
	1200	56C	191420.00●	47	208-230/460	3.0	80.0	11.30
1	1800	56C	191290.00●	45	208-230/460	3.0	81.5	11.00
	1800	56C	191213.00	47	208-230/460	3.0	82.5	13.77
	1800	143TC	G191214.00	47	208-230/460	3.0	82.5	13.62
	1200	56C	191421.00	47	208-230/460	3.8	82.5	13.10
1½	1800	56C	191219.00	48	208-230/460	4.8	84.0	13.77
	1800	145TC	G191220.00	48	208-230/460	4.8	84.0	13.62
2	1800	56C	191225.00	52	208-230/460	5.8	84.0	13.77
	1800	145TC	G191226.00	52	208-230/460	5.8	84.0	13.62

● These motors are totally enclosed, non-ventilated—Others are fan cooled.

Specifications are subject to change without notice

PREMIUM STAINLESS STEELDUCK

General Specifications:
Designed specifically to meet the demanding sanitation requirements of the pharmaceutical, food processing and beverage industries. These motors are also ideal in clean room and severe chemical-processing applications involving frequent washdown with nitric acid and caustic lye. In fact, WASHGUARD All-Stainless Motors include IEEE 841 severe-duty features right out of the box! Motors have been tested to and passed the IEC IP-56 test requirements.

Mechanical Protection Features:
- All exterior components are 300-series stainless steel.
- Nothing on the motor's exterior is painted or coated in any way.
- All sealing components are Viton® for superior chemical resistance.
- Full fact nameplate is laser etched on the motor frame – no separately attached nameplate to trap dirt or contaminants.
- Endshields are O-ring sealed to the frame.
- Double lip shaft seals on both ends of TEFC motors (shaft end only on TENV motors).
- Removable hydrophobic breathers in opposite shaft endbell and conduit box equalize pressure without allowing moisture to enter.
- Exterior fastener use minimized reducing the number of entry points for moisture. There are no holes in the frame for attaching a nameplate. Bearing lock screws are located inside the motor and the conduit box mounted screws have been eliminated.
- Double-sealed bearings are pre-lubricated with moisture-resistant high-temperature grease for long life.
- Interior coatings applied to rotor and stator protect against corrosion.
- New conduit box mounting system provides optimum sealing.
- Ease to clean construction is BISSC Certified for bakery applications..

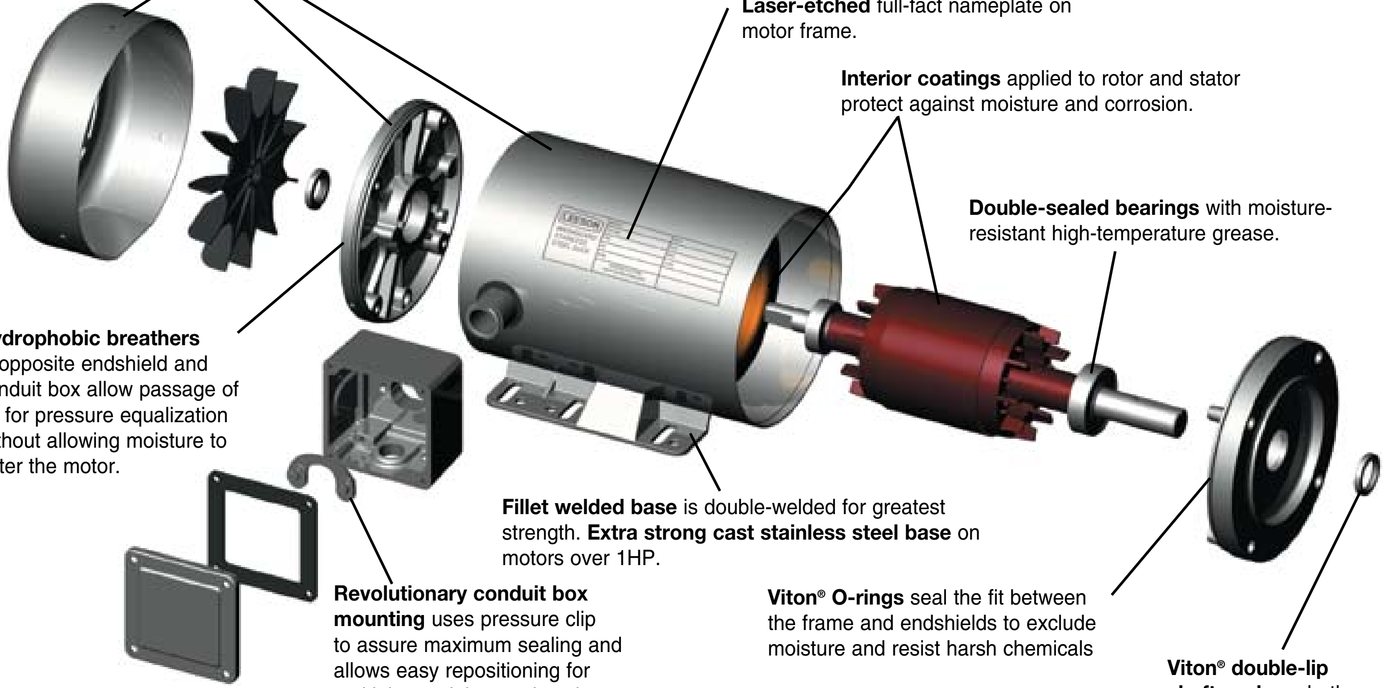
CHEMICAL RESISTANCE RATING CHART

CHEMICAL	CONCENTRATION	ALL STAINLESS COMPONENTS
WATER:		
De-Ionized Boiling	100%	Excellent
Salt (Immersed)	30%	Excellent
Salt (Spray)	5%	Excellent
Tap - 250°F/120°C @ 10,000 PSI	100%	Excellent
ACIDS:		
Hydrochloric	35%	Poor
Sulfuric	25%	Poor
Nitric	35%	Excellent
Picric	Saturated Solution	Excellent
BASE:		
Caustic	100%	Excellent
Caustic	12.5 pH	Excellent
Caustic - 125°F/50°C	9.5 pH	Excellent
SOLVENTS:	–	Excellent

Electrical Performance and Protection Features
- WASHGUARD efficiencies meet EPACT mandates for non-exempt motors when tested without shaft seals.
- Windings are immersed and cured in polyester insulating varnish for extra moisture-resistance.
- LEESON's exclusive IRIS™ Inverter-Rated Insulation System provides extra protection and long life, especially in inverter-driven applications.
- Single-phase motors use Solid State Sinpac® switch – no mechanical switch contacts to corrode and fail.
- **All Washdown Duty motors have Class F Insulation.**

Standards and Approvals
- Single and three phase motors are UL component recognized – file number E57948, guide number PRGY2.
- CSA Energy Efficiency Verification Program, report number EEV 78720-1.
- Construction is CSA Certified for safety report number LR33543 and listed under BISSC authorization number 769.

300-Series stainless steel exterior components – frame, base, endshields, shaft extension, fan guard, hardware, conduit box and cover – for maximum corrosion resistance.



Laser-etched full-fact nameplate on motor frame.

Interior coatings applied to rotor and stator protect against moisture and corrosion.

Double-sealed bearings with moisture-resistant high-temperature grease.

Hydrophobic breathers in opposite endshield and conduit box allow passage of air for pressure equalization without allowing moisture to enter the motor.

Fillet welded base is double-welded for greatest strength. **Extra strong cast stainless steel base** on motors over 1HP.

Revolutionary conduit box mounting uses pressure clip to assure maximum sealing and allows easy repositioning for multiple conduit entry locations.

Viton® O-rings seal the fit between the frame and endshields to exclude moisture and resist harsh chemicals

Viton® double-lip shaft seals on both ends of TEFC motors.

WASHGUARD ALL-STAINLESS MOTORS

ALL-STAINLESS • THREE PHASE • STANDARD, EPACT & NEMA PREMIUM RATINGS

PREMIUM STAINLESS STEELDUCK

THREE PHASE • TENV/TEFC • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	3600	56HC	117269.00●	35	208-230/460	1.6	82.5	12.04
	1800	S56C	103387.00●	31	208-230/460	1.6	76.0	11.49
	1800	56HC	117266.00●	35	208-230/460	1.6	78.5	12.54
	1200	56HC	117275.00●	35	208-230/460	2.3	77.0	12.54
3/4	3600	56HC	117271.00●	40	208-230/460	2.4	84.0	12.54
	1800	S56C	103388.00	28	208-230/460	2.3	77.0	12.50
	1800	56HC	117267.00●	41	208-230/460	2.3	80.0	13.04
	1200	56HC	117276.00●	46	208-230/460	3.0	78.5	14.04
1	3600	56HC	117273.00●	43	208-230/460	2.6	85.5	13.04
	1800	56HC	115635.00●□	44	208-230/460	3.0	81.5	13.54
	1800	56HC	117286.00	39	208-230/460	3.1	82.5	13.13
	1800	143TC	121795.00●	44	208-230/460	3.0	81.5	13.61
	1800	143TC	121873.00	50	208-230/460	3.1	85.5	13.19
	1200	56HC	117277.00	48	208-230/460	4.0	77.0	13.13
1½	3600	143TC	121874.00	45	208-230/460	4.0	84.0	13.69
	1800	56HC	117284.00	49	208-230/460	4.4	84.0	13.63
	1800	145TC	121875.00	49	208-230/460	4.4	86.5	13.69
	1200	56HC	117278.00	51	208-230/460	5.4	80.0	14.13
2	3600	145TC	121876.00	49	208-230/460	5.2	85.5	13.69
	1800	56HC	117285.00	50	208-230/460	5.6	84.0	13.63
	1800	145TC	121877.00	50	208-230/460	5.6	86.5	13.69
3	3600	145TC	121878.00	53	208-230/460	7.6	86.5	13.69
	1800	182TC	132206.00	85	208-230/460	8.2	89.5	14.77
5	3600	184TC	132207.00	90	208-230/460	12.0	88.5	14.77
	1800	184TC	132208.00	96	208-230/460	13.0	89.5	15.27
7½	3600	213TC	140825.00	160	208-230/460	18.4	89.5	18.69
	1800	213TC	140826.00	160	208-230/460	20.4	91.7	18.69
10	3600	215TC	140827.00	165	208-230/460	24.0	90.2	18.69
	1800	215TC	140828.00	173	208-230/460	26.0	91.7	18.69

● These motors are totally enclosed, non-ventilated—Others are fan cooled.
□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.

THREE PHASE • TENV/TEFC • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	48C	103393.00●	25	208-230/460	1.3	70.5	9.83
1/2	3600	56C	117279.00●	35	208-230/460	1.6	82.5	12.04
	1800	48C	103394.00●	27	208-230/460	1.6	76.0	11.58
	1800	S56C	103389.00●	30	208-230/460	1.6	76.0	11.49
	1800	56C	117270.00●	34	208-230/460	1.6	78.5	12.54
3/4	3600	56C	117280.00●	40	208-230/460	2.4	84.0	12.54
	1800	S56C	103390.00	33	208-230/460	2.3	77.0	12.50
	1800	56C	117272.00●	40	208-230/460	2.3	80.0	13.04
1	3600	56C	117281.00●	43	208-230/460	2.6	85.5	13.04
	1800	56C	117274.00●	44	208-230/460	3.0	81.5	13.54
	1800	56HC	117287.00	45	208-230/460	3.1	82.5	13.13
	1800	143TC	121796.00●	44	208-230/460	3.0	81.5	13.61
	1800	143TC	G121659.00	51	208-230/460	3.0	82.5	13.19
1½	3600	143TC	G121560.00	52	208-230/460	4.0	82.5	13.69
	1800	56C	117282.00	49	208-230/460	4.4	84.0	13.63
	1800	145TC	G121525.00	55	208-230/460	5.2	84.0	13.69
2	3600	145TC	G121561.00	54	208-230/460	5.6	84.0	13.69
	1800	56C	117283.00	49	208-230/460	5.6	84.0	13.63
	1800	145TC	G121527.00	60	208-230/460	5.6	84.0	13.69
3	3600	145TC	G121562.00	55	208-230/460	7.6	85.5	13.69
	1800	182TC	G131923.00	88	208-230/460	8.2	87.5	14.77
5	3600	184TC	G131949.00	98	208-230/460	12.0	87.5	14.77
	1800	184TC	G131924.00	102	208-230/460	13.0	87.5	15.27

● These motors are totally enclosed, non-ventilated—Others are fan cooled.

SINGLE PHASE • TENV/TEFC • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1800	56HC	116343.00●❑	35	115/208-230	None	2.7	12.20
1/2	3600	56HC	116344.00●❑	38	115/208-230	None	3.8	12.20
	1800	56HC	116345.00●❑	38	115/208-230	None	3.3	12.70
3/4	1800	56HC	116346.00●❑	42	115/208-230	None	3.8	12.70
1	3600	56HC	116347.00●❑	49	115/208-230	None	6.0	13.70
	1800	56HC	116348.00●❑	49	115/208-230	None	4.5	13.70
1½	3600	56HC	116482.00❑	49	115/208-230	None	6.8	13.81
	1800	145TC	121622.00	53	115/208-230	None	7.4	14.81
2	3600	145TC	121623.00	57	115/208-230	None	8.8	14.81
	1800	145TC	121632.00	57	115/208-230	None	10.0	14.81

● These motors are totally enclosed, non-ventilated—Others are fan cooled.
❑ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.

SINGLE PHASE • TENV/TEFC • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1800	56C	116349.00●	35	115/208-230	None	2.7	11.70
1/2	1800	56C	116350.00●	38	115/208-230	None	3.3	12.70
3/4	1800	56C	116351.00●	42	115/208-230	None	3.8	12.70
1	1800	56C	116352.00●	49	115/208-230	None	4.5	13.70
1½	1800	145TC	121624.00	53	115/208-230	None	7.4	14.87
2	1800	145TC	121633.00	57	115/208-230	None	10.0	14.87

● These motors are totally enclosed, non-ventilated—Others are fan cooled.

BRAKE MOTOR

THREE PHASE • TENV • C FACE WITH BASE

HP	SYM RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1805	56C	3	116483.00●	59	208-230/460	1.6	78.5	15.85
1	1805	56C	6	116484.00●	69	208-230/460	3.0	81.5	15.85

● These motors are totally enclosed, non-ventilated.

THREE PHASE • TEFC • JM PUMP

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1	1800	143JM	G121626.00	55	208-230/460	3.0	82.5	16.00
1½	3600	143JM	G121627.00	55	208-230/460	4.0	82.4	16.00
	1800	145JM	G121628.00	56	208-230/460	4.4	84.0	16.00
2	3600	145JM	G121629.00	56	208-230/460	5.2	84.0	16.00
	1800	145JM	G121630.00	57	208-230/460	5.6	84.0	16.50
3	3600	145JM	G121631.00	57	208-230/460	7.6	85.5	16.50
	1800	182JM	G131996.00	85	208-230/460	8.2	87.5	16.20
5	3600	184JM	G131997.00	90	208-230/460	12.0	87.5	16.20
	1800	184JM	G131998.00	96	208-230/460	13.0	87.5	16.77
7½	3600	213JM	G140740.00	160	208-230/460	18.4	88.5	16.81
	1800	213JM	G140741.00	162	208-230/460	20.4	89.5	19.81
10	3600	215JM	G140742.00	165	208-230/460	24.0	89.5	19.81
	1800	215JM	G140743.00	173	208-230/460	26.0	89.5	19.81

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

Catalog Numbers in Green are EPACT Motors. **Specifications are subject to change without notice**

PREMIUM
STAINLESS STEELDUCK

IEC ALL-STAINLESS PREMIUM MOTORS

IEC B5 FLANGE - ROUND BODY

HP/ KW	SYN RPM	Frame	Catalog Number	App. Wgt. (lbs.)	Volts DC	F.L. Amps DC	% FL Eff.	"C" Dim. (Inches)
1/3-0.25	1800	71	**103403.00●**	30	208-230/460	1.3	70.5	9.87
	1800	80	**103405.00●**	30	208-230/460	1.3	70.5	9.87
1/2-0.37	1800	71	**103404.00●**	32	208-230/460	1.6	76.0	11.62
	1800	80	**103406.00●**	32	208-230/460	1.6	76.0	11.62
3/4-0.55	1800	80	**103407.00**	38	208-230/460	2.3	77.0	12.26
1- 0.75	1800	90	**117516.00**	45	208-230/460	3.1	82.5	13.13
1.5 - 1.1	1800	90	**117517.00**	49	208-230/460	4.4	84.0	13.63
2 - 1.5	1800	90	**117518.00**	49	208-230/460	5.6	84.0	13.63

IEC B5 FLANGE - RIGID BASE

HP/ KW	SYN RPM	Frame	Catalog Number	App. Wgt. (lbs.)	Volts DC	F.L. Amps DC	% FL Eff.	"C" Dim. (Inches)
1/3-0.25	1800	80	**103408.00●**	30	208-230/460	1.3	70.5	9.50
1/2-0.37	1800	80	**103409.00●**	32	208-230/460	1.6	76	12.75
3/4-0.55	1800	80	**103410.00**	38	208-230/460	2.3	77	12.26

IEC B14 FLANGE - ROUND BODY

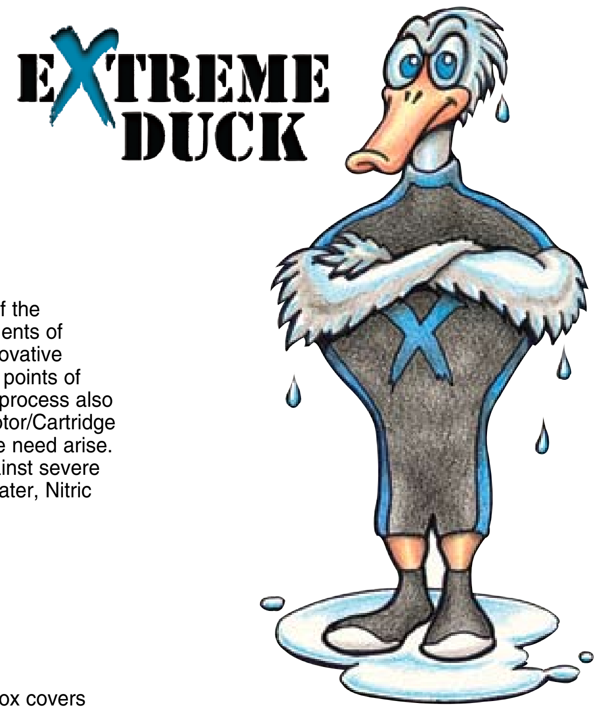
HP/ KW	SYN RPM	Frame	Catalog Number	App. Wgt. (lbs.)	Volts DC	F.L. Amps DC	% FL Eff.	"C" Dim. (Inches)
1/3-0.25	1800	71	**103395.00●**	30	208-230/460	1.3	70.5	9.83
	1800	80	**103397.00●**	30	208-230/460	1.3	70.5	9.72
1/2-0.37	1800	71	**103396.00●**	32	208-230/460	1.6	76	11.58
	1800	80	**103398.00●**	32	208-230/460	1.6	76	11.582
3/4-0.55	1800	80	**103399.00**	38	208-230/460	2.3	77	12.48

IEC B14 FLANGE - RIGID BASE

HP/ KW	SYN RPM	Frame	Catalog Number	App. Wgt. (lbs.)	Volts DC	F.L. Amps DC	% FL Eff.	"C" Dim. (Inches)
1/3-0.25	1800	80	**103400.00●**	31	208-230/460	1.3	70.5	9.72
1/2-0.37	1800	80	**103401.00●**	33	208-230/460	1.6	76	11.58
3/4-0.55	1800	80	**103402.00**	39	208-230/460	2.3	77	12.48

WASHGUARD ALL-STAINLESS MOTORS

ALL-STAINLESS • THREE PHASE • STANDARD & NEMA PREMIUM RATINGS



General Specifications:
These Revolutionary Designed Stainless Steel Motors are built using our "Voice of the customer" design criteria to withstand extreme washdown and sanitation requirements of the food processing, pharmaceutical, packaging and beverage industries. Our Innovative Hydro Sealed System "HS²™" protects from the "outside-in" by reducing entrance points of contaminants and eliminates the need for drain plugs and breathers. This proven process also minimizes exterior hardware, which may trap application elements. Our unique Rotor/Cartridge Seal System, "Q-CAR™" gives quick access to the interior of the motor should the need arise. 300-Series Stainless Steel used on all exterior surfaces gives ideal protection against severe chemical-processing applications and frequent washdown processes using Salt water, Nitric Acids and Solvents.

Mechanical Protection Features:
- All exterior components are 300-Series stainless steel
- Protech Bearing isolator used for the output shaft seal
- Double Lip Viton shaft seal used on non-drive output shaft on TEFC motors
- Minimal exterior fasteners due to no through-bolt design and screw on conduit box covers reduces surface areas that may trap contaminants
- Double-sealed bearings are pre-lubricated with moisture resistant, high temperature grease for long life
- Rotor/Cartridge, "Q-CAR™," design for quick access to motor interior (patent pending).
- O-ring sealed openings on conduit box covers and Rotor/Cartridge cover
- Rigid Cast Base for rugged applications
- Conduit box lead hole location rotatable on TEFC designs
- Full fact nameplate is laser etched to the motor frame making frame surface smooth, which eliminates areas that trap contaminants
- Ease of clean construction is BISSC certified for bakery applications and motors meet Pharmaceutical Duty specifications
- IP 56 Enclosure protection

Electrical Performance and Protection Features
- Motors meet EPACT mandates for non-exempt motors when tested without shaft seals
- Total winding encapsulation using an Epoxy Resin.
- LEESON's exclusive IRIS™ Inverter-Rated Insulation System provides extra protection and long life, especially when used in applications driven by an Inverter.
- 3 year warranty
- 10:1 constant torque operation

Standards and Approvals
- Motors are UL component recognized – file number E57948, guide number PRGY2
- CSA Energy Efficiency Verification Program, report number EEV 78720-1
- Construction is CSA Certified for safety, report number LR33543 and listed under BISSC authorization number 769
- 3 year warranty

CHEMICAL RESISTANCE RATING CHART

CHEMICAL	CONCENTRATION	ALL STAINLESS COMPONENTS
WATER:		
De-Ionized Boiling	100%	Excellent
Salt (Immersed)	30%	Excellent
Salt (Spray)	5%	Excellent
Tap - 250°F/120°C @ 10,000 PSI	100%	Excellent
ACIDS:		
Hydrochloric	35%	Poor
Sulfuric	25%	Poor
Nitric	35%	Excellent
Picric	Saturated Solution	Excellent
BASE:		
Caustic	100%	Excellent
Caustic	12.5 pH	Excellent
Caustic - 125°F/50°C	9.5 pH	Excellent
SOLVENTS:	–	Excellent

WASHGUARD ALL-STAINLESS MOTORS

LEESON

ALL-STAINLESS • THREE PHASE • STANDARD & NEMA PREMIUM RATINGS

EXTREME DUCK

THREE PHASE • TENV/TEFC • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)
1/3	…	…	…	…	…	…	…
1/2	3600	56C	**117118.00●**	39	208-230/460	1.6	10.47
	…	…	…	…	…	…	…
	1800	S56C	**103411.00●**	33	208-230/460	1.6	11.49
	1800	56C	**117119.00●**	40	208-230/460	1.6	10.72
3/4	3600	56C	**117120.00●**	46	208-230/460	2.4	10.47
	1800	S56C	**103412.00**	39	208-230/460	2.3	12.50
	1800	56C	**117121.00●**	47	208-230/460	2.3	11.22
1	3600	56C	**117122.00●**	48	208-230/460	2.6	10.97
	1800	56C	**117123.00●**	50	208-230/460	3.0	11.97
1½	3600	143TC	**121879.00** W	54	208-230/460	4.0	11.75
	3600	143TC	**G121748.00**	54	208-230/460	4.0	11.00
	1800	56C	**117296.00**	56	208-230/460	4.4	11.69
	1800	145TC	**121880.00** W	56	208-230/460	4.4	12.75
	1800	145TC	**G121749.00**	56	208-230/460	4.4	11.25
2	3600	145TC	**121881.00** W	56	208-230/460	5.2	12.75
	3600	145TC	**G121739.00**	56	208-230/460	5.2	12.50
	1800	56C	**117299.00** W	57	208-230/460	5.6	12.69
	1800	145TC	**121882.00**	57	208-230/460	5.6	13.25
	1800	145TC	**G121740.00**	57	208-230/460	5.6	12.50

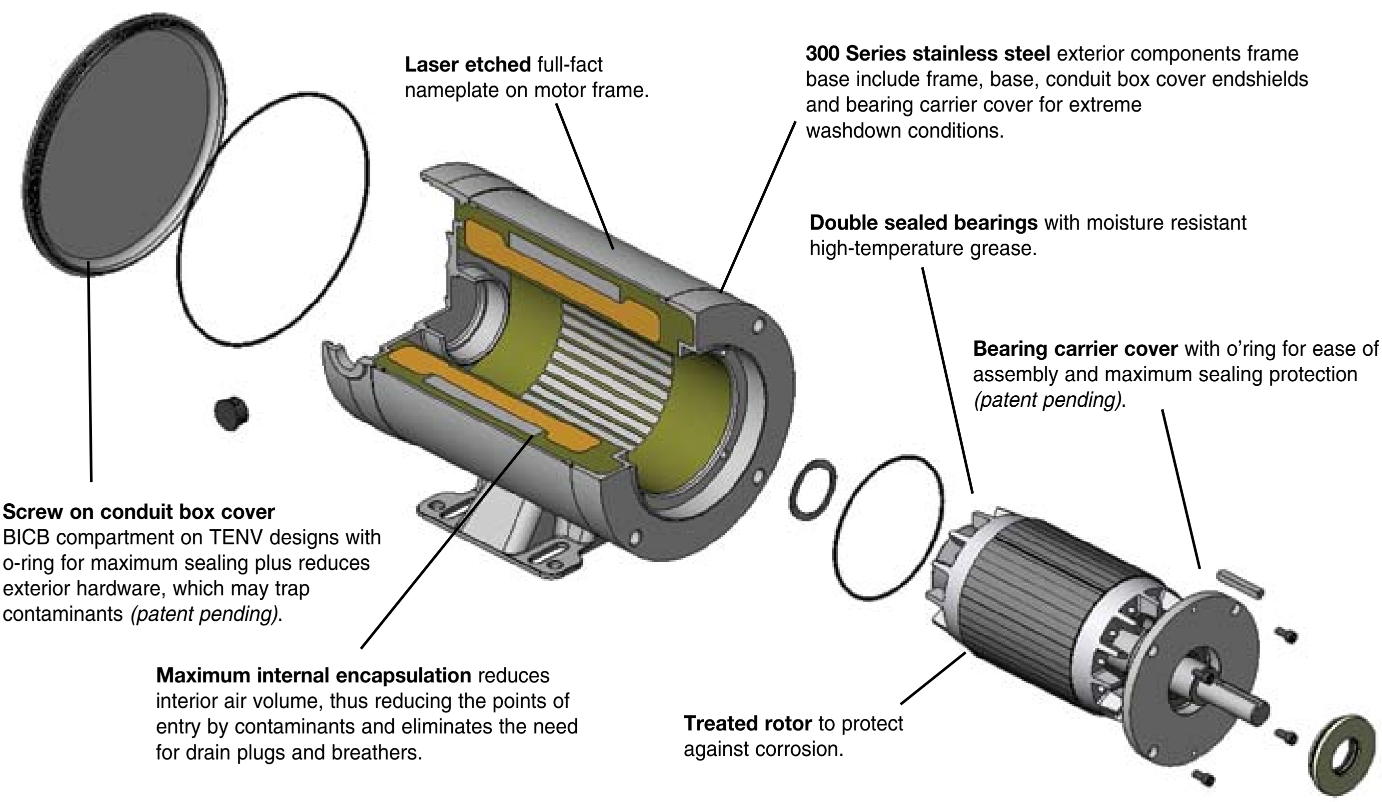
● These motors are totally enclosed, non-ventilated—Others are fan cooled.
W Premium efficiency WATTSAVERe® Motors. See page 19 for details.

Catalog numbers in green are EPACT motors.

THREE PHASE • TENV/TEFC • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1800	48C	**103417.00●**	30	208-230/460	1.3	9.58
1/2	3600	56C	**117126.00●**	38	208-230/460	1.6	10.47
	1800	48C	**103418.00●**	32	208-230/460	1.6	11.33
	1800	S56C	**103413.00●**	32	208-230/460	1.6	11.49
	1800	56C	**117127.00●**	39	208-230/460	1.6	10.72
3/4	3600	56C	**117128.00●**	45	208-230/460	2.4	10.47
	1800	S56C	**103414.00**	38	208-230/460	2.3	12.50
	1800	56C	**117129.00●**	46	208-230/460	2.3	11.22
1	3600	56C	**117130.00●**	47	208-230/460	2.6	10.97
	1800	56C	**117131.00●**	50	208-230/460	3.0	11.69
1½	3600	143TC	**121908.00** W	53	208-230/460	4.0	11.75
	3600	143TC	**121750.00**	53	208-230/460	4.0	11.00
	1800	56C	**117297.00**	55	208-230/460	4.4	11.69
	1800	145TC	**121909.00** W	55	208-230/460	4.4	12.75
	1800	145TC	**121751.00**	55	208-230/460	4.4	11.25
2	3600	145TC	**121910.00** W	55	208-230/460	5.2	12.75
	3600	145TC	**121742.00**	55	208-230/460	5.2	12.50
	1800	145TC	**121743.00**	56	208-230/460	5.6	12.50
	1800	145TC	**121911.00** W	56	208-230/460	5.6	13.25
	1800	56C	**117298.00**	56	208-230/460	5.6	12.69

● These motors are totally enclosed, non-ventilated—Others are fan cooled.
W Premium efficiency WATTSAVERe® Motors. See page 19 for details.

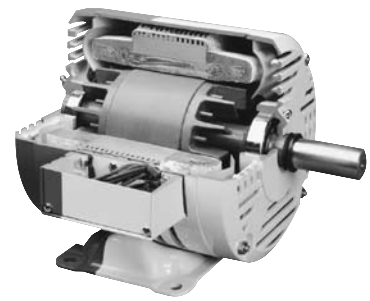


Lincoln™ MOTORS

HARSH ENVIRONMENTS WASH-THRU™ MOTORS

230/460 VOLTS • 3-PHASE FOOT MOUNT & C-FACE

Lincoln's revolutionary Wash-Thru™ design utilizes **Pressure Encapsulation Technology** for unbeatable winding protection and unsurpassed motor life in many harsh environments. Wash-Thru™ motors can provide an improvement in plant efficiency and a reduction in maintenance costs due to an increase in process up-time.



Cutaway model shows encapsulated windings.

Features:

- Pressure Encapsulation Technology – thermosetting polyester-based resin is forced into and around the motor windings impregnating and encapsulating coil noses and filling stator slots. A silicone-based coating on stator bore surfaces completes the process. The result is unbeatable protection from excessive moisture, chemical action and vibration.
- Full length 303 stainless steel shaft.
- Double-sealed bearings and v-ring shaft slinger.
- Laser etched, stainless steel nameplate for permanent motor identification.
- Premium Class F Insulation system
- FDA approved white finish coat
- Warranty (sine-wave and inverter power) – 18 months from date of manufacture and 12 months from date of installation which ever period expires first.
- Made in U.S.A.

Applications:

Exceptional choice for demanding uses in poultry, seafood, meat and other food processing plants. Other applications include areas where a high degree of dust, moisture, and vibration exist.

Speed ranges (continuous duty) on variable-frequency electronic speed controls (inverters):

Constant Torque: 45 to 60 Hz
Variable Torque: 6 to 60 Hz

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/2	3600	56	70.0	1.00	230/460	SREW2S0.5T61	**LM21031**	30
	1800	56	68.0	1.00	230/460	SREW4S0.5T61	**LM20655**	26
	1200	56	70.0	1.00	230/460	SREW6S0.5T61	**LM25419**	28
3/4	3600	56	74.0	1.00	230/460	SREW2S0.75T61	**LM21034**	30
	1800	56	75.5	1.00	230/460	SREW4S0.75T61	**LM20658**	24
	1200	56	77.5	1.00	230/460	SREW6S0.75T61	**LM22163**	33
1	3600	56	78.5	1.00	230/460	SREW2S1T61	**LM21037**	30
	1800	56	77.0	1.00	230/460	SREW4S1T61	**LM21061**	30
	1800	143T	77.0	1.00	230/460	SSEW4S1T61	**LM20667**	35
	1200	56H	72.0	1.00	230/460	SREW6S1T61	**LM25420**	34
	1200	145T	75.5	1.00	230/460	SSEW6S1T61	**LM24280**	34
1 1/2	3600	K56	78.5	1.00	230/460	SREW2S1.5T61	**LM21040**	30
	3600	143T	78.5	1.00	230/460	SSEW2S1.5T61	**LM21046**	35
	1800	56H	80.0	1.00	230/460	SREW4S1.5T61	**LM21062**	30
	1800	145T	80.0	1.00	230/460	SSEW4S1.5T61	**LM20670**	35
	1200	182T	81.5	1.00	230/460	SSEW6S1.5T61	**LM25421**	35
2	3600	56H	78.5	1.00	230/460	SREW2S2T61	**LM21043**	34
	3600	145T	82.5	1.00	230/460	SSEW2S2T61	**LM21049**	35
	1800	56H	81.5	1.00	230/460	SREW4S2T61	**LM21063**	34
	1800	145T	81.5	1.00	230/460	SSEW4S2T61	**LM20673**	35
	1200	184T	80.0	1.00	230/460	SSEW6S2T61	**LM25422**	70

Product numbers in red are STOCK items.

Specifications are subject to change without notice

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
3	3600	182T	81.5	1.00	230/460	SSEW2S3T61	**LM21052**	64
	1800	182T	89.5	1.00	230/460	SSEW4S3T61	**LM20676**	64
	1200	213T	78.5	1.00	230/460	SSEW6S3T61	**LM25423**	109
5	3600	184T	81.5	1.00	230/460	SSEW2S5T61	**LM21055**	70
	1800	184T	87.5	1.00	230/460	SSEW4S5T61	**LM20679**	70
	1200	215T	82.5	1.00	230/460	SSEW6S5T61	**LM25424**	125
7 1/2	3600	213T	81.5	1.00	230/460	SSEW2S7.5T61	**LM22423**	109
	1800	213T	81.5	1.00	230/460	SSEW4S7.5T61	**LM22435**	109
	1200	254T	86.5	1.00	230/460	SSEW6S7.5T61	**LM23931**	208
10	3600	215T	84.0	1.00	230/460	SSEW2S10T61	**LM22426**	125
	1800	215T	84.0	1.00	230/460	SSEW4S10T61	**LM22438**	125

C-FACE WITH FEET

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/2	3600	56C	70.0	1.00	230/460	SREW2S0.5TC61	**LM21032**	35
	1800	56C	68.0	1.00	230/460	SREW4S0.5TC61	**LM20656**	35
3/4	3600	56C	74.0	1.00	230/460	SREW2S0.75TC61	**LM21035**	35
	1800	56C	75.5	1.00	230/460	SREW4S0.75TC61	**LM20659**	35
1	3600	56C	78.5	1.00	230/460	SREW2S1TC61	**LM21038**	35
	1800	56C	77.0	1.00	230/460	SREW4S1TC61	**LM20661**	35
	1800	143TC	77.0	1.00	230/460	SSEW4S1TC61	**LM20668**	40
1 1/2	3600	56C	81.5	1.00	230/460	SREW2S1.5TC61	**LM21041**	35
	3600	143TC	78.5	1.00	230/460	SSEW2S1.5TC61	**LM21047**	40
	1800	56HC	80.0	1.00	230/460	SREW4S1.5TC61	**LM20663**	35
	1800	145TC	80.0	1.00	230/460	SSEW4S1.5TC61	**LM20671**	40
2	3600	56HC	82.5	1.00	230/460	SREW2S2TC61	**LM21044**	40
	3600	145TC	78.5	1.00	230/460	SSEW2S2TC61	**LM21050**	40
	1800	56HC	81.5	1.00	230/460	SREW4S2TC61	**LM20665**	40
	1800	145TC	81.5	1.00	230/460	SSEW4S2TC61	**LM20674**	40
3	3600	182TC	81.5	1.00	230/460	SSEW2S3TC61	**LM21053**	73
	1800	182TC	81.5	1.00	230/460	SSEW4S3TC61	**LM20677**	73
5	3600	184TC	81.5	1.00	230/460	SSEW2S5TC61	**LM21056**	79
	1800	184TC	81.5	1.00	230/460	SSEW4S5TC61	**LM20680**	79
7 1/2	3600	213TC	81.5	1.00	230/460	SSEW2S7.5TC61	**LM22424**	121
	1800	213TC	81.5	1.00	230/460	SSEW4S7.5TC61	**LM22436**	121
10	3600	215TC	84.0	1.00	230/460	SSEW2S10TC61	**LM22427**	139
	1800	215TC	84.0	1.00	230/460	SSEW4S10TC61	**LM22439**	139

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Specifications are subject to change without notice

Lincoln MOTORS

HARSH ENVIRONMENTS WASH-THRU™ MOTORS

230/460 VOLTS • 3-PHASE FOOT MOUNT & C-FACE

C-FACE FOOTLESS

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/2	3600	56C	70.0	1.00	230/460	SREW2S0.5TCN61	**LM21033**	35
	1800	56C	74.0	1.00	230/460	SREW4S0.5TCN61	**LM20657**	35
3/4	3600	56C	74.0	1.00	230/460	SREW2S0.75TCN61	**LM21036**	35
	1800	56C	77.0	1.00	230/460	SREW4S0.75TCN61	**LM20660**	35
1	3600	56C	75.5	1.00	230/460	SREW2S1TCN61	**LM21039**	35
	1800	56C	78.5	1.00	230/460	SREW4S1TCN61	**LM20662**	35
	1800	143TC	78.5	1.00	230/460	SSEW4S1TCN61	**LM20669**	40
1 1/2	3600	56C	78.5	1.00	230/460	SREW2S1.5TCN61	**LM21042**	35
	3600	143TC	78.5	1.00	230/460	SSEW2S1.5TCN61	**LM21048**	40
	1800	56HC	80.0	1.00	230/460	SREW4S1.5TCN61	**LM20664**	35
	1800	145TC	80.0	1.00	230/460	SSSEW4S1.5TCN61	**LM20672**	40
2	3600	56HC	78.5	1.00	230/460	SREW2S2TCN61	**LM21045**	40
	3600	145TC	78.5	1.00	230/460	SSEW2S2TCN61	**LM21051**	40
	1800	56HC	81.5	1.00	230/460	SREW4S2TCN61	**LM20666**	40
	1800	145TC	81.5	1.00	230/460	SSEW4S2TCN61	**LM20675**	40
3	3600	182TC	81.5	1.00	230/460	SSEW2S3TCN61	**LM21054**	73
	1800	182TC	81.5	1.00	230/460	SSEW4S3TCN61	**LM20678**	73
5	3600	184TC	81.5	1.00	230/460	SSEW2S5TCN61	**LM21057**	79
	1800	184TC	81.5	1.00	230/460	SSEW4S5TCN61	**LM20681**	79
7 1/2	3600	213TC	81.5	1.00	230/460	SSEW2S7.5TCN61	**LM22425**	121
	1800	213TC	81.5	1.00	230/460	SSEW4S7.5TCN61	**LM22437**	121
10	3600	215TC	84.0	1.00	230/460	SSEW2S10TCN61	**LM22428**	139
	1800	215TC	84.0	1.00	230/460	SSEW4S10TCN61	**LM22440**	139

Product numbers in red are STOCK items.

Specifications are subject to change without notice

ODP – ENCAPSULATED MULTIGUARD®

230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT, C-FACE & DOUBLE C-FACE/DOUBLE SHAFT
15 TO 250 HP

Features:
- Encapsulated Windings
- NEMA Design B performance
- Durable steel frame, cast iron end brackets
- Premium Class F Plus Insulation System
- Continuous Duty, 40°C ambient
- Reduced voltage start capability –
  284T-405T: Y-delta start on either voltage
  444T-445T: Y-delta start and part-winding start
- Warranty: 42 months from date of manufacture or 36 months from date of installation, whichever period expires first.
- Made in U.S.A.

Applications:
Multiguard motors utilize an ODP enclosure with a winding protection system unique to the motor industry. The windings are impregnated and encapsulated in a thermosetting, specially formulated polyester based resin using a high pressure injection-molding process. When compared to a standard ODP and in some cases TEFC, it performs better in applications involving moisture, vibration, dust and some chemical action.

Stator/frame assembly pictured – end brackets removed to show encapsulation.

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
15	1200	284T	86.5	1.00	230/460	MD6S15T61	LM03614	280
	1200	284TS	86.5	1.00	230/460	MD6S15TS61	LM10636	280
20	1200	286T	84.0	1.00	230/460	MD6S20T61	LM03631	328
	1200	286TS	84.0	1.00	230/460	MD6S20TS61	LM10637	328
25	1800	284T	87.5	1.00	230/460	MD4S25T61	LM03618	296
	1800	284TS	87.5	1.00	230/460	MD4S25TS61	LM10638	296
	1200	324T	89.5	1.00	230/460	MD6S25T61	LM03665	422
	1200	324TS	89.5	1.00	230/460	MD6S25TS61	LM10639	422
30	3600	284T	82.5	1.00	230/460	MD2S30T61	LM03628	306
	3600	284TS	82.5	1.00	230/460	MD2S30TS61	LM03627	306
	1800	286T	87.5	1.00	230/460	MD4S30T61	LM03636	334
	1800	286TS	87.5	1.00	230/460	MD4S30TS61	LM03637	334
	1200	326T	89.5	1.00	230/460	MD6S30T61	LM03865	482
	1200	326TS	89.5	1.00	230/460	MD6S30TS61	LM10640	482
40	3600	286T	84.0	1.00	230/460	MD2S40T61	LM03651	350
	3600	286TS	84.0	1.00	230/460	MD2S40TS61	LM03650	350
	1800	324T	90.2	1.00	230/460	MD4S40T61	LM03669	420
	1800	324TS	90.2	1.00	230/460	MD4S40TS61	LM03670	420
	1200	364T	91.7	1.00	230/460	MD6S40T61	LM03703	655
	1200	364TS	91.7	1.00	230/460	MD6S40TS61	LM10641	655
50	3600	324T	86.5	1.00	230/460	MD2S50T61	LM03682	425
	3600	324TS	86.5	1.00	230/460	MD2S50TS61	LM03681	425
	1800	326T	91.7	1.00	230/460	MD4S50T61	LM03683	476
	1800	326TS	91.7	1.00	230/460	MD4S50TS61	LM03684	476
	1200	365T	91.7	1.00	230/460	MD6S50T61	LM03720	690
	1200	365TS	91.7	1.00	230/460	MD6S50TS61	LM10642	690
60	3600	326T	87.5	1.00	230/460	MD2S60T61	LM03692	484
	3600	326TS	87.5	1.00	230/460	MD2S60TS61	LM03691	484
	1800	364T	92.4	1.00	230/460	MD4S60T61	LM03709	627
	1800	364TS	92.4	1.00	230/460	MD4S60TS61	LM03708	627
	1200	404T	92.4	1.00	230/460	MD6S60T61	LM03785	855
	1200	404TS	92.4	1.00	230/460	MD6S60TS61	LM10643	855

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AC MOTORS

Lincoln MOTORS

ODP – ENCAPSULATED MULTIGUARD®

230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT, C-FACE & DOUBLE C-FACE/DOUBLE SHAFT
15 TO 250 HP

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
75	3600	364T	88.5	1.00	230/460	MD2S75T61	**LM03719**	644
	3600	364TS	88.5	1.00	230/460	MD2S75TS61	**LM03718**	644
	1800	365T	91.7	1.00	230/460	MD4S75T61	**LM03729**	697
	1800	365TS	91.7	1.00	230/460	MD4S75TS61	**LM03728**	697
	1200	405T	92.4	1.00	230/460	MD6S75T61	**LM03799**	948
	1200	405TS	92.4	1.00	230/460	MD6S75TS61	**LM03800**	948
100	3600	365T	88.5	1.00	230/460	MD2S100T61	**LM03740**	712
	3600	365TS	88.5	1.00	230/460	MD2S100TS61	**LM03739**	712
	1800	404T	93.0	1.00	230/460	MD4S100T61	**LM03791**	865
	1800	404TS	93.0	1.00	230/460	MD4S100TS61	**LM03790**	865
	1200	444T	94.1	1.00	460	MD6S100T64PY	**LM03752**	1,213
	1200	444TS	94.1	1.00	460	MD6S100TS64PY	**LM03753**	1,213
125	3600	404T	89.5	1.00	230/460	MD2S125T61	**LM10644**	875
	3600	404TS	89.5	1.00	230/460	MD2S125TS61	**LM03797**	875
	1800	405T	93.0	1.00	230/460	MD4S125T61	**LM03809**	972
	1800	405TS	93.0	1.00	230/460	MD4S125TS61	**LM03808**	972
	1200	445T	94.1	1.00	460	MD6S125T64PY	**LM03768**	1,377
	1200	445TS	94.1	1.00	460	MD6S125TS64PY	**LM10645**	1,377
150	3600	405T	89.5	1.00	230/460	MD2S150T61	**LM03816**	978
	3600	405TS	89.5	1.00	230/460	MD2S150TS61	**LM03815**	978
	1800	444T	93.6	1.00	460	MD4S150T64PY	**LM03761**	1,230
	1800	444TS	93.6	1.00	460	MD4S150TS64PY	**LM03760**	1,230
200	1800	445T	94.5	1.00	460	MD4S200T64PY	**LM03773**	1,440
	1800	445TS	94.5	1.00	460	MD4S200TS64PY	**LM03772**	1,440
250	1800	445T	93.6	1.00	460	MD4S250T64PY	**LM03780**	1,500
	1800	445TS	93.6	1.00	460	MD4S250TS64PY	**LM03779**	1,500

C-FACE WITH FEET

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
15	1200	284TC	86.5	1.00	230/460	MD6S15TC61	**LM03616**	287
	1200	284TSC	86.5	1.00	230/460	MD6S15TSC61	**LM03615**	287
20	1200	286TC	84.0	1.00	230/460	MD6S20TC61	**LM03633**	335
	1200	286TSC	84.0	1.00	230/460	MD6S20TSC61	**LM03632**	335
25	1800	284TC	87.5	1.00	230/460	MD4S25TC61	**LM03623**	303
	1800	284TSC	87.5	1.00	230/460	MD4S25TSC61	**LM03619**	303
	1200	324TC	89.5	1.00	230/460	MD6S25TC61	**LM03666**	432
30	1800	286TC	87.5	1.00	230/460	MD4S30TC61	**LM03643**	343
	1800	286TSC	87.5	1.00	230/460	MD4S30TSC61	**LM03639**	343
	1200	326TC	89.5	1.00	230/460	SE6S30TC61	**LM20488**	482
40	1800	324TC	90.2	1.00	230/460	MD4S40TC61	**LM03673**	439
	1800	324TSC	90.2	1.00	230/460	MD4S40TSC61	**LM03671**	439
	1200	364TC	91.7	1.00	230/460	MD6S40TC61	**LM03705**	667
50	1800	326TC	91.7	1.00	230/460	MD4S50TC61	**LM03686**	486
	1800	326TSC	91.7	1.00	230/460	MD4S50TSC61	**LM03685**	486
	1200	365TC	91.7	1.00	230/460	MD6S50TC61	**LM03724**	702
60	1800	364TC	92.4	1.00	230/460	MD4S60TC61	**LM03711**	639
	1800	364TSC	92.4	1.00	230/460	MD4S60TSC61	**LM03713**	639
75	1800	365TC	91.7	1.00	230/460	MD4S75TC61	**LM03730**	709
	1800	365TSC	91.7	1.00	230/460	MD4S75TSC61	**LM03733**	709
	1200	405TC	92.4	1.00	230/460	MD6S75TC61	**LM03804**	964
100	1800	404TC	93.0	1.00	230/460	MD4S100TC61	**LM03792**	881
	1800	404TSC	93.0	1.00	230/460	MD4S100TSC61	**LM03794**	881
	1200	444TSC	94.1	1.00	460	MD6S100TSC64PY	**LM03755**	1234

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ODP – ENCAPSULATED MULTIGUARD®

Lincoln MOTORS

230/460 & 460 VOLTS • 3-PHASE
FOOT MOUNT, C-FACE & DOUBLE C-FACE/DOUBLE SHAFT
15 TO 250 HP

C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
125	1800	405TC	93.0	1.00	230/460	MD4S125TC61	**LM03810**	988
	1800	405TSC	93.0	1.00	230/460	MD4S125TSC61	**LM03812**	988
	1200	445TSC	94.1	1.00	460	MD6S125TSC64PY	**LM03770**	1398
150	1800	444TSC	93.6	1.00	460	MD4S150TSC64PY	**LM03763**	1251
200	1800	445TSC	94.5	1.00	460	MD4S200TSC64PY	**LM03776**	1435
250	1800	445TSC	93.6	1.00	460	SE4S250TSC64PY	**LM16564**	1600

DOUBLE C-FACE/DOUBLE SHAFT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
15	1200	284TC	86.5	1.00	230/460	MD6S15TCTMC61	**LM10725**	295
	1200	284TSC	86.5	1.00	230/460	MD6S15TSCTSC61	**LM10726**	295
20	1200	286TC	84.0	1.00	230/460	MD6S20TCTMC61	**LM10727**	342
	1200	286TSC	84.0	1.00	230/460	MD6S20TSCTSC61	**LM03634**	342
25	1800	284TC	87.5	1.00	230/460	MD4S25TCTMC61	**LM03624**	310
	1800	284TSC	87.5	1.00	230/460	MD4S25TSCTSC61	**LM03625**	310
	1200	324TC	89.5	1.00	230/460	MD6S25TCTMC61	**LM03667**	442
	1200	324TSC	89.5	1.00	230/460	MD6S25TSCTSC61	**LM03668**	442
30	1800	286TC	87.5	1.00	230/460	MD4S30TCTMC61	**LM03644**	348
	1800	286TSC	87.5	1.00	230/460	MD4S30TSCTSC61	**LM03645**	348
	1200	326TC	89.5	1.00	230/460	MD6S30TCTMC61	**LM10730**	502
	1200	326TSC	89.5	1.00	230/460	MD6S30TSCTSC61	**LM03866**	502
40	1800	324TC	90.2	1.00	230/460	MD4S40TCTMC61	**LM03674**	440
	1800	324TSC	90.2	1.00	230/460	MD4S40TSCTSC61	**LM03675**	440
	1200	364TC	91.7	1.00	230/460	MD6S40TCTMC61	**LM03706**	679
	1200	364TSC	91.7	1.00	230/460	MD6S40TSCTSC61	**LM03707**	679
50	1800	326TC	91.7	1.00	230/460	MD4S50TCTMC61	**LM03687**	496
	1800	326TSC	91.7	1.00	230/460	MD4S50TSCT61Y	**LM27884**	496
	1200	365TC	91.7	1.00	230/460	MD6S50TCTMC61	**LM03725**	714
	1200	365TSC	91.7	1.00	230/460	MD6S50TSCTSC61	**LM03726**	714
60	1800	364TC	92.4	1.00	230/460	MD4S60TCTMC61	**LM03714**	651
	1800	364TSC	92.4	1.00	230/460	MD4S60TSCTSC61	**LM03715**	651
	1200	404TC	92.4	1.00	230/460	MD6S60TCTMC61	**LM03787**	887
	1200	404TSC	92.4	1.00	230/460	MD6S60TSCTSC61	**LM03788**	887
75	1800	365TC	91.7	1.00	230/460	MD4S75TCTMC61	**LM03735**	721
	1800	365TSC	91.7	1.00	230/460	MD4S75TSCTSC61	**LM03736**	721
	1200	405TC	92.4	1.00	230/460	MD6S75TCTMC61	**LM03805**	980
	1200	405TSC	92.4	1.00	230/460	MD6S75TSCTSC61	**LM03806**	980
100	1800	404TC	93.0	1.00	230/460	MD4S100TCTMC61	**LM10741**	897
	1800	404TSC	93.0	1.00	230/460	MD4S100TSCTSC61	**LM03795**	897
	1200	444TC	94.1	1.00	460	MD6S100TCTMC64PY	**LM03757**	1234
	1200	444TSC	94.1	1.00	460	MD6S100TSCTSC64PY	**LM03758**	1234
125	1800	405TC	93.0	1.00	230/460	SE4S125TCTMC61	**LM10744**	1004
	1800	405TSC	93.0	1.00	230/460	MD4S125TSCTSC61	**LM03813**	1004
	1200	445TC	94.1	1.00	460	MD6S125TCTMC64PY	**LM10745**	1419
	1200	445TSC	94.1	1.00	460	MD6S125TSCTSC64PY	**LM03771**	1419
150	1800	444TC	93.6	1.00	460	MD4S150TCTMC64PY	**LM10748**	1272
	1800	444TSC	93.6	1.00	460	MD4S150TSCTSC64PY	**LM03764**	1272
200	1800	445TC	94.5	1.00	460	MD4S200TCTMC64PY	**LM10749**	1482
	1800	445TSC	94.5	1.00	460	MD4S200TSCTSC64PY	**LM03777**	1482
250	1800	445TC	93.6	1.00	460	MD4S250TCTMC64PY	**LM10750**	1600
	1800	445TSC	93.6	1.00	460	MD4S250TSCTSC64PY	**LM10751**	1600

Product numbers in red are STOCK items.

Specifications are subject to change without notice

LEESON OTHER GENERAL PURPOSE MOTORS
RIGID BASE • SINGLE AND THREE PHASE

TENV MOTORS
General purpose, totally enclosed non-vent motors with rigid base.

SINGLE PHASE • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/6	3600	42	**092011.00 A**	16	115/208-230	None	1.0	9.56
	1800	42	**092012.00 A**	21	115/208-230	None	1.8	10.56
1/4	3600	42	**092013.00 A**	21	115/208-230	None	1.7	10.56
	1800	48	**100361.00**	17	115/208-230	None	2.2	9.43
	1800	S56	**102914.00✣**	24	115/208-230	None	2.3	9.81
	1800	S56	**102915.00✣**	23	115/208-230	Auto.	2.3	9.81
1/3	3600	48	**100362.00**	24	115/208-230	None	2.0	9.93
	1800	S56	**102912.00✣**	25	115/208-230	None	2.6	10.81
	1800	S56	**102913.00✣A**	25	115/208-230	Man.	2.6	10.31
	1800	S56	**102911.00✣**	24	115/208-230	Auto.	2.6	10.31
1/2	3600	48	**100366.00**	27	115/208-230	None	2.9	10.43

THREE PHASE • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/6	3600	42	**092014.00**	13	208-230/460	0.7	65.0	7.56
	1800	42	**092015.00**	14	208-230/460	0.9	61.0	7.81
1/4	3600	42	**092016.00 A**	15	208-230/460	0.9	62.0	8.06
	1800	48	**100123.00**	16	208-230/460	1.0	78.0	9.18
	1800	S56	**101649.00**	16	208-230/460	1.0	78.0	9.56
1/3	3600	48	**101013.00**	17	208-230/460	1.2	72.0	9.06
	1800	48	**100443.00**	19	208-230/460	1.4	78.0	9.56
	1800	S56	**102920.00**	20	208-230/460	1.3	77.0	9.56
1/2	3600	56	**110143.00**	25	208-230/460	1.5	67.0	10.38
	1800	S56	**102918.00†**	21	208-230/460	1.8	77.0	10.06
3/4	1800	56	**114309.00**	30	208-230/460	2.5	80.0	10.89
1	1800	143T	**121098.00**	35	208-230/460	3.2	80.0	11.83
1½	1800	145T	**121099.00**	47	208-230/460	4.2	80.0	13.33

Motors in this column have a 1.15 Service Factor.

F2 MOUNT MOTORS
General purpose, three-phase motors with NEMA F2 conduit box location.

DRIP-PROOF • THREE PHASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3	1800	182T	**132232.00 A**	75	208-230/460	7.2	89.5	13.69
5	1800	184T	**132233.00 A**	86	208-230/460	12.8	89.5	14.69
7½	1800	213T	**140831.00 A**	133	208-230/460	20.6	91.0	16.25

Motors in this column have NEMA Service Factors—see page 274 for details.

NEMA Premium

TEFC • THREE PHASE

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
182T	**132237.00 A**	80	208-230/460	7.8	89.5	14.96
184T	**132236.00 A**	94	208-230/460	12.8	89.5	15.96
213T	**140832.00 A**	154	208-230/460	21.4	91.7	18.7

Motors in this column have a 1.15 Service Factor.

Note: For larger F2 mount motors, 150 & 170 Series cast iron motors may be converted to F2 by reassembly.

NEMA Premium

AUTOMATIC OVERLOAD MOTORS
General purpose, drip-proof motors with automatic reset thermal overload protection. Not for use with variable frequency drives.

THREE PHASE • DRIP-PROOF • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3	1800	182T	**132234.00 A**	58	208-230/460	8.4	86.5	12.69
5	1800	184T	**132235.00 A**	78	208-230/460	13.2	87.5	13.69

† Class F insulated.
✣ These totally enclosed single phase motors have 1.15 Service Factors.
A Subject to Availability.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

All three phase motors, 1 HP and above, are inverter rated.

RESILIENT BASE MOTORS • SINGLE PHASE

LEESON®

GENERAL PURPOSE OR FAN & BLOWER SERVICE • MODERATE STARTING TORQUE

General Specifications:

Industrial quality, resilient (cradle) mounted, capacitor start-type, ball bearing motors for fan and blower service. Moderate starting torque electrical design to reduce stress on fan blades during start-up. Capacitor-type design has higher energy efficiency rating than split phase, single phase fan and blower motors. Suitable for belt-driven fans or fan-on-shaft applications. Self-ventilated design, may be mounted outside of the fan's airflow.

DRIP-PROOF • SINGLE PHASE RESILIENT BASE

Drip-proof design and resilient mount. Moderate starting torque. Suitable for general purpose applications.

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/4	3600	48	**101434.00#A**	16	115/208-230	Auto.	2.0	9.39
	1800	48	**100109.00**	17	115/208-230	Auto.	2.7	9.89
	1800	48	**100111.00#**	17	115/208-230	Auto.	2.7	9.89
	1800	48	**102963.00A**	17	277	Auto.	2.2*	9.89
1/3	3600	48	**101431.00#**	17	115/208-230	Auto.	2.3	9.39
	1800	48	**100110.00**	18	115/208-230	Auto.	3.3	9.89
	1800	48	**101015.00#**	18	115/208-230	Auto.	3.3	9.89
	1800	S56	**100014.00**	19	115/208-230	None	3.3	10.31
	1800	S56	**100010.00**	18	115/208-230	Auto.	3.3	10.31
	1800	S56	**100063.00#**	19	115/208-230	Auto.	3.3	10.31
	1800	S56	**102964.00A**	18	277	Auto.	2.8*	10.31
1/2	3600	48	**101432.00#**	20	115/208-230	Auto.	3.4	9.89
	1800	S56	**100015.00**	21	115/208-230	None	4.4	10.81
	1800	S56	**100045.00#**	20	115/208-230	Man.	4.4	10.81
	1800	S56	**101611.00]**	22	115/208-230	Auto.	4.4	10.81
	1800	S56	**100011.00**	22	115/208-230	Auto.	4.4	10.81
	1800	S56	**100064.00#**	20	115/208-230	Auto.	4.4	10.81
	1800	S56	**102965.00**	22	277	Auto.	3.7*	10.81
3/4	3600	48	**101433.00#**	22	115/208-230	Auto.	4.8	10.39
	3600	S56H	**100603.00**	26	115/208-230	Auto.	4.9	11.31
	1800	S56H	**100016.00**	26	115/208-230	None	5.4	11.81
	1800	S56H	**100046.00**	26	115/208-230	Man.	5.4	11.81
	1800	S56H	**100047.00#**	25	115/208-230	Man.	5.5	11.81
	1800	S56H	**101839.00]**	28	115/208-230	Auto.	5.4	11.81
	1800	S56H	**100012.00**	26	115/208-230	Auto.	5.4	11.81
	1800	S56H	**100065.00#**	25	115/208-230	Auto.	5.5	11.81
	1800	S56H	**102966.00**	26	277	Auto.	4.5*	11.81
1	3600	56H	**110478.00**	28	115/208-230	Auto.	6.0	11.85
	1800	56H	**113027.00**	30	115/208-230	None	6.4	11.81
	1800	56H	**110007.00**	29	115/208-230	Auto.	6.4	11.81
	1800	56H	**110054.00#**	32	115/208-230	Auto.	6.4	11.81
	1800	56H	**116599.00**	29	277	Auto.	5.4*	11.82
1½	3600	56H	**110479.00**	30	115/230	Auto.	8.2	11.82
	1800	56H	**110579.00☆□**	38	115/208-230	Auto	7.2	12.82
	1800	56H	**116600.00A**	38	277	Auto	6.0*	12.82
2	3600	56H	**113633.00A**	38	115/208-230	Auto.	10.0	13.82
	1800	56H	**113608.00☆**	45	115/208-230	Auto.	10.0	13.81
	1800	56H	**116601.00**	45	277	Auto.	8.7*	13.82

* F.L. Amps at 277V

TEFC • SINGLE PHASE RESILIENT BASE

Totally enclosed, fan cooled design makes these motors ideal for replacement in tough agricultural and industrial applications where contaminants cause failure of open drip-proof motors.

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/2	1800	56	**110025.00**	26	115/208-230	Auto.	4.4	11.96
3/4	1800	56	**110026.00□**	28	115/208-230	Auto.	5.4	12.46
1	1800	56H	**111915.00□**	31	115/208-230	Auto.	6.4	12.96

These motors have NEMA Service Factors except as noted by # which have a 1.0 Service Factor and TEFC motors, which have a 1.15 Service Factor.

WATTSAVER® PREMIUM EFFICIENCY FAN MOTORS DRIP-PROOF • SINGLE PHASE RESILIENT BASE

Premium efficiency motors for residential, agricultural and industrial belted-fan applications, when continuous or near-continuous operation is common.

Features include quiet bearings, resilient cradle base, and quiet flow-through ventilation. Class F insulated, with spade connectors on terminal board for quick and easy installation.

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 115V	% F.L. Eff.	"C" Dim. (Inches)
1/4	1800	48	**101602.00**	19	115	Auto.	2.5	71.0	10.39
1/3	1800	48	**101405.00**	19	115	Auto.	3.2	75.0	10.39
1/2	1800	48	**101585.00**	25	115	Auto.	4.6	76.0	11.39

② These combination 56H base motors have mounting holes for 56 and 143-5T, and a 1/2" diameter shaft with flat 1½" long.
\# These motors have a NEMA 1.00 Service Factor, suitable for blower and fan duty.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
□ Combination 56 H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
] With terminal board.
A Subject to Availability.

RESILIENT BASE MOTORS • THREE PHASE

GENERAL PURPOSE OR FAN & BLOWER SERVICE • MODERATE STARTING TORQUE

General Specifications:

Industrial quality, resilient (cradle) mounted, three phase, ball bearing motors for fan and blower service. Moderate starting torque electrical design to reduce stress on fan blades during start-up. Suitable for belt-driven fans or fan-on-shaft applications. Self-ventilated design, may be mounted outside of the fan's airflow.

TEFC • THREE PHASE RESILIENT BASE

Totally enclosed, fan cooled design makes these motors ideal for replacement in tough industrial applications where contaminants cause failure of open drip-proof designs.

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-Load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1800	56	**111917.00●□**	25	208-230/460	None	1.8	78.5	11.31
1	1800	56	**111918.00□**	29	208-230/460	None	3.8	77.0	12.46

DRIP-PROOF • THREE PHASE RESILIENT BASE

Drip-proof design and resilient mount. Moderate starting torque. Suitable for general purpose applications.

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-Load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	3600	S56	**101639.00✦A**	17	208-230/460	Auto.	1.7	61.0	10.31
	1800	S56	**100210.00**	18	208-230/460	None	1.6	64.3	10.31
	1800	S56	**101520.00✦**	19	208-230/460	Auto.	1.6	64.3	10.81
1/2	3600	S56	**101640.00✦A**	18	208-230/460	Auto.	2.4	69.0	10.31
	1800	S56	**100145.00**	22	208-230/460	None	2.0	68.0	10.81
	1800	S56	**100796.00✦**	22	208-230/460	Auto.	2.0	68.0	11.31
3/4	3600	S56	**101773.00**	20	208-230/460	None	2.4	79.0	10.81
	3600	S56	**101641.00✦A**	20	208-230/460	Auto.	2.4	79.0	11.31
	1800	S56	**100146.00**	25	208-230/460	None	2.8	75.0	11.31
	1800	S56	**100908.00✦**	26	208-230/460	Auto.	2.8	75.0	11.81
1	3600	56	**114192.00**	24	208-230/460	None	3.2	77.0	10.82
	3600	56	**113895.00✦A**	25	208-230/460	Auto.	3.2	77.0	10.82
	1800	56	**110052.00**	23	208-230/460	None	4.2	78.5	11.31
	1800	56H	**111311.00✦**	27	208-230/460	Auto.	4.2	78.5	11.31
1½	3600	56H	**114194.00 A**	31	208-230/460	None	4.2	81.5	11.82
	3600	56H	**113896.00✦**	29	208-230/460	Auto.	4.2	81.5	11.82
	1800	56H	**110433.00**	32	208-230/460	None	5.6	78.5	11.81
	1800	56H	**113846.00✦**	29	208-230/460	Auto.	5.6	78.5	11.81
2	3600	56H	**114196.00 A**	36	208-230/460	None	5.6	82.9	12.32
	3600	56H	**113897.00✦**	39	208-230/460	Auto.	5.6	82.9	12.32
	1800	56H	**114197.00**	37	208-230/460	None	6.2	78.5	12.31
	1800	56H	**113847.00✦**	34	208-230/460	Auto.	6.2	78.5	12.31
3	3600	56HZ	**113926.00✦A**	40	208-230/460	Auto.	7.6	84.0	13.19
	1800	56HZ	**116593.00✦**	47	230/460	Auto.	8.6	82.5	14.19

● These motors are totally enclosed, non-ventilated.
□ Combination 56 H base motors have mounting holes for NEMA 56 and a standard NEMA 56 shaft.
✦ Automatic reset overload protection. Do not use with variable frequency drives.
A Subject to Availability.

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

PRESSURE WASHER PUMP MOTORS

LOW AMPERAGE DESIGN

Motors specially suited for hot or cold pressure washer applications and other single phase installations requiring minimum starting and running amperages. Capacitor start, capacitor run construction for reduced amperage.

Mechanical Features:

Double shield ball bearings prelubricated with Exxon POLYREX® EM lubricant, having operating temperature range of -20°F to +350°F and special formulation to provide extra long life and moisture resistance. Dynamically balanced rotor and shaft assembly.

Electrical Features:

High efficiency reduced amperage energy saving designs. Stator impregnated with extra heavy varnish system. High temperature copper magnet wire for high overload capacity. Capacitor start/ capacitor run design for reduced amperage. Grounding provision in conduit box. Manual reset overload protector protects against automatic resets. High overload capacities provided by service factor. **All 180 and 210 frame Rolled Steel motors have Class F Insulation.**

C FACE WITH BASE • SINGLE PHASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1800	56C	**116485.00**§	29	115/ 208-230	Man.	3.2	10.81
1/2	1800	56C	**116486.00**§	23	115/ 208-230	Man.	4.4	10.81
3/4	1800	56C	**116487.00**§	30	115/ 208-230	Man.	5.4	11.31
1	3600	56C	**115877.00**	28	115/ 208-230	Man.	6.0	11.81
	1800	56C	**115879.00**	32	115/ 208-230	Man.	6.4	11.81
1½	3600	56C	**115024.00**☆	35	115/ 208-230	Man.	6.2	12.31
	1800	56HC	**116703.00**③	39	115/ 208-230	Man.	8.6	12.81
2	3600	56HC	**114995.00**☆	42	115/ 208-230	Man.	9.2	13.31
	1800	145TC	**121465.00**③	44	115/ 208-230	Man.	9.2	13.75
3	3600	56HC	**115048.00**☆③†	53	208-230	Man.	14.0	13.81
	1800	184TC	**131857.00**☆	104	230	Man.	13.7	17.61
5	3600	184TC	**131632.00**†	103	230	Man.	19.8	16.97
	1800	184TC	**131633.00**③†	989	230	Man.	23.0	16.97

RIGID BASE • SINGLE PHASE • DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
3/4	3600	S56	**100053.00**	24	115/208-230	Man.	4.9	10.49
	1800	S56	**101544.00**☆	28	115/208-230	Man.	4.0	11.24
1	3600	56	**110097.00**	27	115/208-230	Man.	6.0	10.84
	1800	56	**113630.00**☆	31	115/208-230	Man.	5.3	10.84
1½	3600	56	**113631.00**☆	36	115/208-230	Man.	6.2	11.34
	1800	56H	**113266.00**☆□	42	115/208-230	Man.	6.7	12.38
	1800	145T	**120004.00**☆	40	115/208-230	Man.	8.6	12.28
2	3600	56	**113632.00**☆	36	115/208-230	Man.	8.6	11.34
	1800	56H	**116704.00**□	45	115/208-230	Man.	8.6	12.88
	1800	145T	**120879.00**	53	115/208-230	Man.	8.6	13.31
3	3600	56H	**116706.00**□☆†	39	230	Man.	15.0	12.38
	1800	184T	**131851.00**☆	72	208-230	Man.	13.7	15.22
5	3600	56H	**116708.00**□③†	45	230	Man.	20.8	13.34
	1800	184T	**131622.00**	82	208-230	Man.	21.0	14.69

RIGID BASE • SINGLE PHASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
3/4	3600	56	**110108.00**	26	115/208-230	Man.	5.0	11.31
	1800	56	**110022.00**	29	115/208-230	Man.	5.4	11.31
1	3600	56	**110142.00**	28	115/208-230	Man.	6.0	11.81
	1800	56	**110023.00**	29	115/208-230	Man.	6.4	11.81
	1800	143T	**120008.00**	31	115/208-230	Man.	6.4	12.75
1½	3600	56	**110109.00**♣	31	115/208-230	Man.	8.5	12.31
	1800	56H	**113333.00**♣□	38	115/208-230	Man.	8.6	12.81
	1800	145T	**120009.00**♣	42	115/208-230	Man.	8.6	13.25
2	3600	56H	**110402.00**□♣†	41	115/208-230	Man.	10.0	13.31
	3600	145T	**120395.00**♣†	44	115/208-230	Man.	10.0	13.75
	1800	145T	**120867.00**♣	48	115/208-230	Man.	9.2	13.75
3	3600	56H	**116705.00**□♣†	53	230	Man.	14.0	13.81
	1800	184T	**131855.00**☆	88	230	Man.	13.7	16.86
5	3600	184T	**132042.00**	103	230	Man.	19.8	16.97
	1800	184T	**131856.00**☆	95	230	Man.	21.0	17.86

C FACE WITH BASE • SINGLE PHASE • DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1½	3600	56C	**114214.00**	35	115/208-230	Man.	6.2	11.34
	1800	56HC	**113700.00**☆□	38	115/208-230	Man.	7.2	11.84
2	3600	56C	**114215.00**	45	115/208-230	Man.	8.6	11.34
	1800	56HC	**113281.00**☆□	45	115/208-230	Man.	8.6	12.88
3	3600	56HC	**116707.00**☆□†	41	230	Man.	15.0	12.38
	1800	184TC	**131853.00**☆	87	208-230	Man.	15.4	15.96
5	3600	56HC	**116709.00**□†♣	46	230	Man.	20.8	13.54
	1800	184TC	**131630.00**☆	77	208-230	Man.	21.0	14.69

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 face and 5/8" shaft.
♣ 1.0 Service Factor
† Class F insulation
§ Farm Duty motor

LEESON®

COMPRESSOR DUTY MOTORS

COMPRESSOR, PUMP AND FAN & BLOWER DUTY

COMPRESSOR DUTY

General Specifications:

Motors designed for air compressor, pump, and fan and blower duty applications which require high breakdown torque and rugged mechanical construction.

Mechanical Features:

Prelubricated double shielded, amply sized, ball bearing construction to accommodate varying belt loads and tension.

Electrical Features:

High efficiency energy saving designs. Class “F” copper windings. Class “F” varnish. High starting and breakdown torque. Single phase motors are wired for CW rotation facing lead end. They may be reconnected for CCW rotation. The compressor motors shown here are the ratings most common to this application. **All 180 and 210 frame Rolled Steel motors have Class F Insulation.**

SINGLE PHASE • DRIP-PROOF • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	“C” Dim. (Inches)
1	3600	56	**110160.00**	27	115/230	Man.	6.7	11.38
	1800	143T	**120044.00**	38	115/208-230	None	6.4	11.28
	1800	143T	**120003.00**	33	115/208-230	Man.	6.4	11.13
1½	3600	56	**110161.00**	33	115/230	Man.	10.0	11.88
	1800	145T	**120042.00☆**	38	115/208-230	None	8.6	12.28
	1800	145T	**120004.00☆**	40	115/208-230	Man.	8.6	12.28
2	3600	56	**110232.00**	33	115/230	Man.	11.0	11.88
	1800	182T	**131515.00**	56	115/208-230	None	12.4	13.19
	1800	182T	**131536.00**	63	115/208-230	Man.	8.8	10.66
3	3600	56Y	**110222.00⊗†**	38	230	Man.	15.0	12.38
	1800	184T	**131534.00**	69	115/230	None	16.9	14.19
5SPL	3600	56	**116523.00☆**	35	208-230	Man.	15.0	11.44
5	3600	56Y	**111275.00☆⊗†**	44	230	Man.	20.8	13.34
	3600	56Y	**116789.00☆✚†**	45	230	Man.	20.8	12.38
	3600	145T	**120554.00☆†**	46	230	Man.	20.8	13.12
	1800	184T	**131537.00☆**	83	230	None	21.0	14.69
	1800	184T	**131622.00☆**	82	230	Man.	21.0	14.69
7½	3600	184T	**132044.00☆**	110	208-230	Tstat	31.0	16.69
	3600	213T	**140680.00☆**	112	208-230	None	29.5	16.55
	1800	215T	**140155.00☆**	113	230	None	36.0	17.26
10	3600	215T	**140681.00☆**	135	208-230	None	37.0	18.05
	1800	215TZ	**140311.00☆✓**	140	230	None	43.0	19.76

THREE PHASE • DRIP-PROOF • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	“C” Dim. (Inches)
1	1800	143T	**121003.00**	36	208-230/460	3.2	85.5	12.12
1½	1800	145T	**121004.00**	35	208-230/460	4.8	86.5	12.62
2	1800	145T	**121005.00**	37	208-230/460	5.8	86.5	13.62
3	1800	182T	**131519.00**	75	208-230/460	7.8	89.5	13.69
5	1800	184T	**131520.00**	86	208-230/460	12.8	89.5	14.69
7½	1800	213T	**140470.00**	133	208-230/460	20.6	91.0	16.25
10	1800	215T	**140472.00**	144	208-230/460	26.8	91.7	17.25
20	1800	256T	**170006.60†**	324	208-230/460	51.0	93.0	22.60

THREE PHASE • TEFC • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	“C” Dim. (Inches)
3	1800	182T	**131463.00**	80	208-230/460	7.8	89.5	14.96
5	1800	182T	**131464.00**	94	208-230/460	12.8	89.5	15.96
7½	1800	213T	**140450.00**	144	208-230/460	21.4	91.7	18.70
10	1800	215T	**140451.00**	161	208-230/460	26.6	91.7	19.70
15	1800	254T	**170066.60†**	280	208-230/460	36.0	92.4	23.19
20	1800	256T	**170007.60†**	322	208-230/460	49.0	93.0	24.92

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
† Class F insulated.
✓ Motor with standard diameter shaft, 1.0” longer than standard.
⊗ Special BA dimension 2.31” for belt guard clearance.
✚ Motor has mounting base with 182T mounting holes, shaft height is 4.5”. Shaft is std. NEMA 56 – 5/8” dia. x 1 7/8” long.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

Specifications are subject to change without notice

WOODWORKING MOTORS

General Specifications:

Motors designed for woodworking equipment such as table saws, planers, etc.

Totally enclosed designs prevent motor problems caused by wood dust and shavings.

SINGLE PHASE • TEFC • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
3/4	3600	56	**110108.00**	26	115/208-230	Man.	5.0	11.31
1	3600	56	**110142.00**	28	115/208-230	Man.	6.0	11.81
1½	3600	56	**110109.00**	34	115/208-230	Man.	8.5	12.31
2	3600	56H	**110402.00✣□†**	41	115/208-230	Man.	10.0	13.31
	3600	145T	**120395.00✣†**	44	115/208-230	Man.	10.0	13.75
3	3600	145T	**120341.00☆†**	46	230	None	13.0	14.25

SINGLE PHASE • TEFC • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
3	3600	145TC	**120824.00☆**	56	230	Man.	13.0	14.25

TABLE SAW MOTOR

General Specifications:

Totally enclosed fan cooled motor produces extra high breakdown torques for maximum cutting power.

Supplied with 8-foot cord and 115V plug, on/off toggle switch. CW rotation, facing lead end. Replaces Delta motor number 62-042.

SINGLE PHASE • TEFC • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1½	3600	56	**113627.00**	39	115/230	Man.	7.5	12.31

CONTRACTORS' SAW MOTORS

Special Mounting:

Motor pivots on rod for belt tensioning. Totally enclosed fan cooled motor produces extra high breakdown torques for maximum cutting power. Has 1¾" long shaft, ¾" diameter with keyway. Added 54" cord to all motors 1½-4 HP. Catalog numbers 120925 and 120997 replace Delta UNISAW® motor 83-621 (1½ HP); 120728 and 120998 replace Delta UNISAW® motor 83-651 (3 HP).

SINGLE PHASE • TEFC • DELTA UNISAW® MOUNTING

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1½	3600	143Y	**120925.00**	44	115/230	None	10.0	12.68
2	3600	143Y	**120997.00**	44	115/230	None	11.0	12.68
3	3600	145Y	**120728.00☆**	52	230	None	13.0	13.68
4	3600	145Y	**120998.00☆**	48	230	None	17.6	13.68

UNISAW® is a registered trademark of Delta International.

CONTRACTORS' POWER TOOL MOTORS

General Specifications:

Open, drip-proof double shaft motors for woodworking applications. With encapsulated, electronic starting switch and double shielded ball bearings to prevent failures caused by sawdust accumulation.

Capacitor start design for high torques and reduced amperage, improved efficiency.

Shaft extension each end, with keyway and flat 90° apart for ease of mounting.

Useable shaft, each end is 1½" long by ½" diameter on 48 frames and 1⅞" long by ⅝" diameter on 56 frame motors.

DOUBLE-SHAFT • SINGLE PHASE DRIP-PROOF • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/2	1800	S56Z	**101781.00**	17	115/208-230	None	4.4	12.43
3/4	3600	48Z	**101782.00A**	24	115/208-230	None	4.9	12.18
1	3600	56Z	**114216.00**	27	115/208-230	None	6.0	12.81

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
† Class F insulated.
□ Combination 56 H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
✣ These totally enclosed single phase motors have 1.15 Service Factors.
A Subject to Availability.

LEESON®

INSTANT REVERSING MOTORS

INSTANT REVERSING MOTORS

PARKING GATES, DOOR OPERATORS & SLIDE GATES

General Specifications:

Specially designed motors for use on "instant-reversing" parking gates, doors, slide gates, or other moderate starting torque instant reversing applications. Capable of frequent reversing service.

Features (Resilient Base and C Face):

Instant "plug-reversing" with simple three-wire connection. Permanent split capacitor design offering low inrush and full load amps. Manual reset overload protector. Starting torque approximately 150% of full load, not suitable for hard to start loads.

Features (Rigid Base):

Capacitor start, induction run motors with solid state, instant reversing switch. Manual reset overload protector.

RESILIENT BASE • SINGLE PHASE • DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 115V	"C" Dim. (Inches)
1/3	1800	S56	**191742.00**	18	115	Man.	4.0	10.31
1/2	1800	S56	**100802.00 D**	24	115	Man.	6.1	11.31
	1800	S56	**103460.00**	22	115	Man.	5.0	9.94
	1800	S56	**191743.00**	24	115	Man.	4.6	10.31
3/4	1800	56H	**113642.00**	33	115	Man.	8.2	11.31

Notes:
D = Item will be Discontinued once inventory is depleted

C FACE LESS BASE • SINGLE PHASE • DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 115V	"C" Dim. (Inches)
1/3	1800	S56C	**102017.00**	18	115	Man.	4.2	9.99
1/2	1800	S56C	**102021.00**	22	115	Man.	6.1	10.49
	1800	S56C	**100704.00✳**	16	115	Man.	5.1	10.24

✳ Motor has same electrical design as 102017, but is rated for intermittent duty.

RIGID BASE • SINGLE PHASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
3/4	1800	56	**114932.00**	30	115/208-230	Man.	5.4	11.31
1	1800	56	**114933.00**	30	115/208-230	Man.	6.4	11.81

Electra Boat Hoist Motors - Stainless Steel Frame - Aluminum Endbells - 15 minute Duty

BOAT HOIST MOTORS

Our Electra Gear line of Boat Hoist Duty motors provide customized features that are needed to support the Boat Hoist Industry.

Features Include:

- Stainless Steel frame, base, capacitor case and conduit box cover
- 15 Minute Duty Cycle
- Drain Holes located at 6:00 position
- TENV enclosure
- Die Cast Aluminum endbells
- Capacitor case located at 12:00
- 115/230 Volt – 1.15 S.F.
- UL and CSA listed

56 FRAME • C-FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)
1/2	1800	56C	**6439191250**	23	115/208-230	4.1	10.5
3/4	1800	56C	**6439191251**	25.5	115/208-230	4.9	11.1
1	1800	56C	**6439191252**	33	115/208-230	6.8	11.7
1-1/2	1800	56C	**6439191253**	47	115/208-230	8.4	12.6

56 FRAME • C-FACE MOTRS LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)
1/2	1800	56C	**6439191260**	22	115/208-230	4.1	10.5
3/4	1800	56C	**6439191261**	23.5	115/208-230	4.9	11.1
1	1800	56C	**6439191262**	32	115/208-230	6.8	11.7
1-1/2	1800	56C	**6439191263**	46	115/208-230	8.4	12.6
2	1800	56C	**6439191264**	47.5	115/208-230	9	13.4

Specifications are subject to change without notice

FAN & BLOWER MOTORS

MULTI-SPEED • SINGLE & THREE PHASE

TWO-WINDING VARIABLE TORQUE PSC TYPE FOR SHAFT MOUNTED FAN APPLICATIONS

These fan and blower duty motors are designed for dependable, *energy saving* performance in applications where the fan is mounted on the shaft of the motor. The permanent split capacitor design does not require a centrifugal switch, resulting in higher reliability than on other types of single phase motors. This design is also more energy efficient and less expensive to operate.

These motors may be operated at listed speed or two speed operation may be achieved by using the proper auxiliary switch. They are suitable for variable speed by adjusting the voltage to the motor using a variable voltage control.√

Overload protected with a UL and CSA recognized automatic reset protector. Grounding provisions. Totally enclosed, dust tight design, with resilient mounting for quiet operation. Lubricated with Exxon POLYREX® EM high temperature lubricant. Exterior coating on 56-frame motors is two-stage epoxy and on 48-frame motors a baked-on powder coat is applied for extra corrosion resistance in tough applications. Because of the inherently low starting torques of this design, these motors are not suitable for belt driven fan applications. They must be mounted within the air stream of the driven fan.

TWO-SPEED, TWO-WINDING VARIABLE TORQUE FOR BELT DRIVEN OR SHAFT MOUNTED FAN APPLICATIONS

Variable torque, two-speed motors are suited for belted or fan on shaft applications. They are self ventilated, and may be mounted within or outside of the driven fan's air stream.

Resilient mounted for quiet operation, and lubricated with high temperature Exxon POLYREX® EM lubricant.

3/4 HP and larger single phase are capacitor start motors; smaller single phase are split phase start.

SINGLE PHASE • PSC TYPE • RESILIENT BASE TOTALLY ENCLOSED AIR OVER (TEAO)

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/4	1800	48Z*	100803.00	19	115/230	Auto.	1.4	10.66
	1200	48Z*	100824.00	20	115/230	Auto.	1.4	10.66
	1200	S56Z*	10080500	22	115/230	Auto.	1.4	11.06
1/3	1800	48Z*	100804.00	21	115/230	Auto.	1.6	10.66
	1800	S56H	100767.00	22	115/230	Auto.	1.6	10.31
	1800	56HY	111348.00②	29	115/230	Auto.	1.7	12.94
	1200	48Z*	100825.00	25	115/230	Auto.	1.8	11.16
	1200	S56HZ*	100806.00	27	115/230	Auto.	1.8	11.56
1/2	1800	56HZ*	111323.00	30	115/230	Auto.	2.6	12.56
	1800	S56H	100768.00	36	115/230	Auto.	2.2	10.81
	1200	48Z*	101645.00	27	115/230	Auto.	2.8	11.16
	1200	56HZ*	111321.00□	37	115/230	Auto.	3.0	13.56
	900	56HZ*	111919.00□④	45	115/230	Auto.	3.2	13.56
3/4	1800	56HZ*	111324.00	34	115/230	Auto.	3.5	13.06
	1800	56H	111266.00	36	115/230	Auto.	3.5	12.31
	1200	56HZ*	111322.00□④	44	115/230	Auto.	4.0	13.56
1	1800	56HZ*	111267.00	39	115/230	Auto.	4.4	12.81

These motors have a 1.0 Service Factor.

SINGLE PHASE • PSC TYPE • RIGID BASE TOTALLY ENCLOSED AIR OVER (TEAO)

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/4	1800	48Y	100699.00	19	115/230	Auto.	1.4	10.65
	1800	48Y	101252.00●	19	115/208-230	Auto.	1.5	10.40
1/3	1800	48Y	100700.00	21	115/230	Auto.	1.6	10.65
	1800	56Y	111202.00① A	27	115/230	Auto.	1.7	12.00
	1800	48Y	101253.00● A	22	115/208-230	Auto.	1.9	10.65
	1200	S56Z	100604.00	23	115/230	Auto.	1.8	11.40
1/2	1800	48Y	100701.00	25	115/230	Auto.	2.5	12.15
	1800	S56Y	101176.00●✓	24	115/230	Auto.	3.5	10.40

SINGLE PHASE • DRIP-PROOF • RESILIENT BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps High/Low	"C" Dim. (Inches)
1/4-1/12	1800/1200	48Z*	101020.00	20	115	None	4.2-3.2	11.64
1/3-0.15	1800/1200	S56H	101021.00	26	115	None	5.0-4.6	12.27
1/2-1/4	1800/1200	56H	111953.00	33	115	None	7.8-4.6	12.31
	1800/1200	56H	113643.00	33	230	None	3.9-2.3	12.31
3/4-1/3	1800/1200	56H	111954.00□	38	115	None	11.6-7.4	12.81
	1800/1200	56H	113672.00□	39	230	None	5.8-3.7	12.81
1-0.44	1800/1200	56H	111955.00□☆	41	115	None	13.2-9.5	12.81
	1800/1200	56H	113373.00□☆	39	230	None	6.5-4.6	12.81

THREE PHASE • DRIP-PROOF • RESILIENT BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps High/Low	"C" Dim. (Inches)
1/2-.22	1800/1200	56H	111956.00 A	32	208-230	None	1.8-1.1	12.31
	1800/1200	56H	111957.00	32	460	None	0.9-0.5	12.31
3/4-1/3	1800/1200	56H	111958.00□ A	36	208-230	None	2.8-1.6	12.81
	1800/1200	56H	111959.00□	36	460	None	1.4-0.8	12.81
1-0.44	1800/1200	56H	111960.00□	40	208-230	None	4.0-2.4	12.81
	1800/1200	56H	111961.00□	40	460	None	1.8-1.0	12.81
1½-.67	1800/1200	56H	111962.00□	40	208-230	None	5.0-2.6	12.81
	1800/1200	56H	111963.00□	40	460	None	2.5-1.3	12.81

These motors have a 1.0 Service Factor.

- ● Suitable for single speed operation only.
- ① Has provisions for Bellyband and pedestal fan mounting – no rigid base.
- ② In addition to resilient base, this motor has provisions for Bellyband and pedestal mounting.
- □ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
- ④ These 825 and 1075 RPM motors suitable for single speed operation only.
- * The shaft of this motor is 3/4" longer to accommodate fan on shaft mountings. 48Z is 1/2" diameter by 2¼". 56Z is 5/8" diameter, 2⅝" long. All have 1" extended through bolts, except Catalog Numbers 100805 and 100806 which are extended 1/4".
- ☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
- ✓ This split phase start, capacitor run motor is suitable for belt drive within the airflow of the fan.
- **A** Subject to Availability.

Specifications are subject to change without notice

LEESON®

FAN & BLOWER MOTORS
SINGLE & THREE PHASE

AERATION FAN MOTORS

Totally Enclosed Air Over Motors, dust tight, suitable for shaft mounted fans. Capacitor start designs.

Designed to be used within the airflow of the driven fan, these motors offer protection from the environment and are finished in epoxy enamel to resist corrosion in tough atmospheres.

Lubricated with high temperature Exxon POLYREX® EM lubricant. Grounding provisions. Fully gasketed.

SINGLE PHASE • CAPACITOR START • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
3/4	3600	56Z	**111332.00**⑦	27	115/230	None	5.0	10.90
1	3600	56Z	**111333.00**⑦	29	115/230	None	6.0	10.90
1½	3600	56Z	**111949.00**⑦	32	115/230	None	8.5	11.40
	3600	143TZ	**120374.00**⑧	32	115/230	None	8.5	11.84
2	3600	145TZ	**120375.00**⑧	41	230	None	10.0	13.34
3	3600	145T	**120376.00**☆	45	230	None	12.8	13.84

These TEAO motors have a 1.0 Service Factor.
Built-in terminal panel for quick easy connections.

THREE PHASE • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3/4	3600	56Z	**111334.00**⑦	21	208-230/460	2.4	75.5	9.88
1	3600	56Z	**111335.00**⑦	22	208-230/460	3.2	77.0	9.90
1½	3600	143TZ	**120377.00**⑧	31	208-230/460	4.2	82.5	11.34
2	3600	145TZ	**120378.00**⑧	34	208-230/460	5.6	82.5	11.84
3	3600	145T	**120379.00**⑧	38	208-230/460	7.6	84.0	12.34

These TEAO motors have a 1.0 Service Factor.

VENTILATION FAN MOTOR SHAFT-MOUNTED • DUST-TIGHT

Totally enclosed, high efficiency, permanent split capacitor motor for direct drive exhaust ventilation fans in poultry and livestock houses. Fully gasketed, dust-tight construction with sealed bearings and shaft slinger. Automatic thermal overload protector. Extended through-bolts for mounting, no base. Built-in terminal panel for quick, easy connection. Grounding provision.

Because of the inherently low starting torque of this design, this motor is not suitable for belt-driven fan applications. It must be mounted in the air stream of the fan for cooling.

SINGLE PHASE • TEAO • THRU BOLT MOUNT

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1800	48Y	**M090085.00**	20	115/230	Auto	1.8	10.79
1/2	1800	48Y	**M090086.00**	22	115/230	Auto	2.5	10.79
	900	56Z	**114620.00**∇	35	115/230	Auto	3.2	12.63
	900	48Y	**M099250.00**✲✲∇	24	115/230	Auto	3.0	11.00

SINGLE & THREE PHASE • TEAO • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	Phase	F.L. Amps 230V	"C" Dim. (Inches)
1/2	900	S56C	**M099251.00**∇	24	115/230	Auto	1	3.0	10.40
1	900	S56CZ	**M009644.00**∇✲	45	230	Auto	1	4.6	15.60
1/2	900	56C	**116201.00**	35	208-230/460	…	3	3.0	10.90
1	900	56C	**116202.00**	45	208-230/460	…	3	5.0	12.90

CONDENSER FAN MOTORS

For Shaft Mounted Fan Applications

Belly Band Mount Fan Motors designed for operating vertical shaft-up on condenser fan, air over applications.

Enclosed endshield on shaft-end prevents contaminants from entering motor when mounted vertical shaft-up. Designed for belly band mount with three support screws located at 120° increments in motor frame. Shaft flingers located both internally and externally.

Double sealed ball bearings with Exxon POLYREX® EM grease having operating temperature range of –20°F to +350°F and special formulation to provide extra long life and moisture resistance. Phosphatized shaft for corrosion resistance. Gasketed conduit box. Ground screw accommodations.

1.15 Service Factor. Automatic overload protector also guards against primary single phasing—UL component recognized (File E57955).

THREE PHASE • DRIP-PROOF★ AUTOMATIC OVERLOAD • BELLY BAND & RIGID MOUNT

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1200	56Y	**116772.00**∆	25	208-230/460	2.8	66.0	12.56
3/4	1200	56Y	**116773.00**∆ **A**	31	208-230/460	3.4	75.5	13.06
1	1200	56Y	**111147.00**∆	37	208-230/460	3.6	77.0	14.06
	1200	56Y	**115778.00**✢	37	208-230/460	4.0	77.0	14.05
1½	1200	56Y	**111148.00**∆	42	208-230/460	5.2	78.0	15.06
	1200	56HY	**115779.00**✢	39	208-230/460	5.6	79.0	15.55

⑦ Standard 5/8" diameter shaft with keyway plus 3/4" deep hole drilled and tapped to 1/4-20 UNC in end of shaft to facilitate mounting of some fan blades.
⑧ Standard 7/8" diameter shaft with keyway plus 3/4" deep hole drilled and tapped to 1/4-20 UNC in end of shaft to facilitate mounting of some fan blades.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
✢ Rigid base.
∆ Belly band mount.
★ **Do Not** use with AC Inverters.
A Subject to Availability.

Specifications are subject to change without notice

INDUSTRIAL SPLIT PHASE MOTORS

LEESON FHP Commercial Duty, split phase motors with moderate starting torque, designed for continuous duty on ventilation fans, blowers and other belt driven or fan on shaft applications.

Resilient base for quiet operation. Prelubricated ball bearings for long life in commercial and industrial environments. Has automatic thermal overload and built-in terminal panel style connection provisions.

DRIP-PROOF • RESILIENT BASE • AUTOMATIC OVERLOAD

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 115V	Service Factor	"L" Dim. (Inches)	"C" Dim. (Inches)
1/4	1800	48	**191868.00**①	15	115/230	Auto.	4.6	1.35	4.00	9.37
1/3	1800	48	**191869.00**①	17	115/230	Auto.	5.8	1.35	4.51	9.88
1/2	1800	48	**191870.00**①	19	115/230	Auto.	8.4	1.25	5.02	10.39

Dimensions on Page 282

① Motors built after December 01, 2005 have terminal boards.

RESIDENTIAL/INDUSTRIAL BELTED FAN MOTORS SPLIT PHASE

Designed for use in residential and commercial fans and blowers where low starting torque is required. (Air conditioners, roof ventilators and exhaust fans.)

Ball bearings. NEMA Service factors. Resilient "cradle" style base.

OPEN DRIP-PROOF • RESILIENT BASE • AUTOMATIC OVERLOAD

HP	SYN RPM 60 Hz	NEMA Frame	Bearing Type	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 115V	"C" Dim. (Inches)
1/4	1800	48YZ☆	Ball	**M900195.00**	13	115	Auto.	5.0	9.72
1/3	1800/1200	56	Ball	**M900277.00**	20	115	Auto.	5.3/2.9	10.78
	1800	48YZ☆	Ball	**M900196.00**	15	115	Auto.	6.1	9.72
1/2	1800/1200	56	Ball	**M900599.00**	30	115	Auto.	8.4/4.5	11.85
	1800	48YZ☆	Ball	**M900197.00**	20	115	Auto.	7.2	10.72

☆ 48YZ motors have std. 48-frame base with 1/2" dia. x 1 7/8" long shaft ext. with flat. Also includes sleeve to convert shaft to 5/8" dia. with 3/16" square key.

PREMIUM EFFICIENCY INDUSTRIAL/ RESIDENTIAL BELTED FAN MOTORS

High-efficiency motors for residential or industrial belted fan application.

Features include quiet ball bearings, resilient cradle base and "Super-Hush" flow-through ventilation.

Rotors are specially balanced for smooth and quiet operation.

Spade connectors on terminal board in standard wiring format along with industry standard mounting allow for quick and easy interchange with other makes.

OPEN DRIP-PROOF • 115V • SINGLE PHASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 115V	% F.L. Eff.	"C" Dim. (Inches)
1/4	1800	48	**M090602.00***	15	115	Auto.	2.5	71.0	9.88
1/3	1800	48	**M090405.00***	19	115	Auto.	3.2	75.0	9.88
1/2	1800	48	**M090585.00****	22	115	Auto.	4.6	76.0	10.50

* Split-phase start, capacitor run
** Capacitor start, capacitor run

Features:

- Drop-in replacement for most standard belted-fan motors
- Extremely quiet running compared to standard fan motors
- Consumes approximately half of the power of a standard fan motor

PEDESTAL FAN MOTORS

LEESON FHP Commercial Duty totally enclosed, air over fan motors for air circulators where motor is mounted directly to fan column.

Energy efficient, permanent split capacitor type design eliminates the centrifugal switch for "three phase" reliability. Totally enclosed ball bearing design for commercial and industrial environments. Automatic thermal overload protection, reversible.

Heavy-gauge steel yoke is welded to the motor frame. Four 10-32 mounting studs are extended 1.0" on 5.14" bolt circle for mounting of fan shroud.

Motors are UL and CSA Recognized for both the U.S. and Canadian markets.

SINGLE PHASE • PSC TYPE • TEAO • YOKE MOUNTED AUTOMATIC OVERLOAD • 1.0 S.F.

HP	SYN RPM 60 Hz*	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 115V	"U" Dim.	"C" Dim. (Inches)
1/4	1800	48Y	**191872.00**	14	115/230	Auto.	2.6	0.500	10.95
	1800	48Y	**191908.00**	14	115/230	Auto.	2.6	0.625	10.95
	1200	48Y	**191891.00**	22	115/230	Auto.	2.4	0.500	10.95
	1200	48Y	**191909.00**	25	115/230	Auto.	2.4	0.625	10.95
1/3	1800	48Y	**191871.00**	15	115/230	Auto.	3.4	0.500	10.95
	1800	48Y	**191910.00**	15	115/230	Auto.	3.4	0.625	10.95
	1200	48Y	**191892.00**	23	115/230	Auto.	3.0	0.500	11.46
	1200	48Y	**191911.00**	26	115/230	Auto.	3.0	0.625	11.46
1/2	1800	48Y	**191873.00**	24	115/230	Auto.	4.6	0.500	10.95
	1800	48Y	**191875.00**	24	115/230	Auto.	4.6	0.625	10.95
	1200	48Y	**191893.00**	26	115/230	Auto.	5.0	0.500	11.93
	1200	48Y	**19191200**	26	115/230	Auto.	5.0	0.625	11.93

*Two speed operation possible by connecting 115V power to 230V connections. Actual speed (approx. 67% of rated speed) will depend on fan blade design.

Dimensions on page 282

FAN AND HEAT PUMP MOTORS

GE COMMERCIAL MOTORS BY REGAL BELOIT DIRECT DRIVE FURNACE & CENTRAL AIR CONDITIONING MOTORS PERMANET SPLIT CAPACITOR • 5 1/2" DIAMETER • TWO & THREE SPEED

Features:

- Reversible Rotation
- Mounting holes in shell for capacitor bracket
- Designed for 370 Volt capacitor (not furnished)
- 4" shaft extension
- Extended clamp screws on shaft end with a ring kit provided
- Ring kit allows both 2 1/4 and 2 1/2 resilient ring mounting
- Automatic thermal overload protection
- Sleeve Bearings

Applications:

Designed for continuous air over applications, such as furnace blowers or central air handling units with single shaft requirements

HP	SYN RPM 60 Hz	Catalog Number	Model Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)	Rotation	Speed
1/4	1200	**3383**	5KCP39FGM421S	10	115	4.2	9.10	CCW/CW	2
	1200	**3583**	5KCP39EGAA09S	10	115	4.2	9.10	CCW/CW	3
	1200	**3384**	5KCP39FGM433S	10	208-230	2.0	9.10	CCW/CW	2
	1200	**3584**	5KCP39EGAA10S	10	208-230	2.0	9.10	CCW/CW	3
1/3	1200	**3385**	5KCP39HGAA06AS	12	115	6.2	9.40	CCW/CW	2
	1200	**3585**	5KCP39HGAA37T	12	115	6.2	9.40	CCW/CW	3
	1200	**3386**	5KCP39HGAA11AT	12	208-230	2.9	9.40	CCW/CW	2
	1200	**3586**	5KCP39JGN654T	12	208-230	2.9	9.40	CCW/CW	3
1/2	1200	**3387**	5KCP39NGAA29CS	16	115	9.0	10.40	CCW/CW	2
	1200	**3587**	5KCP39PGN655S	17	115	9.0	10.40	CCW/CW	3
	1200	**3388**	5KCP39MGAA08BS	14	208-230	4.3	10.10	CCW/CW	2
	1200	**3588**	5KCP39NGN656S	16	208-230	4.3	10.10	CCW/CW	3
3/4	1200	**3389**	5KCP39PGN091S	17	115	10.3	10.40	CCW/CW	2
	1200	**3589**	5KCP39NGAA44S	16	115	10.3	10.40	CCW/CW	3
	1200	**3390**	5KCP39PGN092S	17	208-230	5.2	10.40	CCW/CW	2
	1200	**3590**	5KCP39PGN658S	17	208-230	5.2	10.40	CCW/CW	3

GE COMMERCIAL MOTORS BY REGAL BELOIT CONDENSER FAN & HEAT PUMP MOTORS PERMANENT SPLIT CAPACITOR • SHAFT UP OR DOWN APPLICATION

Features:

- Sleeve or Ball Bearings
- 26" Motor Leads
- Shaft Slinger
- 6" shaft extension with 2 flats 90 degrees apart
- Designed for a 370 Volt capacitor

Applications:

Designed for condenser dan and heat pump units requiring vertical shaft up or vertical shaft down positioning with "belly band" or extended clamp screw mounting

HP	SYN RPM 60 Hz	Catalog Number	Model Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)	Rotation	Notes
1/6	1200	**3727**	5KCP39DGS375S	9	208-230	1.0	10.70	CCW/CW	4
1/4	1200	**3728**	5KCP39FGM599S	10	208-230	1.8	10.70	CCW/CW	4, 5
	1200	**3732**	5KCP39FGL114S	10	208-230	1.8	10.30	CCW/CW	5, 14
	1200	**3736**	5KCP39FGL782S	10	460	0.9	10.89	CCW/CW	14
1/3	1200	**3729**	5KCP39LGS407S	14	208-230	2.3	11.70	CCW/CW	4, 5, 13
	1200	**3733**	5KCP39LGL786S	14	208-230	2.3	11.71	CCW/CW	5, 14
	1200	**3737**	5KCP39MGL796S	14	460	1.3	12.31	CCW/CW	14
1/2	1200	**3730**	5KCP39PGS618S	17	208-230	3.5	12.20	CCW/CW	4, 5
	1200	**3734**	5KCP39PGL811S	17	208-230	3.5	12.21	CCW/CW	14
	1200	**3738**	5KCP39PGL795S	17	460	1.7	12.81	CCW/CW	5, 14
3/4	1200	**3731**	5KCP39SGT039S	20	208-230	4.7	12.70	CCW/CW	4
	1200	**3735**	5KCP39SGL938S	20	208-230	4.7	12.71	CCW/CW	14
	1200	**3739**	5KCP39SGL794S	20	460	2.0	13.31	CCW/CW	14

Notes:
4 = Sleeve Bearing; 5 = Designed for 60 degree C ambient; 13 = TENV Construction; 14 = Ball Bearing

GE COMMERCIAL MOTORS BY REGAL BELOIT HVAC HEATSHIELD™ MOTORS • OUTDOOR CONDENSER FAN

Features:

- Motors designed for 70 degree Ambient
- Low Motor operating temperatures
- 48” lead length
- Shaft Flinger
- NEMA BDT designs
- All-angle mounting position
- Rheem mounting holes and hardware included
- Quick connects for capacitor leads
- Seal bushing on lead exit hole
- Extended thru bolts on both ends
- Reversible Rotation
- Drain holes in both endshields with plugs
- Single-speed Operation

Applications:

Designed for continuous air over applications, such as direct drive residential, commercial and industrial air conditioners, fan and blowers

HP	SYN RPM 60 Hz	Catalog Number	Model Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	“C” Dim. (Inches)	Rotation	Notes	Capacitor Rating
1/6	1200	**3726HS**	5KCP39DGU716S	9	208-230	1.0	10.96	CCW/CW	14	5/370V
	1200	**3727HS**	5KCP39DGY797S	9	208-230	1.0	10.96	CCW/CW	4	5/370V
1/4	1200	**3728HS**	5KCP39GGY796S	11	208-230	1.7	11.46	CCW/CW	4	5/370V
	1200	**3732HS**	5KCP39GGU714S	11	208-230	1.7	11.46	CCW/CW	14	5/370V
	1200	**3736HS**	5KCP39HGU722S	12	460	0.7	11.46	CCW/CW	14	7.5/370V
1/3	1200	**3729HS**	5KCP39LGY801S	14	208-230	2.6	12.21	CCW/CW	4	7.5/370V
	1200	**3733HS**	5KCP39LGU715S	14	208-230	2.6	12.21	CCW/CW	14	7.5/370V
	1200	**3737HS**	5KCP39NGU724S	16	460	1.2	12.46	CCW/CW	14	7.5/370V
1/2	1200	**3730HS**	5KCP39RGY799S	19	208-230	3.0	12.96	CCW/CW	4	10/370V
	1200	**3734HS**	5KCP39RGU718S	19	208-230	3.0	12.96	CCW/CW	14	10/370V
	1200	**3738HS**	5KCP39RGU723S	19	460	1.7	12.96	CCW/CW	14	10/370V
3/4	1200	**3731HS**	5KCP39SGY805S	20	208-230	4.1	13.21	CCW/CW	4	15/370V
	1200	**3735HS**	5KCP39SGU717S	20	208-230	4.1	13.21	CCW/CW	14	15/370V
	1200	**3739HS**	5KCP39SGU725S	20	460	2.0	13.21	CCW/CW	14	10/370V

Notes: 4 = Sleeve Bearing; 14 = Ball Bearing

GE COMMERCIAL MOTORS BY REGAL BELOIT CONDENSER FAN & HEAT PUMP MOTORS PERMANENT SPLIT CAPACITOR • SHAFT UP OR HORIZONTAL APPLICATION

Features:

- Extended clamp screws
- Automatic Thermal Overload protection
- Designed for 50Hz or 60Hz operation
- Single-speed operation

Applications:

Designed for condenser fan and heat pump units requiring vertical shaft up or vertical shaft down positioning with “belly band” or extended clamp screw mounting

HP	SYN RPM 60 Hz	Catalog Number	Model Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	“C” Dim. (Inches)	Rotation	Notes
1/6	1200	**3327**	5KCP39DGP081S	9	208-230	0.9	10.63	CCW/CW	2, 4, 5, 9
1/4	1200	**3328**	5KCP39EGP697S	10	208-230	1.8	11.13	CCW/CW	4, 5, 9
1/3	1200	**3329**	5KCP39HGP698S	12	208-230	2.4	11.38	CCW/CW	2, 4, 5, 9
1/2	1200	**3330**	5KCP39MGK209S	14	208-230	3.6	11.88	CCW/CW	2, 4, 5, 9
3/4	1200	**3331**	5KCP39PFM210S	17	208-230	5.1	12.63	CCW/CW	2, 4, 9

Notes:
2 = 6” shaft extension with two flats 90 degrees apart;
4 = Sleeve Bearing;
5 = Designed for 60 degrees C ambient;
9 = Opposite shaft-end endshield is open.

CUSTOM MULTI-SPEED LOW-SPEED AND MODIFIED MOTORS

Custom *PDQ*

PDQ MODULAR PRODUCTION PROGRAM

CUSTOM MULTI-SPEED, LOW SPEED AND MODIFIED MOTORS, ONE OR SEVERAL AT A TIME, ON A QUICK TURNAROUND BASIS.

LEESON's "Modular Production" utilizes specially designed and standard components to make almost any imaginable NEMA frame multi-speed or low-speed motor available when you need it.

Quick Turnaround-LEESON's Custom *PDQ* can provide quick answers to inquiries and fast turnaround for orders of highly customized motors.

Comprehensive Catalog - Features the Industry's most extensive two-speed and low speed motor selection as well as a listing of commonly requested modifications. **Call for your copy of LEESON Catalog 1057 - Multi-Speed, Low-Speed and Modified Motors.**

Full Fact Acknowledgement - With **Custom *PDQ*** all custom motors are promptly and fully acknowledged upon receipt of order. The acknowledgement includes the complete motor specification pricing and shipping date.

Motors of 254T frame and larger are of cast iron construction with all the rugged features of LEESON's stock single-speed motors described on pages 18 & 19 of this catalog. All two-speed designs are class F insulated and have a 1.15 S.F.

Whether for the everyday or not-so-everyday needs, Custom *PDQ* gives you the ability to say "Yes" to requests for customized motors.

Multi-speed
Two, three and four-speed motors

Low Speed
900, 720, 600, 450 and 300 rpm

Modified as per Catalog 1057 - Some examples are:

- Anti-condensation heaters
- Brakemotors, custom
- Cooling tower specifications
- Downsized frames
- Epoxy and fungus proofing
- 50 Hz
- Premium-efficiency, North American manufacture
- Insulation, special
- Marine duty (below deck)
- Part winding (low and high voltages)
- Shafts, modified
- Thermostats
- Thermistors
- Washdown service
- IEEE841 conversion of WATTSAVER® motors
- Voltages (non-standard)

...and many more

For quotations, availability, and application assistance phone toll-free to our Canadian manufacturing facility.

CUSTOM PDQ
1-800-463-1797

Specifications are subject to change without notice

TWO-SPEED • VARIABLE AND CONSTANT TORQUE

Two-speed, single winding design motors. Typical applications and characteristic speed torque curves are noted below.

These totally enclosed fan cooled designs are priced competitive to other manufacturers' drip-proof two-speed, single winding motors.

VARIABLE TORQUE • 460 V

1725/850 RPM • ONE WINDING • RIGID BASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps ✽✽	"C" Dim. (Inches)
1/.25	1800/900	143T	**120945.00 A**	36	460	1.6–0.7	12.75
1.5/.37	1800/900	145T	**120941.00†**	36	460	2.4–1.0	12.75
2/.5	1800/900	145T	**120940.00 A**	36	460	3.2–1.3	12.75
3/.75	1800/900	184T	**131474.00 A**	77	460	4.0–1.8	14.46
5/1.2	1800/900	184T	**131475.00**	107	460	6.5–2.5	15.96
7.5/1.9	1800/900	215T	**140447.00**	155	460	9.7–3.3	17.71
10/2.5	1800/900	215T	**140448.00**	168	460	12.7–4.2	18.71

These TEFC motors have a 1.0 Service Factor.

VARIABLE TORQUE • 208-230 V

1725/850 RPM • ONE WINDING • RIGID BASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps ✽✽	"C" Dim. (Inches)
1/.25	1800/900	143T	**120944.00 A**	36	208-230	3.2–1.4	12.75
1.5/.37	1800/900	145T	**120947.00†A**	36	208-230	4.8–2.0	12.75
2/.5	1800/900	145T	**120946.00**	35	208-230	6.3–2.6	12.75
3/.75	1800/900	184T	**131468.00**	78	208-230	8.0–3.6	14.46
5/1.2	1800/900	184T	**131469.00**	94	208-230	13.0–5.0	15.96
7.5/1.9	1800/900	215T	**140443.00**	154	208-230	19.4–6.6	17.71
10/2.5	1800/900	215T	**140444.00**	166	208-230	25.4–8.4	18.71

These TEFC motors have a 1.0 Service Factor.

CONSTANT TORQUE • 460 V

1725/850 RPM • ONE WINDING • RIGID BASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps ✽✽	"C" Dim. (Inches)
1/.5	1800/900	143T	**120943.00†A**	36	460	1.4–1.6	13.25
2/1	1800/900	184T	**131471.00**	68	460	2.9–2.9	13.96
3/1.5	1800/900	184T	**131470.00**	80	460	3.8–3.5	14.96
5/2.5	1800/900	215T	**140445.00 A**	145	460	6.7–7.0	17.71

These TEFC motors have a 1.0 Service Factor.

CONSTANT TORQUE • 208-230 V

1725/850 RPM • ONE WINDING • RIGID BASE • TEFC

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps ✽✽	"C" Dim. (Inches)
1/.5	1800/900	143T	**120942.00 A**	37	208-230	3.2–4.2	12.75
2/1	1800/900	184T	**131473.00 A**	69	208-230	5.8–5.7	13.96
3/1.5	1800/900	184T	**131472.00**	80	208-230	7.6–6.9	14.96
5/2.5	1800/900	215T	**140446.00 A**	137	208-230	13.4–14.0	17.71

These TEFC motors have a 1.0 Service Factor.

✽✽ F.L. Amps listed are for high and low speeds, respectively.
† Class F insulated.
A Subject to Availability.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

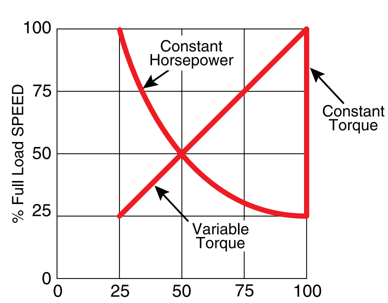
MULTI-SPEED MOTORS • APPLICATION DATA

Variable torque motors have horsepower ratings that vary as the the square of the speed, while torque varies directly with the speed. These motors are typically used on applications such as fans, blowers and centrifugal pumps.

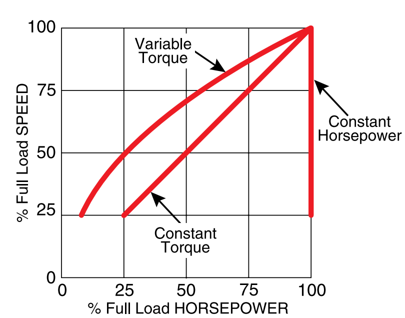
Constant torque motors are capable of developing the same torque for all speeds. Their horsepower ratings vary directly with the speed. Constant torque motors are used on mixers, compressors, conveyors, printing presses, extractors, feeders and laundry machinery.

Constant horsepower motors develop the same horsepower at all operating speeds, and the torque varies inversely with the speed. These motors are often used on machine tools, such as drills, lathes, punch presses and milling machines. **Please contact LEESON with details for constant HP applications.**

TORQUE



HORSEPOWER



BRAKEMOTORS
SINGLE & THREE PHASE

BRAKEMOTORS

Fail-safe positive, stop and hold brakemotors. Brakes are spring set. Load is stopped automatically when power is turned off. LEESON brakemotors feature a power off manual release for convenience, and for use in case of a power failure. The manual release resets automatically. The standard brake is manufactured by Stearns. The brake coil leads are brought into the conduit box of the motor for easy connection and may be connected to operate when power to the motor is shut off, or to be actuated independent of power to the motor. Three phase motors have brake coils rated 230/460 VAC, 60 Hz. Single phase brake coils are 115/230 VAC, 60 Hz.

SINGLE PHASE • TENV/TEFC • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1800	56C	3	**114165.00●**	28	115/208-230	None	2.9	14.06
1/2	1800	56C	3	**111950.00**	32	115/208-230	None	4.4	15.06
3/4	1800	56C	6	**114167.00**	38	115/208-230	None	5.4	15.56
1	1800	56C	6	**111951.00☆**	38	115/208-230	None	5.3	16.07
1½	1800	145TC	10	**121815.00☆**	40	115/208-230	None	8.8	18.23
2	1800	145TC	10	**121816.00☆**	40	115/208-230	None	9.2	19.23

● These motors are totally enclosed, non-ventilated – Others are fan cooled.

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.

THREE PHASE • DRIP-PROOF • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1800	56	3	**114162.00 A**	28	208-230/460	2.0	74.0	13.56
3/4	1800	56	6	**114163.00 A**	29	208-230/460	2.8	77.0	14.06
1	1800	56	6	**114164.00 A**	32	208-230/460	4.2	78.5	14.06
1½	1800	145T	10	**G120370.00 A**	44	208-230/460	4.4	84.0	16.00
2	1800	145T	10	**G120371.00 A**	45	208-230/460	6.0	84.0	16.00
3	1800	182T	15	**G131626.00 A**	65	208-230/460	8.4	86.5	16.89
5	1800	184T	25	**G131627.00 A**	95	208-230/460	13.2	87.5	17.89
7½	1800	213T	35	**G140611.00 A**	130	208-230/460	20.0	88.5	23.01
10	1800	215T	50	**G140635.00 A**	138	208-230/460	28.0	89.5	25.01

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

THREE PHASE • DRIP-PROOF • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1800	56C	3	**114156.00**	28	208-230/460	2.0	74.0	13.56
3/4	1800	56C	6	**114157.00**	38	208-230/460	2.8	77.0	14.06
1	1800	56C	6	**114166.00**	40	208-230/460	3.4	78.5	14.06
	1800	143TC	6	**121678.00 A**	42	208-230/460	3.4	78.5	14.50
1½	1800	145TC	10	**120372.00 A**	43	208-230/460	5.6	78.5	15.50
	1800	56C	10	**116766.00 A**	43	208-230/460	5.6	78.5	15.50
2	1800	145TC	10	**120373.00**	47	208-230/460	6.2	78.5	16.00
3	1800	182TC	15	**131624.00**	56	208-230/460	10.0	80.0	16.40
5	1800	184TC	25	**131625.00**	76	208-230/460	14.2	84.0	17.35

A Subject to Availability.

THREE PHASE • DRIP-PROOF • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1800	56C	3	**111326.00 A**	31	208-230/460	2.0	74.0	13.56
3/4	1800	56C	6	**111327.00 A**	34	208-230/460	2.8	77.0	14.06
1	1800	56C	6	**111328.00**	42	208-230/460	4.2	78.5	14.06
1½	1800	145TC	10	**G121053.00 A**	42	208-230/460	4.4	84.0	16.00
2	1800	145TC	10	**G121054.00**	51	208-230/460	6.0	84.0	16.50
3	1800	182TC	15	**G131558.00**	84	208-230/460	8.4	86.5	16.90
5	1800	184TC	25	**G131559.00**	97	208-230/460	13.2	87.5	18.35
7½	1800	213TC	35	**G140610.00**	115	208-230/460	20.0	88.5	23.51
10	1800	215TC	50	**G140638.00 A**	125	208-230/460	28.0	89.5	25.01

Catalog numbers in green are EPACT motors.

THREE PHASE • TEFC • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56	3	114151.00● A	28	208-230/460	1.3	72.0	13.56
1/2	1800	56	3	114150.00● A	33	208-230/460	1.8	78.5	14.06
	1200	56	6	114149.00 A	33	208-230/460	2.4	70.0	15.56
3/4	1800	56	6	114147.00	34	208-230/460	2.8	77.0	15.56
	1200	56	6	114148.00 A	43	208-230/460	3.0	75.5	16.06
1	1800	56	6	114146.00	37	208-230/460	3.8	77.0	16.06
	1800	143T	6	G121679.00	40	208-230/460	3.1	82.5	17.50
	1200	145T	10	G121050.00	45	208-230/460	3.6	80.0	17.52
1½	1800	56	10	116767.00 A	44	208-230/460	4.4	84.0	17.08
	1800	145T	10	G120329.00	44	208-230/460	4.4	84.0	17.52
2	1800	145T	10	G120330.00	53	208-230/460	5.6	84.0	18.00
	1200	184T	15	G131620.00	80	208-230/460	7.2	86.5	20.33
3	1800	182T	15	G131613.00	78	230/460	8.2	87.5	18.83
	1200	213T	35	G140601.00	147	208-230/460	12.0	87.5	26.49
5	1800	184T	25	G131614.00	102	230/460	13.0	87.5	20.78
7½	1800	213T	35	G140603.00	162	208-230/460	20.4	89.5	26.49
10	1800	215T	50	G140636.00	174	208-230/460	26.0	89.5	27.99

THREE PHASE • TEFC • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56C	3	114158.00●	26	208-230/460	1.3	72.0	13.56
1/2	1800	56C	3	114159.00	26	208-230/460	2.0	74.0	15.06
3/4	1800	56C	6	114160.00	34	208-230/460	2.8	77.0	15.06
1	1800	56C	6	114161.00	31	208-230/460	3.6	77.0	15.56
	1800	143TC	6	121556.00	37	208-230/460	3.8	77.0	17.00
1½	1800	56C	10	116768.00	40	208-230/460	5.0	78.5	16.56
	1800	145TC	10	120331.00	40	208-230/460	5.0	78.5	17.00
2	1800	145TC	10	120332.00	51	208-230/460	6.0	84.0	18.00
3	1800	182TC	15	131610.00	69	230/460	9.0	84.0	18.73
5	1800	184TC	25	131611.00	92	230/460	13.2	86.0	19.18
7½	1800	S213TC	35	131612.00	149	230/460	19.6	87.0	25.29
10	1800	215TC	50	140637.00 A	136	208-230/460	26.0	89.5	27.99

● These motors are totally enclosed, non-ventilated.
† Class F insulated.
A Subject to Availability.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

Catalog numbers in green are EPACT motors.

THREE PHASE • TEFC • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56C	3	110669.00●	30	208-230/460	1.3	72.0	13.56
1/2	1800	56C	3	110670.00●†	34	208-230/460	1.8	78.5	14.06
	1800	56C	3	114154.00	34	208-230/460	2.4	74.0	15.06
	1200	56C	3	114152.00	34	208-230/460	2.4	70.0	15.56
3/4	1800	56C	6	110671.00●†	34	208-230/460	2.5	80.0	14.56
	1800	56C	6	114155.00	46	208-230/460	2.8	77.0	15.56
1	1800	56C	6	110679.00	32	208-230/460	3.6	77.0	15.56
	1800	143TC	6	G121557.00	43	208-230/460	3.1	82.5	17.50
1½	1800	145TC	10	G121051.00	45	230/460	4.4	84.0	17.50
2	1800	145TC	10	G121052.00	59	208-230/460	5.6	84.0	18.00
3	1800	182TC	15	G131617.00	79	230/460	8.2	87.5	18.83
5	1800	184TC	25	G131618.00	117	230/460	13.0	87.5	20.78
7½	1800	213TC	35	G140605.00	163	208-230/460	20.4	89.5	26.49
10	1800	215TC	50	G140639.00	175	208-230/460	26.0	89.5	27.99

WASHGUARD • TENV/TEFC • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56C	3	116466.00●	40	208-230/460	1.3	72.0	14.00
1/2	1800	56C	3	116467.00●	42	208-230/460	1.8	78.5	14.50
3/4	1800	56C	6	116468.00●	44	208-230/460	2.5	80.0	15.00
1	1800	56C	6	116469.00●	48	208-230/460	3.2	80.0	15.50
	1800	143TC	6	121616.00●	49	208-230/460	3.2	80.0	16.06
1½	1800	145TC	10	G121617.00	50	208-230/460	4.4	84.0	19.01
2	1800	145TC	10	G121618.00	62	208-230/460	5.6	84.0	19.01

WASHGUARD • TENV/TEFC • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56C	3	116462.00●	39	208-230/460	1.3	72.0	14.00
1/2	1800	56C	3	116463.00●	41	208-230/460	1.8	78.5	14.50
3/4	1800	56C	6	116464.00●	43	208-230/460	2.5	80.0	15.00
1	1800	56C	6	116465.00●	45	208-230/460	3.2	80.0	15.50
	1800	143TC	6	121613.00●	46	208-230/460	3.2	80.0	15.56
1½	1800	145TC	10	121614.00	49	208-230/460	5.0	78.5	18.01
2	1800	145TC	10	121615.00	61	208-230/460	6.2	81.5	18.51

ALL-STAINLESS • TENV • C FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1800	56C	3	116483.00●	59	208-230/460	1.6	78.5	15.85
1	1800	56C	6	116484.00●	69	208-230/460	3.0	81.5	15.85

● These motors are totally enclosed, non-ventilated.

LEESON BRAKEKITS

Kit of components to convert 56 through 256T frame stock TEFC motors to fail-safe brakemotors.

Kit mounts on fan end of motor. Kits for 56-184T steel frame motors include totally enclosed Stearns AC brake, replacement cast fan cover, shaft extension, fan and hardware. Kits for 213T-256T cast iron frame motors **do not include brake**, but are designed for Stearns 87,000 series brake.

Two 1/2" NPT holes with 18" leads are provided for connections. The BRAKEKIT adds 5 1/8" to the overall length of 56 and 143-5T frame, and 5 7/8" to the overall length of 182-184T frame.

BRAKEKITS

Brake Rating (ft-lbs)	Mounts to NEMA Frame	Max. HP @ 1725rpm	Cat. No. 115-208/230 V Brake Coil Voltage	Cat. No. 208-230/460 V Brake Coil Voltage	Cat. No. 575 V Brake Coil Voltage	App. Wt. (lbs.)
3	48/S56	1	—	**175615.00**①	—	10
3	56/143-5T	1	**175659.00** **175762.00**②	**175139.00** **175765.00**②	**175177.00** **175768.00**②	10
6	56/143-5T	2	**175660.00** **175763.00**②	**175140.00** **175766.00**②	**175178.00** **175769.00**②	10
10	56/143-5T	3	**175662.00** **175764.00**②	**175141.00** **175767.00**②	**175179.00** **175770.00**②	10
15	182-4T	3	—	**175696.00**	**175698.00**	12
25	182-4T	5	—	**175697.00**	**175699.00**	12

- 56/143-5T frame Brakekits cannot be used on S56 frame motors.
- Use the 182-4T frame Brakekits on motors having catalog numbers with a "G" prefix or that are 131454 or higher.
- 182-4T frame Brakekits can also be used on single-phase 4-pole (1725RPM) motors, but can only be connected for 208-230V. All brake coils are single phase.

① For motors having a "P" for the suffix letter on the date code and having a face mount fan guard.
② For 56/145 frame motors having a "B" for the suffix letter for the date code and having a **face mount fan guard.**

BRAKE SELECTION

In this table, brake torque ratings are no less than 140% of the motor full load torque. Match HP & frame size of motor with appropriately rated BRAKEKIT.

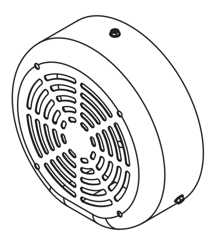
Motor HP	Brakemotor RPM Torque Rating of Brake (Lb-Ft) 3450	1725	1140
1/3	3	3	3
1/2	3	3	3
3/4	3	6	6
1	3	6	6
1 1/2	6	10	10
2	6	10	15
3	10	15	25
5	15	25	35
7.5	25	35	50
10	25	50	75
15	35	75	105
20	50	105	–

BRAKE ADAPTER KITS

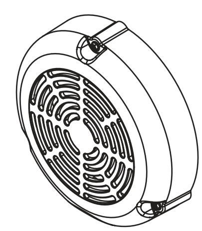
Brake Rating (ft-lbs)	Mounts to NEMA Frame	Max. HP @ 1725rpm	Catalog Number	App. Wt. (lbs.)
6-105	213-5T	10	**175710.00**	30
6-105	254-6T	20	**175711.00**	40

- Brake Adapter Kits include adapter casting/fan guard, brake fan, adapter shaft and hardware needed to mount a Stearns® 87,000 series brake (sold separately by Stearns®).

- Shaded frame sizes are for use with cast iron motors.



Old Design



New Design - Face Mount

WASHGUARD Brakekits have the same convenient assembly method as general purpose models.

BRAKEKITS FOR WASHGUARD MOTORS

Kit of components including a Stearns NEMA 4X brake to convert 56 thru 145T frame stock TEFC only motors to fail-safe brakemotors. Food safe white epoxy finish. BISSC Certified. Adds 5 1/8" to the overall length of 56 thru 145T WASHGUARD TEFC motors.

WASHGUARD BRAKEKITS

For 230/460V Three Phase and 230V Single Phase Motors

Brake Rating (ft-lbs)	Mounts to NEMA Frame	Max. HP @ 1725rpm	Cat. No. 208-230/460 V Brake Coil Voltage	App. Wt. (lbs.)
3	56/143-5T	1	**175616.00** **175771.00**②	24
6	56/143-5T	2	**175617.00** **175772.00**②	36
10	56/143-5T	3	**175618.00** **175773.00**②	43

② For 56/145 frame motors having a "B" for the suffix letter for the date code and having a face mount fan guard.

BAKING INDUSTRY CERTIFIED BISSC SANITATION STANDARDS COMMITTEE

DOUBLE C-FACE COUPLER BRAKES

A new and expanded line of Coupler Brakes designed for applications where mounting the brake between the motor and driven load is the preferred, or most convenient, location. They are an excellent problem solver for applications where a brake needs to be added to existing equipment – without replacing the motor.

Rugged cast alumimum or cast iron construction Stearns brakes are well suited to most industrial applications. Coupler brakes are designed to be C-face connected on both ends – these brakes are not suited for overhung loads to be applied to the output shaft.

A wide range of voltages and brake torque ratings in both NEMA 2 and NEMA 4X enclosures are available from stock. NEMA 2 brakes are best suited for use with standard ODP and TEFC motors. NEMA 4X brakes are designed for use with LEESON WASHGUARD motors.

GENERAL PURPOSE COUPLER BRAKES

Mounts directly to the face and shaft of NEMA 56 through 215T-frame C-face motors to create a fail-safe brakemotor.

The 6 ft.lb. brake mounts to NEMA 56C or 143-5TC motors using an optional adaptor sleeve, which is included with the brake. Output shaft can be either 56C or 143-5TC depending on the location of the provided adaptor sleeve. A 1/2 NPT threaded lead exit hole is provided for power connections.

GENERAL PURPOSE (NEMA 2) COUPLER BRAKES

For Both Single and Three Phase Motors

Motor Voltage 115/208-230V	Motor Voltage 208-230/460V	Motor Voltage 575V	Brake Rating (ft-lbs)	Max. HP @ 1725 rpm	Mounts to NEMA Frame	Coupler Brake Output Shaft and Face	Add to Motor "C" Dim.	App. Wt. (lbs.)
175563.00	**175564.00**	**175565.00**	3	1	56C	⅝", 56C	4.91	13
175569.00	**175570.00**	**175571.00**	6	2	56C/143-5TC	⅝" or ⅞", 56C	4.91	14
17557500	**175576.00**	**175577.00**	10	3	143-5TC	⅞", 143-5TC	4.91	15
—	**175581.00**	—	15	3	143-5TC	⅞", 143-5TC	4.91	16
—	**175583.00**	—	15	3	182-4TC	1⅛", 182-4TC	8.38	58
—	**175585.00**	—	25	5	182-4TC	1⅛", 182-4TC	8.38	58
—	**175587.00**	—	35	7½	213-5TC	1⅜", 213-5TC	8.88	60
—	**175589.00**	—	50	10	213-5TC	1⅜", 213-5TC	8.88	62

WASHGUARD COUPLER BRAKES

Solid die-cast aluminum Stearns NEMA 4X coupler brake converts any TEFC or TENV 56C thru 215TC motor to a fail-safe brakemotor by mounting between the C-face motor and driven equipment. Food safe white epoxy finish. BISSC Certified. Adds 5" to the overall length of 56C thru 145TC WASHGUARD TEFC or TENV motors. Includes all mounting components.

WASHGUARD (NEMA 4X) COUPLER BRAKES

For Both Single and Three Phase Motors

Motor Voltage 115/208-230V	Motor Voltage 208-230/460V	Motor Voltage 575V	Brake Rating (ft-lbs)	Max. HP @ 1725 rpm	Mounts to NEMA Frame	Coupler Brake Output Shaft and Face	Add to Motor "C" Dim.	App. Wt. (lbs.)
175566.00	**175567.00**	**175568.00**	3	1	56C	⅝", 56C	4.94	13
175572.00	**175573.00**	**175574.00**	6	2	56C/143-5TC	⅝" or ⅞", 56C	4.94	14
175578.00	**175579.00**	**175580.00**	10	3	143-5TC	⅞", 143-5TC	4.94	15
—	**175582.00**	—	15	3	143-5TC	⅞", 143-5TC	4.94	16
—	**175584.00**	—	15	3	182-4TC	1⅛", 182-4TC	8.38	58
—	**175586.00**	—	25	5	182-4TC	1⅛", 182-4TC	8.38	58
—	**175588.00**	—	35	7½	213-5TC	1⅜", 213-5TC	8.88	60
—	**175590.00**	—	50	10	213-5TC	1⅜", 213-5TC	8.88	62

EXPLOSION-PROOF MOTORS
SINGLE PHASE

EXPLOSION-PROOF
FOR HAZARDOUS LOCATIONS

Underwriters Laboratories and Canadian Standards Association Listed

General Specifications:

These explosion-proof motors are designed and approved for application in hazardous environments having certain explosive gases or materials present.

Features:

Rugged mechanical construction meeting all requirements for safety. UL and CSA listed.

Double shielded, pre-lubricated ball bearings are standard. All motors have inherent automatic overload protection. NEMA 1.0 Service Factor except as noted.

Explosion-proof conduit box included at no extra cost.

Capacitors on single phase designs are mounted inside the motor frame.

Division I areas are environments where a hazard is present continuously or would be subject to fire or explosion if the hazard was present as a result of an accident or uncommon occurrence.

Division II areas are environments where the threat of fire or explosion is not normally present and not likely to result in the event of an abnormal occurrence.

Application Notes:

These motors must be applied in accordance with the National Electrical Code, Article #500. A partial listing of explosive agents is noted below. Consult NFPA Publication 497M for a complete listing. Please note subheads above each column for qualifications of LEESON motors.

NOTE: No LEESON motors are listed for Class I, Group A or B.

Class I

Group A: Acetylene

Group B: Butadiene, ethylene oxide, hydrogen, propylene oxide, manufactured gases containing more than 30% hydrogen by volume.

Group C: Acetaldehyde, cyclopropane, diethyl ether, ethylene.

Group D: Acetone, acrylonitrile, ammonia, benzene, butane, ethanol, ethylene dichloride, gasoline, hexane, isoprene, methane (natural gas), methanol, naphtha, propane, propylene, styrene, toluene, vinyl acetate, vinyl chloride, xylene.

Class II

Group E: Aluminum, magnesium and other metal dusts with similar characteristics.

Group F: Carbon black, coke or coal dust.

Group G: Flour, starch or grain dust.

SINGLE PHASE • RIGID BASE

DIVISION I, DIVISION II, CLASS I, GROUPS C & D— CLASS II, GROUPS F & G • W/CONDUIT BOX

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56	**111074.00●**	35	115/208-230	Auto.	2.9	63.0	12.97
1/2	1800	56H	**111084.00□**	41	115/208-230	Auto.	4.4	65.0	13.58
3/4	1800	56H	**110934.00□**	46	115/208-230	Auto.	5.5	70.0	14.08
1	1800	56H	**110961.00□**	47	115/208-230	Auto.	6.7	75.0	14.08

SINGLE PHASE • C FACE LESS BASE

DIVISION I, DIVISION II, CLASS I, GROUPS C & D— CLASS II, GROUPS F & G • W/CONDUIT BOX

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	3600	56C	**111095.00**	38	115/208-230	Auto.	2.2	65.0	13.44
	1800	56C	**111075.00●**	41	115/208-230	Auto.	2.9	70.0	12.97
1/2	3600	56C	**111098.00**	35	115/208-230	Auto.	4.2	63.0	13.44
	3600	56J	**116188.00 A**	35	115/208-230	Auto.	3.8	63.0	13.96
	1800	56C	**111085.00**	45	115/208-230	Auto.	4.4	65.0	13.94
3/4	3600	56C	**111097.00**	40	115/208-230	Auto.	5.0	64.0	13.96
	3600	56J	**116186.00 A**	40	115/208-230	Auto.	5.0	64.0	14.46
	1800	56C	**111086.00**	50	115/208-230	Auto.	5.5	70.0	14.44
1	3600	56C	**111096.00**	49	115/208-230	Auto.	6.2	70.0	14.44
	3600	56J	**116185.00**	49	115/208-230	Auto.	6.0	70.0	14.96
	1800	56C	**110852.00**	53	115/208-230	Auto.	6.7	75.0	14.44
1½	3600	56C	**114424.00**	44	115/208-230	Auto.	8.5	72.0	14.96
	3600	56J	**116183.00 A**	54	115/208-230	Auto.	8.5	72.0	14.95
2	3600	56C	**114425.00**	54	115/208-230	Auto.	10.5	74.0	14.94
	3600	56J	**116181.00**	54	115/208-230	Auto.	10.5	74.0	15.45

SINGLE PHASE • C FACE WITH BASE

DIVISION I, DIVISION II, CLASS I, GROUPS C & D— CLASS II, GROUPS F & G • W/CONDUIT BOX

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	3600	56C	**116605.00**	39	115/208-230	Auto.	2.6	65.0	13.44
	1800	56C	**116606.00**	42	115/208-230	Auto.	3.3	62.0	13.44
	1200	56C	**116607.00□**	45	115/208-230	Auto.	3.9	58.0	13.94
1/2	3600	56C	**116608.00□**	36	115/208-230	Auto.	3.8	63.0	13.44
	1800	56C	**116609.00□**	46	115/208-230	Auto.	4.4	66.0	13.94
	1200	56HC	**116610.00□**	56	115/208-230	Auto.	4.7	64.0	14.94
3/4	3600	56C	**116611.00□**	41	115/208-230	Auto.	5.3	65.0	13.94
	1800	56C	**116612.00□**	51	115/208-230	Auto.	5.5	70.0	14.44
1	3600	56C	**116613.00□**	50	115/208-230	Auto.	6.3	70.0	14.44
	1800	56C	**116614.00□**	54	115/208-230	Auto.	6.7	75.0	14.44
1½	3600	56C	**116615.00□**	45	115/208-230	Auto.	8.5	72.0	14.44
2	3600	56C	**116616.00□**	58	115/208-230	Auto.	10.5	74.0	14.94

● These motors are totally enclosed, non-ventilated—others are fan cooled.

□ 56H & 56HC motors have bases with mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56C face and 5/8" shaft.

A Subject to Availability.

Specifications are subject to change without notice

EXPLOSION-PROOF
FOR HAZARDOUS LOCATIONS

Underwriters Laboratories and Canadian Standards Association Listed

General Specifications:

These explosion-proof motors are designed and approved for application in hazardous environments having certain explosive gases or materials present.

Features:

Rugged mechanical construction meeting all requirements for safety. UL and CSA listed.

Double shielded, pre-lubricated ball bearings are standard. All motors have inherent automatic overload protection. NEMA 1.0 Service Factor except as noted.

Explosion-proof conduit box included at no extra cost.

Normally-closed thermostats are standard on cast iron motors.

Division I areas are environments where a hazard is present continuously or would be subject to fire or explosion if the hazard was present as a result of an accident or uncommon occurrence.

Division II areas are environments where the threat of fire or explosion is not normally present and not likely to result in the event of an abnormal occurrence.

Application Notes:

These motors must be applied in accordance with the National Electrical Code, Article #500. A partial listing of explosive agents is noted below. Consult NFPA Publication 497M for a complete listing. Please note subheads above each column for qualifications of LEESON motors.

NOTE: No LEESON motors are listed for Class I, Group A or B.

Class I
Group A: Acetylene

Group B: Butadiene, ethylene oxide, hydrogen, propylene oxide, manufactured gases containing more than 30% hydrogen by volume.

Group C: Acetaldehyde, cyclopropane, diethyl ether, ethylene.

Group D: Acetone, acrylonitrile, ammonia, benzene, butane, ethanol, ethylene dichloride, gasoline, hexane, isoprene, methane (natural gas), methanol, naphtha, propane, propylene, styrene, toluene, vinyl acetate, vinyl chloride, xylene.

Class II
Group E: Aluminum, magnesium and other metal dusts with similar characteristics.

Group F: Carbon black, coke or coal dust.

Group G: Flour, starch or grain dust.

EXCEPT AS NOTED, STEEL FRAME EXPLOSION-PROOF MOTORS ARE *NOT* INVERTER-RATED AND MUST *NOT* BE USED WITH AN INVERTER

THREE PHASE • RIGID BASE

**DIVISION I, DIVISION II, CLASS I, GROUPS C & D—
CLASS II, GROUPS F & G • W/CONDUIT BOX**

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56	111932.00●	33	208-230/460	Auto.	1.3	76.0	10.97
	1200	56H	111940.00●	39	208-230/460	Auto.	1.5	70.0	13.97
1/2	3600	56	111934.00●A	39	208-230/460	Auto.	1.6	82.5	12.47
	1800	56	111929.00▲●	32	208-230/460	Auto.	1.7	75.0	12.47
	1200	56H	111938.00●□	44	208-230/460	Auto.	2.0	71.0	13.47
3/4	3600	56	111937.00	37	208-230/460	Auto.	3.2	75.5	13.44
	1800	56	111923.00	38	208-230/460	Auto.	3.0	75.0	13.94
1	3600	56	111942.00 A	34	208-230/460	Auto.	3.6	77.0	13.44
	1800	56H	111922.00□	45	208-230/460	Auto.	3.6	78.0	13.94
1½	3600	143T	121914.00 A	49	208-230/460	Auto.	4.0	77.0	14.41
	1800	145T	121915.00	59	208-230/460	Auto.	4.8	85.5	14.41
2	3600	145T	121916.00 A	55	208-230/460	Auto.	4.8	84.0	15.41
	1800	145T	121917.00	60	208-230/460	Auto.	5.8	86.5	15.41
3	3600	145T	121918.00	56	208-230/460	Auto.	4.8	86.5	15.91

▲ These motors are satisfactory for operation on 50 Hz power supply at full rated horsepower.
● These motors are totally enclosed, non-ventilated—Others are fan cooled.
□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.

THREE PHASE • C FACE LESS BASE

**DIVISION I, DIVISION II, CLASS I, GROUPS C & D—
CLASS II, GROUPS F & G • W/CONDUIT BOX**

HP	SYN RPM 60Hz▲	NEMA Frame	Catalog. Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	3600	56C	111944.00●+	36	208-230/460	Auto.	1.2	77.0	11.97
	1800	56C	111931.00▲●	29	208-230/460	Auto.	1.2	76.0	11.97
1/2	3600	56C	111933.00+●✣	33	208-230/460	Auto.	1.6	82.5	12.47
	3600	56J	116187.00●+A	33	208-230/460	Auto.	1.6	82.5	12.98
	1800	56C	111930.00▲●	34	208-230/460	Auto.	1.7	75.0	12.47
3/4	3600	56C	111936.00+	27	208-230/460	Auto.	2.4	75.5	13.44
	1800	56C	111935.00	36	208-230/460	Auto.	3.0	75.0	13.94
1	3600	56C	111943.00+	30	208-230/460	Auto.	3.2	77.0	13.44
	3600	56J	116184.00+	33	208-230/460	Auto.	3.2	77.0	13.95
	1800	56C	111926.00	46	208-230/460	Auto.	3.6	78.0	13.94
1½	3600	56C	111939.00+	48	208-230/460	Auto.	4.2	81.5	13.94
	3600	56J	116182.00+	48	208-230/460	Auto.	4.2	81.5	14.46
	1800	56C	111941.00	46	208-230/460	Auto.	4.4	80.0	15.94
2	3600	56C	113971.00+	50	208-230/460	Auto.	5.6	82.5	13.94
	3600	56J	116180.00+	50	208-230/460	Auto.	5.6	82.5	14.45
	1800	145TC	G121178.00	55	208-230/460	Auto.	5.6	84.0	15.03
3	3600	56C	114419.00③	54	208-230/460	Auto.	7.6	84.0	15.44
	1800	182TC	G825116.00 G	96	230/460	T-Stat	8.5	87.5	17.87
5	1800	184TC	G825128.00 G	116	230/460	T-Stat	13.8	87.5	17.87

③ Catalog #114419 is approved for Class I, Group C & D – Class II, Group F service only.

G Explosion-proof motors are Class I, Group D—Class II, Groups F & G.

▲ These motors are satisfactory for operation on 50 Hz power supply at full rated horsepower.
● These motors are totally enclosed, non-ventilated—Others are fan cooled.
✣ These motors have 1.15 Service Factors.
\+ Consult factory for 50 Hz derate.
A Subject to Availability.

Catalog numbers in green are EPACT motors.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

SEE PAGE 42 FOR INVERTER-RATED STEEL FRAME EXPLOSION-PROOF MOTORS

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

Specifications are subject to change without notice

LEESON® EXPLOSION-PROOF MOTORS
THREE PHASE • C FACE

EXPLOSION-PROOF
FOR HAZARDOUS LOCATIONS

Underwriters Laboratories and Canadian Standards Association Listed

General Specifications:

These explosion-proof motors are designed and approved for application in hazardous environments having certain explosive gases or materials present.

Features:

Rugged mechanical construction meeting all requirements for safety. UL and CSA listed.

Double shielded, pre-lubricated ball bearings are standard. All motors have inherent automatic overload protection. NEMA 1.0 Service Factor except as noted.

Explosion-proof conduit box included at no extra cost.

Division I areas are environments where a hazard is present continuously or would be subject to fire or explosion if the hazard was present as a result of an accident or uncommon occurrence.

Division II areas are environments where the threat of fire or explosion is not normally present and not likely to result in the event of an abnormal occurrence.

Application Notes:

These motors must be applied in accordance with the National Electrical Code, Article #500. A partial listing of explosive agents is noted below. Consult NFPA Publication 497M for a complete listing. Please note subheads above each column for qualifications of LEESON motors.

NOTE: No LEESON motors are listed for Class I, Group A or B.

Class I

Group A: Acetylene

Group B: Butadiene, ethylene oxide, hydrogen, propylene oxide, manufactured gases containing more than 30% hydrogen by volume.

Group C: Acetaldehyde, cyclopropane, diethyl ether, ethylene.

Group D: Acetone, acrylonitrile, ammonia, benzene, butane, ethanol, ethylene dichloride, gasoline, hexane, isoprene, methane (natural gas), methanol, naphtha, propane, propylene, styrene, toluene, vinyl acetate, vinyl chloride, xylene.

Class II

Group E: Aluminum, magnesium and other metal dusts with similar characteristics.

Group F: Carbon black, coke or coal dust.

Group G: Flour, starch or grain dust.

EXCEPT AS NOTED, STEEL FRAME EXPLOSION-PROOF MOTORS ARE _NOT_ INVERTER-RATED AND MUST _NOT_ BE USED WITH AN INVERTER

THREE PHASE • C FACE WITH BASE

DIVISION I, DIVISION II, CLASS I, GROUPS C & D— CLASS II, GROUPS F & G • W/CONDUIT BOX

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	3600	56C	114625.00▲●	33	208-230/460	Auto.	1.2	77.0	11.97
	1800	56C	114626.00▲●	38	208-230/460	Auto.	1.3	76.0	11.97
1/2	3600	56C	114627.00●★	35	208-230/460	Auto.	1.6	82.5	12.47
	1800	56C	114628.00▲●	35	208-230/460	Auto.	1.7	75.0	12.47
	1800	56C	116190.00❖	34	208-230/460	T-Stat	2.4	68.0	13.44
3/4	3600	56C	114629.00	33	208-230/460	Auto.	2.4	75.5	13.44
	1800	56C	114630.00	42	208-230/460	Auto.	2.6	75.0	13.94
	1800	56C	116191.00❖	38	208-230/460	T-Stat	3.0	75.5	13.44
1	3600	56C	114631.00	34	208-230/460	Auto.	3.2	77.0	13.44
	1800	56C	114632.00	48	208-230/460	Auto.	3.2	85.5	14.50
	1800	143TC	121919.00❖	44	208-230/460	T-Stat	3.0	82.5	14.50
1½	3600	56C	114633.00	42	208-230/460	Auto.	4.2	81.5	13.94
	1800	56C	114634.00	45	208-230/460	Auto.	4.4	80.0	15.94
	1800	145TC	121920.00❖	58	208-230/460	T-Stat	4.8	86.5	16.00
2	3600	56C	114635.00	51	208-230/460	Auto.	5.6	78.8	13.94
	1800	145TC	121921.00[W]	62	208-230/460	Auto.	5.8	86.5	15.02
	1800	145TC	121922.00❖[W]	66	208-230/460	T-Stat	5.8	86.5	16.50
3	3600	56C	114636.00③	62	208-230/460	Auto.	7.6	84.0	15.44

③ Catalog #114636 is approved for Class I, Group C & D – Class II, Group F service only.

▲ These motors are satisfactory for operation on 50 Hz power supply at full rated horsepower.
● These motors are totally enclosed, non-ventilated—Others are fan cooled.
★ These motors have 1.15 Service Factors.
❖ These motors are inverter-rated and suitable for use with an inverter. Others are not!
[W] Premium efficiency WATTSAVERe® Motors. See page 19 for details.

NEMA Premium

C FACE WITH RIGID BASE • THREE PHASE
ALL CAST IRON CONSTRUCTION

DIVISION I, DIVISION II, CLASS I, GROUP D—CLASS II, GROUPS F&G WITH CONDUIT BOX AND NORMALLY-CLOSED THERMOSTATS

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 460 V.	% F.L. Eff.	"C" Dim. (Inches)
3	3600	182TC	825125.00★	95	230/460	7.6	86.5	17.62
	1800	182TC	825126.00★	96	230/460	7.8	89.5	17.60
5	3600	184TC	825127.00★	130	230/460	12.0	88.5	17.62
	1800	184TC	825071.00★	130	230/460	12.8	89.5	17.60
7½	3600	213TC	825072.00★	143	230/460	18.0	89.5	20.68
	1800	213TC	825073.00★	143	230/460	18.6	91.7	20.68
10	3600	215TC	825074.00★	160	230/460	23.0	90.2	20.68
	1800	215TC	825075.00★	160	230/460	25.0	91.7	20.68
15	3600	254TC	825076.00★	245	230/460	34.6	91.0	24.02
	1800	254TC	825077.00★ [H]	246	230/460	36.0	92.4	24.02
20	3600	256TC	825078.00★ [H]	271	230/460	46.0	91.0	25.77
	1800	256TC	825079.00★ [H]	273	230/460	49.0	93.0	25.77
25	3600	284TSC	825080.00★ [H]	373	230/460	56.8	91.7	24.44
	1800	284TC	825081.00★ [H] A	375	230/460	59.0	93.6	26.80
30	1800	286TC	825082.00★ [H] A	395	230/460	70.0	93.6	28.30
40	1800	324TC	825083.00★ [H] A	563	230/460	92.0	94.1	29.37
50	1800	326TC	825084.00 [H] A	585	230/460	117.0	94.5	30.87

★ These motors have 1.15 Service Factors.
[H] **Explosion-proof motors are Class I, Groups C & D—Class II, Groups F & G.**
A Subject to Availability.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

WATTSAVERe Motors Meet NEMA MG1 part 30 & 31.

Specifications are subject to change without notice

EXPLOSION-PROOF
FOR HAZARDOUS LOCATIONS

Underwriters Laboratories and Canadian Standards Association Listed

General Specifications:

These explosion-proof motors are designed and approved for application in hazardous environments having certain explosive gases or materials present.

Features:

ALL CAST IRON CONSTRUCTION

Rugged mechanical construction meeting all requirements for safety. UL and CSA listed.

Double shielded, pre-lubricated ball bearings are standard. All motors have inherent automatic overload protection. NEMA 1.15 service factor except as noted.

Explosion-proof conduit box included at no extra cost.

Normally-closed thermostats are standard on cast iron motors.

Division I areas are environments where a hazard is present continuously or would be subject to fire or explosion if the hazard was present as a result of an accident or uncommon occurrence.

Division II areas are environments where the threat of fire or explosion is not normally present and not likely to result in the event of an abnormal occurrence.

Application Notes:

These motors must be applied in accordance with the National Electrical Code, Article #500. A partial listing of explosive agents is noted below. Consult NFPA Publication 497M for a complete listing. Please note headings and footnotes for qualifications of specific LEESON motors.

NOTE: No LEESON motors are listed for Class I, Group A or B.

Class I
Group A: Acetylene

Group B: Butadiene, ethylene oxide, hydrogen, propylene oxide, manufactured gases containing more than 30% hydrogen by volume.

Group C: Acetaldehyde, cyclopropane, diethyl ether, ethylene.

Group D: Acetone, acrylonitrile, ammonia, benzene, butane, ethanol, ethylene dichloride, gasoline, hexane, isoprene, methane (natural gas), methanol, naphtha, propane, propylene, styrene, toluene, vinyl acetate, vinyl chloride, xylene.

Class II
Group E: Aluminum, magnesium and other metal dusts with similar characteristics.

Group F: Carbon black, coke or coal dust.

Group G: Flour, starch or grain dust.

THREE PHASE • CAST IRON FRAME • RIGID BASE

DIVISION I, DIVISION II, WITH CONDUIT BOX AND NORMALLY CLOSED THERMOSTATS
EXPLOSION-PROOF MOTORS ARE CLASS I, GROUPS C & D– CLASS II, GROUPS F&G • ALL RATINGS ARE INVERTER RATED

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 460V	% F.L. Eff.	"C" Dim. (Inches)
3	1800	182T	**825085.00**	107	230/460	7.8	89.5	17.62
5	3600	184T	**825086.00**	117	230/460	12.0	88.5	17.62
	1800	184T	**825087.00**	128	230/460	12.8	89.5	17.62
7½	3600	213T	**825088.00**	183	230/460	18.0	89.5	21.41
	1800	213T	**825089.00**	228	230/460	18.6	91.7	20.16
10	3600	215T	**825090.00**	200	230/460	23.6	90.2	21.41
	1800	215T	**825091.00**	273	230/460	25.0	91.7	21.41
15	3600	254T	**825092.00**	333	230/460	34.6	91.0	24.12
	1800	254T	**825093.00**	383	230/460	36.0	92.4	24.12
20	3600	256T	**825094.00**	383	230/460	46.8	91.0	25.77
	1800	256T	**825095.00**	285	230/460	48.2	93.0	25.77
25	3600	284TS	**825096.00**	413	230/460	56.2	91.7	25.44
	1800	284T	**825097.00**	374	230/460	62.0	93.6	26.80
30	3600	286TS	**825098.00**	464	230/460	67.6	91.7	26.94
	1800	286T	**825099.00**	464	230/460	73.0	93.6	28.30
40	3600	324TS	**825100.00 A**	515	230/460	94.0	92.4	27.87
	1800	324T	**825101.00♣ A**	535	230/460	95.0	94.1	29.37
50	3600	326TS	**825102.00**	585	230/460	116.0	93.0	29.37
	1800	326T	**825103.00♣ A**	585	230/460	120.0	94.5	30.57
60	3600	364TS	**825104.00♣**	890	230/460	134.0	93.6	29.88
	1800	364T	**825105.00♣**	992	230/460	138.0	95.0	32.00
75	3600	365TS	**825106.00**	1025	230/460	168.0	93.6	30.88
	1800	365T	**825107.00**	1053	230/460	172.0	95.4	33.00
100	3600	405TS	**825108.00**	1168	230/460	216.0	94.1	34.62
	1800	405T	**825109.00**	1322	230/460	226.0	95.4	37.62
125	3600	444TS	**825110.00 A**	1768	230/460	136.0	95.0	38.00
	1800	444T	**825111.00 A**	1822	460	141.0	95.4	41.75
150	3600	445TS	**825112.00 A**	2072	460	165.0	95.0	38.00
	1800	445T	**825113.00 A**	2072	460	172.0	95.8	43.69
200	3600	445TS	**825114.00♣ A**	2332	460	222.0	95.4	38.00
	1800	445T	**825115.00 A**	2275	460	226.0	96.2	43.69
250	3600	449TS	**G825071.00 [G] ♣ A**	2480	460	274.0	95.4	48.14
	1800	449T	**G825072.00 [G] ♣ A**	2630	460	285.0	95.0	51.85

These explosion-proof motors are not designed for vertical mounting.

[G] **Explosion-proof motors are Class I, Group D—Class II, Groups F & G.**
♣ **1.0 Service Factor**
A Subject to Availability.

MEETS OR EXCEEDS LEESON EPACT ELECTRIC EFFICIENCY MANDATES

QUICK REFERENCE

EXPLOSION-PROOF **DC MOTORS** . . . . Page 154
EXPLOSION-PROOF **G-SERIES DIMENSIONS** 279
EXPLOSION-PROOF **158 SERIES DIMENSIONS** 278

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

Catalog numbers in green are EPACT motors.

JET PUMP MOTORS
SINGLE PHASE

JET PUMP MOTORS

General Specifications:

Stator impregnated with extra heavy varnish system. High temperature copper magnet wire provides extended motor life. "Super Hush" flow-through ventilation system (exhaust shaft-end) standard. Vertical or horizontal mounting (drip-cover available). Ground provision. Die cast aluminum NEMA 56 C face mounting flange, with cast iron bearing seat insert. Mechanical bearing lock—shaft-end, for longer life. Reliable, field proven, corrosion resistant rotating switch. High overload capacities provided by service factor. Neoprene shaft flinger on J frame motors protects bearings by repelling moisture and other contaminants.

Shaft Material:

Keyed shafts are made of carbon steel. Threaded shafts are 416 stainless steel. Shafts are CW rotation, facing lead end.

Bearings:

203 Double-sealed ball bearing, shaft-end; 203 Double-shielded ball bearing, switch-end. Shaft-end bearing is locked to limit axial movement of the shaft.

Terminal Board:

¼" Quick connects (keyed shaft motors are reversible).

U.L. Recognized and C.S.A. Certified

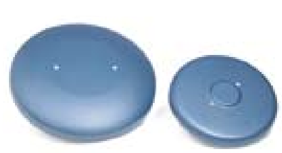
SERVICE FACTORS FOR LEESON SINGLE PHASE JET PUMP MOTORS*

HP	Drip-Proof Service Factor	TEFC Service Factor
1/2	1.60	1.60
3/4	1.50	1.50
1	1.40	1.25
1½	1.30	1.00
2	1.25	1.00
3	1.15	—

* Applies to general purpose motors only, not explosion-proof.

DRIP-COVER KITS

Each kit includes one drip-cover. Designed to protect motors from rain, snow and ice when mounted outdoors in a vertical position.



FOR DRIP-PROOF MOTORS

Frame	Catalog Number	App. Wgt. (lbs.)
48-S56	**175003.00**	2
48-S56	**175298.00◆**	2
56 143T-145T	**175004.00**	2

◆ For use with motors having "P" suffix on date code.

KEYED SHAFT • DRIP-PROOF SINGLE PHASE • LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	S56C	**100204.00**	19	115/208-230	Auto.	3.4	9.49
3/4	3600	S56C	**100205.00+**	21	115/208-230	Auto.	5.1	9.99
1	3600	S56C	**100722.00+**	24	115/208-230	Auto.	5.7	10.49
1½	3600	56C	**110288.00**	31	115/208-230	Auto.	9.0	11.34
2	3600	56C	**110289.00**	37	115/208-230	Auto.	10.5	12.34
3	3600	56C	**110280.00☆**	49	230	Auto.	12.8	13.55

THREADED SHAFT • DRIP-PROOF SINGLE PHASE • LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	S56J	**100207.00+**	19	115/208-230	Auto.	3.4	10.00
3/4	3600	S56J	**100208.00+**	21	115/208-230	Auto.	5.1	10.50
1	3600	S56J	**100723.00+**	23	115/208-230	Auto.	5.7	11.00
1½	3600	56J	**110292.00+**	31	115/208-230	Auto.	9.0	11.34
2	3600	56J	**110293.00+**	37	115/208-230	Auto.	10.5	12.34
3	3600	56J	**110286.00☆+**	51	230	Auto.	12.8	14.15

THREADED SHAFT • TEFC SINGLE PHASE • LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	56J	**113955.00+**	22	115/208-230	Auto.	3.8	11.31
3/4	3600	56J	**113956.00+**	26	115/208-230	Auto.	5.0	11.81
1	3600	56J	**113639.00+**	30	115/208-230	Auto.	6.0	12.31
1½	3600	56J	**113640.00+**	34	115/208-230	Auto.	8.5	12.81
2	3600	56J	**113641.00+**	41	115/208-230	Auto.	10.0	13.81

THREADED SHAFT • TEFC SINGLE PHASE • WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	56J	**113637.00+**	23	115/208-230	Auto.	3.8	11.31
3/4	3600	56J	**113638.00+**	26	115/208-230	Auto.	5.0	11.81
1	3600	56J	**113957.00+**	28	115/208-230	Auto.	6.0	12.31
1½	3600	56J	**113958.00+**	34	115/208-230	Auto.	8.5	12.81
2	3600	56J	**113959.00+**	43	115/208-230	Auto.	10.0	13.81

THREADED SHAFT • EXPLOSION PROOF • TEFC SINGLE PHASE • C-FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	56J	**116188.00 A**	35	115/208-230	Auto.	3.8	13.96
3/4	3600	56J	**116186.00 A**	40	115/208-230	Auto.	5.0	14.46
1	3600	56J	**116185.00**	49	115/208-230	Auto.	6.0	14.96
1½	3600	56J	**116183.00 A**	52	115/208-230	Auto.	8.5	15.46
2	3600	56J	**116181.00**	54	115/208-230	Auto.	10.5	16.46

+ These motors are fixed rotation—CW from lead end.
☆ Capacitor start/capacitor run designed for reduced amperage, others are capacitor start/induction run.
A Subject to Availability.

SEE FHP SINGLE PHASE JET PUMP MOTORS ON PAGE 127

JET PUMP MOTORS

General Specifications:

Rugged, three phase jet pump motors for industrial service. NEMA 56 C face. Stator impregnated with heavy varnish system. High temperature copper magnet wire for high overload capacity. Grounding provision inside oversized gasketed conduit box. 380 alloy aluminum endplate with cast bearing seat insert. Neoprene shaft flinger to repel moisture and other contaminants. Mechanical bearing lock, shaft end, controls axial movement. UL and CSA recognized.

Shaft Material:

303 stainless steel, threaded.

Bearings:

203 Double-sealed ball bearing, shaft-end; 203 Double-shielded ball bearing, switch-end. Shaft-end bearing is locked to limit axial movement of the shaft.

Electrical Specifications:

Explosion-proof motors have automatic overload protection. Others have no thermal overload protection.

WASHGUARD JET PUMP MOTORS

Washdown duty three phase jet pump motors for industrial service. These motors include all of the features of LEESON's White Duck WASHGUARD motors with the addition of a 56J threaded shaft for use on jet pumps. For demanding pump applications in wet, humid, or washdown environments.

WASHGUARD • JET PUMP • THREADED SHAFT THREE PHASE • TEFC • C-FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3/4	3600	56J	**116774.00**	23	208-230/460	2.4	75.5	10.81
1	3600	56J	**116775.00**	35	208-230/460	3.2	77.0	10.81
1½	3600	56J	**116776.00**	42	208-230/460	4.2	81.5	11.81
2	3600	56J	**116777.00**	47	208-230/460	5.6	82.5	12.31
3	3600	56J	**116778.00**	49	208-230/460	7.6	84.0	13.25

WASHGUARD • JET PUMP • THREADED SHAFT THREE PHASE • TEFC • C-FACE WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3/4	3600	56J	**116779.00**	24	208-230/460	2.4	75.5	10.81
1	3600	56J	**116780.00**	36	208-230/460	3.2	77.0	10.81
1½	3600	56J	**116781.00**	43	208-230/460	4.2	81.5	11.81
2	3600	56J	**116782.00**	48	208-230/460	5.6	82.5	12.31
3	3600	56J	**116783.00**	50	208-230/460	7.6	84.0	13.25

All three phase motors, 1 HP and above, are inverter rated.

THREADED SHAFT • DRIP-PROOF THREE PHASE • LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	3600	S56J	**102197.00**	15	208-230/460	1.4	68.0	9.94
1/2	3600	S56J	**102198.00**	17	208-230/460	1.8	69.0	9.94
3/4	3600	S56J	**101637.00**	18	208-230/460	2.4	79.0	10.44
1	3600	S56J	**101638.00**	25	208-230/460	3.0	78.0	11.44
1½	3600	56J	**113891.00**	28	208-230/460	4.2	81.5	11.34
2	3600	56J	**113892.00**	33	208-230/460	5.6	82.5	11.84
3	3600	56J	**113893.00**	36	208-230/460	7.6	84.0	12.34
5	3600	56J	**116698.00**	45	208-230/460	12.4	85.5	13.88

THREADED SHAFT • DRIP-PROOF THREE PHASE • WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	3600	S56J	**102199.00**	17	208-230/460	1.8	69.0	9.94
3/4	3600	S56J	**101776.00**	18	208-230/460	2.4	79.0	10.44
1	3600	S56J	**101775.00**	26	208-230/460	3.0	78.0	11.44
1½	3600	56J	**114203.00**	33	208-230/460	4.2	81.5	11.34
2	3600	56J	**114202.00**	35	208-230/460	5.6	82.5	11.84
3	3600	56HJ	**114201.00**	35	208-230/460	8.0	84.0	11.84
5	3600	56HJ	**116699.00**	47	208-230/460	12.4	85.5	13.88

THREADED SHAFT • TEFC THREE PHASE • LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	3600	56J	**114931.00**	21	208-230/460	2.0	67.0	10.81
3/4	3600	56J	**114208.00**	22	208-230/460	2.4	75.5	11.31
1	3600	56J	**114207.00**	25	208-230/460	3.2	77.0	11.31
1½	3600	56J	**114206.00**	31	208-230/460	4.2	81.5	12.31
2	3600	56J	**114205.00**	40	208-230/460	5.6	82.5	12.81
3	3600	56J	**114204.00**	52	208-230/460	7.6	84.0	13.31

THREADED SHAFT • TEFC THREE PHASE • WITH BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3/4	3600	56J	**113028.00**	23	208-230/460	2.4	75.5	11.31
1	3600	56J	**113029.00**	24	208-230/460	3.2	77.0	11.31
1½	3600	56J	**113030.00**	31	208-230/460	4.2	81.5	12.31
2	3600	56J	**113031.00**	36	208-230/460	5.6	82.5	12.81
3	3600	56HJ	**113032.00**	39	208-230/460	7.6	84.0	13.31

THREADED SHAFT • EXPLOSION PROOF • TEFC/ TENV THREE PHASE • C-FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	3600	56J	**116187.00▲●**	33	208-230/460	1.6	82.5	12.87
1	3600	56J	**116184.00▲**	33	208-230/460	3.2	77.0	13.46
1½	3600	56J	**116182.00▲**	48	208-230/460	4.2	81.5	14.46
2	3600	56J	**11618000▲**	50	208-230/460	5.6	82.5	14.96

▲ These motors are satisfactory for operation on 50 Hz power supply at full rated horsepower.
● These motors are totally enclosed, non-ventilated—Others are fan cooled.

LEESON

SWIMMING POOL PUMP MOTORS

SINGLE PHASE

COMMERCIAL DUTY SWIMMING POOL MOTORS

General Specifications:

Cast iron NEMA 56 C face mounting face or aluminum as noted. Mechanical bearing lock—shaft-end. Fully enclosed endbell at switch-end. Protected “double contact” starting switch with dual contact switch circuit providing maximum starting dependability. Reliable, field proven, corrosion resistant rotating switch. Stator impregnated with extra heavy varnish system. High temperature copper magnet wire providing extended motor life. “Low voltage” run capabilities. “Super Hush” flow-through ventilation system (exhaust shaft-end). Gaskets supplied under conduit cover and capacitor case giving added environmental protection. 1/2” NPT pipe tap supplied in “built-in” conduit box. Grounding provisions inside terminal panel plus external provision. High overload capacities provided by service factor.

Shaft Material:

Keyed shafts are made of carbon steel. Threaded shafts are 303 stainless steel. Shafts are CW rotation, facing lead end.

Bearings:

304 Double-sealed ball bearing, shaft-end; 203 Double-shielded ball bearing, switch-end.

Terminal Boards:

¼” quick connects (keyed shaft motors are reversible).

U.L. and C.S.A. Recognized

KEYED SHAFT • ALUMINUM C FACE LESS BASE SINGLE PHASE • DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	“C” Dim. (Inches)
1/2	3600	S56C	**101524.00 A**	19	115/208-230	Auto.	3.4	10.05
3/4	3600	S56C	**101525.00 A**	22	115/208-230	Auto.	5.1	10.55
1	3600	S56C	**101526.00**	25	115/208-230	Auto.	5.7	11.05
1½	3600	56C	**113686.00 A**	30	115/208-230	Auto.	9.0	11.88

KEYED SHAFT • CAST IRON C FACE LESS BASE SINGLE PHASE • DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	“C” Dim. (Inches)
1/2	3600	56C	**110278.00 A**	24	115/208-230	Auto.	4.2	10.56
3/4	3600	56C	**110241.00 A**	29	115/208-230	Auto.	5.2	11.15
1	3600	56C	**110242.00 A**	31	115/208-230	Auto.	6.8	11.15
1½	3600	56C	**110243.00 A**	36	115/208-230	Auto.	9.0	11.55
2	3600	56C	**110279.00 A**	40	115/208-230	Auto.	10.5	12.55
3	3600	56C	**110280.00☆**	49	230	Auto.	12.8	13.55

THREADED SHAFT • ALUMINUM C FACE LESS BASE SINGLE PHASE • DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	“C” Dim. (Inches)
1/2	3600	S56J	**101527.00+ A**	20	115/208-230	Auto.	3.4	10.56
3/4	3600	S56J	**101528.00+**	23	115/208-230	Auto.	5.1	11.06
1	3600	S56J	**101529.00+**	24	115/208-230	Auto.	5.7	11.56
1½	3600	56J	**113687.00+ A**	30	115/208-230	Auto.	9.0	12.40

THREADED SHAFT • CAST IRON C FACE LESS BASE SINGLE PHASE • DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	“C” Dim. (Inches)
1/2	3600	56J	**110281.00+ A**	25	115/208-230	Auto.	4.2	10.55
3/4	3600	56J	**110282.00+ A**	30	115/208-230	Auto.	5.2	11.65
1	3600	56J	**110283.00+**	31	115/208-230	Auto.	6.8	11.65
1½	3600	56J	**110284.00+ A**	36	115/208-230	Auto.	9.0	12.15
2	3600	56J	**110285.00+**	41	115/208-230	Auto.	10.5	13.15
3	3600	56J	**110286.00☆+**	51	230	Auto.	12.8	14.15

+ Threaded shaft are fixed rotation—CW from lead end.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
A Subject to Availability.

SERVICE FACTORS FOR SWIMMING POOL MOTORS

HP	Service Factor
1/2	1.60
3/4	1.50
1	1.40
1½	1.30
2	1.25
3	1.15

Specifications are subject to change without notice

PERFORMA+ FHP POOL AND JET PUMP MOTORS

General Specifications:

Energy-saving single-phase Permanent Split Capacitor *PERFORMA*+ Pool and Jet Pump motors have separate compartment design required for many pool and spa applications. PSC design gives energy-efficient operation with no switches to wear or seize. Special balancing of FHP motors gives super quiet operation. Motors are connected for CW rotation, viewed from the lead end of the motor, and are not reversible. All designs – keyed and threaded – have 304 stainless steel shafts. Double-sealed bearings on both ends of the motor have high temperature grease for long life. Motors have external grounding lug and Class F insulation with Class B rise.

Standards and Approvals:

UL Recognized and CSA Certified.

Design complies with requirements for motor/pump/cord assembles that must pass the UL 1081 water spray test.

KEYED SHAFT • C FACE LESS BASE
SINGLE PHASE • PSC • DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	Service Factor	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	56C	**MK1052.00**	26	115/230	Auto.	1.95	4.9	11.75
3/4	3600	56C	**MK1072.00**	27	115/230	Auto.	1.65	5.2	11.75
1	3600	56C	**MK1102.00**	29	115/230	Auto.	1.5	5.1	12.73
1½	3600	56C	**MK1152.00**	37	230	Auto.	1.4	6.7	13.71
2	3600	56C	**MK1202.00**	37	230	Auto.	1.15	8.5	13.71

THREADED SHAFT • C FACE LESS BASE
SINGLE PHASE • PSC • DRIP-PROOF

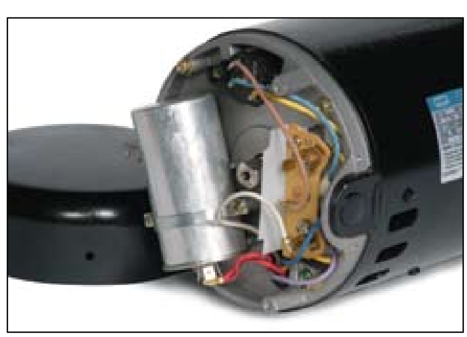
HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	Service Factor	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	56J	**MT1052.00**	26	115/230	Auto.	1.95	4.9	12.09
3/4	3600	56J	**MT1072.00**	27	115/230	Auto.	1.65	5.2	12.09
1	3600	56J	**MT1102.00**	29	115/230	Auto.	1.5	5.1	13.07
1½	3600	56J	**MT1152.00**	37	230	Auto.	1.4	6.7	14.05
2	3600	56J	**MT1202.00**	37	230	Auto.	1.15	8.5	14.05

THREADED SHAFT • SQUARE FLANGE LESS BASE
SINGLE PHASE • PSC • DRIP-PROOF

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	Service Factor	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	56Y	**MST1052.00**	26	115/230	Auto.	1.95	4.9	11.92
3/4	3600	56Y	**MST1072.00**	27	115/230	Auto.	1.65	5.2	11.92
1	3600	56Y	**MST1102.00**	29	115/230	Auto.	1.5	5.1	12.90
1½	3600	56Y	**MST1152.00**	37	230	Auto.	1.4	6.7	13.89
2	3600	56Y	**MST1202.00**	37	230	Auto.	1.15	8.5	13.89

Separate Compartment Design

Locates the motor run capacitor, protector and terminal board in a separate compartment on the end of the motor. Protective cover protects these items from water spray as defined by the UL1081 specification and provides for convenient servicing. Complies with requirements of UL1081 standard for motor/pump/cord assemblies used on swimming pool pumps; pump filter combinations, and chlorinators. Stub shaft with flats in accessible for wrenching when attaching pump impeller.



LEESON®

JP PUMP MOTORS
SINGLE & THREE PHASE

JP PUMP MOTORS

General Specifications:
For use with close-coupled pumps having NEMA JP mounting and shaft dimensions. In such applications, the pump impeller is mounted directly on the motor shaft. Designed for continuous duty service. All motors listed are 1.15 Service Factor.

Mechanical Features:
Open drip-proof construction with rigid base mounting. Locked bearing on shaft end limits axial shaft movement. For use where the environment is relatively clean and dry. For outdoor use, an enclosure or drip cover may be preferred. See the Drip Cover Kit table. Some 182-4JP frame motors have enclosed endshields as standard with frame meeting the 12˚ drip-proof requirement. No drip cover is needed, or shown in the table, for these motors.

Electrical Features:
UL Recognized and CSA Certified. Single phase designs are capacitor start, induction run.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

SINGLE PHASE • DRIP-PROOF • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over load Prot.	F.L. Amps 230V	"C" Dim. (Inches)	Drip Cover Kit Ref.
5	3600	184JP	**131881.00**	95	230	None	22.0	19.38	…
7½	3600	213JP	**140646.00**	121	230	None	37.0	14.17	C
10	3600	215JP	**140647.00**	138	230	None	47.0	15.67	C

THREE PHASE • DRIP-PROOF • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	% F.L. Eff.	F.L. Amps 230V	"C" Dim. (Inches)	Drip Cover Kit Ref.
1½	1800	145JP	**G121846.00 A**	38	208-230/460	84.0	4.4	17.68	A
2	1800	145JP	**G121847.00 A**	46	208-230/460	84.0	5.8	18.48	A
3	3600	145JP	**G121849.00 A**	46	208-230/460	84.0	8.4	16.68	A
	1800	182JP	**G131882.00***	58	208-230/460	86.5	9.2	19.91	E
5	3600	182JP	**G131884.00**	65	208-230/460	85.5	12.0	19.65	E
	1800	182JP	**G131883.00**	70	208-230/460	87.5	13.2	20.41	E
7½	3600	184JP	**G131885.00 A**	80	208-230/460	87.5	17.6	20.41	E
	1800	213JP	**G140667.00**	146	208-230/460	88.5	19.2	23.03	D
10	3600	213JP	**G140655.00**	140	208-230/460	88.5	23.4	23.03	C
	1800	215JP	**G140668.00 A**	134	208-230/460	89.5	25.0	25.00	D
15	3600	215JP	**G140656.00**	147	208-230/460	89.5	34.0	34.00	C
	1800	254JP	**G801051.00**	170	208-230/460	91.0	38.5	38.50	…
20	3600	254JP	**G801056.00**	175	208-230/460	90.2	46.0	25.29	…
	1800	256JP	**G801052.00**	222	208-230/460	91.0	52.0	52.00	…
25	3600	256JP	**G801057.00**	181	208-230/460	91.0	58.0	27.04	…
	1800	284JP	**G801053.00 A**	332	230/460	91.7	61.0	27.18	…
30	3600	284JP	**G801058.00**	336	230/460	91.0	73.0	27.18	…
	1800	286JP	**G801054.00**	342	230/460	92.4	72.0	28.68	…
40	3600	286JP	**G801059.00**	385	230/460	91.7	94.0	28.68	…
	1800	324JP	**G801055.00**	515	230/460	93.0	97.0	29.12	…
50	3600	324JP	**G801060.00**	472	230/460	92.4	117.0	29.12	…

* F1 mounting only.
A Subject to Availability.

DRIP COVER KITS FOR JP PUMP MOTORS

Kit Ref.	Frame	Catalog Number	Enclosure
A	56-145JP	**175932.00**	ODP or TEFC
B	182JP-184JP	**175933.00**	ODP
C	213JP-215JP	**175305.00**	ODP
D	213JP-215JP	**175846.00**	ODP
E	182JP-184JP	**175614.00**	ODP

Catalog Numbers in Green are EPACT Motors.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

JM PUMP MOTORS

General Specifications:

Designed for continuous duty service on close-coupled pumps using NEMA JM mounting provisions. All motors have a rigid mounting base and NEMA JM pump shaft.

Mechanical Features:

Open drip-proof construction, cooling air exhausts at the shaft end for maximum cooling. Oversized locked bearing on shaft end limits axial shaft movement. Drip covers are available as accessory kits for 143-5JM and 182-4JM motors—see letter designations in the table on page 48 for the correct kit.

Some 182-4JM frame motors have enclosed endshields as standard with frame vents meeting the 12° drip-proof requirement. No drip cover is needed, or shown in the table, for these motors.

Electrical Features:

High efficiency copper windings with NEMA 1.15 service factors. UL and CSA recognized designs.

Single phase designs are capacitor start/induction run unless indicated otherwise.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

Catalog Numbers in Green are EPACT Motors.

All three phase motors, 1 HP and above, are inverter rated.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

SINGLE PHASE • DRIP-PROOF • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)	Drip Cover Kit Ref.
1	1800	143JM	**120996.00**☆	42	115/208-230	None	6.4	13.91	A
1½	1800	145JM	**120994.00**☆	45	115/208-230	None	8.6	14.91	A
2	3600	145JM	**121190.00**☆	47	115/208-230	None	10.5	14.91	A
	1800	145JM	**120995.00**☆	45	115/208-230	None	10.5	15.41	A
	1800	182JM	**132073.00**	70	115/208-230	None	12.4	13.19	C
3	3600	182JM	**131640.00**☆	80	115/208-230	None	15.2	16.32	C
	1800	182JM	**131604.00**	73	230	None	16.8	15.82	C
5	3600	184JM	**131641.00**☆	95	115/208-230	None	24.0	17.32	C
	1800	184JM	**131605.00**☆	82	230	None	21.0	16.32	C
7½	3600	213JM	**140642.00**☆	109	230	None	37.0	14.17	E
	1800	215JM	**140665.00**☆	141	230	None	40.5	18.38	E
10	3600	215JM	**140644.00**☆	135	230	None	47.0	18.38	E
	1800	215JM	**140666.00**☆	144	230	None	43.0	19.88	E

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.

THREE PHASE • DRIP-PROOF • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)	Drip Cover Kit Ref.
1	1800	143JM	**G121850.00**	44	208-230/460	3.1	82.5	14.62	B
1½	1800	145JM	**G121851.00**	44	208-230/460	4.8	84.0	14.62	B
2	3600	145JM	**G121853.00**	44	208-230/460	5.4	84.0	13.42	B
	1800	145JM	**G121852.00**	48	208-230/460	5.8	84.0	15.12	B
3	3600	145JM	**G121854.00**	45	208-230/460	8.4	84.0	13.62	B
	1800	182JM	**G131562.00**	64	208-230/460	9.2	86.5	16.09	J
5	3600	182JM	**G131574.00**	66	208-230/460	12.0	85.5	16.35	J
	1800	184JM	**G131563.00**	71	208-230/460	13.2	87.5	17.09	J
7½	3600	184JM	**G131576.00**	108	208-230/460	17.6	87.5	17.09	J
	1800	213JM	**G140618.00**	147	208-230/460	19.2	88.5	19.16	F
10	3600	213JM	**G141121.00**	130	208-230/460	23.4	88.5	19.16	C
	1800	215JM	**G140619.00**	135	208-230/460	25.0	89.5	19.16	F
15	3600	215JM	**G151380.60**	175	208-230/460	34.0	89.5	20.41	H
	1800	254JM	**G151361.60**	268	208-230/460	38.5	91.0	25.45	I
20	3600	254JM	**G151381.60**	261	208-230/460	46.0	90.2	22.42	I
	1800	256JM	**G151362.60**	310	208-230/460	52.0	91.0	24.17	I
25	3600	256JM	**G151382.60**	295	208-230/460	58.0	91.0	24.17	I
	1800	284JM	**G801028.00**	391	230/460	66.0	91.7	24.31	…
30	3600	284JM	**G801040.00**	376	230/460	73.0	91.0	24.31	…
	1800	286JM	**G801029.00**	437	230/460	72.0	92.4	25.81	…
40	3600	286JM	**G801041.00**	429	230/460	94.0	91.7	25.81	…
	1800	324JM	**G801030.00**	531	230/460	97.0	93.0	26.25	…
50	3600	324JM	**G801042.00**	514	230/460	117.0	92.4	26.25	…

DRIP COVER KITS FOR JM PUMP MOTORS

Kit Ref.	Frame	Catalog Number	Enclosure
A	143-145JM	**175004.00**	ODP
B	143-145JM	**175932.00**	ODP or TEFC
C	182-184JM	**175933.00**	ODP
D	182-184JM	**175695.00**	TEFC
E	213-215JM	**175305.00**	ODP
F	213-215JM	**175846.00**	ODP
G	213-215JM	**175849.00**	TEFC
H	213-215JM	**175962.00**	ODP
I	254-256JM	**175963.00**	ODP
J	182-184JM	**175614.00**	ODP

JM PUMP MOTORS

THREE PHASE

JM PUMP MOTORS

General Specifications:

Designed for continuous duty service on close-coupled pumps using NEMA JM mounting provisions. All motors have a rigid mounting base and NEMA JM pump shaft.

Mechanical Features:

Totally enclosed fan cooled construction for maximum life in dirty or severe environments. Oversized locked bearing on shaft end limits axial shaft movement. Drip covers are available as accessory kits for 143-5JM and 182-4JM motors—see letter designations in the table for the correct kit. Some 182-4JM frame motors have enclosed endshields as standard with frame vents meeting the 12° drip-proof requirement. No drip cover is needed, or shown in the table, for these motors.

Electrical Features:

High efficiency copper windings with NEMA 1.15 service factors. UL and CSA recognized designs. **All 180 and 210 frame Rolled Steel motors have Class F Insulation.**

See page 216 for Drip Cover Kits.

THREE PHASE • TEFC • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)	Drip Cover Kit Ref.
1	1800	143JM	G121855.00	35	208-230/460	3.0	82.5	15.00	B
1½	3600	143JM	G121858.00	37	208-230/460	4.0	82.5	15.00	B
	1800	145JM	G121856.00	46	208-230/460	4.4	84.0	16.50	B
2	3600	145JM	G121859.00	38	208-230/460	5.2	84.0	15.50	B
	1800	145JM	G121857.00	50	208-230/460	5.6	84.0	16.00	B
3	3600	145JM	G121860.00	49	208-230/460	7.4	85.5	17.35	B
	1800	182JM	G131579.00	75	230/460	8.4	87.5	17.85	D
5	3600	184JM	G131580.00	82	208-230/460	12.4	87.5	18.35	D
	1800	184JM	G131581.00	97	230/460	12.6	87.5	18.85	D
7½	3600	184JM	G131582.00	104	208-230/460	18.4	88.5	22.09	D
	3600	S213JM	G132027.00	121	208-230/460	18.4	88.5	22.09	D
	1800	215JM	G140622.00	127	208-230/460	20.0	89.5	20.59	G
10	3600	213JM	G141122.00	130	208-230/460	24.0	89.5	22.09	D
	1800	215JM	G140623.00	145	208-230/460	25.6	90.2	22.09	G
15	3600	215JM	G140764.00	139	208-230/460	35.0	90.2	24.74	…
	3600	254JM	G151567.60	171	208-230/460	35.0	90.2	24.80	…
	1800	254JM	G151568.60	287	208-230/460	37.0	91.0	24.80	…
20	3600	254JM	G151569.60	299	208-230/460	46.2	90.2	24.80	…
	1800	254JM	G151570.60	324	208-230/460	48.2	91.0	26.50	…
25	3600	256JM	G151417.60	311	208-230/460	56.4	91.0	28.00	I
	1800	284JM	G151418.60	373	208-230/460	58.8	92.4	28.17	…
30	3600	284JM	G151420.60	378	208-230/460	69.2	91.0	28.17	…
	1800	286JM	G151422.60	431	208-230/460	69.8	92.4	29.74	…
40	3600	286JM	G151424.60	499	208-230/460	93.0	91.7	29.74	…
	1800	324JM	G151426.60	531	208-230/460	90.0	93.0	32.33	…

TEFC JP PUMP MOTORS

General Specifications:

For use with close-coupled pumps having NEMA JP mounting and shaft dimensions. Used in applications where the pump impeller is mounted directly on the motor shaft. Designed for continuous duty service.

Features include:

- **1.25 Service Factor**
- **All cast iron construction**
- **Epact Efficient**
- **Re-greasable bearings**
- **UL Recognized and CSA certified**
- **Class F Insulation**

Washdown JM Pump motors page 87
Stainless JM pump motors on page 92.

TEFC JP PUMP MOTORS • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 115V	% F.L. Eff.	"C" Dim. (Inches)
1 1/2	1800	145JP	G151736.60	54	208-230/460	4.5	85.5	18.66
2	1800	145JP	G151737.60	57	208-230/460	5.8	85.5	18.66
3	3600	182JP	G151738.60	91	208-230/460	7.4	85.5	20.71
	1800	182JP	G151739.60	95	208-230/460	8.5	87.5	20.71
5	3600	184JP	G151740.60	103	208-230/460	12.0	87.5	20.71
	1800	184JP	G151741.60	103	208-230/460	13.8	87.5	20.71
7 1/2	3600	213JP	G151742.60	156	208-230/460	17.8	88.5	20.71
	1800	213JP	G151743.60	158	208-230/460	19.2	89.5	24.02
10	3600	215JP	G151744.60	166	208-230/460	23.6	89.5	24.02
	1800	215JP	G151745.60	179	208-230/460	25.2	89.5	25.74
15	3600	215JP	G151746.60	249	208-230/460	35.0	90.2	25.74
	1800	254JP	G151747.60	281	208-230/460	37.0	92.4	28.03
20	3600	254JP	G151748.60	260	208-230/460	46.2	90.2	28.03
	1800	256JP	G151749.60	324	208-230/460	48.2	91.0	29.76
25	3600	256JP	G151750.60	366	208-230/460	58.2	91.0	29.76
	1800	284JP	G151751.60	391	208-230/460	58.8	92.4	30.04
30	3600	286JP	G151752.60	380	208-230/460	69.2	91.0	30.04
	1800	286JP	G151753.60	438	208-230/460	69.8	92.4	31.61
40	3600	324JP	G151754.60	580	208-230/460	93.0	91.7	31.61
	1800	324JP	G151755.60	583	208-230/460	90.0	93.0	32.80
50	3600	326JP	G151756.60	610	208-230/460	112.0	92.4	34.17

Catalog Numbers in Green are EPACT Motors.

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

50 HZ • SINGLE PHASE

General Specifications:
50 Hz single phase designs produce full rated HP on 50 Hz power supply. Designed for general purpose application.

Electrical Features:
High efficiency energy saving designs. Centrifugal switch specifically designed for 50 Hz service. Conduit box with leads. Torque at rated HP on 50 Hz power supply is 20% greater than the running torque of a 60 Hz motor. **All 180 and 210 frame Rolled Steel motors have Class F Insulation.**

CE CONFORMITE EUROPEENE

SINGLE PHASE • DRIP-PROOF • RIGID BASE • IP22

HP	SYN RPM 50 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 220V	"C" Dim. (Inches)
1/3	3600	…	…	…	…	…	…	…
	1800	56	**110394.00**	22	110/220	None	3.2	9.88
	1800	…	…	…	…	…	…	…
1/2	3600	56	**113901.00**	25	110/220	None	3.8	10.34
	1800	56	**110395.00**	25	110/220	None	4.1	10.38
	1800	…	…	…	…	…	…	…
3/4	3600	56	**113902.00 A**	27	110/220	None	5.6	10.34
	1800	56	**110396.00**	30	110/220	None	5.9	10.88
	1800	…	…	…	…	…	…	…
1	3600	56	**113903.00**	31	110/220	None	6.6	10.84
	1800	56H	**110397.00□**	35	110/220	None	6.4	11.88
	1800	…	…	…	…	…	…	…
1½	3600	56H	**113904.00 A**	37	110/220	None	8.6	11.84
	1800	56H	**110398.00☆□**	43	110/220	None	8.4	12.35
	1800	…	…	…	…	…	…	…
2	3600	56H	**113905.00**	42	110/220	None	10.7	12.34
	1800	182T	**131553.00 A**	70	220	None	11.8	13.69
	1800	…	…	…	…	…	…	…
3	3600	56H	**113937.00†**	47	220	None	12.4	12.84
	3600	…	…	…	…	…	…	…
	1800	184T	**131554.00**	80	220	None	16.8	14.69
	1800	…	…	…	…	…	…	…
5	3600	…	…	…	…	…	…	…
	1800	184T	**131555.00☆**	95	220	None	23.2	15.69
	1800	…	…	…	…	…	…	…

SINGLE PHASE • TEFC • RIGID BASE • IP54

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 220V	"C" Dim. (Inches)
56	**113916.00 A**	25	110/220	None	3.2	10.81
56	**110423.00**	24	110/220	None	3.2	10.81
56	**113908.00**	26	110/220	Man.	3.2	10.81
56	**113917.00**	27	110/220	None	3.8	11.31
56	**110064.00**	25	110/220	None	4.1	11.31
56	**113909.00**	29	110/220	Man.	4.1	11.31
56	**113918.00**	29	110/220	None	5.6	11.31
56	**110065.00†**	32	110/220	None	5.9	11.81
56	**113910.00**	32	110/220	Man.	5.9	11.81
56	**113919.00**	32	110/220	None	6.6	11.81
56H	**110066.00□**	38	110/220	None	6.4	12.81
56	**113911.00†**	34	110/220	Man.	6.4	12.31
56H	**113920.00**	44	110/220	None	8.0	13.31
56H	**110424.00†☆□**	47	110/220	None	8.6	13.31
56H	**113929.00†☆**	49	110/220	Man.	8.6	13.31
56HZ	**113928.00†■**	44	110/220	None	10.7	13.76
182T	**131556.00**	95	220	None	11.2	15.96
182T	**131600.00 A**	71	220	Man.	12.0	14.96
145T	**121070.00†☆**	50	220	None	12.4	12.84
56H	**113936.00†☆**	48	220	None	12.4	13.81
184T	**131557.00**	98	220	None	15.9	16.96
184T	**131601.00 A**	98	220	Man.	15.9	16.96
184T	**131638.00☆**	98	220	None	20.5	17.46
184T	**131578.00☆**	103	220	None	21.0	17.46
213TZ	**140475.00☆ A**	163	220	Man.	24.5	18.71

SINGLE PHASE • DRIP-PROOF • RESILIENT BASE • IP22

HP	SYN RPM 50 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 220V	"C" Dim. (Inches)
1/3	3600	56	**114222.00 A**	24	110/220	None	3.2	10.82
	1800	56	**114223.00 A**	24	110/220	None	3.2	10.81
	1800	…	…	…	…	…	…	…
1/2	3600	56	**114224.00 A**	26	110/220	None	3.8	11.32
	1800	56	**114225.00**	27	110/220	None	4.1	11.31
	1800	…	…	…	…	…	…	…
3/4	3600	56	**114226.00 A**	28	110/220	None	5.6	11.32
	1800	56	**114227.00 A**	31	110/220	None	5.9	11.81
	1800	…	…	…	…	…	…	…
1	3600	56	**114228.00 A**	31	110/220	None	6.6	11.82
	1800	56	**114229.00 A**	35	110/220	None	6.4	12.31
	1800	…	…	…	…	…	…	…
1½	3600	…	…	…	…	…	…	…
	1800	56H	**114231.00☆**	42	110/220	None	8.4	13.32
	1800	…	…	…	…	…	…	…
2	3600	…	…	…	…	…	…	…
	1800	56H	**114233.00†**	49	220	None	9.6	13.82
	1800	…	…	…	…	…	…	…

SINGLE PHASE • TEFC • C FACE LESS BASE • IP54

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 220V	"C" Dim. (Inches)
…	…	…	…	…	…	…
…	…	…	…	…	…	…
56C	**113921.00**	22	110/220	Man.	3.2	10.81
56C	**113912.00**	25	110/220	None	3.8	11.31
…	…	…	…	…	…	…
56C	**113922.00**	29	110/220	Man.	4.1	11.31
56C	**113913.00**	28	110/220	None	5.6	11.31
…	…	…	…	…	…	…
56C	**113923.00**	31	110/220	Man.	5.9	11.81
56C	**113914.00**	32	110/220	None	6.6	11.81
…	…	…	…	…	…	…
56C	**113924.00†**	34	110/220	Man.	6.4	12.31
56C	**113915.00**	43	110/220	None	8.0	13.31
…	…	…	…	…	…	…
56C	**113925.00†☆**	42	110/220	Man.	8.6	13.31
145TC	**120990.00†☆**	47	110/220	None	8.6	13.75
…	…	…	…	…	…	…
182TC	**131599.00 A**	70	220	Man.	12.0	14.97

■ Combination 56HZ base has mounting holes for NEMA 56 and 143-5T and a standard NEMA 145T frame shaft of 7/8" diameter.
□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
† Class F insulated.
A Subject to Availability.

50 HERTZ MOTORS
THREE PHASE

50 HZ • THREE PHASE

General Specifications:

Totally enclosed fan cooled, 12-lead motors designed specifically for 50 Hz service. These motors are intended for equipment built in North America and destined for use in 50 Hz service areas of the world.

Features:

These NEMA frame motors are designed to North American performance standards, but for 50 Hz service. Suitable for 220/380 volt, 50 Hz, or 440 volt, 50 Hz, three phase power. Torques exceed NEMA performance standards for Design B motors and produce the full rated horsepower at 50 Hz speeds.

Construction meets IEC, IP54 degree of protection standards and utilizes external fan cooling (IEC cooling method IC41). Gasketed conduit box is in the North American standardized F1 location, with leads.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

CE CONFORMITE EUROPEENE

THREE PHASE • TEFC • RIGID BASE • IP54

KW/HP	SYN RPM 50 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 380 V.	% F.L. Eff.	"C" Dim. (Inches)
0.18/1/4	1800	48	**102685.00 A**	19	220/380/440	1.00	56.0	9.06
0.25/1/3	3600	48	**102686.00 A**	19	220/380/440	0.80	60.0	9.93
	1800	48	**102688.00**	19	220/380/440	1.10	65.0	9.31
	1800	S56	**102183.00**	19	220/380/440	1.10	65.0	9.69
0.37/1/2	3600	48	**102690.00 A**	20	220/380/440	1.00	69.0	10.43
	1800	48	**102692.00 A**	20	220/380/440	1.40	72.0	9.81
	1800	S56	**102693.00**	20	220/380/440	1.40	72.0	10.19
	1800	56	**114304.00●**	25	220/380/440	1.02	78.0	10.38
0.55/3/4	3600	56	**114306.00**	24	220/380/440	1.75	72.0	10.81
	1800	56	**114307.00**	27	220/380/440	1.85	74.0	11.31
0.75/1	3600	56	**114308.00**	26	220/380/440	2.40	71.0	11.31
	1800	56	**114888.00**	28	220/380/440	2.00	77.0	11.31
	1800	143T	**121096.00**	35	220/380/440	2.00	77.0	12.75
1.1/1 1/2	3600	145T	**121097.00 A**	34	220/380/440	2.90	80.0	12.76
	1800	145T	**121093.00**	40	220/380/440	3.30	75.5	12.75
1.5/2	3600	145T	**121094.00 A**	42	220/380/440	3.60	80.0	12.76
	1800	145T	**121095.00 A**	40	220/380/440	3.65	81.5	13.25
2.2/3	3600	182T	**131480.00**	58	220/380/440	4.80	82.5	13.46
	1800	182T	**131459.00**	64	220/380/440	4.70	84.0	13.46
3.7/5	3600	184T	**131481.00**	76	220/380/440	7.40	84.0	14.46
	1800	184T	**131454.00**	82	220/380/440	8.10	85.0	15.46

● These motors are totally enclosed, non-ventilated, IEC cooling method IC40.

THREE PHASE • TEFC • C FACE LESS BASE • IP54

KW/HP	SYN RPM 50 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 380 V.	% F.L. Eff.	"C" Dim. (Inches)
0.18/1/4	1800	S56C	**102184.00**	18	220/380/440	1.00	56.0	9.44
0.25/1/3	3600	S56C	**102687.00 A**	19	220/380/440	0.80	60.0	10.31
	1800	S56C	**102689.00**	19	220/380/440	1.10	65.0	9.69
	1800	56C	**114889.00**	18	220/380/440	1.10	68.0	10.31
0.37/1/2	3600	S56C	**102691.00**	20	220/380/440	1.00	69.0	10.81
	1800	S56C	**102694.00**	20	220/380/440	1.40	72.0	10.19
	1800	56C	**114891.00**	20	220/380/440	1.15	73.0	10.81
	1200	56C	**114892.00**	28	220/380/440	1.50	68.0	11.31
0.55/3/4	3600	56C	**114893.00 A**	24	220/380/440	1.75	72.0	10.81
	1800	56C	**114894.00**	27	220/380/440	1.85	74.0	11.31
0.75/1	3600	56C	**114895.00**	26	220/380/440	2.40	71.0	11.31
	1800	56C	**114896.00**	28	220/380/440	2.00	77.0	11.31
	1800	143TC	**121272.00**	31	220/380/440	2.00	77.0	11.75
	1200	145TC	**121273.00 A**	39	220/380/440	2.65	73.0	13.25
1.1/1 1/2	3600	143TC	**121274.00 A**	33	220/380/440	2.90	80.0	12.25
	1800	145TC	**121275.00**	37	220/380/440	3.30	75.5	12.75
1.5/2	3600	145TC	**121276.00**	41	220/380/440	3.60	80.0	12.75
	1800	145TC	**121277.00**	40	220/380/440	3.65	81.5	13.75
2.2/3	3600	182TC	**131505.00**	59	220/380/440	4.80	82.5	13.97
	1800	182TC	**131506.00**	63	220/380/440	4.70	84.0	13.97
3.7/5	3600	184TC	**131507.00**	75	220/380/440	7.40	84.0	14.47
	1800	184TC	**131508.00**	82	220/380/440	8.10	85.0	15.47

A Subject to Availability.

Specifications are subject to change without notice



575 VOLT • THREE PHASE • TEFC • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 575 V.	% F.L. Eff.	"C" Dim. (Inches)
1/2	3600	56	110714.00●	25	575	0.6	82.5	10.40
	1800	56	110199.00●†	25	575	0.8	78.5	9.88
	1800	S56	101051.00	24	575	0.8	68.0	9.94
3/4	3600	56	110354.00	22	575	0.9	75.5	10.81
	1800	56	110178.00	22	575	1.1	77.0	10.81
	1200	56	111394.00	30	575	1.2	75.5	11.81
1	3600	56	110715.00	24	575	1.3	77.0	10.81
	1800	56	110206.00	24	575	1.5	77.0	11.31
	1800	143T	121937.00	32	575	1.1	85.5	13.25
	1200	145T	121938.00	47	575	1.4	82.5	13.75
1½	3600	145T	121939.00	33	575	1.6	84.0	13.25
	1800	56	110893.00	30	575	2.0	78.5	11.81
	1800	145T	121940.00	34	575	1.8	86.5	13.75
	1200	182T	132251.00	89	575	2.5	87.5	15.96
2	3600	145T	121941.00	44	575	2.1	85.5	13.75
	1800	145T	121942.00	45	575	2.2	86.5	14.76
	1200	184T	132252.00	92	575	2.9	88.5	15.96
3	3600	145T	171624.60	66	575	3.0	86.5	13.96
	1800	182T	132253.00	80	575	3.3	89.5	14.96
5	3600	184T	132254.00	88	575	4.8	88.5	16.46
	1800	184T	132255.00	94	575	5.2	89.5	15.96
7½	3600	213T	170196.60	156	575	7.4	90.2	19.84
	1800	213T	141116.00	144	575	8.2	91.7	18.7
10	3600	215T	170197.60	181	575	9.5	91.7	19.61
	1800	215T	170212.60	177	575	10.1	91.7	19.61
15	3600	254T	170198.60	282	575	13.8	92.4	23.19
	1800	254T	170116.60	280	575	14.8	92.4	23.19
20	3600	256T	170199.60	316	575	18.4	92.4	24.92
	1800	256T	170117.60	322	575	19.2	93.0	24.92
25	3600	284TS	170224.60	383	575	22.0	93.0	24.88
	1800	284T	170118.60	385	575	23.7	93.6	26.26
30	3600	286TS	170228.60	385	575	26.2	93.0	26.46
	1800	286T	170119.60	432	575	29.0	94.1	27.83
40	3600	324TS	170232.60	504	575	36.0	93.6	28.03
	1800	324TS	170120.60	528	575	38.1	94.1	29.53
50	1800	326T	170121.60	587	575	46.7	94.5	31.02
60	1800	364T	170239.60	666	575	54.4	95.4	32.64
75	1800	365T	170244.60	733	575	68.7	95.8	33.62
100	1800	405T	170253.60	1070	575	89.6	95.4	37.91

Other stock 575V motors are available from LEESON through our Canadian facility. Contact LEESON for availability.

575 VOLT • TEFC • C FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 575 V.	% F.L. Eff.	"C" Dim. (Inches)
1/2	1800	56C	110176.00●†	20	575	0.8	79.0	9.94
3/4	1800	56C	110177.00	21	575	1.1	77.0	10.81
1	1800	56C	110204.00	30	575	1.5	77.0	11.31
	1800	143TC	G120176.00	32	575	1.2	82.5	12.25
1½	1800	56C	111444.00	33	575	2.0	78.5	11.81
	1800	145TC	G120177.00	31	575	1.8	84.0	12.75
2	3600	56C	111611.00	34	575	2.2	82.5	12.31
	1800	145TC	G120178.00	45	575	2.25	84.0	13.75
3	1800	182TC	G131498.00	68	575	3.3	87.5	13.97
5	1800	184TC	G131499.00	76	575	5.2	87.5	14.97

200-208 VOLT/400-416 VOLT • THREE PHASE DRIP-PROOF • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 200 V.	% F.L. Eff.	"C" Dim. (Inches)
5	1800	184T	G131500.00	62	200-208/400-416	15.4	86.0	13.19
7½	1800	213T	G141124.00~	133	200-208/400-416	22.0	84.0	17.09
10	1800	215T	G140004.00	138	200-208/400-416	32.0	86.5	15.76

200-208 VOLT/400-416 VOLT • THREE PHASE TEFC • RIGID BASE

HP	SYN RPM 60 Hz	NEMA Frame	App. Catalog Number	Wgt. (lbs.)	F.L. Voltage	% Amps 200 V.	"C" F.L. Eff.	Dim. (Inches)
1	1800	56	110255.00	30	200-208	4.4	77.0	11.31
	1800	143T	G120047.00 A	32	200-208	4.4	77.0	12.75
1½	1800	145T	G120032.00 A	35	200-208	5.6	80.0	12.75
2	1800	145T	G120034.00†A	38	200-208	7.2	81.5	12.75
3	3600	182T	G131465.00	82	200-208/400-416	10.0	84.0	12.96
5	1800	184T	G131466.00	63	200-208/400-416	15.4	86.0	13.96
7½	1800	213T	G141123.00♣A	144	200-208/400-416	23.0	87.0	17.58
10	1800	215T	G140013.00	168	200-208/400-416	29.6	87.5	18.21

All 200-208 motors have a 1.15 Service Factor, Class F insulation

● These motors are totally enclosed, non-ventilated, all others totally enclosed fan cooled.
† Class F insulated.
♣ 1.0 Service Factor, Class F insulation.
~ Open fan cooled design.
A Subject to Availability.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

Catalog Numbers in Green are EPACT Motors.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

ODP & TEFC 200/400 VOLT MOTORS

3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 125 HP

Features:
- Perfect choice for 208 V systems
- Premium Insulation Systems
  56 frames: Class B
  143T-445T frames: Class F
- Continuous Duty
- Y-delta start capability frames 284T and larger


Applications:
ODP: Ideally suited for use where water and dust exposure is minimal.
TEFC: Ideally suited for use where exposure to water, dust and corrosives exists.
Both for use on pumps, compressors, fans, blowers, conveyors, direct-coupled or belt driven applications.

Supporting Information:
Dimensions and Performance: contact your local sales office.

ODP • FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/2	1800	56	70.0	1.25	200/400	SRD4S0.5T62	**LM24156**	17
	1200	56	74.0	1.25	200/400	SRD6S0.5T62	**LM25599**	-
3/4	3600	56	72.0	1.25	200/400	RD2S0.75T62	**LM05332**	26
	1800	56	75.5	1.25	200/400	SRD4S0.75T62	**LM24163**	23
	1200	56	72.0	1.15	200/400	RD6S0.75T62	**LM05345**	26
1	3600	56	75.5	1.25	200/400	RD2S1T62	**LM05342**	26
	1800	143T	82.5	1.15	200/400	SD4P1T62	**LM33053**	32
	1200	145T	80.0	1.15	200/400	SD6P1T62	**LM33054**	36
1 1/2	3600	143T	82.5	1.15	200/400	SD2P1.5T62	**LM33055**	32
	1800	145T	84.0	1.15	200/400	SD4P1.5T62	**LM33056**	35
2	1800	145T	84.0	1.15	200/400	SSD4P2T62	**LM33057**	48
3	3600	145T	84.0	1.15	200/400	SD2P3T62	**LM33058**	38
	1800	182T	86.5	1.15	200/400	SSD4P3T62	**LM33059**	75
	1200	213T	86.5	1.15	200/400	SD6P3T62	**LM33060**	99
5	3600	182T	85.5	1.15	200/400	SD2P5T62	**LM33061**	58
	1800	184T	87.5	1.15	200/400	SSD4P5T62	**LM33062**	82
	1200	215T	87.5	1.15	200/400	SD6P5T62	**LM33063**	115
7 1/2	3600	184T	87.5	1.15	200/400	SSD2P7.5T62	**LM33064**	85
	1800	213T	88.5	1.15	200/400	SSD4P7.5T62	**LM24229**	103
10	1800	215T	89.5	1.15	200/400	SSD4P10T62	**LM32681**	120

Product numbers in red are STOCK items.

Specifications are subject to change without notice

ODP • FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
15	1800	254T	91.0	1.15	200/400	SSD4P15T62	**LM26334**	164
20	3600	254T	90.2	1.15	200/400	SSD2P20T62	**LM33065**	200
	1800	256T	91.0	1.15	200/400	SSD4P20T62	**LM32675**	200
25	3600	256T	91.0	1.15	200/400	SSD2P25T62	**LM33066**	250
	1800	284T	91.7	1.15	200/400	SD4P25T62	**LM33067**	278
30	3600	284TS	91.0	1.15	200/400	SD2P30TS62	**LM32683**	285
	1800	286T	92.4	1.15	200/400	SD4P30T62	**LM32670**	325
40	3600	286TS	91.7	1.15	200/400	SD2S40TS62	**LM33068**	325
	1800	324T	93.0	1.15	200/400	SD4S40T62	**LM32680**	378
50	3600	324TS	92.4	1.15	200/400	SD2S50TS62	**LM33069**	410
	1800	326T	93.0	1.15	200/400	SD4S50T62	**LM33070**	444
60	3600	326TS	93.0	1.15	200/400	SD2S60TS62	**LM33071**	462
	1800	364T	93.6	1.15	200/400	SD4S60T62	**LM33072**	575
75	3600	364TS	93.0	1.15	200/400	SD2S75TS62	**LM33073**	618
	1800	365T	94.1	1.15	200/400	SD4S75T62	**LM33074**	660
100	3600	365TS	93.0	1.15	200/400	SD2S100TS62	**LM33075**	680
	1800	404T	94.1	1.15	200/400	SD4S100T62	**LM33076**	767
125	1800	405T	94.5	1.15	200/400	SD4S125T62	**LM33077**	910

Product numbers in red are STOCK items.

Lincoln MOTORS

ODP & TEFC 200/400 VOLT MOTORS

3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 125 HP

TEFC • FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
0.33	1800	56	72.0	1.15	200/400	SRF4S0.33T62	**LM02676**	28
0.5	1800	56	74.0	1.15	200/400	SRF4S0.5T62	**LM02682**	28
	1200	56	70.0	1.15	200/400	SRF6S0.5T62	**LM02679**	28
0.75	3600	56	74.0	1.15	200/400	SRF2S0.75T62	**LM02694**	28
	1800	56	74.0	1.15	200/400	SRF4S0.75T62	**LM02691**	TBD
	1200	56	74.0	1.15	200/400	SRF6S0.75T62	**LM02688**	28
1	3600	56	75.5	1.15	200/400	SRF2S1T62	**LM02703**	28
	1800	56	78.5	1.15	200/400	SRF4S1T62	**LM02700**	28
	1800	143T	82.5	1.15	200/400	SS4P1T62	**LM33078**	32
	1200	56H	72.0	1.15	200/400	SRF6S1T62	**LM02697**	36
	1200	145T	80.0	1.15	200/400	SSF6P1T62	**LM33079**	38
	900	182T	74.0	1.15	200/400	AF8S1T62	**LM33080**	68
1.5	3600	143T	82.5	1.15	200/400	SSF2P1.5T62	**LM33081**	42
	1800	56H	80.0	1.15	200/400	SRF4S1.5T62	**LM02706**	36
	1800	145T	84.0	1.15	200/400	SF4P1.5T62	**LM33083**	72
	1200	182T	85.5	1.15	200/400	AF6P1.5T62	**LM33082**	76
2	3600	56H	78.5	1.15	200/400	SRF2S2T62	**LM02715**	36
	1800	56H	80.0	1.15	200/400	SRF4S2T62	**LM02712**	36
	1800	145T	84.0	1.15	200/400	SSF4P2T62	**LM33084**	42
	1200	184T	86.5	1.15	200/400	AF6P2T62	**LM33085**	76
	900	213T	82.5	1.15	200/400	AF8P2T62	**LM33086**	107
3	3600	182T	85.5	1.15	200/400	AF2P3T62	**LM33087**	73
	1800	182T	87.5	1.15	200/400	AF4P3T62	**LM33088**	78
	1200	213T	87.5	1.15	200/400	AF6P3T62	**LM33089**	100
	900	215T	84.0	1.15	200/400	AF8P3T62	**LM33090**	125
5	3600	184T	87.5	1.15	200/400	AF2P5T62	**LM33091**	80
	1800	184T	87.5	1.15	200/400	AF4P5T62	**LM33092**	80
	1200	215T	87.5	1.15	200/400	AF6P5T62	**LM33093**	122
	900	254T	85.5	1.15	200/400	AF8P5T62	**LM33094**	125
7.5	3600	213T	88.5	1.15	200/400	AF2P7.5T62	**LM33095**	110
	1800	213T	89.5	1.15	200/400	AF4P7.5T62	**LM33096**	108
	1200	254T	89.5	1.15	200/400	AF6P7.5T62	**LM33097**	165
	900	256T	85.5	1.15	200/400	AF8P7.5T62	**LM33098**	202
10	3600	215T	89.5	1.15	200/400	AF2P10T62	**LM33099**	124
	1800	215T	89.5	1.15	200/400	AF4P10T62	**LM32690**	126
	1200	256T	89.5	1.15	200/400	AF6P10T62	**LM33100**	205
15	3600	254T	90.2	1.15	200/400	AF2P15T62	**LM33101**	172
	1800	254T	91.0	1.15	200/400	AF4P15T62	**LM32691**	152
20	3600	256T	90.2	1.15	200/400	AF2P20T62	**LM33102**	205
	1800	256T	91.0	1.15	200/400	AF4P20T62	**LM33103**	202
25	1200	324T	91.7	1.15	200/400	SF6P25T62	**LM33104**	479

Product numbers in red are STOCK items.

Specifications are subject to change without notice

TEFC • FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
30	1200	326T	91.7	1.15	200/400	SF6P30T62	**LM33105**	355
40	3600	324TS	91.7	1.15	200/400	SF2P40TS62	**LM02323**	396
	1800	324T	93.0	1.15	200/400	SF4P40T62	**LM02005**	479
	1200	364T	91.7	1.15	200/400	SF6P40T62	**LM02578**	724
50	3600	326TS	92.4	1.15	200/400	SF2P50TS62	**LM02159**	479
	1800	326T	93.0	1.15	200/400	SF4P50T62	**LM02010**	532
	1200	365T	93.0	1.15	200/400	SF6P50T62	**LM02460**	775
60	3600	364TS	93.0	1.15	200/400	SF2P60TS62	**LM02579**	532
	1800	364T	93.6	1.15	200/400	SF4P60T62	**LM02386**	724
75	3600	365TS	93.0	1.15	200/400	SF2P75TS62	**LM02921**	724
	1800	365T	94.1	1.15	200/400	SF4P75T62	**LM02394**	775
100	1800	405T	94.5	1.15	200/400	SF4P100T62	**LM02444**	898

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Lincoln™ MOTORS

ODP • 575 VOLT MOTORS

3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 450 HP

Features:
- Meets energy efficiency requirements of the United States and Canada.
- Industry leading 1.25 service factor through 200 HP*
- Superior speed-torque curves – some models* are nameplated Design B & C - see "Notes" column.
- Continuous Duty
- Construction materials –
  56-256T: steel frame / cast aluminum brackets
  284T-449T: steel frame / cast iron brackets
- Premium Insulation Systems –
  56 frames: Class B
  143T-449T frames: Class F
- Y-delta start capability frames 284T-449T (reference "Y" in Model Number).
- Shielded ball bearing for direct coupled applications. Contact your local sales office for belted applications.

Applications:
For use where water and dust exposure is moderate. Ideally suited for use on pumps, compressors, blowers, fans and other standard industrial applications.

* P efficiency codes.

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/3	1800	56	65.5	1.15	575	SRD4S0.33T65	**LM25054**	15
1/2	3600	56	66.0	1.25	575	SRD2S0.5T65	**LM25055**	22
	1800	56	70.0	1.25	575	SRD4S0.5T65	**LM24161**	17
3/4	3600	56	74.0	1.25	575	SRD2S0.75T65	**LM25056**	21
	1800	56	75.5	1.15	575	SRD4S0.75T65	**LM25057**	20
1	3600	56	74.0	1.25	575	SRD2S1T65	**LM25058**	24
	1800	56	77.0	1.15	575	SRD4S1T65	**LM25059**	22
	1800	143T	82.5	1.25	575	SSD4P1T65	**LM24170**	34
1 1/2	3600	56	80.0	1.15	575	SRD2S1.5T65	**LM25060**	23
	3600	143T	82.5	1.25	575	SSD2P1.5T65	**LM25065**	28
	1800	56H	80.0	1.15	575	SRD4S1.5T65	**LM25061**	28
	1800	145T	84.0	1.25	575	SSD4P1.5T65	**LM25066**	40
2	3600	56H	80.0	1.15	575	SRD2S2T65	**LM25062**	25
	3600	145T	84.0	1.25	575	SSD2P2T65	**LM25067**	28
	1800	56H	81.5	1.15	575	SRD4S2T65	**LM25063**	36
	1800	145T	84.0	1.25	575	SSD4P2T65	**LM24124**	44
3	3600	56H	84.0	1.15	575	SRD2S3T65	**LM25064**	33
	3600	145T	84.0	1.25	575	SSD2P3T65	**LM25068**	33
	1800	182T	86.5	1.25	575	SSD4P3T65	**LM24227**	83
5	3600	182T	86.5	1.25	575	SSD2P5T65	**LM25069**	88
	1800	184T	87.5	1.25	575	SSD4P5T65	**LM25070**	87
7 1/2	3600	184T	87.5	1.15	575	SSD2P7.5T65	**LM25071**	88
	1800	213T	88.5	1.25	575	SSD4P7.5T65	**LM24229**	121
10	3600	213T	88.5	1.25	575	SSD2P10T65	**TBD**	-
	1800	215T	89.5	1.25	575	SSD4P10T65	**LM24231**	138

Product numbers in red are STOCK items.

Specifications are subject to change without notice

ODP • 575 VOLT MOTORS

3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 450 HP

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
15	3600	215T	89.5	1.25	575	SSD2P15T65	**TBD**	-
	1800	254T	91.0	1.25	575	SSD4P15T65	**LM24219**	215
20	3600	254T	90.2	1.25	575	SSD2P20T65	**TBD**	245
	1800	256T	91.0	1.25	575	SSD4P20T65	**LM24232**	233
25	3600	256T	91.0	1.25	575	SSD2P25T65	**TBD**	-
	1800	284T	91.7	1.25	575	CCD4P25T65Y	**LM29581**	350
30	3600	284TS	91.0	1.25	575	SD2P30TS65Y	**LM20081**	348
	1800	286T	92.4	1.25	575	CCD4P30T65Y	**LM29865**	400
40	3600	286TS	91.7	1.25	575	SD2P40TS65Y	**LM15599**	389
	1800	324T	93.0	1.25	575	SD4P40T65Y	**LM14402**	469
50	3600	324TS	92.4	1.25	575	SD2P50TS65Y	**LM14401**	469
	1800	326T	93.0	1.25	575	SD4P50T65Y	**LM14405**	522
60	3600	326TS	93.0	1.25	575	SD2P60TS65Y	**LM14404**	522
	1800	364T	93.6	1.25	575	SD4P60T65Y	**LM18378**	712
75	3600	364TS	93.0	1.25	575	SD2P75TS65Y	**LM18379**	712
	1800	365T	94.1	1.25	575	SD4P75T65Y	**LM18384**	763
100	3600	365TS	93.0	1.25	575	SD2P100TS65Y	**LM18385**	763
	1800	404T	94.1	1.25	575	SD4P100T65Y	**LM18298**	882
125	3600	404TS	93.6	1.25	575	SD2P125TS65Y	**LM18296**	882
	1800	405T	95.4	1.25	575	SD4P125T65Y	**LM18306**	958
150	3600	405TS	93.6	1.25	575	SD2P150TS65Y	**LM18302**	958
	1800	444T	95.0	1.15	575	SD4P150T65Y	**LM15101**	1277
200	3600	444TS	94.5	1.25	575	SD2P200TS65Y	**LM15100**	1277
	1800	445T	95.0	1.15	575	SD4P200T65Y	**LM15106**	1449
250	3600	445TS	94.5	1.15	575	SD2P250TS65Y	**LM15103**	1438
	1800	445T	95.4	1.15	575	SD4P250T65Y	**LM15104**	1438
300	3600	447TS	95.0	1.15	575	SD2P300TS65Y	**LM15111**	1745
	1800	447T	95.4	1.15	575	SD4P300T65Y	**LM15061**	1745
350	3600	447TS	95.0	1.15	575	SD2P350TS65Y	**LM15108**	1745
	1800	447T	95.4	1.15	575	SD4P350T65Y	**LM15109**	1745
400	3600	449TS	95.4	1.15	575	SD2P400TS65Y	**LM15116**	2112
	1800	449T	95.4	1.15	575	SD4P400T65Y	**LM15117**	2112
450	3600	449TS	95.8	1.00	575	SD2P450TS65Y	**TBD**	TBD
	1800	449T	95.8	1.00	575	SD4P450T65Y	**TBD**	TBD

✦ Cast iron design contact Lincoln Motors.

Product numbers in red are STOCK items.

Specifications are subject to change without notice

AC MOTORS

Lincoln MOTORS

ODP • 575 VOLT MOTORS

3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 450 HP

C-FACE WITH FEET

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/3	1800	56C	67.0	1.35	575	SRD4S0.33TC65	**LM25072**	15
1/2	3600	56C	66.0	1.25	575	SRD2S0.5TC65	**LM25073**	18
	1800	56C	68.0	1.15	575	SRD4S0.5TC65	**LM25074**	17
3/4	3600	56C	74.0	1.25	575	SRD2S0.75TC65	**LM25075**	21
	1800	56C	75.5	1.25	575	SRD4S0.75TC65	**LM25076**	20
1	3600	56C	74.0	1.25	575	SRD2S1TC65	**LM25077**	24
	1800	56C	77.0	1.15	575	SRD4S1TC65	**LM25078**	22
	1800	143TC	82.5	1.25	575	SSD4P1TC65	**LM25084**	34
1 1/2	3600	56C	80.0	1.15	575	SRD2S1.5TC65	**LM25079**	23
	1800	56HC	80.0	1.15	575	SRD4S1.5TC65	**LM25080**	28
	1800	145TC	84.0	1.25	575	SSD4P1.5TC65	**LM25085**	40
2	3600	56HC	80.0	1.15	575	SRD2S2TC65	**LM25081**	25
	1800	56C	81.5	1.15	575	SRD4S2TC65	**LM25082**	36
	1800	145TC	84.0	1.25	575	SSD4P2TC65	**LM25086**	44
3	3600	56HC	84.0	1.15	575	SRD2S3TC65	**LM25083**	33
	1800	182TC	86.5	1.25	575	SSD4P3TC65	**LM25087**	83
5	1800	184TC	87.5	1.25	575	SSD4P5TC65	**LM25088**	93
7 1/2	1800	213TC	88.5	1.25	575	SSD4P7.5TC65	**LM25089**	115
10	1800	215TC	89.5	1.25	575	SSD4P10TC65	**LM25090**	138
15	1800	254TC	91.0	1.25	575	SSD4P15TC65	**LM25091**	215
20	1800	256TC	91.0	1.25	575	SSD4P20TC65	**LM25092**	233
25	1800	284TC	91.7	1.25	575	CCD4P25TC65	**LM30138**	350
30	1800	286TC	92.4	1.25	575	CCD4P30TC65	**LM30139**	396
40	1800	324TC	93.0	1.25	575	SD4P40TC65Y	**LM14556**	479
50	1800	326TC	93.0	1.25	575	SD4P50TC65Y	**LM14559**	535
60	1800	364TC	93.6	1.25	575	SD4P60TC65Y	**LM19713**	724
75	1800	365TC	94.1	1.25	575	SD4P75TC65Y	**LM19716**	771
100	1800	404TC	94.1	1.25	575	SD4P100TC65Y	**LM19719**	898
125	1800	405TC	94.5	1.25	575	SD4P125TC65Y	**LM19722**	974
150	1800	444TC	95.0	1.15	575	SD4P150TC65Y	**LM19725**	1292
200	1800	445TC	95.0	1.25	575	SD4P200TC65Y	**LM19728**	1470
250	1800	445TC	95.4	1.15	575	SD4P250TC65Y	**LM19731**	1459
300	1800	447TC	95.4	1.15	575	SD4P300TC65Y	**LM19734**	1766

Product numbers in red are STOCK items.

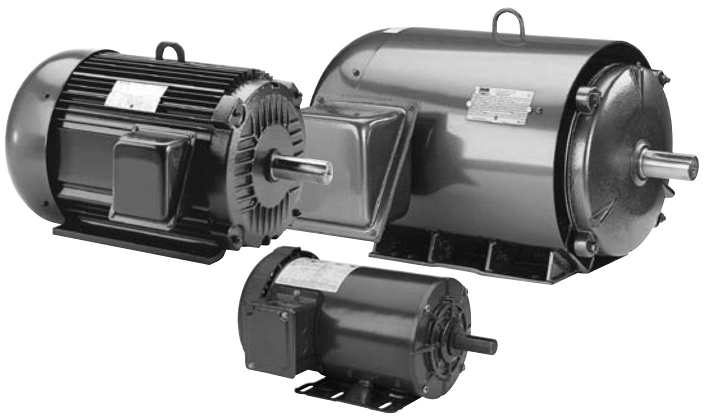
Specifications are subject to change without notice

TEFC • 575 VOLT MOTORS

3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 400 HP

Lincoln™ MOTORS

Features:
- Industry leading 1.25 service factor* through 75 HP
- Superior speed-torque curves – most models* are nameplated Design B & C
- Two levels of premium efficiency* – P efficiency codes meet and B efficiency codes exceed the energy efficiency requirements of the United States and Canada.
- Continuous Duty
- Construction materials (reference first letters of Model Number):
  AF, AAF – extruded aluminum frame and cast iron brackets
  SF – steel frame / cast iron end brackets
  SR, SS – steel frame / cast aluminum brackets
- Premium Insulation Systems –
  56 frames: Class B
  143T-449T frames: Class F
- Y-delta start capability 30 HP and larger
- Shielded ball bearing for direct coupled applications. Contact your local sales office for belted applications.



Applications:
For use where exposure to water, dust and corrosives exists. Ideally suited for use on pumps, compressors, fans, blowers, conveyors, machine tools and other industrial applications.

*P & B efficiency codes.

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/3	1800	56	71.0	1.15	575	SRF4S0.33T65	**LM25093**	16
1/2	3600	56	66.0	1.15	575	SRF2S0.5T65	**LM25094**	22
	1800	56	74.0	1.15	575	SRF4S0.5T65	**LM24154**	22
	1200	56	68.0	1.15	575	SRF6S0.5T65	**LM24295**	24
3/4	3600	56	74.0	1.15	575	SRF2S0.75T65	**LM24110**	23
	1800	56	75.5	1.15	575	SRF4S0.75T65	**LM25095**	30
	1200	56	74.0	1.15	575	SRF6S0.75T65	**TBD**	28
1	3600	56	74.0	1.15	575	SRF2S1T65	**LM25096**	24
	1800	56	77.0	1.15	575	SRF4S1T65	**LM25097**	27
	1800	143T	82.5	1.25	575	SSF4P1T65	**LM24109**	36
	1200	145T	80.0	1.25	575	SSF6P1T65	**TBD**	37
1 1/2	3600	56	80.0	1.15	575	SRF2S1.5T65	**LM25098**	25
	3600	143T	82.5	1.25	575	SSF2P1.5T65	**LM25102**	34
	1800	56H	80.0	1.15	575	SRF4S1.5T65	**LM25099**	30
	1800	145T	84.0	1.15	575	SSF4P1.5T65	**LM24142**	48
	1200	182T	86.5	1.25	575	AF6B1.5T65	**LM17059**	83
	1200	182T	85.5	1.25	575	AF6P1.5T65	**LM16379**	83

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Specifications are subject to change without notice

Lincoln MOTORS

TEFC • 575 VOLT MOTORS

3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 400 HP

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
2	3600	56H	80.0	1.15	575	SRF2S2T65	**LM25100**	39
	3600	145T	84.0	1.25	575	SSF2P2T65	**LM25103**	39
	1800	56H	82.5	1.15	575	SRF4S2T65	**LM25101**	40
	1800	145T	84.0	1.25	575	SSF4P2T65	**LM24108**	45
	1200	184T	87.5	1.25	575	AF6B2T65	**LM17062**	92
	1200	184T	86.5	1.25	575	AF6P2T65	**LM16382**	102
3	3600	182T	87.5	1.25	575	AF2B3T65	**LM17063**	83
	3600	182T	85.5	1.25	575	AF2P3T65	**LM16383**	72
	1800	182T	89.5	1.25	575	AF4B3T65	**LM17064**	83
	1800	182T	87.5	1.25	575	AF4P3T65	**LM16384**	77
	1200	213T	89.5	1.25	575	AF6B3T65	**LM17065**	127
	1200	213T	87.5	1.25	575	AF6P3T65	**LM16385**	127
5	3600	184T	88.5	1.25	575	AF2B5T65	**LM17066**	92
	3600	184T	87.5	1.25	575	AF2P5T65	**LM16386**	174
	1800	184T	90.2	1.25	575	AF4B5T65	**LM17067**	87
	1800	184T	87.5	1.25	575	AF4P5T65	**LM16387**	92
	1200	215T	89.5	1.25	575	AF6B5T65	**LM17068**	138
	1200	215T	87.5	1.25	575	AF6P5T65	**LM16388**	155
	900	254T	85.5	1.15	575	AF8P5T65	**LM33171**	165
7 1/2	3600	213T	91.0	1.25	575	AF2B7.5T65	**LM17069**	127
	3600	213T	88.5	1.25	575	AF2P7.5T65	**LM16389**	143
	1800	213T	91.0	1.25	575	AF4B7.5T65	**LM17070**	127
	1800	213T	89.5	1.25	575	AF4P7.5T65	**LM16391**	160
	1200	254T	91.0	1.25	575	AF6B7.5T65	**LM17071**	209
	1200	254T	89.5	1.25	575	AF6P7.5T65	**LM16392**	209
10	3600	215T	91.0	1.25	575	AF2B10T65	**LM17072**	138
	3600	215T	89.5	1.25	575	AF2P10T65	**LM16394**	138
	1800	215T	91.0	1.25	575	AF4B10T65	**LM17073**	138
	1800	215T	89.5	1.25	575	AF4P10T65	**LM16395**	138
	1200	256T	91.0	1.25	575	AF6B10T65	**LM17074**	236
	1200	256T	89.5	1.25	575	AF6P10T65	**LM16397**	386
15	3600	254T	91.7	1.25	575	AF2B15T65	**LM17075**	209
	3600	254T	90.2	1.25	575	AF2P15T65	**LM16398**	209
	1800	254T	92.4	1.25	575	AF4B15T65	**LM17076**	209
	1800	254T	91.0	1.25	575	AF4P15T65	**LM16400**	240
	1200	284T	92.4	1.25	575	AF6B15T65	**LM17077**	363
	1200	284T	90.2	1.25	575	AF6P15T65	**LM16401**	369
20	3600	256T	91.7	1.25	575	AF2B20T65	**LM17078**	236
	3600	256T	90.2	1.25	575	AF2P20T65	**LM16403**	290
	1800	256T	93.0	1.25	575	AF4B20T65	**LM17079**	275
	1800	256T	91.0	1.25	575	AF4P20T65	**LM15919**	236
	1200	286T	93.0	1.25	575	AF6B20T65	**LM17080**	408
	1200	286T	90.2	1.25	575	AF6P20T65	**LM16404**	408
25	3600	284TS	93.0	1.25	575	AF2B25TS65	**LM17081**	363
	3600	284TS	91.7	1.25	575	AF2P25TS65	**LM16406**	410
	1800	284T	94.1	1.25	575	AF4B25T65	**LM17082**	363
	1800	284T	92.4	1.25	575	AF4P25T65	**LM16407**	320
	1200	324T	93.0	1.25	575	SF6B25T65Y	**LM14409**	504
	1200	324T	91.7	1.25	575	SF6P25T65Y	**LM14397**	504

Product numbers in red are STOCK items.

Specifications are subject to change without notice

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
30	3600	286TS	93.6	1.25	575	AF2B30TS65Y	**LM20085**	485
	3600	286TS	91.0	1.25	575	AF2P30TS65Y	**LM19594**	408
	1800	286T	94.5	1.25	575	AF4B30T65Y	**LM20086**	408
	1800	286T	92.4	1.25	575	AF4P30T65Y	**LM19595**	585
	1200	326T	92.4	1.25	575	SF6B30T65Y	**LM14412**	558
	1200	326T	91.7	1.25	575	SF6P30T65Y	**LM14400**	570
40	3600	324TS	94.1	1.25	575	SF2B40TS65Y	**LM14407**	504
	3600	324TS	91.7	1.25	575	SF2P40TS65Y	**LM14395**	504
	1800	324T	94.1	1.25	575	SF4B40T65Y	**LM14408**	504
	1800	324T	93.0	1.15	575	SF4P40T65Y	**LM14396**	504
	1200	364T	94.5	1.25	575	SF6B40T65Y	**LM18368**	765
	1200	364T	93.0	1.15	575	SF6P40T65Y	**LM18365**	765
50	3600	326TS	94.1	1.25	575	SF2B50TS65Y	**LM14410**	558
	3600	326TS	92.4	1.25	575	SF2P50TS65Y	**LM14398**	558
	1800	326T	95.0	1.25	575	SF4B50T65Y	**LM14411**	558
	1800	326T	93.0	1.25	575	SF4P50T65Y	**LM14399**	558
	1200	365T	94.5	1.25	575	SF6B50T65Y	**LM18374**	822
	1200	365T	93.0	1.25	575	SF6P50T65Y	**LM18371**	822
60	3600	364TS	95.0	1.25	575	SF2B60TS65Y	**LM18370**	765
	3600	364TS	93.0	1.25	575	SF2P60TS65Y	**LM18367**	765
	1800	364T	95.0	1.25	575	SF4B60T65Y	**LM18369**	765
	1800	364T	93.6	1.25	575	SF4P60T65Y	**LM18366**	765
	1200	404T	94.5	1.15	575	SF6B60T65Y	**LM18289**	918
	1200	404T	93.6	1.15	575	SF6P60T65Y	**LM18288**	918
75	3600	365TS	95.0	1.25	575	SF2B75TS65Y	**LM18376**	822
	3600	365TS	93.0	1.25	575	SF2P75TS65Y	**LM18373**	822
	1800	365T	95.0	1.15	575	SF4B75T65Y	**LM18375**	822
	1800	365T	94.1	1.25	575	SF4P75T65Y	**LM18372**	822
	1200	405T	94.5	1.15	575	SF6B75T65Y	**LM18293**	1002
	1200	405T	93.6	1.15	575	SF6P75T65Y	**LM18294**	1002
100	3600	405TS	95.8	1.15	575	SF2B100TS65Y	**LM18291**	1002
	3600	405TS	94.1	1.15	575	SF2P100TS65Y	**LM18290**	1002
	1800	405T	95.4	1.15	575	SF4B100T65Y	**LM18307**	1002
	1800	405T	94.5	1.15	575	SF4P100T65Y	**LM18292**	1002
	1200	444T	95.4	1.15	575	SF6B100T65Y	**LM15121**	1351
	1200	444T	94.1	1.15	575	SF6P100T65Y	**LM15080**	1351
125	3600	444TS	95.8	1.15	575	SF2B125TS65Y	**LM15119**	1351
	3600	444TS	94.5	1.15	575	SF2P125TS65Y	**LM15078**	1351
	1800	444T	96.2	1.15	575	SF4B125T65Y	**LM15120**	1351
	1800	444T	94.5	1.15	575	SF4P125T65Y	**LM15079**	1351
	1200	445T	95.8	1.15	575	SF6B125T65Y	**LM15127**	1531
	1200	445T	94.1	1.15	575	SF6P125T65Y	**LM15086**	1504
150	3600	445TS	96.2	1.15	575	SF2B150TS65Y	**LM15125**	1531
	3600	445TS	94.5	1.15	575	SF2P150TS65Y	**LM15084**	1504
	1800	445T	96.2	1.15	575	SF4B150T65Y	**LM15126**	1531
	1800	445T	95.0	1.15	575	SF4P150T65Y	**LM15085**	1531
	1200	445T	95.8	1.15	575	SF6B150T65Y	**LM15124**	1531
	1200	445T	95.0	1.15	575	SF6P150T65Y	**LM15083**	1504
200	3600	445TS	96.2	1.15	575	SF2B200TS65Y	**LM15122**	1531
	3600	445TS	95.0	1.15	575	SF2P200TS65Y	**LM15081**	1504
	1800	445T	96.2	1.15	575	SF4B200T65Y	**LM15123**	1531
	1800	445T	95.0	1.15	575	SF4P200T65Y	**LM15082**	1531
	1200	447T	95.8	1.15	575	SF6B200T65Y	**LM15131**	1812
	1200	447T	95.0	1.15	575	SF6P200T65Y	**LM15091**	1812

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Lincoln MOTORS

TEFC • 575 VOLT MOTORS

3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 400 HP

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
250	3600	447TS	96.2	1.15	575	SF2B250TS65Y	**LM15128**	1812
	3600	447TS	95.4	1.00	575	SF2P250TS65Y	**LM15087**	1812
	1800	447T	96.2	1.15	575	SF4B250T65Y	**LM15130**	1812
	1800	447T	95.0	1.15	575	SF4P250T65Y	**LM15092**	1812
	1200	449T	95.4	1.00	575	SF6B250T65Y	**LM15137**	2185
	1200	449T	95.0	1.15	575	SF6P250T65Y	**LM15099**	2185
300	3600	449TS	96.2	1.15	575	S449F2B300TS65Y	**LM15138**	2185
	3600	449TS	95.4	1.15	575	S449F2P300TS65Y	**LM15098**	2185
	1800	447T	96.2	1.15	575	SF4B300T65Y	**LM15129**	1812
	1800	447T	95.4	1.00	575	SF4P300T65Y	**LM15089**	1812
350	3600	449TS	95.8	1.15	575	SF2B350TS65Y	**LM15135**	2185
	3600	449TS	95.4	1.00	575	SF2P350TS65Y	**LM15096**	2185
	1800	449T	96.2	1.15	575	SF4B350T65Y	**LM15136**	2185
	1800	449T	95.4	1.15	575	SF4P350T65Y	**LM15097**	2185
400	3600	449TS	95.8	1.00	575	SF2B400TS65Y	**LM15132**	2185
	3600	449TS	95.4	1.00	575	SF2P400TS65Y	**LM15093**	2185
	1800	449T	96.2	1.15	575	SF4B400T65Y	**LM15133**	2185
	1800	449T	95.4	1.00	575	SF4P400T65Y	**LM15094**	2185

C-FACE WITH FEET

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/3	1800	56C	65.5	1.15	575	SRF4S0.33TC65	**LM25042**	21
1/2	3600	56C	66.5	1.15	575	SRF2S0.5TC65	**LM25043**	22
	1800	56C	70.0	1.15	575	SRF4S0.5TC65	**LM24355**	18
3/4	3600	56C	74.0	1.15	575	SRF2S0.75TC65	**LM25044**	24
	1800	56C	75.5	1.15	575	SRF4S0.75TC65	**LM24354**	21
1	3600	56C	74.0	1.15	575	SRF2S1TC65	**LM25045**	25
	1800	56C	77.0	1.15	575	SRF4S1TC65	**LM25046**	26
	1800	143TC	82.5	1.25	575	SSF4P1TC65	**LM25051**	41
1 1/2	3600	143TC	82.5	1.25	575	SSF2P1.5TC65	**LM25052**	41
	3600	56C	80.0	1.15	575	SRF2S1.5TC65	**LM25047**	41
	1800	56HC	80.0	1.15	575	SRF4S1.5TC65	**LM25048**	31
	1800	145TC	84.0	1.15	575	SSF4P1.5TC65	**LM24158**	49
	1200	182TC	86.5	1.25	575	AF6B1.5TC65	**LM17175**	95
	1200	182TC	85.5	1.25	575	AF6P1.5TC65	**LM16582**	95
2	3600	56HC	80.0	1.15	575	SRF2S2TC65	**LM25049**	31
	3600	145TC	84.0	1.25	575	SSF2P2TC65	**LM25053**	40
	1800	56HC	82.5	1.15	575	SRF4S2TC65	**LM25050**	50
	1800	145TC	84.0	1.15	575	SSF4P2TC65	**LM24137**	47
	1200	184TC	87.5	1.25	575	AF6B2TC65	**LM17179**	104
	1200	184TC	86.5	1.25	575	AF6P2TC65	**LM16587**	104
3	3600	182TC	87.5	1.25	575	AF2B3TC65	**LM17180**	95
	3600	182TC	85.5	1.25	575	AF2P3TC65	**LM16589**	95
	1800	182TC	89.5	1.25	575	AF4B3TC65	**LM17181**	95
	1800	182TC	87.5	1.25	575	AF4P3TC65	**LM16590**	95
	1200	213TC	89.5	1.25	575	AF6B3TC65	**LM17182**	138
	1200	213TC	87.5	1.25	575	AF6P3TC65	**LM16591**	138B

Product numbers in red are STOCK items.

Specifications are subject to change without notice

C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
5	3600	184TC	88.5	1.25	575	AF2B5TC65	**LM17183**	104
	3600	184TC	87.5	1.25	575	AF2P5TC65	**LM16592**	104
	1800	184TC	89.5	1.25	575	AF4B5TC65	**LM17184**	104
	1800	184TC	87.5	1.25	575	AF4P5TC65	**LM16593**	104
	1200	215TC	89.5	1.25	575	AF6B5TC65	**LM17185**	149
	1200	215TC	87.5	1.25	575	AF6P5TC65	**LM16594**	149
7 1/2	3600	213TC	91.0	1.25	575	AF2B7.5TC65	**LM17186**	138
	3600	213TC	88.5	1.25	575	AF2P7.5TC65	**LM16595**	175
	1800	213TC	91.0	1.25	575	AF4B7.5TC65	**LM17187**	138
	1800	213TC	89.5	1.25	575	AF4P7.5TC65	**LM16596**	127
	1200	254TC	91.0	1.25	575	AF6B7.5TC65	**LM17188**	221
	1200	254TC	89.5	1.25	575	AF6P7.5TC65	**LM16597**	221
10	3600	215TC	91.0	1.25	575	AF2B10TC65	**LM17189**	149
	3600	215TC	89.5	1.25	575	AF2P10TC65	**LM16598**	210
	1800	215TC	91.0	1.25	575	AF4B10TC65	**LM17190**	149
	1800	215TC	89.5	1.25	575	AF4P10TC65	**LM16599**	200
	1200	256TC	91.0	1.25	575	AF6B10TC65	**LM17191**	248
	1200	256TC	89.5	1.25	575	AF6P10TC65	**LM16600**	200
15	3600	254TC	91.7	1.25	575	AF2B15TC65	**LM17192**	221
	3600	254TC	90.2	1.25	575	AF2P15TC65	**LM16601**	185
	1800	254TC	92.4	1.25	575	AF4B15TC65	**LM17193**	221
	1800	254TC	91.0	1.25	575	AF4P15TC65	**LM16602**	260
	1200	284TC	92.4	1.25	575	AF6B15TC65	**LM17194**	370
	1200	284TC	90.2	1.25	575	AF6P15TC65	**LM16603**	500
20	3600	256TC	91.7	1.25	575	AF2B20TC65	**LM17195**	248
	3600	256TC	90.2	1.25	575	AF2P20TC65	**LM16604**	248
	1800	256TC	93.0	1.25	575	AF4B20TC65	**LM17196**	248
	1800	256TC	91.0	1.25	575	AF4P20TC65	**LM16605**	300
	1200	286TC	93.0	1.25	575	AF6B20TC65	**LM17197**	415
	1200	286TC	90.2	1.25	575	AF6P20TC65	**LM16606**	415
25	3600	284TSC	93.0	1.25	575	AF2B25TSC65	**LM17198**	370
	3600	284TSC	91.0	1.25	575	AF2P25TSC65	**LM16607**	370
	1800	284TC	94.1	1.25	575	AF4B25TC65	**LM17199**	370
	1800	284TC	92.4	1.25	575	AF4P25TC65	**LM16608**	370
	1200	324TC	93.0	1.25	575	SF6B25TC65Y	**LM14563**	514
	1200	324TC	91.7	1.25	575	SF6P25TC65Y	**LM14551**	500
30	3600	286TSC	93.0	1.25	575	AF2B30TSC65Y	**LM20087**	415
	3600	286TSC	91.0	1.25	575	AF2P30TSC65Y	**LM19596**	415
	1800	286TC	94.5	1.25	575	AF4B30TC65Y	**LM20088**	415
	1800	286TC	92.4	1.25	575	AF4P30TC65Y	**LM19597**	415
	1200	326TC	92.4	1.25	575	SF6B30TC65Y	**LM14566**	568
	1200	326TC	91.7	1.25	575	SF6P30TC65Y	**LM14554**	580
40	3600	324TSC	94.1	1.25	575	SF2B40TSC65Y	**LM14561**	514
	3600	324TSC	91.7	1.25	575	SF2P40TSC65Y	**LM14549**	514
	1800	324TC	94.1	1.25	575	SF4B40TC65Y	**LM14562**	514
	1800	324TC	93.0	1.25	575	SF4P40TC65Y	**LM14550**	518
	1200	364TC	94.5	1.25	575	SF6B40TC65Y	**LM20035**	777
	1200	364TC	93.0	1.15	575	SF6P40TC65Y	**LM19598**	777
50	3600	326TSC	94.1	1.25	575	SF2B50TSC65Y	**LM14564**	568
	3600	326TSC	92.4	1.25	575	SF2P50TSC65Y	**LM14552**	568
	1800	326TC	95.0	1.25	575	SF4B50TC65Y	**LM14565**	568
	1800	326TC	93.0	1.25	575	SF4P50TC65Y	**LM14553**	568
	1200	365TC	94.5	1.25	575	SF6B50TC65Y	**LM20036**	834
	1200	365TC	93.0	1.25	575	SF6P50TC65Y	**LM19599**	834

Product numbers in red are STOCK items.

Specifications are subject to change without notice

TEFC • 575 VOLT MOTORS

3-PHASE
FOOT MOUNT & C-FACE
1/3 TO 400 HP

C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
60	3600	364TSC	95.0	1.25	575	SF2B60TSC65Y	**LM20037**	777
	3600	364TSC	93.0	1.25	575	SF2P60TSC65Y	**LM19600**	777
	1800	364TC	95.0	1.25	575	SF4B60TC65Y	**LM20038**	778
	1800	364TC	93.6	1.25	575	SF4P60TC65Y	**LM19603**	778
	1200	404TC	94.5	1.15	575	SF6B60TC65Y	**LM20039**	934
	1200	404TC	93.6	1.15	575	SF6P60TC65Y	**LM19601**	934
75	3600	365TSC	95.0	1.25	575	SF2B75TSC65Y	**LM20040**	834
	3600	365TSC	93.0	1.25	575	SF2P75TSC65Y	**LM19602**	834
	1800	365TC	95.0	1.15	575	SF4B75TC65Y	**LM20041**	834
	1800	365TC	94.1	1.25	575	SF4P75TC65Y	**LM15921**	835
	1200	405TC	94.5	1.15	575	SF6B75TC65Y	**LM20042**	1018
	1200	405TC	93.6	1.15	575	SF6P75TC65Y	**LM19604**	1018
100	3600	405TSC	95.8	1.15	575	SF2B100TSC65Y	**LM20043**	1018
	3600	405TSC	93.6	1.15	575	SF2P100TSC65Y	**LM19605**	1018
	1800	405TC	95.4	1.15	575	SF4B100TC65Y	**LM20044**	1001
	1800	405TC	94.5	1.15	575	SF4P100TC65Y	**LM19606**	1018
	1200	444TC	95.4	1.15	575	SF6B100TC65Y	**LM20045**	1372
	1200	444TC	94.1	1.15	575	SF6P100TC65Y	**LM19607**	1372
125	3600	444TSC	95.8	1.15	575	SF2B125TSC65Y	**LM20046**	1372
	3600	444TSC	94.5	1.15	575	SF2P125TSC65Y	**LM19608**	1372
	1800	444TC	96.2	1.15	575	SF4B125TC65Y	**LM20047**	1372
	1800	444TC	94.5	1.15	575	SF4P125TC65Y	**LM19609**	1372
	1200	445TC	95.8	1.15	575	SF6B125TC65Y	**LM20048**	1552
	1200	445TC	94.1	1.15	575	SF6P125TC65Y	**LM19610**	1525
150	3600	445TSC	96.2	1.15	575	SF2B150TSC65Y	**LM20049**	1552
	3600	445TSC	94.5	1.15	575	SF2P150TSC65Y	**LM19611**	1525
	1800	445TC	96.2	1.15	575	SF4B150TC65Y	**LM20050**	1552
	1800	445TC	95.0	1.15	575	SF4P150TC65Y	**LM19612**	1525
	1200	445TC	95.8	1.15	575	SF6B150TC65Y	**LM20051**	1552
	1200	445TC	95.0	1.15	575	SF6P150TC65Y	**LM19613**	1525
200	3600	445TSC	96.2	1.15	575	SF2B200TSC65Y	**LM20052**	1552
	3600	445TSC	95.0	1.15	575	SF2P200TSC65Y	**LM19614**	1525
	1800	445TC	96.2	1.15	575	SF4B200TC65Y	**LM20053**	1552
	1800	445TC	95.0	1.15	575	SF4P200TC65Y	**LM17685**	1537
	1200	447TC	95.8	1.15	575	SF6B200TC65Y	**LM20054**	1833
	1200	447TC	95.0	1.15	575	SF6P200TC65Y	**LM19615**	1833
250	3600	447TSC	96.2	1.15	575	SF2B250TSC65Y	**LM20055**	1833
	3600	447TSC	95.4	1.00	575	SF2P250TSC65Y	**LM19616**	1833
	1800	447TC	96.2	1.15	575	SF4B250TC65Y	**LM20056**	1833
	1800	447TC	95.0	1.15	575	SF4P250TC65Y	**LM19617**	1833
300	3600	449TSC	96.2	1.15	575	S449F2B300TSC65Y	**LM20058**	2206
	3600	449TSC	95.4	1.15	575	S449F2P300TSC65Y	**LM19619**	2206
	1800	447TC	96.2	1.15	575	SF4B300TC65Y	**LM20059**	1833
	1800	447TC	95.4	1.00	575	SF4P300TC65Y	**LM19620**	1833
350	3600	449TSC	95.8	1.15	575	SF2B350TSC65Y	**LM20061**	2206
	3600	449TSC	95.4	1.00	575	SF2P350TSC65Y	**LM19623**	2206
	1800	449TC	96.2	1.15	575	SF4B350TC65Y	**LM20062**	2206
	1800	449TC	95.4	1.15	575	SF4P350TC65Y	**LM19624**	2206
400	3600	449TSC	95.8	1.00	575	SF2B400TSC65Y	**LM20063**	2206
	3600	449TSC	95.4	1.00	575	SF2P400TSC65Y	**LM19625**	2206
	1800	449TC	96.2	1.15	575	SF4B400TC65Y	**LM20064**	2206
	1800	449TC	95.4	1.00	575	SF4P400TC65Y	**LM19626**	2206

Product numbers in red are STOCK items.

Specifications are subject to change without notice

CE CONFORMITE EUROPEENE

AC METRIC MOTORS

These high efficiency motors meet North American performance standards and Premium energy efficiency mandates, and have 1.15 service factors.

Typically used for replacement on machine tools, textile machinery and other equipment with metric dimensions but requiring the heavy-duty torque and performance of motors designed for use in North America.

Two frame constructions are offered:

Aluminum frame models are designated with a 192000 series catalog number, while **cast iron frame** models are 193000 series.

Both types are built to meet international standards and feature IP55 weatherproof enclosures, 60/50 Hz interchangeability (60Hz 230/460 V & 50Hz 200/400V), dual stamped nameplates, CE mark, and F3 conduit box location. Kits are available for field conversion from B3 to B3/B5 or B3/B14.

LEESON's Inverter Rated Insulation System, (IRIS™) provides superior protection against voltage spikes induced by variable frequency drives.

ALUMINUM FRAME

CSA: File number LR33543

UL: File number E57948 for motors produced January 2004 and later

Terminal Boards included.
- 230/460V motors have 9 leads.
- 575V motors have 3 leads.
- All terminal boards have 6 posts.

IP55 weatherproof enclosure allows for use in a wide range of applications.

Conduit box with neoprene gaskets. Reposition metric "PG" tapped lead exit hole by rotating box in 90 degree increments. Move box to F1 or F2 position by relocating motor feet.

Drain Hole locations in four quadrants can be drilled-out for multi-position condensate drainage.

Special design steel fan cover and low-noise fan maximize airflow efficiency.

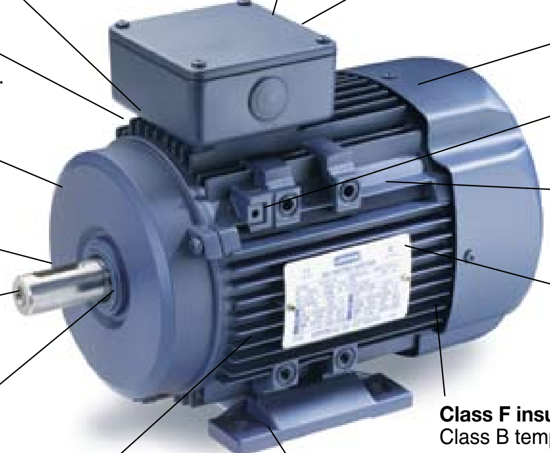
D flange (B5) and C face (B14) models available. Field conversion kits also offered.

External grounding provision.

"Captive Shaft" keyway.

Multi-mount repositionable feet allow for three conduit box positions (F2, F1, F3).

Drilled and tapped shaft.



Aluminum "full fact" nameplate with information on motor efficiency and power factor. Stamped with 60 Hz and 50 Hz data.

Oil seals on both the drive end and non drive end.

Class F insulation system with Class B temperature rise or lower.

High efficiency design utilizes low-loss steel laminations for optimum power and performance.

Removable feet.

CAST IRON FRAME

CSA: File number LR62104

UL: File number E57948 for motors produced June 2003 and later

Conduit box with neoprene gaskets. Reposition metric "PG" threaded lead exit by rotating box in 90 degree increments. Motors 132 frame and larger have second lead exit hole for auxiliary box. Box is fixed at F3 location.

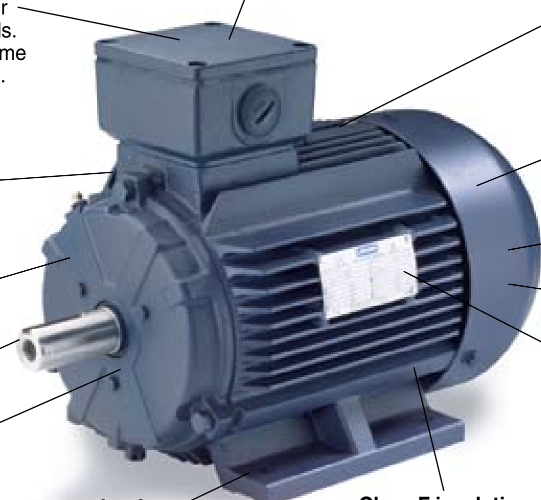
Terminal Boards included.
- 230/460V motors, 132-frame and larger have 12 leads and 9 post terminal boards.
- 230/460V motors, smaller than 132-frame have 9 leads and 6 post terminal boards.
- 575V motors have 3 leads and 6 post terminal boards.

Heavy-duty cast iron construction includes frame, endbells and conduit box.

High efficiency design utilizes low-loss steel laminations for optimum power and performance.

IP55 weatherproof enclosure allows for use in a wide range of applications.

Non-sparking fan. Small size reduces noise and enhances efficiency.



D flange (B5) and C face (B14) models available. Field conversion kits also offered.

Steel fan cover.

Drilled and tapped shaft.

Stainless steel "full fact" nameplate with information on motor efficiency and power factor. Stamped with 60 Hz and 50 Hz data

Oil seals on both the drive end and non drive end.

Cast iron mounting feet are precision machined for accurate alignment.

Class F insulation system with Class B temperature rise or lower.

AC METRIC (IEC) MOTORS

THREE PHASE • RIGID BASE

B3 FOOT-MOUNTED METRIC MOTORS • 230/460V

Metric-dimensioned, AC motors meeting North American performance standards, including 1.15 service factor and Premium efficiencies. For replacement use on machine tools, textile machinery and other equipment with metric dimensions but requiring the heavy-duty torque and performance characteristics of motors designed for use in North America.

IP55 weatherproof enclosures, 60/50 Hz interchangeability (60Hz 230/460V & 50Hz 200/400V), dual stamped nameplates, CE mark, and F3 conduit box location. Kits are available for field conversion from B3 to B3/B5 or B3/B14. See pages 131 and 132 for details.

Motors are available in one of two frame constructions: aluminum or cast iron. Aluminum frame models are designated with a 192000 series catalog number; cast iron models are 193000 series.

THREE PHASE • IP55 • 1.15 S.F.

HP-KW	SYN RPM 60 Hz	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/4-0.18	3600	D63	**192010.00**	10	230/460	0.8	72.0	8.55
	1800	D63	**192011.00**	11	230/460	1.1	68.0	8.55
	1200	D71	**192012.00**	12	230/460	1.2	64.0	9.16
1/3-0.25	3600	D63	**192020.00**	11	230/460	1.1	72.0	8.55
	1800	D71	**192021.00**	13	230/460	1.4	68.0	9.46
	1200	D80	**192022.00**	17	230/460	1.3	70.0	11.11
1/2-0.37	3600	D71	**192030.00**	13	230/460	1.6	74.0	9.46
	1800	D71	**192031.00**	14	230/460	1.8	74.0	9.46
	1200	D80	**192032.00**	19	230/460	1.9	72.0	11.11
3/4-0.55	3600	D71	**192040.00**	15	230/460	2.4	74.0	9.46
	1800	D80	**192041.00**	18	230/460	2.5	74.0	11.11
	1200	D80	**192042.00**	22	230/460	2.7	72.0	11.11
1-0.75	3600	D80	**192050.00**	21	230/460	2.8	75.5	11.11
	1800	D80	**192051.00**	26	230/460	3.2	80.0	11.11
	1200	D90S	**192200.00**	33	230/460	3.3	80.0	12.61
1 1/2-1.1	3600	D80	**192060.00**	27	230/460	4.0	84.0	11.11
	1800	D90S	**192202.00**	37	230/460	4.6	85.5	12.61
2-1.5	3600	D90S	**192208.00**	33	230/460	5.2	85.5	12.61
	1800	D90L	**192205.00**	38	230/460	5.8	84.0	12.61
	1200	DF100L	**193300.60**	82	230/460	6.4	84.0	14.97
3-2.2	3600	D90L	**192209.00**	39	230/460	7.2	86.5	12.61
	1800	DF100L	**193301.60**	84	230/460	8.2	87.5	14.97
	1200	DF112M	**193302.60**	100	230/460	9.6	87.5	15.76
4-3	3600	DF100L	**193303.60**	71	230/460	10.0	87.5	14.97
	1800	DF100L	**193304.60**	84	230/460	10.4	85.5	14.97
	1200	DF132S	**193305.60**	154	230/460	13.4	87.5	18.72
5 1/2-4	3600	DF112M	**193306.60**	104	230/460	13.6	87.5	15.76
	1800	DF112M	**193307.60**	104	230/460	15.0	87.5	15.76
	1200	DF132M	**193308.60**	176	230/460	17.6	87.5	20.29
7 1/2-5.5	3600	DF132S	**193309.60**	152	230/460	18.4	88.5	18.72
	1800	DF132S	**193310.60**	150	230/460	19.8	89.5	18.72
	1200	DF132M	**193311.60**	180	230/460	22.0	89.5	20.29
10-7.5	3600	DF132S	**193312.60**	163	230/460	24.0	89.5	18.72
	1800	DF132M	**193313.60**	174	230/460	26.2	89.5	20.29
	1200	DF160M	**193314.60**	251	230/460	27.2	89.5	23.64
15-11	3600	DF160M	**193315.60**	260	230/460	34.4	91.0	23.64
	1800	DF160M	**193316.60**	264	230/460	36.6	91.0	23.64
	1200	DF160L	**193317.60**	330	230/460	38.8	90.2	25.39

THREE PHASE • IP55 • 1.15 S.F.

HP-KW	SYN RPM 60 Hz	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
20-15	3600	DF160M	**193318.60**	269	230/460	47.0	91.0	23.64
	1800	DF160L	**193319.60**	311	230/460	47.6	91.7	25.41
	1200	DF180L	**193320.60**	385	230/460	51.4	90.2	27.97
25-18.5	3600	DF160L	**193321.60**	319	230/460	57.2	91.0	25.41
	1800	DF180M	**193322.60**	381	230/460	59.4	92.4	26.40
	1200	DF200L	**193323.60**	517	230/460	64.0	91.7	30.54
30-22	3600	DF180M	**193324.60**	355	230/460	68.8	91.0	26.40
	1800	DF180L	**193325.60**	427	230/460	71.0	93.0	27.97
	1200	DF200L	**193326.60**	467	230/460	76.0	91.7	30.54
40-30	3600	DF200L	**193327.60**	522	230/460	94.0	91.7	30.54
	1800	DF200L	**193328.60**	531	230/460	94.0	93.0	30.54
	1200	DF225M	**193329.60**	633	230/460	100.0	93.0	33.29
50-37	3600	DF200L	**193330.60**	546	230/460	117.0	92.4	30.54
	1800	DF225S	**193331.60**	632	230/460	118.0	93.0	32.31
	1200	DF250M	**193332.60**	655	230/460	120.0	93.0	36.61

METRIC (IEC) B5 FLANGE KITS

Includes parts to convert these B3 rigid mount motors to a B5 flange mounting. See kits on page 149.

METRIC (IEC) B14 FACE KITS

Includes parts to convert these B3 rigid mount motors to a B14 face mounting. See kits on page 150.

Imported OEM equipment can often have a flange face that is different from it's motor's frame size. LEESON now stocks metric (IEC) reduced diameter B14 flanges so you can put a 71 frame flange on an 80 frame motor for example. Flanges come pre-fitted with oil seals and have all the necessary hardware for easy field mounting.

Motor Frame	B14 Flange Frame	Catalogue Number
63	56	**175900.00**
71	63	**175901.00**
80	71	**175902.00**
90	80	**175903.00**

12-lead Delta windings (132MD frame and larger) for across-the-line or wye-delta starts.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

See Page 276 for metric IEC Motor Dimensions

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

NEMA Premium

B3/B5 FLANGE-MOUNTED METRIC MOTORS • 230/460V

Metric-dimensioned, AC motors meeting North American performance standards, including 1.15 service factor and Premium efficiencies. Motors have both B5 flange mounting and B3 base.

Typically used for replacement on machine tools, textile machinery and other equipment with metric dimensions but requiring the heavy-duty torque and performance characteristics of motors designed for use in North America.

IP55 weatherproof enclosures, 60/50 Hz interchangeability (60Hz 230/460V & 50Hz 200/400V), dual stamped nameplates, CE mark, and F3 conduit box location.

Motors are available in one of two frame constructions: aluminum or cast iron. Aluminum frame models are designated with a 192000 series catalog number; cast iron models are 193000 series.

THREE PHASE • IP55 • 1.15 S.F.

HP-KW	SYN RPM 60 Hz	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/4-0.18	3600	D63D	**192014.00**	10	230/460	0.8	72.0	8.54
	1800	D63D	**192015.00**	11	230/460	1.0	68.0	8.54
	1200	D71D	**192016.00**	12	230/460	1.2	64.0	9.45
1/3-0.25	3600	D63D	**192024.00**	11	230/460	1.1	72.0	8.54
	1800	D71D	**192025.00**	13	230/460	1.4	68.0	9.45
	1200	D80D	**192026.00**	17	230/460	1.3	70.0	11.10
1/2-0.37	3600	D71D	**192034.00**	13	230/460	1.6	74.0	9.45
	1800	D71D	**192035.00**	14	230/460	1.8	74.0	9.45
	1200	D80D	**192036.00**	19	230/460	1.9	72.0	11.10
3/4-0.55	3600	D71D	**192044.00**	15	230/460	2.4	74.0	9.45
	1800	D80D	**192045.00**	18	230/460	2.5	74.0	11.10
	1200	D80D	**192046.00**	22	230/460	2.7	72.0	11.10
1-0.75	3600	D80D	**192054.00**	21	230/460	2.8	75.5	11.10
	1800	D80D	**192055.00**	26	230/460	3.2	80.0	11.10
	1200	D90SD	**192201.00**	35	230/460	3.3	80.0	12.60
1 1/2-1.1	3600	D80D	**192064.00**	30	230/460	4.0	84.0	11.10
	1800	D90SD	**192203.00**	37	230/460	4.6	85.5	12.60
2-1.5	3600	D90SD	**192210.00**	33	230/460	5.2	85.5	12.60
	1800	D90LD	**192206.00**	38	230/460	5.8	84.0	12.60
	1200	DF100LD	**193333.60**	82	230/460	6.4	84.0	14.96
3-2.2	3600	D90LD	**192211.00**	39	230/460	7.2	86.5	12.60
	1800	DF100LD	**193334.60**	84	230/460	8.2	87.5	14.96
	1200	DF112MD	**193335.60**	100	230/460	9.6	87.5	15.75
4-3	3600	DF100LD	**193336.60**	71	230/460	10.0	87.5	14.96
	1800	DF100LD	**193337.60**	84	230/460	10.4	85.5	14.96
	1200	DF132SD	**193338.60**	154	230/460	13.4	87.5	18.70
5 1/2-4	3600	DF112MD	**193339.60**	104	230/460	13.6	87.5	15.75
	1800	DF112MD	**193340.60**	104	230/460	15.0	87.5	15.75
	1200	DF132MD	**193341.60**	176	230/460	17.6	87.5	20.28
7 1/2-5.5	3600	DF132SD	**193342.60**	152	230/460	18.4	88.5	18.70
	1800	DF132SD	**193343.60**	150	230/460	19.8	89.5	18.70
	1200	DF132MD	**193344.60**	180	230/460	22.0	89.5	20.28
10-7.5	3600	DF132SD	**193345.60**	163	230/460	24.0	89.5	18.70
	1800	DF132MD	**193346.60**	174	230/460	26.2	89.5	20.28
	1200	DF160MD	**193347.60**	251	230/460	27.2	89.5	23.62
15-11	3600	DF160MD	**193348.60**	260	230/460	34.4	91.0	23.62
	1800	DF160MD	**193349.60**	264	230/460	36.6	91.0	23.62
	1200	DF160LD	**193350.60**	330	230/460	38.8	90.2	25.39

Note: Aluminum motors have removable feet for round-body applications.

12-lead Delta windings (132MD frame and larger) for across-the-line or wye-delta starts.

THREE PHASE • IP55 • 1.15 S.F.

HP-KW	SYN RPM 60 Hz	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
20-15	3600	DF160MD	**193351.60**	269	230/460	47.0	91.0	23.62
	1800	DF160LD	**193352.60**	311	230/460	47.6	91.7	25.39
	1200	DF180LD	**193353.60**	385	230/460	51.4	90.2	27.95
25-18.5	3600	DF160LD	**193354.60**	319	230/460	57.2	91.0	25.39
	1800	DF180MD	**193355.60**	381	230/460	59.4	92.4	26.38
30-22	3600	DF180MD	**193356.60**	355	230/460	68.0	91.0	26.38
	1800	DF180LD	**193357.60**	427	230/460	71.0	93.0	27.95

Larger HP B3 Foot-Mounted metric motors on page 148 can be converted to B3/B5 Flange-Mount by installing B5 Flange Kits.

METRIC (IEC) B5 FLANGE KITS

Includes parts to convert a B3 rigid mount motor (page 73) to B5 flange mounting.

For Aluminum Frame Motors Only (192000 Series)

	63 Frame		71 Frame		80 Frame		90 Frame	
	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)
(B5) Flange	**175850.00**	1	**175852.00**	1	**175854.00**	2	**175856.00**	2

For Cast Iron Frame Motors Only (193000 Series)

These kits are for use only on IEC cast iron motors - Premium Efficient.

	100 Frame		112 Frame		132 Frame		160 Frame		180 Frame	
	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)
(B5) Flange	**175810.60**	13	**175811.60**	16	**175812.60**	20	**175990.60**	36	**175890.60**	43

	200 Frame		225 Frame	
	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)
(B5) Flange	**175994.60**	58	**175995.60**	73

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

AC METRIC (IEC) MOTORS

THREE PHASE • RIGID BASE WITH FACE

NEMA Premium®

B3/B14 FACE-MOUNTED METRIC MOTORS • 230/460V

Metric-dimensioned, AC motors meeting North American performance standards, including 1.15 service factor and EPACT efficiencies. These motors have both B14 face mounting and B3 base.

Typically used for replacement on machine tools, textile machinery and other equipment with metric dimensions but requiring the heavy-duty torque and performance characteristics of motors designed for use in North America.

IP55 weatherproof enclosures, 60/50 Hz interchangeability (60Hz 230/460V & 50Hz 200/400V), dual stamped nameplates, CE mark, and F3 conduit box location.

Motors are available in one of two frame constructions: aluminum or cast iron. Aluminum frame models are designated with a 192000 series catalog number; cast iron models are 193000 series.

THREE PHASE • IP55 • 1.15 S.F.

HP-KW	SYN RPM 60 Hz	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/4-0.18	3600	D63C	**192017.00**	10	230/460	0.8	72.0	8.55
	1800	D63C	**192018.00**	11	230/460	1.0	68.0	8.55
	1200	D71C	**192019.00**	12	230/460	1.2	64.0	9.46
1/3-0.25	3600	D63C	**192027.00**	11	230/460	1.1	72.0	8.55
	1800	D71C	**192028.00**	13	230/460	1.4	68.0	9.46
	1200	D80C	**192029.00**	17	230/460	1.3	70.0	11.11
1/2-0.37	3600	D71C	**192037.00**	13	230/460	1.6	74.0	9.46
	1800	D71C	**192038.00**	14	230/460	1.8	74.0	9.46
	1200	D80C	**192039.00**	19	230/460	1.9	72.0	11.11
3/4-0.55	3600	D71C	**192047.00**	15	230/460	2.4	74.0	9.46
	1800	D80C	**192048.00**	18	230/460	2.5	74.0	11.11
	1200	D80C	**192049.00**	22	230/460	2.7	72.0	11.11
1-0.75	3600	D80C	**192057.00**	21	230/460	2.8	75.5	11.11
	1800	D80C	**192058.00**	26	230/460	3.2	80.0	11.11
	1200	D90SC	**192212.00**	35	230/460	3.3	80.0	12.60
1 1/2-1.1	3600	D80C	**192067.00**	27	230/460	4.0	84.0	11.11
	1800	D90SC	**192204.00**	37	230/460	4.6	85.5	12.61
2-1.5	3600	D90SC	**192213.00**	33	230/460	5.2	85.5	12.61
	1800	D90LC	**192207.00**	38	230/460	5.8	84.0	12.61
	1200	DF100LC	**193358.60**	82	230/460	6.4	84.0	14.97
3-2.2	3600	D90LC	**192214.00**	39	230/460	7.2	86.5	12.61
	1800	DF100LC	**193359.60**	84	230/460	8.2	87.5	14.97
	1200	DF112MC	**193360.60**	84	230/460	9.6	87.5	15.76
4-3	3600	DF100LC	**193361.60**	71	230/460	10.0	87.5	14.97
	1800	DF100LC	**193362.60**	84	230/460	10.4	85.5	14.97
	1200	DF132SC	**193363.60**	154	230/460	13.4	87.5	18.72
5 1/2-4	3600	DF112MC	**193364.60**	104	230/460	13.6	87.5	15.76
	1800	DF112MC	**193365.60**	104	230/460	15.0	87.5	15.76
	1200	DF132MC	**193366.60**	176	230/460	17.6	87.5	20.29
7 1/2-5.5	3600	DF132SC	**193367.60**	152	230/460	18.4	88.5	18.72
	1800	DF132SC	**193368.60**	150	230/460	19.8	89.5	18.72
	1200	DF132MC	**193369.60**	180	230/460	22.0	89.5	20.29
10-7.5	3600	DF132SC	**193370.60**	163	230/460	24.0	89.5	18.72
	1800	DF132MC	**193371.60**	174	230/460	26.2	89.5	20.29
	1200	DF160MC	**193372.60**	251	230/460	27.2	89.5	23.64
15-11	3600	DF160MC	**193373.60**	260	230/460	34.4	91.0	23.64
	1800	DF160MC	**193374.60**	264	230/460	36.6	91.0	23.64
	1200	DF160LC	**193375.60**	330	230/460	38.8	90.2	25.41

Note: Aluminum motors have removable feet for round-body applications.

12-lead Delta windings (132MD frame and larger) for across-the-line or wye-delta starts.

THREE PHASE • IP55 • 1.15 S.F.

HP-KW	SYN RPM 60 Hz	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
20-15	3600	DF160MC	**193376.60**	269	230/460	47.0	91.0	23.64
	1800	DF160LC	**193377.60**	311	230/460	47.6	91.7	25.41
25-18.5	3600	DF160LC	**193378.60**	319	230/460	57.2	91.0	25.41

Larger HP B3 Foot-Mounted metric motors on page 148 can be converted to B3/B14 Flange-Mount by installing B14 Face Kits

Includes parts to convert a B3 rigid mount motor (page 148) to B14 face mounting.

For Aluminum Frame Motors Only (192000 Series)

	63 Frame		71 Frame		80 Frame		90 Frame	
	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)
(B14) Face	**175851.00**	1	**175853.00**	1	**175855.00**	1	**175857.00**	1

For Cast Iron Frame Motors Only (193000 Series)

These kits are for use only on IEC cast iron motors - Premium Efficient.

	100 Frame		112 Frame		132 Frame		160 Frame	
	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)	Cat. No.	App. Wgt. (lbs.)
(B14) Face②	**175817.60**	8	**175818.60**	8	**175819.60**	12	**175991.60**	25

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

All three phase motors, 1 HP and above, are inverter rated.

Specifications are subject to change without notice

B3 FOOT-MOUNTED METRIC MOTORS • 575 VOLT

Metric-dimensioned, AC motors meeting North American performance standards, including 1.15 service factor and Premium efficiencies. For replacement use on machine tools, textile machinery and other equipment with metric dimensions but requiring the heavy-duty torque and performance characteristics of motors designed for use in North America.

IP55 weatherproof enclosures, stamped nameplates, CE mark, and F3 conduit box location. Kits are available for field conversion from B3 to B3/B5 or B3/B14. See pages 149 & 150 for details.

Motors are available in one of two frame constructions: aluminum or cast iron. Aluminum frame models are designated with a 192000 series catalog number; cast iron models are 193000 series.

THREE PHASE • IP55 • 1.15 S.F.

HP-KW	SYN RPM 60 Hz	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 575V	% F.L. Eff.	"C" Dim. (in.)
1/4-0.18	3600	D63	**192088.00**	10	575	0.3	72.0	8.54
	1800	D63	**192089.00**	11	575	0.4	68.0	8.54
1/3-0.25	3600	D63	**192097.00**	11	575	0.4	74.0	8.54
	1800	D71	**192098.00**	13	575	0.6	67.0	9.45
1/2-0.37	3600	D71	**192106.00**	13	575	0.7	74.0	9.45
	1800	D71	**192107.00**	14	575	0.7	74.0	9.45
3/4-0.56	3600	D71	**192115.00**	15	575	0.9	74.0	9.45
	1800	D80	**192116.00**	18	575	1.0	73.0	11.10
1-0.75	3600	D80	**192124.00**	21	575	1.1	75.5	11.10
	1800	D80	**192125.00**	26	575	1.4	82.5	11.10
1 1/2-1.1	3600	D80	**192133.00**	27	575	1.6	82.5	11.10
	1800	D90S	**192230.00**	37	575	1.8	86.5	13.10
2-1.5	3600	D90S	**192231.00**	33	575	2.1	86.5	13.10
	1800	D90L	**192232.00**	38	575	2.4	85.5	13.10
3-2.2	3600	D90L	**192233.00**	39	575	2.9	86.5	13.10
	1800	DF100L	**193379.60**	84	575	3.5	87.5	14.96
4-3	3600	DF100L	**193380.60**	71	575	4.0	87.5	14.96
	1800	DF100L	**193381.60**	84	575	4.2	87.5	14.96
5 1/2-4	3600	DF112M	**193382.60**	104	575	5.0	87.5	15.75
	1800	DF112M	**193383.60**	104	575	5.4	87.5	15.75
7 1/2-5.5	3600	DF132S	**193384.60**	152	575	7.2	88.5	18.70
	1800	DF132S	**193385.60**	150	575	7.9	89.5	18.70
10-7.5	3600	DF132S	**193386.60**	163	575	9.6	89.5	18.70
	1800	DF132M	**193387.60**	174	575	10.5	89.5	20.28
15-11	3600	DF160M	**193388.60**	260	575	13.8	90.2	23.62
	1800	DF160M	**193389.60**	264	575	14.6	91.0	23.62

THREE PHASE • IP55 • 1.15 S.F.

HP-KW	SYN RPM 60 Hz	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 575V	% F.L. Eff.	"C" Dim. (in.)
20-15	3600	DF160M	**193390.60**	269	575	18.8	90.2	23.62
	1800	DF160L	**193391.60**	311	575	19.0	91.0	25.39
25-18.5	3600	DF160L	**193392.60**	319	575	22.9	91.0	25.39
	1800	DF180M	**193393.60**	381	575	23.8	92.4	26.38
30-22	3600	DF180M	**193394.60**	355	575	27.5	91.0	26.38
	1800	DF180L	**193395.60**	427	575	28.4	92.4	27.95
40-30	3600	DF200L	**193396.60**	522	575	38.4	91.7	30.51
	1800	DF200L	**193397.60**	531	575	37.6	93.0	30.51
50-37	3600	DF200L	**193398.60**	546	575	46.8	92.4	30.51
	1800	DF225S	**193399.60**	632	575	47.2	93.0	33.26

METRIC (IEC) B5 FLANGE KITS

Includes parts to convert these B3 rigid mount motors to a B5 flange mounting. See kits on page 149.

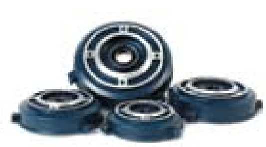
METRIC (IEC) B14 FACE KITS

Includes parts to convert these B3 rigid mount motors to a B14 face mounting. See kits on page 150.

REDUCED DIAMETER METRIC FLANGES

Imported OEM equipment can often have a flange face that is different from it's motor's frame size. LEESON now stocks metric (IEC) reduced diameter B14 flanges so you can put a 71 frame flange on an 80 frame motor for example. Flanges come pre-fitted with oil seals and have all the necessary hardware for easy field mounting.

Motor Frame	B14 Flange Frame	Catalog Number
63	56	**175900.00**
71	63	**175901.00**
80	71	**175902.00**
90	80	**175903.00**



12-lead Delta windings (132MD frame and larger) for across-the-line or wye-delta starts.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

See page 276 for metric IEC Motor Dimensions

All three phase motors, 1 HP and above, are inverter rated.

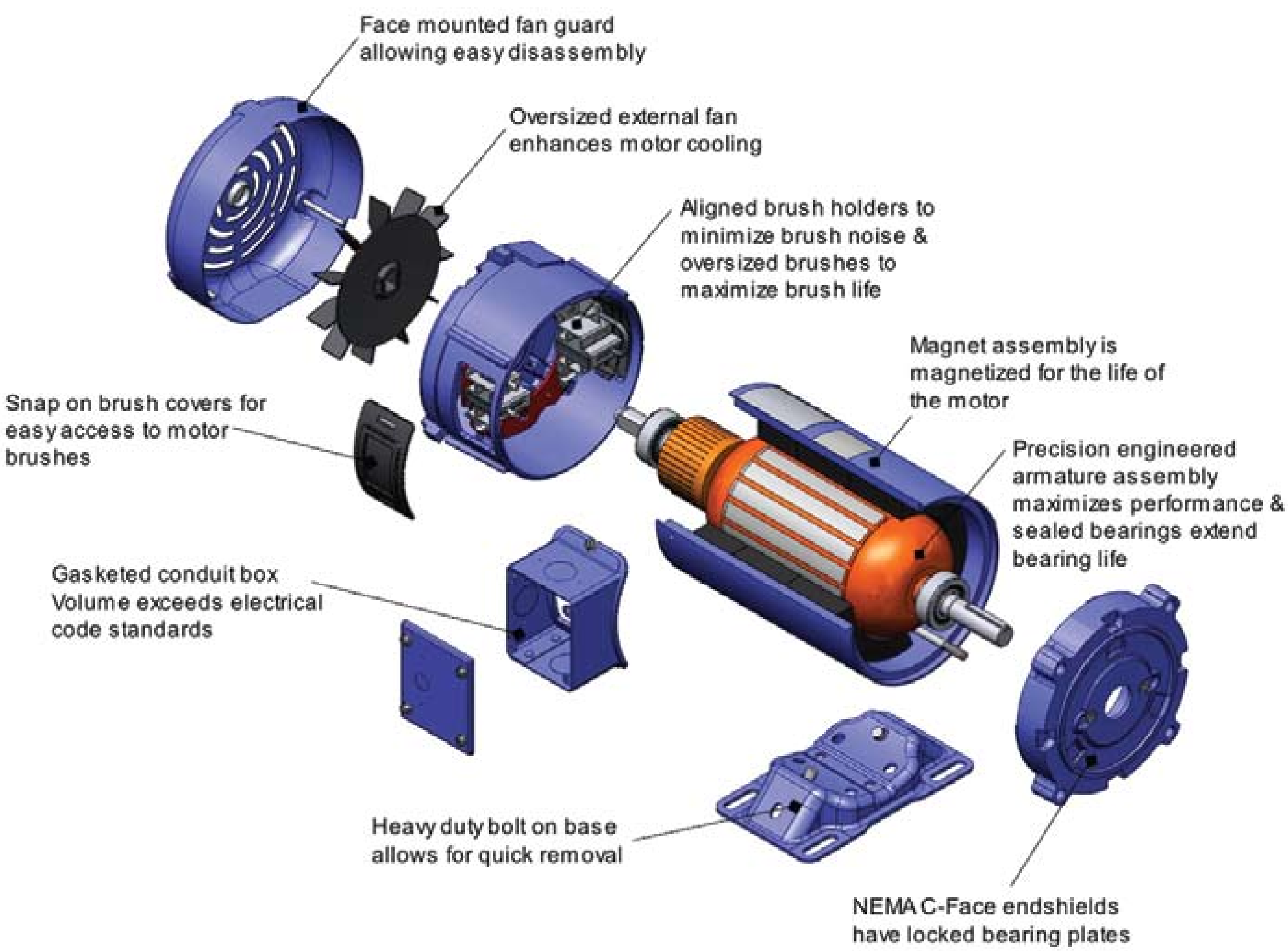
NEMA DC MOTORS

General Specifications:

High Voltage permanent magnet DC motors are typically used with an SCR controller in applications requiring adjustable speed and constant torque throughout the speed range. They are widely used in applications requiring dynamic braking or adjustable speed/ reversing capabilities, which include: Pumps, Conveyors, Turntables, Textile Machinery, Reeling Equipment, Medical Equipment, Treadmills, etc…

Mechanical/ Electrical Features:

- Brush holder design provides easy access to brushes
- Large oversized brushes assure long brush life
- Removable Bolt-on base
- NEMA C-face designs
- 115 or 230 volt input power ratings – 90 / 180 volt output
- Capable of Dynamic braking
- PWM or SCR type controller rated
- High Starting Torque
- Permanently lubricated sealed bearings
- LEESON SCR Controls available to power motors
- High starting torque
- Higher HP and Speed achievable using PWM type DC Controls
- UL and CSA Listed
- Meets NEMA MG1 Standards
- Dynamically Balanced Armatures
- 30:1 Constant Torque Operation



TACHOMETER MOUNTING KITS FOR DC MOTORS

All necessary parts to mount listed tachometers to stock TEFC SCR motors. Consists of machined cast fan cover, coupling and hardware. Does not include tachometer. Tach adapter kit is not suitable for catalog number 108502.

Tachometer Type	NEMA Frame	IEC Frame	Catalog Number	App. Wt.(lbs.)
GE 5PY Series	SS56	71	**175156.00**	5
	56/145	—	**175158.00**	5
Servo-tek	SS56	71	**175157.00**	8
SA740 Series	56/145	—	**175159.00**	8

MODIFICATION KITS

Motors with S56C or SS56C frame sizes may be converted to 42/48 C face using the following:

Frame	Catalog No.
SS56C	**175182.00**
S56C	**175082.00**◇
	175802.00◇✖

DC motors in NEMA S56C frame may be converted to 48 base using the following:

Frame	Catalog No.
S56C	**175080.00**◇

TEFC • SCR RATED 90 & 180 VOLTS NEMA 56C • C FACE WITH REMOVABLE BASE$^{\Sigma}$

HP	Full Load RPM	NEMA Frame❑	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC	"C" Dim. (Inches)
1/4	1800	SS56C	**098002.00**	19	90	115	2.5	10.81
	1800	SS56C	**098003.00**	22	180	230	1.4	11.31
1/3	1800	SS56C	**098004.00**	23	90	115	3.5	11.31
	1800	SS56C	**098005.00**	23	180	230	1.7	11.31
	1200	S56C	**109098.00**	32	90	115	3.5	12.81
1/2	3600	SS56C	**098006.00**	22	90	115	5.0	10.81
	3600	SS56C	**098007.00**	22	180	230	2.5	10.81
	1800	SS56C	**098000.00**	26	90	115	5.0	11.81
	1800	S56C	**108014.00**	29	90	115	5.0	12.82
	1800	SS56C	**098008.00**	25	180	230	2.5	11.81
	1800	S56C	**108015.00**	30	180	230	2.5	12.82
	1200	S56C	**109099.00**	40	90	115	5.0	14.32
3/4	3600	SS56C	**098009.00**	26	90	115	7.6	11.81
	3600	S56C	**108016.00**	29	90	115	7.6	12.82
	3600	SS56C	**098010.00**	25	180	230	3.8	11.81
	3600	S56C	**108017.00**	29	180	230	3.8	12.82
	1800	SS56C	**098032.00**	36	90	115	7.6	13.81
	1800	S56C	**108018.00**	38	90	115	7.6	13.82
	1800	SS56C	**098069.00**	36	180	230	3.8	13.81
	1800	S56C	**108019.00**	35	180	230	3.8	13.82
	1200	S56C	**109100.00**	49	90	115	7.5	15.82
1	3600	S56C	**108020.00**	34	90	115	10.0	13.32
	3600	S56C	**108021.00**	38	180	230	5.0	13.82
	1800	S56C	**108022.00**	47	90	115	10.0	14.82
	1800	S56C	**108023.00**	39	180	230	5.0	14.81
	1200	145TC	**128023.00**	82	90	115	11.0	18.84
1½	3600	S56C	**108265.00**	43	180	230	7.5	15.32
	1800	S56C	**108092.00**	53	180	230	7.6	16.82
	1800	S56/145TC	**108262.00**■	54	180	230	7.6	17.39
	1800	145TC	**128000.00**	70	180	230	7.5	18.34
2	3600	S56/145TC	**108266.00**■	51	180	230	8.6	17.89
	1800	145TC	**128010.00**	83	180	230	9.5	19.34
	1800	182/145TC	**128001.00**◀	84	180	230	9.5	19.34
3	1800	182/145TC	**108502.00**◀	88	180	230	14.0	21.75

Σ If base is removed, do not reinstall bolts without using washers to compensate for thickness of base.
◀ NEMA 145TC face mounting with removable NEMA 182T rigid base.
■ NEMA 145TC frame shaft $^{7}/_{8}$" x $2^{1}/_{4}$" and NEMA 56 removable base.
❑ SS56C motors have a 4.88 inch diameter frame.
S56C motors have a 5.61 inch diameter frame.

TEFC • SCR RATED 90 & 180 VOLTS NEMA 56C • C FACE LESS BASE*

HP	Full Load RPM	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC	"C" Dim. (Inches)
1/4	1800	SS56C	**098377.00**	19	90	115	2.5	10.81
1/3	1800	SS56C	**098378.00**	23	90	115	3.5	11.31
1/2	1800	SS56C	**098379.00**	29	90	115	5.0	11.81
3/4	1800	SS56C	**098380.00**	38	90	115	7.6	13.81
1	1800	S56C	**109096.00**	47	90	115	10.0	14.82
	1800	S56C	**109097.00**	39	180	230	5.0	14.82

* No tapped holes provided for attaching a bolt-on base.

◇ Addition of base kit will result in non-NEMA BA dimension of $2^{3}/_{4}$". Addition of C face kit will result in conduit box located at 1 o'clock facing lead end.

✖ For endshield mounted brush cover motors

NEMA FRAME • EXPLOSION-PROOF

FOR HAZARDOUS LOCATIONS

General Specifications:

These explosion-proof motors are designed and approved for application in hazardous environments having certain explosive gases or materials present.

Features:

Rugged mechanical construction meeting all requirements for safety. UL and CSA listed. NEMA 56C face with removable 56 frame base. Leads exit through ¾"-14NPT pipe-nipple in the top of the motor frame, opposite the shaft end. **Conduit box is not provided.** See optional conduit box below. These motors have pilot-duty thermostats as standard that must be connected to the SCR control. They are rated for continuous duty with full wave SCR (thyristor) controls. Double-shielded, pre-lubricated ball bearings are standard. Easy brush access for field service. These motors are UL and CSA listed.

Application Notes:

These motors must be applied in accordance with the National Electrical Code, Article #500. For a listing of explosive agents, consult NFPA Publication 497M.

EXPLOSION-PROOF • CLASS I, GROUPS C & D – CLASS II, GROUPS F & G • SCR RATED 90 & 180V C FACE WITH REMOVABLE BASE

HP	Full Load RPM	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC	"C" Dim. (Inches)
1/3	1800	S56C	**118015.00**	27	90	115	3.5	13.41
1/2	1800	S56C	**118016.00**	30	90	115	4.7	14.41
	1800	S56C	**118017.00**	32	180	230	2.5	14.41
3/4	1800	S56C	**118018.00**	40	90	115	7.1	16.41
	1800	S56C	**118019.00**	36	180	230	3.3	16.41

EXPLOSION-PROOF CONDUIT BOX

UL and CSA listed for Class I, Group C & D, and Class II, Groups F & G locations. Has grounding screw and all hardware provided. Mounts to motor by 3/4"-14NPT opening at rear of box. For NEMA 56 frame motors only.

Catalog Number	App. Wgt. (lbs.)
175026.00	2

NEMA FRAME • WASHGUARD

LEESON WASHGUARD motors are designed for extended life in applications requiring regular washdown as in food processing, or otherwise wet, high humidity environments. WASHGUARD motors retard the entrance of water during cleaning operations and release any water that does enter the motor. Extra protection for the motor's interior prevents rust and corrosion build-up and drains release trapped moisture to insure a longer life than possible with a standard motor.

Mechanical Protection Features:

High quality, corrosion resistant *303 stainless steel* shaft plus lubricated spring-loaded contact seals and patented "V" ring Forsheda seal deflect water, protect bearings and the motor's interior. Double sealed, oversized bearings with high temperature moisture resistant lubricant are used.

Frame, base, endshields, armature and interior components protected by enamel and polyester compounds of outstanding adhesion and resistance to moisture, acids, alkalies and oil.

Cast conduit box with threaded entrance, drain holes and tough, high temperature Nitrile gaskets keep water out and resist deflection under high pressure washdowns. Conduit box cover and fan cover, when used, are type 304 stainless steel.

Four drains in *each* endshield at 3,6,9,and 12 o'clock purge water, and can be repositioned for maximum effectiveness regardless of the motor's mounting. Machined fits are sealed, and nylon gaskets are used to seal bolt heads. Stainless steel data plate.

Chemically inert static free fan is positively positioned on the shaft by opposing flats, shoulder and snap ring arrangement and protected by heavy gauge, stainless steel fan guards. Finished in USDA approved tough white epoxy for superior corrosion resistance and protection against harsh caustic cleaning solutions.

WASHGUARD • NEMA C FACE • REMOVABLE BASE TENV • SCR RATED 90 & 180 VOLTS

HP	Full Load RPM	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC	"C" Dim. (Inches)
1/4	1800	S56C	**108423.00**	23	90	115	2.7	10.67
	1800	SS56C	**098375.00**	21	180	230	1.4	10.22
1/3	1800	S56C	**108424.00**	26	90	115	3.5	11.67
	1800	SS56C	**098376.00**	22	180	230	1.7	10.22
1/2	1800	S56C	**108226.00**	38	90	115	4.9	13.17
	1800	S56C	**108227.00**	43	180	230	2.4	13.67
3/4	1800	S56C	**108228.00**	53	90	115	7.0	14.67
	1800	S56C	**108229.00**	50	180	230	3.5	14.17
1	1800	S56C	**108230.00****	45	90	115	10.0	14.82
	1800	S56C	**108231.00****	42	180	230	5.0	14.82
1½	1800	S56C	**108232.00****	50	180	230	7.6	16.82

WASHGUARD • IEC FRAME • TENV IP55 B5 FLANGE WITH REMOVABLE B3 BASE⑦ ▲ SCR RATED 180 VOLTS

Rated HP	Output kW	Full Load RPM	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	F.L. Amps DC	"C" Dim. (Inches)
1/2	.37	1800	71	**098040.00 A**	22	180	2.5	10.69
3/4	.55	1800	80	**108407.00 A**	52	180	3.5	16.02

** These motors are totally enclosed fan cooled.

⑦ If base is removed, do not reinstall bolts without using washers to compensate for the thickness of base.

▲ These WASHGUARD motors are modular design but stocked with B5 flange and B3 foot. The foot is removable. The B5 flange can be replaced with a B14 face or other diameter B5 flanges noted on page 157.

A Subject to Availability.

Specifications are subject to change without notice

SUB-FHP MOTORS

General Specifications:
Precision subfractional horsepower DC permanent magnet motors designed for use with full wave non-filtered SCR controls for adjustable speed applications requiring dynamic braking and constant torque throughout the speed range.


31/34 Frame

Mechanical Features:
Compact space saving designs. Ball bearings. Long-life brushes for demanding applications. Brushes easily replaced without disassembly of the motor. Standard mounted conduit box on 31 and 34 frame models simplifies connections.


25 Frame

Electrical Features:
Continuous duty with full wave un-filtered rectified SCR (thyristor) controls. Linear speed torque characteristics throughout the speed range. High starting torques. Reversible rotation from a simple two lead connection.

SUB-FHP IP55 WASHGUARD MOTORS

General Specifications:
Precision subfractional horsepower DC permanent magnet motors. Designed for use with fullwave non-filtered SCR controls or battery supplied low voltage for adjustable speed applications requiring constant torque throughout the speed range.

Mechanical Features:
Corrosion resistant 303 stainless steel. Shaft with spring-loaded contact shaft seal protect the double sealed ball bearings and motor interior.

Frame, endshields, armature and interior components protected by enamel and polyester compounds for resistance to moisture, acids, alkalies and oil.

Cast conduit box with threaded conduit holes and Nitrile gaskets keep water out. The conduit box cover is made from 304 stainless steel.

For any condensation that may accumalte inside the motor a one-way stainless steel vapor vent is provided. All hardware is stainless steel. Motor painted with white epoxy for superior corrosion resistance and protection. Gaskets seal conduit box to motor frame and conduit box cover. Thru-bolt heads and nuts sealed with fiber washers. O-rings under each threaded brush cover.

Application Notes:
LEESON WASHGUARD motors are designed for extended life in applications requiring regular washdown or otherwise wet environments. Washguard motors retard the entrance of water. Extra protection for the motor's interior prevents rust and corrosion build-up and releases trapped moisture to insure a longer life than possible with a standard motor.

Dimensions:
Found on page 283.

SCR RATED (90 & 180 V) • TENV • SQUARE FLANGE OR C FACE

HP	Full Load RPM	Frame	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC
1/25	3600	25AS	**M1110014.00**Ⓑ	3	90	115	0.5
	1800	25CS	**M1110003.00**Ⓑ	3	90	115	0.5
1/15	3600	25CS	**M1110015.00**Ⓑ	5	90	115	0.7
	1800	31BS	**M1120013.00**	5	90	115	0.8
	1800	31BS	**M1120039.00**	7	180	230	0.4
1/10	3600	31BS	**M1120060.00**	5	90	115	1.3
	1800	31CS	**M1120014.00**	7	90	115	1.1
	1800	31CS	**M1120041.00**	7	180	230	0.6
1/8	3600	31CS	**M1120059.00**	6	90	115	1.5
	1800	31ES	**M1120027.00**	7	90	115	1.3
	1800	31ES	**M1120045.00**	7	180	230	0.7
	1800	34D42CZ	**M1130053.00**	8	90	115	1.4
	1800	34D42CZ	**M1130118.00**	7	180	230	0.7
1/6	3600	31ES	**M1120058.00**	9	90	115	1.9
	1800	31GS	**M1120042.00**	9	90	115	1.8
	1800	31GS	**M1120043.00**	11	180	230	0.9
	1800	34E56C	**M1130054.00**	11	90	115	1.7
	1800	34E56C	**M1130119.00**	11	180	230	0.9
1/4	3600	31GS	**M1120062.00**	9	90	115	2.6
	1800	34G56C	**M1130055.00****	13	90	115	2.7
	1800	34G56C	**M1130120.00****	13	180	230	1.3

Ⓑ 25 frame motors have provisions for an optional conduit box catalog number M1760000, see page 179.
** These motors are totally enclosed fan cooled.

SCR RATED (90 V) • TENV • SQUARE FLANGE OR C FACE

HP	Full Load RPM	Frame	Catalog Number	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC
1/8	1800	31S	**M1120181.00**	90	115	1.5
1/6	1800	31S	**M1120183.00**	90	115	1.9
1/4	3600	32F42CZ	**M1120185.00**	90	115	1.9

LOW VOLTAGE (12 V) • TENV SQUARE FLANGE OR C FACE

HP	Full Load RPM	Frame	Catalog Number	Arm. Volts DC	F.L. Amps DC
1/8	1800	31S	**M1120182.00**	12	10.5
1/6	1800	31S	**M1120184.00**	12	14.5
1/4	3600	32F42CZ	**M1120186.00**	12	20

DC METRIC (IEC) FRAME MOTORS IP54


B5 IEC 56 & 63

General Specifications:

These metric dimensioned motors are built to IEC 34-1 electrical and mechanical standards.

The IEC 63 and smaller frames are stocked with an integral B5 flange or B14 face less base. An optional B3 rigid base kit is available.

A unique modular approach for IEC 71 frame and larger allows the motor to be field modified to B3 rigid base mounted construction, B5 flange mounted or B14 face mounted construction using conversion kits. Please note that one or more of the mounting kits must be used with IEC motors of these frame sizes. See listing on next page for B5 flange and B14 face kits. B3 rigid base kits are listed below.


B14 IEC 56 & 63

Electrical & Mechanical Features:

A terminal board is provided for connections. All fasteners are metric. Electrical and mechanical features are the same as listed for the NEMA frame motors on the opposite page. Tachometer mounting kits are available for 71 and 80 frames only.

B3 FOOT MOUNTING KITS

(For DC Metric Motors Only)

All motors are stocked with provisions to accommodate B3 foot mountings with the packages noted below.

IEC Frame	Catalog Number
56	**175142.00**
63	**175143.00**
71	**175144.00**
80 80	**175145.00** **175784.00** ①
90	**175146.00**

① Use with 108 series motors having brush covers in endshield.

TOTALLY ENCLOSED • SCR RATED 180 VOLTS✣ WITH B5 FLANGE

KW/HP	Full Load RPM	IEC Frame	Catalog Number	App. Wgt. (lbs.)	F.L. Amps DC	"C" Dim. Inches (mm)
0.06/$^{1}/_{12}$	1800	56	**M1130146.00● A**	8	0.5	6.24 (158.6)
0.09/$^{1}/_{8}$	3000	56	**M1130150.00● A**	9	0.7	6.74 (171.3)
	1800	56	**M1130147.00● A**	10	0.7	7.55 (191.7)
0.12/$^{1}/_{6}$	3000	56	**M1130151.00● A**	9	0.9	7.55 (191.7)
	1800	63	**M1130148.00 A**	7	0.9	8.30 (210.8)
0.18/$^{1}/_{4}$	3000	63	**M1130152.00● A**	11	1.3	8.78 (223.1)
	1800	63	**M1130149.00**	13	1.3	9.50 (241.3)
0.25/$^{1}/_{3}$	3000	63	**M1130153.00**	11	1.7	9.50 (241.3)

These motors have accommodations for B3 base mountings with the kits below.

TOTALLY ENCLOSED • SCR RATED 180 VOLTS✣ WITH B14 FACE

KW/HP	Full Load RPM	IEC Frame	Catalog Number	App. Wgt. (lbs.)	F.L. Amps DC	"C" Dim. Inches (mm)
0.06/$^{1}/_{12}$	3000	56	**M1110024.00● A**	6	0.4	6.34 (177.0)
	1800	56	**M1130136.00●**	8	0.5	6.24 (158.6)
0.09/$^{1}/_{8}$	3000	56	**M1130140.00●**	9	0.7	6.74 (171.3)
	1800	56	**M1130137.00●**	14	0.7	7.55 (191.7)
0.12/$^{1}/_{6}$	3000	56	**M1130141.00●**	10	0.9	7.55 (191.7)
	1800	63	**M1130138.00**	8	0.9	8.30 (210.8)
0.18/$^{1}/_{4}$	3000	63	**M1130142.00●**	10	1.3	8.78 (223.1)
	1800	63	**M1130139.00**	10	1.3	9.50 (241.3)
0.25/$^{1}/_{3}$	3000	63	**M1130143.00**	10	1.7	9.50 (241.3)

Except for M1110024, these motors have accommodations for B3 base mountings with the kits below.

TEFC • SCR RATED 180 VOLTS✣ • ROUND BODY

KW/HP	Full Load RPM	IEC Frame	Catalog Number	App. Wgt. (lbs.)	F.L. Amps DC	"C" Dim. Inches (mm)
0.25/$^{1}/_{3}$	1800	71	**098014.00**	23	1.7	11.28 (286.5)
0.37/$^{1}/_{2}$	3000	71	**098016.00**	21	2.5	10.78 (273.8)
	1800	71	**098015.00**	26	2.5	11.78 (299.2)
0.55/$^{3}/_{4}$	3000	71	**098017.00**	24	3.6	11.78 (299.2)
	1800	80	**108369.00**	34	3.5	14.64 (371.9)
0.75/1	3000	80	**108372.00**	45	4.9	14.64 (371.9)
	1800	80	**108370.00**	48	4.6	17.14 (435.4)
1.1/1$^{1}/_{2}$	3000	80	**108373.00**	47	7.1	16.14 (410.0)
	1800 1800	80 90L	**108371.00** **118007.00 A**	52 64	7.0 7.5	17.14 (435.4) 18.97 (481.8)
1.5/2	3000	90L	**118009.00 A**	72	10.0	18.47 (469.1)
	1800	90L	**118008.00**	84	9.5	20.47 (519.9)
2.2/3	3000	90L	**118010.00**	82	16.0	19.47 (494.5)
	1800	112M	**118014.00**	90	14.0	21.79 (553.5)

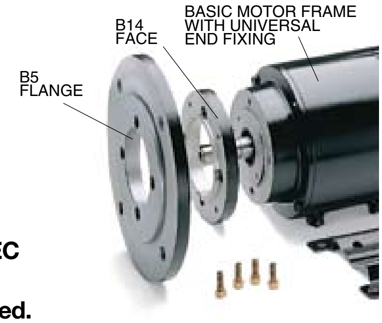
IMPORTANT: These round body motors require either a B3 rigid base, B14 face or B5 flange kit. Catalog number 118014 comes complete with IEC 112 B14 face and B3 foot; shaft diameter is 24mm.

✣ For 230 VAC input controls.
● These motors are totally enclosed, non-ventilated. Other ratings utilize IC41 cooling—external cooling fan on motor shaft.
A Subject to Availability.

FLANGE AND FACE KITS FOR DC METRIC (IEC) FRAME MOTORS

An advantage of LEESON'S modular design concept is the possible use of a different diameter B5 flange or B14 face than is normally assigned to a motor by IEC dimensional standards. This flexibility makes it possible to accommodate a wide variety of gear reducers, pumps and similar close coupled motor mounted loads.

Round body DC Metric IEC motors will accept any of the flange or face kits listed.



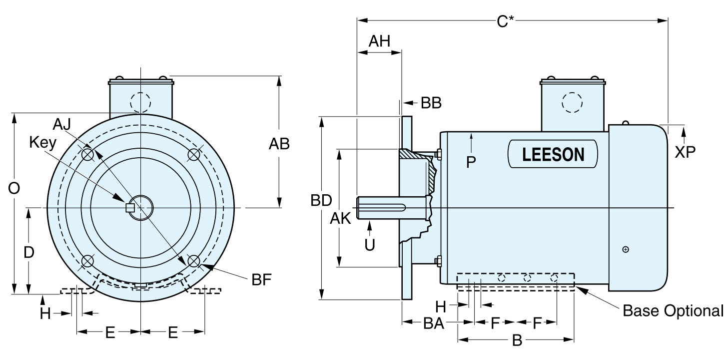
B5 FLANGE KITS (For DC Metric Motors Only)

IEC Frame	Catalog Number	App. Wgt. (lbs.)	BD Flange Dia. (mm)	AK Register (mm)	BF Hole (mm)	AJ Bolt Circle (mm)
71	**175106.00**	2	160	110	9	130
80	**175108.00**	3	200	130	12	165
90S/90L	**175108.00**	3	200	130	12	165
100L/112M	**175137.00**	5	250	180	15	215

B14 FACE KITS (For DC Metric Motors Only)

IEC Frame	Catalog Number	App. Wgt. (lbs.)	BD Flange Dia. (mm)	AK Register (mm)	BF Tap (mm)	AJ Bolt Circle (mm)
71	**175107.00**	1	105	70	6	85
80	**175109.00**	1	120	80	6	100
90S/90L	**175129.00**	1	140	95	6	115
100L/112M	**175130.00**	2	160	110	6	130

CONDENSED DIMENSIONS • DC METRIC (IEC) FRAME MOTORS



*For overall length, see motor listing.

IEC FRAME DIMENSIONS (Millimeters)

IEC Frame	Mounting					Shaft						B14 Face/B5 Flange					General			
	2E	2F	BA	D	H	U	AH✧	KEY	S	R	TAP	AJ	AK	BD	BF	BB	AB	XP	B	O
56	90	71	36	56	6	9	20	15	3	7.0	M3	65 / 100	50 / 80	80 / 120	M5 / 7	2.5 / 2.5	83	96	90	99
63	100	80	40	63	7	11	23	19	4	9.0	M4	75 / 115	60 / 95	90 / 140	M5 / 9	2.5 / 3.0	116	96	96	108
71	112	90	45	71	7	14	30	26	5	11.5	M5	85 / 130	70 / 110	105 / 160	M6 / 9	2.5 / 3.5	114	130	105	132
80	125	100	50	80	10	19	40	33	6	16.0	M6	100 / 165	80 / 130	120 / 200	M6 / 12	3.0 / 3.5	124	149	127	151
90S	140	100	56	90	10	24	50	36	8	20.5	M8	115 / 165	95 / 130	140 / 200	M8 / 12	3.0 / 3.5	135	182	152	173
90L	140	125	56	90	10	24	50	36	8	20.5	M8	115 / 165	95 / 130	140 / 200	M8 / 12	3.0 / 3.5	135	182	152	173
100L	160	140	63	100	12	28	60	41	8	24.5	M10	130 / 215	110 / 180	160 / 250	M8 / 15	3.5 / 4.0	135	182	176	173
112M	190	140	70	112	12	28	60	41	8	24.5	M10	130 / 215	110 / 180	160 / 250	M8 / 15	3.5 / 4.0	162	231	176	225

✧ Without face or flange AH shaft dimension is 12mm longer.

All dimensions in millimeters (1 inch = 25.4mm)

DC MOTORS
NEMA FRAME • LOW VOLTAGE 12, 24, 36 & 48 VOLTS

NEMA FRAME LOW VOLTAGE MOTORS

General Specifications:

Low voltage permanent magnet DC motors are suitable for installations having battery or solar powered operations, or generator supplied low voltage DC.

Mechanical Features:

Unique brush holder design provides easy access to brushes and integral, constant pressure brush/spring assembly for servicing. Larger over-sized brushes assure longer brush life. Heavy-duty, stamped steel, bolt-on base (removable). NEMA C face mounting flange at no additional cost. High strength rolled steel frame. Rugged die cast aluminum endshields with steel bearing inserts. Permanently lubricated sealed ball bearings. May be converted to NEMA 48 frame base dimensions or NEMA 42/48 frame C face dimensions using modification kits noted on page 153.

Electrical Features:

High starting torques for heavy load applications. Linear speed/torque characteristics over entire speed range. Capable of dynamic braking for faster stops. Reversible rotation and simple two-lead connection. Convenient wiring access.

DC METRIC (IEC) FRAME MOTORS IP54

General Specifications:

B5 IEC 56 & 63

These metric dimensioned motors are built to IEC 34-1 electrical and mechanical standards.

The IEC 63 and smaller frames are stocked with an integral B5 flange or B14 face less base. An optional B3 rigid base kit is available.

A unique modular approach for IEC 71 frame and larger allows the motor to be field modified to B3 rigid base mounted construction, B5 flange mounted or B14 face mounted construction using conversion kits. Please note that one or more of the mounting kits must be used with IEC motors of these frame sizes. See listing on page 85 for B5 flange and B14 face kits. B3 rigid base kits are listed below.

B14 IEC 56 & 63

Electrical & Mechanical Features:

A terminal board is provided for connections. All fasteners are metric. Electrical and mechanical features are the same as listed for the NEMA frame motors on the opposite page. Tachometer mounting kits are available for 71 and 80 frames only.

71 & 80 IEC with Modular Flange & Base Kits

LOW VOLTAGE (12, 24, 36 & 48V) • TENV/TEFC NEMA C FACE WITH REMOVABLE BASE Σ

HP	Full Load RPM	NEMA Frame■	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	F.L. Amps DC	"C" Dim. (Inches)
1/4	1800	S56C	**108045.00♣●**	21	12	21.0	10.27
1/3	1800	S56C	**108046.00♣●**	24	12	27.0	10.77
	1800	S56C	**108050.00♣●**	22	24	13.5	10.77
1/2	1800	S56C	**108047.00♣●**	29	12	39.0	11.77
	1800	S56C	**108051.00♣●**	29	24	20.0	11.77
	1800	SS56C	**098381.00**	29	36	13.5	10.81
	1800	SS56C	**098382.00**	29	48	11.0	10.81
3/4	1800	S56C	**108048.00◆**	30	12	58.0	13.82
	1800	S56C	**108052.00**	30	24	29.0	12.82
1	1800	S56C	**108322.00◆**	39	12	80.0	13.81
	1800	S56C	**108053.00◆**	37	24	39.0	13.82
	1800	S56C	**109101.00**	37	36	25.5	13.81
	1800	S56C	**109102.00**	37	48	18.5	13.81
1 1/2	1800	S56CZ	**109103.00◆❑**	39	24	60.0	15.25
	1800	S56CZ	**109104.00◆❑**	37	36	36.0	17.38
	1800	S56CZ	**109105.00◆❑**	37	48	27.0	17.38
2	1800	S56CZ	**109106.00◆❑**	42	24	70.0	16.74
	1800	S56CZ	**109107.00◆❑**	42	36	49.0	16.74
	1800	S56CZ	**109108.00◆❑**	42	48	38.0	16.74

♣ Built-in conduit box located at 12:00.
◆ Studs at 12:00.
Σ If base is removed, do not reinstall bolts without using washers to compensate for thickness of base.
❑ S56CZ motors have mounting bases with NEMA 56 mounting holes, NEMA 56/143-5T C-face and a NEMA 143-5T shaft extension (7/8" dia. x 2 1/4" long).
● These motors are totally enclosed, non-ventilated.
■ SS56C motors have a 4.88 inch diameter frame. S56C motors have a 5.61 inch diameter frame.

METRIC (IEC) FRAME • LOW VOLTAGE (24V) • TEFC/TENV • MODULAR DESIGN

kW/HP	Full Load RPM	IEC Frame	Catalog Number	App. Wgt. (lbs.)	F.L. Amps DC	C Dim. (inches)
0.06/1/12	3000	56	**M1110025.00^●**	5	3.3	5.34
	1800	56	**M1110026.00^●**	6	3.4	6.34
0.18/1/4	3000	63	**M1130206.00***	13	11.0	7.75
	3000	63	**M1130296.00^**	9	11.0	7.75
	1800	63	**M1130207.00***	13	10.0	8.75
	1800	63	**M1130297.00^**	9	10.0	8.75
	1800	71	**098065.00**	19	11.0	10.77
0.37/1/2	3000	71	**098066.00**	23	20.0	11.27
	1800	71	**098067.00**	23	20.0	12.27
0.75/1	3000	80	**108456.00◆**	33	40.0	14.14
	1800	80	**108455.00◆**	52	39.0	14.64
1.1/1 1/2	3000	80	**108457.00◆**	33	65.0	15.64
1.5/2	3000	80	**108458.00◆**	43	78.0	17.14

IMPORTANT: IEC 71 and 80 frame motors in this chart are round body and require either B14 face, B5 flange or B3 foot from kits shown on pages 156-157.

* Dedicated B5 Flange
^ Dedicated B14 Face
● These motors are totally enclosed, non-ventilated. Others are TEFC/IC41 cooling – external cooling fan on motor shaft.

SUB-FHP LOW VOLTAGE MOTORS

General Specifications:
Precision sub-fractional horsepower low voltage direct current permanent magnet motors designed for battery or solar powered operations, or generator supplied low voltage DC.

Mechanical Features:
Compact space saving designs. Standard conduit box simplifies connections. Ball bearings. Long-life brushes for demanding applications. Brushes easily replaced without disassembly of motor.

Electrical Features:
High starting torques for heavy load applications. Linear speed/torque characteristics over entire speed range. Capable of dynamic braking for faster stops. Reversible rotation from a simple two lead connection. Class F insulated with high temperature welded commutators.

LOW VOLTAGE (12 & 24V) • TENV • SQUARE FLANGE

HP▲	Full Load RPM	Frame	Catalog Number	App. Wgt. (lbs.)	Input Volts DC	F.L. Amps DC
1/20	1750	25CS	**M1110006.00✷**	3	12	4.4
1/10	4200				24	4.4
1/14	1750	31AS	**M1120040.00**	4	12	7.7
1/7	4200				24	7.7
1/7	1750	31ES	**M1120044.00**	9	12	13.0
1/4	3500				24	13.0
1/6	1800	31GS	**M1120046.00**	8	12	14.0
1/3	3900				24	14.0

✷ 25 frame motors have provision for an optional conduit box catalog number M1760000, see page 107.

▲ These motors may be operated at 12, 24V, or at intermediate voltages between 12 and 24V, within horsepower ranges noted.

COMMERCIAL DUTY METRIC (IEC) FRAME MOTORS

Specially designed low voltage DC motors for use in OEM applications. Combination of features and low cost makes these motors excellent for many uses. All feature IP44 (TENV) enclosure and dedicated B14 face mount. Rated S1 for continuous duty, and zinc plated steel frame construction.

12, 24V & 90 VOLT • TENV B14 FACE MOUNT

HP	Full Load RPM	IEC Frame▲	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	F.L. Amps DC
1/15	3000	56	**980.159**	2.3	12	6.4
	3000	56	**980.143**	2.3	24	3.2
	3000	56	**980.549**	2.3	90	.75
1/8	3000	56	**970.600**	3.0	12	12.0
	3000	56	**970.601**	3.0	24	5.3
	3000	56	**970.576**	3.0	90	1.2
1/6	3000	56	**970.620**	3.5	12	13.1
	3000	56	**970.621**	3.5	24	6.8
	3000	56	**970.577**	3.5	90	1.6

▲ Use “S” Discount Symbol.

For dimensions, see drawings on page 283.

LOW VOLTAGE ADJUSTABLE SPEED CONTROLLERS

LEESON’s DC to DC controllers are a chassis type design, that accept a DC input voltage and output a DC power voltage to control the motor speed. The speed maybe varied with the potentiometer that is shipped loose with the control or an external voltage signal.

Higher design efficiency results in longer running time between battery charges than is possible with traditional methods of speed control using resistance in series with the battery.

Typical Operating Features: Provides smooth 40 to 1 speed range capability for mobile equipment. Maintains variable speed control as batteries discharge. Adjustable min/max speed, IR compensation, and 200% current limit overload protection. Inhibit pin terminals provide customer optional start-stop without breaking battery lines. Green LED power on indicator is provided.

Catalog number 175290 does not require a heat sink, and measures 6.9L x 4.44W x 2.19D. Catalog numbers 175291 & 175292 do require heat sink, which is included and measures 7.78L x 6.9W x 3.25D.

Input Voltage	Max. Amp Ratings	Catalog Number	App. Wgt.(lbs.)
12/24	16	**175290.00**	2
12/24	60	**175291.00**	4
36/48	60	**175292.00**	4

LOW VOLTAGE ADJUSTABLE SPEED CONTROLS FOUR QUADRANT CONTROL

General Specifications: This series of drives is a chassis type design that accepts DC input to output up to 100% of the input voltage. The 12/24-volt drive is rated at 120 amps continuous and the 36/48-volt drive is rated at 100 amps continuous. The speed is adjustable with a speed potentiometer that is shipped loose with the controls. This control also offers extended battery life through a sleep mode feature and has an inhibit circuit for convenient remote starting and stopping.

Additional Features Include: Simple reversing and braking using a switch closure to the drive. Controls have a built-in short circuit to protect itself from a shorted motor. They offer a 1.01 Form Factor, which offers clean DC output for quiet motor operation and efficiency. They also have a temperature sensor, which automatically reduces the current limit if the controller heats up. On Board trim pots for calibration, speed and forward and reverse settings.

Units include heat sink and measure 6.9L x 5.0W (including terminals) x 2.5D and have mounting slots.

Input Voltage	Max. Amp Ratings	Catalog Number	App. Wgt.(lbs.)
12/24	120	**174298.00**	3
36/48	100	**174299.00**	3

PREMIUM STAINLESS STEEL DUCK



General Specifications:

Designed specifically to meet the demanding sanitation requirements of the pharmaceutical, food processing, and beverage industries. These motors are also ideal in clean room and severe chemical-processing applications involving frequent washdown with nitric acid and caustic lye. In fact, WASHGUARD All-Stainless Motors include IEEE 841 severe-duty features right out of the box!

Mechanical Protection Features:

- All exterior components are 300-series stainless steel
- Nothing on the exterior of the motor is painted or coated in any way
- All sealing components are Viton® for superior chemical resistance.
- Full fact nameplate is laser etched on the motor frame – no separately attached nameplate to trap dirt or contaminants
- Endshields are O-ring sealed to the frame
- Double lip shaft seals on both ends of TEFC motors (shaft end only on TENV motors)
- Removable hydrophobic breathers in opposite shaft endbell and conduit box equalize pressure without allowing moisture to enter
- Exterior fastener use minimized reducing the number of entry points for moisture. There are no holes in the frame for attaching a nameplate. Bearing lock screws are located inside the motor and the conduit box mounted screws have been eliminated.
- Double-sealed bearings are pre-lubricated with moisture-resistant high-temperature grease for long life.
- Interior coatings applied to armature and frame/magnet assemble protect against corrosion
- Brush tubes are sealed with Viton® O-rings to keep moisture out
- New conduit box mounting system provides optimum sealing
- Easy to clean construction is BISSC Certified for bakery applications.

CHEMICAL RESISTANCE RATING CHART

CHEMICAL	CONCENTRATION	ALL STAINLESS COMPONENTS
WATER:		
De-Ionized Boiling	100%	Excellent
Salt (Immersed)	30%	Excellent
Salt (Spray)	5%	Excellent
Tap - 250°F/120°C @ 10,000 PSI	100%	Excellent
ACIDS:		
Hydrochloric	35%	Poor
Sulfuric	25%	Poor
Nitric	35%	Excellent
Picric	Saturated Solution	Excellent
BASE:		
Caustic	100%	Excellent
Caustic	12.5 pH	Excellent
Caustic - 125°F/50°C	9.5 pH	Excellent
SOLVENTS:	–	Excellent

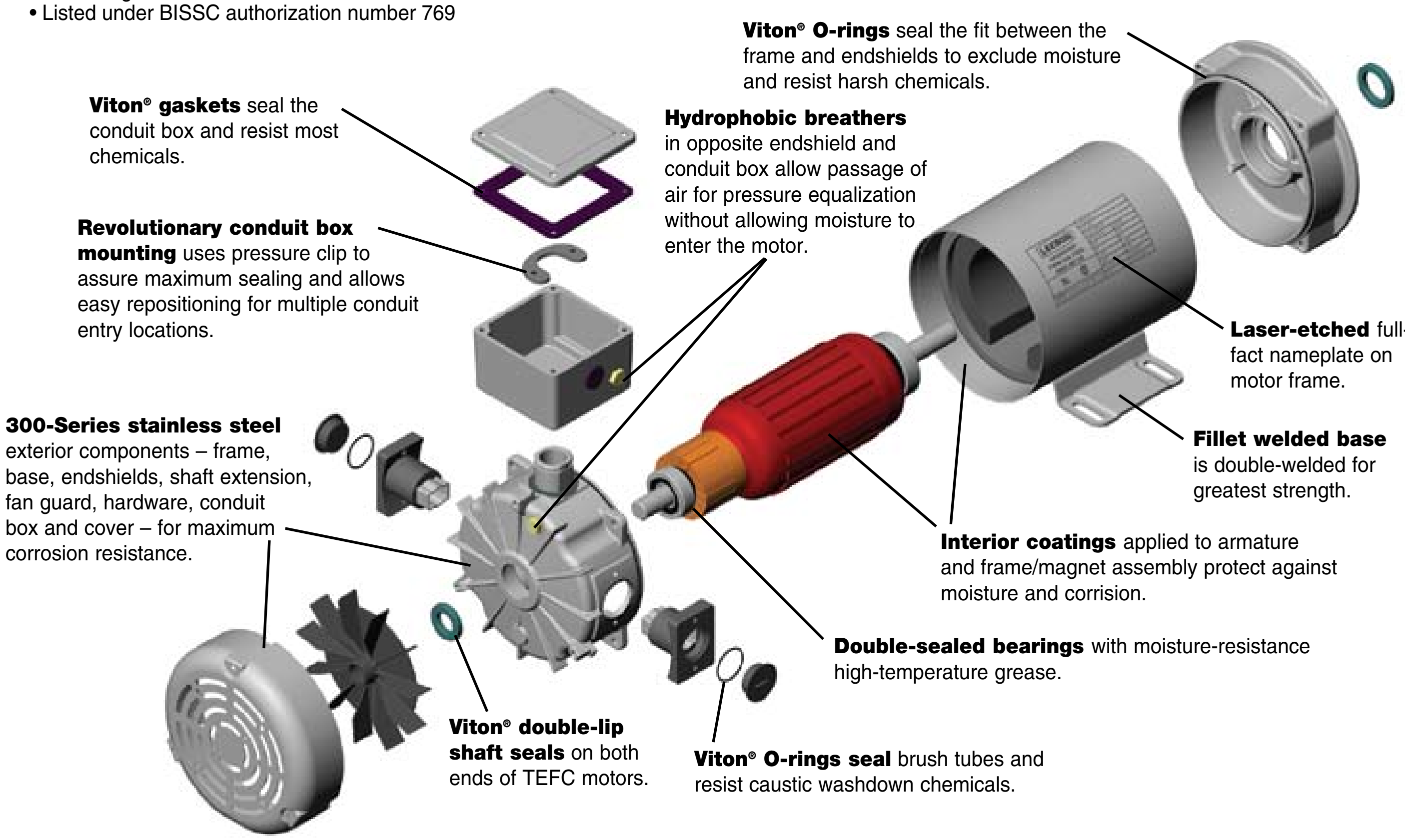
Electrical Performance and Protection Features:

- Linear speed/torque characteristics over entire speed range.
- Armature windings are immersed and cured in a polyester insulating varnish for extra moisture-resistance
- High starting torque for hard to start loads.
- Use with LEESON SPEEDMASTER DC motor controllers for optimum performance.

BAKING INDUSTRY CERTIFIED BISSC SANITATION STANDARDS COMMITTEE

Standards and Approvals:

- UL Recognized and CSA Certified.
- Listed under BISSC authorization number 769



NEMA FRAME ALL-STAINLESS PMDC MOTORS

TEFC • SCR RATED 90 & 180V • NEMA ALL-STAINLESS STEEL • C-FACE WITH BASE∗

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC	"C" Dim. (Inches)
1/4	1800	S56C	109065.00●	38	90	115	3.1	11.81
1/3	1800	S56C	109066.00●	44	90	115	3.8	12.81
	1800	S56C	109067.00● A	44	180	230	1.9	12.81
1/2	1800	S56C	109069.00	46	90	115	5.2	13.87
	1800	S56C	109070.00	46	180	230	2.7	13.87
3/4	1800	S56C	109072.00	47	90	115	7.5	15.37
	1800	S56C	109073.00 A	48	180	230	3.7	15.37
1	1800	S56C	109075.00 A	51	90	115	9.5	16.37
	1800	S56C	109076.00	50	180	230	5.0	16.37

● These motors are totally enclosed non-ventilated, others are TEFC.
∗ Base is welded to frame and not removable.

TEFC • SCR RATED 90 & 180V • NEMA ALL-STAINLESS STEEL • C-FACE LESS BASE

HP	SYN RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC	"C" Dim. (Inches)
1/4	1800	S56C	109078.00●	38	90	115	3.1	11.81
1/3	1800	S56C	109079.00●	44	90	115	3.8	12.81
	1800	S56C	109080.00● A	44	180	230	1.9	12.81
1/2	1800	S56C	109082.00	46	90	115	5.2	13.87
	1800	S56C	109083.00	46	180	230	2.7	13.87
3/4	1800	S56C	109085.00	47	90	115	7.5	15.37
	1800	S56C	109086.00	48	180	230	3.7	15.37
1	1800	S56C	109088.00	51	90	115	9.5	16.37
	1800	S56C	109089.00	50	180	230	5.0	16.37

● These motors are totally enclosed non-ventilated, others are TEFC.

METRIC (IEC) FRAME PMDC MOTORS

TEFC • SCR RATED 90 & 180V • METRIC (IEC) ALL-STAINLESS STEEL • C-FACE WITH BASE∗

HP	Kw	SYN RPM 60 Hz	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC	"C" Dim. (Inches)
1/3	0.25	1800	80D	109068.00●A	44	180	230	1.9	12.81
1/2	0.37	1800	80D	109071.00 A	46	180	230	2.7	13.87
3/4	0.55	1800	80D	109074.00 A	48	180	230	3.7	15.37
1	0.75	1800	80D	109077.00	50	180	230	5.0	16.37

● These motors are totally enclosed non-ventilated, others are TEFC.
∗ Base is welded to frame and not removable.

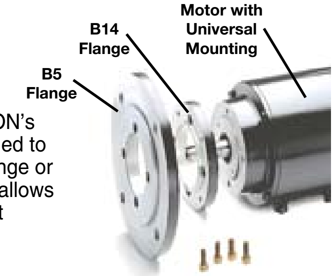
TEFC • SCR RATED 90 & 180V • METRIC (IEC) ALL-STAINLESS STEEL • C-FACE LESS BASE

HP	Kw	SYN RPM 60 Hz	IEC Frame	Catalog Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC	"C" Dim. (Inches)
1/3	0.25	1800	80D	109081.00●A	44	180	230	1.9	12.81
1/2	0.37	1800	80D	109084.00 A	46	180	230	2.7	13.87
3/4	0.55	1800	80D	109087.00 A	48	180	230	3.7	15.37
1	0.75	1800	80D	109090.00	50	180	230	5.0	16.37

● These motors are totally enclosed non-ventilated, others are TEFC.
A Subject to Availability.

FLANGE AND FACE KITS FOR DC METRIC (IEC) FRAME MOTORS

The modular design concept of LEESON's other metric DC motors has been applied to the all-stainless metric motors. Any flange or face kit can mount on any motor. This allows the greatest flexibility from the smallest inventory of motors.



B5 FLANGE KITS (For Stainless DC Metric Motors)

IEC Frame	Catalog Number	App. Wgt. (lbs.)	BD Flange Dia. (mm)	AK Register (mm)	BF Hole (mm)	AJ Bolt Circle (mm)
71	175593.00	2	160	110	9	130
80	175594.00	3	200	130	12	165
90S/90L	175594.00	3	200	130	12	165
100L/112M	175595.00	5	250	180	15	215

B14 FLANGE KITS (For Stainless DC Metric Motors)

IEC Frame	Catalog Number	App. Wgt. (lbs.)	BD Flange Dia. (mm)	AK Register (mm)	BF Tap (mm)	AJ Bolt Circle (mm)
71	175596.00	1	105	70	6	85
80	175597.00	1	120	80	6	100
90S/90L	175598.00	1	140	95	6	115
100L/112M	175599.00	2	160	110	6	130

LEESON®

QUICK REFERENCE

Stock Sub-FHP Gearmotors

Parallel Shaft PZ Series Gearmotors

AC Single & Three Phase

Single Phase 115V
12-100 In-Lbs
Output Torque
Page 174

BODINE/BISON/DAYTON DIRECT INTERCHANGE

DC SCR & Low Voltage

DC SCR 90 & 180V
10-100 In-Lbs
Output Torque
Low Voltage (12V)
36-100 In-Lbs torque
Page 164

P240 & P300 Series Gearmotors

AC Single & Three Phase

Single Phase 115/230V
43-391 In-Lbs
Output Torque
Page 175

BISON/DAYTON DIRECT INTERCHANGE

DC SCR & Low Voltage

DC SCR 90 & 180V
27-353 In-Lbs
Output Torque
Low Voltage (12V)
113-353 In-Lbs torque
Page 165

OS300 Series Gearmotors

DC SCR & Low Voltage

DC SCR 90V
and
Low Voltage (12V)
Output Torque
130-268 In-Lbs
Page 166

PE350 Series Gearmotors

AC Single & Three Phase

Single Phase 115/230V
25-341 In-Lbs
Output Torque
Three Phase 230/460V
55-320 In-Lbs
Output Torque
Page 176

BODINE DIRECT INTERCHANGE

DC SCR & Low Voltage

DC SCR 90 & 180V
25-371 In-Lbs
Output Torque
Low Voltage (12V)
155-341 In-Lbs torque
Page 167

P1100 Series Gearmotors

AC Single & Three Phase

Single Phase 115/230V
70-1105 In-Lbs
Output Torque
Three Phase 230/460V
70-1105 In-Lbs
Output Torque
Page 177

BISON/DAYTON DIRECT INTERCHANGE

DC SCR & Low Voltage

DC SCR 90V
105-1112 In-Lbs
Output Torque
Low Voltage (12V)
320-1087 In-Lbs torque
Page 168

Right-Angle Worm Type 10 & 13 Series Gearmotors

AC Single & Three Phase

Single Phase 115/230V
14-113 In-Lbs
Output Torque
Page 178

BODINE/DAYTON DIRECT INTERCHANGE

DC SCR & Low Voltage

DC SCR 90 & 180V
5-135 In-Lbs
Output Torque
Low Voltage (12V)
25-135 In-Lbs torque
Page 169

Bravo Right Angle Worm Type 12 Series Gearmotors

DC SCR & Low Voltage

DC SCR 90V
and
Low Voltage (12V)
Output Torque
46-134 In-Lbs
Page 170

Specifications are subject to change without notice

QUICK REFERENCE

Stock Sub-FHP IP55 WASHGUARD Gearmotors

P300 Series Gearmotors

DC SCR 90V
and
Low Voltage (12V)
Output Torque
44-353 In-Lbs
Page 171

PE350 Series Gearmotors

DC SCR 90V
and
Low Voltage (12V)
Output Torque
25-341 In-Lbs
Page 172

Right-Angle 13 Series Gearmotors

DC SCR 90V
and
Low Voltage (12V)
Output Torque
50-135 In-Lbs
Page 173

P240 Series Gearmotors

Washdown Duty
60-391 In-Lbs
Output Torque
Page 175

BISON/DAYTON
DIRECT INTERCHANGE

Right-Angle Worm Type 10 & 13 Series Gearmotors

Washdown Duty
23-220 In-Lbs
Output Torque
Page 178

BODINE/DAYTON
DIRECT INTERCHANGE

Stock Sub-FHP Three Phase Inverter Rated Gearmotors

Includes gearmotor series PZ, P240, PE350 and 13 series right-angle

Three phase 230V
12-391 In-Lbs
Output Torque
Page 180

GEARMOTORS

SCR RATED:
10-100 In-Lbs Torque
LOW VOLTAGE:
36-100 In-Lbs Torque

Electrical Specifications:

SCR Rated Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty service over a 60:1 speed range. All have constant torque throughout the range when powered by a full-wave unfiltered SCR-type adjustable speed control having a typical form factor of 1.3 to 1.4.

Low Voltage Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty. Motors are designed for battery power or can be used with a low voltage controller with form factor up to 1.05.

Mechanical Specifications:

Precision machined in-line steel gears, with a first stage steel helical gear followed by spur-type gears. Lubrication is permanent semi-fluid grease, reducing possibility of leakage. Output shafts have needle bearings for high load capacities. Shafts are hardened steel.

Conduit box *not* included with motor. Optional conduit box and PZ gearmotor mounting bracket shown on page 179.

Application Notes:

These gearmotors are designed for mounting at any angle, but motor below the reducer should be avoided to prevent leakage of lubricant into the motor should the motor shaft seal fail.

The motor's stall torque could exceed recommended full load torques. If this service is anticipated, a current limiting device should be used. This issue is even more critical for low voltage motors, typically no controller is used since motor connected directly to battery, so some type of current limit or fusing should be considered.

Overhung load capacities shown are at center of output shaft.

Model PZ gearmotors have the same mounting dimensions as Bodine model D and Z, Baldor/Boehm, Bison 100 gearmotors, and a number of Dayton gearmotors.

For additional information, see Bulletin 1830.

BODINE/BISON/DAYTON
DIRECT INTERCHANGE

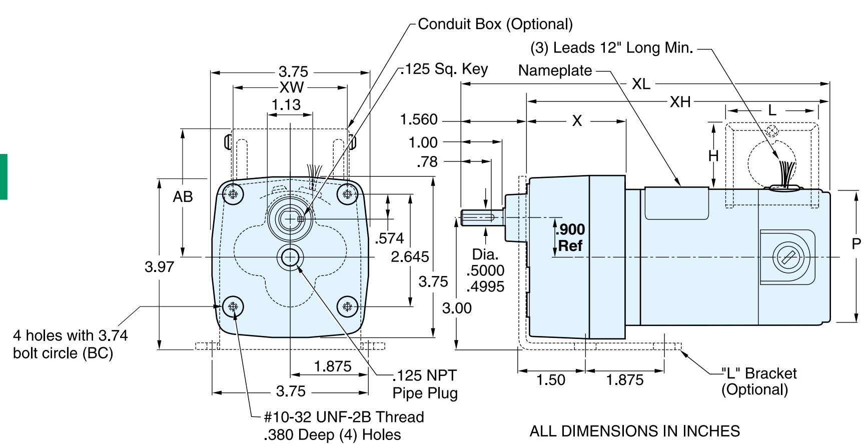
PZ SERIES DC • SCR RATED
PARALLEL SHAFT • TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm. Volts DC	F.L. Amps DC	Over-hung Load (Lb.)	DIMENSIONS Inches P	X	XL	XH
4	40	1/40	**M1115002.00**	PZ5-30A	450	90	0.46	155	3.00	3.25	9.28	7.72
4	40	1/40	**M1125046.00**	PZ5-30A	450	180	0.19	155	3.00	3.25	9.30	7.74
10	100	1/20	**M1115001.00**	PZ4-30E	180	90	0.54	155	3.00	3.25	9.28	7.72
10	100	1/20	**M1125047.00**	PZ4-30A	180	180	0.31	155	3.00	3.25	9.30	7.74
20	100	1/20	**M1115000.00**	PZ4-30E	90	90	0.54	155	3.00	3.25	9.28	7.72
20	100	1/20	**M1125048.00**	PZ4-30A	90	180	0.31	155	3.00	3.25	9.30	7.74
30	100	1/17	**M1125002.00**	PZ3-30B	60	90	0.80	155	3.00	2.68	8.74	7.18
30	100	1/17	**M1125037.00**	PZ3-30B	60	180	0.36	155	3.00	2.68	8.74	7.18
60	56	1/17	**M1125003.00**	PZ3-30B	30	90	0.80	171	3.00	2.68	8.74	7.18
60	56	1/17	**M1125036.00**	PZ3-30B	30	180	0.36	171	3.00	2.68	8.74	7.18
100	36	1/17	**M1125004.00**	PZ3-30B	18	90	0.80	171	3.00	2.68	8.74	7.18
100	36	1/17	**M1125035.00**	PZ3-30B	18	180	0.36	171	3.00	2.68	8.74	7.18
150	24	1/17	**M1125005.00**	PZ2-30B	12	90	0.80	180	3.00	2.40	8.46	6.90
150	24	1/17	**M1125034.00**	PZ2-30B	12	180	0.36	180	3.00	2.40	8.46	6.90
300	10	1/17	**M1125006.00**	PZ2-30B	6	90	0.80	180	3.00	2.40	8.46	6.90
300	10	1/17	**M1125033.00**	PZ2-30B	6	180	0.36	180	3.00	2.40	8.46	6.90

PZ SERIES DC • LOW VOLTAGE (12V)
PARALLEL SHAFT • TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm. Volts DC	F.L. Amps DC	Over-hung Load (Lb.)	DIMENSIONS Inches P	X	XL	XH
10	100	1/20	**M1125213.00**	PZ4-30	180	12	2.7	155	3.00	3.25	9.28	7.72
30	100	1/17	**M1125214.00**	PZ3-30	60	12	5.2	155	3.00	2.68	8.74	7.18
55	56	1/17	**M1125215.00**	PZ3-30	30	12	5.6	171	3.00	2.68	8.74	7.18

PZ SERIES - DC



ALL DIMENSIONS IN INCHES

QUICK REFERENCE

CONDUIT BOX DIMENSIONS (IN.)

FRAME	XW	AB	H	L
30/31	2.63	3.47	1.90	3.13

SCR RATED: 27-353 In-Lbs Torque
LOW VOLTAGE: 113-353 In-Lbs Torque

Electrical Specifications:

SCR Rated Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty service over a 60:1 speed range. All have constant torque throughout the range when powered by a full-wave unfiltered SCR-type adjustable speed control having a typical form factor of 1.3 to 1.4.

Low Voltage Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty. Motors are designed for battery power or can be used with a low voltage controller with form factor up to 1.05.

Mechanical Specifications:

Precision machined in-line steel gears, with a first stage steel helical gear followed by spur-type gears. Lubrication is permanent semi-fluid grease, reducing possibility of leakage. Output shafts have needle bearings for high load capacities. Shafts are hardened steel.

Conduit box *not* included with motor. Optional conduit box shown on page 179.

Application Notes:

These gearmotors are designed for mounting at any angle, but shaft up with motor below should be avoided to prevent leakage of lubricant into the motor should the motor's shaft seal fail.

Overhung load capacities shown are at center of output shaft.

The motor's stall torque exceeds recommended full load torques. A current limiting device such as an SCR control should be used to prevent damage.

Model 300 gearmotors have the same mounting dimensions as Bison's 300 and many Dayton gearmotors.

For additional information, see Bulletin 1830.

BISON/DAYTON DIRECT INTERCHANGE

P300 SERIES DC • SCR RATED
PARALLEL SHAFT • TENV • 1.0 SERVICE FACTOR

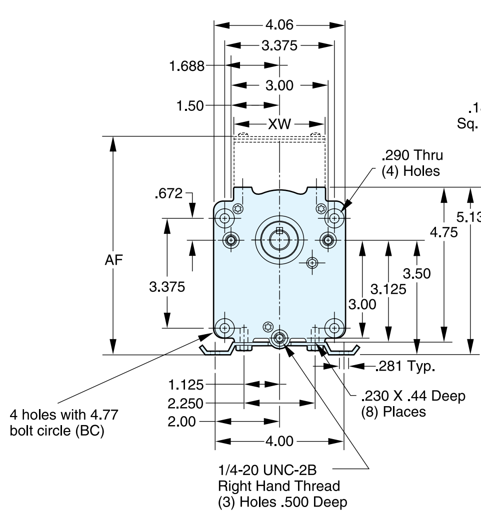
Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm. Volts DC	F.L. Amps. DC	Over-hung Load (Lb.)	DIMENSIONS (Inches) P	X	XL	XH
5	353	1/20	**M1115024.00**	P303-30E	336	90	0.54	565	3.00	3.54	10.07	8.57
9	268	1/20	**M1115025.00**	P303-30E	216	90	0.54	474	3.00	3.54	10.07	8.57
18	150	1/20	**M1115026.00**	P303-30E	103	90	0.54	385	3.00	3.54	10.07	8.57
20	140	1/20	**M1125092.00 A**	P303-31E	90	180	0.31	370	3.11	3.54	10.07	8.57
24	280	1/8	**M1125069.00**	P303-30E	76	90	1.30	353	3.00	3.54	11.54	10.04
31	220	1/8	**M1125070.00**	P303-30E	58	90	1.30	327	3.00	3.54	11.54	10.04
31	220	1/8	**M1125038.00**	P303-30E	58	180	0.66	327	3.00	3.54	11.54	10.04
34	82	1/20	**M1115027.00**	P303-30E	52	90	0.54	318	3.00	3.54	10.07	8.57
51	130	1/8	**M1125071.00**	P302-30E	35	90	1.30	277	3.00	3.54	11.54	10.04
51	130	1/8	**M1125039.00**	P302-30E	35	180	0.66	277	3.00	3.54	11.54	10.04
51	55	1/20	**M1115028.00**	P302-30E	35	90	0.54	281	3.00	3.54	10.07	8.57
61	113	1/8	**M1125072.00**	P302-30E	29	90	1.30	267	3.00	3.54	11.54	10.04
60	45	1/20	**M1125093.00 A**	P302-31E	29	180	0.31	267	3.11	3.54	10.07	8.57
94	77	1/8	**M1125073.00**	P302-30E	19	90	1.30	236	3.00	3.54	11.54	10.04
94	77	1/8	**M1125040.00**	P302-30E	19	180	0.66	236	3.00	3.54	11.54	10.04
109	27	1/20	**M1115029.00**	P302-30E	16	90	0.54	224	3.00	3.54	10.07	8.57
106	26	1/20	**M1125094.00 A**	P302-31E	16	180	0.31	222	3.11	3.54	10.07	8.57
167	43	1/8	**M1125074.00**	P302-30E	11	90	1.30	197	3.00	3.54	11.54	10.04
170	43	1/8	**M1125041.00**	P302-30E	11	180	0.66	196	3.00	3.54	11.54	10.04

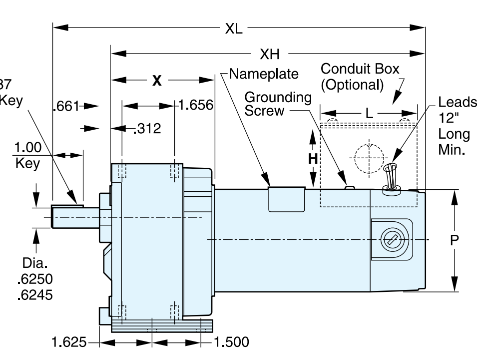
P300 SERIES DC • LOW VOLTAGE (12V)
PARALLEL SHAFT • TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm. Volts DC	F.L. Amps. DC	Over-hung Load (Lb.)	DIMENSIONS (Inches) P	X	XL	XH
5	353	1/20	**M1125217.00**	P303-30	336	12	5.6	565	3.00	3.85	10.07	8.57
31	220	1/8	**M1125218.00**	P303-30	58	12	10.6	327	3.00	3.54	11.54	10.04
51	130	1/8	**M1125219.00 A**	P302-30	35	12	10.3	277	3.00	3.23	11.54	10.04
61	113	1/8	**M1125220.00**	P302-30	29	12	10.4	267	3.00	3.23	11.54	10.04

A Subject to Availability.

P300 SERIES





CONDUIT BOX DIMENSIONS (IN.)

FRAME	AF	XW	H	L
30/31	6.26	2.63	1.90	3.13

GEARMOTORS

SUB-FHP DC GEARMOTORS
OFF-SET SHAFT GEARMOTORS

SCR RATED:
130-268 In-Lbs Torque

LOW VOLTAGE:
130-268 In-Lbs Torque

Electrical Specifications:

SCR Rated Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty service over a 60:1 speed range. All have constant torque throughout the range when powered by a full-wave unfiltered SCR-type adjustable speed control having a typical form factor of 1.3 to 1.4.

Low Voltage Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty. Motors are designed for battery power or can be used with a low voltage controller with form factor up to 1.05.

Mechanical Specifications:

Precision machined steel gears, with a first stage steel helical gear followed by spur-type gears. Lubrication is permanent semi-fluid grease, reducing possibility of leakage. Output shafts have needle bearings for high load capacities. Shafts are hardened steel.

Conduit box *not* included with motor. Optional conduit box shown on page 179.

Application Notes:

These gearmotors are designed for mounting at any angle, but shaft up with motor below should be avoided to prevent leakage of lubricant into the motor should the motor's shaft seal fail.

Overhung load capacities shown are at center of output shaft.

The motor's stall torque exceeds recommended full load torques. A current limiting device such as an SCR control should be used to prevent damage.

OS300 SERIES DC • SCR RATED
OFF-SET SHAFT • TENV • 1.0 SERVICE FACTOR

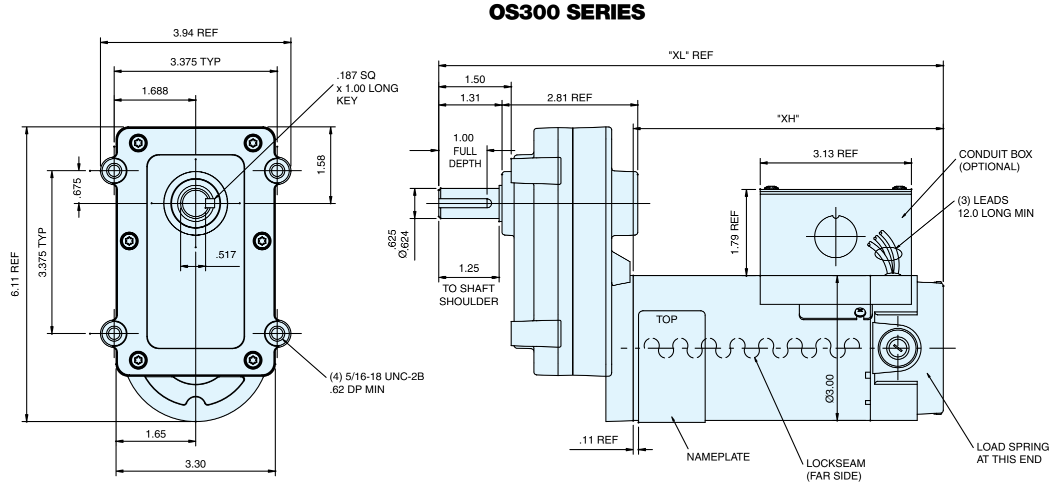
Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio	Arm Volts DC	F.L. Amps DC	Overhung Load Lbs.	DIMENSIONS Inches P	X	XL	XH
9	268	1/20	**M1125251.00 A**	OS303-30	210	90	.54	474	3.00	2.81	4.50	8.52
19	150	1/20	**M1125250.00 A**	OS303-30	103	90	.56	385	3.00	2.81	4.50	8.52
24	280	1/8	**M1125249.00 A**	OS303-30	76	90	1.3	353	3.00	2.81	6.42	10.45
31	220	1/8	**M1125248.00 A**	OS303-30	58	90	1.4	327	3.00	2.81	6.42	10.45
51	130	1/8	**M1125247.00**	OS303-30	35	90	1.4	277	3.00	2.81	6.42	10.45

OS300 SERIES DC • LOW VOLTAGE (12V)
OFF-SET SHAFT • TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio	Arm Volts DC	F.L. Amps DC	Overhung Load Lbs.	DIMENSIONS Inches P	X	XL	XH
9	268	1/20	**M1125256.00 A**	OS303-30	210	12	4.5	474	3.00	2.81	4.50	8.52
18	150	1/20	**M1125255.00 A**	OS303-30	103	12	5.0	385	3.00	2.081	4.50	8.52
24	280	1/8	**M1125254.00 A**	OS303-30	76	12	10.6	353	3.00	2.81	6.42	10.45
31	220	1/8	**M1125253.00 A**	OS303-30	58	12	10.6	327	3.00	2.81	6.42	10.45
51	130	1/8	**M1125252.00**	OS303-30	35	12	10.3	277	3.00	2.81	6.42	10.45

A Subject to Availability.

OS300 SERIES



ALL DIMENSIONS IN INCHES

SCR RATED:
25-371 In-Lbs Torque
LOW VOLTAGE:
155-341 In-Lbs Torque

Electrical Specifications:

SCR Rated Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty service over a 60:1 speed range. All have constant torque throughout the range when powered by a full-wave unfiltered SCR-type adjustable speed control having a typical form factor of 1.3 to 1.4.

Low Voltage Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty. Motors are designed for battery power or can be used with a low voltage controller with form factor up to 1.05.

Mechanical Specifications:

Gearbox has rugged aluminum die cast housing, for maximum gear and bearing support. Precision machined gearing, hardened for maximum load capability. All gearing designed and rated to AGMA Class 9 standards and to withstand momentary shock overload of 200%. Oversized output bearings for greater overhung load capacity and longer life. High-carbon alloy output shaft provides maximum strength and rigidity. All needle bearing journals are precision-ground after heat treating, to provide maximum finish and fit. Heavy-duty industrial oil seals help keep lubricant in and dirt out. Gears and bearings are splash lubricated with permanent, heavy-duty gear oil.

Conduit box *not* included with motor. Optional conduit box shown on page 179.

Application Notes:

These gearmotors are designed for mounting at any angle, but shaft up with motor below should be avoided to prevent leakage of lubricant into the motor should the motor's shaft seal fail.

Overhung load capacities shown are at center of output shaft.

The motor's stall torque exceeds recommended full load torques. A current limiting device such as an SCR control should be used to prevent damage.

Model PE350 gearmotors have the same mounting dimensions as Bodine's "E" box and many Baldor gearmotors.

BODINE DIRECT INTERCHANGE

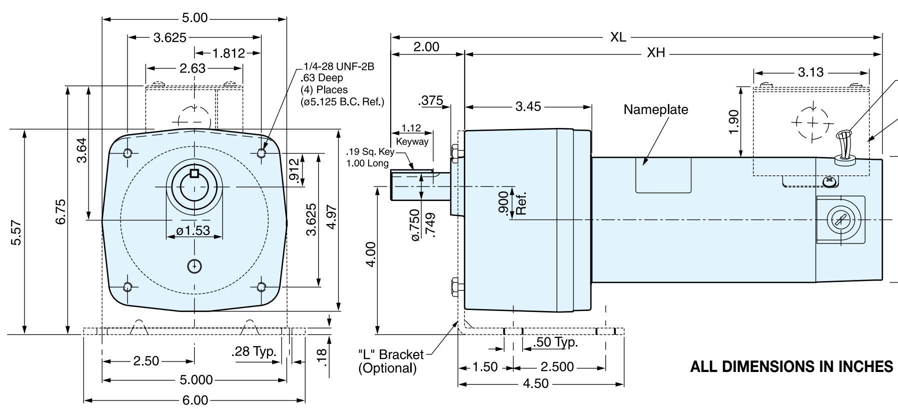
PE350 SERIES DC • SCR RATED
PARALLEL SHAFT • TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Type & Frame	Ratio to 1	Arm Volts DC	F.L. Amps DC	Overhung Load Lbs.	DIMENSIONS Inches XL	XH
7	330	⅛	**M1135106.00**	P353-34	336	90	0.70	565	11.31	9.31
7	330	⅛	**M1135139.00**	P353-34	336	180	0.35	565	11.31	9.31
14	341	⅛	**M1135107.00**	P353-34	180	90	1.00	465	11.31	9.31
14	341	⅛	**M1135140.00**	P353-34	180	180	0.50	465	11.31	9.31
21	371	¼	**M1135117.00**	P353-34	124	90	1.10	413	13.31	11.31
21	371	¼	**M1135141.00**	P353-34	124	180	0.55	413	13.31	11.31
27	305	¼	**M1135115.00**	P353-34	91	90	1.50	374	13.31	11.31
27	305	¼	**M1135142.00**	P353-34	91	180	0.75	374	13.31	11.31
42	280	¼	**M1135108.00**	P353-34	58	90	2.30	327	13.31	11.31
42	280	¼	**M1135143.00**	P353-34	58	180	1.20	327	13.31	11.31
50	250	¼	**M1135109.00**	P353-34	50	90	2.30	315	13.31	11.31
50	250	¼	**M1135144.00**	P353-34	50	180	1.20	315	13.31	11.31
62	220	¼	**M1135110.00**	P353-34	43	90	2.30	303	13.31	11.31
62	220	¼	**M1135145.00**	P353-34	43	180	1.20	303	13.31	11.31
83	155	¼	**M1135114.00**	P352-34	29	90	2.30	267	13.31	11.31
83	155	¼	**M1135146.00**	P352-34	29	180	1.20	267	13.31	11.31
125	100	¼	**M1135111.00**	P352-34	23	90	2.00	256	13.31	11.31
125	100	¼	**M1135147.00**	P352-34	23	180	1.00	256	13.31	11.31
165	70	¼	**M1135112.00**	P352-34	15	90	2.00	232	13.31	11.31
165	70	¼	**M1135148.00**	P352-34	15	180	1.00	232	13.31	11.31
250	45	¼	**M1135116.00**	P352-34	10	90	2.00	201	13.31	11.31
250	45	¼	**M1135149.00**	P352-34	10	180	1.00	201	13.31	11.31
500	25	¼	**M1135113.00**	P352-34	5	90	2.00	194	13.31	11.31
500	25	¼	**M1135150.00**	P352-34	5	180	1.00	194	13.31	11.31

PE350 SERIES DC • LOW VOLTAGE (12V)
PARALLEL SHAFT • TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Type & Frame	Ratio to 1	Arm Volts DC	F.L. Amps DC	Overhung Load Lbs.	DIMENSIONS Inches XL	XH
14	341	⅛	**M1135243.00**	P353-34	180	12	8.7	465	11.05	9.05
42	325	¼	**M1135244.00**	P353-34	58	12	21.0	327	13.31	11.31
62	220	¼	**M1135245.00**	P353-34	43	12	21.0	303	13.31	11.31
83	155	¼	**M1135246.00**	P352-34	29	12	21.0	267	13.31	11.31

PE350 SERIES - DC



ALL DIMENSIONS IN INCHES

GEARMOTORS

GEARMOTORS

SCR RATED:
105-1112 In-Lbs Torque
LOW VOLTAGE:
320-1087 In-Lbs Torque

Electrical Specifications:

SCR Rated Gearmotors

SCR rated, permanent magnet DC gearmotors. Totally enclosed for continuous duty, general purpose applications. All have constant torque throughout the 60:1 speed range, when powered by a full-wave, unfiltered SCR-type adjustable speed control having a typical form factor of 1.3 to 1.4.

Low Voltage Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty. Motors are designed for battery power or can be used with a low voltage controller with form factor up to 1.05.

Mechanical Specifications:

Gearbox has rugged aluminum die cast housing, for maximum gear and bearing support. Precision machined gearing, hardened for maximum load capability. All gearing designed and rated to AGMA Class 9 standards and to withstand momentary shock overload of 200%. Oversized output bearings for greater overhung load capacity and longer life. High-carbon alloy output shaft provides maximum strength and rigidity. All needle bearing journals are precision-ground after heat treating, to provide maximum finish and fit. Heavy-duty industrial oil seals help keep lubricant in and dirt out. Gears and bearings are splash lubricated with permanent, heavy-duty gear oil. **Conduit box is included as standard.**

Application Notes:

These gearmotors are designed for mounting at any angle, but shaft-up with motor below gearhead is not recommended.

Overhung load capacities shown are at center of output shaft. P1100 DC gearmotors have the same mounting dimensions as Bison 483 gearmotors and many Dayton gearmotors.

The motor's stall torque exceeds recommended full load torques. A current limiting device such as an SCR control should be used to prevent damage.

For additional information, see Bulletin 1830.

P1100 SERIES DC • SCR RATED
FRACTIONAL HP • PARALLEL SHAFT • TOTALLY ENCLOSED
1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Type & Frame	Ratio to 1	Arm Volts DC	F.L. Amps DC	Overhung Load (Lbs.)	DIMENSIONS Inches XL	XH
8	1087	¼	**108700.00**	P1103-48	212	90	2.7	700	14.24	12.74
12	1030	¼	**108701.00**	P1103-48	143	90	2.7	700	14.24	12.74
18	750	¼	**108702.00**	P1103-48	95	90	2.7	700	14.24	12.74
42	353	¼	**108703.00**	P1102-48	42	90	2.7	650	14.24	12.74
60	238	¼	**108704.00**	P1102-48	29	90	2.7	625	14.24	12.74
92	160	¼	**108705.00**	P1102-48	19	90	2.7	575	14.24	12.74
135	105	¼	**108706.00**	P1102-48	13	90	2.7	525	14.24	12.74
18	1112	½	**108707.00****	P1103-48	95	90	5.0	700	16.49	14.99
33	822	½	**108708.00****	P1103-48	53	90	5.0	650	16.49	14.99
42	705	½	**108709.00****	P1102-48	42	90	5.0	650	16.49	14.99
60	476	½	**108710.00****	P1102-48	29	90	5.0	625	16.49	14.99
92	320	½	**108711.00****	P1102-48	19	90	5.0	575	16.49	14.99
135	210	½	**108712.00****	P1102-48	13	90	5.0	525	16.49	14.99

** TEFC enclosure.

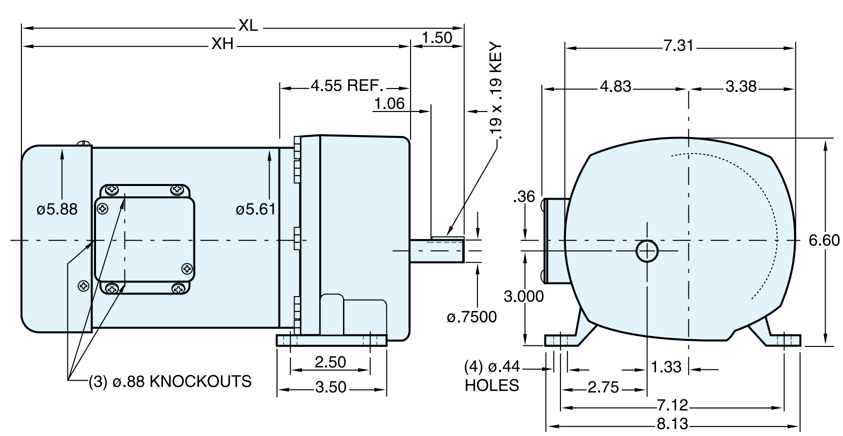
P1100 SERIES DC • LOW VOLTAGE (12V)
FRACTIONAL HP • PARALLEL SHAFT • TOTALLY ENCLOSED
1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Type & Frame	Ratio to 1	Arm Volts DC	F.L. Amps DC	Overhung Load (Lbs.)	DIMENSIONS Inches XL	XH
8	1087	¼	**108729.00**	P1103-48	212	12	21.0	700	13.74	12.24
60	238	¼	**108730.00**	P1102-48	29	12	21.0	625	13.74	12.24
42	705	½	**108731.00****	P1102-48	42	12	40.0	650	15.99	14.49
92	320	½	**108732.00****	P1102-48	19	12	40.0	575	15.99	14.49

** TEFC enclosure.

BISON/DAYTON DIRECT INTERCHANGE

P1100 SERIES - DC



ALL DIMENSIONS IN INCHES

SCR RATED:
5-135 In-Lbs Torque
LOW VOLTAGE:
25-135 In-Lbs Torque

Electrical Specifications:

SCR Rated Gearmotors

Totally enclosed right-angle gearmotors, performance matched for continuous service over a 60:1 speed range. All have constant torque throughout the range when powered by a full-wave, unfiltered SCR-type 115 volt input adjustable speed control having a typical form factor of 1.3 to 1.4. Also available as factory options are motors for low voltage input and with double output shafts.

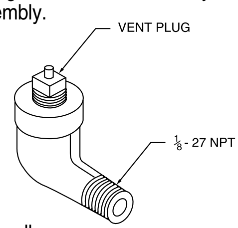
Low Voltage Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty. Motors are designed for battery power or can be used with a low voltage controller with form factor up to 1.05.

Mechanical Specifications:

This worm-type right-angle gearing features hardened, steel worm with bronze worm wheel for long life and quiet operation. Precision machined aluminum housings are used. Gearbox has all ball bearings. The housing is sealed and lubrication is permanent with an oil bath. The output shaft is field interchangeable from left hand style to right hand style by reassembly.

Application Notes:



For optimum seal life, these right-angle gearmotors have a lubrication breather positioned for horizontal mounting. For other mountings, the breather-plug must be reoriented by using a 90·1/8" NPT taper pipe elbow (see drawing). Elbow not available from LEESON. Vent plug is available (Part #M1900177_01). However, the motor portion of the gearmotor should never be mounted below the gearhead.

Overhung load capacities shown are at center of output shaft. **Conduit box *not* supplied with motor.** See page 179 for optional conduit box and optional base kit.

See page 254 for cross reference data between LEESON and other gearmotors.

For additional information on LEESON gearmotors, see Bulletin 1830.

BODINE/DAYTON DIRECT INTERCHANGE

RIGHT-ANGLE DC • SCR RATED
TENV • 1.0 SERVICE FACTOR

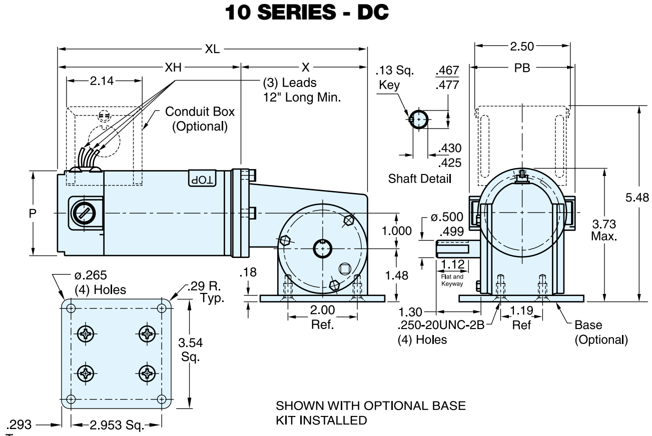
Output RPM	F.L. Torque (In.-Lbs.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm Volts DC	Full Load Amps. DC	Over-hung Load (Lbs.)	DIMENSIONS Inches P	PB	X	XL	XH
42	22	1/17	**M1115018.00**	10F60-25D	60	90	1.00	185	2.50	3.00	3.60	8.79	5.19
62	19	1/17	**M1115019.00**	10F40-25D	40	90	1.00	185	2.50	3.00	3.60	8.79	5.19
125	16	1/17	**M1115020.00**	10F20-25D	20	90	1.00	185	2.50	3.00	3.60	8.79	5.19
250	10	1/17	**M1115021.00**	10F10-25D	10	90	1.00	185	2.50	3.00	3.60	8.79	5.19
500	5	1/17	**M1115022.00**	10F05-25D	5	90	1.00	185	2.50	3.00	3.60	8.79	5.19
42	30	1/12	**M1135053.00**	13F60-34A	60	180	0.53	235	3.38	4.00	4.50	9.64	5.14
62	35	1/12	**M1135054.00 A**	13F40-34A	40	180	0.53	235	3.38	4.00	4.50	9.64	5.14
125	18	1/12	**M1135055.00**	13F20-34A	20	180	0.53	235	3.38	4.00	4.50	9.64	5.14
250	10	1/12	**M1135056.00 A**	13F10-34A	10	180	0.53	235	3.38	4.00	4.50	9.64	5.14
500	5	1/12	**M1135057.00 A**	13F05-34A	5	180	0.53	235	3.38	4.00	4.50	9.64	5.14
42	80	1/8	**M1135069.00**	13F60-34C	60	90	1.40	235	3.38	4.00	4.50	10.64	6.14
62	70	1/8	**M1135038.00**	13F40-34C	40	90	1.40	235	3.38	4.00	4.50	10.64	6.14
62	70	1/8	**M1135058.00**	13F40-34C	40	180	0.70	235	3.38	4.00	4.50	10.64	6.14
125	45	1/8	**M1135039.00**	13F20-34C	20	90	1.40	235	3.38	4.00	4.50	10.64	6.14
125	45	1/8	**M1135059.00**	13F20-34C	20	180	0.70	235	3.38	4.00	4.50	10.64	6.14
250	25	1/8	**M1135040.00**	13F10-34C	10	90	1.40	235	3.38	4.00	4.50	10.64	6.14
250	25	1/8	**M1135060.00**	13F10-34C	10	180	0.70	235	3.38	4.00	4.50	10.64	6.14
500	13	1/8	**M1135041.00**	13F05-34C	5	90	1.40	235	3.38	4.00	4.50	10.64	6.14
500	13	1/8	**M1135061.00 A**	13F05-34C	5	180	0.70	235	3.38	4.00	4.50	10.64	6.14
62	135	1/4	**M1135042.00**	13F40-34G	40	90	2.30	235	3.38	4.00	4.50	12.64	8.14
62	135	1/4	**M1135062.00**	13F40-34G	40	180	1.30	235	3.38	4.00	4.50	12.64	8.14
83	125	1/4	**M1135043.00**	13F30-34G	30	90	2.30	235	3.38	4.00	4.50	12.64	8.14
83	125	1/4	**M1135063.00**	13F30-34G	30	180	1.30	235	3.38	4.00	4.50	12.64	8.14
125	90	1/4	**M1135044.00**	13F20-34G	20	90	2.30	235	3.38	4.00	4.50	12.64	8.14
125	90	1/4	**M1135064.00**	13F20-34G	20	180	1.30	235	3.38	4.00	4.50	12.64	8.14
250	50	1/4	**M1135045.00**	13F10-34G	10	90	2.30	235	3.38	4.00	4.50	12.64	8.14
250	50	1/4	**M1135065.00**	13F10-34G	10	180	1.30	235	3.38	4.00	4.50	12.64	8.14
500	30	1/4	**M1135046.00**	13F05-34G	5	90	2.30	235	3.38	4.00	4.50	12.64	8.14
500	30	1/4	**M1135066.00**	13F05-34G	5	180	1.30	235	3.38	4.00	4.50	12.64	8.14

RIGHT-ANGLE DC • LOW VOLTAGE (12V)
TENV • 1.0 SERVICE FACTOR

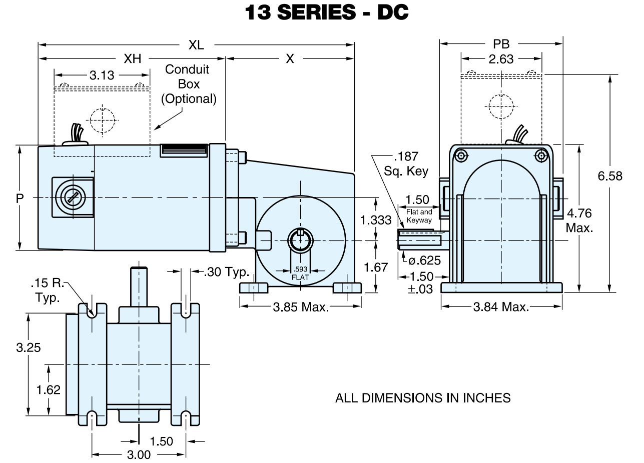
Output RPM	F.L. Torque (In.-Lbs.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm Volts DC	Full Load Amps. DC	Over-hung Load (Lbs.)	DIMENSIONS Inches P	PB	X	XL	XH
42	80	1/8	**M1135249.00 A**	13F60-34	60	12	11.0	235	3.38	4.21	4.50	10.39	5.89
250	25	1/8	**M1135250.00**	13F10-34	10	12	11.0	235	3.38	4.21	4.50	10.39	5.89
62	135	1/4	**M1135251.00**	13F40-34	40	12	21.0	235	3.38	4.21	4.50	12.64	8.14
125	90	1/4	**M1135252.00**	13F20-34	20	12	21.0	235	3.38	4.21	4.50	12.64	8.14

A Subject to Availability.

10 SERIES - DC



13 SERIES - DC



SERIES 12 SUB-FHP

Electrical Specifications:

Both SCR (90 volt) and Low Voltage (12 volt) right angle gearmotors. the 90 volt motors are performance matched for continuous service over a 60:1 speed range. All have constant torque throughout the speed range when powered by a full-wave, unfiltered SCR-type 115 volt input adjustable speed control having a typical form factor of 1.3 to 1.4. The low voltage motors are also performance matched for continuous duty. Motors are designed for battery power or can be used with a low voltage controller with form factor up to 1.05.

Mechanical Specifications:

This worm-type right-angle gearing features hardened, steel worm with bronze worm wheel for long life and quiet operation. Single-piece die cast aluminum alloy housing is vacuum impregnated with Resinol RT for protection and sealing. This gearbox combines light weight with high tensile strength along with being precision machined for alignment of bearings and gearing. For optimum seal life, we use high-temperature Nitrile seals. Gearbox provided with solid output shaft, but can be converted to a hollow output shaft mounting by using snap-ring pliers and remove the snap ring and solid output shaft. Also the T-base feet are bolted to the gearbox, but can easily be removed and converted to face mounting.

Conduit box not supplied with motor. See page 179.

RIGHT-ANGLE DC • SCR 90 VOLT RATED
TEFC • 1.0 SERVICE FACTOR

Input HP	F.L. Torque (In.-Lbs.)	Output RPM	Catalog Number	Enclosure	Gearmotor Type & Frame	Ratio to 1	Full Arm Volts DC	Load Amps. DC
1/8*	125	28	**M1135292.00**	TENV	12B60-34D	61	90	1.6
1/8*	87	45	**M1135291.00 A**	TENV	12B39-34D	39	90	1.6
1/4	158	58	**M1135290.00**	TEFC	12B30-34G	30	90	2.8
1/4	100	90	**M1135289.00**	TEFC	12B19-34G	19	90	2.6
1/4	85	115	**M1135288.00 A**	TEFC	12B15-34G	15	90	2.6
1/4	61	167	**M1135287.00**	TEFC	12B11-34G	10.6	90	2.6
1/4	46	250	**M1135286.00**	TEFC	12B7-34G	7	90	2.6

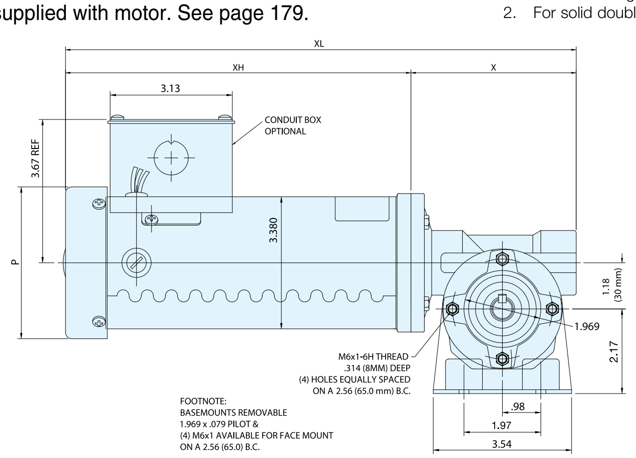
* Supplied with TENV motor enclosure

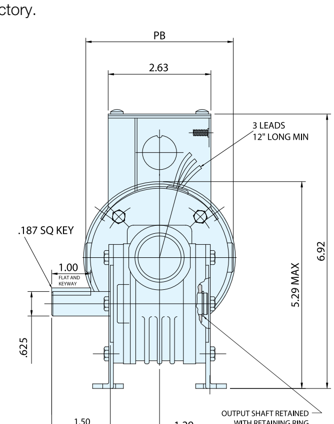
RIGHT-ANGLE DC • LOW VOLTAGE (12V)
TENV • 1.0 SERVICE FACTOR

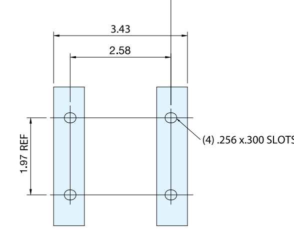
Input HP	F.L. Torque (In.-Lbs.)	Output RPM	Catalog Number	Enclosure	Gearmotor Type & Frame	Ratio to 1	Arm Volts DC	Full Load Amps. DC
1/8	134	27	**M1135285.00 A**	TENV	12B60-34C	61	12	14
1/8	94	45	**M1135284.00 A**	TENV	12B39-34C	39	12	15
1/4	158	58	**M1135297.00**	TENV	12B30-34F	30	12	24
1/4	100	90	**M1135296.00 A**	TENV	12B19-34F	19	12	24
1/4	85	115	**M1135295.00 A**	TENV	12B15-34F	15	12	23
1/4	61	167	**M1135294.00 A**	TENV	12B11-34F	10.6	12	21
1/4	46	250	**M1135293.00 A**	TENV	12B7-34F	7	12	23

A Subject to Availability.

NOTES:
1. Conduit box not supplied with the gearmotor. Mounting provisions are provided and can use conduit box kit catalog number M1760007 found on page 179.
2. For solid double output shaft, consult factory.







SCR 90 VOLT RATED DIMENSIONS (INCHES)

P	X	XL	XH	PB
3.38	4.32	11.07	6.75	4.00
3.38	4.32	11.07	6.75	4.00
3.88	4.32	13.16	8.84	3.76
3.88	4.32	13.16	8.84	3.76
3.88	4.32	13.16	8.84	3.76
3.88	4.32	13.16	8.84	3.76
3.88	4.32	13.16	8.84	3.76

LOW VOLTAGE (12V) DIMENSIONS (INCHES)

P	X	XL	XH	PB
3.38	4.32	10.57	6.25	4.21
3.38	4.32	10.57	6.25	4.21
3.38	4.32	11.82	7.5	4.21
3.38	4.32	11.82	7.5	4.21
3.38	4.32	11.82	7.5	4.21
3.38	4.32	11.82	7.5	4.21
3.38	4.32	11.82	7.5	4.21

General Specifications:

DC permanent magnet gearmotors rated for continuous duty. Designed for use with fullwave non-filtered SCR controls or battery supplied low voltage for adjustable speed applications requiring constant torque throughout the speed range.

Mechanical Specifications:

Gearbox output shafts are coated with Mirolon 3300 fortified Teflon for superior corrosion resistance.

Frame, endshields, armature and interior components protected by enamel and polyester compounds for resistance to moisture, acids, alkalies and oil.

Cast conduit box with threaded conduit holes and Nitrile gaskets keep water out. The conduit box cover is made from 304 stainless steel.

For any condensation that may accumulate inside the motor, a one-way stainless steel vapor vent is provided. All hardware is stainless steel. Motor painted with white epoxy for superior corrosion resistance and protection. Machined fits between the endbells and motor frame are sealed with gaskets. Thru-bolt heads and nuts sealed with fiber washers. O-rings under each threaded brush cover.

Precision machined in-line steel gears, with a first stage steel helical gear followed by spur-type gears. Lubrication is permanent semi-fluid grease, reducing possibility of leakage. Output shafts have needle bearings for high load capacities.

Application Notes:

LEESON WASHGUARD motors are designed for extended life in applications requiring regular washdown or otherwise wet environments. Washguard motors retard the entrance of water. Extra protection for the motor's interior prevents rust and corrosion build-up and releases trapped moisture to insure a longer life than possible with a standard motor.

These gearmotors are designed for mounting at any angle, but shaft up with motor below should be avoided to prevent leakage of lubricant into the motor should the shaft seal fail.

Overhung load capacities shown are at center of the output shaft.

The motor's stall torque exceeds recommended full load torques for the gearboxes. A current limiting device should be used to prevent damage to the gear sets.

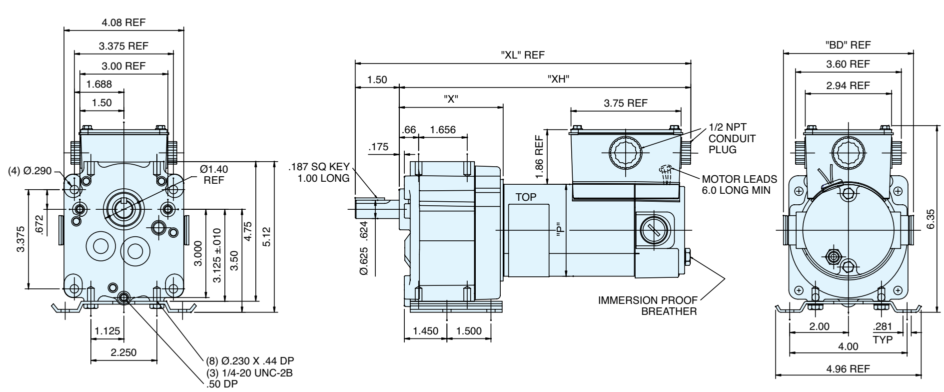
P300 SERIES • SCR RATED • 90V
PARALLEL SHAFT • TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm. Volts DC	Full Load Amps DC	Over-hung Load (Lbs.)	DIMENSIONS P	PB	X Inches	XL	XH
5	353	1/20	**M1125261.00**	P303-31	336	90	.81	565	3.13	3.80	3.54	10.44	8.94
31	220	1/8	**M1125262.00**	P303-31	58	90	1.6	327	3.13	3.80	3.54	11.94	10.44
51	130	1/8	**M1125263.00**	P302-31	35	90	1.6	277	3.13	3.80	3.54	11.94	10.44
94	77	1/8	**M1125264.00**	P302-31	19	90	1.6	236	3.13	3.80	3.54	11.94	10.44
167	43	1/8	**M1125265.00**	P302-31	11	90	1.6	197	3.13	3.80	3.54	11.94	10.44

P300 SERIES • LOW VOLTAGE (12V)
PARALLEL SHAFT • TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm. Volts DC	Full Load Amps DC	Over-hung Load (Lbs.)	DIMENSIONS P	PB	X Inches	XL	XH
5	353	1/20	**M1125266.00**	P303-31	336	12	6.4	565	3.13	3.80	3.54	10.44	8.94
31	220	1/8	**M1125267.00**	P303-31	58	12	11.0	327	3.13	4.43	3.54	11.44	9.94

White Duck



IP55 WASHGUARD GEARMOTORS

PARALLEL SHAFT

General Specifications:

DC permanent magnet gearmotors rated for continuous duty. Designed for use with fullwave non-filtered SCR controls or battery supplied low voltage for adjustable speed applications requiring constant torque throughout the speed range.

Mechanical Specifications:

Gearbox output shafts are coated with Mirolon 3300 fortified Teflon for superior corrosion resistance.

Frame, endshields, armature and interior components protected by enamel and polyester compounds for resistance to moisture, acids, alkalies and oil.

Cast conduit box with threaded conduit holes and Nitrile gaskets keep water out. The conduit box cover is made from 304 stainless steel.

For any condensation that may accumulate inside the motor, a one-way stainless steel vapor vent is provided. All hardware is stainless steel. Motor painted with white epoxy for superior corrosion resistance and protection. Machined fits between the endbells and motor frame are sealed with gaskets. Thru-bolt heads and nuts sealed with fiber washers. O-rings under each threaded brush cover.

Precision machined in-line steel gears, with a first stage steel helical gear followed by spur-type gears. Lubrication is permanent semi-fluid grease, reducing possibility of leakage. Output shafts have needle bearings for high load capacities.

Application Notes:

LEESON WASHGUARD motors are designed for extended life in applications requiring regular washdown or otherwise wet environments. WASHGUARD motors retard the entrance of water.

Extra protection for the motor's interior prevents rust and corrosion build-up and releases trapped moisture to insure a longer life than possible with a standard motor.

These gearmotors are designed for mounting at any angle, but shaft up with motor below should be avoided to prevent leakage of lubricant into the motor should the shaft seal fail.

Overhung load capacities shown are at center of the output shaft.

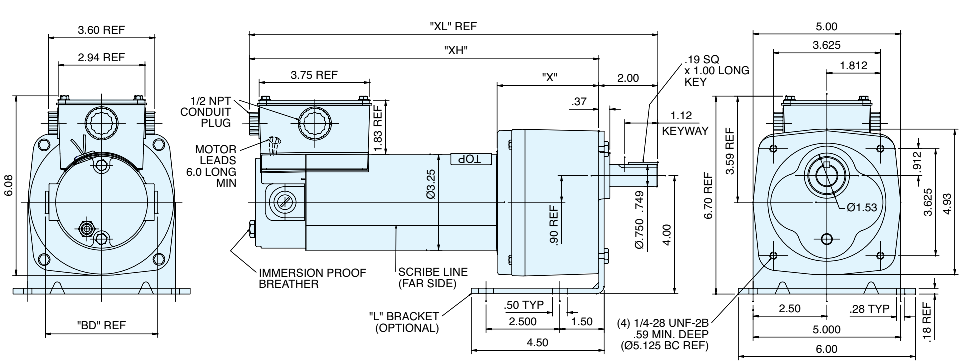
The motor's stall torque exceeds recommended full load torques for the gearboxes. A current limiting device should be used to prevent damage to the gear sets.

PE350 SERIES PARALLEL SHAFT
TENV • 1.0 SERVICE FACTOR • SCR RATED 90V

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm Volts DC	Full Load Amps DC	Over-hung Load (Lbs.)	DIMENSIONS P	PB	X	XL	XH
									Inches				
14	341	⅛	**M1125268.00**	P353-31	180	90	1.5	465	3.13	3.80	3.45	11.84	9.84
42	280	¼	**M1125269.00**	P353-32	58	90	2.6	327	3.25	3.80	3.45	13.84	11.84
83	155	¼	**M1125270.00**	P353-32	29	90	2.6	267	3.25	3.80	3.45	13.84	11.84
250	45	¼	**M1125271.00**	P352-32	10	90	2.6	201	3.25	3.80	3.45	13.84	11.84
500	25	¼	**M1125272.00**	P352-32	5	90	2.6	194	3.25	3.80	3.45	13.84	11.84

PE350 SERIES PARALLEL SHAFT
TENV • 1.0 SERVICE FACTOR • LOW VOLTAGE 12V

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm Volts DC	Full Load Amps DC	Over-hung Load (Lbs.)	DIMENSIONS P	PB	X	XL	XH
									Inches				
14	341	⅛	**M1125273.00**	P353-31	180	12	12	465	3.13	4.43	3.45	11.58	9.58
42	325	¼	**M1125274.00**	P353-32	58	12	20	327	3.25	4.43	3.45	13.84	11.84



Specifications are subject to change without notice

General Specifications:

DC permanent magnet gearmotors rated for continuous duty. Designed for use with fullwave non-filtered SCR controls or battery supplied low voltage for adjustable speed applications requiring constant torque throughout the speed range.

Mechanical Specifications:

Gearbox output shafts are 303 stainless steel.

Frame, endshields, armature and interior components protected by enamel and polyester compounds for resistance to moisture, acids, alkalies and oil.

Cast conduit box with threaded conduit holes and Nitrile gaskets keep water out. The conduit box cover is made from 304 stainless steel.

For any condensation that may accumulate inside the motor, a one-way stainless steel vapor vent is provided. All hardware is stainless steel. Motor painted with white epoxy for superior corrosion resistance and protection.

Machined fits between the endbells and motor frame are sealed with gaskets. Thru-bolt heads and nuts sealed with fiber washers. O-rings under each threaded brush cover.

This worm-type right-angle gearing features hardened, steel worm with bronze worm wheel for long life and quiet operation. Precision machined aluminum housings are used. Gearbox has all ball bearings. The housing is sealed and lubrication is permanent with an oil bath.

Application Notes:

LEESON WASHGUARD motors are designed for extended life in applications requiring regular washdown or otherwise wet environments. WASHGUARD motors retard the entrance of water.

Extra protection for the motor's interior prevents rust and corrosion build-up and releases trapped moisture to insure a longer life than possible with a standard motor.

For optimum seal life, these right-angle gearmotors have a lubrication breather positioned for horizontal mounting. For other mountings, the breather plug must be reoriented by using a 90 1/8 NPT taper pipe elbow. See page169 or 178 for diagram.

Overhung load capacities shown are at center of the output shaft.

The motor's stall torque exceeds recommended full load torques for the gearboxes. A current limiting device should be used to prevent damage to the gear sets.

RIGHT ANGLE • SCR RATED 90V
TENV • 1.0 SERVICE FACTOR

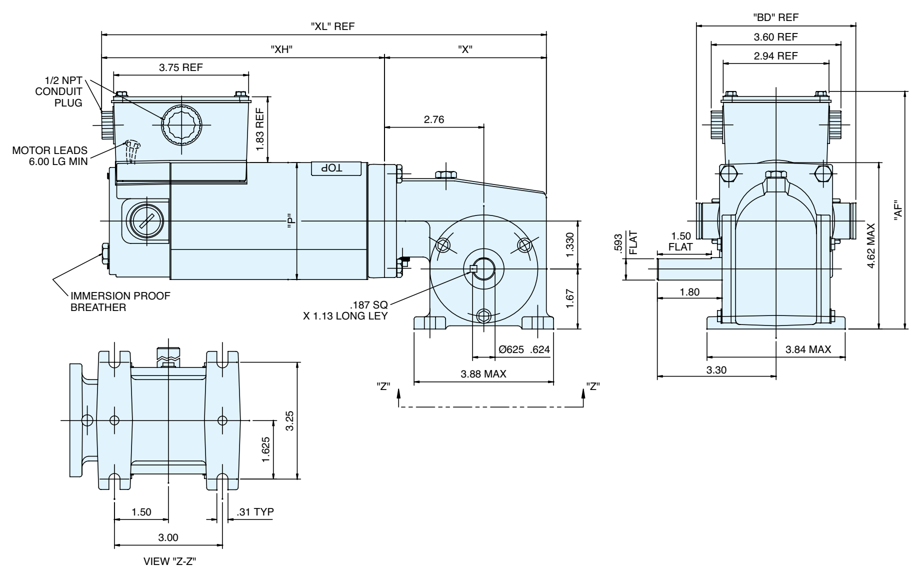
Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm Volts DC	Full Load Amps DC	Over-hung Load (Lbs.)	DIMENSIONS P	PB	X	XL	XH
									Inches				
42	80	⅛	**M1125275.00**	13F60-31	60	90	2.2	235	3.13	3.80	4.50	10.86	6.36
250	25	⅛	**M1125276.00**	13F10-31	10	90	2.2	235	3.13	3.80	4.50	10.86	6.36
62	135	¼	**M1125277.00**	13F40-32	40	90	3.7	235	3.25	3.80	4.50	12.86	8.36
125	90	¼	**M1125278.00**	13F20-32	20	90	3.7	235	3.25	3.80	4.50	12.86	8.36
250	50	¼	**M1125279.00**	13F10-32	10	90	3.7	235	3.25	3.80	4.50	12.86	8.36

RIGHT ANGLE • LOW VOLTAGE 12V
TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm Volts DC	Full Load Amps DC	Over-hung Load (Lbs.)	DIMENSIONS P	PB	X	XL	XH
									Inches				
62	135	¼	**M1125280.00**	13F40-32	40	12	28	235	3.25	4.43	4.50	12.36	7.86
125	90	¼	**M1125281.00**	13F20-32	20	12	28	235	3.25	4.43	4.50	12.36	7.86

White Duck

13 SERIES - DC



12-100 In-Lbs Output Torque

Design Specifications:

Single phase gearmotors, totally enclosed for continuous duty, general purpose applications. Permanent split capacitor designs are rated for 115 VAC 60 hertz input, and have starting torques equal to the running torques. The inline gearing is of precision machined steel, with first stage steel helical gear followed by spur type gears. Lubrication is by semi-fluid grease, reducing possibility of leakage and providing permanent lubrication. Output shafts have needle bearings for high load capacities. Shafts are hardened steel.

Application Notes:

These gearmotors are designed for mounting at any angle, but shaft up with motor below should be avoided to prevent leakage of lubricant into the motor should the motor's shaft seal fail. If these gearmotors are stalled, gearhead damage may result, especially in the ratios of 60:1 and higher. Provisions to limit the torque are recommended. The torque values listed are the recommended full load torque values for reasonable gear life.

Overhung load capacities shown are at center of output shaft. All PZ Series gearmotors are supplied with continuous duty "run" capacitor. **Conduit box *not* supplied with motor.** See page 179 for optional conduit box.

Model PZ gearmotors have the same mounting dimensions as Bodine model D and Z gearmotors, Bison 100 gearmotors, and Baldor/Boehm PSS, plus many of the Dayton gearmotors.

For additional information, see Bulletin 1830.

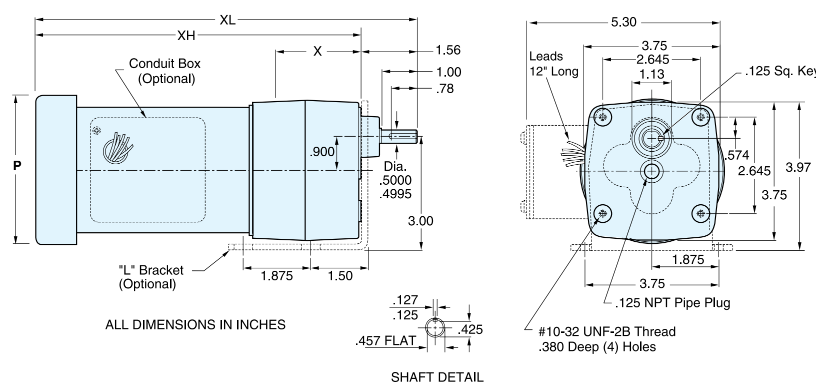
BODINE/BISON/DAYTON DIRECT INTERCHANGE

PZ SERIES AC GEARMOTORS
PARALLEL SHAFT • TEFC • 115V • SINGLE PHASE
40°C AMBIENT • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 115 VAC	Over-hung Load (Lb.)	DIMENSIONS Inches P	X	XL	XH	Capacitor Mfd. 240 VAC
2	100	1/150	**M1125050.00#**	PZ5-31	900	0.4	155	3.07	3.23	8.71	7.15	3.0
9	100	1/15	**M1125127.00**	PZ4-31	180	0.9	155	3.88	3.23	10.42	8.86	10.0
19	100	1/15	**M1125128.00**	PZ4-31	90	0.9	155	3.88	3.23	10.42	8.86	10.0
28	100	1/15	**M1125129.00**	PZ3-31	60	0.9	155	3.88	2.43	9.62	8.06	10.0
57	56	1/15	**M1125130.00**	PZ3-31	30	0.9	171	3.88	2.43	9.62	8.06	10.0
94	36	1/15	**M1125131.00**	PZ3-31	18	0.9	171	3.88	2.43	9.62	8.06	10.0
142	24	1/15	**M1125132.00**	PZ2-31	12	0.9	180	3.88	2.13	9.32	7.76	10.0
283	12	1/15	**M1125133.00**	PZ2-31	6	0.9	180	3.88	2.13	9.32	7.76	10.0

TENV enclosure

PZ SERIES - AC



QUICK REFERENCE

GEARMOTOR CROSS REFERENCE .... Page 254
"L" BRACKET AND CONDUIT BOX 179

43-391 In-Lbs Output Torque

Design Specifications:
Single phase gearmotors, totally enclosed for continuous duty, general purpose applications. Permanent split capacitor designs are rated for 115/230VAC, 60/50 Hertz input, and have starting torques equal to the running torques. The in-line gearing is of precision machined steel, with first stage steel helical gear followed by spur type gears. Lubrication is by semi-fluid grease, reducing possibility of leakage and providing permanent lubrication. Output shafts have needle bearings for high load capacities. Shafts are hardened steel.

Application Notes:
These gearmotors are designed for mounting at any angle, but shaft up with motor below should be avoided to prevent leakage of lubricant into the motor should the motor's shaft seal fail. If these gearmotors are stalled, gearhead damage may result, especially in the ratios of 60:1 and higher. Provisions to limit the torque are recommended. The torque values listed are the recommended full load torque values for reasonable gear life.

Overhung load capacities shown are at center of output shaft. All P240 gearmotors are supplied with continuous duty "run" capacitor. **Conduit box *not* supplied with motor.** See page 179 for optional conduit box.

Model P240 gearmotors have the same mounting dimensions as Bison's 224 and 242 gearmotors and many Dayton gearmotors.

For additional information, see Bulletin 1830.

Please contact LEESON for output speeds not listed.

BISON/DAYTON
DIRECT INTERCHANGE

P240 SERIES AC GEARMOTORS
PARALLEL SHAFT • TOTALLY ENCLOSED • 115/230V SINGLE PHASE • 40°C AMBIENT • 1.0 SERVICE FACTOR

60 Hz Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 115V AC	Over-hung Load (Lb.)	DIMENSIONS Inches P	X	XL	XH	Capacitor Mfd. 240 VAC
8	345	1/15	**M1145029.00**	P243-38D	216	1.0	491	3.85	3.50	10.46	8.96	7.5
15	250	1/15	**M1145023.00**	P243-38D	114	1.0	407	3.85	3.50	10.46	8.96	7.5
16	391	1/6	**M1145030.00****	P243-38F	103	2.1	399	4.43	3.50	12.13	10.63	15.0
30	135	1/15	**M1145024.00**	P242-38D	52	1.0	330	3.85	3.50	10.46	8.96	7.5
30	295	1/6	**M1145031.00****	P243-38F	58	2.1	330	4.43	3.50	12.13	10.63	15.0
40	219	1/6	**M1145032.00****	P243-38F	43	2.1	303	4.43	3.50	12.13	10.63	15.0
45	92	1/15	**M1145025.00**	P242-38D	35	1.0	292	3.85	3.50	10.46	8.96	7.5
60	157	1/6	**M1145033.00****	P242-38D	29	2.1	268	4.43	3.50	12.13	10.63	15.0
70	61	1/15	**M1145026.00**	P242-38D	23	1.0	256	3.85	3.50	10.46	8.96	7.5
90	103	1/6	**M1145034.00****	P242-38D	19	2.1	237	4.43	3.50	12.13	10.63	15.0
97	43	1/15	**M1145027.00**	P242-38D	16.5	1.0	232	3.85	3.50	10.46	8.96	7.5
139	30	1/15	**M1145028.00**	P242-38D	11.5	1.0	208	3.85	3.50	10.46	8.96	7.5
156	60	1/6	**M1145035.00****	P242-38D	10.6	2.1	201	4.43	3.50	12.13	10.63	15.0

** TEFC enclosure.

IP55 AC Washguard Gearmotors Parallel Shaft

Design Specifications:
Single and Three-phase washdown duty gearmotors rated for continuous duty applications. Permanent split designed single-phase motors include capacitor in conduit box. Motors are designed for extended life in applications requiring regular washdown or otherwise wet environments. Avoid shaft up applications, with motor below, should shaft seal fail.

Features include:
- 304 Stainless steel external shafts
- White epoxy painted motors
- O-rings and gaskets used for sealing
- Hardened Worm-type gearing used
- Interior components protected against corrosion
- Ball bearings used in gear housing
- Sealed output shafts
- Output shafts have needle bearings for high load capacities
- UL listed and CSA certified

P240 SERIES AC WASHDOWN DUTY GEARMOTORS

RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Voltage	Phase
16	391	5/32	**M1145138.00**	P240	103	115/230	1
40	219	5/32	**M1145139.00**	P240	43	115/230	1
156	60	5/32	**M1145140.00**	P240	10.6	115/230	1
16	391	1/6	**M1145144.00**	P240	103	230	3
30	295	1/6	**M1145145.00**	P240	58	230	3

LEESON

SUB-FHP AC GEARMOTORS

PARALLEL SHAFT GEARMOTORS

25-341 In-Lbs Output Torque

Design Specifications:

Sub-FHP AC gearmotors. Totally enclosed for continuous duty, general purpose applications. All rated for 60/50 Hz operation except hi-torque single-phase which are 60 Hz only.

Gearbox has rugged aluminum die cast housing, for maximum gear and bearing support. Precision machined gearing, hardened for maximum load capability. All gearing designed and rated to AGMA Class 9 standards and to withstand momentary shock overload of 200%. Oversized output bearings for greater overhung load capacity and longer life. High-carbon alloy output shaft provides maximum strength and rigidity. All needle bearing journals are precision-ground after heat treating, to provide maximum finish and fit. Single lip, spring loaded, heavy-duty industrial oil seals help keep lubricant in and dirt out. Gears and bearings are splash lubricated with permanent, heavy-duty gear oil.

Application Notes:

These gearmotors are designed for mounting at any angle, but shaft-up with motor below gearhead is not recommended.

Run capacitor supplied with gearmotor at no additional cost. **Three phase and hi-torque single-phase models include conduit box, other single-phase models do not.** See page 179 for optional conduit box.

Overhung load capacities shown are at center of output shaft.

Model PE350 gearmotors have the same mounting dimensions as Bodine's "E" box and many Baldor/ Boehm gearmotors.

BODINE DIRECT INTERCHANGE

GEARMOTORS

PE350 SERIES AC GEARMOTORS
SINGLE PHASE • PARALLEL SHAFT • TEFC • 115/230V

60 Hz Output RPM	F.L.F.L. Torque (Lb.In.)	Input HP	Catalog Number	Type & Frame	Ratio to 1	Amps 115V AC	Overhung Load Lbs.	DIMENSIONS Inches XL	XH	Capacitor Mfd. 240VAC
5	310	1/12	**096000.00#**	PE353-42	336	1.3	565	11.36	9.36	10.0
9	341	1/12	**096001.00#**	PE353-42	180	1.3	491	11.36	9.36	10.0
14	330	1/12	**096002.00#**	PE353-42	124	1.3	459	11.36	9.36	10.0
19	250	1/12	**096003.00#**	PE353-42	91	1.3	374	11.36	9.36	10.0
29	270	1/6	**096004.00**	PE353-42	58	3.2	327	13.32	11.32	15.0
34	250	1/6	**096005.00**	PE353-42	50	3.2	330	13.32	11.32	15.0
40	180	1/6	**096006.00 A**	PE353-42	43	3.2	303	13.32	11.32	15.0
59	135	1/6	**096007.00 A**	PE352-42	29	3.2	267	13.32	11.32	15.0
75	90	1/6	**096008.00**	PE352-42	23	3.2	256	13.32	11.32	15.0
113	68	1/6	**096009.00**	PE352-42	15	3.2	222	13.32	11.32	15.0
160	45	1/6	**096010.00 A**	PE352-42	10	3.2	196	13.32	11.32	15.0
340	25	1/6	**096011.00**	PE352-42	5	3.2	190	13.32	11.32	15.0
Hi-Torque Single Phase PE350 Gearmotors With Capacitor Start Motors										
58	320	1/3	**096049.00**	PE353-42	30	7.2	300	14.56	12.56	…
85	218	1/3	**096050.00**	PE353-42	20	7.2	300	14.56	12.56	…
173	109	1/3	**096051.00**	PE353-42	10	7.2	300	14.56	12.56	…
345	55	1/3	**096052.00 A**	PE353-42	5	7.2	300	14.56	12.56	…

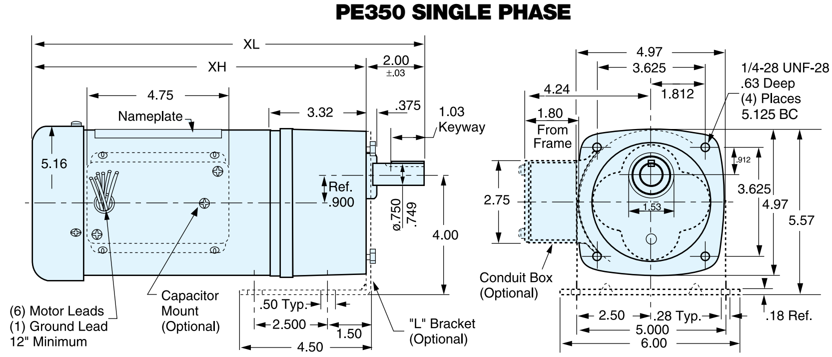
TENV enclosure

PE350 SERIES AC GEARMOTORS
THREE PHASE • PARALLEL SHAFT • TEFC • 230/460V

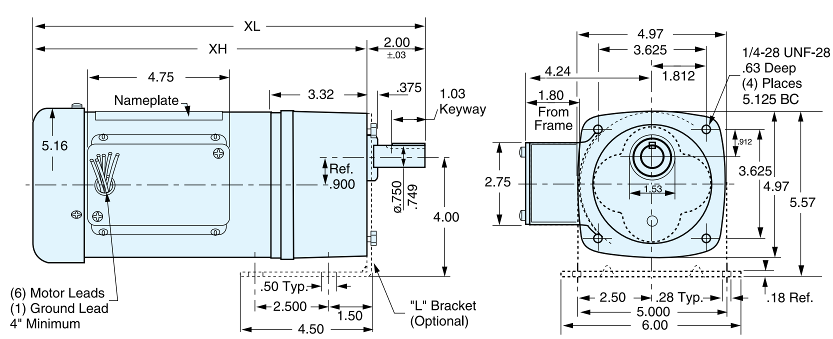
Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Type & Frame	Ratio to 1	F.L. Amps 230V AC	Overhung Load Lbs.	DIMENSIONS Inches XL	XH
58	320	1/3	**096013.00**	PE353-42	30	1.6	300	13.81	11.81
85	218	1/3	**096014.00**	PE352-42	20	1.6	300	13.81	11.81
173	109	1/3	**096015.00**	PE352-42	10	1.6	300	13.81	11.81
345	55	1/3	**096016.00**	PE352-42	5	1.6	300	13.81	11.81

A Subject to Availability.

PE350 SINGLE PHASE



PE350 THREE PHASE



ALL DIMENSIONS IN INCHES

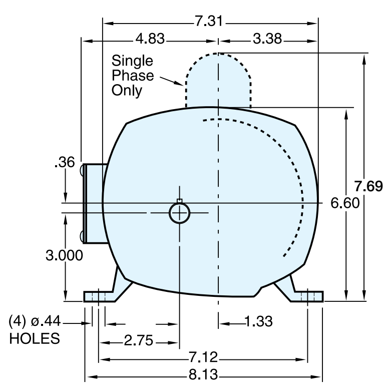
Specifications are subject to change without notice

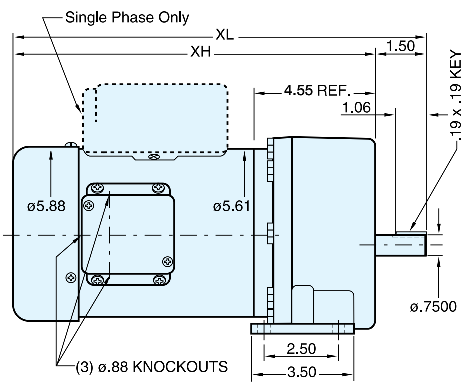
70-1105 In-Lbs Output Torque

Design Specifications:
Fractional horsepower AC gearmotors. Totally enclosed for continuous duty, general purpose applications. Rated for 60 Hz input.
Gearbox has rugged aluminum die cast housing, for maximum gear and bearing support. Precision machined gearing, hardened for maximum load capability. All gearing designed and rated to AGMA Class 9 standards and to withstand momentary shock overload of 200%. Oversized output bearings for greater overhung load capacity and longer life. High-carbon alloy output shaft provides maximum strength and rigidity. All needle bearing journals are precision-ground after heat treating, to provide maximum finish and fit. Heavy-duty industrial oil seals help keep lubricant in and dirt out. Gears and bearings are splash lubricated with permanent, heavy-duty gear oil.

Application Notes:
These gearmotors are designed for mounting at any angle, but shaft-up with motor below gearhead is not recommended.
P1100 AC gearmotors have the same mounting dimensions as Bison 482 gearmotors and many Dayton gearmotors.
Three phase units suitable for inverter duty.
Both single and three phase models include conduit box.
For additional information, see Bulletin 1830.

BISON/DAYTON DIRECT INTERCHANGE





ALL DIMENSIONS IN INCHES

P1100 SERIES AC GEARMOTORS
SINGLE PHASE • FRACTIONAL HP • TEFC • 115/230V

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Type & Frame	Ratio to 1	F.L. Amps 115V AC	Overhung Load Lbs.	DIMENSIONS Inches XL	XH
8	975	¼	**107000.00**	P1103-48	212	5.4	700	13.42	11.92
12	1030	¼	**107004.00**	P1103-48	143	5.4	700	13.42	11.92
18	800	¼	**107003.00**	P1103-48	95	5.4	700	13.42	11.92
26	569	¼	**107002.00**	P1103-48	66	5.4	650	13.42	11.92
59	248	¼	**107005.00**	P1102-48	29	5.4	625	13.42	11.92
133	114	¼	**107001.00**	P1102-48	13	5.4	525	13.42	11.92
18	1089	⅓	**107006.00**	P1103-48	95	6.2	700	13.67	13.17
26	752	⅓	**107012.00**	P1103-48	66	6.2	650	13.67	13.17
41	461	⅓	**107011.00**	P1102-48	42	6.2	650	13.67	13.17
59	330	⅓	**107010.00**	P1102-48	29	6.2	625	13.67	13.17
91	224	⅓	**107009.00**	P1102-48	19	6.2	575	13.67	13.17
157	125	⅓	**107008.00**	P1102-48	11	6.2	500	13.67	13.17
288	70	⅓	**107007.00**	P1102-48	6	6.2	400	13.67	13.17
22	1105	½	**107013.00**	P1103-48	79	8.8	700	14.17	12.67
41	700	½	**107017.00**	P1102-48	42	8.8	650	14.17	12.67
59	496	½	**107016.00**	P1102-48	29	8.8	625	14.17	12.67
91	336	½	**107015.00**	P1102-48	19	8.8	575	14.17	12.67
133	229	½	**107014.00**	P1102-48	13	8.8	525	14.17	12.67

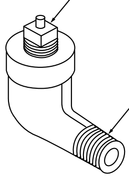
P1100 SERIES AC GEARMOTORS
THREE PHASE • FRACTIONAL HP • TEFC • 230/460V

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Type & Frame	Ratio to 1	F.L. Amps 230V AC	Overhung Load Lbs.	DIMENSIONS Inches XL	XH
18	1089	⅓	**107025.00**	P1103-48	95	1.6	700	12.92	11.42
26	752	⅓	**107026.00**	P1103-48	66	1.6	650	12.92	11.42
41	461	⅓	**107027.00**	P1102-48	42	1.6	650	12.92	11.42
59	330	⅓	**107028.00**	P1102-48	29	1.6	625	12.92	11.42
91	224	⅓	**107029.00**	P1102-48	19	1.6	575	12.92	11.42
157	125	⅓	**107030.00**	P1102-48	11	1.6	500	12.92	11.42
288	70	⅓	**107031.00**	P1102-48	6	1.6	400	12.92	11.42
22	1105	½	**107032.00**	P1103-48	79	2.0	700	13.42	11.92
41	700	½	**107033.00**	P1102-48	42	2.0	650	13.42	11.92
59	496	½	**107034.00**	P1102-48	29	2.0	625	13.42	11.92
91	336	½	**107035.00**	P1102-48	19	2.0	575	13.42	11.92
133	229	½	**107036.00**	P1102-48	13	2.0	500	13.42	11.92
288	100	½	**107037.00**	P1102-48	6	2.0	400	13.42	11.92

14-113 In-Lbs Output Torque

Design Specifications:
Single phase gearmotors, totally enclosed for continuous duty, general purpose applications. Permanent split capacitor motors rated 115/230 VAC 60/50 hertz input, and have starting torque equal to the running torque.
This worm-type right-angle gearing features hardened, steel worm with bronze worm wheel for long life and quiet operation. Precision machined aluminum housings are used. Gearbox has all ball bearings. The housing is sealed and lubrication is permanent with an oil bath. The output shaft is field interchangeable from left hand style to right hand style.

Application Notes:
For optimum seal life, these right angle gearmotors have a lubrication breather positioned for horizontal mounting. For other mountings, the breather-plug must be reoriented by using a 90 1/8" NPT taper pipe elbow (see drawing). However, the motor portion of the gearmotor should never be mounted below the gearhead.
Overhung load capacities shown are at center of output shaft. These motors are supplied with continuous duty "run" capacity. **Conduit box *not* supplied with motor.** See page 179 for optional conduit box and base kit.



Please contact LEESON for output speeds not listed.
For additional information, see Bulletin 1830.

RIGHT-ANGLE AC GEARMOTORS
TOTALLY ENCLOSED • 115/230 V • SINGLE PHASE

60 Hz Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 115V AC	Over-hung Load (Lb.)	DIMENSIONS P Dia.	X	XL Inches	XH	Capacitor Mfd.
28	37	1/15	**M1125080.00**	10F60-31C	60	0.9	185	3.07	3.63	8.94	5.31	10.0✣
43	34	1/15	**M1125081.00**	10F40-31C	40	0.9	185	3.07	3.63	8.94	5.31	10.0✣
58	40	1/15	**M1125082.00**	10F30-31C	30	0.9	185	3.07	3.63	8.94	5.31	10.0✣
85	24	1/15	**M1125083.00**	10F20-31C	20	0.9	185	3.07	3.63	8.94	5.31	10.0✣
173	14	1/15	**M1125084.00**	10F10-31C	10	0.9	185	3.07	3.63	8.94	5.31	10.0✣
29	110	1/6	**M1145037.00****	13F60-38F	60	2.0	235	3.85	4.50	12.31	7.81	15.0❊
43	113	1/6	**M1145038.00****	13F40-38F	40	2.0	235	3.85	4.50	12.31	7.81	15.0❊
57	95	1/6	**M1145082.00****	13F30-38F	30	2.0	235	3.85	4.50	12.31	7.81	15.0❊
83	75	1/6	**M1145039.00****	13F20-38F	20	2.0	235	3.85	4.50	12.31	7.81	15.0❊
170	43	1/6	**M1145040.00****	13F10-38F	10	2.0	235	3.85	4.50	12.31	7.81	15.0❊
340	23	1/6	**M1145041.00****	13F05-38F	5	2.0	235	3.85	4.50	12.31	7.81	15.0❊

** TEFC enclosure.
✣ 250 VAC
❊ 300 VAC

BODINE/DAYTON
DIRECT INTERCHANGE

IP55 AC Washguard Gearmotors Right Angle

Design Specifications:
Single and Three-phase washdown duty gearmotors rated for continuous duty applications. Permanent split designed single-phase motors include capacitor in conduit box. Motors are designed for extended life in applications requiring regular washdown or otherwise wet environments. Avoid shaft up applications, with motor below, should shaft seal fail.

Features include:
- 304 Stainless steel external shafts
- White epoxy painted motors
- O-rings and gaskets used for sealing
- Hardened Worm-type gearing used
- Interior components protected against corrosion
- Ball bearings used in gear housing
- Sealed output shafts
- Output shafts have needle bearings for high load capacities
- UL listed and CSA certified

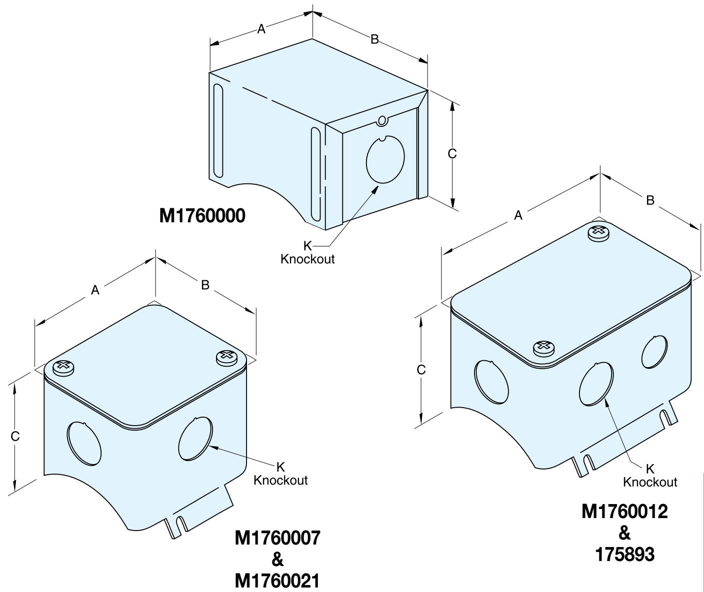
RIGHT ANGLE SERIES AC WASHDOWN DUTY GEARMOTORS

RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type	Ratio to 1	Voltage	Phase
43	113	3/8	**M1145141.00**	Right-Angle	40	115/230	1
83	75	3/8	**M1145142.00**	Right-Angle	20	115/230	1
340	23	3/8	**M1145143.00**	Right-Angle	5	115/230	1
29	220	3/8	**M1145146.00**	Right-Angle	60	230	3
172	105	3/8	**M1145147.00**	Right-Angle	10	230	3

White Duck

SUB-FHP GEARMOTOR CONDUIT BOXES

Optional steel conduit or junction boxes are available. The boxes are painted and mount in holes using screws provided with all stock gearmotors.

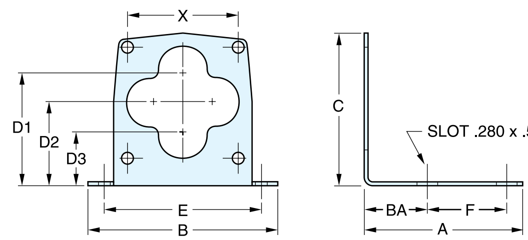


Catalog Number	For Motor Frames	DIMENSIONS (Inches) A	B	C	K
M1760000.00*	25	2.09	2.45	2.23	0.875
M1760021.00*	30/31	3.13	2.63	2.28	0.875
M1760007.00	34	3.13	2.63	2.28	0.875
M1760012.00	38	4.75	2.75	2.00	1.125
175893.00	42	4.75	2.75	2.00	1.125

Note: * For any gearmotor catalog number beginning with M1115XXX, *must* clarify from gearmotor type and frame columns as listed on catalog pages 164, 165 and 169. For example, if gearmotor type and frame lists P303-30E, then use 30 frame conduit box kit M1760021. If gearmotor type and frame lists 10F60-25, then use conduit box kit M1760000.

SUB-FHP GEARMOTOR "L" MOUNTING BRACKET

Optional "L" brackets can be used to mount parallel shaft type PZ or PE350 gearmotors. Of steel construction, they are painted and include screws for mounting to the motor, but not the application.



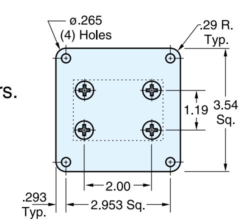
Catalog Number	For Motors	DIMENSIONS (Inches) A	B	C	D1	D2	D3	X	BA	F	E
M1760003.00*	PZ Gearmotors	3.75	4.50	3.935	3.00	2.25	1.50	2.645	1.50	1.875	3.75
M1760011.00**	PE350 Gearmotors	4.50	6.00	5.520	4.00	3.10	2.20	3.625	1.50	2.500	5.00
M1760029.00∆	PE350 Gearmotors	4.50	6.00	5.520	4.00	3.10	2.20	3.625	1.50	2.500	5.00

* Maximum radial load no greater than 50 lbs. This bracket can also be used on DC motors in the 34 frame having the style C mounting.
** Maximum radial load no greater than 200 lbs.
∆ Washguard PE350 L-Bracket

SUB-FHP GEARMOTOR RIGHT-ANGLE BASE KIT

This Optional Base Kit can be used with the 10 Series right-angle gearmotors. (Includes screws for mounting to gearbox, but not the application.)

Catalog Number
M1760006



CAPACITORS FOR SUB-FHP RIGHT-ANGLE AC GEARMOTORS

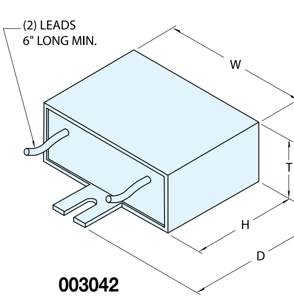
MFD Rating	Voltage Rating	Catalog Number	DIMENSIONS (Inches) W	H	T	D
10.0	250	**003043.05**	1.89	1.14	0.75	1.14
15.0	300	**003042.05**	2.28	1.61	1.14	2.48

CAPACITORS FOR SUB-FHP AC PZ SERIES GEARMOTORS

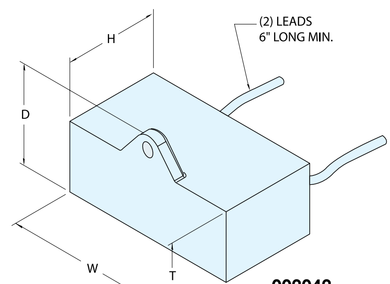
MFD Rating	Voltage Rating	Catalog Number	DIMENSIONS (Inches) W	H	T	D
3.0	250	**003043.01**	1.22	0.93	0.57	0.97
10.0	250	**003043.05**	1.89	1.14	0.75	1.14

CAPACITORS FOR SUB-FHP P240 & PE350 AC GEARMOTORS

Gearmotor Type	MFD Rating	Voltage Rating	Catalog Number	DIMENSIONS (Inches) W	H	T	D
P240	7.5	250	**003042.02**	1.89	1.14	0.75	2.01
PE350	10.0	250	**003042.06**	1.89	1.24	0.89	2.11
P240	15.0	300	**003042.05**	2.28	1.61	1.14	2.48
PE350	15.0	250	**003042.04**	2.28	1.46	0.93	2.33



003042



003043

SUB-FHP AC GEARMOTORS

INVERTER RATED

Design Specifications:

Three phase motors totally enclosed for continuous duty, general purpose applications.

Standard on all these ratings is the exclusive Inverter Rated Insulation System (IRIS). This provides superior protection against voltage spikes induced by variable frequency drives.

Many superior mechanical features for both the motor and gearbox. Double shielded ball bearings in the motor. Needle bearings in the parallel shaft gearboxes and ball bearings in the Right angle (worm) gearboxes. Steel conduit box provided as Standard. Complete gearmotor furnished with high gloss hardened black enamel paint.

Application Notes:

These motors are designed with high temp insulation (Clsss F) to avoid over heating when operated with a PWM inverter down to a 10:1 speed range from the printed gearmotor output RPM.

Refer to pages 176 to 178 detailing non-horizontal mounting.

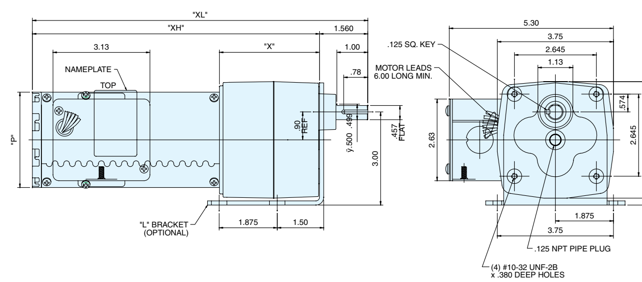
The torque values listed are the recommended full load torque values for reasonable gear life.

Overhung load capacities shown are at the center of the output shaft. See page 179 for optional "L" bracket kits for PZ and PE350 units. Please contact LEESON for output speeds not listed.

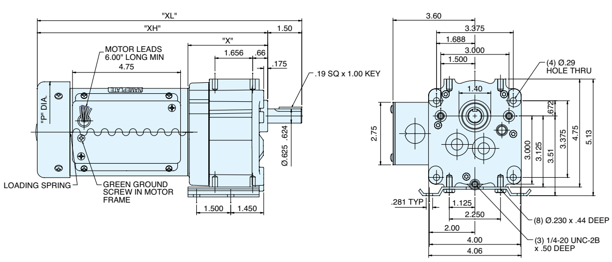
PZ SERIES AC GEARMOTORS
THREE PHASE • 230V • TENV

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 230V AC	Over-hung Load (Lb.)	DIMENSIONS Inches P	X	XL	XH
19	100	1/15	**M1125282.00**	PZ4-31	90	0.4	155	3.07	3.23	10.83	9.27
57	56	1/15	**M1125283.00**	PZ3-31	30	0.4	171	3.07	2.43	10.03	8.47
142	24	1/15	**M1125284.00**	PZ2-31	12	0.4	180	3.07	2.13	9.73	8.17
283	12	1/15	**M1125285.00**	PZ2-31	6	0.4	180	3.07	2.13	9.73	8.17

PZ SERIES – AZ



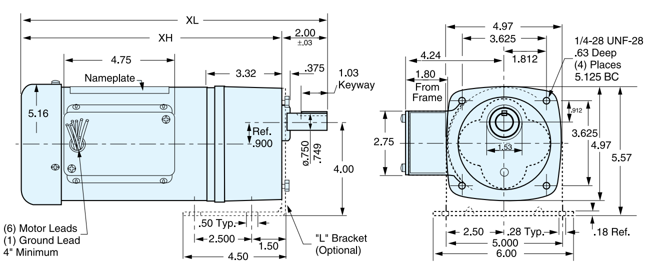
P240 SERIES – AC



P240 SERIES AC GEARMOTORS
THREE PHASE • 230V • TEFC

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 230V AC	Over-hung Load (Lb.)	DIMENSIONS Inches P	X	XL	XH
16	391	1/6	**M1145122.00**	P243-38	103	0.72	399	4.43	3.50	11.63	10.13
30	295	1/6	**M1145123.00**	P243-38	58	0.72	330	4.43	3.50	11.63	10.13
60	157	1/6	**M1145124.00**	P242-38	29	0.72	268	4.43	3.50	11.63	10.13
90	103	1/6	**M1145125.00**	P242-38	19	0.72	330	4.43	3.50	11.63	10.13
156	60	1/6	**M1145126.00**	P242-38	10.6	0.72	330	4.43	3.50	11.63	10.13

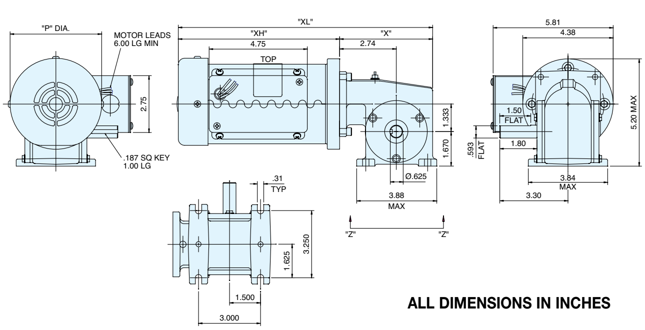
PE350 THREE PHASE



PE350 SERIES AC GEARMOTORS
THREE PHASE • 230/460V • TEFC

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 230V AC	Over-hung Load (Lb.)	DIMENSIONS Inches P	X	XL	XH
9	341	1/6	**096065.00**	PE353-42	180	1.0	491	5.16	3.32	12.57	10.57
29	300	1/4	**096066.00**	PE353-42	58	1.2	327	5.16	3.32	13.07	11.07
58	244	1/4	**096067.00**	PE353-42	30	1.2	300	5.16	3.32	13.07	11.07
85	165	1/4	**096068.00**	PE352-42	20	1.2	300	5.16	3.32	13.07	11.07
173	92	1/4	**096069.00**	PE352-42	10	1.2	300	5.16	3.32	13.07	11.07
325	50	1/4	**096070.00**	PE352-42	5	1.2	300	5.16	3.32	13.07	11.07

13 SERIES – AC



ALL DIMENSIONS IN INCHES

RIGHT ANGLE SERIES AC GEARMOTORS
THREE PHASE • 230V • TEFC

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 230V AC	Over-hung Load (Lb.)	DIMENSIONS Inches P	X	XL	XH
29	238	3/8	**M1145127.00**	13F60-38	60	1.3	235	4.43	4.50	12.31	7.81
43	228	3/8	**M1145128.00**	13F40-38	40	1.3	235	4.43	4.50	12.31	7.81
86	138	3/8	**M1145129.00**	13F20-38	20	1.3	235	4.43	4.50	12.31	7.81
172	105	3/8	**M1145130.00**	13F10-38	10	1.3	235	4.43	4.50	12.31	7.81
345	54	3/8	**M1145131.00**	13F05-38	5	1.3	235	4.43	4.50	12.31	7.81

Design Specifications:

Three phase motors totally enclosed for continuous duty, general purpose applications.

Standard on all these ratings is the exclusive Inverter Rated Insulation System (IRIS). This provides superior protection against voltage spikes induced by variable frequency drives.

Many superior mechanical features double shielded ball bearings, welded-on base, steel conduit box provided as standard, furnished with high gloss hardened black enamel paint.

Application Notes:

These motors are designed with high temp insulation (Class F) to avoid overheating when operated with a PWM inverter down to a 10:1 speed range from the motor's base speed.

230 VOLT • THREE PHASE
1.0 SERVICE FACTOR • TOTALLY ENCLOSED

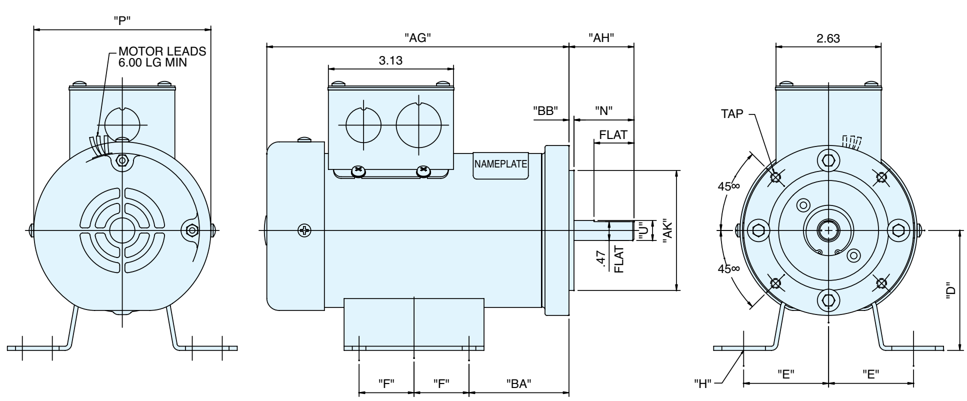
HP	RPM 60 Hz	Frame	Catalog Number	Voltage	F.L. Amps 230V
1⁄15	1725	38	**M1140171.00***	230	.4
1⁄6	1725	38	**M1140173.00***	230	.72
1⁄4	1725	38	**M1140172.00**	230	1.1

* TENV enclosure

38 FRAME NEMA C-FACE WITH BASE DIMENSIONS

Catalog Number	AG	P	U	AH	BB	AJ	TAP	R	AK	BB	D	BA	E	F	H
M1140171.00	5.14	3.85	.5000	1.63	1.00	3.75	1/4-20	4.25	3.00	.13	3.0	2.50	2.125	1.375	11/32 Slot
M1140173.00	6.14	3.85	.5000	1.63	1.00	3.75	1/4-20	4.25	3.00	.13	3.0	2.50	2.125	1.375	11/32 Slot
M1140172.00	7.56	4.43	.5000	1.63	1.00	3.75	1/4-20	4.25	3.00	.13	3.0	2.50	2.125	1.375	11/32 Slot

AC 38 48C



ALL DIMENSIONS IN INCHES

Both motors only and gearmotors will have inverter rated printed on the nameplate.
UL and CSA recognition for both motors only and gearmotors

LEESON'S Inverter Rated Insulation System (IRIS™) provides superior protection against voltage spikes induced by variable frequency drives. This *total insulation system* protects better than spike-resistant magnet wire alone. Sleeved connections (from the leads all the way into the turns), and deep-penetrating, non-hygroscopic, high temperature varnish are just a few features contributing to extra protection. All this plus second generation spike-resistant magnet wire. The IRIS™ *total insulation system* is standard at no extra cost.

GEARMOTORS

Lincoln™ MOTORS

TOTALLY ENCLOSED AUTOMOTIVE DUTY • 56 FRAME

230/460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/4 TO 3 HP

Features:
- NEMA Design B Performance
- Steel frame/cast aluminum end brackets
- Premium Class F Insulation system
- Continuous Duty
- Nameplated 1.15 service factor, 40°C ambient and 1.00 service factor, 65°C ambient.
- Warranty – 48 & 56 frames 12 months from date of first use or 18 months from date of manufacture or 12 months from date of installation, whichever period expires first.
- Made In U.S.A.

Applications:
Ideally suited for use on pumps, fans, conveyors, gear boxes and other equipment located in automotive manufacturing facilities.

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	56	68.0	1.15	230/460	SRN4H0.25T61	**LM25123**	22
	1200	56	73.4	1.15	230/460	SRN6H0.25T61	**LM25127**	28
1/3	3600	56	64.0	1.15	230/460	SRN2H0.33T61	**LM25124**	20
	1800	56	68.0	1.15	230/460	SRN4H0.33T61	**LM25115**	22
	1200	56	75.5	1.15	230/460	SRN6H0.33T61	**LM25116**	29
1/2	3600	56	74.0	1.15	230/460	SRN2H0.5T61	**LM25126**	23
	1800	56	77.0	1.15	230/460	SRN4H0.5T61	**LM24258**	26
	1200	56	78.5	1.15	230/460	SRN6H0.5T61	**LM24268**	42
3/4	3600	56	80.0	1.15	230/460	SRN2H0.75T61	**LM25133**	34
	1800	56	81.5	1.15	230/460	SRN4H0.75T61	**LM24266**	30
	1800	56	75.5	1.15	230/460	SRF4H0.75T61	**LM25142**	25
	1200	56	74.0	1.15	230/460	SRF6H0.75T61	**LM25148**	29
1	3600	56	82.5	1.15	230/460	SRN2H1T61	**LM25129**	41
	1800	56	77.0	1.15	230/460	SRF4H1T61	**LM25113**	28
	1200	56	78.5	1.15	230/460	SRF6H1T61	**LM25130**	37
1 1/2	3600	56	80.0	1.15	230/460	SRF2H1.5T61	**LM25160**	27
	1800	56	80.0	1.15	230/460	SRF4H1.5T61	**LM25147**	32
2	3600	56	80.0	1.15	230/460	SRF2H2T61	**LM25161**	31
	1800	56	82.5	1.15	230/460	SRF4H2T61	**LM25159**	46
3	3600	56	84.0	1.15	230/460	SRF2H3T61	**LM25152**	44

C-FACE WITH FEET

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	56C	68.0	1.15	230/460	SRN4H0.25TC61	**LM25131**	22
	1200	56C	73.4	1.15	230/460	SRN6H0.25TC61	**LM25135**	28
1/3	3600	56C	64.0	1.15	230/460	SRN2H0.33TC61	**LM25153**	20
	1800	56C	68.0	1.15	230/460	SRN4H0.33TC61	**LM25149**	22
	1200	56C	75.5	1.15	230/460	SRN6H0.33TC61	**LM25164**	29

Product numbers in red are STOCK items.

Specifications are subject to change without notice

TOTALLY ENCLOSED AUTOMOTIVE DUTY • 56 FRAME

230/460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
1/4 TO 3 HP

Lincoln MOTORS

C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/2	3600	56C	74.0	1.15	230/460	SRN2H0.5TC61	**LM25151**	23
	1800	56C	77.0	1.15	230/460	SRN4H0.5TC61	**LM25114**	26
	1200	56C	78.5	1.15	230/460	SRN6H0.5TC61	**LM25134**	42
3/4	3600	56C	80.0	1.15	230/460	SRN2H0.75TC61	**LM25119**	34
	1800	56C	81.5	1.15	230/460	SRN4H0.75TC61	**LM25121**	30
	1200	56C	74.0	1.15	230/460	SRF6H0.75TC61	**LM25141**	30
1	3600	56C	82.5	1.15	230/460	SRN2H1TC61	**LM25125**	41
	1800	56C	77.0	1.15	230/460	SRF4H1TC61	**LM25117**	29
	1200	56C	78.5	1.15	230/460	SRF6H1TC61	**LM25150**	37
1 1/2	3600	56C	80.0	1.15	230/460	SRF2H1.5TC61	**LM25163**	27
	1800	56C	80.0	1.15	230/460	SRF4H1.5TC61	**LM25143**	33
2	3600	56C	80.0	1.15	230/460	SRF2H2TC61	**LM25145**	32
	1800	56C	82.5	1.15	230/460	SRF4H2TC61	**LM25156**	46
3	3600	56C	84.0	1.15	230/460	SRF2H3TC61	**LM25146**	45

C-FACE FOOTLESS

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
1/4	1800	56C	68.0	1.15	230/460	SRN4H0.25TCN61	**LM25136**	21
	1200	56C	73.4	1.15	230/460	SRN6H0.25TCN61	**LM25138**	28
1/3	3600	56C	64.0	1.15	230/460	SRN2H0.33TCN61	**LM25158**	20
	1800	56C	68.0	1.15	230/460	SRN4H0.33TCN61	**LM25128**	21
	1200	56C	75.5	1.15	230/460	SRN6H0.33TCN61	**LM25155**	29
1/2	3600	56C	74.0	1.15	230/460	SRN2H0.5TCN61	**LM25154**	22
	1800	56C	77.0	1.15	230/460	SRN4H0.5TCN61	**LM24259**	26
	1200	56C	78.5	1.15	230/460	SRN6H0.5TCN61	**LM25122**	42
3/4	3600	56C	80.0	1.15	230/460	SRN2H0.75TCN61	**LM25139**	34
	1800	56C	81.5	1.15	230/460	SRN4H0.75TCN61	**LM24262**	30
	1200	56C	74.0	1.15	230/460	SRF6H0.75TCN61	**LM25137**	29
1	3600	56C	82.5	1.15	230/460	SRN2H1TCN61	**LM25112**	41
	1800	56C	77.0	1.15	230/460	SRF4H1TCN61	**LM24271**	28
	1200	56C	78.5	1.15	230/460	SRF6H1TCN61	**LM25118**	37
1 1/2	3600	56C	80.0	1.15	230/460	SRF2H1.5TCN61	**LM25120**	27
	1800	56C	80.0	1.15	230/460	SRF4H1.5TCN61	**LM25140**	32
2	3600	56C	80.0	1.15	230/460	SRF2H2TCN61	**LM25165**	31
	1800	56C	82.5	1.15	230/460	SRF4H2TCN61	**LM25132**	46
3	3600	56C	84.0	1.15	230/460	SRF2H3TCN61	**LM25157**	44

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Lincoln MOTORS

TOTALLY ENCLOSED AUTOMOTIVE DUTY • U-FRAME

460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
3/4 TO 100 HP

Features:

- Meets NEMA U-Frame dimensional and performance standards.
- Meets or exceeds General Motors GM-7EH and -7EQ, Ford EM1, and Chrysler NPEM-100 specifications.
- Full cast iron construction – all frame sizes.
- Oversized, cast iron terminal box complete with gaskets provides excellent protection from the environment. Also includes threaded conduit entry hole for easy power connection.
- NEMA Design B Performance.
- Nameplated 1.15 service factor, 40°C ambient and 1.00 service factor, 65°C ambient.
- Continuous Duty
- Inverter-Rated
- Premium Class F Insulation System.
- P efficiency codes comply with the United States' and Canadian efficiency requirements for general-purpose T-Frame industrial motors.
- Variety of configurations available – C-Face, D-Flange, double-shaft and brake.
- Lower noise designs improve plant sound quality.
- UL Recognized Component Listing and CSA Approval.
- Warranty –
  (sine-wave power) 42 months from date of manufacture and 36 months from date of installation which ever period expires first.
  (inverter power) 30 months from date of manufacture and 24 months from date of installation which ever period expires first.
- Shielded ball bearing for direct coupled applications. Contact your local sales office for belted applications.
- Made in U.S.A.

Applications:

Ideally suited for a wide variety of tough applications found in automotive manufacturing facilities and other industries utilizing U-Frame motors.

Speed ranges (continuous duty) on variable-frequency electronic speed controls (inverters):

P efficiency codes: Constant torque, 6 to 60 Hz
Variable torque, 3 to 60 Hz
G efficiency codes: Constant torque, 15 to 60 Hz
Variable torque, 6 to 60 Hz

Ask about wider speed ranges at intermittent duty.

Lincoln U-Frame motors exceed NEMA MG-1, Section IV, Part 31 spike resistance requirements.

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
3/4	1200	182	82.5	1.15	460	CCN6P0.75U64	**LM21379**	108
1	1800	182	87.5	1.15	460	CCN4P1U64	**LM21378**	108
	1200	184	86.5	1.15	460	CCN6P1U64	**LM21381**	108
1 1/2	3600	182	85.5	1.15	460	CCN2P1.5U64	**LM21084**	108
	1800	184	88.8	1.15	460	CCN4P1.5U64	**LM21380**	108
	1200	184	87.5	1.15	460	CCN6P1.5U64	**LM20709**	108
2	3600	184	85.5	1.15	460	CCF2P2U64	**LM21085**	120
	1800	184	89.5	1.15	460	CCF4P2U64	**LM20708**	120
	1200	213	87.5	1.15	460	CCF6P2U64	**LM21383**	170
3	3600	184	87.5	1.15	460	CCF2P3U64	**LM20707**	120
	1800	213	88.5	1.15	460	CCF4P3U64	**LM21382**	170
	1200	215	89.5	1.15	460	CCF6P3U64	**LM20391**	170

Product numbers in red are STOCK items.

Specifications are subject to change without notice

TOTALLY ENCLOSED AUTOMOTIVE DUTY • U-FRAME

Lincoln MOTORS

460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
3/4 TO 100 HP

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
5	3600	213	87.5	1.15	460	CCF2P5U64	**LM21086**	170
	1800	215	89.5	1.15	460	CCF4P5U64	**LM20392**	170
	1200	254U	90.2	1.15	460	CCF6P5U64	**LM21385**	260
7 1/2	3600	215	88.5	1.15	460	CCF2P7.5U64	**LM20393**	170
	1800	254U	91.7	1.15	460	CCF4P7.5U64	**LM21384**	260
	1200	256U	91.0	1.15	460	CCF6P7.5U64	**LM20389**	332
10	3600	254U	89.5	1.15	460	CCF2P10U64	**LM21087**	260
	1800	256U	91.7	1.15	460	CCF4P10U64	**LM20390**	260
	1200	284U	91.0	1.15	460	CCF6P10U64	**LM20028**	525
15	3600	256U	91.7	1.15	460	CCF2P15U64	**LM20394**	260
	1800	284U	92.4	1.00	460	CCF4P15U64	**LM21665**	525
	1200 1200	324U 324US	92.4 92.4	1.15 1.15	460 460	CCF6P15U64 CCF6P15US64	**LM21387** **LM21809**	750 750
20	3600	286U	90.2	1.15	460	CCF2P20U64	**LM21088**	525
	1800	286U	93.0	1.15	460	CCF4P20U64	**LM20029**	525
	1200 1200	326U 326US	92.4 92.4	1.15 1.15	460 460	CCF6P20U64 CCF6P20US64	**LM20031** **LM21812**	750 750
25	3600 3600	324U 324US	93.6 93.6	1.15 1.15	460 460	CCF2P25U64 CCF2P25US64	**LM21089** **LM21807**	748 748
	1800 1800	324U 324US	92.1 92.1	1.15 1.15	460 460	CCF4P25U64 CCF4P25US64	**LM21386** **LM21808**	748 748
	1200 1200	364U 364US	93.0 93.0	1.15 1.15	460 460	CCF6P25U64 CCF6P25US64	**LM21389** **LM21814**	1160 1160
30	3600 3600	326US 326U	91.0 91.0	1.15 1.15	460 460	CCF2P30US64 CCF2P30U64	**LM21810** **LM21090**	748 748
	1800 1800	326U 326US	94.1 94.1	1.15 1.15	460 460	CCF4P30U64 CCF4P30US64	**LM20030** **LM21811**	748 748
	1200 1200	365U 365US	93.0 93.0	1.15 1.15	460 460	CCF6P30U64 CCF6P30US64	**LM19531** **LM21816**	1160 1160
40	3600 3600	364US 364U	93.6 93.6	1.15 1.15	460 460	CCF2P40US64 CCF2P40U64	**LM21091** **LM21798**	908 908
	1800 1800	364U 364US	94.1 94.1	1.15 1.15	460 460	CCF4P40U64 CCF4P40US64	**LM21388** **LM21813**	977 977
	1200 1200	404U 404US	93.6 93.6	1.15 1.15	460 460	CCF6P40U64 CCF6P40US64	**LM21390** **LM21817**	1110 1110

Product numbers in red are STOCK items.

Specifications are subject to change without notice

Lincoln MOTORS

TOTALLY ENCLOSED AUTOMOTIVE DUTY • U-FRAME

460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
3/4 TO 100 HP

FOOT MOUNT (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
50	3600	365US	94.1	1.15	460	CCF2P50US64	**LM21092**	980
	3600	365U	94.1	1.15	460	CCF2P50U64	**LM21799**	980
	1800	365U	94.5	1.15	460	CCF4P50U64	**LM19530**	1063
	1800	365US	94.5	1.15	460	CCF4P50US64	**LM21815**	1063
	1200	405U	94.1	1.15	460	CCF6P50U64	**LM19533**	1110
	1200	405US	94.1	1.15	460	CCF6P50US64	**LM21819**	1110
60	3600	405US	94.1	1.15	460	CCF2P60US64	**LM19532**	1130
	3600	405U	94.1	1.15	460	CCF2P60U64	**LM21800**	1130
	1800	405U	95.0	1.15	460	CCF4P60U64	**LM21391**	1110
	1800	405US	95.0	1.15	460	CCF4P60US64	**LM21818**	1110
	1200	444U	94.1	1.15	460	CCF6P60U64	**LM21393**	1787
	1200	444US	94.1	1.15	460	CCF6P60US64	**LM21822**	1787
75	3600	444US	94.1	1.15	460	CCF2P75US64	**LM21093**	1685
	3600	444U	94.1	1.15	460	CCF2P75U64	**LM21801**	1685
	1800	444U	95.0	1.15	460	CCF4P75U64	**LM21392**	1787
	1800	444US	95.0	1.15	460	CCF4P75US64	**LM21821**	1787
	1200	445U	95.0	1.15	460	CCF6P75U64	**LM19535**	1787
	1200	445US	95.0	1.15	460	CCF6P75US64	**LM21824**	1787
100	3600	445US	95.4	1.15	460	CCF2P100US64	**LM21094**	1685
	3600	445U	95.4	1.15	460	CCF2P100U64	**LM21802**	1685
	1800	445U	95.4	1.15	460	CCF4P100U64	**LM19534**	1787
	1800	445US	95.4	1.15	460	CCF4P100US64	**LM21823**	1787

C-FACE WITH FEET

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
3/4	1200	182C	82.5	1.15	460	CCN6P0.75UC64	**LM21828**	120
	1200	182C	81.0	1.00	460	CCN6G0.75UC64	**LM23769**	108
1	1800	182C	87.5	1.15	460	CCN4P1UC64	**LM21827**	120
	1200	184C	86.5	1.15	460	CCN6P1UC64	**LM21835**	120
1 1/2	3600	182C	85.5	1.15	460	CCN2P1.5UC64	**LM21826**	120
	1800	184C	88.5	1.15	460	CCN4P1.5UC64	**LM21833**	120
	1200	184C	87.5	1.15	460	CCN6P1.5UC64	**LM21834**	120
2	3600	184C	85.5	1.15	460	CCF2P2UC64	**LM21831**	132
	1800	184C	89.5	1.15	460	CCF4P2UC64	**LM21832**	132
	1200	213C	87.5	1.15	460	CCF6P2UC64	**LM21838**	181
3	3600	184C	87.5	1.15	460	CCF2P3UC64	**LM21829**	132
	1800	213C	88.5	1.15	460	CCF4P3UC64	**LM21837**	181
	1200	215C	89.5	1.15	460	CCF6P3UC64	**LM21841**	181

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TOTALLY ENCLOSED AUTOMOTIVE DUTY • U-FRAME

Lincoln MOTORS

460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
3/4 TO 100 HP

C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
5	3600	213C	87.5	1.15	460	CCF2P5UC64	**LM21836**	181
	1800	215C	89.5	1.15	460	CCF4P5UC64	**LM21840**	181
	1200	254UC	90.2	1.15	460	CCF6P5UC64	**LM21844**	272
7 1/2	3600	215C	88.5	1.15	460	CCF2P7.5UC64	**LM21839**	181
	1800	254UC	91.7	1.15	460	CCF4P7.5UC64	**LM21843**	272
	1200	256UC	91.0	1.15	460	CCF6P7.5UC64	**LM21847**	344
10	3600	254UC	89.5	1.15	460	CCF2P10UC64	**LM21842**	272
	1800	256UC	91.7	1.15	460	CCF4P10UC64	**LM21846**	272
	1200	284UC	91.0	1.15	460	CCF6P10UC64	**LM21849**	531
15	3600	256UC	91.7	1.15	460	CCF2P15UC64	**LM21845**	272
	1800	284UC	92.4	1.15	460	CCF4P15UC64	**LM21848**	531
	1200	324UC	92.4	1.15	460	CCF6P15UC64	**LM21854**	757
	1200	324USC	92.4	1.15	460	CCF6P15USC64	**LM21879**	757
20	3600	286UC	90.2	1.15	460	CCF2P20UC64	**LM21850**	531
	1800	286UC	93.0	1.15	460	CCF4P20UC64	**LM21851**	531
	1200	326UC	92.4	1.15	460	CCF6P20UC64	**LM21857**	757
	1200	326USC	92.4	1.15	460	CCF6P20USC64	**LM21882**	757
25	3600	324USC	93.6	1.15	460	CCF2P25USC64	**LM21893**	755
	3600	324UC	93.6	1.15	460	CCF2P25UC64	**LM21852**	755
	1800	324UC	94.1	1.15	460	CCF4P25UC64	**LM21853**	755
	1800	324USC	94.1	1.15	460	CCF4P25USC64	**LM21878**	755
	1200	364UC	93.0	1.15	460	CCF6P25UC64	**LM21860**	1169
	1200	364USC	93.0	1.15	460	CCF6P25USC64	**LM21885**	1169
30	3600	326USC	91.0	1.15	460	CCF2P30USC64	**LM21880**	755
	3600	326UC	91.0	1.15	460	CCF2P30UC64	**LM21855**	755
	1800	326UC	94.1	1.15	460	CCF4P30UC64	**LM21856**	755
	1800	326USC	94.1	1.15	460	CCF4P30USC64	**LM21881**	755
	1200	365UC	93.0	1.15	460	CCF6P30UC64	**LM21863**	1169
	1200	365USC	93.0	1.15	460	CCF6P30USC64	**LM21888**	1169
40	3600	364USC	93.6	1.15	460	CCF2P40USC64	**LM21883**	917
	3600	364UC	93.6	1.15	460	CCF2P40UC64	**LM21858**	917
	1800	364UC	94.1	1.15	460	CCF4P40UC64	**LM21859**	986
	1800	364USC	94.1	1.15	460	CCF4P40USC64	**LM21884**	986
	1200	404UC	93.6	1.15	460	CCF6P40UC64	**LM21864**	1123
	1200	404USC	93.6	1.15	460	CCF6P40USC64	**LM21889**	1123

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Lincoln MOTORS

TOTALLY ENCLOSED AUTOMOTIVE DUTY • U-FRAME

460 VOLTS • 3-PHASE
FOOT MOUNT & C-FACE
3/4 TO 100 HP

C-FACE WITH FEET (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
50	3600	365USC	94.1	1.15	460	CCF2P50USC64	**LM21886**	989
	3600	365UC	94.1	1.15	460	CCF2P50UC64	**LM21861**	989
	1800	365UC	94.5	1.15	460	CCF4P50UC64	**LM21862**	1072
	1800	365USC	94.5	1.15	460	CCF4P50USC64	**LM21887**	1072
	1200	405UC	94.1	1.15	460	CCF6P50UC64	**LM21867**	1123
	1200	405USC	94.1	1.15	460	CCF6P50USC64	**LM21892**	1123
60	3600	405USC	94.1	1.15	460	CCF2P60USC64	**LM21890**	1143
	3600	405UC	94.1	1.15	460	CCF2P60UC64	**LM21865**	1143
	1800	405UC	95.0	1.15	460	CCF4P60UC64	**LM21866**	1123
	1800	405USC	95.0	1.15	460	CCF4P60USC64	**LM21891**	1123
	1200	444UC	94.1	1.15	460	CCF6P60UC64	**LM21870**	1810
	1200	444USC	94.1	1.15	460	CCF6P60USC64	**LM21895**	1810
75	3600	444USC	94.1	1.15	460	CCF2P75USC64	**LM21877**	1708
	3600	444UC	94.1	1.15	460	CCF2P75UC64	**LM21868**	1708
	1800	444UC	95.0	1.15	460	CCF4P75UC64	**LM21869**	1810
	1800	444USC	95.0	1.15	460	CCF4P75USC64	**LM21894**	1810
	1200	445UC	95.0	1.15	460	CCF6P75UC64	**LM21873**	1810
	1200	445USC	95.0	1.15	460	CCF6P75USC64	**LM21898**	1810
100	3600	445USC	95.4	1.15	460	CCF2P100USC64	**LM21896**	1708
	3600	445UC	95.4	1.15	460	CCF2P100UC64	**LM21871**	1708
	1800	445UC	95.4	1.15	460	CCF4P100UC64	**LM21872**	1810
	1800	445USC	95.4	1.15	460	CCF4P100USC64	**LM21897**	1810

C-FACE FOOTLESS

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
3/4	1200	182C	82.5	1.15	460	CCN6P0.75UCN64	**TBD**	120
1	1800	182C	87.5	1.15	460	CCN4P1UCN64	**LM23781**	120
	1200	184C	86.5	1.15	460	CCN6P1UCN64	**LM24037**	120
1 1/2	3600	182C	85.5	1.15	460	CCN2P1.5UCN64	**TBD**	120
	1800	184C	88.5	1.15	460	CCN4P1.5UCN64	**LM23783**	120
	1200	184C	87.5	1.15	460	CCN6P1.5UCN64	**TBD**	120
2	3600	184C	85.5	1.15	460	CCF2P2UCN64	**LM25496**	132
	1800	184C	89.5	1.15	460	CCF4P2UCN64	**LM23782**	132
	1200	213C	87.5	1.15	460	CCF6P2UCN64	**TBD**	181
3	3600	184C	87.5	1.15	460	CCF2P3UCN64	**TBD**	132
	1800	213C	88.5	1.15	460	CCF4P3UCN64	**LM23854**	181
	1200	215C	89.5	1.15	460	CCF6P3UCN64	**LM25667**	181
5	3600	213C	87.5	1.15	460	CCF2P5UCN64	**LM25203**	181
	1800	215C	89.5	1.15	460	CCF4P5UCN64	**LM24072**	181
	1200	254UC	90.2	1.15	460	CCF6P5UCN64	**TBD**	272
7 1/2	3600	215C	88.5	1.15	460	CCF2P7.5UCN64	**TBD**	181
	1800	254UC	91.7	1.15	460	CCF4P7.5UCN64	**LM23784**	272
	1200	256UC	91.0	1.15	460	CCF6P7.5UCN64	**TBD**	344

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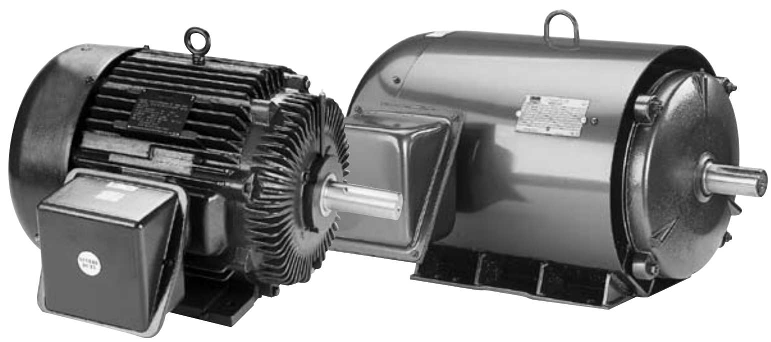
TEFC • CRUSHER DUTY

460 VOLTS • 3-PHASE
FOOT MOUNT
100 TO 400 HP

Features:

- Drive end roller bearing/Hi-strength steel shaft
- Superior speed-torque curves - most SF models nameplated Design B & C. All CCS models labeled Design C.
- Lower your operating costs - choose from two levels of premium efficiency
- Inverter-Rated*
- Continuous Duty
- Construction materials (first letter of Model Nmbr):
  C – full cast iron construction
  S – steel frame and cast iron end brackets
- Substantial weight savings with steel frame designs
- Premium Class F Insulation System
- Across-the-line, Y-Delta (YDS) and Part Winding (PWS) Start capability
- Installation versatility - mount Lincoln Crusher Duty motors horizontal or vertical shaft down
- Over temperature protection – Class F thermostats
- Warranty – (sine-wave power and inverter power*) 18 months from date of manufacture and 12 months from date of installation which ever period expires first.
- Drive-end roller bearing for belted load applications
- 4140 grade high strength shaft material
- Made in U.S.A.



Applications:

Ideally suited for size reduction equipment including rock crushers and pulverizers and other uses in the aggregate and construction industries. Crusher Duty motors are designed for belted (radial) loads only.

Ask Us About Crusher Duty Motors in 5000 Series frames - up to 600 HP!
Some HP sizes also available in 900 RPM.

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
100	1800	405T	95.4	1.15	460	SF4B100T64PYRBT1	**LM18759**	1002
	1800	405T	92.4	1.15	460	CCS4B100T64PYRBT1	**LM33029**	1338
	1200	444T	95.4	1.15	460	SF6B100T64PYRBT1	**LM17733**	1351
	1200	444T	95.0	1.15	460	CCS6B100T64PYRBT1	**LM33030**	1690
125	1800	444T	96.2	1.15	460	SF4B125T64PYRBT1	**LM17734**	1351
	1800	444T	95.4	1.15	460	CCS4B125T64PYRBT1	**LM33031**	1727
	1200	445T	95.8	1.15	460	SF6B125T64PYRBT1	**LM17735**	1531
	1200	445T	95.0	1.15	460	CCS6B125T64PYRBT1	**LM33032**	1960
150	1800	445T	96.2	1.15	460	SF4B150T64PYRBT1	**LM17736**	1531
	1800	445T	95.8	1.15	460	CCS4B150T64PYRBT1	**LM33033**	2090
	1200	445T	95.8	1.15	460	SF6B150T64PYRBT1	**LM17737**	1531
	1200	445T	95.8	1.15	460	CCS6B150T64PYRBT1	**LM33034**	2458
200	1800	445T	96.2	1.15	460	SF4B200T64PYRBT1	**LM17738**	1531
	1800	449T	96.2	1.15	460	CC449B4P200T64PYCR1	**LM33035**	2345
	1200	447T	95.8	1.15	460	SF6B200T64PYRBT1	**LM17740**	1812
	1200	447T	95.8	1.15	460	CCS6B200T64PYRBT1	**LM33036**	3087
250	1800	447T	96.2	1.15	460	SF4B250T64PYRBT1	**LM17741**	1812
	1800	449T	95.4	1.15	460	CC449S4P250T64PYRBT1	**LM17701**	2760
	1800	447T	95.0	1.15	460	SF4P250T64PYRBT1	**LM17714**	1812
	1200	449T	95.4	1.00	460	SF6B250T64PYRBT1	**LM17742**	2185
	1200	449T	95.4	1.15	460	CCS6P250T64PYRBT1	**LM17702**	3408
	1200	449T	95.4	1.00	460	SF6P250T64PYRBT1	**LM17715**	2185
300	1800	447T	96.2	1.15	460	SF4B300T64PYRBT1	**LM17743**	1812
	1800	449T	95.4	1.15	460	CC449S4P300T64PYCR1	**LM31049**	TBD
	1800	449T	95.4	1.15	460	S449F4P300T64PYRBT1	**LM18757**	2185
	1800	447T	95.4	1.00	460	SF4P300T64PYRBT1	**LM17716**	1812
	1200	449T	95.8	1.00	460	SF6B300T64PYRBT1	**LM17744**	2185
	1200	449T	95.8	1.15	460	CCS6P300T64PYRBT1	**LM17704**	3500
350	1800	449T	96.2	1.15	460	SF4B350T64PYRBT1	**LM17745**	2185
	1800	449T	95.0	1.15	460	CCS4P350T64PYRBT1	**LM17705**	3218
	1800	449T	95.4	1.15	460	SF4P350T64PYRBT1	**LM17718**	2185
400	1800	449T	95.4	1.15	460	SF4B400T64PYRBT1	**LM17746**	2185
	1800	449T	95.8	1.15	460	CCS4P400T64PYRBT1	**LM17706**	3400
	1800	449T	95.4	1.00	460	SF4P400T64PYRBT1	**LM17719**	2185

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Lincoln MOTORS

HYDRAULIC ELEVATOR PUMP MOTORS

OPEN DRIP-PROOF CONSTRUCTION • 3-PHASE
FOOT MOUNTED
10 TO 100 HP

Features:
- Dual Rated Nameplates for 80 & 120 Starts/Hour
- Designed for Belt Driven Pumps
- Wye Start/Delta Run
- Class F Insulated
- 40° C Ambient
- F-1 Mounting
- Ball Bearings with Grease Fittings and Automatic Relief
- NEMA Dimensions
- CSA Approved, UL Recognized
- Constructed for low noise and low vibration.
- Made in USA
- Warranty - 18 months from date of manufacture and 12 months from date of installation which ever period expires firs

Applications:

Hydraulic pump passenger, service, freight, and dumbwaiter low rise elevators. Typically hydraulic elevators travel up to 6 floors at speeds up to 200 fpm.

80 STARTS PER HOUR

HP	SYN RPM	Frame	FL Norm Eff. (%)	Volts	80 Starts FL Amps	Locked Rotor Amps	Model Number	Product Number	Approx Shpg Wght (lbs)
15	3600	213T	88.5	200	41	187	SSD2P10/15T6006YEH2	**LM30091**	114
	3600	213T	90.2	230/460	35.5/18	162/81	SSD2B10/15T61YEH2	**LM33041**	149
	1800	215T	93.0	230/460	39.2/19.6	148/74	SSD4B10/15T61YEH2	**LM32658**	128
	1800	215T		575	15.7	59.2	SSD4P10/15T65YEH2	**LM28869**	128
20	3600	215T		200	53	267	SSD2P15/20T6006YEH2	**LM30093**	135
	3600	215T	91.0	230/460	46/23	232/116	SSD2B15/20T61YEH2	**LM33042**	138
	1800	254T	93.0	230/460	51.4/25.7	232/116	SSD4B15/20T61YEH2	**LM32661**	205
	1800	254T		575	20.6	93	SSD4P15/20T65YEH2	**LM28875**	203
25	3600	254T		200	66.5	334	SSD2P20/25T6006YEH2	**LM30095**	128
	3600	254T	91.7	230/460	58/29	290/145	SSD2B20/25T61YEH2	**LM33043**	134
	1800	256T	93.6	230/460	64/32	320/160	SSD4B20/25T61YEH2	**LM33044**	233
	1800	256T		575	25.6	128	SSD4P20/25T65YEH2	**LM28881**	233
30	3600	256T		200	80	419	SSD2P25/30T6006YEH2	**LM30097**	235
	3600	256T	91.7	230/460	69/34.5	364/182	SSD2B25/30T61YEH2	**LM33045**	235
	1800	284T	94.1	230/460	73/36.5	340/170	CCD4B25/30T61YEH2	**LM33046**	300
40	3600	284T		200	112	460	CCD2P30/40T6006YEH2	**LM30099**	320
	3600	284T	92.4	230/460	97/48.5	400/200	CCD2B30/40T61YEH2	**LM33047**	320
	1800	286T	94.1	230/460	97/48.5	430/215	CCD4B30/40T61YEH2	**LM33048**	411
50	3600	286T		200	135	667	CCD2P40/50T6006YEH2	**LM30101**	460
	3600	286T	93.0	230/460	117/58.5	580/290	CCD2P40/50T61YEH2	**LM33049**	460
	1800	324T	94.5	230/460	126/63	548/274	SD4B40/50T61YEH2	**LM32651**	466
60	1800	326T	93.6	230/460	153/76.5	690/345	SF4B50/60T61YEH2	**LM32663**	530
75	1800	364T	95.0	230/460	179/89.5	870/435	SD4P60/75T61YEH2	**LM32673**	709
100	1800	365T	93.6	230/460	250/125	1084/542	SD4B75/100T61YEH2	**LM32689**	754
	1800	365T		575	100	435	SD4P75/100T65YEH2	**LM28915**	754

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

Product numbers in red are STOCK items.

Specifications are subject to change without notice

HYDRAULIC ELEVATOR PUMP MOTORS

OPEN DRIP-PROOF CONSTRUCTION • 3-PHASE
FOOT MOUNTED
10 TO 100 HP

WYE WOUND FOR ELECTRONIC START OR ACROSS THE LINE STARTING • 80 STARTS PER HOUR

HP	SYN RPM	Frame	FL Norm Eff. (%)	Volts	80 Starts FL Amps	Locked Rotor Amps	Model Number	Product Number	Approx Shpg Wght (lbs)
5	1800	182T		200	15	73.6	SSD4P5T6006YEH1	**LM28918**	68
	1800	182T	89.5	230/460	13/6.5	64/32	SSD4B5T61YEH1	**LM33050**	89
	1800	182T		575	5.2	25.6	SSD4P5T65YEH1	**LM28920**	79
7 1/2	1800	184T	91.0	230/460	19.8/9.9	92/46	SSD4B7.5T61EH1	**LM33051**	98
	1800	182T		575	7.9	36.8	SSD4P7.5T65YEH1	**LM28923**	118
10	1800	213T	91.7	230/460	25.8/12.9	127/63.5	SSD4B10T61EH1	**LM33052**	112
	1800	182T		575	10.3	50.8	SSD4P10T65YEH1	**LM28926**	123

120 STARTS PER HOUR

HP	SYN RPM	Frame	FL Norm Eff. (%)	Volts	80 Starts FL Amps	Locked Rotor Amps	Model Number	Product Number	Approx Shpg Wght (lbs)
15	3600	213T	88.5	200	41	187	SSD2P10/15T6006YEH2	**LM30091**	114
	3600	213T	90.2	230/460	35.5/18	162/81	SSD2B10/15T61YEH2	**LM33041**	149
	1800	215T	93.0	230/460	39.2/19.6	148/74	SSD4B10/15T61YEH2	**LM32658**	128
	1800	215T		575	15.7	59.2	SSD4P10/15T65YEH2	**LM28869**	128
20	3600	215T		200	53	267	SSD2P15/20T6006YEH2	**LM30093**	135
	3600	215T	91.0	230/460	46/23	232/116	SSD2B15/20T61YEH2	**LM33042**	138
	1800	254T	93.0	230/460	51.4/25.7	232/116	SSD4B15/20T61YEH2	**LM32661**	205
	1800	254T		575	20.6	93	SSD4P15/20T65YEH2	**LM28875**	203
25	3600	254T		200	66.5	334	SSD2P20/25T6006YEH2	**LM30095**	128
	3600	254T	91.7	230/460	58/29	290/145	SSD2B20/25T61YEH2	**LM33043**	134
	1800	256T	93.6	230/460	64/32	320/160	SSD4B20/25T61YEH2	**LM33044**	233
	1800	256T		575	25.6	128	SSD4P20/25T65YEH2	**LM28881**	233
30	3600	256T		200	80	419	SSD2P25/30T6006YEH2	**LM30097**	235
	3600	256T	91.7	230/460	69/34.5	364/182	SSD2B25/30T61YEH2	**LM33045**	235
	1800	284T	94.1	230/460	73/36.5	340/170	CCD4B25/30T61YEH2	**LM33046**	300
40	3600	284T		200	112	460	CCD2P30/40T6006YEH2	**LM30099**	320
	3600	284T	92.4	230/460	97/48.5	400/200	CCD2B30/40T61YEH2	**LM33047**	320
	1800	286T	94.1	230/460	97/48.5	430/215	CCD4B30/40T61YEH2	**LM33048**	411
50	3600	286T		200	135	667	CCD2P40/50T6006YEH2	**LM30101**	460
	3600	286T	93.0	230/460	117/58.5	580/290	CCD2P40/50T61YEH2	**LM33049**	460
	1800	324T	94.5	230/460	126/63	548/274	SD4B40/50T61YEH2	**LM32651**	466
60	1800	326T	93.6	230/460	153/76.5	690/345	SF4B50/60T61YEH2	**LM32663**	530
75	1800	364T	95.0	230/460	179/89.5	870/435	SD4P60/75T61YEH2	**LM32673**	709
100	1800	365T	93.6	230/460	250/125	1084/542	SD4B75/100T61YEH2	**LM32689**	754
	1800	365T		575	100	435	SD4P75/100T65YEH2	**LM28915**	754

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

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Lincoln™ MOTORS

VVVF (VARIABLE VOLTAGE VARIABLE FREQUENCY) TRACTION ELEVATOR HOIST MOTORS

3-PHASE • OPEN DRIP-PROOF CONSTRUCTION • FOOT MOUNTED • 7.5 TO 75 HP
1200 RPM & 900 RPM • HIGH ACCELERATION • 60 HZ, 40HZ & 30HZ DESIGNS

Features:
- Dynamic balanced for low vibration operation
- Normally closed thermostats, one per phase
- Low noise design
- Steel frame construction with cast iron endbells
- Class F Insulated, 40° C ambient
- Epact efficiency or better
- 1.0 Service Factor
- 1024 PPR encoder, with 1-inch shaft bore standard
- F-1 Mounting
- 1000:1 Inverter Duty capability
- Made in USA
- Warranty - 18 months from date of manufacture and 12 months from date of installation which ever period expires firs

Applications:
Designed for Geared and Gearless Traction Elevators, 100 fpm to 500 fpm operation and up to 12 or 15 floors.

FOOT MOUNTING WITH ENCODER F-1

HP	SYN RPM	No. of Poles	Frame	HZ	Volts	FL Amps	Rated Accel. Torque	Model Number	Product Number	Approx Shpg Wght (lbs)
7 1/2	1200	6	254T	60	230/460	24/12	225%	SD6P7.5T61ET1	**LM28114**	221
	1200	6	254T	60	200	28	225%	SD6P7.5T6006ET1	**LM28115**	221
	1200	4	254T	40	230/460	19/9.5	275%	SD4P7.5T41ET1	**LM28116**	200
	1200	4	254T	40	200	22	275%	SD4P7.5T4006ET1	**LM28117**	200
	900	4	256T	30	230/460	19.6/9.8	275%	SD4P7.5T31ET1	**LM28118**	278
	900	4	256T	30	200	23	275%	SD4P7.5T3006ET1	**LM28119**	278
10	1200	6	256T	60	230/460	24/12	250%	SSD6P10T61ET1	**LM28120**	214
	1200	6	256T	60	200	28	250%	SD6P10T6006ET1	**LM28121**	214
	1200	4	256T	40	230/460	19/9.5	275%	SD4P10T41ET1	**LM28122**	232
	1200	4	256T	40	200	22	275%	SSD4P10T4006ET1	**LM28123**	232
	900	4	284T	30	230/460	19.6/9.8	330%	SD4P10T31ET1	**LM28124**	280
	900	4	284T	30	200	23	330%	SD4P10T3006ET1	**LM28125**	280
12 1/2	1200	6	284T	60	230/460	42/21	300%	SD6P12.5T61ET1	**LM31393**	338
	1200	6	284T	60	200	48.5	300%	SD6P12.5T6006YET1	**LM30676**	338
	900	4	284T	30	230/460	34/17	300%	SD4P12.5T31ET1	**LM30677**	365
	900	4	284T	30	200	38.5	300%	SD4P12.5T3006ET1	**LM30678**	365
15	1800	4	256T	60	230/460			SD4P15T61ET1	**LM30679**	233
	1800	4	256T	60	200			SD4P15T6006ET1	**LM30680**	233
	1200	6	284T	60	230/460	49/24.5	300%	SD6S15T61YET1	**LM28126**	341
	1200	6	284T	60	200	56.5	300%	SD6G15T6006YET1	**LM28127**	338
	1200	4	284T	40	230/460	40/20	330%	SD4P15T41ET1	**LM28128**	344
	1200	4	284T	40	200	46	330%	SD4P15T4006ET1	**LM28129**	344
	900	4	286T	30	230/460	40/20	300%	SD4S15T31YET1	**LM30535**	392
	900	4	286T	30	200	46	300%	SD4P15T3006ET1	**LM28131**	392
20	1800	4	256T	60	230/460			SD4P20T61ET1	**LM30681**	240
	1800	4	256T	60	200			SD4P20T6006ET1	**LM30682**	240
	1200	6	286T	60	230/460	61/30.5	275%	SD6S20T61YET1	**LM28132**	390
	1200	6	286T	60	200	68	275%	SD6S20T6006YET1	**LM28133**	400
	1200	4	286T	40	230/460	52/26	330%	SD4P20T41ET1	**LM28134**	385
	1200	4	286T	40	200	60	330%	SD4P20T4006ET1	**LM28135**	385
	900	4	324T	30	230/460	54/27	275%	SD4P20T31ET1	**LM28136**	480
	900	4	324T	30	200	62.1	275%	SD4P20T3006ET1	**LM28137**	471
25	1800	4	284T	60	230/460	64/32	250%	SD4P25T61ET1	**LM30720**	350
	1800	4	284T	60	200	73.5	250%	SD4P25T62ET1	**LM30721**	350
	1200	6	324T	60	230/460	64/32	250%	SD6S25T61YET1	**LM28138**	505
	1200	6	324T	60	200	73.6	250%	SD6P25T6006ET1	**LM28139**	505
	1200	4	324T	40	230/460	65/32.5	275%	SD4P25T41ET1	**LM28140**	472
	1200	4	324T	40	200	74.8	275%	SD4P25T4006ET1	**LM28141**	472
	900	4	326T	30	230/460	64/32	275%	SD4P25T31ET1	**LM28142**	538
	900	4	326T	30	200	73.6	275%	SD4P25T3006YET1	**LM28143**	525

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1200 RPM & 900 RPM • HIGH ACCELERATION • 60 HZ, 40HZ & 30HZ DESIGNS

FOOT MOUNTING WITH ENCODER F-1 (cont'd)

HP	SYN RPM	No. of Poles	Frame	HZ	Volts	FL Amps	Rated Accel. Torque	Model Number	Product Number	Approx Shpg Wght (lbs)
30	1800	4	286T	60	230/460	72/36	250%	SD4P30T61ET1	**LM30722**	400
	1800	4	286T	60	200	83	250%	SD4P30T62ET1	**LM30723**	400
	1200	6	326T	60	230/460	76/38	225%	SD6S30T61YET1	**LM27976**	535
	1200	6	326T	60	200	87.4	225%	SD6S30T6006YET1	**LM28144**	552
	1200	4	326T	40	230/460	74/37	275%	SD4P30T41ET1	**LM28145**	516
	1200	4	326T	40	200	85	275%	SD4P30T4006ET1	**LM28146**	516
	900	4	364T	30	230/460	74/37	275%	SD4P30T31ET1	**LM28147**	575
	900	4	364T	30	200	85	275%	SD4P30T3006ET1	**LM28148**	575
40	1800	4	324T	60	230/460	98/49	250%	SD4P40T61ET1	**LM30724**	470
	1800	4	324T	60	200	113	250%	SD4P40T62ET1	**LM30725**	470
	1200	6	364T	60	230/460	98/49	250%	SD6S40T61YET1	**LM28149**	755
	1200	6	364T	60	200	113	250%	SD6S40T6006YET1	**LM28150**	755
	1200	4	364T	40	230/460	96/48	275%	SD4P40T41ET1	**LM28151**	715
	1200	4	364T	40	200	111	275%	SD4P40T4006ET1	**LM28152**	715
	900	4	365T	30	230/460	97/48.5	275%	SD4P40T31ET1	**LM28153**	783
	900	4	365T	30	200	112	275%	SD4P40T3006ET1	**LM28154**	783
50	1800	4	326T	60	230/460	121/60.5	250%	SD4P50T61ET1	**LM30647**	522
	1800	4	326T	60	200	139	250%	SD4P50T6006ET1	**LM30648**	522
	1200	6	365T	60	230/460	129/64.5	275%	SD6S50T61YET1	**LM28155**	800
	1200	6	365T	60	200	148	275%	SD6S50T6006YET1	**LM28156**	800
	1200	4	365T	40	230/460	120/60	275%	SD4P50T41ET1	**LM28157**	765
	1200	4	365T	40	200	138	275%	SD4P50T4006ET1	**LM28158**	765
	900	4	405T	30	230/460	118/59	275%	SD4P50T31ET1	**LM28159**	964
	900	4	405T	30	200	136	275%	SD4S50T3006YET1	**LM28160**	964
60	1800	4	364T	60	230/460	140/70		SD4P60T61ET1	**LM30649**	715
	1800	4	364T	60	200	161		SD4P60T6006ET1	**LM30650**	715
	1200	6	404T	60	230/460	167/83.5	250%	SD6P60T61YET1	**LM28161**	888
	1200	6	404T	60	200	192	250%	SD6P60T6006YET1	**LM28162**	888
	1200	4	404T	40	230/460	136/68		SD4P60T41ET1	**LM28163**	870
	1200	4	404T	40	200	157		SD4P60T4006ET1	**LM28164**	870
	900	4	444T	30	230/460	140/70	275%	SD4P60T31ET1	**LM28165**	1277
	900	4	444T	30	200	161	275%	SD4P60T3006ET1	**LM28166**	1277
75	1800	4	365T	60	230/460	45.5/91		SD4P75T61ET1	**LM30651**	765
	1800	4	365T	60	200	209		SD4P75T6006ET1	**LM30652**	765
	1200	6	405T	60	230/460	178/89	250%	SD6P75T61YET1	**LM28167**	943
	1200	6	405T	60	200	205	250%	SD6P75T6006YET1	**LM28168**	943
	1200	4	405T	40	230/460	170/85		SD4P75T41ET1	**LM28169**	960
	1200	4	405T	40	200	196		SD4P75T4006ET1	**LM28170**	960

WITH ENCODER • F-1 CONDUIT BOX • C-FACE • NO FEET

HP	SYN RPM	No. of Poles	Frame	HZ	Volts	FL Amps	Rated Accel. Torque	Model Number	Product Number	Approx Shpg Wght (lbs)
7 1/2	1200	6	254T	60	230/460	24/12	225%	SD6P7.5TCN61ET1	**LM28200**	150
	1200	6	254T	60	200	28	225%	SD6P7.5TCN6006ET1	**LM28201**	150
	1200	4	254T	40	230/460	19/9.5	275%	SD4P7.5TCN41ET1	**LM30655**	145
	1200	4	254T	40	200	22	275%	SD4P7.5TCN4006ET1	**LM30663**	145
	900	4	256T	30	230/460	19.6/9.8	275%	SD4P7.5TCN31ET1	**LM28202**	225
	900	4	256T	30	200	23	275%	SD4P7.5TCN3006ET1	**LM28203**	225
10	1200	6	256T	60	230/460	24/12	250%	SSD6P10TCN61ET1	**LM28204**	202
	1200	6	256T	60	200	28	250%	SD6P10TCN6006ET1	**LM28205**	202
	1200	4	256T	40	230/460	19/9.5	275%	SD4P10TCN41ET1	**LM30732**	230
	1200	4	256T	40	200	22	275%	SD4P10TCN4006ET1	**LM30733**	230
	900	4	284T	30	230/460	19.6/9.8	330%	SD4P10TCN31ET1	**LM28206**	355
	900	4	284T	30	200	23	330%	SD4P10TCN3006ET1	**LM28207**	355

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1200 RPM & 900 RPM • HIGH ACCELERATION • 60 HZ, 40HZ & 30HZ DESIGNS

WITH ENCODER • F-1 CONDUIT BOX • C-FACE • NO FEET (cont'd)

HP	SYN RPM	No. of Poles	Frame	HZ	Volts	FL Amps	Rated Accel. Torque	Model Number	Product Number	Approx Shpg Wght (lbs)
12 1/2	1200	6	284T	60	230/460	42/21	300%	SD4P12.5TCN61ET1	**LM30734**	305
	1200	6	284T	60	200	48.5	300%	SD4P12.5TCN6006ET1	**LM30735**	305
	900	4	284T	30	230/460	34/17	300%	SD4P12.5TCN3006ET1	**LM30736**	355
	900	4	284T	30	200	38.5	300%	SD4P12.5TCN3006ET1	**LM30737**	355
15	1800	4	256T	60	230/460			SD4P15TCN61ET1	**LM30748**	220
	1800	4	256T	60	200			SD4P15TCN6006ET1	**LM30749**	220
	1200	6	284T	60	230/460	49/24.5	300%	SD6P15TCN61ET1	**LM28208**	330
	1200	6	284T	60	200	56.5	300%	SD6S15TCN6006YET1	**LM28209**	330
	1200	4	284T	40	230/460	40/20	330%	SD4P15TCN41ET1	**LM30750**	355
	1200	4	284T	40	200	46	330%	SD4P15TCN4006ET1	**LM30751**	355
	900	4	286T	30	230/460	40/20	300%	SD4P15TCN31ET1	**LM28210**	388
	900	4	286T	30	200	46	300%	SD4S15TCN3006ET1	**LM28211**	388
20	1800	4	256T	60	230/460			SD4P20TCN61ET1	**LM30752**	249
	1800	4	256T	60	200			SD4P20TCN6006ET1	**LM30753**	249
	1200	6	286T	60	230/460	61/30.5	275%	SD6S20TCN61YET1	**LM28212**	379
	1200	6	286T	60	200	68	275%	SD6S20TCN6006YET1	**LM28213**	379
	1200	4	286T	40	230/460	52/26	330%	SD4P20TCN41ET1	**LM30739**	396
	1200	4	286T	40	200	60	330%	SD4P20TCN6006ET1	**LM30740**	396
	900	4	324T	30	230/460	54/27	275%	SD4P20TCN31ET1	**LM28214**	480
	900	4	324T	30	200	62.1	275%	SD4S20TCN3006YET1	**LM28215**	480
25	1800	4	284T	60	230/460	64/32	250%	SD4P25TCN61ET1	**LM31607**	355
	1800	4	284T	60	200	73.5	250%	SD4P25TCN6006ET1	**LM30760**	355
	1200	6	324T	60	230/460	64/32	250%	SD6S25TC61YET1	**LM28216**	499
	1200	6	324T	60	200	73.6	250%	SD6P25TCN6006ET1	**LM28217**	499
	1200	4	324T	40	230/460	65/32.5	275%	SD4P25TCN41ET1	**LM30754**	480
	1200	4	324T	40	200	74.8	275%	SD4P25TCN4006ET1	**LM30755**	480
	900	4	326T	30	230/460	64/32	275%	SD4P25TCN31ET1	**LM28218**	533
	900	4	326T	30	200	73.6	275%	SD4P25TCN3006ET1	**LM28219**	533
30	1800	4	286T	60	230/460	72/36	250%	SD4S30TCN61YET1	**LM30702**	397
	1800	4	286T	60	200	83	250%	SD4P30TCN6006ET1	**LM30762**	397
	1200	6	326T	60	230/460	76/38	225%	SD6S30TCN61YET1	**LM27971**	537
	1200	6	326T	60	200	87.4	225%	SD6S30TCN6006YET1	**LM28220**	557
	1200	4	326T	40	230/460	74/37	275%	SD4P30TCN41ET1	**LM30756**	532
	1200	4	326T	40	200	85	275%	SD4P30TCN4006ET1	**LM30757**	532
	900	4	364T	30	230/460	74/37	275%	SD4P30TCN31ET1	**LM28221**	720
	900	4	364T	30	200	85	275%	SD4P30TCN3006ET1	**LM28222**	720
40	1800	4	324T	60	230/460	98/49	250%	SD4P40TCN61ET1	**LM30763**	480
	1800	4	324T	60	200	113	250%	SD4P40TCN6006ET1	**LM30764**	480
	1200	6	364T	60	230/460	98/49	250%	SD6P40TCN61ET1	**LM28223**	724
	1200	6	364T	60	200	113	250%	SD6P40TCN6006ET1	**LM28224**	724
	1200	4	364T	40	230/460	96/48	275%	SD4P40TCN41ET1	**LM30758**	715
	1200	4	364T	40	200	111	275%	SD4P40TCN4006ET1	**LM30765**	715
	900	4	365T	30	230/460	97/48.5	275%	SD4P40TCN31ET1	**LM28225**	775
	900	4	365T	30	200	112	275%	SD4P40TCN3006ET1	**LM28226**	775
50	1800	4	326T	60	230/460	121/60.5	250%	SD4P50TCN61ET1	**LM30746**	532
	1800	4	326T	60	200	139	250%	SD4P50TCN6006ET1	**LM30747**	532
	1200	6	365T	60	230/460	129/64.5	275%	SD6P50TCN61ET1	**LM28227**	775
	1200	6	365T	60	200	148	275%	SD6P50TCN6006ET1	**LM28228**	775

ENCODER PIGTAIL KITS - VVVF ELEVATOR MOTORS

Applications:
Encoder Pigtail Kits are used to extend the length of the existing encoder leads.

Kit Number	Description
LM30561	30 ft. encoder cable kit
LM31752	40 ft. encoder cable kit
LM30881	50 ft. encoder cable kit

Product numbers in red are STOCK items.

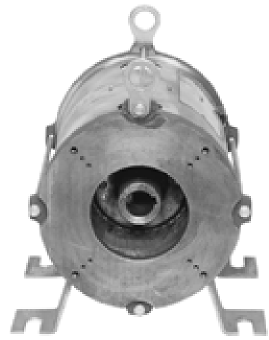
Specifications are subject to change without notice

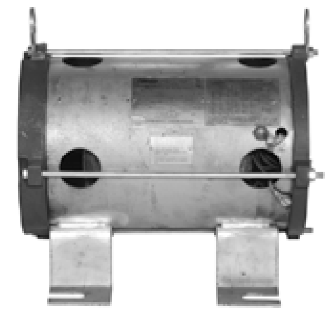
SUBMERSIBLE HYDRAULIC ELEVATOR PUMP MOTORS

Lincoln MOTORS

3-PHASE • TOTALLY OPEN FRAME CONSTRUCTION
FOOT MOUNTED IN 160ZBS FRAME SIZE

Features:
- Intermittent Duty
- Suitable for Wye-Delta Starters
- 1.0 service factor and 70°C Ambient rated
- Three bolt circles, 12 mounting holes, and face mounting to accept both the IMO and Allweiler pumps
- 10 foot long leads, spliced 40 inches from motor to prevent wicking of hydraulic fluid
- Thermostat leads are marked P1 and P2
- Class F insulation
- Two Stainless Steel nameplates, one shipped separate for remote mount
- UL Recognized Component Listing and CSA Approved
- Warranty - 18 months from date of manufacture and 12 months from date of installation which ever period expires firs

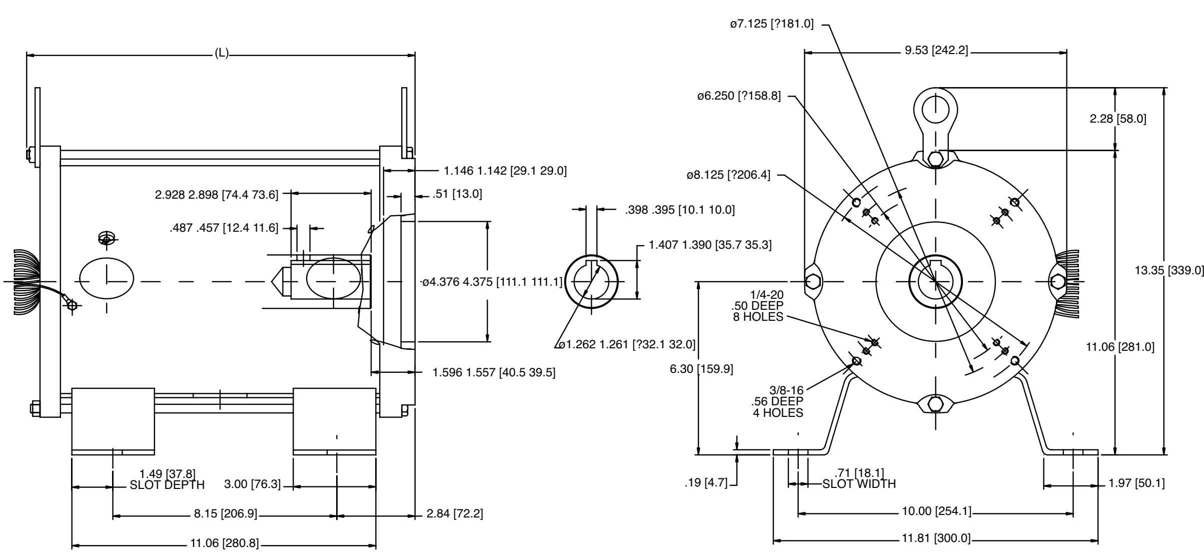




Applications:

These motors are designed to meet the demands in the Hydraulic Elevator Pump Industry. Our Submersible Hydraulic pump elevator motors are ready to be placed in elevator systems for applications in hydraulic pump passenger, service, freight and low-rise elevators. Rated up to 6 floors at speeds up to 200 fpm.

HP	SYN RPM	Frame	Volts	BTU/HR Motor Losses	KVA Code	FL Amps	Locked Rotor Amps	Model Number	Product Number	FL Eff.	Approx Shpg Wght (lbs)
15	3600	160Z	200	14736	H	53	268	SD2S15Z6006YEH3	**LM29656**	72.2	110
	3600	160Z	230/460	14736	H	46/23	250/125	SD2S15Z61YEH3	**LM29657**	72.2	110
	3600	160Z	575	14736	H	18.4	100	SD2S15Z65YEH3	**LM29658**	72.2	110
20	3600	160Z	200	11792	G	64.4	363	SD2S20Z6006YEH3	**LM29659**	76.4	112
	3600	160Z	230/460	11792	G	56/28	316/158	SD2S20Z61YEH3	**LM29660**	76.4	112
	3600	160Z	575	11792	G	22.4	126	SD2S20Z65YEH3	**LM29661**	76.4	112
25	3600	160Z	200	10148	G	77.1	268	SD2S25Z6006YEH3	**LM29662**	79.0	115
	3600	160Z	230/460	10148	G	67/33.5	250/125	SD2S25Z61YEH3	**LM29663**	79.0	115
	3600	160Z	575	10148	G	26.8	100	SD2S25Z65YEH3	**LM29664**	79.0	115
30	3600	160Z	200	9603	G	92	268	SD2S30Z6006YEH3	**LM29665**	79.9	119
	3600	160Z	230/460	9603	G	80/40	250/125	SD2S30Z61YEH3	**LM29666**	79.9	119
	3600	160Z	575	9603	G	32	100	SD2S30Z65YEH3	**LM29667**	79.9	119
40	3600	160Z	200	7271	G	115	268	SD2S40Z6006YEH3	**LM29668**	84.0	132
	3600	160Z	230/460	7271	G	100/50	250/125	SD2S40Z61YEH3	**LM29669**	84.0	132
	3600	160Z	575	7271	G	40	100	SD2S40Z65YEH3	**LM29670**	84.0	132
50	3600	160Z	200	7271	H	140	268	SD2S50Z6006YEH3	**LM29671**	84.0	143
	3600	160Z	230/460	7271	H	122/61	250/125	SD2S50Z61YEH3	**LM29672**	84.0	143
	3600	160Z	575	7271	H	48.8	100	SD2S50Z65YEH3	**LM29673**	84.0	143



L32 BRACKET CONVERSION KIT

Applications:

Used to adapt the Lincoln Submersible Elevator motors to some IMO and Alweiler Pumps.

Kit includes needed through bolts to mount this kit to a Lincoln Submersible Elevator Motor.

Catalog Number	Disc. Sym	App. Wgt (lbs)
LM31777	A	12

Product numbers in red are STOCK items.

Specifications are subject to change without notice

TEFC • MEDIUM VOLTAGE

2300/4000 VOLTS • 3-PHASE
FOOT MOUNT
150 TO 700 HP

Frames 447T - 449T

Features:

- Full cast iron construction.
- Double shielded radial ball bearings rated at 100,000 hour B-10 life on direct coupled loads (contact your local Sales office about belted loads).
- Grease fittings with extended grease tubes.
- Internal and external epoxy finish.
- Premium Class H insulation system.
- Front and rear cast iron bearing caps.
- Warranty: 18 months from date of manufacture and 12 months from date of installation which ever period expires first.
- Made in U.S.A.

Frames 5011 - 5013

Features:

- Full cast iron construction.
- Open Conrad-type ball bearings rated at 100,000 hour B-10 life on direct coupled loads (contact your local Sales office about belted loads).
- Grease fittings with extended grease tubes.
- Corrosion resistant breather/drains.
- Oversized cast iron terminal box.
- Internal and external epoxy finish.
- Premium Class H insulation system.
- Inpro/Seal™ bearing isolators on each end.
- Front and rear cast iron bearing caps.
- Provision for jacking bolts in all four feet.
- Provision for dowel pins in drive end feet.
- Grounding points located in terminal box and feet.
- 100 ohm platinum winding RTDs as standard on sizes 400 HP and larger.
- Frame 5011 has mounting holes for 5010, 5011 and 5012 as standard. Frame 5013 has mounting holes for 5012 and 5013 as standard.
- Warranty: 18 months from date of manufacture and 12 months from date of installation which ever period expires first.
- Made in U.S.A.

Applications:

Ideally suited for applications requiring heavy duty, large horsepower electric motors. Typical uses include pulp and paper mills, mineral processing, waste management facilities, lumber and wood processing mills, automobile manufacturing plants and other severe duty environments where medium voltage power is available.

NOTE: Lincoln is continuously improving and expanding its line of **MEDIUM VOLTAGE** motors. Contact your local sales office if you don't find the motor you need listed here – there's a good chance we can build it for you.

Product numbers in red are STOCK items.

Specifications are subject to change without notice

FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
150	1800	447T	93.6	1.15	2300/4000	CC447F4P150T6024	**LM22218**	2850
	1200	449T	95.0	1.15	2300/4000	CC449F6P150T6024	**LM22216**	2850
	900	5011LS	94.5	1.15	2300/4000	CC5011S8P150LS6024	**LM22214**	5500
200	1800	447T	93.6	1.15	2300/4000	CC447F4P200T6024	**LM22219**	2875
	1200	449T	95.4	1.15	2300/4000	CC449F6P200T6024	**LM22217**	2875
	900	5011LS	95.0	1.15	2300/4000	CC5011S8P200LS6024	**LM22215**	5500
250	1800	449T	94.1	1.15	2300/4000	CC449F4P250T6024	**LM22207**	2920
	1200	5011LS	95.4	1.15	2300/4000	CC5011S6P250LS6025	**LM22221**	5500
	900	5011LS	95.4	1.15	2300/4000	CC5011S8P250LS6024	**LM27283**	5500
300	1800	449T	95.0	1.15	2300/4000	CC449F4P300T6024	**LM22220**	2970
	1200	5011LS	95.8	1.15	2300/4000	CC5011S6P300LS6024	**LM22222**	5500
	900	5013LS	95.4	1.15	2300/4000	CC5013S8P300LS6024	**LM27284**	5500
350	1800	5011LS	95.4	1.15	2300/4000	CC5011S4P350LS6024	**LM22225**	5500
	1200	5011LX	96.2	1.15	2300/4000	CC5011S6P350LX6024	**LM22223**	5500
	900	5013LS	95.4	1.15	2300/4000	CC5013S8P350LS6024	**LM27285**	5500
400	1800	5011LX	95.8	1.15	2300/4000	CC5011S4P400LX6024TD2	**LM22226**	5500
	1200	5011LS	96.2	1.15	2300/4000	CC5011S6P400LS6024TD2	**LM22224**	5500
450	1800	5011LX	95.8	1.15	2300/4000	CC5011S4P450LX6024TD2	**LM22227**	5500
	1200	5013LS	96.2	1.15	2300/4000	CC5013S6P450LS6024TD2	**LM27286**	7200
500	1800	5011LX	96.5	1.15	2300/4000	CC5011S4P500LX6024TD2	**LM22488**	5500
	1200	5013LS	96.2	1.15	2300/4000	CC5013S6P500LS6024TD2	**LM27287**	7200
600	1800	5011LX	96.5	1.15	2300/4000	CC5011S4P600LX6024TD2	**LM27288**	5500
700	1800	5013LS	96.5	1.15	2300/4000	CC5013S4P700LS6024TD2	**LM27289**	7200

Product numbers in red are STOCK items.

Specifications are subject to change without notice

MICRO SERIES INVERTER DRIVES

Full feature, ultra-friendly operation. Programs and reads-out in plain English.

- Intelligent Power Module-IGBT's with a 16 bit Intel microprocessor.
- User choice programming with:
  - ✓ Choice of "Quick Start" factory presets.
  - ✓ Built-In English programmable options via the key touch-pad.
- Output Frequency: 0-120 Hz.
- Overload Current Capacity: 150% for one minute, based on nominal output of the control.
- Speed reference signal. Choice of potentiometer, 0-10VDC or 4-20mA inputs.
- Analog output signal, 0-10VDC, speed or load.
- Two auxiliary contacts: One form C relay and two open collector output.
- Preset speeds: Four.
- Slip compensation.
- Adjustable carrier frequency.
- Adjustable acceleration and deceleration times.
- Forward/Reverse.
- DC braking–time and voltage adjustable.
- Password protected.
- Constant torque–with adjustable current limit.
- Rugged, heavy-gauge steel enclosures with barrier type terminal strips.
- Underwriters Laboratories Listed.
- Dynamic Braking is available as a kit for installation in the field (see page 200), or as a Modification (see page 234).
- Remote keypad is available as a kit for installation in the field (see page 200), or as a Modification (see page 234).

Effective July 1, 2006, the Micro Series inverters have PID software built in making them a closed-loop inverter if needed.

PDF file of Manual available at www.leeson.com/Technical Information

NEMA 1

Speedmaster® Micro Series compact inverters offer "big drive" features for adapting standard or premium efficiency three phase motors to adjustable speed operation. Utilizing the latest microprocessor and advanced IGBT power conversion devices, these high performance controls program and read-out in plain English, eliminating the frustration and time involved in looking-up confusing coded symbols. Complete, rugged steel enclosures for NEMA 1 (IP31) or NEMA 4/12 (IP65) service do not require additional enclosure protection as with many plastic-housed compact drives. Built-in thermal overload protection reduces additional costs. Heavy duty wiring terminals accessible via three conduit openings on the bottom of the housing for power in/out and input/output signals speeds installation and reduces installation costs.

Dimension Table see page 201

NEMA 1 (IP31) • THREE PHASE INPUT/OUTPUT

	HP	Output Amps	Input Voltage☆	Catalog Number	App. Wgt. (lbs.)	Dimension Key
200-240 Volts	1/2	2.2	200-240	174914.00	6	B
	1	4.0	200-240	174915.00	6	C
	1 1/2	5.2	200-240	174916.00	6	C
	2	6.8	200-240	174917.00	9	E
	3	9.6	200-240	174918.00	9	E
	5	15.2	200-240	174919.00	11	F
	7 1/2	25.0	200-240	174545.00	13	M
	10	28.0	200-240	174551.00	15	L
	15	42.0	200-240	174557.00	19	N
	20	54.0	200-240	174560.00	21	P
	25	68.0	200-240	174569.00	38	T
	30	80.0	200-240	174571.00	44	T
	40	104.0	200-240	174576.00	130	AE
	60	154.0	200-240	174578.00	185	AF
400-480 Volts	1	2.0	400-480	174920.00	6	B
	2	3.4	400-480	174921.00	7	D
	3	4.8	400-480	174922.00	9	E
	5	7.6	400-480	174923.00	9	E
	7 1/2	11.0	400-480	174924.00	11	I
	10	14.0	400-480	174552.00	13	M
	15	21.0	400-480	174558.00	15	L
	20	27.0	400-480	174561.00	17	N
	25	34.0	400-480	174563.00	21	P
	30	40.0	400-480	174565.00	21	P
	40	52.0	400-480	174567.00	35	T
	50	65.0	400-480	174593.00	44	W
	60	77.0	400-480	174572.00	67	W
	75	96.0	400-480	174580.00	185	AG
	100	124.0	400-480	174582.00	250	AH
	125	156.0	400-480	174584.00	260	AH
	150	180.0	400-480	174586.00	360	AL
480-590 Volts	1	1.6	480-590	174925.00	6	B
	2	2.7	480-590	174926.00	7	D
	3	3.9	480-590	174927.00	9	E
	5	6.1	480-590	174928.00	9	F
	7 1/2	9.0	480-590	174929.00	11	I
	10	11.0	480-590	174553.00	13	R
	15	17.0	480-590	174559.00	17	N
	20	22.0	480-590	174562.00	19	O
	25	27.0	480-590	174564.00	21	P
	30	32.0	480-590	174598.00	22	S
	40	41.0	480-590	174599.00	38	T
	50	52.0	480-590	174594.00	45	W
	60	62.0	480-590	174573.00	51	W

☆ User programmable for 50Hz and other voltage inputs

NEMA 1 (IP31) • SINGLE PHASE INPUT 230V THREE PHASE OUTPUT

(Use with three phase 230V motor)

HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt. (lbs.)	Dimension Key
1/4	1.4	115/230	174930.00	5	A
1/2	2.2	115/230	174997.00	7	AC
1	4.0	115/230	174931.00	7	D
1 1/2	5.2	115/230	174932.00	7	D
2	6.8	200-230	174933.00	9	E
3	9.6	200-230	174934.00	9	E

FOR INFORMATION ON REMOTE KEYPAD OPTION, SEE PAGE 200.

WASHGUARD NEMA 4/12 (IP65/IP54) EPOXY COATED

FOOD-SAFE epoxy finish. No external cooling fan required on NEMA 4 (IP65) drives. NEMA 12 drives have external cooling fan. Fully gasketed, water, oil and dust-tight enclosure. These Speedmaster® Micro Series drives have the same features as units shown on the previous page.


WASHGUARD NEMA 4/12

WASHGUARD NEMA 4/12 (IP65/IP54) THREE PHASE INPUT/OUTPUT

	HP	Output Amps	Input Voltage☆	Catalog Number	App. Wgt. (lbs.)	Dimension Key
200-240 Volts	**1/2**	2.2	200-240	**174935.00**	8	G
	1	4	200-240	**174936.00**	8	G
	1 1/2	5.2	200-240	**174482.00**	8	Y
	2	6.8	200-240	**174937.00**	10	H
	3	9.6	200-240	**174938.00**	11	J
	5	15.2	200-240	**174730.00**	11	K
	7 1/2	22	200-240	**174734.00**	27	Q
	10	28	200-240	**174737.00**	32	U
	15	43	200-240	**174740.00**	40	V
	20	54	200-240	**174743.00**✲	42	AA
	25	68	200-240	**174595.00**✲	53	Z
	30	80	200-240	**174596.00**✲	53	Z
400-480 Volts	**1**	2	400-480	**174939.00**	8	G
	2	3.4	400-480	**174940.00**	10	H
	3	4.8	400-480	**174941.00**	10	H
	5	7.6	400-480	**174942.00**	11	J
	7 1/2	11	400-480	**174548.00**	11	K
	10	14	400-480	**174554.00**	11	Q
	15	21	400-480	**174749.00**	32	U
	20	27	400-480	**174752.00**	36	V
	25	34	400-480	**174755.00**✲	42	AA
	30	40	400-480	**174757.00**✲	53	AA
	40	52	400-480	**174513.00**✲	54	Z
	50	65	400-480	**174511.00**✲	75	AB
	60	77	400-480	**174574.00**✲	98	AB
	75	96	400-480	**174581.00**✲	200	AJ
	100	124	400-480	**174583.00**✲	300	AP
	125	156	400-480	**174585.00**✲	310	AO
480-590 Volts	**1**	1.6	480-590	**174943.00**	8	G
	2	2.7	480-590	**174944.00**	10	H
	3	3.9	480-590	**174945.00**	10	H
	5	6.1	480-590	**174946.00**	11	J
	7 1/2	9	480-590	**174549.00**	13	K
	10	11	480-590	**174556.00**	17	Q
	15	17	480-590	**174763.00**	38	U
	20	22	480-590	**174766.00**	40	V
	25	27	480-590	**174769.00**✲	42	AA
	30	32	480-590	**174597.00**✲	53	AA
	40	41	480-590	**174512.00**✲	54	Z
	50	52	480-590	**174510.00**✲	75	AB
	60	62	480-590	**174575.00**✲	98	AB

☆ User programmable for 50Hz and other voltage inputs
✲ Enclosures are NEMA 12 only – others are NEMA 4/12

PDF file of Manual available at www.leeson.com/Technical Information

Dimension table – see page 201.

WASHGUARD NEMA 4X (IP65) STAINLESS STEEL

300-SERIES STAINLESS STEEL NEMA 4X enclosures are fully gasketed to withstand frequent washdown but must be protected from caustic agents. Paint-free stainless steel, no external fans, and anodized aluminum heat sinks provide superior heat transfer and greater structural integrity compared to plastic or fiberglass enclosures. These Speedmaster™ Micro Series drives have the same features as the NEMA 1 drives on the previous page.


WASHGUARD NEMA 4X

WASHGUARD NEMA 4X (IP65) THREE PHASE INPUT/OUTPUT

	HP	Output Amps	Input Voltage☆	Catalog Number	App. Wgt. (lbs.)	Dimension Key
200-240 Volts	**1/2**	2.2	200-240	**174527.00**	8	G
	1	4	200-240	**174528.00**	8	G
	1 1/2	5.2	200-240	**174529.00**	8	Y
	2	6.8	200-240	**174530.00**	10	H
	3	9.6	200-240	**174531.00**	11	J
	5	15.2	200-240	**174732.00**	11	K
	7 1/2	22	200-240	**174735.00**	27	Q
	10	28	200-240	**174738.00**	32	U
	15	43	200-240	**174741.00**	40	V
400-480 Volts	**1**	2	400-480	**174532.00**	8	G
	2	3.4	400-480	**174533.00**	10	H
	3	4.8	400-480	**174534.00**	10	H
	5	7.6	400-480	**174535.00**	11	J
	7 1/2	11	400-480	**174745.00**	11	K
	10	14	400-480	**174747.00**	11	Q
	15	21	400-480	**174750.00**	32	U
	20	27	400-480	**174753.00**	36	V
480-590 Volts	**1**	1.6	480-590	**174536.00**	8	G
	2	2.7	480-590	**174537.00**	10	H
	3	3.9	480-590	**174538.00**	10	H
	5	6.1	480-590	**174539.00**	11	J
	7 1/2	9	480-590	**174759.00**	13	K
	10	11	480-590	**174761.00**	17	Q
	15	17	480-590	**174764.00**	38	U
	20	22	480-590	**174767.00**	40	V

☆ User programmable for 50Hz and other voltage inputs

WASHGUARD NEMA 4X (IP65) STAINLESS STEEL • SINGLE PHASE INPUT• 230V THREE PHASE OUTPUT

(Use with three phase 230V motor)

HP	Output Amps	Input Voltage☆	Catalog Number	App. Wgt. (lbs.)	Dimension Key
1/4	1.4	115/230	**174519.00**	8	AD
1/2	2.2	115/230	**174520.00**	8	X
1	4	115/230	**174521.00**	11	H
1 1/2	5.2	115/230	**174517.00**	11	H
2	6.8	208-230	**174525.00**	11	H
3	9.6	208-230	**174526.00**	12	J

WASHGUARD NEMA 4 (IP65) EPOXY COATED • SINGLE PHASE INPUT • 230V THREE PHASE OUTPUT

(Use with three phase 230V motor)

HP	Output Amps	Input Voltage☆	Catalog Number	App. Wgt. (lbs.)	Dimension Key
1/4	1.4	115/230	**174996.00**	8	AD
1/2	2.2	115/230	**174998.00**	8	X
1	4	115/230	**174999.00**	11	H
1 1/2	5.2	115/230	**174515.00**	11	H
2	6.8	208-230	**174475.00**	11	H
3	9.6	208-230	**174729.00**	12	J

DYNAMIC BRAKING COMPONENTS FOR THE MICRO SERIES DRIVES

Micro Series Drives can be modified to include dynamic braking. The modifications involve replacing board(s) inside of the drive as well as adding a Dynamic Braking Resistor in a separate enclosure. Larger drives require a combination of Dynamic Braking Board and an additional Form C Relay Board. Instructions are included with the boards. Also available as a modification, see Mod Squad section, see page 234.

DYNAMIC BRAKING BOARDS❈

Drive HP	Drive Voltage Rating	Catalog Number	App. Wgt.(lbs.)
1/2-3	All	**174184.00**	2
5	200-230V	**174185.00**	2
5	460-480V	**174185.00**	2
5	550-575V	**174184.00**	2

❈ Dynamic braking Resistors are required with the Dynamic Braking Boards.

DYNAMIC BRAKING BOARDS WITH FORM C RELAY BOARD❈

Drive HP	Drive Voltage Rating	Catalog Number	App. Wgt.(lbs.)
7 1/2	200-230V	**174192.00**	2
7 1/2	460-480V	**174193.00**	2
7 1/2	550-575V	**174193.00**	2
10 - 60	All	**174192.00**	2

❈ Dynamic braking Resistors are required with the Dynamic Braking Boards.

DYNAMIC BRAKING RESISTORS❈❈

Drive HP	Drive Voltage Rating	Catalog Number	App. Wgt.(lbs.)
1/2	200-230V	**174178.00**	1
1	200-230V	**174179.00**	1
	460-480V	**174179.00**	1
	550-575V	**174178.00**	1
1 1/2	200-230V	**174179.00**	1
2	200-230V	**174180.00**	1
	460-480V	**174180.00**	1
	550-575V	**174179.00**	1
3	200-230V	**174182.00**	1
	460-480V	**174182.00**	1
	550-575V	**174181.00**	1
5	200-230V	**174183.00**	1
	460-480V	**174183.00**	1
	550-575V	**174182.00**	1
7 1/2	200-230V	**174143.00**	1
	460-480V	**174143.00**	1
	550-575V	**174148.00**	1
10	200-230V	**174143.00**	1
	460-480V	**174143.00**	1
	550-575V	**174148.00**	1
15-20	200-230V	**174144.00**	1
	460-480V	**174144.00**	1
	550-575V	**174149.00**	1
25-30	200-230V	**174145.00**	1
	460-480V	**174145.00**	1
	550-575V	**174140.00**	1
40	460-480V	**174146.00**	1
	550-575V	**174141.00**	1
50-60	460-480V	**174147.00**	1
	550-575V	**174142.00**	1

❈❈ Dynamic braking Resistors are provided with mounting brackets.

DRIVES

REMOTE KEYPADS & CABLES FOR MICRO SERIES DRIVES❈

Cable and Keypad are purchased separately. Installing the Remote keypad and Cable involves partially dis-assembling the drive. Instructions are included with the keypad. Also available as a Modification, see Mod Squad section.

Item	Catalog Number	App. Wgt.(lbs.)
Keypad	**174177.00**	2
2.5 ft. Cable	**174174.00**	2
5 ft. Cable	**174175.00**	2
10 ft. Cable	**174176.00**	2

❈ Compatible with any Micro Series drive.

NOTE: Using the remote keypad on a WASHGUARD Duty Inverter is not recommended, for the control will no longer meet NEMA 4/12 sealing requirements.

TECHLINK PROGRAMMING AND MONITORING SOFTWARE

Techlink Software is a powerful Drive Configuration tool that works in a Microsoft Windows environment. TechLink supports the following drives sold by LEESON: Micro Series, SM Plus Series and SM Vector Series.

TechLink allows a drive program to be created off line and to access the drive directly while connected over RS232 or RS485 (depending on the drive). RS485 supports several drives on one drive network but will require an RS232 to RS485 converter for most personal computers.

First time users visit LEESON's website, under "Links and Downloads" to download TechLink Software.

LEESON frequently updates Techlink software and the Models files to keep current with our expanding product offering and upgrades to our existing lines. If you have Techlink software installed on your computer and would like to check to see if you have the most current version of the TechLink program or the Models data, check the versions on the opening TechLink screen to the versions below. You will only need to download the program that has been updated. Each program below is a self extracting zip file; after expanding, run setup.exe to install.

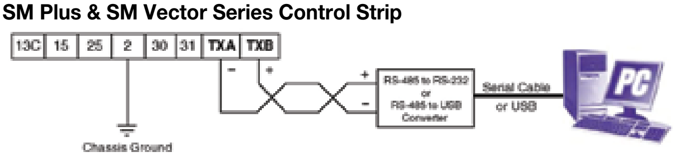
The diagrams below illustrate how to connect the LEESON Micro Series, SM Plus and SM Vector Series drives to a computer in order to use the TechLink software.

Note 1: When using serial communications, terminal 2 on the drive MUST be connected to chassis ground.

SM Plus & SM Vector Series

The SM Plus and SM Vector Series drives are RS-485, so a RS-232 to RS-485 or USB to RS-485 converter is required. The converter connects to the computer using a standard serial connection. A twisted pair connects the converter to the drive.

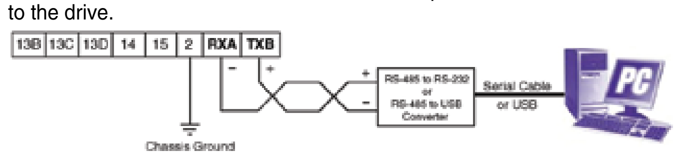
SM Plus & SM Vector Series Control Strip



Note 2: Refer to the converter manufacturer's instructions for proper converter configuration. The converter is not supplied by LEESON.

Micro Series

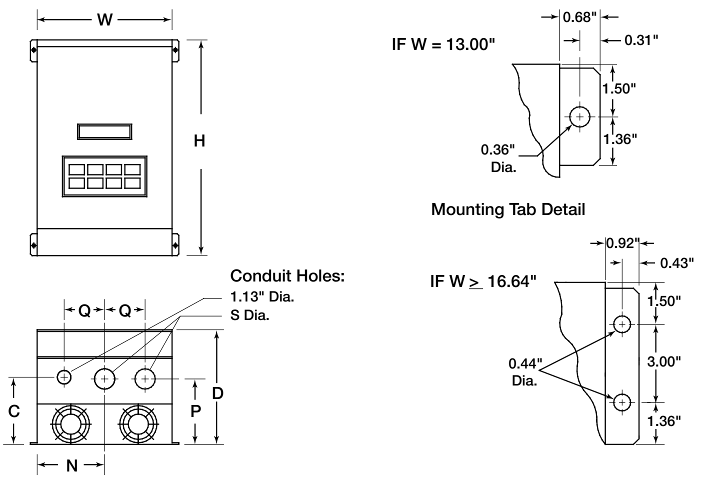
The Micro Series is RS-485, so a RS-232 to RS-485 or USB to RS-485 converter is required. The converter connects to the computer using a standard serial or USB connection. A twisted pair connects the converter to the drive.



Micro Series Control Strip

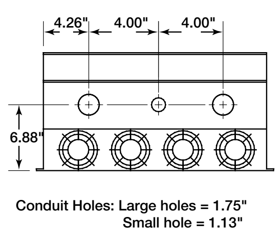
Note: 3 Refer to the converter manufacturer's instructions for proper converter configuration. The converter is not supplied by LEESON.

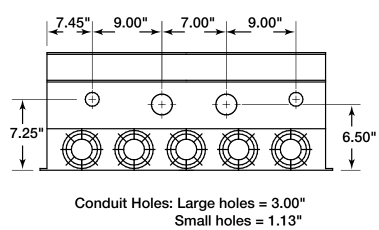
TYPE 1 DIMENSIONS FOR MODELS RATED ABOVE 30 HP AT 240/200 VAC & 60 HP AT 590/480/400 VAC



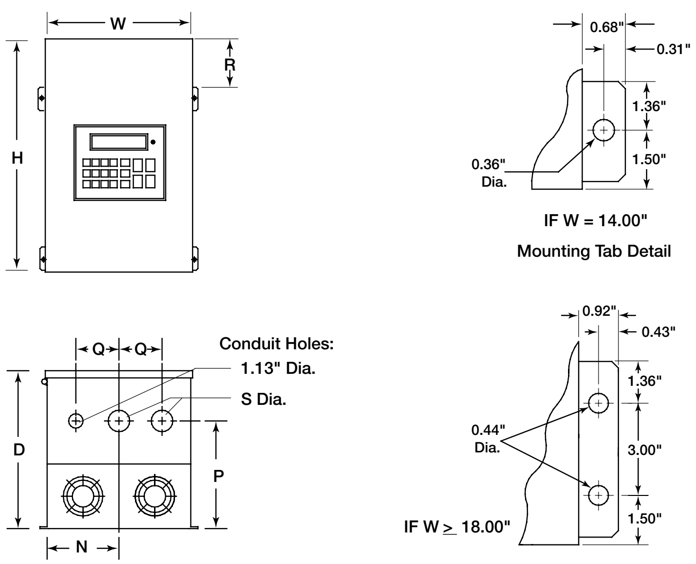
CONDUIT HOLES FOR 174578.00

CONDUIT HOLES FOR 174586.00





TYPE 12 DIMENSIONS FOR MODELS RATED ABOVE 30 HP AT 240/200 VAC AND 60 HP AT 400/480 VAC



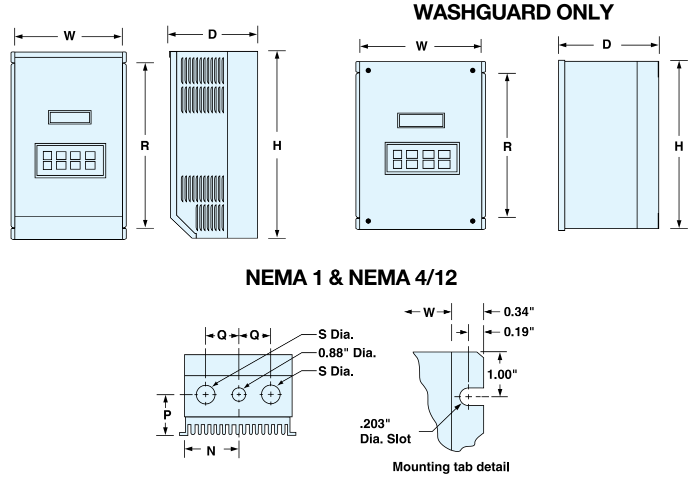
MICRO SERIES INVERTER DIMS. (Inches) • NEMA 1, NEMA 4/12 & NEMA 4X

Dimension Key	H	W	D	N	P	Q	R	S
A	7.50	4.70	3.33	2.35	1.60	1.37	5.50	0.88
B	7.50	4.70	3.63	2.35	1.90	1.37	5.50	0.88
C	7.50	4.70	4.33	2.35	2.60	1.37	5.50	0.88
D	7.50	6.12	4.22	3.77	2.40	1.37	5.50	0.88
E	7.50	6.12	5.12	3.77	3.30	1.37	5.50	0.88
F	7.88	7.86	5.94	5.13	3.95	1.50	5.88	1.13
G	7.88	6.12	4.35	3.06	2.70	1.37	5.88	0.88
H	7.88	7.86	4.90	4.80	3.25	1.37	5.88	0.88
I	9.38	7.86	6.25	5.13	3.95	1.50	7.38	1.13
J	7.88	7.86	5.90	4.80	4.25	1.37	5.88	0.88
K	9.75	10.26	7.20	5.13	5.25	2.00	7.75	1.13
L	11.25	7.86	6.84	3.93	4.19	2.00	7.75	1.38
M	9.38	7.86	6.84	3.93	4.19	2.00	5.88	1.13
N	12.75	7.86	6.84	3.93	4.19	2.00	9.25	1.38
O	12.75	7.86	7.40	3.93	4.19	2.00	9.25	1.38
P	12.75	10.26	7.74	5.13	5.00	2.50	9.25	1.38
Q	11.75	10.26	8.35	5.13	5.75	2.00	9.75	1.13
R	9.38	7.86	7.40	3.93	4.19	2.00	5.88	1.13
S	12.75	10.26	8.25	5.13	5.00	2.50	9.25	1.38
T	15.75	10.26	8.35	5.13	5.75	2.50	12.25	1.38
U	13.75	10.26	8.35	5.13	5.75	2.00	11.75	1.38
V	15.75	10.26	8.35	5.13	5.75	2.00	13.75	1.38
W	19.75	10.26	8.55	5.13	5.75	2.50	16.25	1.75
X	7.88	7.86	3.75	4.80	2.10	1.37	5.88	0.88
Y	7.88	6.12	5.25	3.06	3.60	1.37	5.88	0.88
Z	20.25	10.26	8.35	5.13	5.75	2.00	16.25	1.38
AA	15.75	10.26	8.35	5.13	5.75	2.00	11.75	1.38
AB	21.00	13.72	8.35	5.13	6.10	2.00	16.25	1.38
AC	7.50	6.12	3.63	3.77	1.80	1.37	5.50	0.88
AD	7.88	6.12	3.63	3.06	2.00	1.37	5.88	0.88
AE	25.00	13.00	10.50	5.56	6.50	2.62	–	1.38
AF	47.00	16.64	11.85		SEE CHART			
AG	29.00	16.64	11.85	7.14	6.88	3.12	–	1.75
AH	29.00	24.42	11.85	11.12	6.50	4.50	–	2.50
AI	29.00	36.66	11.85	11.50	9.00	4.50	–	2.50
AJ	37.00	18.00	13.30	7.50	8.00	3.13	7.14	1.75
AK	39.00	26.00	13.30	11.50	9.00	4.50	9.14	2.50
AL	29.00	36.66	11.85		SEE CHART			
AM	31.00	14.00	11.86	6.00	7.50	2.62	5.64	1.38
AN	49.00	18.00	13.30	7.50	8.00	3.13	7.14	1.75
AO	39.00	26.00	13.30	11.50	9.00	4.50	9.14	2.50

NEMA 1 ONLY

NEMA 4/12 WASHGUARD ONLY

NEMA 1 & NEMA 4/12



SM PLUS SUB-MICRO INVERTER DRIVES

BIG performance from an ultra-compact design. Provides 18 isolated I/O terminals plus RS485 Modbus® serial communication. Other features include:

SM PLUS

- Removable electronic programming module allows off-line set-up and program replication.
- Input line voltage calibration—optimizes over and under voltage trip levels
- Current limit to 180% with frequency foldback
- Adjustable carrier frequency (4 to 10 kHz)
- Adjustable V/Hz
- Output frequency to 240 Hz
- Seven preset speeds
- Automatic restart after fault
- Control via drive face, terminal strip or optional remote keypad
- Coast or ramp to stop
- Independent Accel and Decel adjustment
- Forward only or forward and reverse direction
- Adjustable DC injection braking
- Speed reference: Keypad, 0-10 VDC, or 4-20 mA
- Speed reference calibration
- Speed and load indicating output signal selection: 0-10 VDC or 4-20mA
- Output signal calibration
- I²t motor thermal overload protection; meets UL requirements for motor protection in single motor applications
- Fixed boost for high starting torque
- Accel boost for high torque accelerating at any speed
- Slip compensation
- Three-digit LED display
- Password protection
- Fault history: Stores eight previous trips
- Terminal status indication
- Default parameter reset
- IP20 enclosure with finger safe terminals
- Dynamic braking and remote keypad kits available on pages 207 and 208

✰ User programmable for 50Hz and other voltage inputs

DIMENSIONS ON PAGE 115

PDF file of Manual available at www.leeson.com/Technical Information

SINGLE PHASE INPUT/THREE PHASE OUTPUT

(Use with three phase 230V motor)

	HP	Output Amps	Input Voltage✰	Catalog Number	App. Wgt.(lbs.)	Dimension Key
115/230 Volts	1	4.2	115/230	174492.00	4	B1
115/230 Volts	1 1/2	6.0	115/230	174445.00	5	B1

SINGLE OR THREE PHASE INPUT/THREE PHASE OUTPUT

(Use with three phase 230V motor)

	HP	Output Amps	Input Voltage✰	Catalog Number	App. Wgt.(lbs.)	Dimension Key
200-240 Volts	1/4	1.4	200-240	174452.00	2	A1
200-240 Volts	1/2	2.2	200-240	174453.00	2	A1
200-240 Volts	1	4.2	200-240	174454.00	3	A2
200-240 Volts	1 1/2	6.0	200-240	174493.00	4	B1
200-240 Volts	2	6.8	200-240	174494.00	5	B2
200-240 Volts	3	9.6	200-240	174495.00	5	B2
200-240 Volts	5	15.2	200-240	174444.00	8	C1

THREE PHASE INPUT/OUTPUT

	HP	Output Amps	Input Voltage✰	Catalog Number	App. Wgt.(lbs.)	Dimension Key
200-240 Volts	1	4.2	200-240	174455.00	3	A2
200-240 Volts	1 1/2	6.0	200-240	174456.00	3	A3
200-240 Volts	2	6.8	200-240	174457.00	4	A3
200-240 Volts	3	9.6	200-240	174458.00	4	A3
200-240 Volts	5	15.2	200-240	174446.00	4	B2
200-240 Volts	7 1/2	22.0	200-240	174438.00	8	C1
200-240 Volts	10	28.0	200-240	174439.00	8	C1
200-240 Volts	15	42.0	200-240	174429.00	13	D1
200-240 Volts	20	54.0	200-240	174430.00	14	D1
400-480 Volts	1/2	1.1	400-480	174459.00	2	A1
400-480 Volts	1	2.1	400-480	174460.00	3	A2
400-480 Volts	1 1/2	3.0	400-480	174461.00	3	A3
400-480 Volts	2	3.4	400-480	174462.00	4	A3
400-480 Volts	3	4.8	400-480	174463.00	4	A3
400-480 Volts	5	7.6	400-480	174447.00	5	B2
400-480 Volts	7 1/2	11.0	400-480	174440.00	8	C1
400-480 Volts	10	14.0	400-480	174441.00	8	C1
400-480 Volts	15	21.0	400-480	174431.00	13	D1
400-480 Volts	20	27.0	400-480	174432.00	14	D1
400-480 Volts	25	34.0	400-480	174433.00	14	D1
400-480 Volts	30	40.0	400-480	174500.00	14	D1
480-590 Volts	1	1.7	480-590	174464.00	3	A2
480-590 Volts	2	3.0	480-590	174491.00	4	A3
480-590 Volts	3	4.2	480-590	174497.00	5	B2
480-590 Volts	5	6.6	480-590	174448.00	5	B2
480-590 Volts	7 1/2	9.9	480-590	174442.00	8	C1
480-590 Volts	10	12.2	480-590	174443.00	8	C1
480-590 Volts	15	19.0	480-590	174434.00	8	D1
480-590 Volts	20	24.0	480-590	174435.00	14	D1
480-590 Volts	25	27.0	480-590	174436.00	14	D1

SPECIFICATIONS:

Storage Temperature	-20˚ to 70˚ C
Ambient Operating Temperature	0˚ to 50˚ C
Ambient Humidity	<95% (non-condensing)
Maximum Altitude	3300 ft (1000m) above sea level
Input Line Voltages	115/230 VAC, 200-230 VAC, 460-480 VAC, and 550-575 VAC
Input Voltage Tolerance	+10%, -15%
Input Frequency Tolerance	48 to 62 Hz
Output Wave Form	Sine Coded PWM
Output Frequency	0-240 Hz
Carrier Frequency	4 kHz to 10 kHz
Enclosure	IP20
Service Factor	1.0
Efficiency	up to 98%
Power Factor (displacement)	>0.96
Overload Current Capacity	150% for 60 seconds 180% for 20 seconds
Speed Reference Follower	0-10 VDC, 4-20 mA
Control Voltage	15 VDC
Analog Outputs	0-10 VDC or 2-10 VDC: Proportional to frequency or load
Digital Outputs	Open-collector: 40 mA at 30 VDC
Power Supply for Aux. Relays	40 mA at 12 VDC

Specifications are subject to change without notice

SM SERIES SUB-MICRO INVERTER DRIVES

For applications requiring a simpler drive without the advanced features of the SM-Plus drive. Provides 11 isolated I/O terminals with one Form A relay output. Other features include:

SM SERIES

- Removable electronic programming module allows off-line set-up and program replication.
- Input line voltage calibration—optimizes over and under voltage trip levels
- Current limit to 180% with frequency foldback
- Adjustable carrier frequency (4 to 10 kHz)
- Adjustable V/Hz
- Output frequency to 240 Hz
- Seven preset speeds
- Automatic restart after fault
- Control via drive face, terminal strip or optional remote keypad
- Coast or ramp to stop
- Independent Accel and Decel adjustment
- Forward only or forward and reverse direction
- Adjustable DC injection braking
- Speed reference: Keypad, 0-10 VDC, or 4-20 mA
- Speed reference calibration
- I^2t motor thermal overload protection; meets UL requirements for motor protection in single motor applications
- Fixed boost for high starting torque
- Accel boost for high torque accelerating at any speed
- Slip compensation
- Three-digit LED display
- Password protection
- Fault history: Stores eight previous trips
- Terminal status indication
- Default parameter reset
- IP20 enclosure with finger safe terminals
- Dynamic braking and remote keypad kits available on pages 207 and 208.

✰ User programmable for 50Hz and other voltage inputs

SINGLE PHASE INPUT/THREE PHASE OUTPUT

(Use with three phase 230V motor)

	HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension Key
110-120 Volts	1/3	1.7	110-120	174263.00	2	A5
	1/2	2.4	110-120	174264.00	2	A5
	1	4.2	110-120	174265.00	3	B5
	1 1/2	6.0	110-120	174266.00	3	B5

SINGLE PHASE INPUT/THREE PHASE OUTPUT

(Use with three phase 230V motor)

	HP	Output Amps	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension Key
200-240 Volts	1/3	1.7	200-240	174267.00	2	A5
	1/2	2.4	200-240	174268.00	2	A5
	1	4.2	200-240	174270.00	3	A6
	1 1/2	6.0	200-240	174271.00	4	B5
	2	7.0	200-240	174272.00	5	B5
	3	9.6	200-240	174273.00	5	B6

THREE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension Key
200-240 Volts	1/2	2.4	200-240	174274.00	2	A5
	1	4.2	200-240	174276.00	2	A6
	1 1/2	6.0	200-240	174277.00	3	A7
	2	7.0	200-240	174278.00	3	A7
	3	9.6	200-240	174279.00	3	B6
	5	15.2	200-240	174288.00	5	B2
	7 1/2	22	200-240	174280.00	8	C1
	10	28	200-240	174290.00	8	C1
	15	42	200-240	174292.00	14	D1

THREE PHASE INPUT/THREE PHASE OUTPUT

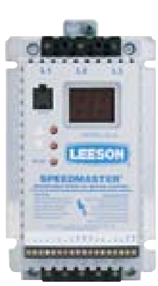
	HP	Output Amps	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension Key
400-480 Volts	1/2	1.1	400-480	174281.00	2	A1
	1	2.1	400-480	174282.00	3	A2
	1 1/2	3.0	400-480	174283.00	3	A3
	2	3.4	400-480	174284.00	4	A3
	3	4.8	400-480	174286.00	4	B1
	5	7.8	400-480	174287.00	5	B2
	7 1/2	11	400-480	174285.00	5	B2
	10	14	400-480	174291.00	8	C1
	15	21	400-480	174293.00	8	C1

DRIVES

DIMENSIONS: SM, SM PLUS AND SM VECTOR INVERTERS

"A" Chassis

3.64 in.



5.75 in.

Depth: A1: 3.94 in.
A2: 4.74 in.
A3: 5.74 in.
A5: 3.26 in.
A6: 3.63 in.
A7: 5.56 in.

"B" Chassis

4.52 in.

5.75 in.

Depth: B1: 5.24 in.
B2: 6.74 in.
B5: 4.88 in.
B6: 5.53 in.

"C" Chassis

5.78 in.

7.75 in.

Depth: C1: 7.18 in.

"D" Chassis

7.68 in.

9.75 in.

Depth: D1: 8.00 in.

Dimensions shown for reference only. Contact LEESON for detailed drawing.

PDF file of Manual available at www.leeson.com/Technical Information

AC ADJUSTABLE SPEED DRIVES

SM2 SERIES SUB-MICRO INVERTERS

SM2 SERIES FLUX VECTOR DRIVE

With its price, its flexibility and a power range of up to 25 Hp, the SM2 SERIES FLUX VECTOR drive excels in environments where inverter technology was once considered too costly, including packaging machinery, food processing machinery, material handling/conveying systems and HVAC systems.

The SM2 SERIES FLUX VECTOR carries all the features required by demanding applications including four modes of operation (V/Hz, Enhanced V/Hz, Vector Speed, and Torque), high starting torque, auto-tuning, advanced low-speed control, and dynamic speed regulation.

General Specifications:

- **Horsepower:** 1 to 25HP (0.75 to 18.5kW)
- **Supply Power:**
  - Single Phase: 120, 208, 220 or 240VAC
  - Three Phase: 208, 240, 400, 480 or 600VAC
  - 50 / 60 Hz

Motors: Designed for operation with vector duty rated induction motors rated for 120, 200, 230, 400, 460 or 575VAC from 0 to 240Hz.

Enclosure: NEMA1, IP21, -10 to 55°C, 2.5% derate per °C above 40°C

Standard Features: Easy Set-up and Operation: Program the Vector control in one of four convenient ways:

- From the front of the drive
- The optional remote keypad
- A PC Using TechLink Software (Available free from www.leeson.com)
- The innovative EPM Programmer.

Modes of operation:

- Open Loop Flux Vector (Speed or Torque)
- V/Hz (constant or variable)
- Enhanced V/Hz with Auto-tuning

Easy to Use Keypad & Display 6-Button Interface:

- Start
- Stop
- Forward/Reverse
- Scroll Up
- Scroll Down
- Enter/Mode

Vivid Illumination:

- 4 digit LED display
- Easy to read from a distance
- Movable Decimal Point

Acceleration/Deceleration Profiles:

- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear or S-Type
- Auxiliary Ramp-to-Stop

Output Frequency:

- 500 Hz Std., 1000 Hz Optional

Selectable Logic Assertion:

Positive Logic Input (PNP current sourcing)

Negative Logic Input (NPN current sinking)

Multiple Braking Functions

Loss of Follower Management

Speed Commands: Keypad, Jog, Floating Point Control

Voltage: Scalable 0-10 VDC,
Current: Scalable 4-20 mA, Potentiometer,
8 Preset Speeds

Process Control:PID Modes: Direct or Reverse Acting, PID Sleep Mode

Voltage Monitoring

Current Monitoring

Real Time Monitoring: 8 register fault history, Software Version Drive Network ID, DC Bus Voltage (V), Motor Voltage (V), Output Current (%) Motor Current (A), Motor Torque (%), Power (kW) Energy Consumption (kWh), Heatsink Temperature (°C), 0-10 VDC Input (User Defined), 4-20 mA Input (User Defined) PID Feedback (User Defined), Analog Output (% Load, % Torque, kW), Network Speed (baud rate), Terminal Continuity, Keypad Status,

Elapsed Run Time (hours), Elapsed Power on Time (hours)

Standards: UL (USA), cUL (Canada), CE (Europe), GOST (Russia/Ukraine) C-Tick (Australia/New Zealand)

PDF file of Manual available at www.leeson.com/Technical Information

SINGLE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension H x W x D (in.)
115-230 Volts	1/3	1.7	115/230	174603.00	2.9	7.5 x 3.9 x 4.35
	1/2	2.4	115/230	174604.00	3.0	7.5 x 3.9 x 4.35
	1	4.2	115/230	174605.00	3.2	7.5 x 3.9 x 4.35
	1.5	6.0	115/230	174651.00	5.0	7.5 x 3.9 x 5.45

SINGLE OR THREE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension H x W x D (in.)
208-240 Volts	1/3	1.7	208/240	174606.00❶	2.5	7.5 x 3.9 x 4.35
	1/2	2.4	208/240	174607.00	2.9	7.5 x 3.9 x 4.35
	1	4.2	208/240	174608.00	3.2	7.5 x 3.9 x 4.35
	1 1/2	6.0	208/240	174609.00	3.7	7.5 x 3.9 x 5.45
	2	7.0	208/240	174610.00	3.7	7.5 x 3.9 x 5.45
	3	9.6	208/240	174611.00	3.9	7.5 x 3.9 x 5.45

∂ LEESON model 174606 is single-phase input only

THREE PHASE INPUT/OUTPUT

	HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension H x W x D (in.)
200-240 Volts	1 1/2	6.0	200/240	174612.00	3.7	7.5 x 3.9 x 5.45
	2	7.0	200/240	174613.00	3.7	7.5 x 3.9 x 5.45
	3	9.6	200/240	174614.00	3.8	7.5 x 3.9 x 5.45
	5	16.5	200/240	174615.00	4.2	7.5 x 3.9 x 5.8
	7 1/2	23.0	200/240	174616.00	7.3	9.83 x 5.12 x 6.3
	10	29.0	200/240	174617.00	7.3	9.83 x 5.12 x 6.3
	15	42.0	200/240	174618.00❷	20	12.33 x 6.88 x 8.08
	20	54.0	200/240	174619.00❷	20	12.33 x 6.88 x 8.08
400-480 Volts	1/2	1.1	400/480	174620.00	3.0	7.5 x 3.9 x 4.35
	1	2.1	400/480	174621.00	3.2	7.5 x 3.9 x 4.35
	1 1/2	3.0	400/480	174622.00	3.6	7.5 x 3.9 x 5.45
	2	3.5	400/480	174623.00	3.7	7.5 x 3.9 x 5.45
	3	4.8	400/480	174624.00	3.7	7.5 x 3.9 x 5.45
	5	8.2	400/480	174625.00	4.3	7.5 x 3.9 x 5.8
	7 1/2	11.0	400/480	174626.00	7.3	9.83 x 5.12 x 6.3
	10	14.0	400/480	174627.00	7.3	9.83 x 5.12 x 6.3
	15	21.0	400/480	174628.00❷	20	12.33 x 6.88 x 8.08
	20	27.0	400/480	174629.00❷	20	12.33 x 6.88 x 8.08
	25	35.0	400/480	174630.00❷	20	12.33 x 6.88 x 8.08
480-590 Volts	1	1.7	480/590	174631.00	3.2	7.5 x 3.9 x 4.35
	2	2.7	480/590	174632.00	3.7	7.5 x 3.9 x 5.45
	3	3.9	480/590	174633.00	3.8	7.5 x 3.9 x 5.45
	5	6.1	480/590	174634.00	4.2	7.5 x 3.9 x 5.8
	7 1/2	9.0	480/590	174635.00	7.3	9.83 x 5.12 x 6.3
	10	11.0	480/590	174636.00	7.3	9.83 x 5.12 x 6.3
	15	17.0	480/590	174637.00❷	20	12.33 x 6.88 x 8.08
	20	22.0	480/590	174638.00❷	20	12.33 x 6.88 x 8.08
	25	27.0	480/590	174639.00❷	20	12.33 x 6.88 x 8.08

SM4 SERIES NEMA 4 FLUX VECTOR DRIVE

Indoor Use

With its price, its flexibility and a power range of up to 25 Hp, the SM2 SERIES FLUX VECTOR drive excels in environments where inverter technology was once considered too costly, including packaging machinery, food processing machinery, material handling/conveying systems and HVAC systems.

The SM4 SERIES FLUX VECTOR carries all the features required by demanding applications including four modes of operation (V/Hz, Enhanced V/Hz, Vector Speed, and Torque), high starting torque, auto-tuning, advanced low-speed control, and dynamic speed regulation.

General Specifications:

- **Horsepower:** 1 to 25HP (0.75 to 18.5kW)
- **Supply Power:**
  Single Phase: 120, 208, 220 or 240VAC
  Three Phase: 208, 240, 400, 480 or 600VAC
  50 / 60 Hz

Motors: Designed for operation with vector duty rated induction motors rated for 120, 200, 230, 400, 460 or 575VAC from 0 to 240Hz.

Enclosure: NEMA4, IP65, -10 to 55°C, derate per °C above 40°C, indoor use

Standard Features: Easy Set-up and Operation: Program the Vector control in one of four convenient ways:

- From the front of the drive
- The optional remote keypad
- A PC Using TechLink Software
  (Available free from www.leeson.com)
- The innovative EPM Programmer.

Modes of operation:

- Open Loop Flux Vector (Speed or Torque)
- V/Hz (constant or variable)
- Enhanced V/Hz with Auto-tuning

Easy to Use Keypad & Display 6-Button Interface:

- Start
- Stop
- Forward/Reverse
- Scroll Up
- Scroll Down
- Enter/Mode

Vivid Illumination:

- 4 digit LED display
- Easy to read from a distance
- Movable Decimal Point

Acceleration/Deceleration Profiles:

- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear or S-Type
- Auxiliary Ramp-to-Stop

Output Frequency:

- 500 Hz Std., 1000 Hz Optional

Selectable Logic Assertion:

Positive Logic Input (PNP current sourcing)

Negative Logic Input (NPN current sinking)

Multiple Braking Functions

Loss of Follower Management

Speed Commands: Keypad, Jog, Floating Point Control

Voltage: Scalable 0-10 VDC,
Current: Scalable 4-20 mA, Potentiometer,
8 Preset Speeds

Process Control:PID Modes: Direct or Reverse Acting, PID Sleep Mode

SINGLE PHASE INPUT/THREE PHASE OUTPUT

(Use with three phase 230V motor)

	HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension H x W x D (in.)
115/230 Volts	1/2	2.4	115/230 Volts	**174652.00**	3.6	8.0 x 6.28 x 4.47
	1	4.2		**174653.00**	3.6	8.0 x 6.28 x 4.47
	1 1/2	6.0		**174654.00**	3.6	8.0 x 6.28 x 4.47

SINGLE OR THREE PHASE INPUT/THREE PHASE OUTPUT

(Use with three phase 230V motor)

	HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension H x W x D (in.)
208-240 Volts	1/2	1.7	208-240 Volts	**174655.00**	3.6	8.0 x 6.28 x 4.47
	1	2.4		**174656.00**	3.6	8.0 x 6.28 x 4.47
	1 1/2	4.2		**174657.00**	5.9	8.0 x 6.28 x 6.31
	2	6.0		**174658.00**	5.9	8.0 x 6.28 x 6.31
	3	7.0		**174659.00**	7.1	8.0 x 7.12 x 6.77

THREE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension H x W x D (in.)
208-240 Volts	5	6.0	208-240 Volts 3-Phase	**174660.00**	11.58	10.0 x 8.96 x 8.0
	7 1/2	7.0		**174661.00♦**	10.98	10.0 x 8.04 x 8.0
	10	9.6		**174662.00♦**	10.98	10.0 x 8.04 x 8.0

THREE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension H x W x D (in.)
400-480 Volts	1/2	0.5	400-480 Volts 3-Phase	**174671.00**	3.6	8.0 x 6.28 x 4.47
	1	2.1		**174672.00**	3.6	8.0 x 6.28 x 4.47
	1 1/2	3.0		**174673.00**	5.9	8.0 x 6.28 x 6.31
	2	3.5		**174674.00**	5.9	8.0 x 6.28 x 6.31
	3	4.8		**174675.00**	5.9	8.0 x 6.28 x 6.31
	5	8.2		**174676.00**	11.58	10.0 x 8.96 x 8.0
	7 1/2	11.0		**174677.00**	11.58	10.0 x 8.96 x 8.0
	10	14.0		**174678.00♦**	10.98	10.0 x 8.04 x 8.0

THREE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Dimension H x W x D (in.)
480-590 Volts	1	1.7	480-590 Volts 3-Phase	**174663.00**	3.61	8.0 x 6.28 x 4.47
	2	2.7		**174664.00**	5.9	8.0 x 6.28 x 6.31
	3	3.9		**174665.00**	5.9	8.0 x 6.28 x 6.31
	5	6.1		**174666.00**	11.58	10.0 x 8.96 x 8.0
	7 1/2	9.0		**174667.00**	11.58	10.0 x 8.96 x 8.0
	10	11.0		**174668.00♦**	10.98	10.0 x 8.04 x 8.0

♦ = fan cooled - other controls are convection cooled

Available 1st Qtr 2011

Voltage Monitoring

Current Monitoring

Real Time Monitoring: 8 register fault history, Software Version Drive Network ID, DC Bus Voltage (V), Motor Voltage (V), Output Current (%) Motor Current (A), Motor Torque (%), Power (kW) Energy Consumption (kWh), Heatsink Temperature (°C), 0-10 VDC Input (User Defined), 4-20 mA Input (User Defined) PID Feedback (User Defined), Analog Output (% Load, % Torque, kW), Network Speed (baud rate), Terminal Continuity, Keypad Status,

Elapsed Run Time (hours), Elapsed Power on Time (hours)

Standards: UL (USA), cUL (Canada), CE (Europe), GOST (Russia/Ukraine) C-Tick (Australia/New Zealand)

PDF file of Manual available at www.leeson.com/Technical Information

Specifications are subject to change without notice

DRIVES

SM VECTOR SUB-MICRO INVERTER DRIVES

Sensorless Vector AC Drive delivers up to 200% starting torque and can control a vector duty motor down to 1Hz at full output torque!

SM VECTOR

- The SM-Vector drive is designed for operation with vector duty rated induction motors rated for 200, 230, 400, 460, or 590VAC from 0 to 240Hz.
- IP20 enclosure with finger safe terminals
- Easy setup and operation – Program the SM-Vector drive one of four different ways:
  - From the front of the drive
  - The optional remote keypad
  - A PC using the TechLink Software
  - The EPM Programmer
- Modes of operation:
  - Constant Torque V/Hz
  - Variable Torque V/Hz
  - Sensorless Vector – speed mode
  - Sensorless Vector – torque mode
- Auto Tuning determines key performance values based on the motor and installation variables. Required for operation in vector modes, but can be used to enhance performance in V/Hz mode.
- The SM-Vector drive is an approved thermal overload protection device for single motor applications.
- 18 isolated terminals provide 5 logic inputs and 2 logic outputs.
- Two reference inputs allow for 4-20mA and either 0-10V or bipolar –10 to +10V
- Two analog outputs indicate speed and load.
- Two wire RS485 serial communication.
- Dynamic braking and remote keypad kits available on pages 207 and 208.

☆ User programmable for 50Hz and other voltage inputs

DIMENSIONS ON PAGE 115

PDF file of Manual available at www.leeson.com/Technical Information

SINGLE OR THREE PHASE INPUT/THREE PHASE OUTPUT

(Use with three phase 230V motor)

	HP	Output Amps 230VAC	Input Voltage☆	Catalog Number	Wgt. (lbs.)	Dimension Key
200-240 Volts	1/2	2.2	200-240	174000.00	2	A1
	1	4.2	200-240	174001.00	3	A2
	1 1/2	6.0	200-240	174002.00	4	B1
	2	6.8	200-240	174003.00	5	B2
	3	9.6	200-240	174004.00	5	B2

THREE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps 230VAC	Input Voltage☆	Catalog Number	Wgt. (lbs.)	Dimension Key
200-240 Volts	1	4.2	200-240	174006.00	3	A2
	1 1/2	6.0	200-240	174007.00	3	A3
	2	6.8	200-240	174008.00	4	B2
	3	9.6	200-240	174009.00	4	B2
	5	15.2	200-240	174010.00	4	B2
	7 1/2	22	200-240	174011.00	8	C1
	10	28	200-240	174012.00	8	C1

THREE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps	Input Voltage☆	Catalog Number	Wgt. (lbs.)	Dimension Key
400-480 Volts	1/2	1.1	400-480	174015.00	2	B1
	1	2.1	400-480	174016.00	3	B1
	1 1/2	3.0	400-480	174017.00	3	B1
	2	3.4	400-480	174018.00	4	B2
	3	4.8	400-480	174019.00	4	B2
	5	7.8	400-480	174020.00	5	B2
	7 1/2	11	400-480	174021.00	8	C1
	10	14	400-480	174022.00	8	C1

THREE PHASE INPUT/THREE PHASE OUTPUT

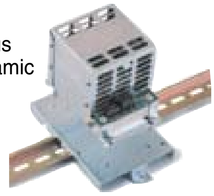
	HP	Output Amps	Input Voltage☆	Catalog Number	Wgt. (lbs.)	Dimension Key
480-590 Volts	1	1.7	480-590	174027.00	3	B1
	2	3.0	480-590	174028.00	4	B2
	3	4.2	480-590	174029.00	5	B2
	5	6.6	480-590	174030.00	5	B2
	7 1/2	9.9	480-590	174031.00	8	C1
	10	12.2	480-590	174032.00	8	C1

SPECIFICATIONS:

Storage Temperature	-20° to 70° C
Ambient Operating Temperature	0° to 50° C
Ambient Humidity	<95% (non-condensing)
Maximum Altitude	3300 ft (1000m) above sea level
Input Line Voltages	208-240 VAC, 400-480 VAC, 480-590 VAC
Input Voltage Tolerance	+10%, -15%
Input Frequency Tolerance	48 to 62 Hz
Output Wave Form	Sine Coded PWM
Output Frequency	0-240 Hz
Carrier Frequency	2 kHz, 4 kHz, 8 kHz
Enclosure	IP20
Service Factor	1.0
Efficiency	up to 98%
Power Factor (displacement)	0.96 or better
Overload Current Capacity	150% for 60 seconds 200% for 25 seconds
Speed Reference Follower	0-10 VDC, 4-20 mA
Control Voltage	15 VDC
Analog Outputs	0-10 VDC or 2-10 VDC: Proportional to speed, load, or torque
Digital Outputs	Open-collector: 50 mA at 30 VDC
Power Supply for Aux. Relays	50 mA at 12 VDC

ACCESSORIES FOR THE SM, SM-PLUS & SM VECTOR SERIES DRIVES

Dynamic Braking Components for the SM, SM-Plus & SM Vector Series Drives



Dynamic braking is available for the SM, SM-Plus and SM Vector series drives as a separate Dynamic Braking Module. Lower HP modules have the control electronics and the dynamic braking resistor in one convenient package. Larger units require a separate resistor. The modules can be panel or DIN rail mounted.

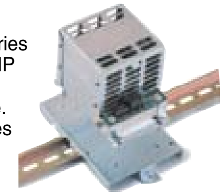
DYNAMIC BRAKING MODULES WITH BUILT-IN DYNAMIC BRAKING RESISTORS★

Drive HP	Motor Voltage Rating	Catalog Number	App. Wgt. (lbs.)
1/4-1/2	208-230V	**174400.00**	2
1/4-1/2	400-480V	**174406.00**	2
1 - 1 1/2	208-230V	**174401.00**	3
1 - 1 1/2	400-480V	**174407.00**	3
1 - 1 1/2	480-590V	**174412.00**	3
2 - 3	208-230V	**174402.00**	4
2 - 3	400-480V	**174408.00**	4
2 - 3	480-590V	**174413.00**	4
5	208-230V	**174403.00**	5
5	400-480V	**174409.00**	5
5	480-590V	**174414.00**	5
7 1/2	208-230V	**174404.00**	6
7 1/2	400-480V	**174410.00**	6
7 1/2	480-590V	**174415.00**	6
10	208-230V	**174405.00**	8
10	400-480V	**174411.00**	8
10	480-590V	**174416.00**	8

★ Braking Resistors are included with the module and not purchased separately.

ACCESSORIES FOR THE SM2 FLUX VECTOR SERIES DRIVES

Dynamic Braking Components for the SM2 Vector Series Drives



Dynamic braking is available for the SM2 Vector Series drives as a separate Dynamic Braking Module. 10 HP and lower modules have control electronics and the dynamic braking resistor in one convenient package. Larger units require a separate resistor. The modules can be panel or DIN rail mounted.

DYNAMIC BRAKING MODULES WITH BUILT-IN DYNAMIC BRAKING RESISTORS★

Drive HP	Motor Voltage Rating	Catalog Number	App. Wgt. (lbs.)
1/3-1/2	208 - 230V	**174157.00**	2
1/3-1/2	400 - 480V	**174158.00**	2
1 - 1 1/2	208 - 230V	**174151.00**	3
1 - 1 1/2	400 - 480V	**174152.00**	3
1 - 1 1/2	480 - 590V	**174153.00**	3
2 - 3	208 - 230V	**174154.00**	4
2 - 3	400 - 480V	**174155.00**	4
2 - 3	480 - 590V	**174156.00**	4
5	208 - 230v	**174159.00**	5
5	400 - 480V	**174160.00**	5
5	480 - 590V	**174161.00**	5
7 1/2	208 - 230V	**174162.00**	6
7 1/2	400 - 480V	**174163.00**	6
7 1/2	480 - 590V	**174164.00**	6
10	208 - 230V	**174165.00**	8
10	400 - 480V	**174166.00**	8
10	480 - 590V	**174167.00**	8

★ Braking Resistors are included with the module and not purchased separately.

ELECTRONIC PROGRAMMING UNIT

Electronic Programming Unit allows off-line set-up and replication of the drive's plug-in electronic programming module (shown at right). Excellent for multi-drive applications. Keypad input and alphanumeric display simplify programming. RS-232 serial port allows downloading of configuration files from personal computer.

Catalog Number	App. Wgt. (lbs.)
174189.00	2

DIN RAIL MOUNTING KITS

Steel plates and fasteners for mounting drives on standard 35mm DIN rails for panel building. **Set of six.**

174186 for "A" chassis drives.

174187 for "B" chassis drives.

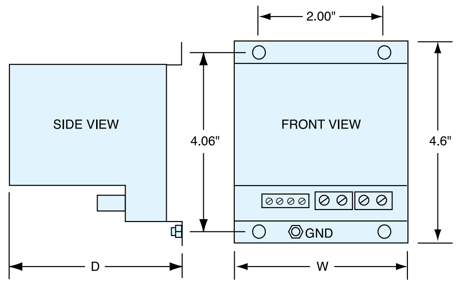
174188 for "C" chassis drives.

Catalog Number	App. Wgt. (lbs.)
174186.00	3
174187.00	3
174188.00	3

DRIVES

AC ADJUSTABLE SPEED DRIVES
SUB-MICRO INVERTER ACCESSORIES

Dimensions (inches)		
HP	W	D
0.25-1.5	3.1	3.1
2-3	3.1	4.3
5	3.1	5.6
7.5-10	4.2	6.7



DYNAMIC BRAKING MODULES WITHOUT RESISTORS⁕

Drive HP	Motor Voltage Rating	Catalog Number	App. Wgt. (lbs.)
15-20	208-230V	**174417.00**	10
15-30	400-480V	**174418.00**	10
15-25	480-590V	**174419.00**	10

⁕ Dynamic Braking Resistors are purchased and mounted separately.

DYNAMIC BRAKING RESISTORS⁕⁕

Drive HP	Motor Voltage Rating	Catalog Number	App. Wgt. (lbs.)
15-20	208-230V	**174144.00**	1
15-20	400-480V	**174144.00**	1
15-20	480-590V	**174149.00**	1
15-30	400-480V	**174145.00**	1
25	480-590V	**174140.00**	1

⁕⁕ Dynamic Braking Resistors are provided with mounting brackets.

EPM BULK PACK

Plug-in electronic programming modules (EPM). Allow off-line set-up and replication of program using Electronic Programming Unit (at left). **Set of 10.**

Catalog Number	App. Wgt. (lbs.)
174190.00	1

REMOTE KEYPAD

Remote keypad kit for includes eight-foot connecting cable and gasket. Mounted in proper enclosure, the keypad kit will provide up to NEMA 4 protection. **These keypads can only be used with Sub-Micro drives manufactured May, 1999 or later (date code of 9922 or higher).**

3.375 “

2.156 “

Depth: .625”

Drive Type	Catalog Number	App. Wgt. (lbs.)
SM Plus	**174191.00**	2
SM	**174194.00**	2
SM Vector	**174306.00**	2
SM2 Vector	**174150.00**	2

DRIVES

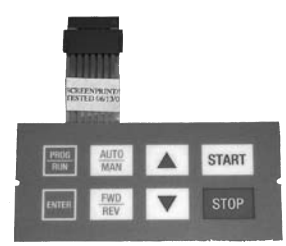
SM4 REMOTE KEYPAD

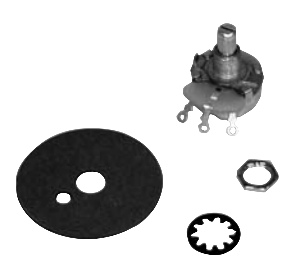
- Potentiometer Kit takes the place of the up/down buttons on the drive’s keypad
- Gives operators hands-on speed control over the Inverter’s speed range

Catalog Number	App. Wgt. (lbs.)
174693.00	2
174697.00	2
174698.00	2

INVERTER ACCESSORY PARTS

Catalog Number	Description
006707.01	Micro Series Keypad
006708.01	Speed Pot (10k/5w pot, washers & nut)





FHP SERIES AC DRIVES

General Specifications:

The FHP Series volts/hertz-type AC drives are as simple to set-up and calibrate as an SCR-type DC drive. Rated from 1/4 to 1HP with 115V, 230V, or 115/230V "doubler" input power ratings.

The cost-conscious and compact chassis design of the FHP Series maintains the industry standard for mounting hole location.

The NEMA 4X enclosed drive has additional features in a compact package size.

With its compact size, standard features and application flexibility, the FHP Series is an excellent choice for most 1 hp and under AC applications.

Common features for chassis and enclosed units:

- Compact size – (4.30" x 3.70")
- Industry standard mounting
- Output voltage on dual voltage models is jumper selectable and can double the output voltage – allowing the use of a 230V motor when only 115V power is available.
- Quickly and easily change trimmer pot ranges for 1/15 to 1 hp motors.
- Easy calibration and setup with on board trim pot adjustments for boost, max speed, acceleration, deceleration, to overcome intermittent peak loads, then reduces the torque and torque limit.
- Torque 'foldback' feature – Allows up to 200% torque for short periods (output current) to a safe level that is set with the TQ LIMIT trim pot.
- 16kHz switching frequency, with option to change between 4 and 16kHz in the field.
- Adjustable torque boost for startup – Up to 200% additional torque for loads with high inertia or friction.
- Color-coded on-board LEDs for Power, Fault and Torque Limit enable easy visual determination of drive status.
- Easy start/stop and direction control with enable and Direction terminal connections.
- Accepts speed reference from 0-5VDC isolated signal or wired in speed potentiometer.
- Plug-in Process Control Module (PCM) kit available to accept 0-5VDC, 0-10VDC or 4-20mA input.
- UL listed

Special features of the NEMA 4X drive:

- NEMA 4X enclosure
- Jumper selectable DC injection braking or coast to stop
- Brake time and current are adjustable
- Built-in isolation card to accept a speed reference signal
- Min speed adjustment
- Auto or manual restart after power loss

PARAMETER	SPECIFICATIONS FOR ALL FHP MODELS
Max load	150% for 5 minutes
Output frequency	0-120Hz
Output type	6 step PWM
Switching frequency	4-16kHz range* with 16kHz as factory default
Speed regulation and range	±3% of base speed; up to 50:1
On-board adjustable trim pots	Max speed, accel, decel, boost & torque limit
Adjustable maximum frequency range	32-120Hz
Adjustable accel and decel time range	1-12 seconds
Torque boost range	0-200%
LED indicators	Power (green), Fault‡ (red), Torque Limit (yellow)
Instantaneous over-current trip time	3 μsec
Analog reference input and impedance	0-5VDC isolated, ~100Kohm
Plug-in PCM isolator card input	0-5 VDC, 0-10VDC, 4-20mA
Ambient temperature range	0-40°C
Weight (Chassis Models)	1.2 lbs.
Vibration	0.5G max (20-50Hz); 0.1G max (>50Hz)
Approvals	UL, cUL

FHP SERIES AC DRIVES • CHASSIS MOUNT SINGLE PHASE INPUT/SINGLE OR THREE PHASE OUTPUT

HP	Input Voltage	Output Amps	Output Voltage	Catalog Number	App. Wgt. (lbs.)
1/4	230	1.2	230	**175318.00**	2
	115/230	1.2	230	**175319.00**	2
	115	2.4	115	**175320.00**	3
1/2	230	2.4	230	**175321.00**	3
	115/230	2.4	230	**175310.00**	3
	115	4.0	115	**175322.00**	4
1	230	4.0	230	**175323.00**	4
	115/230	4.0	230	**175311.00**	4

FHP SERIES AC DRIVES • ACCESSORIES

Item Description	Catalog Number	App. Wgt. (lbs.)
Process Control Module (PCM) Kit*	**175324.00**	2
Carrier Frequency Capacitor Kit	**175325.00**	1

* PCM Kit is for use with chassis drives only.

FHP SERIES AC DRIVES • NEMA 4X (IP65) SINGLE PHASE INPUT/THREE PHASE OUTPUT

- NEMA 4X enclosure
- Min speed adjustment
- Jumper selectable features:
  - DC injection braking or coast to stop
  - Brake time and current are adjustable
  - Auto or manual restart after power loss
- Built-in isolation card to accept a speed reference signal

HP	Input Voltage	Output Amps	Output Voltage	Catalog Number	App. Wgt. (lbs.)
1/6-1	115/230	4.0	230	**175326.00**	7

DUAL MODE • DUAL SPEED CONTROL

- Dual Motor, Dual Voltage Control
- SCR Control designed to run two DC motors at the same time in either Independent mode or Slave/Master mode
- Open Chassis Design
- Dual voltage, 115-230 VAC input with jumper selectable 90/180 VDC output
- Jumper selectable speed and torque mode
- Two trim pots each for the minimum speed, maximum speed, IR compensation, current limit and acceleration/deceleration
- Comes standard with two potentiometers

HP	Input Voltage	Output Amps	Output Voltage	Catalog Number	App. Wgt. (lbs.)
1 HP @ 90 VDC **2 HP @ 180 VDC**	115/230	10*✪	0-90/0-180	**174422.00**	3

✪ Heat sink 174314 is required if one side provides more than 5A or the output of both sides is more than 6.5A.

* Plug-in capacitor kit (175325) for field adjustments to less than 16khz; ‡ Faults are Over-voltage, Under-voltage and Instantaneous Over Current trip.

Specifications are subject to change without notice

LEESON Speedmaster DC Control information

PWM and SCR Controls

General Specifications:

- General purpose for Permanent Magnet or Shunt wound DC motors
- NEMA 4X and 4/12 suitable for Washdown applications
- Dual Voltage capable on most designs – see HP range
- 115 / 230 volt single-phase input voltage – DC 90 volt or 180 volt output
- Adjustable Minimum and Maximum speed
- Speed Pot included on Chassis controls
- Adjustable IR Compensation
- Heat Sinks required as noted
- PWM Controls provide quieter operation, lower motor temperature and greater motor overload capacity.

Regenerative Controls

General Specifications:

Four Quadrant controls for Precise Motion Control

NEMA 4X or Chassis Style

Motoring and Braking torque regulation ¼ HP through 2 HP.

15 Series

General Specifications:

Dual Voltage – 12/24 VAC or 120/240 VAC Input

Adjustable Minimum and Maximum speed

Adjustable IR compensation

Fixed Acceleration – (0.5 seconds)

5K ohm Speed Pot included

25:1 speed range and 1% speed regulation

FOR NEMA FRAME MOTORS & GEARMOTORS

SCR CONTROLS • ENCLOSED • SINGLE PHASE 50/60 HZ

Description	Catalog Number	Output Current Amps	HP Range 115V	HP Range 230V	App. Wgt. (lbs.)
NEMA 1 General Purpose					
—Non-Reversing	**174307.00**	10	1/8 to 1Ⓗ	1/4 to 2Ⓗ	5
—Reversing with dynamic braking	**174308.00**	10	1/8 to 1Ⓗ	1/4 to 2Ⓗ	5
—Heat Sink	**174316.00**	—	—	—	1
NEMA 4X Washdown—Dust-Tight					
—Non-Reversing, Plastic Enclosure	**174102.00**	10	1/8 to 1	1/4 to 2	6
—Non-Reversing, Plastic Enclosure with Signal Follower	**174103.00**	10	1/8 to 1	1/4 to 2	7
—Reversing, Plastic Enclosure *	**174107.00**	10	1/8 to 1	1/4 to 2	7
NEMA 4					
—Non-Reversing 3HP	**174709.00**	15	—	3	8

SCR CONTROLS • OPEN CHASSIS

Description	Catalog Number	Output Current Amps	HP Range 115V	HP Range 230V	App. Wgt. (lbs.)
Chassis with Speed Pot-Non Reversing	**174311.00**	10	1/8 to 1Ⓙ	1/4 to 2Ⓙ	1
Chassis Heat Sink Ⓙ	**174314.00**	—	—	—	1

REGENERATIVE SCR DRIVES • FOUR QUADRANT • FULL WAVE

Description	Catalog Number	Output Current Amps	HP Range 115V	HP Range 230V	App. Wgt. (lbs.)
NEMA 4X Washdown ✓	**175720.00**	10	1/4 to 1Ⓚ	1/2 to 2Ⓚ	8
Open Chassis with Speed Pot ✓	**175721.00**	10	1/4 to 1Ⓚ	1/2 to 2Ⓚ	2
Chassis Heat Sink Ⓚ	**175722.00**	—	—	—	2

FOR SUBFRACTIONAL HP MOTORS & GEARMOTORS

PWM & SCR CONTROLS • ENCLOSED • SINGLE PHASE 50/60 HZ

Description	Catalog Number	Output Current Amps	HP Range 115V	HP Range 230V	App. Wgt. (lbs.)
NEMA 1 General Purpose					
—SCR Non-Reversing	**M1740005.00**	3	1/40 to 1/8	1/40 to 1/4	5
—SCR Reversing With Dynamic Braking	**M1740006.00**	3	1/40 to 1/8	1/40 to 1/4	5
—PWM Non-Reversing	**M1740008.00**	3	1/40 to 1/8	1/40 to 1/4	2

PWM & SCR CONTROLS • OPEN CHASSIS

Description	Catalog Number	Output Current Amps	HP Range 115V	HP Range 230V	App. Wgt. (lbs.)
Open Chassis SCR Type					
—Chassis with Speed Pot-Non Reversing	**M1740007.00**	1.5	1/40 to 1/8	1/40 to 1/4	1
Open Chassis PWM Type					
—Chassis with Speed Pot-Non Reversing	**M1740009.00**	2.0	1/40 to 1/8	—	1

* Drive does not have dynamic braking. Motor shaft must be at zero speed before reversing.
Ⓗ Heat sink #174316 is required for NEMA 1 type 3/4 and 1HP 115V and 1½ and 2HP 230V when the amp draw of the motor exceeds 5 amps.
Ⓙ Chassis Heat Sink #174314 required for 3/4 and 1HP 115V and 1½ and 2HP 230V when the amp draw of the motor exceeds 5 amps.
Ⓚ Chassis Heat sink #175722 required for 1HP and above when the amp draw of the motor exceeds 5 amps.
✓ Regenerative drives are reversible and have regenerative braking.

PDF file of Manual available at www.leeson.com

LEESON Speedmaster DC Control information

15 Series
General Specifications:
- Dual Voltage – 12/24 VAC or 120/240 VAC Input
- Adjustable Minimum and Maximum speed
- Adjustable IR compensation
- Fixed Acceleration – (0.5 seconds)
- 5K ohm Speed Pot included
- 25:1 speed range and 1% speed regulation


NEMA 4/12
Non-Reversing


Figure 1


Figure 2

15 SERIES

Description	Catalog Number	Output Current Amps	HP Range 115V	HP Range 230V	App. Wgt. (lbs.)
NEMA 4/12 Non-Reversing	**174696.00**	3.0	1/3	2/3	1
Chassis - Figure 1	**174695.00**	2.0	1/6	1/6	1
Chassis - Figure 2	**174694.00**	2.0	1/6	1/6	1

Available 1st Quarter 2011

LOW VOLTAGE ADJUSTABLE SPEED CONTROLLERS

LEESON's DC to DC controllers are a chassis type design, that accept a DC input voltage and output a DC power voltage to control the motor speed. The speed maybe varied with the potentiometer that is shipped loose with the control or an external voltage signal.

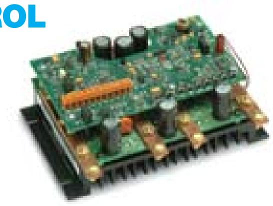
Higher design efficiency results in longer running time between battery charges than is possible with traditional methods of speed control using resistance in series with the battery.

Typical Operating Features: Provides smooth 40 to 1 speed range capability for mobile equipment. Maintains variable speed control as batteries discharge. Adjustable min/max speed, IR compensation, and 200% current limit overload protection. Inhibit pin terminals provide customer optional start-stop without breaking battery lines. Green LED power on indicator is provided.

Catalog number 175290 does not require a heat sink, and measures 6.9L x 4.44W x 2.19D. Catalog numbers 175291 & 175292 do require heat sink, which is included and measures 7.78L x 6.9W x 3.25D.

Input Voltage	Max. Amp Ratings	Catalog Number	App. Wgt.(lbs.)
12/24	16	**175290.00**	2
12/24	60	**175291.00**	4
36/48	60	**175292.00**	4

LOW VOLTAGE ADJUSTABLE SPEED CONTROLS FOUR QUADRANT CONTROL

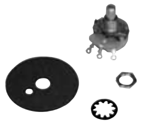


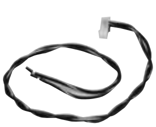
General Specifications: This series of drives is a chassis type design that accepts DC input to output up to 100% of the input voltage. The 12/24-volt drive is rated at 120 amps continuous and the 36/48-volt drive is rated at 100 amps continuous. The speed is adjustable with a speed potentiometer that is shipped loose with the controls. This control also offers extended battery life through a sleep mode feature and has an inhibit circuit for convenient remote starting and stopping.

Additional Features Include: Simple reversing and braking using a switch closure to the drive. Controls have a built-in short circuit to protect itself from a shorted motor. They offer a 1.01 Form Factor, which offers clean DC output for quiet motor operation and efficiency. They also have a temperature sensor, which automatically reduces the current limit if the controller heats up. On Board trim pots for calibration, speed and forward and reverse settings.

Units include heat sink and measure 6.9L x 5.0W (including terminals) x 2.5D and have mounting slots.

Input Voltage	Max. Amp Ratings	Catalog Number	App. Wgt.(lbs.)
12/24	120	**174298.00**	3
36/48	100	**174299.00**	3





CONTROL PARTS

Catalog Number	Description
900282.01	Inhibit Plug
006708.01	Speed Pot (10k/5w pot, washers & nut)

FIRE PUMP MOTORS

ODP

Features:

- 25 to 500 Horsepower
- 3600 & 1800 RPM's
- 250 frame Rolled Steel Construction
- 280 frame and Larger - Cast Iron Construction
- EPAct Efficiency
- Ball Bearings
- NEMA Design B, Code G
- 230/460 and 460 volt motors rated for 50hz at next lower HP, with 1.15SF on nameplate
- Dual Voltage Motors – 12 leads suitable for Y-Delta, Low Voltage PWS, and Across The Line Start
- Single Voltage Motors – 12 leads suitable for Y-Delta, PWS, and Across The Line Start
- 40° C Max Ambient
- 1.15SF
- C-Face Kits Available Through 250HP
- For Special Designs Contact District Sales Office Near You
- Exterior Red Paint
- UL Listed and CSA Certified (UL1004A) and CE Marked

ODP

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
25	3600	256T	91.0%	1.15	200/400	SSD2P25T62AP5	**LM80103**	164
	3600	256T	91.0%	1.15	230/460	SSD2P25T61AP5	**LM80104**	164
	1800	284T	91.7%	1.15	200/400	CCD4P25T62YAP5	**LM80105**	420
	1800	284T	91.7%	1.15	230/460	CCD4P25T61YAP5	**LM80106**	420
30	3600	284TS	91.0%	1.15	200/400	CCD2P30TS62YAP5	**LM80107**	318
	3600	284TS	91.0%	1.15	230/460	CCD2P30TS61YAP5	**LM80108**	318
	1800	286T	92.4%	1.15	200/400	CCD4P30T62YAP5	**LM80109**	364
	1800	286T	92.4%	1.15	230/460	CCD4P30T61YAP5	**LM80110**	364
40	3600	286TS	91.7%	1.15	200/400	CCD2P40TS62YAP5	**LM80111**	360
	3600	286TS	91.7%	1.15	230/460	CCD2P40TS61YAP5	**LM80112♦**	360
	1800	324TS	93.0%	1.15	200/400	CCD4P40TS62YAP5	**LM80113**	465
	1800	324TS	93.0%	1.15	230/460	CCD4P40TS61YAP5	**LM80114**	465
	1800	324T	93.0%	1.15	200/400	CCD4P40T62YAP5	**LM80115**	465
	1800	324T	93.0%	1.15	230/460	CCD4P40T61YAP5	**LM80116♦**	465
50	3600	324TS	92.4%	1.15	200/400	CCD2P50TS62YAP5	**LM80117**	415
	3600	324TS	92.4%	1.15	230/460	CCD2P50TS61YAP5	**LM80118♦**	415
	1800	326TS	93.0%	1.15	200/400	CCD4P50TS62YAP5	**LM80119**	515
	1800	326TS	93.0%	1.15	230/460	CCD4P50TS61YAP5	**LM80120**	515
	1800	326T	93.0%	1.15	200/400	CCD4P50T62YAP5	**LM80121**	515
	1800	326T	93.0%	1.15	230/460	CCD4P50T61YAP5	**LM80122♦**	515
60	3600	326TS	93.0%	1.15	200/400	CCD2P60TS62YAP5	**LM80123**	340
	3600	326TS	93.0%	1.15	230/460	CCD2P60TS61YAP5	**LM80124♦**	340
	1800	364TS	93.6%	1.15	200/400	CCD4P60TS62YAP5	**LM80125**	805
	1800	364TS	93.6%	1.15	230/460	CCD4P60TS61YAP5	**LM80126**	805
	1800	364T	93.6%	1.15	200/400	CCD4P60T62YAP5	**LM80127**	805
	1800	364T	93.6%	1.15	230/460	CCD4P60T61YAP5	**LM80128**	805
75	3600	364TS	93.0%	1.15	200/400	CCD2P75TS62YAP5	**LM80129**	950
	3600	364TS	93.0%	1.15	230/460	CCD2P75TS61YAP5	**LM80130♦**	950
	1800	365TS	94.1%	1.15	200/400	CCD4P75TS62YAP5	**LM80131**	766
	1800	365TS	94.1%	1.15	230/460	CCD4P75TS61YAP5	**LM80132**	766
	1800	365T	94.1%	1.15	200/400	CCD4P75T62YAP5	**LM80133**	766
	1800	365T	94.1%	1.15	230/460	CCD4P75T61YAP5	**LM80134♦**	766
100	3600	365TS	93.0%	1.15	200/400	CCD2P100TS62YAP5	**LM80135**	730
	3600	365TS	93.0%	1.15	230/460	CCD2P100TS61YAP5	**LM80136♦**	730
	1800	404TS	94.1%	1.15	200/400	CCD4P100TS62YAP5	**LM80137**	1065
	1800	404TS	94.1%	1.15	230/460	CCD4P100TS61YAP5	**LM80138**	1065
	1800	404T	94.1%	1.15	200/400	CCD4P100T62YAP5	**LM80139**	1065
	1800	404T	94.1%	1.15	230/460	CCD4P100T61YAP5	**LM80140♦**	1065
125	3600	404TS	93.6%	1.15	200/400	CCD2P125TS62YAP5	**LM80141**	949
	3600	404TS	93.6%	1.15	230/460	CCD2P125TS61YAP5	**LM80142♦**	949
	1800	405TS	94.5%	1.15	200/400	CCD4P125TS62YAP5	**LM80143**	1070
	1800	405TS	94.5%	1.15	230/460	CCD4P125TS61YAP5	**LM80144**	1070
	1800	405T	94.5%	1.15	200/400	CCD4P125T62YAP5	**LM80145**	1070
	1800	405T	94.5%	1.15	230/460	CCD4P125T61YAP5	**LM80146♦**	1070
150	3600	405TS	93.6%	1.15	400	CCD2P150TS6011PYAP5	**LM80147**	983
	3600	405TS	93.6%	1.15	460	CCD2P150TS64PYAP5	**LM80148♦**	983
	1800	444TS	95.0%	1.15	400	CCD4P150TS6011PYAP5	**LM80149**	1265
	1800	444TS	95.0%	1.15	460	CCD4P150TS64PYAP5	**LM80150**	1265
	1800	444T	95.0%	1.15	400	CCD4P150T6011PYAP5	**LM80151**	1265
	1800	444T	95.0%	1.15	460	CCD4P150T64PYAP5	**LM80152♦**	1265

♦ = 190/380V, 50Hz at next lower HP @ 1.15SF

Product numbers in red are STOCK items.

Specifications are subject to change without notice

ODP (cont'd)

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
200	3600	444TS	94.5%	1.15	400	CCD2P200TS6011PYAP5	**LM80153**	1315
	3600	444TS	94.5%	1.15	460	CCD2P200TS64PYAP5	**LM80154♦**	1315
	1800	444TS	95.0%	1.15	400	CCD4P200TS6011PYAP5	**LM80155**	1412
	1800	444TS	95.0%	1.15	460	CCD4P200TS64PYAP5	**LM80156**	1412
	1800	444T	95.0%	1.15	400	CCD4P200T6011PYAP5	**LM80157**	1412
	1800	445T	95.0%	1.15	460	CCD4P200T64PYAP5	**LM80158♦**	1412
250	3600	445TS	94.5%	1.15	400	CCD2P250TS6011PYAP5	**LM80159**	1387
	3600	445TS	94.5%	1.15	460	CCD2P250TS64PYAP5	**LM80160♦**	1387
	1800	445TS	95.4%	1.15	400	CCD4P250TS6011PYAP5	**LM80161**	1428
	1800	445TS	95.4%	1.15	460	CCD4P250TS64PYAP5	**LM80162**	1428
	1800	445T	95.4%	1.15	400	CCD4P250T6011PYAP5	**LM80163**	1428
	1800	445T	95.4%	1.15	460	CCD4P250T64PYAP5	**LM80164♦**	1428
300	3600	447TS	95.0%	1.15	400	CCD2P300TS6011PYAP5	**LM80165**	2255
	3600	447TS	95.0%	1.15	460	CCD2P300TS64PYAP5	**LM80166♦**	2255
	1800	447TS	95.4%	1.15	400	CCD4P300TS6011PYAP5	**LM80167**	1952
	1800	447TS	95.4%	1.15	460	CCD4P300TS64PYAP5	**LM80168**	1952
	1800	447T	95.4%	1.15	400	CCD4P300T6011PYAP5	**LM80169**	1952
	1800	447T	95.4%	1.15	460	CCD4P300T64PYAP5	**LM80170♦**	1952
350	3600	447TS	95.0%	1.15	400	CCD2P350TS6011PYAP5	**LM80171**	2068
	3600	447TS	95.0%	1.15	460	CCD2P350TS64PYAP5	**LM80172♦**	2068
	1800	447TS	95.4%	1.15	400	CCD4P350TS6011PYAP5	**LM80173**	1950
	1800	447TS	95.4%	1.15	460	CCD4P350TS64PYAP5	**LM80174**	1950
	1800	447T	95.4%	1.15	400	CCD4P350T6011PYAP5	**LM80175**	1950
	1800	447T	95.4%	1.15	460	CCD4P350T64PYAP5	**LM80176♦**	1950
400	3600	447TS	95.4%	1.15	460	CCD2P400TS64PYAP5	**LM80177♦**	2150
	1800	447TS	95.4%	1.15	460	CCD4P400TS64PYAP5	**LM80178♦**	2214
450	3600	449TS	95.8%	1.15	460	CCD2P450TS64PYAP5	**LM80179♦**	2544
	1800	449TS	95.8%	1.15	460	CCD4P450TS64PYAP5	**LM80180♦**	2675
500	3600	449TS	95.8%	1.15	460	CCD2P500TS64PYAP5	**LM80181♦**	2544
	1800	449TS	95.8%	1.15	460	CCD4P500TS64PYAP5	**LM80182♦**	2695

♦ = 190/380V, 50Hz at next lower HP @ 1.15SF

Product numbers in red are STOCK items.

Specifications are subject to change without notice

FIRE PUMP MOTORS

TEFC • FOOT MOUNT

Features:

- 3 to 450 Horsepower
- 3600 & 1800 RPM's
- 250 frame Rolled Steel Construction
- 280 frame and Larger - Cast Iron Construction
- EPAct Efficiency
- Ball Bearings
- NEMA Design B, Code G
- 230/460 and 460 volt motors rated for 50hz at next lower HP, with 1.15SF on nameplate
- Dual Voltage Motors – 12 leads suitable for Y-Delta, Low Voltage PWS, and Across The Line Start
- Single Voltage Motors – 12 leads suitable for Y-Delta, PWS, and Across The Line Start
- 40° C Max Ambient
- 1.15SF
- C-Face Kits Available Through 250HP
- For Special Designs Contact District Sales Office Near You
- Exterior Red Paint
- UL Listed and CSA Certified (UL1004A) and CE Markeded

TEFC - FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
3	3600	182T	86.5	1.15	200/400	CCF2P3T62AP5	**LM80050**	84
	3600	182T	86.5	1.15	230/460	CCF2P3T61AP5	**LM80051**	84
	1800	182T	87.5	1.15	200/400	CCF4P3T62AP5	**LM80052**	90
	1800	182T	87.5	1.15	230/460	CCF4P3T61AP5	**LM80053**	90
5	3600	184T	87.5	1.15	200/400	CCF2P5T62AP5	**LM80054**	108
	3600	184T	87.5	1.15	230/460	CCF2P5T61AP5	**LM80055**	108
	1800	184T	87.5	1.15	200/400	CCF4P5T62AP5	**LM80056**	123
	1800	184T	87.5	1.15	230/460	CCF4P5T61AP5	**LM80057**	123
7.5	3600	213T	88.5	1.15	200/400	CCF2P7.5T62AP5	**LM80058**	188
	3600	213T	88.5	1.15	230/460	CCF2P7.5T61AP5	**LM80059**	188
	1800	213T	89.5	1.15	200/400	CCF4P7.5T62AP5	**LM80060**	194
	1800	213T	89.5	1.15	230/460	CCF4P7.5T61AP5	**LM80061**	194
10	3600	215T	89.5	1.15	200/400	CCF2P10T62AP5	**LM80062**	217
	3600	215T	89.5	1.15	230/460	CCF2P10T61AP5	**LM80063**	217
	1800	215T	89.5	1.15	200/400	CCF4P10T62AP5	**LM80064**	227
	1800	215T	89.5	1.15	230/460	CCF4P10T61AP5	**LM80065**	227
15	3600	254T	90.2	1.15	200/400	CCF2P15T62AP5	**LM80066**	370
	3600	254T	90.2	1.15	230/460	CCF2P15T61AP5	**LM80067**	370
	1800	254T	91.0	1.15	200/400	CCF4P15T62AP5	**LM80068**	365
	1800	254T	91.0	1.15	230/460	CCF4P15T61AP5	**LM80069**	365
20	3600	256T	90.2	1.15	200/400	CCF2P20T62AP5	**LM80070**	334
	3600	256T	90.2	1.15	230/460	CCF2P20T61AP5	**LM80071**	334
	1800	256T	91.0	1.15	200/400	CCF4P20T62AP5	**LM80072**	420
	1800	256T	91.0	1.15	230/460	CCF4P20T61AP5	**LM80073**	420
25	3600	284TS	91.0	1.15	200/400	CCF2P25TS62YAP5	**LM80074**	384
	3600	284TS	91.0	1.15	230/460	CCF2P25TS61YAP5	**LM80075**	384
	1800	284T	92.4	1.15	200/400	CCF4P25T62YAP5	**LM80076**	440
	1800	284T	92.4	1.15	230/460	CCF4P25T61YAP5	**LM80077**	440
30	3600	286TS	91.0	1.15	200/400	CCF2P30TS62YAP5	**LM80078**	428
	3600	286TS	91.0	1.15	230/460	CCF2P30TS61YAP5	**LM80079**	428
	1800	286T	92.4	1.15	200/400	CCF4P30T62YAP5	**LM80080**	494
	1800	286T	92.4	1.15	230/460	CCF4P30T61YAP5	**LM80081**	494
40	3600	324TS	91.7	1.15	200/400	CCF2P40TS62YAP5	**LM80084**	520
	3600	324TS	91.7	1.15	230/460	CCF2P40TS61YAP5	**LM80085♦**	520
	1800	324TS	93.0	1.15	200/400	CCF4P40TS62YAP5	**LM80183**	575
	1800	324TS	93.0	1.15	230/460	CCF4P40TS61YAP5	**LM80184**	575
	1800	324T	93.0	1.15	200/400	CCF4P40T62YAP5	**LM80027**	575
	1800	324T	93.0	1.15	230/460	CCF4P40T61YAP5	**LM80086♦**	575
50	3600	326TS	93.0	1.15	200/400	CCF2P50TS62YAP5	**LM80028**	540
	3600	326TS	93.0	1.15	230/460	CCF2P50TS61YAP5	**LM80087♦**	540
	1800	326TS	93.6	1.15	200/400	CCF4P50TS62YAP5	**LM80186**	675
	1800	326TS	93.6	1.15	230/460	CCF4P50TS61YAP5	**LM80187**	675
	1800	326T	93.6	1.15	200/400	CCF4P50T62YAP5	**LM80029**	675
	1800	326T	93.6	1.15	230/460	CCF4P50T61YAP5	**LM80088♦**	675
60	3600	364TS	93.0	1.15	200/400	CCF2P60TS62YAP5	**LM80030**	875
	3600	364TS	93.0	1.15	230/460	CCF2P60TS61YAP5	**LM80089♦**	875
	1800	364TS	93.6	1.15	200/400	CCF4P60TS62YAP5	**LM80188**	975
	1800	364TS	93.6	1.15	230/460	CCF4P60TS61YAP5	**LM80185**	975
	1800	364T	93.6	1.15	200/400	CCF4P60T62YAP5	**LM80031**	975
	1800	364T	93.6	1.15	230/460	CCF4P60T61YAP5	**LM80090♦**	975

♦ = 190/380V, 50Hz at next lower HP @ 1.15SF

Product numbers in red are STOCK items.

Specifications are subject to change without notice

TEFC - FOOT MOUNT

HP	SYN RPM	Frame	FL Nom Eff (%)	SF	Volts	Model Number	Product Number	Approx Shpg Wght (lbs)
75	3600	365TS	93.6	1.15	200/400	CCF2P75TS62YAP5	**LM80032**	1000
	3600	365TS	93.6	1.15	230/460	CCF2P75TS61YAP5	**LM80091♦**	1000
	1800	365TS	94.1	1.15	200/400	CCF4P75TS62YAP5	**LM80189**	1025
	1800	365TS	94.1	1.15	230/460	CCF475TS61YAP5	**LM80190**	1025
	1800	365T	94.1	1.15	200/400	CCF4P75T62YAP5	**LM80033**	1025
	1800	365T	94.1	1.15	230/460	CCF4P75T61YAP5	**LM80092♦**	1025
100	3600	405TS	94.1	1.15	200/400	CCF2P100TS62YAP5	**LM80034**	1239
	3600	405TS	94.1	1.15	230/460	CCF2P100TS61YAP5	**LM80093♦**	1239
	1800	405TS	94.5	1.15	200/400	CCF4P100TS62YAP5	**LM80191**	1267
	1800	405TS	94.5	1.15	230/460	CCF4100TS61YAP5	**LM80192**	1267
	1800	405T	94.5	1.15	200/400	CCF4P100T62YAP5	**LM80035**	1267
	1800	405T	94.5	1.15	230/460	CCF4P100T61YAP5	**LM80094♦**	1267
125	3600	444TS	94.5	1.15	400	CCF2P125TS6011PYAP5	**LM80036**	1750
	3600	444TS	94.5	1.15	460	CCF2P125TS64PYAP5	**LM80095♦**	1750
	1800	444TS	94.5	1.15	200/400	CCF4P125TS62YAP5	**LM80193**	1805
	1800	444TS	94.5	1.15	230/460	CCF4125TS61YAP5	**LM80194**	1805
	1800	444T	94.5	1.15	400	CCF4P125T6011PYAP5	**LM80037**	1805
	1800	444T	94.5	1.15	460	CCF4P125T64PYAP5	**LM80096♦**	1805
150	3600	445TS	95.0	1.15	400	CCF2P150TS6011PYAP5	**LM80038**	2191
	3600	445TS	95.0	1.15	460	CCF2P150TS64YPAP5	**LM80097♦**	2191
	1800	444TS	95.0	1.15	200/400	CCF4P150TS62YAP5	**LM80195**	2116
	1800	444TS	95.0	1.15	230/460	CCF4150TS61YAP5	**LM80196**	2116
	1800	445T	95.0	1.15	400	CCF4P150T6011PYAP5	**LM80039**	2116
	1800	445T	95.0	1.15	460	CCF4P150T64PYAP5	**LM80098♦**	2116
200	3600	445TS	95.0	1.15	400	CCF2P200TS6011PYAP5	**LM80040**	2262
	3600	445TS	95.0	1.15	460	CCF2P200TS64PYAP5	**LM80099♦**	2262
	1800	444TS	95.4	1.15	200/400	CCF4P200TS62YAP5	**LM80197**	2311
	1800	444TS	95.4	1.15	230/460	CCF4200TS61YAP5	**LM80198**	2311
	1800	445T	95.4	1.15	400	CCF4P200T6011PYAP5	**LM80041**	2311
	1800	445T	95.4	1.15	460	CCF4P200T64PYAP5	**LM80100♦**	2311
250	3600	449TS	95.4	1.15	400	CC449F2P250TS6011PYAP5	**LM80042**	2450
	3600	449TS	95.4	1.15	460	CC449F2P250TS64PYAP5	**LM80101♦**	2450
	1800	449TS	93.0	1.15	200/400	CC449F4P250TS62YAP5	**LM80199**	2600
	1800	449TS	93.0	1.15	230/460	CC449F4250TS61YAP5	**LM80200**	2600
	1800	449T	95.4	1.15	400	CC449F4P250T6011PYAP5	**LM80043**	2600
	1800	449T	95.4	1.15	460	CC449F4P250T64PYAP5	**LM80102♦**	2600
300	3600	449TS	95.4	1.15	400	CCF2P300TS6011PYAP5	**LM80044**	2702
	3600	449TS	95.4	1.15	460	CCF2P300TS64PYAP5	**LM80019♦**	2702
	1800	449TS	93.0	1.15	200/400	CCF4P300TS62YAP5	**LM80201**	3041
	1800	449TS	93.0	1.15	230/460	CCF4300TS61YAP5	**LM80202**	3041
	1800	449T	95.4	1.15	400	CCF4P300T6011PYAP5	**LM80045**	3041
	1800	449T	95.4	1.15	460	CCF4P300T64PYAP5	**LM80018♦**	3041
350	3600	449TS	95.4	1.15	400	CCF2P350TS6011PYAP5	**LM80046**	2898
	3600	449TS	95.4	1.15	460	CCF2P350TS64PYAP5	**LM80021♦**	2898
	1800	449TS	93.0	1.15	200/400	CCF4P350TS62YAP5	**LM80203**	3202
	1800	449TS	93.0	1.15	230/460	CCF4350TS61YAP5	**LM80204**	3202
	1800	449T	95.4	1.15	400	CCF4P350T6011PYAP5	**LM80047**	3202
	1800	449T	95.4	1.15	460	CCF4P350T64PYAP5	**LM80020♦**	3202
400	3600	5011LS	95.4	1.15	400	CC5011F2P400LS6011PYAP5	**LM80048**	5500
	3600	5011LS	95.4	1.15	460	CC5011F2P400LS64PYAP5	**LM80023♦**	5500
	1800	5011L	95.8	1.15	400	CC5011F4P400L6011PYAP5	**LM80049**	5500
	1800	5011L	95.8	1.15	460	CC5011F4P400L64PYAP5	**LM80022♦**	5500
450	1800	5011L	95.8	1.15	400	CC5011F4P450L6011PYAP5	**LM80082**	5500
	1800	5011L	95.8	1.15	460	CC5011F4P450L64PYAP5	**LM80083♦**	5500

♦ = 190/380V, 50Hz at next lower HP @ 1.15SF

NEMA D FLANGE KITS STEEL AND CAST IRON FRAME MOTORS

Includes parts to convert a rigid base mounted motor to NEMA D face with base.

Shaded frame indicates cast iron motor kits for 150 and 170 series motors.

NOTE: The D Flange Kits can *only* be used on rigid base motors. They will not fit NEMA C face motors.

Frame	Enclosure	D Flange Kit Catalog Number	App. Wgt. (lbs.)
143T-145T	Enclosed	**163115.60**	6
182T-184T*	Open / Enclosed	**175694.00Δ**	12
182T-184T	Open	**175101.00✿**	13
182T-184T	Enclosed	**175658.60✿**	12
213T-215T	Open	**175114.60**	14
	Enclosed	**175115.60✿**	14
254T-256T	Open	**175116.60**	25
	Enclosed	**175192.00**	25
284T-286T	Open	**175118.60**	42
	Enclosed	**175119.60**	
324T-326T	Open	**175120.60✿**	57
	Enclosed	**175121.60**	57
364T-365T	Open	**175955.60**	72
	Enclosed	**175657.60**	72
404T-405T	Open	**175956.60**	90
	Enclosed	**175957.60**	90
444T-445T	Open	**175607.60**	106
	Enclosed	**175608.60◇**	106

*Rolled steel frame only.

NEMA D FLANGE KIT WATTSAVERe® MOTORS

Only the frame sizes listed below require a different D Flange kit for the WATTSAVER® motors from the Kits listed above.

Frame	Enclosure	D Flange Kit Catalog Number	App. Wgt. (lbs.)
182T-184T	Enclosed	**175843.60*①**	14
182T-184T	Enclosed	**175396.60②**	14
213T-215T	Enclosed	**175959.60**	14
324T-326T	Open	**175455.60**	57
364T-365T	Open	**175602.60③**	72
	Enclosed	**175604.60③**	72

*Locked bearing

RODENT SCREEN KITS

Frame	Enclosure	Catalog Number	App. Wgt. (lbs.)
182T-184T*	Open	**175872.00**	1
213T-215T*	Open	**175871.00**	1
254T-256T	Open	**175873.60**	2
284T-286T	Open	**175874.60**	3
324T	Open	**175894.60**	5
326T	Open	**175875.60**	4

*Rolled steel frame only.

Δ Use this kit for 182-4T and S213T motors with catalog numbers 131454 and higher, or with a G prefix.
Both open and enclosed motors in this series use the same kits as ventilation is in the frame of the motor.

✳ For use with 213T-215T 3450 RPM motors only.

◆ For use with motors having "K" or "P" suffix on date code.

▼ For use with motors having catalog numbers 15XXXX, G15XXXX, or 17XXXX.

✿ Not for use with WATTSAVERe® motors.

① For use with motors having date codes earlier than May 2003.

② For use with motors having date codes May 2003 and later.

◇ For use with 1140 and 1750 RPM motors only.

③ WATTSAVERe® II design, having oversized frame body.

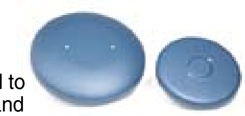
♠ For motors having Face mounted fan guards.

CHEMICAL SERVICE/ SEVERE DUTY CONVERSION KITS

Cast iron fan covers for cast iron motors. Designed to easily convert TEFC motors to all cast iron construction. All these motors have inert, corrosion resistant fiber filled thermoplastic fan as standard. Kit includes one cast iron fan cover.

NEMA Frame	IEC Frame	Catalog Number	App. Wt. (lbs.)
182T-184T	---	**175663.60**	10
213T-215T	---	**175050.60**	12
254T-256T	160	**175051.60**	18
284T-286T	180	**175052.60**	22
324T-326T	200	**175053.60**	29
364T-365T	225	**175054.60**	39
404T-405T	250	**175055.60**	49
444T-445T	280	**175056.60**	59
447T-449T	---	**175891.60**	112

DRIP-COVER KITS FOR DRIP-PROOF MOTORS



Each kit includes one drip-cover. Designed to protect drip-proof motors from rain, snow and ice when mounted outdoors in a vertical position.

Frame	Catalog Number	App. Wgt. (lbs.)
48-S56	**175003.00**	2
48-S56	**175298.00◆**	2
56	**175004.00**	2
143T-145T	**175792.00◆**	2
182T-184T*	**175614.00**	3
182T-184T	**175961.00▼**	3
213T-215T*	**175846.00**	12
213T-215T*	**175305.00✳**	12
213T-215T	**175962.00▼**	4
254T-256T	**175963.00▼**	7

*Rolled steel frame only.

DRIP-COVER KIT FOR TEFC MOTORS

For use with 1750 RPM steel frame motors only.

Frame	Catalog Number	App. Wgt. (lbs.)
213T-215T	**175849.00**	12

TEXTILE "LINT-PROOF" KITS

Needed parts to convert one TEFC motor to lint-proof construction.

Frame	Catalog Number	App. Wgt. (lbs.)
56-143T-145T	**175024.00**	2
56-143T-145T	**175778.00♠**	2
182T-184T	**175695.00Δ**	3

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

NEMA C FACE KITS STEEL FRAME MOTORS

Includes parts to convert a rigid base mounted motor to NEMA C face with base.

The C Face Kits *cannot* be used as replacements on a factory-produced C face motor.

For motors with Catalog Numbers 092000–140999

Frame	Enclosure	C Face Kit Catalog Number	App. Wgt. (lbs.)
42	Open / Enclosed	**175661.00**	2
48	Open / Enclosed	**175969.00❍** **175646.00④**	2
S56	Open Enclosed Open / Enclosed Open / Enclosed	**175000.00** **175180.00** **175297.00◗** **175647.00④**	2 2 2 2
56 (see note 2)	Open Enclosed Enclosed	**175075.00** **175076.00** **M064076.00▲**	2 2 2
143T-145T	Open Enclosed	**175181.00** **175077.00**	2 2
182T-184T	Open / Enclosed	**175691.00∆**	2
182T-184T Special✢	Open / Enclosed	**175294.00**	5
S213T	Open / Enclosed	**175693.00∆**	2
213T-215T (1750,1140, & 850 RPM)	Open Enclosed	**175845.00□** **175844.00□**	19 15
213T-215T (3450 RPM)	ODP Enclosed	**175303.00★** **175304.00★**	15 15

NOTE: 1) When changing a rigid mount motor to C Face for 140T-256T frames, a non-NEMA BA dimension results.
2) Some larger HP 56-frame motors have larger shaft-end bearings and require a 143T-145T C Face kit. Contact LEESON.

JP PUMP DRIP COVER KITS

Frame	Catalog Number	Enclosure
56-145JP	**175932.00**	ODP or TEFC
182JP-184JP	**175933.00**	ODP
213JP-215JP	**175305.00★**	ODP

□ Use these kits for new-design 213T and 215T motors that have external thru-bolts.
∆ Use this kit for 182-4T and S213T motors with catalog numbers 131454 and higher, or with a G prefix.
Both open and enclosed motors in this series use the same kits as ventilation is in the frame of the motor.
➭ Not TS Frame.
✓✓ For older cast iron motors with date code C93 or earlier.
◗ For use with motors having “K” or “P” suffix on date code.
✖ When ordering, specify if motor has .00 or .60 suffix for correct kit.
✢ Converts a 182T-184T frame motor to the C-face dimensions of a 143T-145T or 182U184U frame motor –
AJ = 5 7/8”, AK = 4 1/2”. Does not change the shaft extension or BA dimension to match the other frame sizes.
★ For use with 3450 RPM, 213T-215T (213JP-215JP) motors only.
▲ For use with Industry-Ag motors only, see page 69.
❍ For use with AC motors having “P” suffix on date code. Results in non-NEMA shaft and BA dim.
✿ Not for use with WATTSAVERe® motors.
① For use with motors having date codes earlier than May 2003.
② For use with motors having date codes May 2003 and later.
③ WATTSAVERe® II design, having oversized frame body.
④ For motors manufactured after January 1, 2007, having a “B” suffix letter after the motor’s date code.

NEMA C FACE KITS CAST IRON MOTORS

Includes parts to convert a rigid base mounted motor to NEMA C face with base.

The C Face Kits *cannot* be used as replacements on a factory-produced C face motor.

For 150 Series and 170 Series Cast Iron Motors Only

Frame	Enclosure	C Face Kit Catalog Number	App. Wgt. (lbs.)
143T-145T	Enclosed	**163116.60**	6
182T-184T	Enclosed	**175655.00✿**	12
213T-215T	Open Enclosed	**175066.60** **175068.60✿**	15 15
254T-256T	Open Enclosed Enclosed	**175067.60** **175069.60✓✓** **175191.60**	25 25 25
284T-286T	Open Enclosed	**175058.60** **175061.60**	42 42
324T-326T	Open Enclosed	**175059.60✿** **175062.60**	57 57
364T-365T	Open Enclosed	**175060.60** **175063.60**	75 49
404T-405T	Open Enclosed	**175605.60** **175199.60**	60 60
444T-445T□	Open Enclosed	**175606.60** **175664.60**	115 115
447T-449T	Enclosed	**175958.60**	112

NOTE: When changing a rigid mount motor to C Face for 140T-256T frames, a non-NEMA BA dimension results.

NEMA C FACE KITS WATTSAVERe® MOTORS

The frame sizes below require a different C Face kit for the WATTSAVER® motors from the Kits listed above.

Frame	Enclosure	C Face Kit Catalog Number	App. Wgt. (lbs.)
182T-184T	Enclosed	**175842.00✖①**	12
182T-184T	Enclosed	**175394.60②**	12
213T-215T	Enclosed	**175869.60***	14
324T-326T	Open	**175454.60**	57
364T-365T	Open Enclosed	**175601.60③** **175603.60③**	75 75

*Locked bearing

IEEE-841 MOTORS C-FACE KITS

Used with IEEE 841 motors as listed on page 58.

Frame	Catalog Number	App. Wgt. (lbs)
145T	**175787.00**	7
180T	**175788.00**	10
210T	**175789.00**	16
250T	**175790.00**	35
280T	**175791.00**	47
320T	**175794.00**	89
360T	**175795.00**	95
360TS	**175796.00**	91
400T	**175797.00**	129

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

ACCESSORIES

MOTOR ACCESSORIES
FIELD INSTALLED

BLOWER FAN KITS

These kits are used for converting 150 and 170 Series Cast Iron TEFC motors to Totally Enclosed Blower Cooled motors. Cooling per MG1.6 (IC46) The kits are designed for inverter and vector drive applications where continuous cooling is required regardless of motor shaft speed. The kit is mounted on the back of the motor after removing the fan guard and fan. Modifying the shaft is not required.

For use with Rolled Steel TEFC Motors only.

Blower Motor Voltage	Blower Motor Phase	NEMA Frame	Catalog Number	CFM	App. Wgt. (lbs.)
115	1	56-145T	**175876.00**	115	4
115	1	56-145T	**175775.00②**	115	4
115	1	182-4T	**175895.00**	115	4
115	1	213-5T	**175896.00**	235	5

② For 56/145T motors having face mounted (plastic) fan guards.

For use with 150 & 170 Series Cast Iron TEFC Motors only.

Blower Motor Voltage	Blower Motor Phase	NEMA Frame	Catalog Number	CFM	App. Wgt. (lbs.)
115	1	182-4T	**175674.00**	260	10
115	1	213-5T	**175675.00**	260	11
115	1	254-6T	**175676.00**	260	17
115	1	284-6T	**175677.00**	500	24
115	1	324-6T	**175678.00**	500	28
230/460	3	360T	**175879.00**	500	35
230/460	3	400T	**175880.00**	500	45
230/460	3	440T	**175558.00✪**	500	55

✪ For 444T/445T motors

ENCODER KITS

These kits include the parts and encoder for field assembly of slim-line, through-shaft encoder designed to slip over the motor's fan end shaft. Blower kit sold separately.

Output is 1024 pulses per revolution, quadrature, 5 to 28 VDC line driver output. Short-circuit protection is standard. Inputs are over voltage and reverse voltage protected. Electrical noise immunity exceeds international standards. Encoders are isolated from shaft currents using hard anodized sleeves and non metallic anti-rotation hardware. Designed for long-life in industrial environments using an all-metal, shock resistant code disk. The encoder is protected by the motor's fan cover after mounting. Using a blower fan kit is suggested for proper motor cooling.

For use with Rolled Steel/TEFC Motors only.

For NEMA Frame	Encoder Kit Catalog Number
56-145T	**175960.00**
182-4T	**175897.00**
213-5T	**175898.00**

For use with 150 & 170 Series Cast Iron TEFC Motors only.

For NEMA Frame	Encoder Kit Catalog Number
182-4T	**175684.00**
213-5T	**175685.00**
254-6T	**175686.00**
284-6T	**175687.00**
320T	**175641.00**
360T	**175642.00**
400T	**175643.00**
440T (2 pole)	**175644.00**
440T (4/6 pole)	**175645.00**

TERMINAL BLOCK KITS

Terminal block kits for 150 and 170 Series NEMA Frame Cast Iron motors. Can also be used for replacement on 193 Series Cast Iron and 192 Series aluminum IEC metric motors.

NEMA Frame	IEC Frame	Catalog Number	App. Wgt. (lbs.)
—	63-90L	**175881.00✸**	1
180/210T	100/112/132	**175668.60**	2
250/280T	160/180	**175667.60**	3
320/360T	200/225	**175666.60**	4
400/440T	250/280	**175665.60**	5

✸ Replacement terminal board for aluminum frame IEC motors.

DIE CAST ALUMINUM CONDUIT BOX CONVERSION KIT

56/140-frame kit (pictured) includes die cast aluminum conduit box, cover, gaskets, grounding screw, mounting hardware and adapter plate for mounting box on existing holes in motor. 180 and 210-frame kits include all parts required to replace the conduit box including the die cast conduit box, plug, cover, gaskets and mounting hardware. No adapter plate is required because these kits mount on existing holes. All conduit boxes have 1/2-NPT tapped lead exit holes on two adjacent sides with one hole plugged. Note: the kit will not work with larger HP single-phase 210-frame motors.

NEMA Frame	Catalog Number	App. Wgt. (lbs.)
56-140T	**175892.00**	2
182-4T	**175649.00**	2
213-5T	**175847.00**	11

EXPLOSION-PROOF CONDUIT BOX

UL and CSA listed for Class I, Group C & D, and Class II, Groups E, F & G locations. Has grounding screw and all hardware provided. Mounts to motor by 3/4"-14NPT opening at rear of box. For NEMA 56 & 143-5T frame motors only. Box number 175755 has a 1" NPT thread.

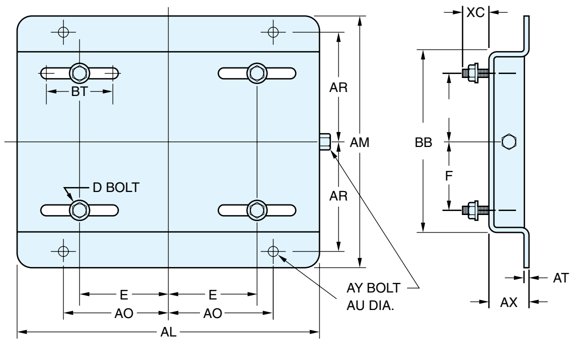
Catalog Number	App. Wgt. (lbs.)
175026.00	2
175755.00(1)	2

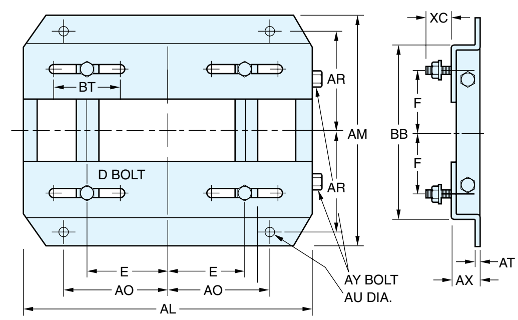
(1) For motors having a letter P after the date code.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

ADJUSTABLE MOTOR BASES—NEMA 48-447T FRAMES

Heavy gauge steel mounting bases simplify the installation of motors and make the tensioning, maintenance and replacement of belts a simple efficient task. Fabricated from sheet or steel plate, then primed and finished in a gray rust and corrosion resistant oven-baked finish. Gussets and reinforcing channels on larger units and continuous seam welding on all units give these bases strength and durability for a long life. A single (215T frame and smaller) or double (NEMA 254T frame and larger) zinc plated adjusting screw is provided. Motor mounting bolts are included.





NEMA 48 thru 215T | **NEMA 254T thru 447T**

Frame	Catalog Number	AL	AM	AX	BB	E	F	AO	AR	AU**	BT	AT	XC	D* Bolt	AY Bolt	App. Wgt. (lbs.)
48	**175032.00**	10	6¼	1⅛	4¼	2⅛	1⅜	3½	2¾	⅜	3	.078	⅞	5/16 x 1	⅜ x 4	2
56	**175033.00**	10⅝	6½	1⅛	4½	2 7/16	1½	3 13/16	2⅞	⅜	3	.078	⅞	5/16 x 1	⅜ x 4	3
143T	**175034.00**	10½	7½	1⅛	5½	2¾	2	3¾	3⅜	⅜	3	.119	13/16	5/15 x 1	⅜ x 4	5
145T	**175035.00**	10½	8½	1⅛	6½	2¾	2½	3¾	3⅞	⅜	3	.119	13/16	5/15 x 1	⅜ x 4	6
182T	**175036.00**	12¾	9½	1½	6½	3¾	2¼	4½	4¼	½	3	.134	1½	⅜ x 1¾	½ x 5	9
184T	**175037.00**	12¾	10½	1½	7½	3¾	2¾	4½	4¾	½	3	.134	1½	⅜ x 1¾	½ x 5	9
213T	**175038.00**	15	11	1¾	7½	4¼	2¾	5¼	4¾	½	3½	.164	1½	⅜ x 1¾	½ x 5	13
215T	**175039.00**	15	12½	1¾	9	4¼	3½	5¼	5½	½	3½	.164	1½	⅜ x 1¾	½ x 5	15
254T	**175040.00**	17¾	15⅛	2	10¾	5	4⅛	6¼	6⅝	⅝	4	3/16	1 7/16	½ x 1¾	⅝ x 6	17
256T	**175041.00**	17¾	16⅞	2	12½	5	5	6¼	7½	⅝	4	3/16	1 7/16	½ x 1¾	⅝ x 6	18
284T	**175042.00**	19¾	16⅞	2	12½	5½	4¾	7	7½	⅝	4½	3/16	1 11/16	½ x 2	⅝ x 6	21
286T	**175043.00**	19¾	18⅜	2	14	5½	5½	7	8¼	⅝	4½	3/16	1 11/16	½ x 2	⅝ x 6	22
324T	**175044.00**	22¾	19¼	2½	14	6¼	5¼	8	8½	¾	5¼	3/16	2 3/16	⅝ x 2½	¾ x 9	31
326T	**175045.00**	22¾	20¾	2½	15½	6¼	6	8	9¼	¾	5¼	3/16	2 3/16	⅝ x 2½	¾ x 9	32
364T	**175046.00**	25½	20½	2½	15½	7	5⅝	9	9⅛	¾	6	¼	2 1/16	⅝ x 2½	¾ x 9	44
365T	**175047.00**	25½	21½	2½	16½	7	6⅛	9	9⅝	¾	6	¼	2 1/16	⅝ x 2½	¾ x 9	45
404T	**175048.00**	28¾	22⅜	3	16½	8	6⅛	10	9⅞	⅞	7	¼	2½	¾ x 3	¾ x 11	60
405T	**175049.00**	28¾	23⅞	3	18	8	6⅞	10	10⅝	⅞	7	¼	2½	¾ x 3	¾ x 11	61
444T	**175088.00**	31¼	24⅝	3	19¼	9	7¼	11	11	⅞	7½	¼	2½	¾ x 3	¾ x 11	68
445T	**175089.00**	31¼	26⅝	3	21¼	9	8¼	11	12	⅞	7½	¼	2½	¾ x 3	¾ x 11	73
447T	**175090.00**	31¼	30⅛	3	24¾	9	10	11	13¾	⅞	7½	5/16	3	¾ x 3½	¾ x 11	92
449T	**175302.00**	31¼	35⅛	3	29¾	9	12½	11	16¼	⅞	7½	5/16	3	¾ x 3½	¾ x 11	95

* Motor mounting bolt diameter and length, four supplied with each base.
** Base mounting bolts, four required—not supplied with base.

NOTE: These bases are not suitable for vertical mounting. All dimensions in inches.

TRANSITION BASES

Transition bases compensate for the difference in mounting dimensions and shaft height of a rigid base NEMA T frame to the next higher NEMA U frame. This makes it possible, for example, to replace a 10 HP NEMA 254U frame motor with a 10 HP NEMA 215T frame motor without modifying the basic installation. Made of the same high-quality materials and construction as the adjustable motor bases above. They are for horizontal mountings, shimming may be needed for direct coupled loads. Thread size listed is for mounting transition base to the "T" frame motor. Dimensions listed are for one piece—two are supplied, one for each side of the motor's foot.

Converts T Frame	To U Frame	Catalog Number	App.Wgt. (lbs.)	Height (Inches)	Width (Inches)	Length (Inches)	Thread
143T/145T	182/184	**175091.00**	2	1	2¼	7½	5/16-18
182T/184T	213/215	**175092.00**	3	¾	1¾	9½	⅜-16
213T/215T	254U/256U	**175093.00**	5	1	2 7/16	12¾	⅜-16
254T/256T	284U/286U	**175094.00**	8	¾	2¾	14¼	½-13
284T/286T	324U/326U	**175095.00**	10	1	3¼	15¾	½-13
324T/326T	364U/365U	**175097.00**	13	1	3 11/16	16½	⅝-11
364T/365T	404U/405U	**175098.00**	22	1	4¼	18⅝	⅝-11
404T/405T	444U/445U	**175127.00**	24	1	4¼	21⅝	¾-10

C-FACE FIELD CONVERSION KITS FOR ULTIMATE E, ODP & WASHTHRU™ MOTORS

SRD, SSD, SD, SREW, SSEW, MD & SM MODEL NUMBERS
S, P & B EFFICIENCY CODES

Mount On Drive End Only

		Model Number Prefix									
Frame Size(s)	SYN RPM	SREW	SSEW	SRD	SSD	SD (cast Iron Brkt)	MD & SE	CCD	Product Number	Notes	Approx Shpg Wght (lbs)
56	All	*		*					**LM24631**	2	2
56	All	*		*					**LM24807**	3	2
143T-145T	All		*		*				**LM24807**	1, 3	2
182T-184T	All		*	*					**175691.00**	5	2
213T-215T	All		*		*				**LM25737**	1	15
254T-256T	All				*				**LM25740**	1	15
254T-256T	All							*	**LM31014**	1	15
284T/TS-286T/TS	All							*	**LM31019**		15
284T/TS-286T/TS	All					*			**LM24062**	4	25
324T/TS-326T/TS	All					*			**LM24063**		47
364T/TS-365T/TS	All					*			**LM24064**		53
404T/TS-405T/TS	All					*			**LM24065**		56
444T/TS-445T/TS	3600					*			**LM24066**		88
444T/TS-445T/TS	1200 & 1800					*			**LM24067**		88
447T/TS-449T/TS	3600					*			**LM24068**		98
447T/TS-449T/TS	1200 & 1800					*			**LM24069**		98

Frame	NEMA C-Face BA	C-Face Kit BA	D.E. Brg	* M/N Prefix
143T-145T	2.75”	2.40”	6203	SSF
143T-145T	2.75”	2.38”	6205	CCF, CCN
182T-184T	3.50”	2.75”	STD.	N/A
213T-215T	4.25”	3.50”	STD.	N/A
254T-256T	4.75”	4.25”	STD.	N/A

*All except ODP

Notes: P=Epact, B=Preimum, S=Standard Eff.

1. These kits create a T-Frame C-Face motor having a non NEMA BA dimension. See chart for further explanation
2. 56 frames with 203 drive end bearing
3. 56 frames with 205 drive end bearing
4. For 2-Pole and 6-Pole motors

For motors with steel end brackets – no C-Face Kits are available

180 frame motors – no C-Face Kits are available

5. Motors built having the letter “M” after the date code

Specifications are subject to change without notice

C-FACE FIELD CONVERSION KITS FOR ULTIMATE E TEFC MOTORS

SRF, SSF, SREW, SSEW, AF, AAF, CCN, CCF, CCS & SF MODEL NUMBERS G, P & B EFFICIENCY CODES

Mount On Drive End Only

Frame Size(s)	SYN RPM	Model Number Prefix							Product Number	Notes	Approx Shpg Wght (lbs)
		SRF	SSF	AF/AAF	SF (cast Iron Brkt)	CCN	CCF	CCS			
56	All	*							**LM24808**	1,2	2
56	All	*							**LM24810**	1,3	1
143T	All					*	*	*	**LM24811**	1	18
143T	All		*						**LM24810**	1	1
145T	All		*						**LM24810**	1	1
145	All					*	*	*	**LM24815**	1	7
182T-184T	All		*				*	*	**LM25736**	1	12
182T-184T	All		*						**175691.00**	1, 6	2
182T-184T	All			AAF					**LM26679**	1	10
182T-184T	1800			AAF					**LM32095**	8	10
182T-184T	ALL								**175394.60**	1, 9	12
213T-215T	All		*						**LM25738**	1	10
213T-215T	All						*	*	**LM25739**	1	10
213T215T, 213-215	All			*					**LM20121**	1	10
213T-215T	All			*					**LM30146**	7	10
213T-215T	1800			AAF					**LM32096**	8	10
213T-215T	All								**175068.60**	1, 9	15
254T-256T	All						*	*	**175191.60 =AP21**	1	25
254T-256T	All						*	*	**LM27681**	1	25
254U-256U	All			*					**LM30147**	1	26
254T-256T	All								**175191.60**	1, 9	25
284T-286T	All						*	*	**LM27576**		20
284T/TS-286T/TS	All			*					**LM20116**		20
284T/TS-286T/TS	All								**175061.60**	1, 9	42
324T/TS-326T/TS, 324U/US-326U/US	All						*	*	**LM28624**		33
324T/TS-326T/TS, 324U/US-326U/US	All				*				**LM24057**		33
364T/TS-365T/TS	All				*				**LM24058**		30
364T/TS-365T/TS	All								**175603.60**	1, 9	75
364T-365T							*	*	**LM32284**		35
364TS-365TS							*	*	**LM32285**		35
364U-365U							*	*	**LM32286**		37
404T-405T, 404U-405U	All						*	*	**LM28501**		53
404T-405T							*	*	**LM32287**		54
404TS-405TS							*	*	**LM32288**		53
404T/TS-405T/TS	All				*				**LM24059**		53
404T/TS-405T/TS	All								**175199.60**	1, 9	60
444T/TS-449T/TS	3600				*				**LM24060**		98
444T-445T							*	*	**LM32290**		96
444T/TS-445T/TS	All								**175664.60**	1, 9	115
444TS-445TS							*	*	**LM32291**		96
444T/TS-449T/TS	1800				*				**LM24061**		98
447T-449T							*	*	**LM32292**		98
444T/TS-449T/TS	All								**175958.60**	1, 9	112
447TS-449TS	1800 & 1200				*		*	*	**LM32293**		98

Notes: P=Epact, B=Preimum, S=Standard Eff., G=U-Frame Standard

1. These kits create a T-Frame C-Face motor having a non NEMA BA dimension. See chart for further explanation
2. 56 frames with 203 drive end bearing
3. 56 frames with 205 drive end bearing
4. For AK dimension of 4.5"
5. For AK dimension of 8.5"

For motors with steel end brackets - no C-Face Kits are available

6. Motors built having the letter "M" after the date code
7. Aluminum Frame motors built after 2007
8. Aluminum Frame motors ending with AP23 in the Model Number
9. Cast Iron Motors having Catalog numbers starting with LM6 and model numbers ending with AP21

Frame	NEMA C-Face BA	C-Face Kit BA	D.E. Brg	* M/N Prefix
143T-145T	2.75"	2.40"	6203	SSF
143T-145T	2.75"	2.38"	6205	CCF, CCN
182T-184T	3.50"	2.75"	STD.	N/A
213T-215T	4.25"	3.50"	STD.	N/A
254T-256T	4.75"	4.25"	STD.	N/A

*All except ODP

Specifications are subject to change without notice

CE FIELD CONVERSION KITS
3-PHASE MOTORS ONLY

Model Number Beginning with	Efficiency Code(s)	Frame Size	Product Number	Notes	Approx Shpg Wght (lbs)
SD & SSD	P.B.	143T-184T	**LM22093**		2
		213T-215T	**LM22188**		2
		254T-256T	**LM25632**		TBD
		284T-326T	**LM12429**	2	
		364T-365T	**LM12430**	1	2
		404T-405T	**LM12454**	1	35
		444T-445T	**LM12463**	1	40
		447T-449T	**LM12479**	1	40
AF & SF (also includes AB, AN & SB)	S, H	143T-145T	**LM08476**		2
		182T-184T	**LM08478**		2
		213T-215T	**LM08582**		2
		254T-256T	**LM08664**		5
		284T-286T	**LM08665**	9	2
		324T-326T	**LM08709**	3	2
		364T-365T	**LM08720**	3	2
		404T-405T	**LM08738**	3	2
		444T-445T	**LM08827**	1.3	40
AF, AAF & SSF	S,P,B	143T-145T	**LM18872**		2
		182T-184T	**LM18873**		2
AF & SF	P, B	213T-215T	**LM18874**		1
		254T-256T	**LM19985**		TBD
		284T-286T	**LM18876**		1
		324T-326T	**LM18866**		3
		364T-365T	**LM18868**	1	35
		404T-405T	**LM18869**		3
		444T-445T	**LM18870**		4
		447T-449T	**LM18871**	1	40
CS, CCF & CCS (excludes those motors with NN in NOTES column)	P, B	143T-184T	**LM18864**		2
		213T-256T	**LM18865**		2
		284T-326T	**LM18866**		3
		364T-405T	**LM18867**		3
		444T-445T	**LM18870**		4
		447T-449T	**LM18871**	1.2	40
MD & SE	S	284T-286T	**LM12429**		2
		324T-365T	**LM16572**		2
		404T-405T	**LM16574**	1	40
		404T-405T	**LM12454**	1	35
		444T-445T	**LM16577**	1	40

Notes: P=Epact, B=Preimum, S=Standard Eff., G=U-Frame Standard
1. Kit includes larger than standard terminal box.
2. Terminal box is heavy gauge steel CS models normally have cast iron box
3. Blower motor on TEBC CTAC models, 284T frames and larger, is not CE compliant
* Multiguard mtrs

Useable on 380 to 575V (for others, contact Lincoln). Price includes terminal strip suitable for six connections and grounding lug. Contact Customer Service regarding nameplate with CE Mark. Copies of Lincoln's Declaration of Conformity for the Low Voltage Declaration of Conformity for the Low Voltage Directive and Manufacturer's Declaration for the Machinery Directive are available on request

SHAFT GROUNDING RINGS

Shaft grounding is recommended (NEMA MG1 31.4.4.3) as an effective means of bearing protection for motors operated from inverter power. One grounding device is adequate to bleed down inverter-sourced shaft voltages, thereby protecting both bearings for motors as large as 6085 frame. Kits includes grounding ring, mounting hardware and instructions.
Shaft ground rings fit these Lincoln NEMA shaft extension frames listed below, they are designed to mount on the shaft end.

Shaft Grounding Ring (SGR)

Frame	Product No.	STOCK	List Price
48	LM32396	*	$151
56	LM32397	*	$151
143-145T	LM32398	*	$151
182-184T	LM32399	*	$176
213-215T	LM32401	*	$200
254-256T	LM32402	*	$250
284-286T	LM32403	*	$302
284-286TS	LM32404	*	$302
324-326T	LM32405	*	$352
324-326TS	LM32406	*	$352
364-365T	LM32407	*	$401
364-365TS	LM32408	*	$401
404-405	LM32409	*	$598
404-405TS	LM32410	*	$598
444-445T	LM32411	*	$1,050
444-445TS	LM32412	*	$1,050
447/449T	LM32413	*	$1,050
447/449TS	LM32414	*	$1,050

Grounding devices may not be installed on motors used in Division I or Division 2 hazardous locations.
These Kits cannot be used on Lincoln Motors having AP21 or AP23 in the Model Number or LEESON Cast Iron Motors

LEESON® MOD-SQUAD STOCK MOTOR MODIFICATION PROGRAM

Lincoln™ MOTORS

MOD·SQUAD

MOTORS MODIFIED FAST

Your motor, your way...now

The Mod-Squad stands on alert ready to tailor a LEESON or Lincoln stock motor to meet your modified motor needs in a few days or less. From one modified motor up to a few—there is no faster, more versatile source for mechanically or electrically "customerized" motors.

Starting with an off-the-shelf LEESON or Lincoln motor selected from the nearly 6,000 LEESON or Lincoln stock motors, the modifications listed here can be completed in the time frame noted for each item.

INDEX TO MOTOR MODIFICATIONS

ORDERING INFORMATION

To order please specify the catalog number of the LEESON or Lincoln stock motor to be modified and the Mod-Squad modification catalog number or numbers desired.

An inventory of popular motors is maintained by the Modification Center for fast delivery. ***However, delivery of the modified motor is governed by availability of the stock motor.*** If a stock motor is shipped from a District Warehouse to the Modification Center in Indianapolis, IN, the cost of the inbound freight is added to the price of the modified motor and delivery of the modified motor will be extended by the inbound transit time.

Modification list prices are subject to the same discounts as apply to the motor. (Some motors, such as explosion-proof, may not be modified.) *Days noted are working days excluding holidays and weekends—larger quantities may require additional leadtime.*

MOD-SQUAD CANCELLATION POLICY
Modified motors may not be returned for credit or re-stocking. If a modification order is cancelled before shipment, a cancellation charge of double the modification charge will be invoiced to the customer. Any Mod-Squad order cancelled before modification is completed is subject to cancellation charges of 10% of total charges for that item.

Terms are net 30 days, FOB Indianapolis, IN, with freight prepaid on single shipments of 1,500 pounds or more to the first destination within the continental United States, excluding Alaska.

L1 Balancing — Two Days*

The LEESON balancing modification has been discontinued due to high costs of re-balancing by an outside firm. Contact your sales office for a quote on special or precision balanced production motors, requiring a minimum order of 10 pieces or contact a LEESON Authorized Service Center for a quote on a Special balance modification.

L2 Bearing Modifications — Two Days

#L2a Available on all motors except the Lincoln motors with NN in the NOTES column. 48, 56 and 143T-145T, Agricultural motors as well as all Washguard duty and Wash-Thru motors have sealed bearings as standard. Note! Adding sealed bearings to Motors having grease fittings may not make the bearings regreasable. Grease fittings will be removed and plugged.

NEMA Frame	Catalog Number
42	**L2A42**
48	**L2A48**
56	**L2A56**
143T-145T	**L2A140**
182T-184T	**L2A180**
213T-215T	**L2A210**
254T-256T	**L2A250**
284T-286T	**L2A280**
324T-326T	**L2A320**
364T-365T	**L2A360**
404T-405T	**L2A400**
444T-449T	**L2A440**

#L2b Stock motors with shielded or sealed bearings – Replace standard bearings with ones having low-temperature lubricant (Beacon #325 or equivalent), with a temperature range of –75°F to +250°F. Standard lubricant has a temperature range of –20°F to +300°F and is considered a high temp lubricant for these motors. **Explosion proof motors can only be rated to a –13°F temperature.**

NEMA Frame	Catalog Number
42	**L2B42**
48	**L2B48**
56	**L2B56**
143T-145T	**L2B140**
182T-184T*	**L2B180**
213T-215T*	**L2B210**

*Rolled steel, cast iron or aluminum motors

#L2c Change bearing grease on cast iron motors with open-type regreaseable bearings. Endbells and bearings are purged and repacked with low-temperature grease (Beacon #325 or equivalent) with a temperature range of -75°F to +250°F or high-temperature grease (Dow Corning DC44M or equivalent) with a temperature range of -40°F to +400°F. **Specify grease to be used.** Check with LEESON to verify the motor can operate in the temperature range required!
LEESON Only

NEMA Frame	IEC Frame	Catalog Number
254T-256T	–	**L2C250**
284T-286T	160	**L2C280**
324T-326T	180	**L2C320**
364T-365T	200	**L2C360**
404T-405T	225	**L2C400**
444T-449T	250	**L2C440**

#L2d Install insulated bearings to protect inverter-driven motors from inverter-sourced shaft voltages. **May not be installed on Division 1 or Division 2 hazardous locations.** Contact factory for lead time on installing insulated bearings

NEMA Frame	Catalog Number
143T-145T	**L2D140**
182T-184T	**L2D180**
213T-215T	**L2D215**
254T-256T	**L2D250**
284T-286T	**L2D280**
324T-326T	**L2D320**
364T-365T	**L2D360**
404T-405T	**L2D400**
444T-449T	**L2D440**

L3 Brakemotor Modifications - LEESON Only — Three Days

"Motors and BrakeKits sold separately"

#L3a Convert brakemotors (TENV only) with standard enclosure brakes to weatherproof brakes by changing the disc brake. Weatherproof brakes have additional sealing and protection. Price includes cost of weatherproof brake.

Brake Rating	Catalog Number
3 lb-ft	**L3A3**
6 lb-ft	**L3A6**
10 lb-ft	**L3A10**
15 lb-ft	**L3A15**
25 lb-ft	**L3A25**

#L3b Change the standard brake to one with a different torque rating. **Specify torque rating.** Standard enclosure brakes only—not weatherproof. Some torque limitations apply, specify torque rating. **Catalog Number L3B.**

#L3c Change Brake Coil Voltage. Change from standard coil voltage to 115 volts (for Stearns brand brakes only). **Catalog Number L3C.**

#L3d Install a LEESON BrakeKit. See page 46 for BrakeKits available and motors that can be converted. **Specify the catalog number of both the stock motor and the BrakeKit.**

#L3e Remove brake from stock brakemotor for customers supplying their own brake. **Specify Catalog Number L3E.**


BrakeKit Installation

#L3f Assemble double C-face coupler brake on C-face motor. MOD charge is for assembly only. Brake and motor are purchased separately. **Specify the catalog number of the stock motor and coupler brake.**
Catalog Number L3F56140 - 56C, 143TC, or 145TC motors.
Catalog Number L3F180210 - 182TC, 184TC, 213TC, or 215TC motors.

#L3g Change Brake Coil Voltage. Change from standard coil voltage to 200 volts (for Stearns brand brakes only).
Catalog Number L3G1.5-3 – 1.5 & 3 lb-ft brakes
Catalog Number L3G6-10 – 6 & 10 lb-ft brakes

L5 Cords, Plugs and Grounding Provisions — Three Days

#L5a For single phase motors, install grounded line cord of type S.O., three-conductor oil resistant cord, connected in the conduit box or terminal panel, with strain relief. No plug. ***Specify cord length, voltage and shaft rotation (clockwise or counterclockwise) viewed from the drive shaft end of the motor.***

Wire Gauge	Max Amp Rating Single Phase	Catalog Number 6 ft. or Less	X Catalog Number Each Add'l. Foot
16	13	**L5A16**	**L5A16ADD**
14	18	**L5A14**	**L5A14ADD**
12	25	**L5A12**	**L5A12ADD**

#L5b Install 6-foot grounded type S.O. cord with plug, 115VAC single phase only. ***Specify cord length, shaft rotation (clockwise or counterclockwise) viewed from the drive shaft end of the motor.***

HP	Catalog Number 6 ft. or Less	X Catalog Number Each Add'l. Foot
1 and smaller	**L5B**	**L5BADD**

#L5c Add an additional grounding screw to the endbell of drip-proof or totally enclosed non-ventilated NEMA 48 or 56 frame motors. Meets UL 1081 swimming pool motor grounding provisions (includes slinger).
Catalog Number L5C.


Grounded Cord w/Plug

L6 Switches – Power or Electronic Starting — Three Days

#L6a On-off switch for 2 HP and smaller single phase motors only. Install double-pole, single-throw switch in the conduit box, with switch guard and a 6-foot type S.O. cord with grounded plug, ***115 VAC or 230 VAC—please specify. Also specify shaft rotation (clockwise or counterclockwise) viewed from the drive shaft end of the motor.***

HP	Rating	Catalog Number
Thru 2	16-20A/115V or 230V	**L6A**

On-Off Switch w/Guard

#L6b Replace mechanical centrifugal switch on single phase motors 2HP and smaller with solid-state, encapsulated, electronic starting switch. Capacitor-start, induction-run motors only. **Subject to engineering approval. Catalog Number L6B.**

L7 Severe Duty - Cast Iron Fan Covers - LEESON Only — Three Days

#L7a Remove steel fan guard and install a cast iron fan guard on LEESON 150 and 170 series NEMA and 193 series IEC TEFC cast iron motors to meet severe duty, mill and chemical duty specifications. Note: These motors have cast iron endbells, frame, and conduit box as standard. ***Lincoln Motors has a line of Severe Duty motors that include a cast iron fan guard.*** ***See page 59.***

NEMA Frame	IEC Frame	Catalog Number
182T-184T	–	**L7A180**
213T-215T	–	**L7A210**
254T-256T	–	**L7A250**
284T-286T	160	**L7A280**
324T-326T	180	**L7A320**
364T-365T	200	**L7A360**
404T-405T	225	**L7A400**
444T-445T	250	**L7A445**
447T-449T	280	**L7A449**

Cast Iron Fan Cover

L8 Condensate Drains - Totally Enclosed Motors — Two Days

#L8a 215T and smaller *steel frame* motors. Drill one or two condensation drain holes on the ***periphery or in the face*** of each endbell of steel frame 215T frame and smaller totally enclosed motors. ***Specify location in both the shaft end and opposite endbell using a drawing or clockface analogy.*** When specified, a drain can be added to the face of one endbell for shaft up or down mounting.

NEMA Frame	Catalog Number
215T and smaller	**L8A40210**
254T-365T	**L8A250360**
404T-449T	**L8A400440**

Condensate Drain

#L8b 182T and larger *cast iron frame* motors. Provides an additional one-way, cross-drilled stainless steel condensation drain on the periphery or in the face of each endbell. ***Provide a drawing or clockface analogy for position in each endbell.***

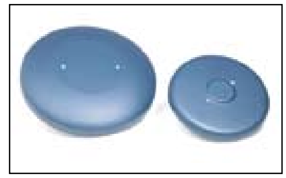
NEMA Frame	Catalog Number
215T and smaller	**L8B40210**
254T-365T	**L8B250360**
404T-449T	**L8B400440**

MOD-SQUAD™

L9 Drip Cover – Open, Drip-Proof Motors — Two Days

#L9a Install a drip cover on steel frame motors. Price includes drip cover.
LEESON Only

NEMA Frame	Catalog Number
48-145T	**L9A40140**
182T-184T	**L9A180**
213T-215T	**L9A210**



Drip Cover

#L9b Install a drip cover on cast iron motors. Price includes drip cover.
LEESON Only

NEMA Frame	Catalog Number
182T-184T	**L9B180**
213T-215T	**L9B210**
254T-256T	**L9B250**

#L9c Install a drip cover on SPD, SRD and SSD Model Numbers. Not suitable for use on motors having NN in Notes column.
Lincoln Only

NEMA Frame	Catalog Number
48-56*	**L9C4856**
56-145T	**L9C56145**
182T-184T	**L9C182184**
213T-215T	**L9C213215**

* Motors having a 2.18 inch bolt circle for the mounting holes

L10 Leads – Reconnect, Remark or Extend — Two Days

#L10a Re-Connect leads in the conduit box to a single voltage and/or for wye or delta connection. Most motors 444T frame and above are single voltage. ***Specify voltage and connection.***

NEMA Frame	Catalog Number
48-145T	**L10A40140**
182T-184T	**L10A180**
213T-215T	**L10A210**
254T-256T	**L10A250**
284T-286T	**L10A280**
324T-326T	**L10A320**
364T-365T	**L10A360**
404T-405T	**L10A400**
444T-449T	**L10A440**

#L10c Extend leads up to 42 inches longer than standard by splicing. ***Specify additional length required.***

NEMA Frame	Catalog Number
48-145T	**L10C40140**
182T-184T	**L10C180**
213T-215T	**L10C210**
254T-256T	**L10C250**
284T-286T	**L10C280**
324T-326T	**L10C320**
364T-365T	**L10C360**
404T-405T	**L10C400**
444T-449T	**L10C440**

#L10b Remark leads using metal markers. Any size motor. ***Specify markings, letters or numbers.*** **Specify Catalog Number L10B.**

#L10d Add crimp-type terminal lugs – steel frame motors. Lugs standard on LEESON cast iron motors. **Specify Catalog Number L10D.**

L11 Shaft Seals — Three Days

#L11a Install an oil seal on the shaft end of 215T and smaller steel frame LEESON motors. May be installed on single, three phase or direct current motors, but not explosion-proof motors.

Catalog Number
L11A

L12 Mountings — Two Days

#L12a Add a stamped steel rigid base to steel frame motors. For 182-4T frame motors, minimum 8.50" (TEFC, rigid, C face) or 8" (ODP, rigid, C face) frame length is required. LEESON Only

NEMA Frame	Catalog Number
42-48	**L12A4248**
56	**L12A56**
143T-145T	**L12A140**
182T-184T	**L12A180**
213T-215T	**L12A210**

Note: It is not possible to add a base to some three phase motors as the resulting rigid base motor will be subject to EISA mandated efficiency values. Contact the factory.

This Mod. cannot be done on an explosion proof motor for an F1 conduit box location.

#L12b Remove stamped steel rigid base from steel frame motors.

NEMA Frame	Catalog Number
42-56	**L12B4256**
143T-145T	**L12B140**

#L12c Install a NEMA C face on steel frame motors 215T and smaller. ***Specify if the rigid base is to be removed. If so, add for modification #L12b listed above.*** LEESON Only

NEMA Frame	Catalog Number
42-56*	**L12C4256**
143T-145T	**L12C140**
182T-184T	**L12C180**
182T-184T**	**L12C180U**
213T-215T	**L12C210**

* Adding a 48 C-Face results in a non-NEMA BA dimension.
** Convert a 182T-184T frame motor to have a C-face dimensions of a 143T-145T or 182U-184U frame motor (AJ = 5 7/8 ", AK = 4 1/2"). The shaft dimensions and base location will not change.

#L12d Install a NEMA C face to 150 or 170 series cast iron motors. ***The rigid base cannot be removed from these cast iron frame motors (non-800 Series).*** LEESON Only

NEMA Frame	Catalog Number
182T-184T	**L12D180**
213T-215T	**L12D210**
254T-256T	**L12D250**
284T-286T	**L12D280**
324T-326T	**L12D320**
364T-365T	**L12D360**
404T-405T	**L12D400**
444T-445T	**L12D440**
447T-449T	**L12D4479**

#L12e Install a NEMA D flange to open or totally enclosed motors of steel frame construction in 182-4T frame and cast iron 150 and 170 series motors in 213T frames through 445T frame. Steel rigid base can be removed from steel frame 182-4T frame motors. ***Specify and add for modification L12b. Rigid base cannot be removed from cast iron frame motors.*** LEESON Only

NEMA Frame	Catalog Number
182T-184T	**L12E180**
213T-215T	**L12E210**
254T-256T	**L12E250**
284T-286T	**L12E280**
324T-326T	**L12E320**
364T-365T	**L12E360**
404T-405T	**L12E400**
444T-445T	**L12E440**

#L12f Convert standard F1 motors to F2, sidewall or ceiling mounting. Consists of repositioning the endbell vents and condensation drains where applicable and the conduit box lead hole. Note: If brakemotor, brake knob will be located at 6 o'clock. Note: Only the 56/140 frame motors can have the motor bases removed where needed.

NEMA Frame*	Catalog Number
56-184T	**L12F56180**
213T-215T	**L12F210**
254T-326T	**L12F250320**
364T-449T	**L12F360449**

* Three phase only; single phase motors cannot be converted. Please contact factory for Explosion proof motor approval for this modification.

#L12g Rotate standard conduit box position by 90° increments. ***Specify by clock face, i.e. 9 o'clock, 12 o'clock, etc. for position (viewed from shaft end).*** Consists of repositioning the endbell vents and condensation drains where applicable and the conduit box lead hole. Note: If brakemotor, brake knob will be rotated 90° from conduit box. **This mod. can no longer be offered on the 180 and 210 frame motors for the bases of these motors can no longer be removed without damaging the motor.**

NEMA Frame*	Catalog Number
56-145T	**L12G56140**

* Three phase rolled steel only; single phase motors cannot be converted.

More L12 mountings on next page.

L12 Mountings — Two Days

#L12h Install a metric (IEC) B5 flange to 190 series cast aluminum or cast iron AC motors and DC steel frame motors. LEESON Only

IEC Frame	Catalog Number
63	**L12H63**
71	**L12H71**
71(DC)	**L12HD71**
80	**L12H80**
80 (DC)	**L12HD80**
90	**L12H90**
90 (DC)	**L12HD90**
100	**L12H100**
112	**L12H112**
100/112/(DC)	**L12HD100112**
132	**L12H132**
160	**L12H160**
180	**L12H180**
200	**L12H200**
225	**L12H225**

#L12j Install a metric (IEC) B14 face to 190 series cast aluminum or cast iron AC motors and DC steel frame motors. LEESON Only

***Note:** C-face kit (B14) not available in NEMA frame 180.

IEC Frame	Catalog Number
63	**L12J63**
71	**L12J71**
71 (DC)	**L12JD71**
80	**L12J80**
80 (DC)	**L12JD80**
90	**L12J90**
90 (DC)	**L12JD90**
100	**L12J100**
112	**L12J112**
100/112 (DC)	**L12JD100112**
132	**L12J132**
160	**L12J160**

#L12k Reposition feet and nameplate (to relocate conduit box) on AC aluminum-frame IEC motors (63 thru 90L frame). LEESON Only

IEC Frame	Catalog Number
63	**L12K63**
71	**L12K71**
80	**L12K80**
90	**L12K90**

#L12l Install C-Face. For motors having AF/AAF in the model number.
Lincoln Only

NEMA Frame	Catalog Number
182T-184T	**L12L182184**
213T-215T	**L12L213215**
254T-256T	**L12L354256**
284T-286T	**L12L284286**

#L12m Install C-Face. For motors having SRF in the model number.
Lincoln Only

NEMA Frame	Catalog Number
56 (203 brg)	**L12M56203**
56 (205 brg)	**L12M56205**

#L12n Install C-Face. For motors having SSF in the model number.
Lincoln Only

NEMA Frame	Catalog Number
143-145T	**L12N143145**
182-184T	**L12N182184**
213-215T	**L12N213215**

#L12o Install C-Face. For motors having SF in the model number, having a cast iron endbell.
Lincoln Only

NEMA Frame	Catalog Number
324T/TS-326T/TS	**L12O324326**
364T/TX-365T/TS	**L12O364365**
404T/TS-405T/TS	**L12O404405**
444T/TS-445T/TS	**L12O444445**
447T/TS-449T/TS	**L12O447449**

#L12p Install C-Face. For motors having CCN in the model number.
Lincoln Only

NEMA Frame	Catalog Number
143-145T	**L12P143145**

#L12q Install C-Face. For motors having CCF in the model number.
Lincoln Only

NEMA Frame	Catalog Number
143T-145T	**L12Q143145**
182T-184T	**L12Q182184**
213T-215T	**L12Q213215**
254T-256T	**L12Q254256**
284T-286T	**L12Q284286**
342T-326T	**L12Q324326**

#L12r Install C-Face. For motors having CCS in the model number.
Lincoln Only

NEMA Frame	Catalog Number
143T-145T	**L12R143145**
182T-184T	**L12R182184**
213T-215T	**L12R213215**
254T-256T	**L12R254256**
284T/TS-286T/TS	**L12R284286**
342T/TS-326T/TS	**L12R324326**
364T/TS-365T/TS	**L12R364365**
404T/TS-405T/TS	**L12R404405**
444T/TS-445T/TS	**L12R444445**

L13 Nameplates — Three Days

#L13a Provide an extra motor nameplate-unmounted. Add customer part number or change to other voltage or frequency service. **Unmounted nameplates are not available for explosion-proof motors.**
Note: Markings for UL and CSA cannot be included on unmounted nameplates that are shipped loose and not installed on a motor.① **Add $1 (net) for each additional Aluminum or Mylar nameplate.**② **Add $2 (net) for each additional stainless steel nameplate.**② **Catalog Number L13A.**

#L13b Replace, existing nameplate. Add customer part number or change to other voltage or frequency service and mount to motor.①
Note: Not available for motors that are all stainless steel construction.

#L13c Replace standard aluminum nameplate with stainless steel nameplate. LEESON cast iron, WASHGUARD and severe duty motors have stainless steel nameplates as standard.① **Add $2 (net) for each additional stainless steel nameplate.**②

① Must specify catalog number and date code of motor's existing nameplate. Nameplates changed to a single voltage connection does not mean motors would be re-connected to this connection unless the L10 Mod is also requested.

② Additional nameplates must be identical.

L14 Paint — Two Days*

#L14a Repaint motor to another LEESON or Lincoln stock paint color. A sample of choices include LEESON blue, white epoxy, farm duty red, light gray epoxy, black, or black epoxy.

For Lincoln motors, your choices include: Lincoln gray, severe duty blue, black or gloss white. Not available on Lincoln Wash-thru motors. ***Specify color.***

***Note:** Epoxy paint requires extra curing time. Please allow one additional day.

	Frame	Catalog Number
NEMA	42-215T	**L14A40210**
NEMA	254T-365T	**L14A250360**
NEMA	404T-449T	**L14A400440**
IEC	63-90	**L14A6390**
IEC	100-225	**L14A100225**

L15 Rodent Screens - LEESON Only — Two Days

#L15a Add rodent screens to open drip-proof motors, cast iron and steel frame, 326T and smaller.

NEMA Frame	Catalog Number
182T-S213T	**L15A40210**
254T-286T	**L15A250280**
324T-326T	**L15A320**

L16 Space Heaters, Anti-Condensation — Five Days

#L16a Add anti-condensation space heaters to totally enclosed or open motors. Standard space heater voltage is 115 VAC. ***Heaters for 230 or 460 VAC are available. Specify circuit voltage.*** May be installed in single, three phase or direct current motors. **Explosion proof motors are not included. Washdown duty motors are not included.**

NEMA Frame	Catalog Number
145T and smaller	**L16A40140**
182T-215T	**L16A180210**
254T-365T	**L16A250360**
404T-449T	**L16A400440**

L17 Lint-Proof Textile Service Motors - LEESON Only — Two Days

#L17a Convert a standard totally enclosed-fan cooled motor to textile service by modifying the fan cover to reduce "snagging" of lint and reduction in cooling air for the motor. Price includes kit cost.

NEMA Frame	Catalog Number
56-145T	**L17A40140**
182T-184T	**L17A180**


Lint-Proof Kit

MOD-SQUAD™

L18 Motor Protection — Two Days

#L18a Thermostats on the winding. Install one or more thermostats in the windings of NEMA frame AC motors on the brush plate of DC motors or on the inside of frame on Sub-FHP DC motors. These are pilot or signal devices only, to be used in series with a motor controller or starter to remove power from the motor. Red color leads are brought into the conduit box. ***Specify normally open or closed contacts.*** Normally closed thermostats connected in series. Thermostats cannot be installed in explosion-proof motors.

Type	NEMA Frame	Catalog Number	No. of Devices
Single Phase	All	**L18AS40210**	1
Three Phase	42-215T	**L18AT40210**	2
Three Phase	254T-365T	**L18AT250360**	2
Three Phase	404T-449T	**L18AT400440**	2
Direct Current	42-56	**L18AD4056**	1

#L18b For a motor equipped with a thermal overload, exchange a manual or automatic reset thermal overload to the opposite style. Delivery is dependent upon availability of the thermal overload. **LEESON Only**

NEMA Frame	Catalog Number
48-56	**L18B4056**
143T-145T	**L18B140**
182T-184T	**L18B180**
213T-215T	**L18B210**

Note: Automatic thermal overloads return power to the motor automatically after cooling-off. Automatic thermal overloads should not be used in installations where a sudden restart could cause injury.

#L18c Thermistors on the winding. As standard, three (3) thermistors are furnished, one per phase. As the critical temperature of the motor's winding is reached, the resistance of the thermistor changes radically, causing operation of a control relay. Not available on washdown duty motors or medium voltage motors.

Type	NEMA Frame	Catalog Number	No. of Devices
Three Phase	42-215T	**L18CT40210**	3
Three Phase	254T-365T	**L18CT250360**	3
Three Phase	404T-449T	**L18CT400440**	3

Note: Thermostat and Thermistor Descriptions:

Thermostats are made of two or three different metal strips that each expand at different rates when heated. They are sandwiched together to make a laminated strip, with a set of electrical contacts at one end securely mounted to a platform. When the strip is heated it warps and the contacts open as a threshold temperature is exceeded. Thermostats are reliable, noise immune and easily configured into control schemes. Typically, inverter-duty motors have thermostats as standard equipment.

Thermistors are conductive ceramic materials, whose resistance remains relatively constant over a broad temperature range, then changes abruptly at a design threshold point, creating essentially a solid-state thermal switch. Attached control modules register this abrupt resistance change and produce an amplified output signal, usually a contact closure or fault trip annunciation. Thermistors are more accurate and faster responding than thermostats.

L19 Fungus Proofing and Tropicalization — Two Days

#L19a Special treatment of the motor's windings and mechanical parts to resist tropical environments. **Not available on brakemotors, washguard duty motors and explosion proof motors.**
** AC or DC Motors

NEMA Frame	Catalog Number
42-215T**	**L19A40210**
254T-365T	**L19A250360**
404T-449T	**L19A400440**

L20 Weatherproofing – Three Phase, Totally Enclosed Motors* — Five Days

#L20a Treatment of mechanical and electrical components of LEESON steel frame totally enclosed motors to resist weather in application outside or in high-moisture conditions. NOTE: LEESON 150 and 170 series cast iron motors are weatherproofed as standard. LEESON WASHGUARD motors are also well-suited for outside and high-moisture applications. **Not available on brakemotors or explosion proof motors.** ** AC or DC Motors

NEMA Frame	Catalog Number
42-215T**	**L20A40210**

* For single phase weatherproofed motors, see WASHGUARD motors on pages 28 and 35.

L21 Marine Service (IEEE 45) Motors – Three Phase, Totally Enclosed - LEESON Only — Five Days

#L21a Treatment of mechanical and electrical components for application below deck aboard ships. Meets IEEE 45 marine specifications. Includes die cast conduit box with tapped lead hole and nameplate stamped 50°C ambient and marked IEEE 45. Standard LEESON blue epoxy paint will be applied unless otherwise specified. Not available on brakemotors and subject to engineering approval. Not available in 42 and 48 frame sizes for no kit is available to change conduit box to have a tapped hole. ** AC or DC Motors

NEMA Frame	Catalog Number
56-215T**	**L21A40210**
254T-365T	**L21A250360**
404T-405T	**L21A400**
444T-449T	**L21A440**

L22 Shaft Modifications — Five Days

#L22a Drill and tap one hole in either end of motor's shaft or mill a flat on the drive end shaft extension. **Provide details of hole or flat with the order.** List price is per modification. For example, a motor modified by adding a tapped hole and flat would be priced by adding the list price twice.
3 inches maximum depth hole

NEMA Frame	Catalog Number
42-145T	**L22A40140**
182T-184T	**L22A180**
213T-215T	**L22A210**
250T-280T	**L22A250280**

#L22b TEFC to air-over service. Convert a motor from totally enclosed, fan cooled construction to totally enclosed, air-over service by removing fan cover and fan and cutting off the fan end shaft. The modified motor must be mounted in the air stream of the driven fan for cooling purposes.

NEMA Frame	Catalog Number
42-145T	**L22B40140**
182T-184T	**L22B180**
213T-215T	**L22B210**

L23 Tachometer Mounting Provisions – DC Motors - LEESON Only — Five Days

#L23a Add a tachometer mounting kit to NEMA frame size Direct Current motors. See page 81 for availability of tachometer mounting kits. Does not include tachometer. For TEFC motors only.

NEMA Frame	Catalog Number
S56	**L23AS56**
SS56	**L23ASS56**
56/145T	**L23A56140**


Tach Kit Adaptor

L24 CE Marking* — Five Days

#L24 Modify motor to comply with the nameplate designation, lead markings and connection diagrams required by the IEC34 motor specification. Modification includes a nameplate with the CE logo or a separate CE decal and a CE Declaration of Conformity document. Not available on DC motors below 75 V.D.C. LEESON Only

Catalog Number
L24

CE
CONFORMITE EUROPEENE

#L24b CE Marking Kit - Includes new nameplate with data in IEC34 format, lead markers for IEC lead designations, a connection diagram, and a CE Declaration of Conformity document. The nameplate will have the CE logo, or a CE decal will be provided. LEESON Only

Catalog Number
L24B

*CE Marking is typically required for motors being shipped to Europe where 50Hz power is standard. For this reason, CE Marking includes adding 50Hz data to the motor nameplate. Not all motors can be used with 50Hz power – especially single-phase motors with centrifugal switches. Contact LEESON to verify acceptability for CE Marking.

#L24c Modification includes larger than standard Steel terminal box. CS models normally have a cast iron box. Blower motor on TEBC CTAC models, 284T frame and larger, is not CE compliant. Useable on 380 to 575V motors. Price includes terminal strip suitable for six connections and grounding lug. CE decal to be provided. CE Declaration of Conformity are available upon request. Lincoln Only

Contact your local sales office for Lincoln CE kits.

Explosion proof motors cannot be modified to meet CE.

NEMA Frame	Catalog Number
143T-145T	**L24C140**
182T-184T	**L24C180**
213T-215T	**L24C210**
254T-256T	**L24C250**
284T-286T	**L24C280**
324T-326T	**L24C320**
364T-365T	**L24C360**
404T-405T	**L24C400**
444T-445T	**L24C440**
447T-449T	**L24C447449**

L25 Micro Series Inverter - Remote Keypad Option - LEESON Only — Two Days

#L25 A remote keypad for Micro Series inverters is available only as a factory installed option. The keypad is mounted in a gasketed steel faceplate that must be mounted in an enclosure for protection. An inverter modified for remote operation can only be operated from the remote keypad. Price includes remote keypad, faceplate, cable and factory modification charges. **Not available on Washguard Duty Inverters.** See page 208 for Remote Keypad kits for the Sub-Micro Series Inverters.

Catalog Number	Description
L25A25	Keypad with 2.5 foot cable
L25A50	Keypad with 5 foot cable
L25A100	Keypad with 10 foot cable

L27 Terminal Blocks – NEMA Motors - LEESON Only — Five Days

#L27a Add a terminal block in the conduit box of rolled steel motor from 56 to 215T-frame. Install ring terminals on the motor leads.
- Conduit box on 56-frame motors will be changed to a longer version to accommodate the terminal board.
- Use with single-phase or three-phase motors with no protector.
- Specify connection voltage and direction of rotation for single-phase.
- Not intended for 56, 143T & 145T-frame TENV or ODP motors that have a built-in conduit box. Contact LEESON for the suitability of adding a terminal board to one of these motors.
- Cannot be added to WASHGUARD Duty motors.

NEMA Frame	Catalog Number
56/143T/145T	**L27A56140**
182T/184T/S213T	**L27A180**
213T-215T	**L27A210**

#L27b Install a terminal block kit in the conduit box of a cast iron NEMA frame motor. Price includes kit. (IEC motors have a terminal block installed as standard.)

NEMA Frame	Catalog Number
180/210T	**L27B180210**
250/280T	**L27B250280**
320/360T	**L27B320360**
400/440T	**L27B400440**

L28 Dynamic Braking Board – Micro Series Drives - LEESON Only — Two Days

#L28 Install Dynamic Braking board in Micro Series drive. Note: Does not include Dynamic Braking resistor, which is ordered as a separate line item. See Micro Series accessory section of catalog for resistor selection. See page 207 for Dynamic Brake kits for the Sub-Micro Series inverters.

HP Rating	Voltage	Catalog Number
1/2 - 3HP	All	**L28A174184**
5HP	200-230V	**L28A174185**
5HP	460-480V	**L28A174185**
5HP	550-575V	**L28A174184**
7 1/2HP	200-230V	**L28A174192**
7 1/2HP	460-480V	**L28A174193**
7 1/2HP	550-575V	**L28A174193**
10-60HP	All	**L28A174192**

L29 Encoder Kits – WATTSAVER® & SPEEDMASTER® Motors — Two Days

#L29a Assemble a stock Encoder Kit on a WATTSAVER® motor. Price is for assembly only. Motor and kit are purchased separately. ***Specify motor and kit numbers.*** Note: The assembly of an encoder kit on a WATTSAVER® motor requires the removal of the external fan. ***The use of a Blower Fan Kit is strongly encouraged for proper cooling!*** For TENV applications, contact LEESON with application details. (Kit Number: L29A360400) LEESON Only

NEMA Frame	Catalog Number
56-215T	**L29A56215**
254T-324T	**L29A250320**
360T-405T	**L29A360400**

#L29b Assemble a stock Encoder Kit on a SPEEDMASTER® motor. Includes assembly of conduit box kit ECB175926 on 215T-449T frame motors. Price is for assembly only. Motor and kits are purchased separately. ***Specify motor and kit numbers.*** LEESON Only

NEMA Frame	Catalog Number
143T-215T	**L29B140210**
254T-365T	**L29B250360**
404T-449T	**L29B400440**

#L29c Available on Inverter Duty CTAC Motors that have Model Number ending with Q10. Price is for assembly only. Encoder kit, Mounting kit and Motor sold separately. Lincoln Only

NEMA Frame	Catalog Number
56-215T	**L29C56210**
254T-365T	**L29C250360**
404T-445T	**L29C400440**

L30 Blower Fan Kits – WATTSAVER® Motors — Two Days

#L30b Install a blower fan kit on a WATTSAVER® motor. Price is for assembly only. Motor and kit are purchased separately. ***Specify motor and kit numbers.*** LEESON Only

NEMA Frame	Catalog Number
56-215T	**L30B56210**
254T-326T	**L30B250320**
360T-440T	**L30B360440**

L31 Conduit Box Kits – Larger Size - Lincoln Only

#L31a Install larger size conduit box. AF, MD, SD and SF Model Numbers, S and H Efficiency Codes

NEMA Frame	Catalog Number
213T-215T	**L31A213215**
254T-256T	**L31A254256**
284T-286T	**L31A284286**
324T-326T	**L31A324326**
364T-365T	**L31A363365**
404T-405T	**L31A404405**

#L31b Install larger size conduit box. AF, AAF, CF, CS, CP, SD and SF Model Numbers, P and B Efficiency Codes

NEMA Frame	Catalog Number
143T-184T	**L31B143184**
213T-215T	**L31B213215**
254T-256T	**L31B254256**
284T-286T	**L31B284286**
324T-326T	**L31B324326**
364T-365T	**L31B364365**
404T-405T	**L31B404405**
444T-445T	**L31B444449**

CROSS REFERENCE EXCEPTION CODES

LEESON Product Base Exceptions

B01 Install base kit 175032 (Extra cost)
B02 Install base kit 175033 (Extra cost)
B03 Install base kit 175034 (Extra cost)
B04 Install base kit 175035 (Extra cost)
B05 Install base kit 175036 (Extra cost)
B06 Install base kit 175037 (Extra cost)
B07 Install base kit 175038 (Extra cost)
B08 Install base kit 175039 (Extra cost)
B09 Install base kit 175040 (Extra cost)
B10 Install base kit 175041 (Extra cost)
B11 Install base kit 175042 (Extra cost)
B12 Install base kit 175043 (Extra cost)
B13 Install base kit 175044 (Extra cost)
B14 Install base kit 175045 (Extra cost)
B15 Install base kit 175046 (Extra cost)
B16 Install base kit 175047 (Extra cost)
B17 Install base kit 175048 (Extra cost)
B18 Install base kit 175049 (Extra cost)
B19 Install base kit 175088 (Extra cost)
B20 Install base kit 175089 (Extra cost)
B21 Install base kit 175090 (Extra cost)
B22 Install base kit 175091 (Extra cost)
B23 Install base kit 175092 (Extra cost)
B24 Install base kit 175093 (Extra cost)
B25 Install base kit 175094 (Extra cost)
B26 Install base kit 175095 (Extra cost)
B27 Install base kit 175097 (Extra cost)
B28 Install base kit 175098 (Extra cost)
B29 Install base kit 175127 (Extra cost)
B30 LEESON motor has a 56 frame base
B31 LEESON motor has rigid base
B32 LEESON motor has resilient base
B33 LEESON motor has no base
B34 LEESON's motor base is not removable
B35 LEESON motor has base with mounting holes for 56 & 143-5T
B36 LEESON base mounting holes not 'Drop-in' replacement
B37 Install base kit M1760006 (Extra cost)
B38 LEESON motor has 184JM base and shaft

LEESON Product Construction Exceptions

C01 LEESON motor has steel frame
C02 LEESON motor has cast iron frame
C03 LEESON motor has mechanical switch
C04 Reassemble LEESON motor to F2 mounting
C05 LEESON motor has base with mounting holes for 56, 143-5T and 5/8" Nema 56 shaft
C06 LEESON motor is not BISSC certified
C07 LEESON motor is capacitor start/capacitor run design
C08 LEESON motor is normal efficiency
C09 LEESON motor has double shielded ball bearings
C10 LEESON motor is capacitor start/induction run design
C11 LEESON motor has 1.0 service factor
C12 LEESON motor is ball bearing design
C13 LEESON motor is 208-230 volts
C14 LEESON motor has steel fan-guard
C15 LEESON motor is premium efficiency design
C16 LEESON motor has ball bearing instead of roller bearing drive end
C17 LEESON motor does not have extended thru-bolts
C18 LEESON motor has 145TC face with 182T base
C19 LEESON motor requires C face adapter
C20 LEESON motor is 1650 RPM
C21 LEESON motor has no cord or plug
C22 LEESON motor is IP54
C23 LEESON motor is 1625 RPM
C24 LEESON motor is 1075 RPM
C25 LEESON motor is class B insulated
C26 LEESON motor is Class I Group D, Class II Groups F & G
C27 LEESON motor is 60/50HZ
C28 LEESON motor has external capacitor
C29 LEESON motor is PSC design
C30 LEESON does not have tapped-hole (as standard) for pulse generator
C31 LEESON gearbox mounting face includes 3-point mounting
C32 LEESON motor is dual voltage rated - 115/230
C33 LEESON armature voltage is 90V DC
C34 LEESON motor is 230V only
C35 LEESON motor is non-reversible
C36 LEESON motor is reversible
C37 LEESON motor shaft endshield is totally enclosed
C38 Install explosion proof conduit box 175026 (Extra cost)
C39 LEESON motor has 1.15 service factor
C40 LEESON motor has 1.25 service factor
C41 LEESON motor has 1.35 service factor
C42 LEESON motor has a 145T "C" face and shaft with welded on base
C43 LEESON motor may not be used on 190-208/380-416V 50HZ at full rated HP
C44 IEEE 841 modification required - reference mod squad motor modifications L26
C45 LEESON motor has cast iron C face
C46 LEESON motor is 60HZ Only
C47 LEESON motor is 208-230/460V
C48 LEESON motor is class F insulated
C49 LEESON motor is EPACT efficiency
C50 LEESON motor is design B
C51 LEESON motor is all stainless steel
C52 LEESON motor has 12 leads
C53 LEESON motor has standard paint
C54 LEESON motor is 460 Volt only
C55 LEESON motor has a solid-state switch

LEESON Product Enclosure Exceptions

E01 LEESON motor is totally enclosed non-ventilated
E02 LEESON motor is totally enclosed fan-cooled
E03 LEESON motor is drip proof

LEESON Product Frame Size Exceptions

F01 LEESON frame size is 48
F02 LEESON frame size is S56
F03 LEESON frame size is 56
F04 LEESON frame size is 56C
F05 LEESON frame size is 56H
F06 LEESON frame size is 145T
F07 LEESON frame size is 145TC
F08 LEESON frame size is 182T
F09 LEESON frame size is 184T
F10 LEESON frame size is 184TC
F11 LEESON frame size is 184JM
F12 LEESON frame size is 215T
F13 LEESON frame size is 286T
F14 LEESON frame size is 326T
F15 LEESON frame size is 364T
F16 LEESON frame size is 365T
F17 LEESON frame size is 405T
F18 LEESON frame size is 444T
F19 LEESON frame size is 445T
F20 LEESON frame size is 447T
F21 LEESON frame size is D63D
F22 LEESON frame size is 143T
F23 LEESON frame size is 404T
F24 LEESON frame size is 213TC
F25 LEESON frame size is 449T
F26 LEESON frame size is 256JM
F27 LEESON frame size is 284JM
F28 LEESON frame size is 286JM
F29 LEESON frame size is 56HC

LEESON Product Horsepower Exceptions

H01 LEESON motor is rated 1/2 HP
H02 LEESON motor is rated 1 HP
H03 LEESON motor is rated 1/3 HP
H04 LEESON motor is rated 1/4 HP
H05 LEESON motor is rated 4.0 KW/5.5 HP
H06 LEESON motor is rated 1/6 HP
H07 LEESON motor is rated 3/4 HP

LEESON Product Kit Exceptions

K01 Install AC metric (63 frame) B5 flange kit 175850 (Extra cost)
K02 Install AC metric (71 frame) B5 flange kit 175852 (Extra cost)
K03 Install AC metric (80 frame) B5 flange kit 175854 (Extra cost)
K04 Install AC metric (90 frame) B5 flange kit 175856 (Extra cost)
K05 Install AC metric (100 frame) B5 flange kit 175984 (Extra cost)
K06 Install AC metric (112 frame) B5 flange kit 175986 (Extra cost)
K07 Install AC metric (132 frame) B5 flange kit 175988 (Extra cost)
K08 Install AC metric (160 frame) B5 flange kit 175890 (Extra cost)
K09 Install AC metric (180 frame) B5 flange kit 175890 (Extra cost)
K10 Install AC metric (63 frame) B14 flange kit 175851 (Extra cost)
K11 Install AC metric (71 frame) B14 flange kit 175863 (Extra cost)
K12 Install AC metric (80 frame) B14 flange kit 175855 (Extra cost)
K13 Install AC metric (90 frame) B14 flange kit 175857 (Extra cost)
K14 Install AC metric (100 frame) B14 flange kit 175985 (Extra cost)
K15 Install AC metric (112 frame) B14 flange kit 175987 (Extra cost)
K16 Install AC metric (132 frame) B14 flange kit 175989 (Extra cost)
K17 Install AC metric (160 frame) B14 flange kit 175991 (Extra cost)
K18 Install DC metric (71 frame) B5 flange kit 175106 (Extra cost)
K19 Install DC metric (80 frame) B5 flange kit 175108 (Extra cost)
K20 Install DC metric (90 frame) B5 flange kit 175108 (Extra cost)
K21 Install DC metric (100 frame) B5 flange kit 175137 (Extra cost)
K22 Install DC metric (71 frame) B14 flange kit 175107 (Extra cost)
K23 Install DC metric (80 frame) B14 flange kit 175109 (Extra cost)
K24 Install DC metric (90 frame) B14 flange kit 175129 (Extra cost)
K25 Install DC metric (100 frame) B14 flange kit 175130 (Extra cost)
K26 Install NEMA steel frame C Face kit 175661 (Extra cost)
K27 Install NEMA steel frame C Face kit 175294 (Extra cost)
K28 Install NEMA steel frame C Face kit 175297 (Extra cost)
K29 Install NEMA steel frame C Face kit 175075 (Extra cost)
K30 Install NEMA steel frame C Face kit 175076 (Extra cost)
K31 Install NEMA steel frame C Face kit 175078 (Extra cost)
K32 Install NEMA steel frame C Face kit 175181 (Extra cost)
K33 Install NEMA steel frame C Face kit 175077 (Extra cost)
K34 Install NEMA steel frame C Face kit 175969 (Extra cost)
K35 Install NEMA steel frame C Face kit 175691 (Extra cost)
K36 Install NEMA steel frame C Face kit 175303 (Extra cost)
K37 Install NEMA steel frame C Face kit 175007 (Extra cost)
K38 Install NEMA steel frame C Face kit 175693 (Extra cost)
K39 Install NEMA steel frame C Face kit 175008 (Extra cost)
K40 Install NEMA steel frame C Face kit 175845 (Extra cost)
K41 Install NEMA steel frame C Face kit 175844 (Extra cost)
K42 Install NEMA steel frame C Face kit 175304 (Extra cost)
K43 Install NEMA cast iron C Face kit 175655 (Extra cost)
K44 Install NEMA cast iron C Face kit 175066 (Extra cost)
K45 Install NEMA cast iron C Face kit 175068 (Extra cost)
K46 Install NEMA cast iron C Face kit 175067 (Extra cost)
K47 Install NEMA cast iron C Face kit 175069 (Extra cost)
K48 Install NEMA cast iron C Face kit 175191 (Extra cost)
K49 Install NEMA cast iron C Face kit 175058 (Extra cost)
K50 Install NEMA cast iron C Face kit 175061 (Extra cost)
K51 Install NEMA cast iron C Face kit 175059 (Extra cost)
K52 Install NEMA cast iron C Face kit 175062 (Extra cost)
K53 Install NEMA cast iron C Face kit 175060 (Extra cost)
K54 Install NEMA cast iron C Face kit 175063 (Extra cost)
K55 Install NEMA cast iron C Face kit 175199 (Extra cost)
K56 Install NEMA cast iron C Face kit 175664 (Extra cost)
K57 Install Chemical Service/Severe Duty (182/184T) kit 175663 (Extra cost)
K58 Install Chemical Service/Severe Duty (213/215T) kit 175050 (Extra cost)
K59 Install Chemical Service/Severe Duty (254/256T) kit 175051 (Extra cost)
K60 Install Chemical Service/Severe Duty (284/286T) kit 175052 (Extra cost)
K61 Install Chemical Service/Severe Duty (324/326T) kit 175053 (Extra cost)
K62 Install Chemical Service/Severe Duty (364/365T) kit 175054 (Extra cost)
K63 Install Chemical Service/Severe Duty (404/405T) kit 175055 (Extra cost)
K64 Install Chemical Service/Severe Duty (444/445T) kit 175056 (Extra cost)
K65 Install NEMA D Flange (182/184T) kit 175694 (Extra cost)
K66 Install NEMA D Flange (182/184T) kit 175658 (Extra cost)
K67 Install NEMA D Flange (213/215T) kit 175114 (Extra cost)
K68 Install NEMA D Flange (213/215T) kit 175115 (Extra cost)
K69 Install NEMA D Flange (254/256T) kit 175116 (Extra cost)
K70 Install NEMA D Flange (364/365T) kit 175995 (Extra cost)
K71 Install NEMA D Flange (254/256T) kit 175192 (Extra cost)
K72 Install NEMA D Flange (284/286T) kit 175118 (Extra cost)
K73 Install NEMA D Flange (284/286T) kit 175119 (Extra cost)
K74 Install NEMA D Flange (324/326T) kit 175120 (Extra cost)
K75 Install NEMA D Flange (324/326T) kit 175121 (Extra cost)
K76 Install NEMA D Flange (364/365T) kit 175657 (Extra cost)
K77 Install Textile "Lint-Proof" kit 175024 (Extra cost)
K78 Install Textile "Lint-Proof" kit 175025 (Extra cost)
K79 Install Textile "Lint-Proof" kit 175695 (Extra cost)
K80 Install Drip-Cover (213/215JP) kit 175305 (Extra cost)
K82 Install Drip-Cover (56) kit 175004 (Extra cost)
K83 Install Drip-Cover (143/145T) kit 175004 (Extra cost)
K84 Install Drip-Cover (182/184T) kit 175614 (Extra cost)
K85 Install Drip-Cover (213/215T) kit 175849 (Extra cost)
K86 Install conduit box kit M1760007 (Extra cost)
K87 Install conduit box kit M1760021 (Extra cost)
K88 Install NEMA Wattsaver cast iron C face kit 175869 (Extra cost)
K89 Install Drip-Cover (56) kit 175298 (Extra cost)
K90 Install NEMA Wattsaver cast iron C face kit 175842 (Extra cost)
K91 Install Brake kit 175178 (Extra cost)
K92 Install AC Metric (200 frame) B5 flange 175994 (Extra cost)
K93 Install AC Metric (200 frame) B5 flange 175995 (Extra cost)
K94 Install NEMA Cast Iron C-Face kit 175842 (Extra cost)
K95 Install NEMA Cast Iron C-Face kit 175958 (Extra cost)
K96 Install NEMA Cast Iron C-Face kit 175454 (Extra cost)
K97 Install NEMA Cast Iron C-Face kit 175394 (Extra cost)
K98 Install NEMA D Flange (324/326T) kit 175455 (Extra cost)
K99 Install NEMA D Flange (404/405T) kit 175956 (Extra cost)
K100 Install NEMA D Flange (404/405T) kit 175957 (Extra cost)
K101 Install NEMA D Flange (213/215T) Wattsaver kit 175959 (Extra cost)
K102 Install NEMA D Flange (182/184T) Wattsaver kit 175396 (Extra cost)
K103 Install Drip-Cover (182/184T) Cast Iron kit 175961 (Extra cost)
K104 Install Drip-Cover (213/215TT) Cast Iron kit 175962 (Extra cost)
K105 Install Drip-Cover (254/256T) Cast Iron kit 175963 (Extra cost)
K106 Install Chemical Service/Severe Duty (447/449T) kit 175891 (Extra cost)

LEESON Product Protector Exceptions

P01 LEESON motor has automatic reset protector
P02 LEESON motor has manual reset protector
P03 LEESON motor has no thermal overload protector

LEESON Product Shaft Exceptions

S01 LEESON motor has a 182-4T shaft extension
S02 LEESON motor has a 213-5T shaft extension
S03 LEESON motor has a 254-6T shaft extension
S04 LEESON motor shaft is 1 inch longer
S05 LEESON motor has shaft that is a TS not T
S06 LEESON motor has phosphatized shaft
S07 LEESON has .625 inch diameter shaft
S08 LEESON has single output shaft
S09 LEESON shaft center-line height from base is 1.48 inches
S10 LEESON shaft on left side facing the gearbox
S11 LEESON shaft center-line height from the base is 1.67 inches
S12 LEESON motor has 1 1/8" shaft
S13 LEESON motor has 416 stainless shaft
S14 LEESON shaft dimensions not "drop in" replacement

LEESON Product Thermostat Exceptions

T01 LEESON motor has no thermostats
T02 LEESON motor has normally closed thermostats

BALDOR TO LEESON CROSS REFERENCE

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
AFL3520A	111332.00	
AFL3521A	111333.00	
AFL3522A	120374.00	
AFL3523A	120375.00	
AFL3524A	120376.00	
AFL3525A	111949.00	
AFM3528	111334.00	
AFM3529	111335.00	
AFM3530	120377.00	
AFM3532	120379.00	
ANFL3501M	101435.00	
ANFL3504M	101436.00	
ANFL3507M	101437.00	
ANFL3510M	113302.00	
ANFL3514M	113301.00	
B143T	175034.00	
B145T	175035.00	
B182T	175036.00	
B184T	175037.00	
B213T	175038.00	
B215T	175039.00	
B254T	175040.00	
B256T	175041.00	
B284T	175042.00	
B286T	175043.00	
B324T	175044.00	
B326T	175045.00	
B364T	175046.00	
B365T	175047.00	
B404T	175048.00	
B405T	175049.00	
B444T	175088.00	
B445T	175089.00	
B447T	175090.00	
B449T	175032.00	
B48T	175032.00	
B56T	175033.00	
BL3507	114167.00	F04
BL3510	111951.00	F04
BL3517	114165.00	F04
BL3518	111950.00	F04
BM3108	114162.00	
BM3112	114163.00	
BM3116	114164.00	
BM3154T	G120370.00	
BM3157T	G120371.00	
BM3211T	G131626.00	
BM3218T	G131627.00	
BM3248T	G131627.00	
BM3311T	G140611.00	
BM3313T	G140635.00	
BM3538	114150.00	
BM3539	114149.00	
BM3542	114147.00	
BM3543	114148.00	
BM3546	114146.00	
BM3546T	G121679.00	
BM3554	116767.00	
BM3554T	G120329.00	
BM3556T	G121050.00	
BM3558T	G120330.00	
BM3569	114151.00	
BM3611T	G131613.00	
BM3614T	G131620.00	
BM3635T	G131614.00	
BM3704T	G140601.00	
BM3710T	G140603.00	
BM3734T	G140636.00	
CBM3546T	G121557.00	
CBM3554T	G121051.00	
CBM3558T	G121052.00	
CBM3611T	G131617.00	
CBM3615T	G131618.00	
CBM3710T	G140605.00	
CBM3714T	G140639.00	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
CDP3306	098003.00	E02
CDP3310	098002.00	E02
CDP3316	098005.00	E02
CDP3320	098004.00	E02
CDP3326	098008.00	E02
CDP3330	098000.00	E02
CDP3335	098006.00	E02
CDP3410-V12	108045.00	
CDP3420-V12	108046.00	
CDP3420-V24	108050.00	
CDP3430-V12	108047.00	
CDP3430-V24	108051.00	
CDP3436	098069.00	
CDP3440	098032.00	
CDP3440-V12	108048.00	
CDP3440-V24	108052.00	
CDP3443	098009.00	
CDP3445	108022.00	
CDP3445-V12	108322.00	
CDP3445-V24	108053.00	
CDP3450	108020.00	
CDP3455	108023.00	
CDP3460	108021.00	
CDP3575	128000.00	
CDP3580	108265.00	F04
CDP3585	128010.00	
CDP3590	108266.00	
CDP3604	108502.00	
CDPSWD3410	109065.00	
CDPSWD3426	109070.00	
CDPSWD3430	109069.00	
CDPSWD3545	109075.00	
CDPSWD3555	109076.00	
CDPWD3306	098375.00	
CDPWD3310	108423.00	
CDPWD3316	098376.00	
CDPWD3320	108424.00	
CDPWD3326	108227.00	
CDPWD3330	108226.00	
CDPWD3436	108229.00	E01
CDPWD3440	108228.00	E01
CDPWD3445	108230.00	
CDPWD3455	108231.00	
CDPWD3575	108232.00	
CDPX3420	118015.00	
CDPX3426	118017.00	
CDPX3430	118016.00	
CDPX3436	118019.00	
CDPX3440	118018.00	
CEM2333T	171587.60	
CEM2334T	171589.60	
CEM2394T	171586.60	
CEM3581T	121179.00	C01
CEM3583T	121672.00	C01
CEM3586T	121673.00	C01
CEM3587T	121181.00	C01
CEM3660T	132079.00	C01
CEM3661T	131504.00	C01
CEM3663T	132080.00	C01
CEM3665T	131502.00	C01
CEM3769T	140770.00	C01
CEM3770T	140521.00	C01
CEM3771T	140769.00	C01
CEM3774T	140522.00	C01
CEM4103T	171591.60	
CEM4104T	171592.60	
CEM4106T	171588.60	
CEM4107T	171590.60	
CEM4110T	171593.60	
CEM4115T	171594.60	
CEM4314T	171595.60	
CEM4316T	171596.60	
CEM4400T	171597.60	
CEWDBM3538	116467.00	C08
CEWDBM3542	116468.00	C08

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
CEWDBM3546	116469.00	C08
CEWDBM3546T	121616.00	C08
CEWDBM3554T	G121617.00	C08,E02
CEWDBM3558T	G121618.00	C08
CFDL3501M	116485.00	
CFDL3504M	116486.00	
CFDL3507M	116487.00	
CFDL3510M	116488.00	F04
CFDL3514M	116489.00	C39
CFDL3516TM	121625.00	
CFM3136A	116772.00	S14
CFM3146A	116773.00	S14
CFM3156A	111147.00	
CFM3166A	111148.00	
CHC144A	100803.00	
CHC164A	100824.00	
CHC244A	100804.00	
CHC264A	100825.00	
CHC3413A	100803.00	
CHC3414A	100824.00	
CHC3416A	100804.00	
CHC3417A	100825.00	
CHC345A	111323.00	
CHC3524A	111323.00	
CHC3525A	111321.00	
CHC3526A	111919.00	
CHC3528A	111322.00	
CHC364A	101645.00	
CHC365A	111321.00	
CHC445A	111324.00	
CHC465A	111266.00	
CHC545A	111267.00	
CHL3523A	101176.00	B31
CJM3107	102199.00	
CJM3111	101776.00	
CJM3115	101775.00	
CJM3120	114203.00	
CJM3155	114202.00	
CJM3158	114201.00	
CL1301	103023.00	
CL1303	103024.00	
CL1304	101651.00	
CL1307	101650.00	
CL1310	113930.00	
CL1408TM	131629.00	
CL1410TM	131630.00	
CL1430TM	131630.00	
CL3501	102930.00	
CL3503	102903.00	
CL3504	102907.00	
CL3506	112135.00	
CL3507	110905.00	
CL3509	110180.00	
CL3510	110908.00	
CL3513	110909.00	
CL3514	110910.00	
CL3515	113931.00	
CL3515T	121008.00	
CL3516TM	121465.00	C25
CL3608TM	131632.00	C39
CL3612TM	131633.00	
CL3619TM	131857.00	C25,C39
CL3711T	140695.00	
CL3712T	140678.00	C48
CL5001A	116606.00	
CL5003A	116608.00	F29
CL5004A	116609.00	F29
CL5007A	116612.00	F29
CL5009A	116613.00	F29
CL5013	116615.00	B22
CL5023A	116614.00	F29
CL5030T	116615.00	F29
CL5031T	116616.00	F29
CM2333T	G150102.60	
CM2333T-5	150116.60	K48

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
CM2334T	G150080.60	
CM2334T-5	150117.60	K48
CM2513T	G150175.60	C02
CM2514T	G150070.60	C02
CM2515T	G150071.60	C02
CM2516T	G151688.60	C02
CM2531T	G150073.60	C02
CM2535T	G151377.60	C02
CM2539T	G151378.60	C02
CM2543T	G151379.60	C02
CM2547T	G151689.60	C02
CM2551T	G151690.60	C02
CM2555T	G151691.60	C02
CM3104	100599.00	
CM3107	100600.00	
CM3108	100601.00	
CM3112	100602.00	
CM3116T	G121650.00	
CM3154T	G121651.00	
CM3155	114218.00	
CM3157T	G120275.00	
CM3158T	G121072.00	C25
CM3211T	G130325.00	
CM3212T	G131249.00	
CM3218T	G130327.00	
CM3219T	G131250.00	
CM3311T	G140589.00	
CM3312T	G140692.00	
CM3313T	G140146.00	
CM3314T	G140693.00	
CM3534	102922.00	
CM3534-5	101051.00	H01,K28
CM3537	114142.00	
CM3538	102917.00	
CM3538-5	101051.00	K28
CM3539	110914.00	
CM3541	110915.00	
CM3542	110916.00	
CM3542-5	110178.00	K30
CM3543	116340.00	
CM3545	110181.00	
CM3546	110912.00	
CM3546-5	110206.00	K30
CM3546T	G121286.00	F07
CM3546T-5	120122.00	K33
CM3550	110917.00	
CM3550T	G121290.00	
CM3554	110918.00	
CM3554-5	110893.00	K30
CM3554T	G121287.00	
CM3554T-5	120021.00	K33
CM3555	113927.00	
CM3555T	G121510.00	
CM3556T	G120428.00	
CM3557	114198.00	
CM3558	116106.00	F29
CM3558T	G120276.00	
CM3558T-5	120019.00	K33
CM3559	114615.00	F29
CM3559T	G120991.00	
CM3559T-5	120423.00	K33
CM3610T	G131899.00	
CM3611T	G130326.00	
CM3611T-5	131460.00	K35
CM3613T	G131173.00	C02
CM3613T-5	131552.00	K35
CM3614T	G131497.00	
CM3615T	G130328.00	
CM3615T-5	131461.00	K35
CM3616T	G130990.00	
CM3660T	G151564.60	
CM3661T	G151565.60	
CM3663T	G151446.60	
CM3665T	G151566.60	
CM3704T	G140602.00	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
CM3708T	G140482.00	
CM3709T	G131774.00	
CM3710T	G140183.00	
CM3710T-5	140593.00	K41
CM3711T	G140696.00	
CM3711T-5	150197.60	C02,K45
CM3713T	G140697.00	
CM3713T-5	150198.60	C02,K45
CM3714T	G140147.00	
CM3714T-5	150212.60	C02,K45
CM3769T	G150166.60	
CM3770T	G150165.60	
CM3771T	G150168.60	
CM3773T	G150103.60	
CM3774T	G150167.60	
CM4103T	G150081.60	
CM4104T	G150082.60	
CM4106T	G150079.60	
CM4107T	G150106.60	
CM4108T	G150108.60	
CM4109T	G150110.60	
CM4110T	G150083.60	
CM4114T	G150112.60	
CM4115T	G150084.60	
CM4310T	G150114.60	
CM4313T	G150115.60	
CM4314T	G150085.60	
CM4316T	G150086.60	
CM4400T	G151680.60	
CM7005A	114627.00	
CM7006A	114628.00	
CM7009A	114629.00	
CM7010A	114630.00	
CM7013	114631.00	
CM7014	114632.00	
CM7014T	G121541.00	
CM7018T	114633.00	F04
CM7034	114634.00	F29
CM7037T	G121182.00	
CM7042T	G850617.00	C02
CM7044T	G850618.00	C02
CM7045T	G850589.00	C02
CM7047T	G850619.00	C02
CM7053T	G850591.00	
CM7054T	G850621.00	
CM7056T	G850622.00	
CM7058T	G850623.00	
CM7059T	G850592.00	
CM7060T	G850624.00	
CM7062T	G850625.00	
CM7063T	G850593.00	
CM7064T	G850626.00	
CM7071T	114635.00	F29
CM7072T	G850588.00	C02
CM7075T	114636.00	F29
CM7170T	G850620.00	
CM7174T	G850590.00	
CSSWDM3537	116165.00	F29
CSSWDM3538	115633.00	F29
CSSWDM3541	116167.00	F29
CSSWDM3542	115634.00	F29
CSSWDM3545	116169.00	F29
CSSWDM3546	115635.00	F29
CSSWDM3550	G121524.00	E02,F07
CSSWDM3554	116450.00	F29
CSSWDM3554T	G121420.00	
CSSWDM3555T	G121526.00	
CSSWDM3558	116451.00	F29
CSSWDM3558T	G121421.00	
CSSWDM3559T	G121528.00	
CSSWDM3611T	G131900.00	
CSSWDM3613T	G131901.00	
CSSWDM3615T	G131902.00	
CSSWDM3709T	G140698.00	
CSSWDM3710T	G140675.00	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
CSSWDM3711T	G140699.00	
CSSWDM3714T	G140676.00	
CSWDM3538	191204.00	
CSWDM3542	191207.00	
CSWDM3546	191291.00	
CSWDM3546T	G191212.00	E01
CSWDM3554	191217.00	E01,F29
CSWDM3554T	G191218.00	E01
CSWDM3558	191223.00	F29
CSWDM3558T	G191224.00	
CWDL3504	112527.00	C55
CWDL3507	112528.00	C55
CWDL3509	113583.00	C55
CWDL3510	112529.00	C55
CWDL3513	113584.00	C55
CWDL3514	113300.00	C55,F29
CWDM3537	113588.00	
CWDM3538	113586.00	
CWDM3538-5	112483.00	E02
CWDM3539	115743.00	
CWDM3541	113589.00	
CWDM3542	113587.00	
CWDM3542-5	112484.00	E02
CWDM3543	115744.00	F29
CWDM3545	113590.00	
CWDM3546	112524.00	E02
CWDM3546-5	112522.00	E02
CWDM3546T	G120587.00	E02
CWDM3550	113591.00	E01
CWDM3554	112643.00	E02
CWDM3554T	G121540.00	E02
CWDM3555	113592.00	E01
CWDM3555T	121039.00	E01
CWDM3556	115745.00	F29
CWDM3557	115746.00	F29
CWDM3558	112644.00	
CWDM3558T	G120588.00	
CWDM3559T	G120911.00	
CWDM3611T	G130664.00	
CWDM3613T	G131167.00	
CWDM3615T	G131171.00	
CWDM3616T	G132016.00	
CWDM3709T	G131165.00	
CWDM3710T	G140466.00	
CWDM3711T	G140700.00	
CWDM3713T	G140701.00	
CWDM3714T	G140464.00	
DGC1301M	191742.00	
DGC1304M	100802.00	
DGC1307M	113642.00	
ECP2276T-4	170122.60	C47,C53,K59
ECP2332T-4	170123.60	C47,C53,K59
ECP2333T-4	170066.60	C47,C53,K59
ECP2334T-4	170007.60	C47,C53,K59
ECP2394T-4	170062.60	C47,C53,K59
ECP3661T-4	171320.00	C47,C53,K57
ECP3665T-4	171322.00	C47,C53,K57
ECP3764T-4	171378.60	C47,C53,K58
ECP3768T-4	171379.60	C47,C53,K58
ECP3769T-4	170158.60	C47,C53,K58
ECP3770T-4	170157.60	C47,C53,K58
ECP3771T-4	170159.60	C47,C53,K58
ECP3774T-4	170140.60	C47,C53,K58
ECP4100T-4	170068.60	C47,C53,K60
ECP4102T-4	170001.60	C47,C53,K60
ECP4103T-4	170011.60	C47,C53,K60
ECP4104T-4	170015.60	C47,C53,K60
ECP4106T-4	170033.60	C47,C53,K59
ECP4107T-4	170035.60	C47,C53,K60
ECP4108T-4	170037.60	C47,C53,K60
ECP4109T-4	170039.60	C47,C53,K61
ECP4110T-4	170019.60	C47,C53,K61
ECP4111T-4	170003.60	C47,C53,K61
ECP4114T-4	170041.60	C47,C53,K61
ECP4115T-4	170023.60	C47,C53,K61

BALDOR-TO-LEESON CROSS REFERENCE

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
ECP4117T-4	170005.60	C47,C53,K62
ECP4308T-4	170096.60	C47,C53,K62
ECP4310T-4	170043.60	C47,C53,K62
ECP4312T-4	170097.60	C47,C53,K62
ECP4313T-4	170045.60	C47,C53,K62
ECP4314T-4	170027.60	C47,C53,K62
ECP4316T-4	170031.60	C47,C53,K62
ECP4400T-4	170087.60	C47,C53,K63
ECP4402T-4	170160.60	C47,C53,K63
ECP4403T-4	170098.60	C47,C53,K63
ECP4404T-4	170099.60	C47,C53,K63
ECP4406T-4	170371.60	C47,C53,K64
ECP4407T-4	170352.60	K64
ECP4408T-4	151516.60	C08,C53
ECP4409T-4	170256.60	C53,K64
ECP4410T-4	170369.60	C53,K64
ECP4411T-4	170260.60	C53,K64
ECP44156T-4	171315.60	C47,C53,K64
ECP44206T-4	171316.60	C47,C53,K106
EFM2333T	170066.60	C04
EFM2334T	170007.60	C04
EFM2513T	170065.60	C04
EFM2515T	170006.60	C04
EFM2531T	170009.60	C04
EFM2535T	170013.60	C04
EFM2539T	170017.60	C04
EFM2543T	170021.60	C04
EFM2547T	170025.60	C04
EFM3211T	G131240.00	
EFM3218T	G131239.00	
EFM3311T	G140609.00	
EFM3313T	170144.60	C04
EFM4103T	170011.60	C04
EFM4104T	170015.60	C04
EL1203	101423.00	C08,C25
EL1301	113765.00	E02
EL1304	113766.00	E02
EL1307	101544.00	
EL1310	113630.00	
EL1319	113769.00	E02
EL1319T	120042.00	C08
EL1405T	131515.00	C08
EL1408T	131851.00	
EL1410T	131537.00	C08
EL3501	113765.00	C25,P02
EL3504	113766.00	C25,P02
EL3507	113767.00	C25,P02
EL3510	113768.00	C25,F03,P02
EL3514	113769.00	C25,P02
EL3514T	113769.00	C05,F05,P02
EL3605T	131541.00	C08,F08
EL3609T	131533.00	C08
EL3612T	131538.00	C08
EM2276T	170122.60	
EM2332T	170123.60	
EM2333T	170066.60	
EM2334T	170007.60	
EM2394T	170062.60	
EM2506T	170145.60	C02
EM2511T	170146.60	C02
EM2513T	170065.60	C02
EM2514T	170032.60	C02
EM2515T	170006.60	C02
EM2516T	170034.60	C02
EM2524T	170067.60	C02
EM2528T	170000.60	C02
EM2531T	170009.60	C02
EM2532T	170002.60	C02
EM2534T	170036.60	C02
EM2535T	170013.60	C02
EM2536T	170004.60	C02
EM2538T	170038.60	C02
EM2539T	170017.60	C02
EM2540T	170147.60	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
EM2542T	170040.60	C02
EM2543T	170021.60	C02
EM2544T	170148.60	
EM2546T	170042.60	C02
EM2547T	170025.60	C02
EM2549T	170044.60	C02
EM2550T	170151.60	C02
EM2551T	170029.60	C02
EM2554T-4	170154.60	C02,C47
EM2555T-4	170152.60	C02,C47
EM2556T-4	171449.60	C02
EM2557T-4	170259.60	
EM2558T-4	171522.60	
EM2559T-4	170155.60	C02,C47
EM2560T-4	171576.60	
EM2562T-4	171573.60	
EM2563T-4	171523.60	
EM2564T-4	171577.60	
EM2569T-4	151525.60	C08
EM2583T-4	170255.60	
EM3115	116128.00	
EM3116T	121003.00	
EM3120T	121514.00	
EM3154T	121004.00	
EM3155T	121515.00	F06
EM3156T	121517.00	
EM3157T	121005.00	
EM3158T	121516.00	
EM3207T	131971.00	
EM3211T	131519.00	
EM3212T	131986.00	F09
EM3215T	131972.00	
EM3218T	131520.00	
EM3219T	131988.00	
EM3305T	171574.60	C02
EM3309T	171575.60	C02
EM3311T	140470.00	
EM3312T	140753.00	
EM3313T	140472.00	
EM3314T	140754.00	
EM3545	116129.00	
EM3546	116757.00	
EM3546T	120921.00	
EM3546T-5	120122.00	
EM3550	116758.00	
EM3550T	121518.00	
EM3554	116759.00	
EM3554T	120922.00	
EM3555	116760.00	
EM3555T	121519.00	
EM3556	121520.00	F06
EM3558	116761.00	F05
EM3558T	120923.00	
EM3581T	120921.00	C01
EM3582T	121520.00	C01
EM3583T	121518.00	C01
EM3584T	120922.00	C01
EM3586T	121519.00	C01
EM3587T	120923.00	C01
EM3610T	131985.00	
EM3611T	131463.00	
EM3613T	131987.00	
EM3615T	131464.00	
EM3660T	131985.00	C01
EM3661T	171320.00	
EM3663T	131987.00	C01
EM3664T	131981.00	C01
EM3665T	171322.60	
EM3667T	131980.00	C01
EM3704T	171378.60	C02
EM3708T	171379.60	C02
EM3709T	140756.00	
EM3710T	140450.00	
EM3711T	140755.00	
EM3714T	140451.00	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
EM3764T	171378.60	
EM3768T	171379.60	
EM3769T	170158.60	
EM3770T	170157.60	
EM3771T	170159.60	
EM3774T	170140.60	
EM4100T	170068.60	
EM4102T	170001.60	
EM4103T	170011.60	
EM4104T	170015.60	
EM4106T	170033.60	
EM4107T	170035.60	
EM4108T	170037.60	
EM4109T	170039.60	
EM4110T	170019.60	
EM4111T	170003.60	
EM4114T	170041.60	
EM4115T	170023.60	
EM4117T	170005.60	
EM4308T	170096.60	
EM4310T	170043.60	
EM4312T	170097.60	
EM4313T	170045.60	
EM4314T	170027.60	
EM4316T	170031.60	
EM4403T	170098.60	
EM4404T	170099.60	
FDL3501M	113256.00	
FDL3504M	110086.00	
FDL3507M	110087.00	
FDL3510M	110088.00	F03
FDL3510TM	121569.00	
FDL3514M	110089.00	C39
FDL3514TM	113938.00	C39
FDL3516TM	110090.00	
FDL3610M	131542.00	F09
FDL3610TM	131542.00	
FDL3611M	110090.00	B22
FDL3611TM	131541.00	
FDL3612TM	131543.00	
FDL3619TM	131542.00	
FDL3712TM	140414.00	
FDL3731M	131543.00	B23
FDL3732M	140707.00	F12
FDL3733TM	140707.00	
FDL3737TM	140706.00	
FM2513T	G150065.60	C04
FM2515T	G150006.60	C04
FM2531T	G150009.60	C04
FM2535T	G150013.60	C04
FM2539T	G150017.60	C04
FM2543T	G150021.60	C04
FM3211T	G131240.00	
FM3218T	G131239.00	
FM3311T	G140609.00	
FM3313T	G150144.60	C04
FM3611T	G131237.00	
FM3615T	G131236.00	
FM3710T	G140604.00	
FM3714T	G150140.60	C04
GC24302	M1125084.00	B36,C32,S08
GC24306	M1125083.00	B36,C32,S08
GC24310	M1125081.00	B36,C32,S08
GC25010	M1145039.00	B36,S08,S11
GC25015	M1145082.00	B36,S08,S11
GC25020	M1145038.00	B36,S08,S11
GCP24004	M1145029.00	C32,E02
GCP24114	M1125127.00	E02
GCP24122	M1125128.00	E02
GCP24124	M1125129.00	E02
GCP24134	M1125130.00	E02
GCP25052	M1145032.00	C32,E02
GCP25054	M1145033.00	C32,E02
GCP25056	M1145034.00	C32,E02
GCP25060	M1145035.00	C32,E02

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
GCP3305	096007.00	C32,E02
GLP3330	096049.00	
GLP3332	096050.00	
GLP3336	096051.00	
GLP3338	096052.00	
GMP3330	096013.00	
GMP3332	096014.00	
GMP3336	096015.00	
GMP3338	096016.00	
GP233003	M1115019.00	B36,S08
GP233007	M1115020.00	B36,S08
GP7402	M1135038.00	B36,S08,S11
GP7403	M1135069.00	B36,S08,S11
GP7405	M1135042.00	B36,S08,S11
GP7407	M1135043.00	B36,S08,S11
GP7425	M1135062.00	B36,S08,S11
GP7427	M1135063.00	B36,S08,S11
GPP12503	M1125004.00	
GPP12545	M1125072.00	
GPP12547	M1125070.00	
GPP231108	M1115001.00	
GPP231109	M1115002.00	
GPP232110	M1115000.00	
GPP233111	M1115028.00	
GPP233112	M1115027.00	
GPP233120	M1125048.00	
GPP233121	M1125036.00	
GPP233140	M1115026.00	B36
GPP7451	M1135116.00	
GPP7452	M1135112.00	
GPP7453	M1135111.00	
GPP7454	M1135114.00	
GPP7455	M1135110.00	
GPP7456	M1135108.00	
GPP7457	M1135117.00	
GPP7458	M1135107.00	
GPP7459	M1135106.00	
GPP7460	M1135109.00	
GPP7461	M1135115.00	
GPP7470	M1135150.00	
GPP7471	M1135149.00	
GPP7472	M1135148.00	
GPP7473	M1135147.00	
GPP7474	M1135146.00	
GPP7475	M1135145.00	
GPP7476	M1135143.00	
GPP7477	M1135141.00	
GPP7478	M1135140.00	
GPP7479	M1135139.00	
GSL3509M	111330.00	
HM3108	100029.00	C25
HM3112	100030.00	
HM3116	115827.00	
HM3154	115825.00	
HM3154A	111309.00	F03
HM3157	115826.00	
HM3161A	116595.00	P03
HM3218TA	G130565.00	
IDGM2500	M1145131.00	B36
IDGM2501	M1145130.00	B36
IDGM2503	M1145129.00	B36
IDGM2506	M1145128.00	B36
IDGM2508	M1145127.00	B36
IDGMP2500	096070.00	
IDGMP2501	096069.00	
IDGMP2503	096068.00	
IDGMP2505	096067.00	
IDM2333T	810066.00	E01
IDM2334T	810007.00	E01
IDM3581T	810548.00	E01
IDM3584T	810547.00	E01,F07
IDM3587T	810546.00	E01
IDM3661T	811320.00	E01
IDM3665T	811322.00	E01
IDM3770T	810157.00	E01

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
IDM3774T	810140.00	E01
IDM4100T	810068.00	
IDM4102T	810001.00	
IDM4103T	810011.00	
IDM4104T	810015.00	
IDM4110T	810019.00	
IDM4111T	810003.00	
IDM4115T	810023.00	
IDM4117T	810005.00	
IDM4308T	810096.00	
IDM4312T	810097.00	
IDM4314T	810027.00	
IDM4316T	810031.00	
IDM4400T-4	810087.00	
IDM4403T	810098.00	
IDM4404T	810099.00	
IDM4406T-4	811371.00	
IDM4407T-4	810503.00	
IDM4409T-4	811367.00	
IDM4410T-4	811369.00	
IDNM2333T	810066.00	
IDNM3581T	810548.00	
IDNM3584T	810547.00	F07
IDNM3587T	810546.00	
IDNM3661T	811320.00	
IDNM3665T	811322.00	
IDNM3770T	810157.00	E01
IM3540A	111304.00	
IR3507M	114932.00	
IR3510M	114933.00	C25
JL1303A	100207.00	
JL1306A	100208.00	
JL1309A	100723.00	
JL1313A	110292.00	
JL1317A	110293.00	
JL1323A	110286.00	
JL225A	100207.00	H01
JL325A	100207.00	
JL3503A	113955.00	
JL3506A	113956.00	
JL3509A	113639.00	
JL3513A	113640.00	
JL3515A	113641.00	
JL425A	100208.00	
JL5003A	116188.00	
JL5006A	116186.00	
JL5009A	116185.00	
JL5030	116183.00	
JL5031	116181.00	
JL525A	100723.00	
JL625A	110292.00	
JL725A	110293.00	
JL825A	110286.00	
JM3006	102197.00	
JM3107	102198.00	
JM3111	101637.00	
JM3115	101638.00	
JM3120	113891.00	
JM3155	113892.00	
JM3158	113893.00	
JM3460	114931.00	
JM3463	114208.00	
JM3545	114207.00	
JM3550	114206.00	
JM3555	114205.00	
JM3559	114204.00	
JM7013	116184.00	
JM7018	116182.00	
JM7071	116180.00	
JML1406T	131640.00	
JML1408T	131604.00	
JML1409T	131641.00	
JML1508T	131605.00	F11
JML1509T	140642.00	
JML1510T	140665.00	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
JML1511T	140644.00	C25
JML1512T	140666.00	
JMM2333T	151568.60	
JMM2334T	151570.60	
JMM2394T	151567.60	
JMM2513T	151361.60	C02
JMM2514T	151381.60	C02
JMM2515T	151362.60	C02
JMM2516T	151382.60	C02
JMM2531T	801028.00	C02
JMM2534T	801040.00	C02
JMM2535T	801029.00	C02
JMM2538T	801041.00	C02
JMM2539T	801030.00	C02
JMM2542T	801042.00	C02
JMM3116T	121850.00	
JMM3154T	121851.00	
JMM3155T	121853.00	
JMM3157T	121852.00	
JMM3158T	121854.00	
JMM3211T	131562.00	
JMM3212T	131574.00	
JMM3218T	131563.00	
JMM3219T	131576.00	
JMM3311T	140618.00	
JMM3312T	131577.00	
JMM3313T	140619.00	
JMM3314T	151380.60	
JMM3546T	121855.00	
JMM3550T	121858.00	
JMM3554T	121856.00	
JMM3555T	121859.00	
JMM3558T	121857.00	
JMM3559T	121860.00	
JMM3611T	131579.00	
JMM3613T	131580.00	
JMM3615T	131581.00	
JMM3616T	131582.00	
JMM3709T	132027.00	
JMM3710T	140622.00	
JMM3711T	131583.00	
JMM3713T	140764.00	
JMM3714T	140623.00	
JMM4103T	151418.60	
JMM4104T	151422.60	
JMM4106T	151569.60	
JMM4107T	151417.60	
JMM4108T	151420.60	
JMM4109T	151424.60	
JMM4110T	151426.60	
JMWDM3546T	121579.00	E02
JMWDM3550T	121580.00	
JMWDM3554T	121581.00	E02
JMWDM3555T	121582.00	
JMWDM3558T	121583.00	
JMWDM3559T	121584.00	
JMWDM3611T	131967.00	
JMWDM3613T	131968.00	
JMWDM3615T	131969.00	
JMWDM3616T	131970.00	C39
JMWDM3710T	140733.00	
JMWDM3711T	140734.00	
JMWDM3713T	140736.00	C39
JMWDM3714T	140735.00	C39
JPL1409T	131881.00	
JPL1509T	140646.00	
JPL1511T	140647.00	C25
JPM2513T	801051.00	
JPM2514T	801056.00	
JPM2515T	801052.00	
JPM2516T	801057.00	
JPM2531T	801053.00	
JPM2534T	801058.00	C02
JPM2535T	801054.00	C02
JPM2538T	801059.00	C02

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

BALDOR-TO-LEESON CROSS REFERENCE

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
JPM2539T	801055.00	C02
JPM2542T	801060.00	C02
JPM3154T	121846.00	
JPM3157T	121847.00	
JPM3158T	121849.00	
JPM3211T	131882.00	
JPM3212T	131884.00	
JPM3218T	131883.00	
JPM3219T	131885.00	
JPM3311T	140667.00	
JPM3312T	140655.00	
JPM3313T	140668.00	
JPM3314T	140656.00	
JSL1303A	MST1052.00	
JSL1306A	MST1072.00	
JSL1309A	MST1102.00	
JSL1313A	MST1152.00	
JSL1317A	MST1202.00	
KBL3406	114165.00	
KBL3409	111950.00	
KBM3458	114158.00	
KL1203	100023.00	K89
KL1205	100354.00	K89
KL1205A	100355.00	K89
KL3403	102866.00	
KL3405	102870.00	
KM3003	103014.00	
KM3006	100375.00	
KM3454	101767.00	
KM3454-50	102184.00	
KM3457	110446.00	E01
KNM3454	101648.00	C25,C39
KNM3534	102863.00	
L1200	102012.00	E02
L1201	102013.00	E02
L1203	101423.00	P02
L1203M	101423.00	
L1204	102015.00	E02
L1205	100336.00	F02
L1206	100116.00	P01
L1206-50	110394.00	F03
L1206M	100588.00	F02
L1207	110001.00	F03
L1208	100184.00	
L1208-50	113901.00	F03
L1209	100338.00	
L1209-50	110395.00	F03
L1209M	100004.00	F02
L1300	114617.00	E02
L1301	100006.00	
L1301M	100588.00	
L1302	110001.00	
L1303	100337.00	
L1304	100007.00	
L1304-50	110395.00	
L1304A	100002.00	
L1304M	100004.00	
L1305	110002.00	F03
L1306	100340.00	
L1306-50	113902.00	
L1306A	100053.00	P02
L1307	100008.00	
L1307-50	110396.00	
L1307A	100003.00	
L1307M	100005.00	
L1308	110003.00	
L1309	110360.00	
L1309-50	113903.00	
L1309A	110097.00	P02
L1310	110004.00	
L1310M	110167.00	F03
L1313	113631.00	F03
L1313-50	113904.00	
L1313A	110110.00	F03,P02
L1313T	120107.00	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
L1317	110363.00	F03
L1317-50	113905.00	
L1317A	110362.00	P02,F03
L1318	110004.00	F03
L1318-50	110397.00	
L1318M	110167.00	C39,F03
L1318T	120044.00	
L1318TM	120003.00	C39
L1319	110005.00	
L1319-50	110398.00	
L1319M	110006.00	
L1319T	120004.00	
L1320T	120106.00	
L1321T	120001.00	P01
L1321TM	120004.00	
L1322T	120067.00	
L1322TM	120879.00	
L1401	120044.00	B22
L1401M	120003.00	B22
L1403	120001.00	B22
L1403M	120004.00	B22
L1405	131515.00	F08
L1405T	131515.00	
L1405T-50	131553.00	
L1406T	131636.00	
L1407	120043.00	B22,E02
L1408T	131534.00	
L1408T-50	131554.00	
L1408TM	131851.00	
L1409T	131616.00	
L1410T	131537.00	
L1410TM	131622.00	
L1430T	131537.00	
L1430TM	131622.00	
L1502	131515.00	B23
L1505	131534.00	B23
L1508T-50	131555.00	
L1509T	140680.00	
L1510T	140155.00	
L1511T	140681.00	
L1512T	140311.00	
L3351	092111.00	
L3353	092114.00	
L3355	092116.00	
L3356	092112.00	
L3400	102012.00	
L3401	102013.00	
L3403	102014.00	
L3403M	101446.00	
L3404	102015.00	
L3405	102016.00	
L3406	100955.00	
L3406M	102018.00	
L3407	102019.00	
L3408	102020.00	
L3409	100956.00	
L3409M	100956.00	P03
L3500	114617.00	
L3501	102931.00	
L3501-50	110423.00	C25
L3501M	102933.00	
L3502	110009.00	
L3503	102905.00	
L3503-50	113917.00	
L3504	102906.00	
L3504-50	110064.00	
L3504A	102908.00	
L3504M	102909.00	
L3505	110011.00	
L3506	110276.00	
L3506-50	113918.00	
L3507	110013.00	
L3507-50	110065.00	
L3507A	110017.00	
L3507M	110022.00	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
L3508	110400.00	
L3508T	110400.00	F05
L3509	110059.00	F03
L3509-50	113919.00	
L3509M	110142.00	F03
L3510	110209.00	F03
L3510-50	113911.00	F05
L3510A	110018.00	F03
L3510M	110023.00	F03
L3510T	120025.00	
L3510TM	120008.00	
L3513	110094.00	F03
L3513-50	113920.00	C25,F05
L3513M	110109.00	F03
L3513T	120130.00	
L3514	110253.00	
L3514-50	110424.00	F05
L3514A	110019.00	
L3514M	113333.00	
L3514T	120026.00	
L3514TM	120009.00	
L3515	110352.00	
L3515-50	113928.00	F05
L3515M	110402.00	
L3515T	120036.00	
L3516TM	110090.00	
L3601	120025.00	B22
L3603	120026.00	B22
L3605	131509.00	F08
L3605M	131509.00	F08,P03
L3605T	131509.00	
L3605T-50	131556.00	
L3605TM	131509.00	P03
L3606	131637.00	F08
L3606T	131637.00	
L3607	120043.00	B22
L3608T	131549.00	
L3608TM	132042.00	C39
L3609T	131533.00	
L3609T-50	131557.00	
L3609TM	131855.00	C39
L3612TM	131856.00	C39
L3613T	131526.00	
L3703	140747.00	C39,F12
L3705	131855.00	B23
L3708	140203.00	F12,P02
L3708T	140203.00	F12,P02
L3708T-50	140475.00	P02
L3708TM	140203.00	F12
L3709T	140684.00	
L3710T	140120.00	
L3711T	140685.00	
L3712T	140581.00	
L5001A	111074.00	E01
L5004A	111084.00	F05
L5007A	110934.00	F05
L5023A	110961.00	F05
M1504T	120942.00	
M1506T	131473.00	
M1507T	131472.00	C11
M1508T	140446.00	
M1554T	120944.00	
M1555T	120947.00	C11
M1556T	120946.00	
M1557T	131468.00	C11
M1558T	131469.00	
M1559T	140443.00	
M1704T	120943.00	
M1706T	131471.00	
M1707T	131470.00	
M1708T	140445.00	
M1754T	120945.00	C11,C25
M1755T	120941.00	C11
M1756T	120940.00	
M1757T	131474.00	C11

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
M1758T	131475.00	
M1759T	140447.00	C11
M1760T	140448.00	
M2237	G140578.00	B24
M2238	G150140.60	B24
M2275	G140126.00	B24
M2276T	G150122.60	
M2280T	151355.22	
M2332	G150123.60	B25
M2332T	G150123.60	
M2333	G150066.60	B25
M2333T	G150066.60	
M2334	G150007.60	B25
M2334T	G150007.60	C52
M2334T-12	G150007.60	
M2393	G140686.00	B24
M2394	G151317.60	B24
M2394T	G150062.60	
M2395T	150261.22	
M2401T	151356.22	
M2402T	150282.22	
M2504T	151355.22	C02,E02
M2505	G140471.00	B24
M2506T	G150145.60	C02
M2508T	151356.22	C02,E02
M2510	G140490.00	B24
M2511T	G150146.60	C02
M2513T	G140579.00	
M2514T	G150032.60	C02
M2515T	G150006.60	C02,C52
M2515T-12	G150006.60	C02
M2516T	G150034.60	C02
M2523	G140579.00	B25
M2524T	G150067.60	C02
M2527	G150006.60	B25
M2528T	G150000.60	C02
M2531	G150009.60	B26
M2531T	G150009.60	C02
M2531T-12	G150009.60	C02
M2532T	G150002.60	C02
M2534T	G150036.60	C02
M2535	G150013.60	B26
M2535T	G150013.60	C02,C52
M2535T-12	G150013.60	C02
M2536T	G150004.60	C02
M2538T	G150038.60	C02
M2539T	G150017.60	C02,C52
M2539T-12	G150017.60	C02
M2540T	G150147.60	C02
M2542T	G150040.60	C02
M2543T	G150021.60	C02,C52
M2543T-12	G150021.60	C02
M2544T	G150148.60	C02
M2546T	G150042.60	C02
M2547T	G150025.60	C02,C52
M2547T-12	G150025.60	C02
M2548T	G150149.60	C02
M2549T	G150044.60	C02
M2550T	G150151.60	C02
M2551T	G150029.60	C02,C52
M2551T-12	G150029.60	C02
M2552T	G150150.60	C02
M2554T-4	G150154.60	C02,C47
M2555T	G150152.60	C02,C52
M2555T-12	G150152.60	C02
M2556T-4	G151449.60	C02
M2557T-4	170259.60	C15
M2558T-4	G151522.60	F19
M2559T-4	G150155.60	C02,C47
M2560T-4	171576.60	C15
M2562T-4	171573.60	C15
M2563T-4	G151523.60	
M2564T-4	171577.60	C15
M2566T-4	151524.60	
M2569T-4	151525.60	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
M2572T-4	151518.60	F19
M2583T	170255.60	C15
M3003	100027.00	F02
M3006	101447.00	
M3007	100446.00	
M3009	110425.00	H03
M3010	100961.00	E02
M3012	100960.00	E02
M3101	110425.00	H03
M3104	100028.00	
M3105	110425.00	
M3107	101448.00	
M3108	100029.00	
M3108A	100796.00	B32
M3109	110027.00	
M3111	101449.00	
M3112	100030.00	
M3112A	100908.00	B32
M3115	110426.00	
M3116	110029.00	
M3116A	111311.00	B32
M3116T	G120010.00	
M3120	110429.00	
M3120T	G120103.00	
M3153	110028.00	
M3154	110430.00	
M3154A	111309.00	
M3154T	G120011.00	
M3155	113292.00	
M3155T	G120076.00	
M3156	113933.00	E02
M3156T	G120089.00	
M3157	113025.00	
M3157T	G120012.00	
M3157TA	111310.00	F03
M3158	113293.00	
M3158T	G120077.00	
M3159	114930.00	E02
M3161T	116595.00	F05
M3161TA	116595.00	P03
M3203	G120010.00	B22
M3206	G120011.00	B22
M3207T	G130010.00	
M3208	G120076.00	B22
M3209	G120012.00	B22
M3210	G120077.00	B22
M3211T	G130000.00	
M3211T/36	G130000.00	
M3211TA	G131338.00	
M3212T	G130282.00	
M3215T	G130012.00	
M3216T	131478.00	E02
M3218T	G130004.00	
M3218T-8	131500.00	
M3218TA	G130565.00	
M3219T	G130284.00	
M3220T	131479.00	E02
M3303T	140516.00	E02
M3304	G131338.00	B23
M3305T	G140550.00	
M3306T	140516.00	E02
M3307	G130282.00	B23
M3308	G130565.00	B23
M3309T	G140122.00	
M3310	G130284.00	B23
M3311T	G140471.00	
M3311T-8	131547.00	
M3312T	G140682.00	
M3313T	G140490.00	
M3313T-8	140004.00	
M3314T	G140683.00	
M3454	101646.00	
M3457	102684.00	
M3458	101647.00	
M3460	100905.00	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
M3461	100961.00	
M3463	100960.00	
M3531	110441.00	H03
M3532	114618.00	H01
M3534	101079.00	
M3535	110441.00	
M3536	114618.00	H01
M3537	101448.00	E03
M3537-5	110714.00	E01
M3538	100913.00	
M3538-5	110199.00	E01
M3538-50	102693.00	
M3539	110353.00	
M3541	110313.00	
M3541-50	114306.00	
M3542	110034.00	
M3542-5	110178.00	
M3542-50	114307.00	C39
M3543	110275.00	F03
M3543T	121009.00	
M3543T-5	111394.00	F03
M3545	110145.00	
M3545-5	110715.00	
M3545-50	114308.00	
M3546	110035.00	
M3546-5	110206.00	
M3546T	G120014.00	
M3546T-50	121096.00	
M3546T-8	120047.00	
M3550	110745.00	
M3550T	G120086.00	
M3550T-5	120170.00	C08
M3550T-50	121097.00	
M3554	110444.00	
M3554T	G120015.00	C25
M3554T-5	120021.00	C08
M3554T-50	121093.00	
M3554T-8	120032.00	
M3555	111916.00	F03
M3555T	G120088.00	
M3555T-50	121094.00	
M3556	113933.00	F03
M3556T	G120087.00	
M3556T-5	120167.00	C08
M3557	114930.00	
M3558	113026.00	
M3558T	G120016.00	
M3558T-50	121095.00	
M3558T-8	120034.00	
M3559	114614.00	C11
M3559T	G120185.00	
M3560	114618.00	F03
M3581T	G120014.00	C01,C25
M3582T	G120087.00	C01,C25
M3583T	G120086.00	C01.C25
M3584T	G120015.00	C01,C25
M3586T	G120088.00	C01,C25
M3587T	G120016.00	C01,C25
M3600	114618.00	B22
M3601	121009.00	B22
M3602	121199.00	C25,F22
M3603	G120014.00	B22
M3604	G120087.00	B22
M3605	G120086.00	B22
M3606	G120015.00	B22
M3607	116591.00	B22
M3607T	G130015.00	
M3607T-5	131548.00	C08
M3608	G120088.00	B22
M3609	G120016.00	B22
M3610	G130099.00	F08
M3610T	G130099.00	
M3610T-50	131480.00	
M3611	G130008.00	F08
M3611T	G130008.00	

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

BALDOR-TO-LEESON CROSS REFERENCE

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
M3611T/36	G130008.00	
M3611T-50	131459.00	
M3611T-8	131465.00	
M3613T	G130101.00	
M3613T-50	131481.00	
M3614T	G130016.00	
M3615T	G130027.00	
M3615T-50	131454.00	
M3615T-8	131466.00	
M3616T	G131082.00	
M3617T	131478.00	
M3618T	131479.00	
M3660T	G151563.60	
M3661T	G151320.60	
M3663T	G150299.60	
M3664T	G130016.00	C01
M3665T	G151322.60	
M3667T	G130015.00	C01
M3701	131479.00	B23
M3702T	140516.00	
M3703	G130008.00	B23
M3704	G140551.00	F12
M3704T	G140551.00	
M3705T	140518.00	
M3706	G130101.00	F09
M3707	G130027.00	F09
M3708T	G140126.00	
M3709	G130103.00	F12
M3709T	G130103.00	
M3710T	G140578.00	
M3710T-5	140593.00	
M3710T-8	131467.00	
M3711T	G140686.00	
M3712	G130016.00	B23
M3713T	G140687.00	
M3714T	G140489.00	
M3714T-8	140013.00	
M3764T	G140551.00	C01
M3768T	G140126.00	C01
M3769T	G150158.60	
M3770T	G150157.60	
M3771T	G150159.60	
M3774T	G150140.60	
M4100T	G150068.60	
M4102T	G150001.60	
M4103	G150011.60	B26
M4103T	G150011.60	C52
M4103T-12	G150011.60	
M4104	G150015.60	B26
M4104T	G150015.60	C52
M4104T-12	G150015.60	
M4106	G150033.60	B25
M4106T	G150033.60	
M4107	G150035.60	B26
M4107T	G150035.60	
M4108T	G150037.60	
M4109T	G150039.60	
M4110T	G150019.60	C52
M4110T-12	G150019.60	
M4111T	G150003.60	
M4112T	150263.22	
M4114T	G150041.60	
M4115T	G150023.60	C52
M4115T-12	G150023.60	
M4116T	150265.22	
M4117T	G150005.60	
M4118T	G151318.60	
M4307	G150019.60	B27
M4308T	G150096.60	
M4310T	G150043.60	
M4311	G150023.60	B27
M4312T	G150097.60	
M4313T	G150045.60	
M4314T	G150027.60	C52
M4314T-12	G150027.60	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
M4316T	G150031.60	C52
M4316T-12	G150031.60	
M4400T	G150087.60	C52
M4400T-12	G150087.60	
M4402T-4	G150160.60	
M4403T	G150098.60	
M4404T	G150099.60	
M4406T-4	G151371.60	
M4407T-4	G150352.60	
M4408T-4	151516.60	F25
M4409T	G151367.60	
M4410T-4	G151369.60	
M4411T-4	G151370.60	
M4412T-4	G151368.60	
M44156T-4	171315.60	C15
M44206T-4	171316.60	C15
M44304T-4	151529.60	
M44354T-4	151530.60	
M7002A	111932.00	E01
M7003A	111940.00	
E01,F05		
M7005A	111934.00	E01
M7006A	111929.00	E01
M7007A	111938.00	F05
M7009A	111937.00	
M7010A	111923.00	
M7013	111942.00	
M7014	111922.00	
P01,F05		
M7014T	111922.00	
F05,P01		
M7018T	G120489.00	
M7019	G120490.00	B22
M7023	G120391.00	B22
M7026	G120387.00	B22
M7027	G158362.00	B23
M7030	G158366.00	B23
M7034T	G120490.00	
M7037T	G120391.00	
M7042T	G158362.00	C02
M7044T	G158366.00	C02
M7045T	G158158.00	C02
M7047T	G158157.00	C02
M7053T	G158000.00	
M7054T	G158001.00	
M7056T	G158010.00	
M7058T	G825047.00	
M7059T	G825039.00	
M7060T	G825041.00	
M7062T	G825043.00	
M7063T	G825046.00	
M7064T	G825045.00	
M7066T	G825002.00	
M7067T	G825042.00	
M7068T	G825005.00	
M7071T	G120491.00	
M7072T	G158319.00	C02
M7074T	G158159.00	C02
M7075T	G120387.00	
M7081T	G825044.00	
M7083T	G825040.00	
M7090T	G825008.00	
M7134T	G120490.00	C01
M7137T	G120391.00	C02
M7142T	G158362.00	
M7144T	G158366.00	
M7147T	G158157.00	
M7170T	G158140.00	
M7174T	G158159.00	
M74124T-4	G825011.00	
M74154T-4	G825014.00	
M74204T-4	G825017.00	F19
M74254T-4	825020.99	F25
MM2333	193131.60	
MM2334	193141.60	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
MM3454	192010.00	C39
MM3457	192020.00	C39
MM3458	192021.00	C39
MM3460	192030.00	C39
MM3461	192031.00	C39
MM3463	192040.00	C39
MM3542	192041.00	C39
MM3545	192050.00	C39
MM3546	192051.00	C39
MM3550	192060.00	C39
MM3554	192061.00	
MM3555	192070.00	
MM3558	192071.00	
MM3559	192080.00	
MM3611	193081.60	C02
MM3613	193100.60	C02
MM3615	193101.60	C02
MM3709	193110.60	C02
MM3710	193111.60	C02
MM3711	193120.60	C02
MM3714	193121.60	C02
MM4103	193151.60	
MM4104	193161.60	
MM4110	193171.60	
MM5100	192010.00	
MM5100-5	192088.00	
MM5150	192011.00	
MM5150-5	192089.00	
MM5200	192020.00	
MM5200-5	192097.00	
MM5250	192021.00	
MM5250-5	192098.00	
MM5300	192030.00	
MM5300-5	192106.00	
MM5350	192031.00	
MM5350-5	192107.00	
MM5400	192040.00	
MM5400-5	192115.00	
MM5450	192041.00	
MM5450-5	192116.00	
MM5500	192050.00	
MM5500-5	192124.00	
MM5550	192051.00	
MM5550-5	192125.00	
MM5600	192060.00	
MM5600-5	192133.00	
MM5650	192061.00	
MM5650-5	192134.00	
MM5700	192070.00	
MM5700-5	192142.00	
MM5750	192071.00	
MM5750-5	192143.00	
MVM3457D	192024.00	
MVM3458C	192028.00	
MVM3458D	192025.00	
MVM3460C	192037.00	
MVM3460D	192034.00	
MVM3461C	192038.00	
MVM3461D	192035.00	
MVM3463C	192047.00	
MVM3463D	192044.00	
MVM3542C	192048.00	
MVM3542D	192045.00	
MVM3545C	192057.00	
MVM3545D	192054.00	
MVM3546C	192058.00	
MVM3546D	192055.00	
MVM3550C	192067.00	
MVM3550D	192064.00	
MVM3554C	192068.00	
MVM3554D	192065.00	
MVM3555C	192077.00	
MVM3555D	192074.00	
MVM3558C	192078.00	
MVM3558D	192075.00	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
MVM3559C	192087.00	
MVM3559D	192084.00	
MVM3611	193085.60	C02
MVM3611C	193088.60	
MVM3613C	193107.60	
MVM3613D	193104.60	C02
MVM3615C	193108.60	
MVM3615D	193105.60	C02
MVM3709D	193114.60	C02
MVM3710D	193115.60	C02
MVM3711D	193124.60	C02
MVM3714D	193125.60	C02
MVM5100C	192017.00	
MVM5100C-5	192088.00	K10
MVM5100D	192014.00	
MVM5100D-5	192088.00	K01
MVM5150C	192018.00	
MVM5150C-5	192089.00	K10
MVM5150D	192015.00	
MVM5150D-5	192089.00	K01
MVM5200C	192027.00	
MVM5200C-5	192097.00	K10
MVM5200D	192024.00	
MVM5200D-5	192097.00	K01
MVM5250C	192028.00	
MVM5250C-5	192098.00	K11
MVM5250D	192025.00	
MVM5250D-5	192098.00	K02
MVM5300C	192037.00	
MVM5300C-5	192106.00	K11
MVM5300D	192034.00	
MVM5300D-5	192106.00	K02
MVM5350C	192038.00	
MVM5350C-5	192107.00	K11
MVM5350D	192035.00	
MVM5350D-5	192107.00	K02
MVM5400C	192047.00	
MVM5400C-5	192115.00	K11
MVM5400D	192044.00	
MVM5400D-5	192115.00	K02
MVM5450C	192048.00	
MVM5450C-5	192116.00	K12
MVM5450D	192045.00	
MVM5450D-5	192116.00	K03
MVM5500C	192057.00	
MVM5500C-5	192124.00	K12
MVM5500D	192054.00	
MVM5500D-5	192124.00	K03
MVM5550C	192058.00	
MVM5550C-5	192125.00	K12
MVM5550D	192055.00	
MVM5550D-5	192125.00	K03
MVM5600C	192067.00	
MVM5600C-5	192133.00	K12
MVM5600D	192064.00	
MVM5600D-5	192133.00	K03
MVM5650C	192068.00	
MVM5650C-5	192134.00	K13
MVM5650D	192065.00	
MVM5650D-5	192134.00	K04
MVM5700C	192077.00	
MVM5700C-5	192142.00	K13
MVM5700D	192074.00	
MVM5700D-5	192142.00	K04
MVM5750C	192078.00	
MVM5750C-5	192143.00	K13
MVM5750D	192075.00	
MVM5750D-5	192143.00	K04
NM3454	100123.00	C25
NM3534	102920.00	C25
NM3538	102918.00	C25
NM3542	114309.00	
NM3546T	121098.00	
NM3554T	121099.00	E02
PCL1313M	114214.00	

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
PCL1317M	114215.00	
PCL1319M	113700.00	F29
PCL1322M	113281.00	F29
PCL1326M	116707.00	F29
PCL1327M	116709.00	F29
PCL3513M	115024.00	
PCL3514M	116703.00	F29
PCL3515M	114995.00	F29
PCL3519M	115048.00	C11,F29
PL1313M	113631.00	
PL1317M	113632.00	
PL1319M	113266.00	
PL1322M	116704.00	F05
PL1326M	116706.00	F05
PL1327M	116708.00	
PL3513M	110109.00	
PL3514M	113333.00	F05
PL3515M	110402.00	F05
PL3519M	116705.00	F05
PSC3413A	100699.00	
PSC3416A	100700.00	
PSC3524A	100701.00	
RHM3104	100210.00	
RHM3108	100145.00	
RHM3108A	100796.00	
RHM3111	101773.00	
RHM3111A	101641.00	
RHM3112	100146.00	F05
RHM3112A	100908.00	
RHM3115	114192.00	
RHM3115A	113895.00	F03
RHM3116	110052.00	
RHM3116A	111311.00	
RHM3120A	113896.00	
RHM3154	110433.00	
RHM3154A	113846.00	
RHM3155A	113897.00	
RHM3157	114197.00	
RHM3157A	113847.00	
RHM3158	113926.00	
RHM3158TA	113926.00	
RHM3161TA	116593.00	
RHM3162TA	121665.00	
RL1205A	101431.00	C11
RL1208A	101432.00	C11
RL130	100012.00	F05
RL1301A	100110.00	
RL1301A277	102964.00	
RL1304A	100011.00	
RL1304A277	102965.00	
RL1306A	100603.00	F05
RL1307A277	102966.00	
RL1309A	110478.00	
RL1310A	100065.00	
RL1310A277	116599.00	
RL1313A	110479.00	
RL1317A	113633.00	
RL1319A	110579.00	
RL1319A277	116600.00	
RL132	100065.00	F05
RL1323A	100064.00	
RL144A	100109.00	
RL224A	101431.00	C11
RL245A	100010.00	C25
RL324A	101432.00	C11
RL345A	100011.00	
RL425A	100603.00	
RL445A	100012.00	F05
RL525A	110478.00	F05
RL545A	110007.00	F05
RL625A	110479.00	F05
RL645A	110579.00	F05
RL725A	113633.00	F05
RM3003	100210.00	F03,H03
RM3006	101639.00	F03,P01

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
RM3007	100210.00	F03
RM3009	101640.00	F03,P01
RM3010	100145.00	F03
RM3104	100210.00	
RM3108	100145.00	
RM3108A	100796.00	
RM3111	101773.00	
RM3111A	101641.00	
RM3112	100146.00	
RM3112A	100908.00	
RM3115	114192.00	
RM3115A	113895.00	
RM3116	110052.00	
RM3116A	111311.00	
RM3120	114194.00	
RM3120A	113896.00	
RM3154	110433.00	
RM3154A	113846.00	
RM3155	114196.00	
RM3155A	113897.00	
RM3157	114197.00	
RM3157A	113847.00	
RM3158	113926.00	P01
RM3158TA	113926.00	
RM3161TA	116593.00	
RSP1441A	191868.00	
RSP1442A	191868.00	
RSP2441A	191869.00	
RSP2442A	191869.00	
RSP3441A	191870.00	
RSP3442A	191870.00	
UCL1015	140640.00	
UCL570	131847.00	
UCL710	131848.00	
UCM1014	140641.00	
UCM575	131849.00	
UCME1014	140641.00	
UCME570	131849.00	
VBM3108	114156.00	
VBM3112	114157.00	
VBM3116	114166.00	
VBM3116T	121678.00	
VBM3154	116766.00	
VBM3157T	120373.00	
VBM3211T	131624.00	
VBM3218T	131625.00	
VBM3248T	131625.00	
VBM3538	114159.00	E02
VBM3542	114160.00	E02
VBM3542-5	110177.00	K91
VBM3546	114161.00	
VBM3546T	121556.00	
VBM3546T-5	120176.00	K91
VBM3554	116768.00	
VBM3554T	120331.00	
VBM3558T	120332.00	
VBM3611T	131610.00	
VBM3615T	131611.00	
VBM3710T	131612.00	
VBM3714T	140637.00	
VEM3545	116748.00	
VEM3546	114638.00	
VEM3550	116750.00	
VEM3554	116743.00	
VEM3555	116751.00	
VEM3556	116749.00	
VEM3558	116744.00	
VEM3581	114638.00	C01
VEM3581T	121067.00	C01
VEM3584T	121066.00	C01
VEM3587T	121065.00	C01
VEM3661T	131503.00	C01
VEM3665T	131501.00	C01
VEM3770T	140486.00	C01
VEM3774T	140484.00	C01

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BALDOR-TO-LEESON CROSS REFERENCE

Baldor Cat. No.	LEESON Equivalent Cat. No.	Exception Code
VFDL3501M	113290.00	
VFDL3504M	110492.00	
VFDL3507M	110493.00	
VFDL3510M	110494.00	
VFDL3514M	110495.00	C39
VFDL3516TM	120855.00	
VFDL3610TM	131603.00	C39
VFDL3612TM	131602.00	C39
VL1301	100024.00	K89
VL1303	100356.00	K89
VL1303A	100204.00	
VL1304	100025.00	K89
VL1305	110381.00	K82
VL1306	100357.00	K89
VL1306A	100205.00	
VL1307	100026.00	K89
VL1307A	101523.00	K89
VL1308	110382.00	K82
VL1309	110384.00	K82
VL1309A	100722.00	
VL1310	110220.00	K82
VL1313	110387.00	K82
VL1313A	110288.00	
VL1317	110390.00	K82
VL1317A	110289.00	
VL1318	110220.00	K82
VL1318A	110036.00	C39,P02
VL1319	110388.00	K82
VL1322T	120073.00	K82
VL1323A	110280.00	
VL1406T	131544.00	K84
VL1408T	131539.00	K84
VL225A	100204.00	H01
VL325A	100204.00	
VL3501	101766.00	
VL3501-50	113921.00	C25
VL3503	102864.00	
VL3503-50	113912.00	
VL3504	102862.00	
VL3504-50	113922.00	
VL3505	110411.00	
VL3506	110413.00	
VL3506-50	113913.00	
VL3506A	110412.00	P02
VL3507	110057.00	
VL3507-50	113923.00	
VL3508	110414.00	
VL3509	110416.00	
VL3509-50	113914.00	
VL3509A	110415.00	P02
VL3510	110058.00	
VL3510-50	113924.00	
VL3510T	121001.00	
VL3513	110419.00	
VL3513-50	113915.00	C25
VL3513T	120101.00	
VL3514	110420.00	
VL3514-50	113925.00	
VL3514T	120017.00	
VL3515	110422.00	
VL3515-50	120990.00	F07
VL3515T	120102.00	
VL3605	120060.00	F07
VL3605T	131516.00	
VL3606T	132083.00	B31
VL3609T	131545.00	
VL425A	100205.00	
VL5001A	111075.00	E01
VL5003A	111098.00	
VL5004A	111085.00	
VL5006A	111097.00	
VL5007A	111086.00	
VL5009A	111096.00	
VL5023A	110852.00	
VL525A	100722.00	
VL625A	110288.00	
VL725A	110289.00	
VL825A	110280.00	
VM2333T	151350.60	
VM2334T	151352.60	
VM2513T	151682.60	C02
VM2514T	151683.60	C02
VM2515T	151684.60	C02
VM2516T	151685.60	C02
VM2531T	151686.60	C02
VM2534T	151687.60	C02
VM3104	100048.00	
VM3107	100056.00	
VM3108	100049.00	
VM3109	110434.00	
VM3111	100378.00	
VM3112	100050.00	
VM3115	110111.00	
VM3116	110043.00	C25
VM3116T	120172.00	C25
VM3120	110437.00	
VM3120T	121668.00	
VM3153	116728.00	
VM3153T	120063.00	
VM3154	110044.00	
VM3154T	120081.00	
VM3155	113894.00	
VM3155T	121670.00	
VM3156T	120082.00	
VM3157	115553.00	
VM3157T	120035.00	
VM3158	114420.00	
VM3158T	121187.00	
VM3159T	121669.00	
VM3161T	121405.00	
VM3211	121405.00	F07
VM3211T	131489.00	
VM3212T	131779.00	
VM3215T	132059.00	
VM3218	131490.00	F10
VM3218T	131490.00	
VM3219T	131780.00	
VM3305T	140765.00	
VM3309T	140766.00	
VM3311T	131527.00	
VM3312T	140688.00	
VM3313T	140108.00	
VM3314T	140689.00	
VM3534	101769.00	
VM3534-5	110176.00	E01,H01
VM3534-50	102689.00	
VM3535	113311.00	
VM3537	114176.00	
VM3537-50	102691.00	
VM3538	102860.00	
VM3538-5	110176.00	E01
VM3538-50	102694.00	
VM3539	110163.00	
VM3541	110448.00	
VM3541-50	114893.00	
VM3542	110047.00	
VM3542-5	110177.00	
VM3542-50	114894.00	
VM3543	112378.00	
VM3543T	120097.00	
VM3545	110112.00	
VM3545-50	114895.00	
VM3546	110048.00	
VM3546-5	110204.00	
VM3546T	120024.00	
VM3546T-5	120176.00	
VM3546T-50	121272.00	
VM3550	110192.00	
VM3550T	120105.00	
VM3550T-50	121274.00	
VM3554	110125.00	
VM3554-5	111444.00	
VM3554T	120037.00	
VM3554T-5	120177.00	
VM3554T-50	121275.00	
VM3555	111273.00	
VM3555-5	111611.00	
VM3555T	120061.00	
VM3555T-50	121276.00	
VM3556	112379.00	
VM3556T	120098.00	
VM3557	113634.00	
VM3557T	120161.00	
VM3558	110451.00	
VM3558T	120038.00	
VM3558T-5	120178.00	
VM3558T-50	121277.00	
VM3559	111630.00	
VM3559T	120993.00	
VM3561	113890.00	C11
VM3603	120024.00	F07
VM3606	120037.00	F07
VM3607	120161.00	F07
VM3609	120038.00	F07
VM3610	120993.00	F07
VM3610T	131513.00	
VM3611	131491.00	F10
VM3611T	131491.00	
VM3611T-5	131498.00	
VM3613	131514.00	F10
VM3613T	131514.00	
VM3614	120038.00	F07
VM3614T	131525.00	
VM3615	131492.00	F10
VM3615T	131492.00	
VM3615T-5	131499.00	
VM3616T	131510.00	
VM3703	131491.00	B23
VM3704	131642.00	F24
VM3704T	131642.00	
VM3707	131492.00	B23
VM3708T	140535.00	
VM3709T	131912.00	
VM3710T	131528.00	
VM3711T	140690.00	
VM3713T	140691.00	
VM3714T	140109.00	
VM4103T	151507.60	
VM4104T	151508.60	
VM4106T	151351.60	
VM7002A	111931.00	E01
VM7005A	111933.00	E01
VM7006A	111930.00	E01
VM7009A	111936.00	
VM7010A	111935.00	
VM7013	111943.00	
VM7014	111926.00	
VM7018T	111939.00	F04
VM7034	111941.00	
VM7037T	121178.00	
VM7042T	158003.00	C02
VM7044T	158005.00	C02
VM7071T	113971.00	F04
VM7075T	114419.00	F04
VNM3538	102861.00	
VNM3542	110047.00	C25,E02
VP3311D	M1130149.00	E02
VP3316D	098014.00	E02,K18
VP3326D	098015.00	E02,K18
VP3411-14	M1130139.00	E02
VP3416-14	098014.00	K22
VP3426-14	098015.00	K22
VP3428D	098016.00	K18
VP3436-14	108369.00	K23
VP3436D	108369.00	K19
VP3439D	098017.00	K19
VP3455-14	108370.00	K23
VP3455D	108370.00	K19
VP3458D	108372.00	K19
VP3468D	108373.00	K20
VP3575-14	118007.00	K24
VP3575D	118007.00	K20
VP3585-14	118008.00	K24
VP3585D	118008.00	K20
VP3588D	118009.00	K20
VP3603D	118014.00	K21
VP3605D	118010.00	K21
VP7424-14	M1130139.00	E02
VP7424D	M1130149.00	E02
VSSWDM3537	116316.00	
VSSWDM3538	116166.00	
VSSWDM3541	116317.00	
VSSWDM3542	116168.00	
VSSWDM3545	116318.00	
VSSWDM3546	116170.00	
VSSWDM3550	121560.00	E02,F07
VSSWDM3554T	121525.00	
VSSWDM3555T	121561.00	
VSSWDM3558T	121527.00	
VSSWDM3559T	121562.00	
VSSWDM3611T	131923.00	
VSSWDM3613T	131949.00	
VSSWDM3615T	131924.00	
VSWDM3538	191205.00	
VSWDM3542	191208.00	
VSWDM3546	191290.00	
VSWDM3546T	191214.00	
VSWDM3554	191219.00	
VSWDM3554T	191220.00	
VSWDM3558T	191226.00	
VWDL3504	114313.00	C55
VWDL3507	114315.00	C55
VWDL3510	114317.00	C55
VWDL3514	114319.00	C55
VWDM3538	113473.00	
VWDM3542	113019.00	
VWDM3546	113020.00	
VWDM3546T	120760.00	
VWDM3554	113021.00	
VWDM3554T	120761.00	
VWDM3558	114616.00	
VWDM3558T	120762.00	
VWDM3611T	131596.00	
VWDM3615T	131597.00	
VWDM3710T	140467.00	
VWDM3714T	140465.00	
WDM3538	112427.00	E02
WDM3542	112428.00	E02
WDM3546T	G120585.00	E02
WDM3554T	G120858.00	E02
WDM3558T	G120586.00	
WDM3558TP	G121191.00	
WDM3561TP	115751.00	
WDM3611T	G130662.00	
WDM3615T	G130663.00	
WDM3710T	G140280.00	
WDM3714T	G140281.00	
WWL3515T	120997.00	C25
WWL3606	120728.00	
YPC144A	191872.00	
YPC164A	191891.00	
YPC244A	191871.00	
YPC245A	191910.00	
YPC264A	191892.00	
YPC265A	191911.00	
YPC344A	191873.00	
YPC345A	191875.00	
YPC364A	191893.00	
YPC365A	191912.00	

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

MARATHON-TO-LEESON CROSS REFERENCE

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
143A	175034	
145A	175035	
1814T	175091	
182A	175036	
184A	175037	
2118T	175092	
213A	175038	
215A	175039	
254B2	175040	
256B2	175041	
25U21T	175093	
284B2	175042	
286B2	175043	
28U25T	175094	
324B2	175044	
326B2	175045	
32U28T	175095	
364B2	175046	
365B2	175047	
36U32T	175097	
404B2	175048	
405B2	175049	
40U36T	175098	
444B2	175088	
445B2	175089	
447B2	175090	
44U40T	175127	
A204	175844	
A206	175844	
A209	175191	
A214	175062	
A216	175060	
A217	175063	
A219	175060	
A220	175063	
A223	175199	
A226	175199	
A229	175664	
A232	175664	
A239	175191	
A284	175191	
A287	175058	
A297	175177	
A298	175178	
A299	175179	
A301	175139	
A302	175140	
A303	175141	
A306	175659	
A307	175660	
A395	175063	
A396	175063	
A435	175075	
A436	175181	
A437	175076	
A438	175077	
A569	175850	
A570	175852	
A571	175854	
A572	175856	
A573	175882	
A574	175884	
A575	175886	
A576	175888	
A577	175890	
A601	175191	
A603	175077	
A606	175845	
A608	175067	
A609	175844	
A610	175058	
A611	175061	
A612	175067	
A613	175059	
A614	175062	
A615	175061	
A620	175664	
A621	175664	
A644	175691	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
A645	175691	
A647	175192	
A648	175192	
A649	175192	
A650	175118	
A651	175119	
A655	175077	
A691	175676	
A692	175675	
A694	175677	
A695	175678	
A763	E175927	
A764	E175921	
A772	E175928	
A775	E175922	
A776	E175930	
A778	E175924	
A779	E175929	
A780	E175931	
A781	E175923	
A782	E175925	
A903	175131	
A904	175132	
A906	175133	
A907	175134	
B193	113926	
B210	100010	
B310	113027	
B311	110007	
B314	100014	
B315	100110	F01
B316	100015	
B317	100011	
B318	100016	
B319	100012	
B330	110579	
B336	110579	P01
B352	113608	
C101	121668	
C102	121670	
C103	121187	
C104	131779	
C105	131780	
C106	140688	
C111	120063	
C120	120172	
C121	120081	
C122	120035	
C123	131489	
C124	131490	
C125	140580	
C126	140108	
C150	120082	
C152	132059	
C153	140765	
C154	140766	
C162	121669	
C163	121405	
C171	120073	
C174	131544	
C201	120105	
C202	120061	
C203	131513	
C204	131514	
C205	131912	
C206	140690	
C220	120024	
C221	120037	
C222	120038	
C223	131491	
C224	131492	
C225	151346	C02
C226	140109	
C227	151350	C02
C230	120176	
C231	120177	
C232	120178	
C236	120993	
C237	140691	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
C238	131510	
C250	120098	
C252	131525	
C253	131642	
C254	140535	
C260	121035	
C276	120824	P02
C282	121008	
C284	121060	
C301	111939	C01,P01
C321	111941	C01,P01
C322	121178	C01,P01
C401	G121051	
C403	G121052	
C405	G131617	
C406	G131618	
C407	G140605	
C408	G140639	
D010	110160	
D012	110232	
D013	110222	
D017	111275	
D018	110161	
D110	101432	C12
D111	100011	C09
D113	100012	P01
D114	110007	
D115	110479	
D116	113633	
D117	100603	C09
D118	110478	C09
D311	110310	B34
D312	112135	B34
D313	110180	B34
D314	110909	B34
D315	113931	B34
D391	114142	B34
D392	110915	B34
D393	110181	B34
D394	110917	B34
D395	113927	B34
D396	114615	B34
D400	114165	
D401	111950	
D402	114167	
D403	111951	
D450	110669	
D452	114154	
D453	114152	
D454	114155	
D456	110679	
D547	116768	B33
E202	171322	
E203	170157	
E203	G140578	C01
E204	170140	
E205	170066	
E206	170007	
E207	170011	
E208	170015	
E209	170019	
E210	170023	
E211	170027	
E212	170031	
E213	170087	
E214	170369	
E215	170371	
E216	131985	C01
E217	131987	
E218	170158	E02
E219	170159	
E220	170062	
E221	170033	
E222	170035	
E223	170037	
E224	170039	
E225	170041	
E226	170043	
E227	170045	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
E228	170160	
E231	131980	C01
E232	131981	C01
E235	170122	
E236	170123	
E237	170068	
E238	170001	
E239	170003	
E240	170005	
E241	170096	
E242	170097	
E243	170098	
E244	170099	
E246	170260	
E247	170352	C09
E276	151516	C09
E277	151529	C09
E278	151530	C09
E295	171523	
E303	171320	E02
E304	131461	C01
E305	131546	C01
E306	150212	
E307	150116	
E308	150117	
E309	150118	
E310	150119	
E311	150120	
E312	150121	
E313	150239	
E314	150253	
E315	150244	
E318	150228	
E319	150232	
E348	121199	
E354	G120016	
E702	G120076	
E704	G130282	
E705	G130284	
E706	G140682	
E707	G140683	
E708	G150032	C02
E709	G150034	C02
E710	G150036	
E711	G150038	
E712	G150040	
E713	G150042	
E714	G150044	
E715	115827	
E716	G120011	
E717	G120012	
E718	G130000	
E719	G130004	
E720	G140147	
E721	G140490	
E722	G150065	
E723	G150006	
E724	G150009	
E725	G150013	
E726	G150017	C02
E727	G150021	C02
E728	G120089	
E729	G130010	
E730	G130012	
E731	G140550	
E732	G140122	
E733	G150145	C02
E734	G150146	C02
E735	G150067	
E736	G150000	
E737	G150002	
E738	G150004	
E739	G150025	
E740	G150029	
E741	G150152	
E742	G150155	
E743	G151522	
E746	G150147	
E747	G150148	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
E748	G150149	
E749	G150150	
E753	G150151	
E754	G150154	
E755	G151449	
E759	150212	C02,E02
E760	150116	C02,E02
E761	150117	C02,E02
E762	150118	E02
E763	150119	E02
E764	150120	E02
E765	150121	E02
E766	150239	E02
E783	G120103	
E784	G120077	
E793	G150009	
E798	120170	E02
E800	150118	
E801	G150023	
E802	G150027	
E803	G150098	
E804	G150031	
E805	150244	
E806	G150099	
E807	G150160	
E809	G151367	
E815	150120	
E816	G150019	
E817	150119	
E818	G150015	
E819	150228	
E820	G150003	
E821	150197	C02
E822	140013	
E823	G130015	
E824	120047	
E827	120122	
E832	G120086	
E834	120170	
E836	120032	
E838	120021	
E843	120171	
E845	120034	
E847	120019	
E849	G130016	
E905	131500	
E906	131547	
E907	140004	
E913	120011	E02
E914	120019	E02
E920	170025	
E921	170029	
E927	121003	
E928	121004	
E929	121005	
E930	131519	
E931	131520	
E934	120167	E02
E940	170065	
E941	170006	
E942	170009	
E943	170013	
E944	170017	C02
E945	170021	C02
E945	G150021	
E950	G120014	
E951	G120015	
E952	G120016	
E953	G130008	
E954	G130027	
E955	G140578	
E956	G140489	
E957	G150031	
E959	G150087	
E960	G150043	
E961	G150011	
E962	G150023	
E963	G130101	
E964	G150037	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
E965	G150007	C02
E966	G150005	
E967	G130099	
E968	G150001	
E969	G140686	
E970	G140126	
E971	G150039	
E972	G130103	
E974	G150033	C02
E975	G150035	
E975	G151318	
E976	G150041	
E978	G150068	
E979	G120087	
E980	G140551	
E982	G130015	
E983	G150015	
E984	G150019	
E985	G150043	
E986	G151371	
E987	G151369	
E988	G150096	
E989	G150352	C09
E991	G150045	
E992	G151368	
E993	G150097	
E994	G120088	
E995	G130016	
E996	G150066	C02
E997	150116	C02
E998	150117	C02
E999	G150011	
F101	113256	
F102	110086	
F103	110087	
F104	110088	
F105	110089	
F131	116485	
F132	116486	
F133	116487	
F134	116488	
F135	116489	F04
F201	101435	
F202	101436	
F203	101437	
F204	113302	
F205	113301	
G044	100027	F02
G047	100028	
G061	110425	
G063	100029	
G065	110199	E01
G067	110027	
G076	100115	P01
G078	101423	
G080	101149	
G084	100030	
G086	110178	E02
G088	110028	
G091	100336	F02
G093	100006	
G094	100116	
G095	100588	
G096	110001	
G098	100184	
G100	111311	
G101	100908	
G106	101520	
G107	100796	
G109	100145	
G115	100109	C09
G120	111311	P01
G126	113846	
G127	113847	P01
G128	113847	
G135	100010	C09
G151	100011	C09
G156	100016	
G162	100210	

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

MARATHON-TO-LEESON CROSS REFERENCE

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
G167	101641	
G180	113895	
G183	113896	
G186	113897	
G201	100048	
G203	100049	
G205	100378	
G207	100050	
G209	110111	
G212	100023	F02
G216	100354	F02
G221	110043	
G223	110437	
G225	110044	
G227	113894	
G229	115553	
G230	100024	F02
G232	100356	F02
G234	100025	F02
G238	100357	F02
G240	100375	
G241	100056	
G242	110176	E01
G243	110177	E01
G244	110204	E01
G245	101648	E01
G245	103014	
G246	116728	
G248	110434	
G250	100026	F02
G254	110384	
G256	110220	
G258	110387	
G270	110388	
G272	110390	
G278	110381	
G289	114420	
G290	113700	
G303	101079	
G306	110441	
G308	100905	
G309	110714	E01
G316	114617	
G321	100913	
G322	110199	E01
G324	110353	
G326	110313	
G327	110354	
G329	110034	
G330	113635	
G331	114613	
G332	114619	
G333	110009	
G337	110012	
G338	110016	
G339	110021	
G340	110178	
G342	110275	
G344	110145	
G345	110715	
G347	110035	
G348	110206	
G350	110011	
G352	110276	
G354	110013	
G355	110017	
G356	110022	
G357	110400	
G359	110059	
G360	113933	
G365	110444	
G369	113026	
G371	110209	
G372	110018	
G373	110023	
G374	110094	
G376	110253	
G377	110019	
G378	113333	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
G379	110108	
G383	110745	
G384	111916	
G385	114614	
G386	120423	
G390	110142	
G391	110109	
G392	110402	
G393	110141	
G396	115024	
G396	116703	
G507	102860	
G508	110176	
G511	102866	
G513	101766	F02
G514	102864	
G515	102862	
G516	110413	
G517	110057	
G518	110416	
G519	110058	
G522	110047	
G523	110177	
G527	110048	
G528	110204	
G530	110419	
G531	110420	
G533	110422	
G534	102870	
G541	110125	
G544	110451	
G547	101767	
G548	111444	
G550	114144	
G551	110734	
G552	110905	
G553	110908	
G559	110310	
G560	114141	
G561	114140	
G562	110916	
G563	110912	
G564	110918	
G569	114142	
G570	114144	B34
G571	110734	B34
G572	110905	B34
G573	110908	C46
G574	110910	B34
G577	114143	B34
G580	110911	B34
G581	114140	B34
G582	110916	B34
G583	110912	B34
G584	110918	B34
G588	110914	B34
G589	116340	
G647	111932	
G648	111934	
G651	111074	
G654	111084	
G657	110934	
G659	110961	
G660	111929	
G660	111937	
G661	111923	
G662	111942	
G663	111922	
G828	111931	
G829	111930	
G840	111935	
G841	111926	
G853	111075	
G854	111098	
G855	111085	
G856	111097	
G857	111086	
G858	111096	
G870	110852	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
G873	116611	
G874	116612	
G875	116613	
G876	116614	
G910	100007	C09
G911	100002	
G912	100004	
G913	110002	
G915	100340	F02
G917	100008	C09
G918	100003	C09
G919	100005	C09
G923	111309	
G930	110003	
G932	110360	
G934	110004	
G935	110000	
G936	110167	
G936	113630	
G936	120003	
G937	110361	
G939	110005	
G950	113266	P01
G951	110006	
G951	120004	
G952	110363	
G958	113266	
G966	100908	P01
G976	113632	
G979	116704	
G986	110110	P01
G987	113631	
G996	116706	
H502	G825020	
H513	G825019	
H580	G825019	
H581	G825020	
H613	131500	
H616	131547	
H619	140004	
H664	120047	
H665	120032	
H666	120034	
H668	131466	
H669	131467	
H670	140013	
H700	121009	
H710	G130008	
H803	116595	
H956	151457	
H957	151461	
I101	120107	
I102	120106	
I103	131636	
I104	131616	
I105	140680	
I106	140681	
I110	120044	
I111	120042	
I112	131515	
I113	131534	
I114	131537	
I115	140155	
I116	140311	
I118	120067	
I119	131852	
I119	131622	
I122	120879	
I130	131851	
I143	140747	
I147	113608	P01
I201	120009	
I203	120395	
I204	120341	
I206	131637	
I210	120025	
I211	120026	
I212	131509	
I213	131533	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
I214	131538	
I215	140120	
I217	140581	
I220	120130	
I221	120036	
I223	131549	
I224	140684	
I225	140685	
I305	131853	
I308	131854	
I314	131857	
I314	131994	
I315	131995	
I315	131858	
I700	121507	C48
I704	131855	
I706	131856	
J009	100204	
J013	100205	
J017	100722	
J019	110288	
J021	110289	
J023	110280	
J034	100207	
J035	100208	
J036	100723	
J037	110292	
J038	110293	
J039	110286	
J041	102199	
J042	101776	
J043	101775	
J044	114203	
J045	114202	
J046	114201	
J049	113028	
J050	113029	
J051	113030	
J052	113031	
J053	113032	
K000	110426	
K004	110029	
K009	110429	
K016	101544	
K022	110430	
K025	113292	
K027	101448	
K041	113025	
K048	113293	
K061	110893	E02
K064	115825	P03
K065	115826	P03
K073	110362	P02
K136	110478	
K152	113633	
K219	116707	
K232	113281	
K233	113334	P01
K236	101651	P03,F02
K237	101650	P03,F02
K319	114955	
K319	121625	F07
K338	116705	
K339	110399	
K350	110352	
K402	113311	
K403	110163	
K404	120097	
K406	113890	
K407	112379	
K420	101646	
K421	101647	
K422	100961	
K618	115048	
K619	112135	
K630	110180	
K631	110909	
K700	114198	B34
K800	110914	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
K801	110915	
K802	120485	
K803	110181	
K804	110917	
L409	131478	
L410	131479	
L412	151355	
L413	151356	
L414	150282	
L415	150261	
L416	150263	
L417	150265	
L454	151516	C09
L455	151516	
L462	151529	C09
L463	151529	
L467	151530	C09
L633	131465	
L909	G130027	
M105	121846	
M106	121846	K83
M109	121847	
M110	121847	K83
M111	121849	
M112	121849	K83
M113	131860	
M114	131862	
M115	131861	
M116	131863	
M117	140653	
M118	140655	
M119	140654	
M120	140656	
M121	801051	
M123	801056	
M124	801052	
M125	801057	
M126	801053	
M127	801058	
M128	801054	
M129	801059	
M130	801055	
M133	801060	
M163	131861	K84
M164	131863	K84
M165	140653	K85
M166	140655	K85
M167	140654	K85
M168	140656	K85
M170	131860	
M171	131860	K84
M172	131862	
M176	131862	K84
M301	121850	
M305	121851	
M306	121851	
M307	121853	
M308	121853	
M309	121852	
M310	121852	
M311	121854	
M312	121854	
M313	131562	
M314	131562	
M315	131574	
M316	131574	
M317	131563	
M318	131563	
M319	131576	
M320	131576	
M321	140618	
M322	140619	
M323	131577	
M324	131577	
M325	140619	
M326	140619	
M327	151380	
M328	151380	
M329	151361	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
M330	151381	
M331	151362	
M332	151382	
M333	801028	
M334	801040	
M335	801041	
M351	801029	
M352	801030	
M353	151361	
M354	151381	
M358	801042	
M360	131562	
M361	131562	
M362	131574	
M363	131574	
M401	121855	
M402	121856	
M403	121859	
M404	121857	
M406	131579	
M407	131580	
M408	131581	
M411	131583	
M414	801071	
M415	121858	
M416	131582	
M417	801070	
M418	121860	
M420	801075	
M421	801076	
M422	131579	
M423	131580	
N302	112627	E02
N305	112427	E02
N306	112428	E02
N307	112427	E02
N308	112428	E02
N309	112627	E02
N310	G120585	E02
N311	G120858	E02
N312	G120586	
N313	115751	
N314	G130662	
N315	G131775	
N316	G130662	
N317	G131776	
N318	G140280	
N319	G140281	
N400	115633	
N401	115634	
N402	115635	
N403	121419	
N404	G121420	
N405	G121421	
N520	113473	
N521	113019	
N522	113020	
N523	114313	
N524	114314	
N525	114315	
N526	114316	
N527	114317	
N528	114318	
N529	114319	
N530	114310	
N531	114311	
N532	114312	
N540	113582	
N541	112528	
N542	113583	
N543	112529	
N544	113584	
N545	113300	
N556	113580	
N557	112526	
N558	113581	
N559	112527	
N564	112523	E02
N567	113588	

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

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Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
N569	113589	
N587	112643	
N588	112644	
N589	121039	
N591	113588	
N592	113589	
N593	113587	
N595	113589	
N595	112524	
N596	113591	
N599	113587	
N600	115744	
N601	113589	
N602	112524	
N603	G120587	E02
N604	115745	
N605	113591	
N606	112643	
N608	115746	
N609	113592	
N610	121039	
N611	112644	
N612	G120588	
N613	G120911	
N614	G130664	
N615	G131167	
N616	G131171	
N617	G131165	
N618	G140466	
N619	G140464	
N620	112547	E02
N640	113649	
N641	113954	
N642	113473	
N643	113022	
N644	113019	
N645	113023	
N646	113020	
N647	120760	
N648	113024	
N649	113024	
N650	120761	
N651	113593	
N652	121040	
N653	114616	
N654	120762	
N655	120987	
N656	131596	
N657	131595	
N658	131597	
N659	131594	
N660	140467	
N661	140465	
N680	112431	
N681	112432	
N682	112626	
N684	131571	
P001	102197	
P002	102198	
P003	101637	
P004	101638	
P005	113891	
P006	113893	
P007	113893	
P101	110446	
P102	114176	
P102	114931	
P103	110448	
P103	114208	
P104	110112	
P104	114207	
P105	110192	
P105	114206	
P106	111273	
P106	114205	
P107	114204	
P107	111630	
R300	192010	
R301	192011	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
R302	192012	
R303	192020	
R304	192021	
R305	192022	
R306	192030	
R307	192031	
R308	192032	
R309	192040	
R310	192041	
R311	192042	
R312	192050	
R313	192051	
R314	192052	
R315	192060	
R316	192061	
R318	192070	
R319	192071	
R320	193072	
R321	192080	
R322	193081	
R324	193100	
R325	193101	
R326	193102	
R327	193110	
R328	193111	
R329	193112	
R330	193120	
R331	193121	
R332	193122	
R333	193130	
R334	193131	
R335	193132	
R336	193140	
R337	193141	
R338	193142	
R339	193150	
R340	193151	
R341	193152	
R342	193160	
R343	193161	
R344	193162	
R345	193170	
R346	193171	
R347	193172	
R348	193180	
R349	193181	
R350	193182	
S003	101423	P02,C09
S006	100006	C09
S010	100006	C09
S011	100116	C09
S012	100007	C09
S013	100002	C09
S014	100008	C09
S022	100007	C09
S025	100115	C09
S026	100116	C09
S027	100002	C09
S030	100588	
S033	100004	
S036	100005	
S037	110004	
S038	110000	
S039	110167	
S102	100111	P01,C09
S103	100111	C09
S106	100014	C09
S110	100014	C09
S111	101015	C09
S112	100015	C09
S113	100064	C09
S114	100016	
S115	100065	C09
S116	113027	
S117	110054	
S118	100111	C09,P01
S119	100111	C09
S120	100015	C09
S126	100111	C09

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
S127	101015	C09
S128	100064	C09
T014	110108	
T016	110142	
T018	110109	
T019	110402	
T031	120341	
U004	G158362	
U005	G158366	
U006	G158157	
U007	G158140	
U008	G158001	
U009	G158010	
U010	G825047	
U011	G825041	
U012	G825043	
U013	G825045	
U014	G825002	
U015	G825005	
U016	G825008	
U017	G825011	
U018	G825014	
U019	G825017	
U056	G158001	
U057	G158010	
U061	G158319	
U062	G158158	
U063	G158159	
U064	G158000	
U065	G825039	
U066	G825046	
U067	G825040	
U068	G825042	
U069	G825044	
U070	G825001	
U071	G825004	
U072	G825007	
U073	G825010	
U074	G825013	
U075	G825016	
U086	G825014	
U087	G825017	
U401	G120172	
U402	G131249	
U403	G130327	
U404	G131250	
U405	G150170	C02
U405	G140589	
U427	131500	
U429	131547	
U432	G140692	
U433	G140146	
U435	G140693	
U436	G150175	C02
U437	G150070	C02
U438	G150071	C02
U440	G150023	C02
U442	G151377	C02
U444	G151378	C02
U446	G151379	C02
U602	G130099	
U605	131465	
U608	131460	
U609	131460	
U613	G150299	
U614	131552	
U615	131552	C01
U616	131466	
U619	131461	
U620	131461	C01
U621	G140126	C01
U624	170158	
U624	G131774	C01
U625	150196	
U627	131467	
U630	131546	
U631	131546	C01
U632	G150122	C02
U633	G150157	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
U633	G150122	
U636	G150159	
U637	150197	
U638	150198	
U639	G150140	
U640	150212	C02
U641	150212	
U642	G150123	
U644	G150062	
U645	150198	C02
U647	G150066	
U648	150116	
U649	G150033	
U650	150199	
U652	G150007	
U653	150117	
U654	150224	
U659	150121	
U660	150239	
U661	150253	
U663	G151370	
U668	131466	
U669	G150352	
U670	G140687	
U671	150196	
U701	G121286	
U704	G121287	
U707	G120276	
U710	G130326	
U713	G130328	
U716	G140183	
U719	G140147	
U722	G150102	C02
U724	G150080	C02
U725	G150081	
U726	G150082	
U727	G150083	
U728	G150084	
U729	G150085	
U730	G150086	
U733	G121290	
U735	113927	
U739	G151446	C02
U741	G131774	
U744	G140696	
U746	G150103	C02
U748	G150079	C02
U749	G150106	
U750	G150108	
U751	G120428	
U753	G131497	
U754	G140602	
U755	G140482	
U756	G150138	C02
U757	G150139	C02
U758	121003	
U759	121004	
U760	121005	
U761	131519	
U762	131520	
U763	170142	
U764	170143	
U765	170144	
U766	170064	
U767	170065	
U768	170032	
U769	170006	
U769	170006	
U770	170034	
U771	170009	
U772	170036	
U773	170013	
U774	170038	
U775	170017	
U776	170040	
U777	170021	
U778	170042	
U779	170025	
U780	170142	C02

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
U781	170144	C02
U782	170044	
U783	170029	
U784	170151	
U903	150253	E02
U930	111922	C01
U932	G120489	C01
U933	G120490	C01
U935	G120491	C01
U936	G120391	C01
U938	G120387	C01
U939	G158362	
U941	G158319	
U942	G158366	
U944	G158158	
U945	G158157	
U947	G158159	
U948	G158140	
U950	G158000	
U951	G158001	
U953	G825039	
U954	G158010	
U956	G825046	
U957	G825047	
U959	G825040	
U960	G825041	
U962	G825042	
U963	G825043	
U965	G825044	
U966	G825045	
U968	G825001	
U969	G825002	
U971	G825004	
U972	G825005	
U974	G825007	
U975	G825008	
U977	G825010	
U978	G825011	
U980	G825013	
U981	G825014	
U983	G825016	
U984	G825017	
X024	100699	
X025	100700	
X026	100701	
X030	100699	
X031	100700	
X032	100701	
X500	116772	S14
X501	116773	S14
X513	115778	
X523	115779	
X902	111330	
X920	191872	
X921	191871	
X922	191873	
X923	191891	
X924	191892	
X925	191893	
Y302	131849	
Y303	131850	
Y304	140641	
Y509	810066	
Y510	810007	
Y525	810548	
Y526	810546	
Y527	811320	
Y533	811530	
Y554	810068	
Y564	811322	
Y569	810011	
Y573	810027	
Y574	810031	
Y575	810087	
Y576	811369	
Y577	811371	
Y578	810503	
Y579	811516	
Y580	811529	

Marathon Cat. No.	LEESON Equivalent Cat. No.	Exception Code
Y582	810001	
Y590	810547	
Y595	810157	
Y965	G120587	E02
Y967	G120588	
Y972	120761	
Y973	120762	
Z115	140209	
Z116	140414	
Z117	140223	
Z119	131541	
Z120	131542	
Z121	131543	
Z122	140130	
Z123	121569	
Z128	110090	
Z305	131847	
Z308	140640	
Z313	131848	
Z315	140640	
Z401	120996	
Z403	120994	
Z404	121190	
Z405	132073	
Z406	131640	
Z407	131604	
Z408	131641	
Z409	131605	
Z410	140642	
Z411	140643	
Z412	140644	
Z413	140645	
Z427	131589	
Z429	140646	
Z431	140647	
Z502	131534	
Z506	131537	
Z602	098002	
Z603	098003	
Z604	098004	
Z605	098005	
Z608	108014	
Z609	108015	
Z610	108018	
Z611	108019	
Z612	108022	
Z613	108023	
Z615	128000	
Z617	128001	
Z619	108502	
Z630	108423	
Z634	108226	
Z635	108227	
Z636	108228	
Z638	108230	
Z639	108231	
Z641	108232	
Z652	118015	
Z654	118016	
Z655	118017	
Z656	118018	
Z657	118019	
Z660	108045	
Z662	108046	
Z663	108050	
Z664	108047	
Z665	108051	
Z667	108052	
Z669	108053	

MAGNETEK/A.O. SMITH TO-LEESON CROSS REFERENCE

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
1-103017-2	175004	
175755.01	175659	
175755.02	175139	
175755.03	175177	
175755.04	175660	
175755.05	175140	
175755.06	175178	
175755.07	175662	
175755.08	175141	
175755.09	175179	
4-308681-04	175034	
4-308681-05	175035	
4-308681-06	175036	
4-308681-07	175037	
4-308681-08	175038	
4-308681-09	175039	
4-308681-10	175040	
4-308681-11	175041	
4-308681-13	175043	
4-308681-14	175044	
4-308681-15	175045	
4-308681-16	175046	
4-308681-17	175047	
4-308681-18	175048	
4-308681-19	175049	
4-308681-2	175042	
4-308681-20	175088	
4-308681-21	175089	
4-308681-29	175090	
4-316239-01	175092	
4-316239-02	175093	
4-316239-06	175094	
4-316239-06	175095	
4-316239-09	175097	
4-316239-10	175098	
4-316239-12	175127	
486	191873	C20,C21
5EB3104V1	120122	
5EB3104VI	110206	B30
5EB3154V1	120021	
5EB3154VI	110893	B30
5EB3204V1	120019	
801	100109	C10,C12,H04
808	191868	
809	191869	
812	191870	F01
838	100109	C10,C12
839	100110	C12,C10
875	100109	C10,C12,P01
878	100115	P01,C10
883	100110	C12,P01,C10
885	100110	C12,C10
889	100116	C10
902	102014	C10
914	191872	C29,C12
915	191875	C29,C12
921	100804	C29,C11,P01
922	100804	C29,C11
924	101020	
925	101021	F05
9451	191872	
9452	191875	C20,C21
970	191871	C20
A010	111095	E01
A011	111097	B33
A012	111096	B33
A013	111075	B31
A014	111084	B33
A014	111085	B31
A015	110918	
A015	110934	B33
A015	111086	B31
A016	110852	
A016	110961	B33
A017	111932	
A018	111929	
A019	111923	
A020	111922	F05
A021	G120490	F06
A022	111940	

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
A023	111938	E02,F05
A024	114627	
A025	114629	
A026	114631	
A027	111931	
A028	111930	
A029	111935	
A030	111926	
A031	111941	
A113	G120391	
A130	G120489	F05
A131	G120490	
A132	G120491	
A228	G120387	
A229	G158362	T02
A230	G158319	T02
A231	G158366	T02
A328	G158158	T02
A329	G158157	T02
A330	G158159	T02
A331	G158140	T02
A400	G158001	T02
A401	G158010	T02
A410	G158000	C26,T02
A412	G825039	T02,C26
A500	G825047	T02,C26
A501	G825041	T02,C26
A510	G825046	T02,C26
A512	G825040	T02,C26
A600	G825043	T02,C26
A601	G825045	T02,C26
A612	G825042	T02,C26
A613	G825044	T02,C26
A676	G825002	C26,T02
A677	G825005	T02,C26
A682	G825001	C26,T02
A683	G825004	T02,C26
A751	G825008	T02,C26
A754	G825007	T02,C26
A826	G825011	T02,C26
A827	G825014	T02,C26
A828	G825017	T02,C26
A831	G825010	T02,C26
A833	G825013	T02,C26
A835	G825016	T02,C26
A877	G825019	T02
A878	G825020	T02
B108	110279	C10
B109	110285	C10
B110	110280	C10
B111	110286	C10
B120	101524	C10
B121	101525	C10
B122	101526	C10
B123	113686	C10
B124	110279	C10,C45
B125	110280	C10,C45
B126	101527	C10
B127	101528	C10
B128	101529	C10
B129	113687	C10
B130	110285	C10,C45
B131	110286	C10,C45
B132	110278	C10
B133	110241	C10
B134	110242	C10
B135	110243	C10
B136	110281	C10
B137	110282	C10
B138	110283	C10
B139	110284	C10
B171	101431	
B172	100184	
B176	113631	
B177	110362	
B177	113632	
B227SE	100208	C10
B228SE	100723	C10
B229SE	110292	C10
B230SE	110293	C10

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
B3204	113847	S07
B374	100207	
B375	100208	
B376	100723	
B380	110161	C10
B382	115048	
B382	121060	C07,F06
B384	116789	
B386	111275	B30
B412	102016	F01
B413	100361	T01
B415	113955	H01
B420	114145	E02
B421	102873	
B509	110278	
B512	100337	
B514	113955	
B518	110310	
B519	102864	
B570	110293	C10
B587	113939	
B588	100603	
B589	110478	
B592	113939	H01
B604	100205	
B606	113637	E02
B614	100207	
B615	113956	
B618	112135	
B619	110413	
B620	113638	E02
B621	110399	
B622	113957	E02
B628	100204	
B633	100208	
B643	100053	
B647	110241	
B664	110276	
B665	100340	
B671	110360	
B674	110059	
B695	110142	
B696	110109	
B697	110402	
B702	110097	
B703	110478	P01
B714	113639	
B715	113640	
B716	113641	
B718	100722	
B719	100723	
B721	110110	
B722	110479	
B733	113633	C10
B734	110363	C10
B736	110288	
B737	110292	
B744	110289	C39
B753	114214	P02
B754	113958	E02
B759	110361	
B762	110094	
B764	114215	P02
B765	113959	E02
B765	110285	
B767	110289	
B770	110279	C10,P01
B777	110180	
B778	110909	
B780	110280	C07
B781	110286	
B784	110242	
B785	110243	
B786	110279	C10
B787	110160	
B788	110161	
B793	110416	
B794	110419	
B812	110222	C10
B813	120554	

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
B815	113931	F05,C10
B816	110422	C10
B819	110232	C10
B860	114215	C07
B861	114995	F05
B870	114214	C07
B871	110909	T01
B871	115024	
B888	110310	B34
B889	112135	B34
B890	110180	B34
B891	110909	B34,F04
B892	113931	B34
B893	121060	F07,B34
BF1052	101432	C11
BK1054	100011	C03,C28
BK1072	100603	C03,C28
BK1074	100012	C03,C28
BK1102	110478	C03,C28
BK1104	110007	C03,C28
BK1154	110579	C03,C28
BK12	175674	
BK1202	113633	C03,C28
BK1204	113608	C03,C28
BK13	175675	
BK14	175676	
BK15	175677	
BK16	175678	
BK3052	101640	
BK3054	100796	
BK3072	101641	
BK3074	100908	B30
BK3102	113895	B30
BK3104	111311	
BK3152	113896	
BK3154	113846	S07
BK3202	113897	
BK3302	113926	
BK3304	116593	
BR3104	110029	P03
BR3152	110429	B30,P03
BR3154	115825	B30,P03
BR3155	111309	B30
BR3202	111310	
BR3204V1	115826	P03
BR3302	113923	P03
BR3304V1	116595	P03
C026	114617	
C027	110009	E02
C042	100803	C23
C043	100804	C23
C044	111323	F05,C23
C045	100824	C24
C046	100825	C24
C047	111321	F05,C24
C048	111919	F05
C102	100116	
C105	100110	P01
C109	100006	F02
C138	101423	P02
C138	100115	P01
C149	100109	
C150	100955	
C151	100955	P03
C152	100023	
C153	102868	
C154	100024	
C155	102867	
C157	100115	
C187	100003	
C196	100109	
C198	102014	
C199	100000	
C202	114617	P03,E02
C204	131986	
C210	120879	C07,F06
C215	113281	F05
C220	113635	
C222	100001	
C223	114613	

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
C224	100588	
C225	114619	
C226	100014	
C235	100024	
C236	102867	
C308	100001	
C309	100010	C46
C310	113256	E02,C39
C311	110086	C39
C312	110087	
C313	110088	
C314	110089	
C315	100025	
C316	100026	
C317	111330	
C319	110090	
C320	100004	
C322	110011	
C323	100005	
C324	110003	
C325	100004	
C326	110734	
C327	110411	
C335	101651	
C336	110734	
C337	114932	H07
C338	114932	
C339	114933	
C340	113280	
C340	113301	
C403	100010	
C412	100011	
C420	110002	
C426	100012	
C435	111954	F05
C445	110220	
C446	101650	
C447	110057	
C448	113672	F05
C457	100006	
C461	100011	C46
C471	111955	F05,C07
C472	113373	F05,C07
C506	110388	
C507	110420	
C508	113932	F05
C509	110910	F05
C520	110022	
C521	110021	
C523	110007	
C524	113027	
C526	100003	
C527	100012	
C530	113930	
C531	110058	
C540	114165	H03
C541	114165	
C608	100007	
C612	110012	
C613	110016	
C620	110023	
C621	110579	
C630	100002	
C634	100015	
C635	100020	
C639	100008	
C655	100008	
C658	100003	
C664	110014	
C665	101523	
C666	100016	
C669	110013	
C671	110016	
C682	110000	
C683	110209	
C685	110018	
C686	110019	
C689	110005	
C693	110253	
C695	110004	

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
C774	110167	
C775	110006	F05
C775	113266	F05
C776	113700	F05,C07
C777	110910	
C802	110352	F05
C824	114144	B34
C826	110734	B34
C828	110905	B34
C830	110908	B34,F04
C831	110910	B34
C832	120274	B34,F07
C907	102862	
C916	110057	
C926	110058	
CP1072M	110160	H02
CP1072M	100053	
CP1102M	110160	
CP1152M	110161	C10
CP1202M	110232	
CP1302M	110222	C10
CP1502M	120554	
CP1502M	111275	
CP1502MV1	116523	
D027	098002	E02
D029	098002	
D030	098002	E02
D031	098004	E02
D032	098000	
D033	098000	E02
D034	098032	
D035	108022	
D038	098002	
D039	098002	E02
D040	098004	E02
D041	098000	
D041	108014	
D042	098000	E02
D043	098032	
D043	108018	
D044	108022	
D052	098008	
D053	098007	E02
D054	098069	
D055	108023	
D059	098009	
D059	108016	
D060	098008	
D060	108015	
D061	098069	
D061	108019	
D062	108023	
D066	098006	E02
D068	098008	E02
D070	128000	
D071	128010	
D072	108502	
D073	108021	
D074	108265	
D075	108266	
D076	108020	
D080	128000	
D081	128000	
D082	108502	C18
D092	098005	E02
D203	108423	E01
D204	108424	E01
D205	108226	
D206	108227	E01
D207	108228	E01
D208	108229	E01
D209	108230	
D210	108231	
E100	G120010	
E1006	120122	E02
E1007	120021	C18
E1008	120019	
E1009	G120086	F06
E101	G120011	
E101	G120088	F06

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

MAGNETEK/A.O. SMITH TO-LEESON CROSS REFERENCE

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
E1010	G120103	
E1011	G120088	F06
E1012	G120076	
E1013	G120077	
E1015	121003	T02
E1016	121004	T02
E1017	121005	T02
E1018	120034	
E1019	120923	T02
E102	G120012	
E1020	G120089	C47
E1021	120921	T02
E1023	G120276	
E1024	G120276	B34
E1025	G121287	
E1026	G121286	B34,F07
E1027	G120428	
E103	120047	E02
E104	120032	E02
E105	120034	E02
E113	121181	T02
E116	120923	T02
E117	121850	
E120	G120014	C01,C25
E121	G120015	
E122	G120016	
E123	120047	
E124	120032	
E125	120034	
E126	120122	
E127	120021	
E128	120019	
E136	120921	C19
E136	120922	C19
E140	121179	T02
E153	120923	C01,C19,T02
E154	120019	C01,C19
E156	121851	
E156RF	121851	C47
E157	121846	C47
E159	121853	
E159RF	121853	C47
E161	G120086	C25
E162	G120088	C25
E164	G120014	C25
E165	G120015	C01,C25
E166	G120016	C25
E174	121852	
E174RF	121852	C47
E175	121847	C47
E177	121854	
E177RF	121854	C47
E178	121849	
E180	114624	T02
E181	102024	T02
E188	114638	
E2002	G150142	P03
E2003	G130325	
E2004	131489	B33
E2005	G131249	
E2006	131490	
E2007	G130327	
E2008	G131250	
E2009	131491	C01
E2010	G130326	C01
E2011	131492	C01
E2012	G130328	C01
E2013	G130662	
E2014	G130663	
E2016	G130664	
E2017	G131171	
E2018	131596	
E2018	G130664	
E2019	131597	
E2019	G131171	B31
E202	131465	E02
E2023	171320	E02
E2027	171322	E02,C47
E203	131500	
E205	170158	E02

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
E205	131988	
E206	131971	
E207	131972	
E208	G130282	
E209	G130284	
E214	G130010	
E215	G130012	
E218	171322	
E219	171322	C02,T02
E219	131463	T02
E220	G130008	
E221	G130027	
E222	171320	C47
E223	171322	C47
E226	G130000	
E227	G130004	
E236	131504	
E237	131502	
E240	G130099	
E241	G150299	
E241	G130101	
E241SD	G150299	K57
E244	G130015	
E245	G130016	
E252	171320	C47
E253	171320	T02
E255	171322	
E256	171322	T02
E260	G130008	C01
E260SD	171320	K57
E261	G130027	
E261SD	171322	K57
E282	131563	C47
E283	131861	C47
E285	131576	C47
E286	131863	C47
E292	171320	C02
E292	131463	
E293	131464	
E293	171322	C02
E294	131562	C47
E294RF	131562	C47
E295	131860	C47
E296	131574	
E296RF	131574	C47
E297	131862	
E300	G150142	C02
E300	G140471	
E3002	131527	
E3002	140580	
E3003	G150170	C02
E3004	G140692	
E3006	G150172	C02
E3006	G140146	
E3008	131528	C01
E3009	G150165	
E3009	G140183	
E301	G150144	
E3010	140109	C01
E3010	151348	
E3011	G150167	
E3011	G140147	
E3012	G140280	
E3013	G140281	
E3014	G140466	
E3015	G140464	
E3016	140467	
E3016	G140466	
E3017	140465	
E3017	G140464	
E3021	G150142	C47
E3025	G150144	C47
E308	G140682	
E309	G140683	
E314	G140550	
E315	G140122	C25
E317	170142	C02,T02
E319	170144	C02,T02
E320	G150157	C02
E321	G150140	C02

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
E322	G150157	C47
E323	G150140	C47
E325	150212	
E336	G130103	
E336SD	170158	K58
E337	G140686	
E337SD	G150159	K58
E342	G140551	C01
E343	G140126	C01
E350	170157	C47
E351	170157	T02
E352	131546	
E353	170140	C47
E354	170140	T02
E355	150212	
E356	G150157	
E356	G140578	C01
E356SD	G150157	K58
E357	G150140	C25
E357SD	G150140	K58
E364	131546	
E366	150196	
E367	150197	
E368	140618	
E369	140653	C47
E371	131577	C47
E372	140655	C47
E374	140619	
E375	140654	C47
E377	151380	C02
E378	140656	C47
E392	170143	C02,T02
E393	170064	C02,T02
E397	170144	
E394	171574	C02
E4001	G140693	
E4002	G150175	
E4003	G150071	
E4004	G150071	B31
E4005	G150102	
E4006	G150080	
E4010	G150065	C47
E4014	G150006	C47
E407	170006	C02,T02
E407	170006	C02
E408	G150032	C02
E409	G150034	C02
E414	G150145	
E415	G150146	
E422	G150066	C47
E430	150198	
E431	150116	
E432	150199	
E433	150117	
E436	G150062	
E436	G140687	
E436SD	G150062	K59
E437	G150033	
E437SD	G150033	K59
E442	G150122	
E442SD	G150122	K59
E442SD	G150123	K59
E443	G150123	
E449	G150065	C02
E451	170065	C02,T02
E457	G150006	C02
E460	170066	C47
E461	170066	
E462	150116	
E464	170007	
E465	150117	
E466	G150066	
E466SD	G150066	K59
E467	G150007	
E482	151361	
E483	801051	C47
E485	151381	C02
E486	801056	C47
E488	151362	C02
E489	801052	C47

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
E491	151382	C02
E492	801057	C47
E494	170032	C02,T02
E495	170034	C02,T02
E497	170146	
E5001	G150036	C02
E5002	G150038	C02
E5002R	G150038	
E5003	G150073	
E5004	G151377	B31
E5005	G150073	B31
E5006	G151377	
E5007	G150081	
E5008	G150082	
E5012	G150009	C47
E5016	G150013	C47
E511	G150067	C02
E512	G150000	C02
E514	170009	C02,T02
E516	170013	C02,T02
E535	G150068	
E535SD	G150068	K60
E536	G150001	
E536SD	G150001	K60
E546	G150009	C02
E548	G150013	C02
E549	170011	C47
E550	170011	T02
E551	150118	
E552	170015	T02
E554	G150011	
E554SD	G150011	K60
E555	G150015	
E555SD	G150015	K60
E557	G150035	
E557SD	G150035	K60
E558	G150037	
E558SD	G150037	K60
E560	150224	
E561	150228	
E564	150118	
E565	150119	
E566	801028	C47
E567	801053	C47
E569	801040	C47
E570	801058	C47
E572	801029	C47
E573	801054	C47
E575	801041	C47
E576	801059	C47
E584	170036	C02,T02
E585	170038	C02,T02
E586	G150087	C47
E586	170067	
E587	170000	
E587	G150000	C47
E594	150118	E02
E595	150119	E02
E600	G150017	C02
E600R	G150017	
E601	G150021	
E601R	G150021	
E607	G150021	C44
E608	G150017	C44
E612	G150002	C02
E613	G150004	C02
E614	G150003	
E614SD	G150003	K61
E615	G150005	
E620	G150019	
E620SD	G150019	K61
E622	G150023	
E622SD	G150023	K61
E625	170017	C02,T02
E627	170021	
E628	170019	T02
E629	150120	
E630	170021	C02,T02
E630	170023	T02
E631	150121	

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
E634	170040	C02,T02
E635	170042	C02,T02
E636	G150002	
E637	G150004	
E642	G150039	
E642SD	G150039	K61
E643	G150041	
E643SD	G150041	K61
E646	150120	
E646R	150120	
E647	150121	E02
E647R	150121	E02
E648	G150040	C02
E650	G150042	C02
E664	150232	
E665	150120	
E667	150121	
E668	G150083	
E669	G150084	
E671	G150004	
E700	G150025	C02
E700R	G150025	
E701	G150029	C02
E701R	G150029	
E708	G150147	C02
E709	G150148	C02
E712	G150027	
E712SD	G150027	K62
E714	G150031	
E714SD	G150031	K62
E716	170025	
E721	150239	
E722	G150031	
E728	170044	C02,T02
E729	170151	C02,T02
E730	170096	E02,C47
E731	170097	E02
E745	G150149	C02
E746	G150150	C02
E749	G150087	
E760	G150096	
E760SD	G150096	K62
E763	150239	
E763R	150239	C01
E764	G150044	C02
E767	150244	E02
E767R	150244	C01
E768	G150151	C02
E771	150253	
E771R	150253	C01
E772	G150154	C02
E774	G151449	
E775	G150152	
E775R	G150152	
E776	G150152	F23
E782	G150043	
E782SD	G150043	K62
E783SD	G150045	K62
E784	G150160	
E785	G150097	
E785SD	G150097	K62
E786	G150098	
E786SD	G150098	K62
E787	G150099	
E787SD	G150099	K63
E826	G151367	E02
E831	G151369	
E843	170371	
E845	170352	
E847	171523	
E855	G151371	
E869	G151368	
E872	G151367	
E873	G151370	
E877	151529	
E881	151530	
EB1034	113256	P02
EB1034A	114613	
EB1034A	113256	
EB1034M	113256	

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
EB1052	110399	
EB1054	110012	
EB1054A	110016	
EB1054M	110086	
EB1072	110276	
EB1074	110013	
EB1074A	110017	
EB1074M	110087	
EB1102	110059	
EB1102M	110142	
EB1104	110209	B30
EB1104A	110018	B30
EB1104M	110088	B30
EB1104T	120025	
EB1104tm	120008	C11
EB1152	110094	B30
EB1152T	120130	
EB1154	110253	
EB1154A	110019	
EB1154M	110089	
EB1154T	120026	
EB1154TM	113938	
EB1202	110352	
EB1202M	110402	
EB1202T	120036	
EB3034	101079	
EB3054	100913	
EB3072	110313	
EB3074	110034	
EB3102	110145	
EB3104	110035	
EB3104VI	115830	
EB3152	110745	C11
EB3154	110444	B30
EB3154VI	115829	
EB3202	111916	
EB3202VI	111916	B30
EB3204	113026	
EB3204VI	115828	
EC1034	101766	
EC1054	102862	
EC1054A	102871	
EC1074	110057	
EC1074A	110308	
EC1104	110058	
EC1104M	110041	
EC1154	110420	
EC1154M	110042	
EC1154T	120017	
EC3034	101769	
EC3054	102860	
EC3074	112378	
EC3074	110047	
EC3104	110048	
EC3104T	120024	
EC3154	110125	
EC3154T	120037	
EC3204	110451	
EC3204T	120038	
ECB1054	110734	
ECB1054	110310	
ECB1074	110905	
ECB1074	112135	
ECB1104	110908	
ECB1104	110180	
ECB1104M	115879	B30
ECB3054	114140	
ECB3074	110916	
ECB3104	110912	
ECB3154	110918	B30
ECB3204	116106	
ECT1052A	113955	E03
ECT1072A	113956	E03
ECT1102A	113639	E03
ECT1152A	113640	E03
ECT3052	114931	
ECT3072	114208	
ECT3102	114207	
ECT3152	114206	
ECT3202	114205	

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

MAGNETEK/A.O. SMITH TO-LEESON CROSS REFERENCE

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
F387	111953	F05
F683	100825	
FY3106	111147	C37
FY3156	111148	C37
GPD333-A005N4	174730	
GPD505V-A027	174545	
GPD505V-A027	174551	
GPD505V-A036	174557	
GPD505V-A054	174560	
GPD505V-B011	174924	
GPD505V-B014	174552	
GPD505V-B021	174558	
GPD505V-B027	174561	
GPD505V-B034	174563	
GPD505V-B041	174565	
GPD505V-B052	174567	
H025	110434	
H026	110914	E02
H027	120063	F06
H031	101291	
H031	113311	E02
H033	110163	E02
H034	110914	E02
H035	112378	
H036	116340	
H037	113020	
H038	113021	
H049	114394	
H050	114395	
H051	115635	B31
H052	114581	
H060	101767	
H061	101769	
H062	102860	
H063	110047	
H064	120024	
H1001	110446	B33
H1002	110911	B34
H1003	101291	B33
H1004	114142	B34
H1005	114140	B34
H1006	110914	B34
H1007	110915	B34
H1008	110916	B34
H1009	116340	B34
H1010	110181	B34
H1011	110912	F04,B34
H1011	G121286	F07,B34
H1013	110917	B34
H1014	110918	F04,B34
H1014	G121287	F07,B34
H1015	113927	F04,B34
H1016	G120276	F07,B34
H1017	114615	C11,B34
H1017	G120991	F07,B34
H137	102197	
H155	102198	
H156	101767	E02,C47
H157	101648	
H157	101767	
H158	100048	
H159	102863	
H181	113025	
H191	110446	C47
H192	110144	C47
H193	110448	C47
H194	110112	C47
H195	110192	C47
H196	111273	C47
H197	111630	C47
H200	100027	F02
H201	101646	E02
H234	101447	F01
H241	110911	
H241	114141	E02
H251	100375	
H254	100056	
H256	102861	
H257	110047	E02
H258	110043	

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
H260	100446	
H261	101647	E02
H262	100028	
H264	100210	F02
H267	110425	
H268	110441	E02
H271	100905	E02,F01
H273	100029	
H274	100913	E02
H275	100145	
H276	110199	
H279	110027	
H280	110353	E02
H282	102198	C40
H283	114931	E02
H286	100600	C40
H288	110446	
H290	100601	
H291	114140	E02
H358	100049	
H377	101449	
H379	100050	
H413	110182	
H413	114142	E02
H437	101448	
H446	101637	
H448	110313	E02
H449	101773	
H451	101637	C39
H461	110178	E02
H464	114192	
H467	110028	
H468	121199	F06
H473	110144	
H473	114176	E02
H505	110145	
H506	101638	
H508	100378	
H511	110111	
H514	101638	C39
H515	114208	
H516	114207	
H517	110715	
H522	111326	
H524	110035	
H525	110206	
H528	113933	
H530	110745	C47
H531	114194	
H534	110430	
H535	110444	
H536	110433	
H537	111916	
H538	114196	
H551	110915	E02
H563	110448	E02
H575	110893	
H580	110034	E02
H581	100030	
H582	100146	F05
H583	110181	C47,E02
H585	100602	C47
H585	102971	
H586	110916	E02
H594	111327	
H602	110426	
H607	113891	
H609	110437	
H612	113894	
H614	110029	
H615	110052	
H616	110437	C39
H617	113891	C39
H628	111611	C39,E02
H630	110181	
H633	110112	
H645	112427	E02
H646	112429	
H646	113586	
H647	112428	E02

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
H648	112430	
H648	113587	
H655	111956	
H656	111957	F05
H657	111958	
H658	111959	F05
H661	114206	
H667	111147	
H683	110901	C39,C47
H683	116784	
H684	110912	
H687	111328	
H688	101079	
H693	110902	C39,C47
H693	116785	
H694	G121287	
H703	110451	
H704	113894	C39
H705	113892	C39
H706	114205	
H707	114204	
H708	116630	
H709	116106	
H710	115553	C39,C47
H711	114218	C39,C47
H715	110917	
H716	113927	
H717	111960	F05
H718	111961	F05
H733	113892	
H734	113893	
H736	114420	
H738	114614	C11
H740	113334	
H741	113893	
H743	113893	C47
H750	110437	C47
H751	110192	
H753	111273	
H756	110429	F04
H767	111148	
H770	113588	
H771	113473	
H772	113589	
H773	113019	
H774	113590	E01
H775	G120585	E02,F22
H776	113020	
H776	G120587	F22
H777	120760	
H803	111630	
H840	101640	
H841	101641	
H842	113895	F04
H843	113896	
H844	113897	
H845	113926	
H850	100796	
H851	100908	F05
H852	111311	
H853	113846	
H854	113847	
H860	114158	H03
H861	110669	
H862	110670	
H862	114154	E02
H864	114152	F04
H865	110671	
H865	114155	E02
H868	100913	
H869	110034	
H884	111309	
H921	110048	
H930	110044	
H931	110125	
H932	111444	
H948	111611	B34
H971	111444	C39,E02
H973	110176	
H975	110177	E02

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
H976	110204	
H979	G130565	F09
H980	G131338	F08
H991	101051	C39,E02
H992	110178	C39,E02
H993	110206	C39,E02
K100	120025	
K101	120026	
K102	121569	
K1024L	100023	
K103	113938	
K1034L	100024	
K104	113938	
K1050	100204	
K1052	100204	
K1054L	100025	
K107	112136	
K1070	100205	
K1074L	100026	
K1100	100722	
K1104L	110220	
K115	120017	
K1150	110288	
K1152	110288	
K1154L	110388	
K1200	110289	C10
K1202	110289	C10
K200	131509	
K203	131533	
K205	131542	
K208	131543	
K209	131631	P02
K213	131541	
K214	131542	
K215	131543	
K223	131549	
K300	140223	C07
K301	140209	
K302	140414	
K3054L	100049	
K3074A	100050	
K3074L	100050	
K3104L	110043	C39
K311	140130	
K312	140414	
K314	140684	
K315	140685	
K3154L	110044	C39
K3202	113894	C39
K3302	114420	
M116	120945	C37
M120	120941	C37
M121	120940	C37
M126	120944	C13,C37
M127	120947	C13,C37
M128	120946	C13,C37
M129	120944	C13
M130	120945	
M131	120947	C13
M132	120941	
M133	120946	C13
M134	120940	
M206	131474	C37,F09
M222	131468	C13,C37,F09
M223	131469	C13,C37
M240	131468	C13,F09
M241	131474	F09
M242	131469	C13
M243	131475	
M302	131475	C37
M312	140447	C37,F12
M321	140443	C13,C37,F12
M322	140444	C13,C37
M340	140443	C13
M341	140447	
M342	140444	C13
M343	140448	C39
MF402	175853	
MF404	175855	
MF407	175857	

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
MF409	175883	C02
MF501	175852	
MF502	175854	
MF503	175856	
MF504	175884	C02
N025	120061	
N103	120037	
N104	120038	
N142	121199	F06
N147	121858	C13
N148	121858	C47
N149	121855	C47
N153	121859	C47
N154	120098	
N157	121860	
N161	121856	C47
N163	121857	C47
N214	G130008	C47
N215	G130027	
N219	131861	E03
N232	131579	
N245	131580	E03
N246	131581	
N252	131860	
N268	G131613	C01
N269	G131614	C01
N316	G140578	C47
N317	G140489	C47
N324	140109	
N324	151348	C01
N329	140653	E03
N344	140622	
N345	140623	
N347	140654	
N376	G140603	
N377	G140636	
N417	801070	
N419	801051	E03
N424	801075	
N435	801052	E03
N525	801053	E03
OB1024	100115	P01
OB1034	100006	
OB1034A	100001	
OB1054	100007	
OB1054A	100002	
OB1074	100008	
OB1074A	100003	
OB1074M	100005	
OB1104	110004	
OB1104A	110000	
OB1104T	120044	
OB1154	110005	
OB1154T	120042	
OB1204T	120067	
OB3035	100028	C47
OB3055	100029	C47
OB3075	100030	C47
OB3104	110029	C47
OB3104VI	115827	C47
OB3154	110430	C47
OB3154VI	115825	C47
OB3202	113292	B30,C47
OB3204	113025	C47
OB3204VI	115826	C47
OB3304VI	116595	C47
OS1034	100006	C12
OS1034A	100001	C12
OS1054	100007	C12
OS1054A	100002	C12
OS1074	100008	C12
OS1074A	100003	C12
P121	120996	
P123	120994	
P124	121190	
P130	131640	
P132	131640	C13
P133	131641	C13
P135	131859	
P137	131604	

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
P140	131641	
P229	131640	
P230	131604	C34
P231	131641	
P235	131859	
P318	140642	
P319	140643	
P320	140644	
P325	140646	
P327	140647	
PCT2	175655	
PCT3	175068	
PCT4	175191	
PCT5	175061	
PCT6	175062	
PDT2	175658	
PDT3	175115	
PDT4	175192	
PDT5	175119	
PDT6	175121	
Q651	801060	
R110	111309	C47
R127	111310	F05
R131	120024	E02
R132	120172	
R133	120081	
R134	120035	
R156	120082	
R166	G121053	
R167	G121054	
R173	G120585	E02
R174	G120587	E02
R174	120760	
R175	G120858	E02
R176	112643	E02
R177	G120586	
R178	G120588	
R182	113591	E01
R184	112643	E02
R184	120761	
R185	113592	C11,E01
R186	121039	E01
R187	114616	
R188	G120588	
R189	120762	
R212	G130000	C47
R213	G130004	C47
R234	G130565	
R314	G150142	C47
R315	G150144	C47
RB1034A	100010	
RB1054	100015	C12
RB1054A	100011	
RB1072A	100603	
RB1074	100016	
RB1074A	100012	
RB1102	110478	P01
RB1102A	110476	
RB1104	113027	
RB1104A	110007	C39
RB1152A	110479	C39
RB1154A	110579	C39
RB1202A	113633	C39
RB1204A	113608	
RB3034A	101520	
RB3054	100145	
RB3054A	100796	
RB3072A	101641	
RB3074	100146	
RB3074A	100908	
RB3102A	113895	B30
RB3104	110052	
RB3104A	111311	F05
RB3152A	113896	F05
RB3154	110433	
RB3154A	113846	
RB3202A	113897	F05
RB3204	114197	
RB3204A	113847	
RB3302	113926	P01

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

MAGNETEK/A.O. SMITH TO-LEESON CROSS REFERENCE

Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code	Magnetek/ A.O. Smith Cat. No.	LEESON Equivalent Cat. No.	Exception Code
RBF1034A	100109	C12	T108	192011	H04
RBF1052A	101432	C12,C11	T109	192011	
RBF1072A	101433	C11	T110	192022	
RS1030A	100115	C12	T1102	100723	C35
RS1035A	100109	C12	T111	192031	
RS1051A	100064	C12	T112	192041	
RS1054	100015	C12	T113	192051	
RS1054A	100011	C12	T114	192061	
RS1055	114225	C12	T115	192071	
RS1070A	100065	C12	T1152	110292	C35
RS1074	100016	C12	T117	192025	
RS1074A	100012	C12	T118	192034	
RS1102A	110478	C12	T119	192035	
RS1104A	110007	C12,C39	T120	192044	
RT1302	110286	C35	T1202	110293	C35,C40
S226	171320	K57	T121	192045	
S227	G150299	K57	T122	192054	
S228	171322	K57	T123	192055	
S303	170157	K58	T124	192064	
S304	170140	K58	T125	192065	
S307	170158	K58	T126	192074	
S308	170159	K58	T127	192075	
S440	170066	K59	T128	192084	
S441	170007	K59	T242	193085	
S442	170122	K59	V100	120044	
S443	170123	K59	V101	120042	
S444	170062	K59	V102	120067	
S445	170033	K59	V106	120992	
S500	170011	K60	V108	120073	
S501	170015	K60	V110	120106	
S502	170068	K60	V200	131515	
S503	170001	T02	V201	131534	
S504	170035		V203	131781	C07
S505	170037	K60	V205	131537	
S600	G150019	K61	V208	131537	
S601	170023	K61	V209	131537	
S602	G150003	K61	V210	131636	
S604	170039		V211	131616	C07
S605	170041		V212	131629	P02
S676	170027	K62	V305	140155	
S677	170031	K62	V310	140680	
S678	170096	K62	V311	140681	
S679	170097	K62	W200	128001	C18
S680	170043		W201	108502	C18
S681	170045		XP1030	111074	
S751	170087	K63	XP1050	111084	
S752	170098	K63	XP1070	110934	
S753	170099	K63	XPC1030	111075	
S754	170160		XPC1050	111085	
SK1302	110280	C36	XPC1070	111086	
SP001	810548		XPCB1030	111075	
SP002	810546		XPCB1050	111085	
SP003	811320				
SP005	811322	C50			
SP010	810140				
SP015	810066				
SP020	810007				
SP025	810011				
SP030	810015				
SP040	810019				
SP050	810023				
SP060	810027				
SP075	810031				
SP1P5	810547				
SP7P5	810157	C50			
ST1052	100207	S13			
ST1072	100208	S13			
ST1102	100723	C41,S13			
ST1152	110292	S13			
ST1202	110293	S13,C40			
ST1302	110286	C35,S13			
T100	192010				
T101	192020				
T102	192030				
T103	192040				
T104	192050				
T1052	100207	C35			
T106	192070				
T107	192080				
T1072	100208	C35			

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W.W. GRAINGER/DAYTON-TO-LEESON CROSS REFERENCE

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code	Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code	Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code	Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code	Grainger Cat. No.	LEESON Equivalent Cat. No	Exception Code	Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
1A767	175077		1Z905	G121651		2K496	131636		2K650	101522		2N938	G150157	B24,C02	3GC70	111934	
1A770	175004		1Z911	110902		2K497	131616		2K651	100020		2N941	G120087	B22	3GC71	111938	
1A771	175030		1Z914	114218		2K501	140155		2K653	101523		2N942	116591	B22	3GC72	111937	
1A772	175031		1Z916	116630		2K502	113027		2K654	101523		2N943	G130016	B23	3GC75	111942	
1D056	100340		1Z918	G120275		2K504	100109	C12	2K655	110036	P02	2N945	G140126	B24	3GC78	G120387	
1D060	100116		1Z920	G121072		2K505	100109	P01	2K661	110422		2N946	G120086	B22	3GC81	114930	
1D061	100184		1Z924	116631		2K510	100767	C29,P01	2K663	102870		2N947	G120088	B22	3GC84	G120088	
1D062	100340		1Z946	100375					2K664	110310		2N948	G120185	B22	3GC85	114141	
1D063	110360		1Z948	113311	E02	2K511	100767	C29	2K665	110419		2N949	G150299	B23,C02	3GC86	101052	
1D065	101431		1Z955	100056		2K519	100012	P01	2K666	110411		2N980	G120010	B22	3GC87	114140	
1D066	100804	C29,P01	1Z958	100378		2K524	110363		2K670	102866		2N981	G120011	B22	3GC88	101051	
1D067	100804	C29	1Z972	112378		2K525	120341	E02	2K671	112135		2N982	G120012	B22	3GC89	100601	
1D068	101432	P01	1Z976	120063	E02	2K526	110004		2K673	110180		2N983	G130000	B23	3GC91	110178	
1D070	101781		1Z983	110111		2K529	110004		2K674	114144		2N984	G130004	B23	3HX70	174914	
1F640	108231		1Z995	120105	E02	2K530	100115		2K676	110905		2N985	G150142	B24	3HX71	174914	
1F642	108230		1Z997	110437		2K532	101423	P02	2K677	110734		2N986	G150144	B24	3HX72	174915	
1F644	108229		2A754	M1760003		2K533	100115		2K678	110910		2N988	G120089	B22	3HX73	174917	
1F646	108228		2K253	101433		2K539	100006		2K773	100015	P01	2N989	120856	B22	3HX74	174918	
1F648	108227		2K258	110579		2K542	110001		2K774	100012	P01	2N990	G130012	B23	3HX75	174919	
1F650	108226		2K259	113608		2K546	100338		2K776	111954	C10	2N992	G140122	B24	3HX76	174920	
1F652	108424		2K261	111953		2K548	100007		2K778	111955		2N995	G120103	B22	3HX77	174921	
1F654	108423		2K264	111954	C10	2K549	100004		2K779	113373		2N996	G120076	B22	3HX78	174922	
1K060	092114		2K267	113672	C10	2K551	110002		2M167	108010		2N997	G120077	B22	3HX79	174923	
1K061	092116		2K343	131541	S07	2K554	100008		2M167	098002		2R918	120061	E02	3K015	101766	
1K064	120067		2K344	131542		2K555	100005		2M168	108014		2R920	113894		3K015	102867	E01
1K065	110209		2K345	131543		2K558	110003		2M168	098000		2R922	114420		3K016	102862	
1K066	110253		2K347	140130		2K559	110361		2M169	108018		2R924	121187		3K017	110057	
1K068	111095	E01	2K348	100804		2K560	110005		2M169	098032		2R926	114142		3K018	110058	
1K069	111098		2K349	100803		2K566	140414	P02,S04	2M170	108022		2R928	110914		3K020	110420	
1K070	111097		2K350	101159		2K567	131637		2M501	108010		2R930	110915		3K054	101015	C12
1K071	111096		2K351	113280		2K568	131549		2M501	098002		2R932	116340	B34,E02	3K060	100064	
1K072	110852		2K352	120374	P03	2K570	140120		2M502	108011		2R934	110181		3K064	110007	
1K073	110388		2K353	120375	P03,C10	2K572	110025		2M502	098004		2R938	110917		3K070	100023	
1K074	112136	E02				2K573	110026		2M503	108014		2R940	G121290		3K071	100024	
1K075	112136		2K354	120376	P03	2K574	111915		2M503	098000		2R942	G121287		3K072	100025	
1K076	114145	P03	2K366	100207	H01	2K577	102014		2M504	108018		2R946	G120276		3K073	100026	
1K077	114144		2K367	100207		2K579	101446	P02	2M504	098032		2R948	G120991		3K074	110220	
1K078	110310	P03	2K368	100208		2K581	114617		2M505	108022		2R950	110434		3K080	111953	
1K079	110734		2K369	100723		2K584	113635		2M506	108023		2Z267	G120077		3K081	111954	
1K080	112135	P03	2K370	110292		2K587	110009		2M507	108015		2Z276	116595		3K083	111955	
1K081	110905		2K371	110293		2K588	102020	P03	2M507	098008		2Z347	110714	E01	3K084	113373	C11
1K082	110910		2K372	110286		2K589	110399		2M508	108019		2Z380	110214		3K091	191868	C12
1K082	121681		2K376	102864	P03	2K590	100956		2M508	098069		2Z500	110354		3K092	101432	
1K084	101650		2K377	110416	P03	2K591	110012		2M509	098004		2Z657	121009		3K093	100064	
1L498	M1135042	S07,S08	2K378	113956		2K593	110011		2M530	174924		2Z817	M1145023	C29,E01	3K093	100011	
1L499	M1135043	S07,S08	2K379	110310	P03	2K595	110276		2M531	174552		2Z818	M1145026	C29,E01	3K094	100603	
1L502	M1145038	S07,S08,C29	2K380	110180	P03	2K596	110108		2M532	174558		2Z828	111394		3K095	111266	
1L533	M112508	S08,S09,B36	2K381	102871		2K597	110013		2M533	174561		2Z841	M1145027	C29,E01	3K095	100012	
1L534	M1125083	S08,S09,B36	2K382	113955		2K599	110400		2M534	174563		2Z842	107011	C10,C32	3K096	110478	
1L535	M1125082		2K383	110422	P03	2K600	110059		2M535	174565		2Z843	107009	C10,C32	3K097	110007	
S08,S09,B36 1L536	M1125080		2K386	113913	E02	2K601	110142		2N863	110030	E01	2Z844	107008	C10,C32	3K098	110479	
S08,S09,B36			2K388	110413	P03	2K602	110209		2N864	110031	E01	2Z845	107007	C10,C32	3K099	113633	
1L538	M1125081	S08,S09,B36	2K389	110419	P03	2K604	120025		2N864	101079		2Z937	110715		3K142	100011	
1Z840	M1120039		2K390	113641		2K606	110109		2N865	110032	E01	2Z981	110206		3K143	100012	
1Z842	M1120045		2K391	100204	H01	2K607	110253		2N865	100913		3GC39	113933		3K144	110007	
1Z851	M1120043		2K392	100204		2K609	110402		2N866	110034		3GC47	G120185		3K147	110579	
1Z854	M1130053		2K393	100205		2K620	111075	H03	2N913	100048		3GC49	111933		3K148	100109	
1Z874	100599		2K394	100722		2K621	111075		2N914	100049		3GC51	111936		3K152	110019	
1Z876	100600		2K395	110288		2K622	111098		2N915	102863	E01	3GC53	111943		3K152	120009	
1Z881	100602		2K396	110289		2K624	111085		2N916	102860		3GC57	113971		3K155	131509	
1Z881	102971		2K397	100207	H01	2K625	111086		2N923	100050		3GC58	121178		3K156	131533	
1Z881	G121650		2K398	100207		2K631	113921	P02	2N924	110047		3GC59	114419		3K159	131538	
1Z883	G121286	E02	2K399	100208		2K633	111098		2N925	110441		3GC60	114627		3K160	110014	E01
1Z897	110901		2K400	100723		2K634	113922	P02	2N926	110353		3GC61	114629		3K170	100001	
1Z897	116784		2K401	110292		2K636	110852		2N933	G120014	B22	3GC63	114631		3K171	100052	
1Z899	110917	E02	2K402	110293		2K645	110382		2N934	G120015	B22	3GC64	114633		3K172	100002	
1Z899	116785		2K409	100204	H01	2K646	110361		2N935	G120016	B22	3GC66	114635		3K173	100053	
1Z901	G121290	E02	2K410	100207	H01	2K648	101521		2N936	G130008	B23	3GC67	G121182		3K174	100003	
1Z905	G121287	E02	2K484	100588		2K649	101522		2N937	G130027	B23	3GC69	111940		3K175	110097	

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W.W. GRAINGER/DAYTON TO LEESON CROSS REFERENCE

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code	Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code	Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code	Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code	Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code	Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
3K176	110000		3KW25	121003		3N349	101649		3N516	G130027		3N614	G150019		3N738	G150011	
3K177	110110		3KW28	121004		3N350	110031		3N517	G130015		3N615	G150023		3N739	G150015	
3K199	100011		3KW31	121005		3N350	101647		3N518	G130016		3N616	G150027		3N740	G150019	
3K201	100000	C12	3KW34	131519		3N351	100961		3N521	G150157	C02	3N617	G150031		3N741	G150023	
3K211	100002	C12	3KW37	131520		3N352	110034		3N522	G150140	C02	3N618	G150087		3N742	G150027	
3K213	100011	C12	3KW40	170142		3N367	111932	E01	3N524	G140126		3N629	111329		3N743	G150031	
3K218	100003	C12	3KW42	G140682		3N368	111929	E01	3N526	G150159	C02	3N634	101640		3N744	G150087	
3K224	100012	C12	3KW43	170144		3N369	111923		3N527	100028		3N634	101641	H07	3N752	G150159	
3K225	110015	E01	3KW45	G140683		3N370	111922		3N528	100029		3N635	101641		3N753	G150062	
3K225	114613		3KW46	170065		3N390	G120010		3N529	100030		3N636	113895		3N755	G150035	
3K227	110016		3KW48	170032		3N391	G120011		3N530	101449		3N637	113896		3N761	G120185	
3K228	110141	P02	3KW49	170006		3N392	G120012		3N531	110029		3N638	113897		3N773	112524	E01
3K228	110399	P03	3KW51	170034		3N393	G130000		3N532	110426		3N639	100027		3N774	112643	E02
3K229	110017		3KW52	170009		3N394	G130004		3N533	110430		3N640	100028		3N775	112644	
3K230	110108	P02	3KW54	170036		3N395	G150142		3N534	110429		3N641	100029		3N779	G140464	
3K230	110276	P03	3KW55	170013		3N396	G150144		3N535	110031		3N642	100030		3N780	113473	
3K231	110018		3KW57	170038		3N397	G150065		3N536	100913		3N643	110029		3N780	112429	
3K234	110142	P02	3KW58	170017		3N398	G150006		3N536	101079		3N644	110430		3N781	113019	
3K234	110059	P03	3KX06	G130103		3N399	G150009		3N536	110032		3N647	111147		3N781	112430	
3K235	113333	P02	3KX08	G140686		3N403	G130008		3N537	110143		3N648	111148		3N782	113020	
3K235	110019		3M130	175091		3N404	G130027		3N538	110034		3N649	111630		3N782	112524	
3K239	110109	P02	3M131	175092		3N405	G150157	C02	3N539	110313		3N650	113890		3N783	113021	
3K239	110094	P03	3M132	175093		3N406	G150140	C02	3N540	110035		3N655	G120010		3N783	112643	
3K300	120130		3M276	175033		3N407	G150066	C02	3N541	110145		3N657	G120012		3N784	120762	
3K344	120036		3M277	175034		3N408	G150000	C02	3N542	110444		3N658	G130000		3N784	112644	
3K344	120395		3M278	175035		3N409	G150011	C02	3N544	G120076		3N659	G130004		3N785	G130664	
3K348	110180		3M279	175036		3N418	100028		3N544	G130282		3N660	G150142	C02	3N787	121850	
3K614	191868		3M280	175037		3N419	100029		3N546	G120088		3N661	G150144	C02	3N789	121851	
3K615	191869		3M281	175038		3N420	100030		3N548	G120014		3N662	G150065	C02	3N791	121852	
3K616	191870		3M282	175039		3N421	110029		3N549	G120087		3N663	G150006	C02	3N792	121854	
3K781	100052	C12	3M367	175094		3N422	110430		3N550	G120015		3N664	G150009	C02	3N793	130529	
3K782	100002		3M593	113292		3N427	110275		3N551	G120086		3N666	G120103		3N793	131562	
3K783	100053	C12	3N003	G150143	B24	3N428	G120323		3N552	G130015		3N667	G120076		3N794	131574	
3K784	100003	C12	3N013	121004		3N429	G120324		3N553	G120016		3N668	G120077		3N795	131563	
3K785	110160		3N017	110035		3N430	G120325		3N554	G120088		3N669	G130282		3N796	131576	
3K785	110097	C12	3N018	110444		3N442	110143	E01	3N555	G130016		3N671	G150143	C02	3N798	131577	
3K786	110161		3N026	100796	H01,P01	3N443	110313		3N556	G130008		3N672	G150064	C02	3N799	140619	
3K786	110110	C12	3N026	100210		3N444	110745		3N558	G130027		3N673	G150032	C02	3N817	100375	
3K787	113632	C12	3N027	100145		3N445	111916		3N560	110143		3N674	G150034	C02	3N818	100056	
3K788	110222	C12	3N028	110043		3N446	110912		3N561	110313		3N675	G120089		3N819	100378	
3K790	111275		3N044	121004		3N447	113927		3N562	110145		3N676	G130010		3N820	110111	
3K794	111074		3N073	G150066		3N450	G120010		3N567	G120489		3N677	G130012		3N821	110437	
3K795	111085		3N087	110048		3N451	G120011		3N570	G140126		3N679	G140122		3N822	113894	
3K795	111084		3N088	101776		3N452	G120012		3N572	G150157	C02	3N680	113028	H07	3N823	114420	
3K796	110934		3N090	114203		3N453	G130000		3N573	G150159	C02	3N681	113031		3N827	113473	E01
3K796	111086		3N234	113028		3N454	G130004		3N574	G150140	C02	3N682	113032		3N828	113019	E01
3K801	100204	H01	3N235	113029		3N455	G150142	C02	3N577	G150013	C02	3N683	100049		3N829	113020	E01
3K802	100207	H01	3N236	113030		3N456	G150144	C02	3N578	G150017	C02	3N684	100050		3N830	120760	E01
3K803	100204		3N237	110112		3N469	111147		3N579	G150021	C02	3N685	110043		3N831	113021	E01
3K804	100207		3N238	111273		3N470	111148		3N580	G150025	C02	3N686	102863		3N832	120761	E01
3K805	100205		3N254	G150007	C02	3N471	114176		3N581	G150029	C02	3N687	102860		3N833	113593	E01
3K806	100208		3N255	G150011	C02	3N471	110144		3N582	G150152	C02	3N688	110047		3N834	121040	
3K807	100722		3N265	110125		3N472	110448		3N583	G150015	C02	3N689	110048		3N835	113586	E01
3K808	100723		3N266	110451		3N473	110192		3N584	G150019	C02	3N690	110125		3N835	113588	E01
3K809	110288		3N285	110035		3N474	G150025	C02	3N585	G150023	C02	3N691	G150145		3N836	113589	E01
3K810	110292		3N291	G158362	C02	3N475	G150029	C02	3N586	G150027	C02	3N692	G150146		3N837	113590	E01
3K973	111074	H03	3N317	110145		3N476	G150152	C02	3N587	G150031	C02	3N693	113025		3N838	113592	
3K978	110288		3N329	G158366	C02	3N486	113026		3N588	G150087	C02	3N695	102024	F04	3N839	G120911	
3K985	100723		3N330	G158157	C02	3N487	100146		3N590	101448		3N696	114624	F04	3N849	101646	
3K986	110292		3N331	G158140	C02	3N488	110052		3N592	110429		3N723	114931		3N855	100905	
3K994	101435		3N333	G120490		3N489	110433		3N599	G150159		3N724	114208		3N856	100960	
3K995	101436		3N334	G120391		3N497	G150062	C02	3N600	G150062		3N725	114207		3N857	111931	
3K996	101437		3N341	G150140	C02	3N499	G150035	C02	3N602	G150035		3N726	114206		3N858	111930	
3KV62	174931		3N343	110918		3N509	G120014		3N608	G150157		3N727	114205		3N859	111935	
3KV63	174933		3N344	G120276		3N510	G120015		3N609	G150140		3N728	114204		3N860	111926	
3KV64	174934		3N345	G130326		3N511	G120016		3N610	G150066		3N734	G150157		3N861	111941	
3KV65	174930		3N346	G130328		3N512	G120087		3N611	G150007		3N735	G150140		3N863	114626	
3KV66	174920		3N347	G150165	C02	3N514	G120088		3N612	G150011		3N736	G150066		3N864	114628	
3KV67	174931		3N348	G150167	C02	3N515	G130008		3N613	G150015		3N737	G150007		3N865	114630	

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W.W. GRAINGER/DAYTON-TO-LEESON CROSS REFERENCE

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
3N866	114632	
3N867	114634	
3N869	120172	
3N870	120081	
3N871	115553	
3N872	120035	
3N873	110916	
3N874	101767	E02
3N875	110044	
3VF56	110167	
3VF58	111266	
3VF68	098003	
3VF69	098005	
3VF70	098000	
3VF71	098007	
3VF72	098009	
3VF73	108016	
3VF74	108020	
3VF75	108021	
3VG03	G150165	
3VG04	G150167	
3VG05	G150102	
3VG06	G150079	
3VG07	G150080	
3VG08	G150081	
3VG09	G150082	
3VG47	101524	C10
3VG48	101525	C10
3VG49	101526	C10
3VG50	113686	C10
3VG51	110279	C10
3VG52	101527	C10
3VG53	101528	C10
3VG54	101529	C10
3VG55	113687	C10
3VG56	110285	C10
3ZP87	110017	
3ZP89	G120077	
3ZP93	191869	
3ZP94	191869	
3ZP98	174914	
3ZP99	174915	
3ZR01	174914	
3ZR02	174915	
4FG52	120554	
4FM29	171320	C44
4FM32	171322	C44
4FM34	170158	C44
4FM35	170157	C44
4FM36	170122	C44
4FM37	170159	C44
4FM38	170140	C44
4FM39	170123	C44
4FM40	170062	C44
4FM41	170066	C44
4FM42	170068	C44
4FM43	170033	C44
4FM44	170007	C44
4FM45	170001	C44
4FM46	170035	C44
4FM47	170011	C44
4FM49	170037	C44
4FM50	170015	C44
4FM52	170039	C44
4FM53	170019	C44
4FM54	170096	C44
4FM55	170041	C44
4FM56	170023	C44
4FM57	170097	C44

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
4FM58	170043	C44
4FM59	170027	C44
4FM60	170027	C44,F15
4FM62	170045	C44
4FM63	170031	C44
4FM64	170031	C44,F16
4FN11	170222	C44
4FN19	170019	C44
4FN22	150120	C44
4FN25	150121	C44
4FN28	150239	C44
4FN29	150239	C44,F15
4FN57	120921	
4FN60	120922	
4FN63	120923	
4FN66	171320	
4FN68	131987	C01
4FN69	171322	
4FN71	170158	
4FN72	170157	
4FN73	170122	
4FN74	170159	
4FN75	170140	
4FN76	170123	
4FN77	170062	
4FN78	170066	
4FN79	170033	
4FN80	170007	
4FN81	131640	
4FN82	131604	C34
4FN83	131641	
4FN84	131605	
4FN97	132044	
4HZ72	G120490	
4JV45	M1760007	
4K015	110015	E01
4K016	110012	
4K017	110016	
4K018	110013	
4K019	110017	
4K020	110209	
4K021	110018	
4K022	110253	
4K023	111333	P02
4K024	100023	
4K025	100024	
4K026	100025	
4K027	100026	
4K028	110220	
4K029	110388	C07
4K058	111332	P03
4K059	111333	P03
4K060	120374	P03
4K061	120375	P03
4K062	120376	P03
4K064	110141	
4K065	110108	
4K066	110142	
4K067	110109	
4K090	110090	
4K092	131847	
4K094	140640	
4K096	113766	E02,P02
4K097	113767	E02,P02
4K098	113768	E02,P02
4K099	113769	E02,P02
4K101	101602	F01
4K102	101405	F01
4K103	101585	F01

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
4K108	100204	H01
4K109	100204	
4K110	100205	
4K111	100722	
4K112	110288	
4K113	110289	
4K114	110280	
4K118	101159	
4K119	101120	
4K120	101119	
4K121	112615	
4K129	110097	P02
4K131	100184	C12,P03
4K252	191869	
4K259	191870	
4K260	112527	
4K261	112528	
4K262	112529	
4K263	113300	
4K530	100006	
4K531	100014	
4K588	100109	P01
4K700	101602	P01,F01
4K708	101405	P01,F01
4K715	101585	P01,F01
4K781	101781	
4K811	113930	
4K812	120071	
4K813	120992	C42
4K814	132083	
4K852	100006	
4K853	100014	
4K855	100007	
4K856	100015	
4K858	100008	
4K859	100016	
4K928	100116	
4K929	101015	
4K936	113635	
4K999	113583	
4KC00	113584	
4LW63	G120086	
4LW65	G120076	
4LW66	G120088	
4LW67	121039	
4LW68	G120185	
4LW69	G120587	
4LW71	G120588	
4LW72	120761	E01
4LW73	G121191	
4LW76	120760	
4LW77	114560	
4LW78	114562	
4LW79	114561	
4LW81	121165	
4LW82	G121166	
4LW86	G121286	
4LW89	110918	
4LW94	G120014	
4LW95	G120015	
4LW96	G120016	
4LW97	121004	
4LW98	G120015	
4LX01	121003	
4LX02	G120014	
4LX04	G120087	
4LX05	G120016	
4LX06	G120012	
4LX07	116595	

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
4LX30	G130008	
4LX31	G130027	
4LX32	G150157	C02
4LX33	G130326	
4LX34	G130328	
4LX35	G150165	
4M040	111321	
4M041	100825	
4M042	100824	
4M196	191891	
4M197	191912	
4M250	114620	
4M251	100803	
4M252	100804	
4M253	111323	
4M254	191872	
4M255	191871	
4M256	191873	
4N061	113304	
4N062	102198	
4N063	101637	
4N064	101638	
4N065	113891	
4N066	113892	
4N067	113893	
4N068	110446	E01
4N069	114176	
4N070	114931	
4N071	110448	
4N072	114208	
4N073	110112	
4N074	114207	
4N075	110192	
4N076	114206	
4N077	111273	
4N078	114205	
4N079	111630	
4N080	114204	
4N082	113029	
4N083	113030	
4N087	102197	
4N583	100446	
4N590	114304	
4N601	121096	
4N605	121093	
4N609	121095	
4N827	100905	
4N865	G158159	
4N866	G158000	
4N867	G825039	
4N868	G158001	
4N869	G158140	
4N870	G158010	
4N871	G825045	
4N872	G825047	
4N873	G825041	
4N874	G825043	
4N882	G158158	
4N883	G158157	
4N913	170159	
4N914	170062	
4N915	170033	
4N916	170035	
4N917	170037	
4N918	170039	
4N919	170041	
4N920	170160	
4N928	170039	S05
4N929	170041	S05

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
4N940	170159	
4N941	170062	
4N942	170033	
4N943	170035	
4N944	170037	
4N945	170039	
4N946	170041	
4N947	170043	
4N948	170045	
4N949	170140	
4N950	170066	
4N951	170007	
4N952	170011	
4N953	170015	
4N954	170019	
4N955	170023	
4N960	170119	
4N961	150121	
4N962	150120	
4N963	150239	
4N964	170253	
4N969	170140	
4N970	170066	
4N971	170007	
4N972	170019	
4N973	170019	F14
4N974	170023	
4N975	170023	F14
4N976	170027	
4N977	170027	F15
4N978	170031	
4N979	170031	F16
4N980	170087	
4N981	170087	F17
4N988	170011	
4N989	170015	
4N990	170123	
4N991	170068	
4N992	170001	
4N995	170096	
4N996	170097	
4N997	170098	
4N998	170099	
4RF79	174936	
4RF80	174939	
4RF82	174937	
4RF83	174940	
4RF85	174938	
4RF86	174941	
4RF87	174730	
4RF88	174942	
4RG15	174914	
4RG16	174915	
4RG17	174917	
4RG18	174918	
4RG19	174919	
4RG20	174545	
4RG21	174551	
4RG22	174557	
4RG23	174560	
4RG24	174569	
4RG25	174571	
4RG27	174567	
4RG28	174593	
4RG29	174572	
4RG30	174930	
4RG31	174931	
4RG32	174931	
4RG33	174933	

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
4RG34	174914	
4RG35	174914	
4RG36	174915	
4RG37	174917	
4RG38	174918	
4RG39	174919	
4RG41	174935	
4RG43	174935	
4RG44	174939	
4RR19	G130664	
4RR20	G131171	
4RR21	G140466	
4RX46	G120911	
4TC28	G150086	
4TC66	G120858	
4TC72	G120586	
4TD79	G150166	
4TD80	G150165	
4TD81	G150168	
4TD82	G150167	
4TD83	G150103	
4TD84	G150102	
4TD85	G150079	
4TD86	G150080	
4TD87	G150106	
4TD88	G150081	
4TD89	G150108	
4TD90	G150082	
4TD91	G150083	
4TD92	G150084	
4TD93	G150085	
4TD94	G150086	
4TF03	G130662	
4TF04	G130663	
4TF05	120761	
4TF06	120762	
4TF07	112644	
4TF08	114616	
4TF09	131596	
4TF10	131597	
4TF12	112643	
4TF14	G120588	
4TF16	G130664	
4TF17	G131171	
4UX39	115048	
4UX54	114995	
4UX69	115024	
4VZ02	121625	F04
4VZ06	116485	
4VZ08	116486	
4VZ10	116487	
4VZ12	116488	
4VZ36	116489	F04
4X788	175026	
4Z128	M1125074	
4Z129	M1125071	
4Z130	M1125069	
4Z131	M1115029	
4Z132	M1115028	
4Z133	M1115027	
4Z134	M1115026	
4Z137	M1135038	S07,S10,K86
4Z140	M1120027	
4Z141	M1120013	
4Z142	M1110003	
4Z143	M1120044	
4Z144	M1120040	
4Z145	M1110006	
4Z378	108023	

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Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
4Z379	108262	
4Z380	128001	
4Z381	M1125073	
4Z382	M1125072	
4Z383	M1125070	
4Z384	107026	
4Z385	107027	
4Z386	107028	
4Z387	107029	
4Z388	107030	
4Z389	107031	
4Z390	107033	
4Z391	107034	
4Z392	107035	
4Z393	107036	
4Z394	107037	
4Z518	M1145023	
4Z519	M1145024	
4Z520	M1145025	
4Z521	M1145026	
4Z522	M1145027	
4Z523	M1145028	
4Z524	108015	
4Z524	098008	
4Z525	108019	
4Z525	098032	
4Z528	M1120042	
4Z529	M1120046	
5K044	101120	
5K046	101119	
5K109	110900	E02
5K109	103023	
5K110	101651	
5K115	100001	
5K116	100002	
5K117	100003	
5K118	110001	
5K121	110015	
5K121	114613	
5K221	191869	F01
5K254	100016	
5K258	191870	F01
5K262	110008	
5K263	110014	
5K283	100015	C10
5K286	101782	F01
5K288	100015	C10
5K308	101015	C12,P01
5K339	100024	
5K340	100025	
5K341	102867	
5K341	101766	
5K413	191869	F01
5K423	111953	C12
5K431	110004	C12
5K432	113027	C12
5K435	100026	
5K442	110001	C12
5K443	100001	P01
5K444	100010	C12
5K445	100001	
5K446	100014	C12
5K448	100014	
5K449	100007	C12
5K450	100002	C12
5K451	100007	C12
5K452	100015	
5K453	100011	C12
5K453	100064	

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
5K454	100015	
5K455	100004	
5K456	100008	C12
5K457	100008	C12
5K458	100008	C12
5K459	100003	C12
5K459	100065	
5K460	100005	
5K469	110288	
5K470	110289	
5K475	110292	
5K476	110293	
5K480	120000	B22
5K481	120042	B22
5K482	131515	B23
5K483	131534	B23
5K484	131537	B23
5K485	120025	B22
5K486	120026	B22
5K487	131509	B23
5K488	131533	B23
5K489	131538	B23
5K502	110009	
5K504	100011	C32
5K554	101021	C12
5K556	113643	C12
5K565	110019	
5K597	100004	C10
5K599	100558	
5K606	110015	
5K607	110016	
5K608	110017	
5K609	110018	
5K617	110002	
5K636	110020	
5K636	114619	
5K641	113333	
5K642	110004	
5K644	110005	
5K645	120067	
5K657	100204	
5K658	100205	
5K659	100722	
5K660	100207	
5K661	100208	
5K662	100723	
5K671	101020	C12
5K672	110011	
5K673	110220	
5K675	131534	
5K677	140155	
5K683	100184	P03
5K684	101433	P01
5K694	100005	
5K696	100004	
5K756	100109	
5K790	100011	
5K801	100012	
5K907	191868	C12
5K914	191868	C12
5K915	191868	C12
5K917	191869	C12,P01
5K918	191869	C12
5K921	110004	
5K922	113027	
5K923	110005	
5K953	131515	
5K955	100204	H01
5K956	100207	H01

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
5K960	110142	
5K961	110402	
5K966	131509	
5K967	131533	
5K982	100003	C12
5K987	100338	C12,P03
5K989	100111	P01,C12
5K991	101015	C12,P01
5K995	120044	
5K995	120004	
5K997	120042	
5K999	131534	
5M078	101341	C32
5M255	G120587	E02
5M256	113586	
5M257	113587	
5M258	112643	
5M259	112524	
5M262	115751	
5M264	113588	
5M265	113589	
5M266	113590	
5M267	113591	
5M268	121039	
5M269	113022	
5M270	113023	
5M271	113024	
5M277	113591	E01
5M279	113023	
5M280	113593	E01
5M281	120987	F07
5M282	113954	
5M283	112427	H01
5M285	114312	E02
5M286	114314	E02
5M287	114316	E02
5M288	113581	E02
5M289	113582	E02
5M290	114313	E02
5M291	114317	E02
5M292	114315	E02
5N004	170123	
5N005	170068	
5N006	170001	
5N010	170222	
5N034	171320	
5N036	171320	
5N046	171322	
5N048	171322	
5N055	170158	
5N057	170158	
5N058	170157	
5N060	170157	
5N061	170122	
5N062	170122	
5N073	G825001	
5N074	G825004	
5N075	G825007	
5N076	G825013	
5N077	G825002	
5N078	G825005	
5N079	G825008	
5N080	G825010	
5N081	G825014	
5N085	G825011	
5N087	111931	
5N088	111930	
5N089	111935	
5N090	111926	

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
5N091	111941	
5N092	111932	H03
5N093	111932	
5N094	111940	
5N095	111929	
5N096	111929	
5N097	111938	
5N098	111923	
5N099	111923	
5N102	111942	
5N103	111922	
5N107	G120489	
5N108	G120490	
5N111	G120391	
5N169	121556	
5N237	170215	
5N251	170158	
5N252	170122	
5N253	170159	
5N254	170123	
5N255	170062	
5N256	170066	
5N257	170068	
5N258	170033	
5N259	170007	
5N260	170001	
5N261	170035	
5N262	170011	
5N264	170037	
5N265	170015	
5N267	170039	
5N268	170019	
5N269	170096	
5N270	170041	
5N271	170023	
5N272	170097	
5N273	170043	
5N274	170027	
5N275	170098	
5N276	170045	
5N277	170031	
5N278	170099	
5N279	170160	
5N280	170087	
5N293	120921	
5N294	120922	
5N295	120923	
5N296	171320	
5N297	171322	
5N298	170157	
5N299	170140	
5N303	131971	
5N305	131972	
5N307	171574	C02
5N308	131986	
5N310	171575	C02
5N311	131988	
5N316	170146	C02
5N319	170067	C02
5N321	170006	
5N322	170000	
5N351	171523	
5N691	G158362	
5N693	G158319	
5N694	G158366	
5N696	G158158	
5N697	G158157	
5N699	G158159	
5N700	G158140	

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
5N702	G158000	
5N703	G158001	
5N705	G825039	
5N706	G158010	
5N708	G825046	
5N709	G825047	
5N711	G825040	
5N712	G825041	
5N714	G825042	
5N715	G825043	
5N716	G825044	
5N717	G825045	
5N725	G158362	
5N728	G158319	
5N730	G158366	
5N746	G825046	
5N748	G825040	
5N773	120921	
5N774	120922	
5N775	120923	
5N776	171320	
5N777	171322	
5N778	170157	
5N779	170140	
5N780	170066	
5N781	170007	
5N782	170011	
5N783	170015	
5N784	121003	
5N785	121004	
5N786	121005	
5N787	131519	
5N788	131520	
5N789	170142	C02
5N790	170144	C02
5N791	170065	C02
5N792	170006	C02
5N793	170009	C02
5N794	170013	C02
5N795	120921	
5N798	120922	
5N799	131980	C01
5N801	120923	
5N802	131981	C01
5N804	171320	
5N805	171378	
5N807	171322	
5N808	171379	
5N809	170158	
5N810	170157	
5N811	170122	
5N812	170159	
5N813	170140	
5N814	170123	
5N815	170062	
5N816	170066	
5N817	170068	
5N818	170033	
5N819	170007	
5N820	170001	
5N821	170035	
5N822	170011	
5N824	170037	
5N825	170015	
5N827	170039	
5N828	170019	
5N829	170096	
5N830	170041	
5N831	170023	

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
5N832	170097	
5N833	170043	
5N834	170027	
5N835	170098	
5N836	170045	
5N837	170031	
5N838	170099	
5N839	170160	
5N840	170087	
5N844	170260	
5N846	170371	
5N849	170352	
5U129	112527	
5U130	112528	
5U131	113583	
5U132	112529	
5U133	113584	
5U134	113300	
5U175	111332	P03
5U176	111333	P03
5U192	174920	
5U193	174921	
5U194	174922	
5U195	174923	
5U196	174924	
5U197	174552	
5U198	174558	
5U199	174561	
5U200	174563	
5U201	174565	
5U202	112427	H01
5U203	112427	
5U204	112428	
5U206	G120585	
5U210	113473	
5U211	113019	
5U212	113020	
5U213	120760	
5U214	113021	
5U218	113588	
5U219	113586	
5U220	112483	
5U221	113589	
5U222	113587	
5U223	112484	
5U224	113590	
5U225	112524	
5U226	G120587	
5U227	112522	
5U228	113591	
5U232	121039	
5U264	101776	
5U265	114203	
6A192	M1135069	S07,S10
6A193	M1115024	
6A194	M1115025	
6A197	M1125131	E02
6FN65	131985	C01
6K005	101522	
6K024	110279	
6K026	130030	
6K026	131537	
6K030	191869	F01
6K034	111074	E01,H03
6K036	111074	E01
6K039	111084	C05
6K040	110934	C05
6K041	110961	C05
6K045	110908	B30

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

W.W. GRAINGER/DAYTON-TO-LEESON CROSS REFERENCE

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
6K045	121680	
6K085	100064	P01
6K100	140311	S04
6K108	100014	
6K120	100010	
6K122	110016	
6K123	110017	
6K130	140203	
6K137	113373	C12
6K138	110363	
6K145	131637	
6K146	131549	
6K148	110000	
6K162	110005	C07
6K176	140120	
6K177	100956	
6K178	100338	
6K179	140684	
6K181	102870	P03
6K182	102864	P03
6K182	110349	P03
6K184	110141	
6K186	100015	
6K187	100007	
6K188	100008	
6K197	110416	P03
6K232	110360	
6K236	100003	C32
6K236	100065	
6K237	110000	
6K241	100116	P03
6K243	100116	P03
6K244	101015	C12
6K246	110054	C12
6K247	110278	
6K248	110241	
6K249	110242	
6K250	110281	
6K255	110282	
6K256	110283	
6K266	110243	
6K267	110284	
6K271	120044	
6K272	120042	
6K284	110361	
6K303	M1145024	C29,E01
6K306	110015	E01
6K306	114613	
6K307	110016	
6K308	110017	
6K309	110018	
6K311	113938	
6K313	131541	
6K321	110007	
6K324	110579	
6K328	M1145031	C29,C32
6K329	M1145032	C29,C32
6K330	111075	E01
6K331	M1145033	C29,C32
6K332	M1145034	C29,C32
6K333	111085	
6K334	M1145035	C29,C32
6K336	110279	
6K337	110285	
6K338	110109	
6K342	102862	
6K346	100603	
6K347	110478	
6K351	107004	C10,C32

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
6K352	107002	C10,C32
6K353	107005	C10,C32
6K354	107001	C10,C32
6K358	110108	
6K365	110479	
6K366	100010	
6K369	107010	C10,C32
6K375	107017	C10,C32
6K376	100012	
6K383	107015	C10,C32
6K385	110097	
6K388	100802	
6K393	120067	
6K396	107012	C10,C32
6K397	101611	
6K397	100064	
6K403	191872	E01
6K405	191875	E01
6K406	191872	
6K407	110209	
6K407	120025	
6K408	110064	
6K409	110066	
6K410	191871	E01
6K411	191875	
6K415	100741	
6K418	120008	
6K419	110253	
6K419	120026	
6K420	120009	
6K422	110006	
6K422	120004	
6K424	120003	
6K436	110057	
6K438	100109	C12
6K472	110423	
6K473	110065	
6K477	110025	
6K478	110026	
6K481	102016	P03
6K490	100110	P03
6K502	101544	C07
6K503	113630	C07
6K504	113266	
6K506	107014	C10,C32
6K508	110209	
6K510	110253	
6K519	100008	
6K553	191868	C12
6K562	110018	
6K563	111324	
6K570	191869	C12
6K571	100204	H01
6K573	100204	
6K575	100204	
6K583	107016	C10,C32
6K589	191870	
6K592	110086	P02
6K596	113955	H01
6K597	113955	
6K598	113956	
6K599	113639	
6K600	113640	
6K610	130043	
6K610	131542	
6K614	110110	
6K619	110087	P02
6K622	110088	P02
6K628	140681	

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
6K630	120107	
6K631	120106	
6K632	131636	
6K633	131616	
6K634	140680	
6K635	100205	
6K637	110021	
6K639	110022	
6K640	110023	
6K652	110362	
6K674	110058	
6K690	100722	
6K695	100207	H01
6K699	110167	
6K702	110420	
6K704	100207	
6K706	100208	
6K709	100723	
6K710	113256	
6K714	110086	
6K716	191868	P01
6K717	191869	
6K719	110087	
6K727	110088	
6K728	111086	
6K734	111074	C10,H03,E01
6K738	111074	C10, E01
6K740	110089	
6K744	191869	
6K745	100052	
6K748	100053	
6K754	110097	
6K754	110160	
6K756	131534	
6K757	131537	C10
6K757	130030	
6K759	100003	
6K760	110054	
6K763	191870	C12,P01
6K765	110161	
6K765	110110	
6K767	111267	
6K768	191870	
6K773	110232	
6K773	110362	
6K775	100015	C10
6K779	110222	
6K794	120554	
6K805	113633	
6K806	191872	
6K807	191871	
6K809	191875	
6K810	111915	
6K812	113938	
6K813	131541	
6K814	131542	
6K815	131543	
6K816	140223	
6K817	140209	
6K818	140414	
6K825	120044	
6K826	120042	
6K827	120025	
6K828	120026	
6K829	111075	
6K831	110413	P03
6K832	110419	P03
6K833	111085	
6K837	111086	

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
6K840	113256	
6K841	110086	
6K841	110087	
6K843	110088	
6K847	131543	
6K851	110089	
6K854	130030	
6K854	131537	
6K862	101524	
6K863	101527	
6K867	101525	
6K868	101528	
6K869	111323	C32
6K873	110241	
6K874	110242	
6K875	110243	
6K876	110282	
6K877	110283	
6K878	110284	
6K880	113642	
6K881	131542	
6K882	131543	
6K883	140203	
6K883	140223	
6K884	140130	
6K884	140209	
6K885	140414	
6K886	113938	
6K887	131541	S07
6K891	101526	
6K893	101529	
6K894	113686	
6K896	113687	
6K897	110279	
6K899	110285	
6K902	101423	P02
6K912	100115	C12
6K924	100111	C12
6K927	101015	P01
6K937	110012	
6K937	100012	
6K938	110013	
6K949	110003	
6K949	100003	
6K950	113921	
6K952	113922	P02
6K958	100338	
6K959	113923	P02
6K969	140130	
6K970	140414	
6K971	100115	C12
6K972	120879	
6K973	100116	C12
6K974	100023	
6K975	102868	
6K975	102866	
6K981	111330	
6K994	121569	
6N020	113020	
6N021	113021	
6N022	113019	
6N023	113473	
6N024	120760	
6N025	120761	
6N028	113021	
6N029	113020	
6N030	113019	
6N031	112427	
6Z074	M1125050	E01,C29

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code
6Z076	M1125127	E02,C29
6Z081	M1125052	
6Z081	M1125128	E02,C29
6Z082	M1125129	E02
6Z083	M1125130	E02
6Z400	107000	C10,C32
6Z401	107003	C10,C32
6Z402	107006	C10,C32
6Z403	107013	C10,C32
6Z404	107025	
6Z405	107032	
6Z406	108700	
6Z407	108701	
6Z408	108702	
6Z409	108703	
6Z410	108704	
6Z411	108705	
6Z412	108706	
6Z413	108707	
6Z414	108708	
6Z415	108709	
6Z416	108710	
6Z417	108711	
6Z418	108712	
6Z791	108502	
6Z816	M1145029	
6Z817	M1145031	
6Z817	M1145030	
6Z818	M1145031	
6Z819	M1145032	
6Z820	M1145033	
6Z821	M1145034	
6Z822	M1145035	
6Z911	M1115002	K87,C30
6Z912	M1115001	K87,C30
6Z913	M1115000	K87,C30
6Z914	M1125002	K86,C30
6Z914	M1125003	
6Z915	M1125003	
6Z916	M1125005	K86,C30
C1422	110361	
F100	110089	
IL501	M1145037	
IL503	M1145082	S07,S08,C29
IL504	M1145039	S07,S08,C29
IL505	M1145040	S07,S08,C29

Grainger Cat. No.	LEESON Equivalent Cat. No.	Exception Code

CROSS REFERENCE

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

DC SUB-FHP GEARMOTOR CROSS REFERENCE

PZ SERIES DC GEARMOTORS: Parallel Shaft

Output RPM	F.L. Torque (lb.in.)	Input HP	LEESON Catalog No.	Cross Reference Dayton	Bodine	Baldor	Bison
4	100	1/40	**M1115002**	6Z911	199	—	011-190-0362
			M1125046	—	—	—	—
10	100	1/20	**M1115001**	6Z912	198	GPP231108	011-190-0186
			M1125047	—	—	—	—
20	100	1/20	**M1115000**	6Z913	196	GPP232110	011-190-0096
			M1125048	—	—	GPP233120	—
30	100	1/17	**M1125002**	6Z914	190	GPP233112	011-190-0072
			M1125037	—	—	—	—
60	56	1/17	**M1125003**	6Z914	—	GPP233111	011-190-0025
			M1125036	—	—	GPP233121	—
100	36	1/17	**M1125004**	—	189	GPP12503	011-190-0019
			M1125035	—	—	—	—
150	24	1/17	**M1125005**	6Z916	188	—	011-190-0013
			M1125034	—	—	—	—
300	10	1/17	**M1125006**	—	157	—	011-190-0007
			M1125033	—	—	—	—

P300 SERIES DC GEARMOTORS: Parallel Shaft

Output RPM	F.L. Torque (lb.in.)	Input HP	LEESON Catalog No.	Cross Reference Dayton	Bodine	Baldor	Bison
5	353	1/20	**M1115024**	6A193	—	—	011-336-1369
9	268	1/20	**M1115025**	6A194	4147	GPP233141	011-336-1208
18	150	1/20	**M1115026**	4Z134	4146	GPP233140	011-336-1091
24	280	1/8	**M1125069**	4Z130	4156	—	011-336-2082
31	220	1/8	**M1125070**	4Z383	4155	GPP12547	011-336-2060
34	82	1/20	**M1115027**	4Z133	—	GPP233112	011-336-1053
51	130	1/8	**M1125071**	4Z129	4154	—	011-336-2036
51	55	1/20	**M1115028**	4Z132	—	GPP233111	011-336-1030
61	113	1/8	**M1125072**	4Z382	4154	GPP12545	011-336-2028
94	77	1/8	**M1125073**	4Z381	4153	GPP12544	011-336-2019
109	27	1/20	**M1115029**	4Z131	—	—	011-336-1017
170	43	1/8	**M1125074**	4Z128	4151	GPP12542	011-336-2011

P1100 SERIES DC GEARMOTORS: Parallel Shaft

Output RPM	F.L. Torque (lb.in.)	Ratio to 1	Input HP	LEESON Catalog No.	Cross Reference Dayton	Bison
8	1087	212	1/4	**108700**	6Z406	011-483-4197
12	1030	143	1/4	**108701**	6Z407	011-483-4131
18	750	95	1/4	**108702**	6Z408	011-483-4087
42	353	42	1/4	**108703**	6Z409	011-483-4041
60	238	29	1/4	**108704**	6Z410	011-483-4028
92	160	19	1/4	**108705**	6Z411	011-483-4018
135	105	13	1/4	**108706**	6Z412	011-483-4012
18	1112	95	1/2	**108707***	6Z413	011-483-2087
33	882	53	1/2	**108708***	6Z414	011-483-2058
42	705	42	1/2	**108709***	6Z415	011-483-2041
60	476	29	1/2	**108710***	6Z416	011-483-2028
92	320	19	1/2	**108711***	6Z417	011-483-2018
135	210	13	1/2	**108712***	6Z418	011-483-2012

* Indicates TEFC design, others are TENV

Application Notes:

P1100 DC gearmotors have the same mounting dimensions as Bison 483 gearmotors and Dayton gearmotors. For additional information, see Bulletin 1830.

RIGHT-ANGLE DC GEARMOTORS

Output RPM	F.L. Torque (lb.in.)	Input HP	LEESON Catalog No.	Cross Reference Dayton	Bodine	Baldor
42	30	1/17	**M1115018**	—	99	—
62	35	1/17	**M1115019**	—	98	GP233003~
125	20	1/17	**M1115020**	—	96	GP233007~
250	11	1/17	**M1115021**	—	94	—
500	6	1/17	**M1115022**	—	93	—
42	80	1/8	**M1135069**	6A192	—	GP7403~
62	70	1/8	**M1135038**	4Z137	4144	GP7402~
			M1135058	—	6144	—
125	45	1/8	**M1135039**	—	4142 6142	—
250	25	1/8	**M1135040**	—	4141	—
500	13	1/8	**M1135041**	—	4140	—
62	135	1/4	**M1135042**	1L498	4138	GP7405~
			M1135062	—	—	GP7425~
83	125	1/4	**M1135043**	1L499	4137	GP7407~
			M1135063	—	—	GP7427~
125	90	1/4	**M1135044**	—	4136	—
250	50	1/4	**M1135045**	—	4135	—
500	30	1/4	**M1135046**	—	4134	—

~Mounting base and output shaft height are not 'drop-in' replacement.
Some Dayton and all Baldor right-angle gearmotors have double output shafts.

PE350 SERIES DC GEARMOTORS: Parallel Shaft

Output RPM	F.L. Torque (lb.in.)	Input HP	LEESON Catalog No.	Baldor	Cross Reference Bodine	Bison	Dayton
7	330	1/8	**M1135106**	GPP7459	4175	011-348-7215	6ML63
			M1135139	GPP7479	—	—	6ML64
14	341	1/8	**M1135107**	GPP7462	4174	011-348-7102	6ML65
			M1135140	GPP7478	—	—	6ML66
21	371	1/4	**M1135117**	GPP7457	4173	—	6ML67
			M1135141	GPP7477	—	—	6ML68
27	305	1/4	**M1135115**	GPP7461	—	—	6ML69
			M1135142	—	—	—	6ML70
42	280	1/4	**M1135108**	GPP7456	4185	011-348-7041	6ML71
			M1135143	GPP7476	—	—	6ML72
50	250	1/4	**M1135109**	GPP7460	—	011-348-7034	6ML73
			M1135144	—	—	—	6ML74
62	220	1/4	**M1135110**	GPP7455	4184	011-348-7029	6ML75
			M1135145	GPP7475	—	—	6ML51
83	155	1/4	**M1135114**	GPP7454	4183	—	6ML52
			M1135146	GPP7474	—	—	6ML53
125	100	1/4	**M1135111**	GPP7453	4182	—	6ML54
			M1135147	GPP7473	—	—	6ML55
165	70	1/4	**M1135112**	GPP7452	4181	—	6ML56
			M1135148	GPP7472	—	—	6ML57
250	45	1/4	**M1135116**	GPP7451	4180	—	6ML58
			M1135149	GPP7471	—	—	6ML59
500	25	1/4	**M1135113**	GPP7450	4179	—	6ML60
			M1135150	GPP7470	—	—	6ML61

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

PZ SERIES AC GEARMOTORS: Parallel Shaft

Output RPM	F.L. Torque (lb.in.)	Input HP	LEESON Catalog No.	Cross Reference Dayton	Bodine	Baldor	Bison
2	100	1/150	**M1125050**	6Z074	—	—	016-103-2362
9	100	1/15	**M1125127***	6Z076	0449	GCP24114	016-103-2186
19	100	1/15	**M1125128***	6Z081	0448	GCP24122	016-103-1096
28	100	1/15	**M1125129***	6Z082	0455	GCP24124	—
57	56	1/15	**M1125130***	6Z083	0454	GCP24134	016-103-1025
94	36	1/15	**M1125131***	6A197	0453	—	016-103-1019
142	24	1/15	**M1125132***	—	0452	—	016-103-1013
283	12	1/15	**M1125133***	—	0451	—	—

* These motors are TEFC.

P240 SERIES AC GEARMOTORS: Parallel Shaft

Output RPM	F.L. Torque (lb.in.)	Input HP	LEESON Catalog No.	Cross Reference Dayton	Bodine	Baldor	Bison
8	345	1/15	**M1145029**	6Z816	0476	GCP24004	016-226-6215
15	250	1/15	**M1145023**	4Z518	0485	—	—
16	391	1/6	**M1145030**	6Z817	0485	—	016-226-6102
30	135	1/15	**M1145024**	4Z519	—	—	—
30	295	1/6	**M1145031**	6Z818	0484	—	016-226-6058
40	219	1/6	**M1145032**	6Z819	0483	GCP25052	016-226-6036
45	92	1/15	**M1145025**	4Z520	—	—	—
60	157	1/6	**M1145033**	6Z820	0482	GCP25054	016-226-6028
70	61	1/15	**M1145026**	4Z521	—	—	—
90	103	1/6	**M1145034**	6Z821	0481	GCP25056	016-226-6019
97	43	1/15	**M1145027**	4Z522	—	—	—
139	30	1/15	**M1145028**	4Z523	0480	—	—
156	60	1/6	**M1145035**	6Z822	—	GCP25060	016-226-6011

PE350 SERIES AC GEARMOTORS • SINGLE PHASE: Parallel Shaft

Output RPM	F.L. Torque (lb.in.)	Input HP	LEESON Catalog No.	Cross Reference Baldor	Bodine	Bison	Dayton
5	310	1/12	**096000**	—	0671	016-246-6254	6MK70
9	341	1/12	**096001**	—	0669	016-246-6170	6MK71
14	330	1/12	**096002**	GCP9320	0636*	—	6MK72
19	250	1/12	**096003**	GCP9322	0635*	016-246-6082	6MK73
29	270	1/6	**096004**	—	0685	016-246-6058	6MK74
34	250	1/6	**096005**	—	—	—	6MK75
40	180	1/6	**096006**	—	0654*	—	6MK76
59	135	1/6	**096007**	GCP3305	0683	016-246-6028	6MK77
75	90	1/6	**096008**	—	0681	016-246-6023	6MK78
113	68	1/6	**096009**	—	0651*	016-246-6015	6MK79
160	45	1/6	**096010**	GCP3315	0680	016-246-6011	6MK80
340	25	1/6	**096011**	GCP3320	0679	016-246-6005	6MK81

*Split Phase Type

PE350 HIGH TORQUE • SINGLE PHASE: Cap Start

Output RPM	F.L. Torque (lb.in.)	Input HP	LEESON Catalog No.	Cross Reference Baldor	Bodine	Bison	Dayton
58	320	1/3	**096049**	GLP3330	0664*	—	—
85	218	1/3	**096050**	GLP3332	0663*	—	—
173	109	1/3	**096051**	GLP3336	0662*	—	—
345	55	1/3	**096052**	GLP3338	0662*	—	—

*Split Phase Type

PE350 SERIES AC GEARMOTORS • THREE PHASE: Parallel Shaft

Output RPM	F.L. Torque (lb.in.)	Input HP	LEESON Catalog No.	Cross Reference Baldor	Bodine	Bison	Dayton
58	320	1/3	**096013**	GMP3330	0666	017-246-0029	6MK82
85	218	1/3	**096014**	GMP3332	0642	017-246-0019	6MK83
173	109	1/3	**096015**	GMP3336	0665	017-246-0011	6MK84
345	55	1/3	**096016**	GMP3338	—	017-246-0005	6MK85

P1100 SERIES AC GEARMOTORS • SINGLE PHASE: Parallel Shaft

Output RPM	F.L. Torque (lb.in.)	Ratio to 1	Input HP	LEESON Catalog No.	Cross Reference Dayton	Bison*
8	975	212	1/4	**107000**	6Z400	014-482-4211
12	1030	143	1/4	**107004**	6K351	014-482-4143
18	800	95	1/4	**107003**	6Z401	014-482-4095
26	569	66	1/4	**107002**	6K352	—
59	248	29	1/4	**107005**	6K353	014-482-4029
133	114	13	1/4	**107001**	6K354	014-482-4011
18	1089	95	1/3	**107006**	6Z402	014-482-3095
26	752	66	1/3	**107012**	6K396	014-482-3066
41	461	42	1/3	**107011**	2Z842	014-482-3042
59	330	29	1/3	**107010**	6K369	014-482-3029
91	224	19	1/3	**107009**	2Z843	014-482-3019
157	125	11	1/3	**107008**	2Z844	014-482-3011
288	70	6	1/3	**107007**	2Z845	014-482-3006
22	1105	79	1/2	**107013**	6Z403	—
41	700	42	1/2	**107017**	6K375	014-482-2042
59	496	29	1/2	**107016**	6K583	014-482-2029
91	336	19	1/2	**107015**	6K383	014-482-2019
133	229	13	1/2	**107014**	6K506	014-482-2011

* Bison units are split phase design.

P1100 SERIES AC GEARMOTORS • THREE PHASE: Parallel Shaft

Output RPM	F.L. Torque (lb.in.)	Ratio to 1	Input HP	LEESON Catalog No.	Cross Reference Dayton	Bison
18	1089	95	1/3	**107025**	6Z404	—
26	752	66	1/3	**107026**	4Z384	—
41	461	42	1/3	**107027**	4Z385	—
59	330	29	1/3	**107028**	4Z386	—
91	224	19	1/3	**107029**	4Z387	—
157	125	11	1/3	**107030**	4Z388	—
288	70	6	1/3	**107031**	4Z389	—
22	1105	79	1/2	**107032**	6Z405	017-482-0095
41	700	42	1/2	**107033**	4Z390	017-482-0042
59	496	29	1/2	**107034**	4Z391	017-482-0029
91	336	19	1/2	**107035**	4Z392	017-482-0019
133	229	13	1/2	**107036**	4Z393	017-482-0011
288	100	6	1/2	**107037**	4Z394	017-482-0006

Application Notes:
P1100 AC gearmotors have the same mounting dimensions as Bison 482 gearmotors and Dayton gearmotors. For additional information, see Bulletin 1830.

RIGHT-ANGLE AC GEARMOTORS

Output RPM	F.L. Torque (lb.in.)	Input HP	LEESON Catalog No.	Cross Reference Dayton	Bodine	Baldor	Bison
28	37	1/15	**M1125080**	IL536	0492	—	—
43	34	1/15	**M1125081**	IL538	0491	GC24310~	—
58	40	1/15	**M1125082**	IL535	0487	—	—
85	24	1/15	**M1125083**	IL534	0490	GC24306~	—
173	14	1/15	**M1125084**	IL533	0488	GC24302~	—
29	110	1/6	**M1145037**	IL501	—	—	—
43	113	1/6	**M1145038**	IL502	0678	GC25020~	—
57	95	1/6	**M1145082**	IL503	—	GC25015~	026-756-8030
83	75	1/6	**M1145039**	IL504	0677	GC25010~	026-756-8020
170	43	1/6	**M1145040**	IL505	0672	—	026-756-8010
340	23	1/6	**M1145041**	—	0670	—	026-756-8005

~Mounting base and output shaft height are not 'drop-in' replacement.
Some Dayton and all Baldor right-angle gearmotors have double output shafts.

This information is furnished as a guide only. Always check specific motor to determine suitability for direct replacement.

Catalog Number	HP	Page	Catalog Number	HP	Page	Catalog Number	HP	Page	Catalog Number	HP	Page	Catalog Number	HP	Page
970.576	1/8	159	100006.00	1/3	62	100908.00	3/4	104	102199.00	1/2	125	103394.00	1/2	92
970.577	1/6	159	100007.00	1/2	62	100913.00	1/2	20	102200.00	1/2	24	103395.00	1/3	93
970.600	1/8	159	100008.00	3/4	62	100955.00	1/3	62	102661.00	1/6	64	103396.00	1/2	93
970.600	1/8	159	100010.00	1/3	103	100956.00	1/2	62	102662.00	1/6	24	103397.00	1/3	93
970.601	1/8	159	100011.00	1/2	103	100960.00	3/4	20	102663.00	1/3	64	103398.00	1/2	93
970.620	1/6	159	100012.00	3/4	103	100961.00	1/2	20	102664.00	1/3	24	103399.00	3/4	93
970.620	1/6	159	100014.00	1/3	103	101013.00	1/3	102	102665.00	1/2	64	103400.00	1/3	93
970.621	1/6	159	100015.00	1/2	103	101015.00	1/3	103	102666.00	1/2	24	103401.00	1/2	93
980.143	1/15	159	100016.00	3/4	103	101020.00	1/4	109	102684.00	1/3	20	103402.00	3/4	93
980.159	1/15	159	100018.00	1/3	64	101021.00	1/3	109	102685.00	1/4	132	103403.00	1/3	93
980.549	1/15	159	100019.00	1/2	64	101051.00	1/2	133	102686.00	1/3	132	103404.00	1/2	93
003042.02		179	100020.00	1/2	64	101079.00	1/3	20	102687.00	1/3	132	103405.00	1/3	93
003042.04		179	100021.00	3/4	64	101119.00	3/4	76	102688.00	1/3	132	103406.00	1/2	93
003042.05		179	100023.00	1/4	64	101120.00	1/2	76	102689.00	1/3	132	103407.00	3/4	93
003042.06		179	100024.00	1/3	64	101159.00	1/3	76	102690.00	1/2	132	103408.00	1/3	93
003043.01		179	100025.00	1/2	64	101176.00	1/2	73,109	102691.00	1/2	132	103409.00	1/2	93
003043.05		179	100026.00	3/4	64	101252.00	1/4	73,109	102692.00	1/2	132	103410.00	3/4	93
006707.01		208	100027.00	1/4	20	101253.00	1/3	73,109	102693.00	1/2	132	103411.00	1/2	95
006708.01		208	100028.00	1/3	20	101291.00	1/3	24	102694.00	1/2	132	103412.00	3/4	95
006708.01		211	100029.00	1/2	20	101341.00	1/4	76	102695.00	1/3	24	103413.00	1/2	95
092011.00	1/6	102	100030.00	3/4	20	101405.00	1/3	28,103	102696.00	1/3	24	103414.00	3/4	95
092012.00	1/6	102	100045.00	1/2	103	101423.00	1/4	62	102697.00	1/3	26	103417.00	1/3	95
092013.00	1/4	102	100046.00	3/4	103	101431.00	1/3	103	102792.00	1/6	28	103418.00	1/2	95
092014.00	1/6	102	100047.00	3/4	103	101432.00	1/2	103	102793.00	1/4	28	103460.00	1/2	108
092015.00	1/6	102	100048.00	1/3	24	101433.00	3/4	103	102794.00	1/3	28	107000.00	1/4	177
092016.00	1/4	102	100049.00	1/2	24	101434.00	1/4	103	102795.00	1/2	28	107001.00	1/4	177
092111.00	1/12	62	100050.00	3/4	24	101435.00	1/3	76	102860.00	1/2	24	107002.00	1/4	177
092112.00	1/4	62	100052.00	1/2	62	101436.00	1/2	76	102861.00	1/2	24	107003.00	1/4	177
092114.00	1/8	62	100053.00	3/4	62	101437.00	3/4	76	102862.00	1/2	64	107004.00	1/4	177
092116.00	1/6	62	100054.00	1/2	64	101446.00	1/4	62	102863.00	1/3	24	107005.00	1/4	177
096000.00	1/12	176	100055.00	3/4	64	101447.00	1/3	20	102864.00	1/2	64	107006.00	1/3	177
096001.00	1/12	176	100056.00	1/2	24	101448.00	1/2	20	102865.00	1/2	64	107007.00	1/3	177
096002.00	1/12	176	100063.00	1/3	103	101449.00	3/4	20	102866.00	1/4	64	107008.00	1/3	177
096003.00	1/12	176	100064.00	1/2	103	101520.00	1/3	104	102867.00	1/3	64	107009.00	1/3	177
096004.00	1/6	176	100065.00	3/4	103	101521.00	1/4	64	102868.00	1/4	64	107010.00	1/3	177
096005.00	1/6	176	100109.00	1/4	103	101522.00	1/3	64	102869.00	1/3	64	107011.00	1/3	177
096006.00	1/6	176	100110.00	1/3	103	101523.00	3/4	64	102870.00	1/3	64	107012.00	1/3	177
096007.00	1/6	176	100111.00	1/4	103	101524.00	1/2	126	102871.00	1/2	64	107013.00	1/2	177
096008.00	1/6	176	100115.00	1/4	62	101525.00	3/4	126	102872.00	1/2	64	107014.00	1/2	177
096009.00	1/6	176	100116.00	1/3	62	101526.00	1	126	102873.00	1/3	64	107015.00	1/2	177
096010.00	1/6	176	100123.00	1/4	102	101527.00	1/2	126	102903.00	1/2	65	107016.00	1/2	177
096011.00	1/6	176	100145.00	1/2	104	101528.00	3/4	126	102904.00	1/2	62	107017.00	1/2	177
096013.00	1/3	176	100146.00	3/4	104	101529.00	1	126	102905.00	1/2	62	107025.00	1/3	177
096014.00	1/3	176	100184.00	1/2	62	101544.00	3/4	62	102906.00	1/2	62	107026.00	1/3	177
096015.00	1/3	176	100204.00	1/2	124	101585.00	1/2	28,103	102907.00	1/2	65	107027.00	1/3	177
096016.00	1/3	176	100205.00	3/4	124	101602.00	1/4	28,103	102908.00	1/2	62	107028.00	1/3	177
096049.00	1/3	176	100207.00	1/2	124	101611.00	1/2	103	102909.00	1/2	62	107029.00	1/3	177
096050.00	1/3	176	100208.00	3/4	124	101637.00	3/4	125	102910.00	1/3	65	107030.00	1/3	177
096051.00	1/3	176	100210.00	1/3	104	101638.00	1	125	102911.00	1/3	102	107031.00	1/3	177
096052.00	1/3	176	100336.00	1/3	62	101639.00	1/3	104	102912.00	1/3	102	107032.00	1/2	177
096065.00	1/6	180	100337.00	1/2	62	101640.00	1/2	104	102913.00	1/3	102	107033.00	1/2	177
096066.00	1/4	180	100338.00	1/2	62	101641.00	3/4	104	102914.00	1/4	102	107034.00	1/2	177
096067.00	1/4	180	100340.00	3/4	62	101643.00	1/2	76	102915.00	1/4	102	107035.00	1/2	177
096068.00	1/4	180	100354.00	1/3	64	101644.00	3/4	76	102916.00	1/4	65	107036.00	1/2	177
096069.00	1/4	180	100355.00	1/3	64	101645.00	1/2	73,109	102917.00	1/2	26	107037.00	1/2	177
096070.00	1/4	180	100356.00	1/2	64	101646.00	1/4	20	102918.00	1/2	102	108014.00	1/2	153
098000.00	1/2	153	100357.00	3/4	64	101647.00	1/3	20	102919.00	1/2	26	108015.00	1/2	153
098002.00	1/4	153	100361.00	1/4	102	101648.00	1/4	24	102920.00	1/3	102	108016.00	3/4	153
098003.00	1/4	153	100362.00	1/3	102	101649.00	1/4	102	102921.00	1/3	26	108017.00	3/4	153
098004.00	1/3	153	100366.00	1/2	102	101650.00	3/4	65	102922.00	1/3	26	108018.00	3/4	153
098005.00	1/3	153	100375.00	1/3	24	101651.00	1/2	65	102929.00	1/3	65	108019.00	3/4	153
098006.00	1/2	153	100378.00	3/4	24	101765.00	1/4	64	102930.00	1/3	65	108020.00	1	153
098007.00	1/2	153	100443.00	1/3	102	101766.00	1/3	64	102931.00	1/3	62	108021.00	1	153
098008.00	1/2	153	100446.00	1/3	20	101767.00	1/4	24	102932.00	1/3	62	108022.00	1	153
098009.00	3/4	153	100449.00	1/2	24	101769.00	1/3	24	102933.00	1/3	62	108023.00	1	153
098010.00	3/4	153	100486.00	1/2	24	101773.00	3/4	104	102963.00	1/4	103	108045.00	1/4	158
098014.00	1/3	156	100588.00	1/3	62	101775.00	1	125	102964.00	1/3	103	108046.00	1/3	158
098015.00	1/2	156	100599.00	1/3	26	101776.00	3/4	125	102965.00	1/2	103	108047.00	1/2	158
098016.00	1/2	156	100600.00	1/2	26	101780.00	1/2	24	102966.00	3/4	103	108048.00	3/4	158
098017.00	3/4	156	100601.00	1/2	26	101781.00	1/2	107	102971.00	3/4	26	108050.00	1/3	158
098032.00	3/4	153	100602.00	3/4	26	101782.00	3/4	107	103014.00	1/4	24	108051.00	1/2	158
098040.00	1/2	154	100603.00	3/4	103	101839.00	3/4	103	103017.00	1/3	20	108052.00	3/4	158
098065.00	1/4	158	100604.00	1/3	73,109	101965.00	1/4	24	103018.00	1/2	20	108053.00	1	158
098066.00	1/2	158	100699.00	1/4	73,109	101966.00	1/4	24	103019.00	1/3	20	108092.00	1.5	153
098067.00	1/2	158	100700.00	1/3	73,109	101981.00	1/4	24	103020.00	1/2	20	108226.00	1/2	85,154
098069.00	3/4	153	100701.00	1/2	73,109	102012.00	1/6	62	103021.00	1/3	26	108227.00	1/2	85,154
098375.00	1/4	85,154	100704.00	1/2	108	102013.00	1/6	62	103022.00	1/2	26	108228.00	3/4	85,154
098376.00	1/3	85,154	100722.00	1	124	102014.00	1/4	62	103023.00	1/3	65	108229.00	3/4	85,154
098377.00	1/4	153	100723.00	1	124	102015.00	1/4	62	103024.00	1/2	65	108230.00	1	85,154
098378.00	1/3	153	100767.00	1/3	73,109	102016.00	1/3	62	103025.00	3/4	65	108231.00	1	85,154
098379.00	1/2	153	100768.00	1/2	73,109	102017.00	1/3	108	103082.00	1/2	65	108232.00	1.5	85,154
098380.00	3/4	153	100796.00	1/2	104	102018.00	1/3	62	103083.00	1/3	65	108262.00	1.5	153
098381.00	1/2	158	100802.00	1/2	108	102019.00	1/3	62	103084.00	1/2	65	108265.00	1.5	153
098382.00	1/2	158	100803.00	1/4	73,109	102020.00	1/2	62	103085.00	3/4	65	108266.00	2	153
100000.00	1/4	62	100804.00	1/3	73,109	102021.00	1/2	108	103086.00	3/4	65	108322.00	1	158
100001.00	1/3	62	100805.00	1/4	73,109	102024.00	1/2	26	103387.00	1/2	92	108369.00	3/4	156
100002.00	1/2	62	100806.00	1/3	73,109	102183.00	1/3	132	103388.00	3/4	92	108370.00	1	156
100003.00	3/4	62	100824.00	1/4	73,109	102184.00	1/4	132	103389.00	1/2	92	108371.00	1.5	156
100004.00	1/2	62	100825.00	1/3	73,109	102197.00	1/3	125	103390.00	3/4	92	108372.00	1	156
100005.00	3/4	62	100905.00	1/2	20	102198.00	1/2	125	103393.00	1/3	92	108373.00	1.5	156

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175568.00		87,119	175765.00		118	191217.00	1.5	90	192058.00	1	150	193356.60	30	149
175569.00		119	175766.00		118	191219.00	1.5	90	192060.00	1.5	148	193357.60	30	149
175570.00		119	175767.00		118	191221.00	2	90	192064.00	1.5	149	193358.60	2	150
175571.00		119	175771.00		87, 118	191223.00	2	90	192067.00	1.5	150	193359.60	3	150
175572.00		87,119	175772.00		87, 118	191225.00	2	90	192088.00	1/4	151	193360.60	3	150
175573.00		87,119	175773.00		87, 118	191290.00	1	90	192089.00	1/4	151	193361.60	4	150
175574.00		87,119	175775.00		218	191291.00	1	90	192097.00	1/3	151	193362.60	4	150
175575.00		119	175786.00		217	191414.00	1/2	90	192098.00	1/3	151	193363.60	4	150
175576.00		119	175787.00		217	191415.00	3/4	90	192106.00	1/2	151	193364.60	5.5	150
175577.00		119	175788.00		217	191417.00	1	90	192107.00	1/2	151	193365.60	5.5	150
175578.00		119	175789.00		217	191418.00	1	90	192115.00	3/4	151	193366.60	5.5	150
175579.00		119	175790.00		217	191419.00	1/2	90	192116.00	3/4	151	193367.60	7.5	150
175580.00		119	175791.00		217	191420.00	3/4	90	192124.00	1	151	193368.60	7.5	150

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193369.60	7.5	150	811569.00	75	58	5KCP39NGAA44S	3/4	112	G121670.00	2	24	G140618.00	7.5	
193370.60	10	150	811570.00	100	58	5KCP39NGN656S	1/2	112	G121679.00	1	117	G140619.00	10	
193371.60	10	150	811571.00	100	58	5KCP39NGU724S	1/3	113	G121739.00	2	95	G140622.00	7.5	130
193372.60	10	150	825071.00	5	122	5KCP39PFM210S	3/4	113	G121740.00	2	95	G140623.00	10	130
193373.60	15	150	825072.00	7.5	122	5KCP39PGL795S	1/2	112	G121748.00	1-1/2	95	G140635.00	10	116
193374.60	15	150	825073.00	7.5	122	5KCP39PGL811S	1/2	112	G121749.00	1-1/2	95	G140636.00	10	117
193375.60	15	150	825074.00	10	122	5KCP39PGN091S	3/4	112	G121846.00	1.5	128	G140638.00	10	116
193376.60	20	150	825075.00	10	122	5KCP39PGN092S	3/4	112	G121847.00	2	128	G140639.00	10	117
193377.60	20	150	825076.00	15	122	5KCP39PGN655S	1/2	112	G121849.00	3	128	G140655.00	10	128
193378.60	25	150	825077.00	15	122	5KCP39PGN658S	3/4	112	G121850.00	1	129	G140656.00	15	128
193379.60	3	151	825078.00	20	122	5KCP39PGS618S	1/2	112	G121851.00	1.5	129	G140667.00	7.5	128
193380.60	4	151	825079.00	20	122	5KCP39RGU718S	1/2	113	G121852.00	2	129	G140668.00	10	128
193381.60	4	151	825080.00	25	122	5KCP39RGU723S	1/2	113	G121853.00	2	129	G140688.00	10	25
193382.60	5.5	151	825081.00	25	122	5KCP39RGY799S	1/2	113	G121854.00	3	129	G140689.00	15	25
193383.60	5.5	151	825082.00	30	122	5KCP39SGL794S	3/4	112	G121855.00	1	130	G140690.00	10	25
193384.60	7.5	151	825083.00	40	122	5KCP39SGL938S	3/4	112	G121856.00	1.5	130	G140691.00	15	25
193385.60	7.5	151	825084.00	50	122	5KCP39SGT039S	3/4	113	G121857.00	2	130	G140733.00	7.5	87
193386.60	10	151	825085.00	3	123	5KCP39SGU717S	3/4	113	G121858.00	1.5	130	G140734.00	10	87
193387.60	10	151	825086.00	5	123	5KCP39SGU725S	3/4	113	G121859.00	2	130	G140735.00	10	87
193388.60	15	151	825087.00	5	123	5KCP39SGY805S	3/4	113	G121860.00	3	130	G140736.00	15	87
193389.60	15	151	825088.00	7.5	123	E175921.00		29	G131465.00	3	133	G140737.00	10	86
193390.60	20	151	825089.00	7.5	123	E175922.00		29	G131466.00	5	133	G140738.00	15	86
193391.60	20	151	825090.00	10	123	E175923.00		29	G131478.00	1	20	G140740.00	7.5	92
193392.60	25	151	825091.00	10	123	E175924.00		29	G131479.00	1.5	20	G140741.00	7.5	92
193393.60	25	151	825092.00	15	123	E175925.00		29	G131489.00	3	25	G140742.00	10	92
193394.60	30	151	825093.00	15	123	E175927.00		29	G131490.00	5	25	G140743.00	10	92
193395.60	30	151	825094.00	20	123	E175928.00		29	G131491.00	3	25	G140764.00	15	130
193396.60	40	151	825095.00	20	123	E175929.00		29	G131492.00	5	25	G140765.00	3	25
193397.60	40	151	825096.00	25	123	E175930.00		29	G131498.00	3	133	G141113.00	7.5	25
193398.60	50	151	825097.00	25	123	E175931.00		29	G131499.00	5	133	G141121.00	10	129
193399.60	50	151	825098.00	30	123	ECB175926.00		29	G131500.00	5	133	G141122.00	10	130
810001.00	20	29	825099.00	30	123	G120024.00	1	24	G131510.00	7.5	25	G141123.00	7.5	133
810003.00	25	29	825100.00	40	123	G120032.00	1.5	133	G131513.00	3	25	G141124.00	7.5	72
810005.00	30	29	825101.00	40	123	G120034.00	2	133	G131514.00	5	25	G150261.22	15	22
810007.00	20	29	825102.00	50	123	G120035.00	2	25	G131525.00	2	25	G150263.22	20	22
810011.00	25	29	825103.00	50	123	G120037.00	1.5	24	G131558.00	3	116	G150265.22	25	22
810015.00	30	29	825104.00	60	123	G120038.00	2	25	G131559.00	5	116	G150282.22	10	22
810019.00	40	29	825105.00	60	123	G120047.00	1	133	G131562.00	3	129	G151345.60	7.5	25
810023.00	50	29	825106.00	75	123	G120061.00	2	25	G131563.00	5	129	G151346.60	7.5	25
810027.00	60	29	825107.00	75	123	G120081.00	1.5	24	G131574.00	5	129	G151347.60	10	25
810031.00	75	29	825108.00	100	123	G120082.00	1	24	G131576.00	7.5		G151348.60	10	25
810066.00	15	29	825109.00	100	123	G120098.00	1	24	G131579.00	3	130	G151349.60	15	25
810068.00	15	29	825110.00	125	123	G120105.00	1.5	24	G131580.00	5	130	G151350.60	15	25
810087.00	100	29	825111.00	125	123	G120161.00	1.5	24	G131581.00	5	130	G151351.60	20	25
810096.00	40	29	825112.00	150	123	G120172.00	1	24	G131582.00	7.5	130	G151352.60	20	25
810097.00	50	29	825113.00	150	123	G120176.00	1	133	G131594.00	7.5	86	G151355.22	5	21
810098.00	60	29	825114.00	200	123	G120177.00	1.5	133	G131595.00	5	86	G151356.22	7.5	21
810099.00	75	29	825115.00	200	123	G120178.00	2	133	G131596.00	3	86	G151361.60	15	129
810140.00	10	29	825125.00	3	122	G120329.00	1.5	117	G131597.00	5	86	G151362.60	20	129
810157.00	7.5	29	825126.00	3	122	G120330.00	2	117	G131613.00	3	117	G151380.60	15	129
810503.00	200	29	825127.00	5	122	G120370.00	1.5	116	G131614.00	5	117	G151381.60	20	129
810546.00	2	29	900282.01		211	G120371.00	2	116	G131617.00	3	117	G151382.60	25	129
810547.00	1.5	29	01130137.00	1/8	156	G120762.00	2	86	G131618.00	5	117	G151417.60	25	130
810548.00	1	29	6439191250	1/2	108	G120987.00	3	86	G131620.00	2	117	G151418.60	25	130
811320.00	3	29	6439191251	3/4	108	G120993.00	3	25	G131626.00	3	116	G151420.60	30	130
811322.00	5	29	6439191252	1	108	G121050.00	1	117	G131627.00	5	116	G151422.60	30	130
811367.00	100	29	6439191253	1.5	108	G121051.00	1.5	117	G131642.00	3	25	G151424.60	40	130
811369.00	125	29	6439191260	1/2	108	G121052.00	2	117	G131779.00	5	25	G151426.60	40	130
811371.00	150	29	6439191261	3/4	108	G121053.00	1.5	116	G131780.00	7.5	25	G151507.60	25	25
811516.00	250	29	6439191262	1	108	G121054.00	2	116	G131882.00	3	128	G151508.60	30	25
811529.00	300	29	6439191263	1.5	108	G121178.00	2	121	G131883.00	5	128	G151509.60	40	25
811530.00	350	29	6439191264	2	108	G121187.00	3	25	G131884.00	5	128	G151510.60	50	25
811541.00	1	58	5KCP39DGP081S	1/6	113	G121350.00	1.5	88	G131885.00	7.5	128	G151516.60	250	23
811542.00	1.5	58	5KCP39DGS375S	1/6	112	G121351.00	2	88	G131912.00	7.5	25	G151518.60	350	23
811543.00	1.5	58	5KCP39DGU716S	1/6	113	G121525.00	1.5	92	G131923.00	3	92	G151519.60	60	25
811544.00	2	58	5KCP39DGY797S	1/6	113	G121527.00	2	92	G131924.00	5	92	G151524.60	250	23
811545.00	2	58	5KCP39EGAA09S	1/4	112	G121557.00	1	117	G131949.00	5	92	G151525.60	300	23
811546.00	3	58	5KCP39EGAA10S	1/4	112	G121560.00	1.5	92	G131967.00	3	87	G151529.60	300	23
811547.00	3	58	5KCP39EGP697S	1/4	113	G121561.00	2	92	G131968.00	5	87	G151530.60	350	23
811548.00	5	58	5KCP39FGL114S	1/4	112	G121562.00	3	92	G131969.00	5	87	G151567.60	15	130
811549.00	5	58	5KCP39FGL782S	1/4	112	G121579.00	1	87	G131970.00	7.5	87	G151568.60	15	130
811550.00	7.5	58	5KCP39FGM421S	1/4	112	G121580.00	1.5	87	G131996.00	3	92	G151569.60	20	130
811551.00	7.5	58	5KCP39FGM433S	1/4	112	G121581.00	1.5	87	G131997.00	5	92	G151570.60	20	130
811552.00	10	58	5KCP39FGM599S	1/4	112	G121582.00	2	87	G131998.00	5	92	G151682.60	15	25
811553.00	10	58	5KCP39GGU714S	1/4	113	G121583.00	2	87	G132027.00	7.5	130	G151683.60	20	25
811554.00	15	58	5KCP39GGY796S	1/4	113	G121584.00	3	87	G132059.00	2	25	G151684.60	20	25
811555.00	15	58	5KCP39HGAA06AS	1/3	112	G121617.00	1.5	87,117	G140004.00	10	133	G151685.60	25	25
811556.00	20	58	5KCP39HGAA11AT	1/3	112	G121618.00	2	87,117	G140013.00	10	133	G151686.60	25	25
811557.00	20	58	5KCP39HGAA37T	1/3	112	G121626.00	1	92	G140108.00	10	25	G151687.60	30	25
811558.00	25	58	5KCP39HGP698S	1/3	113	G121627.00	1.5	92	G140109.00	10	25	G151736.60	1.5	130
811559.00	25	58	5KCP39HGU722S	1/4	113	G121628.00	1.5	92	G140465.00	10	86	G151737.60	2	130
811560.00	30	58	5KCP39JGN654T	1/3	112	G121629.00	2	92	G140467.00	7.5	86	G151738.60	3	130
811561.00	30	58	5KCP39LGL786S	1/3	112	G121630.00	2	92	G140516.00	2	21	G151739.60	3	130
811562.00	40	58	5KCP39LGS407S	1/3	112	G121631.00	3	92	G140535.00	5	25	G151740.60	5	130
811563.00	40	58	5KCP39LGU715S	1/3	113	G121652.00	1	86	G140580.00	7.5	25	G151741.60	5	130
811564.00	50	58	5KCP39LGY801S	1/3	113	G121655.00	1.5	86	G140601.00	3	117	G151742.60	7.5	130
811565.00	50	58	5KCP39MGAA08BS	1/2	112	G121659.00	1	92	G140603.00	7.5	117	G151743.60	7.5	130
811566.00	60	58	5KCP39MGK209S	1/2	113	G121664.00	5	25	G140605.00	7.5	117	G151744.60	10	130
811567.00	60	58	5KCP39MGL796S	1/3	112	G121668.00	1.5	24	G140610.00	7.5	116	G151745.60	10	130
811568.00	75	58	5KCP39NGAA29CS	1/2	112	G121669.00	1.5	24	G140611.00	7.5	116	G151746.60	15	130

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LM32943	50	LM33030	189	LM33124	38	LM80030	214	LM80117	212	LM80204	215
LM32944	50	LM33031	189	LM33125	38	LM80031	214	LM80118	212		
LM32945	50	LM33032	189	LM33126	30	LM80032	215	LM80119	212		
LM32946	50	LM33033	189	LM33137	31	LM80033	215	LM80120	212		
LM32947	50	LM33034	189	LM60026	47	LM80034	215	LM80121	212		
LM32948	51	LM33035	189	LM60027	47	LM80035	215	LM80122	212		
LM32949	51	LM33036	189	LM60029	47	LM80036	215	LM80123	212		
LM32950	51	LM33041	190	LM60030	47	LM80037	215	LM80124	212		
LM32951	51	LM33042	190	LM60031	47	LM80038	215	LM80125	212		
LM32952	51	LM33043	190	LM60032	47	LM80039	215	LM80126	212		
LM32953	51	LM33044	190	LM60033	47	LM80040	215	LM80127	212		
LM32954	51	LM33045	190	LM60034	47	LM80041	215	LM80128	212		
LM32955	51	LM33046	190	LM60035	47	LM80042	215	LM80129	212		
LM32956	51	LM33047	190	LM60036	47	LM80043	215	LM80130	212		
LM32957	51	LM33048	190	LM60037	48	LM80044	215	LM80131	212		
LM32958	51	LM33049	190	LM60038	48	LM80045	215	LM80132	212		
LM32959	51	LM33050	191	LM60039	48	LM80046	215	LM80133	212		
LM32960	51	LM33051	191	LM60040	48	LM80047	215	LM80134	212		
LM32961	51	LM33052	191	LM60041	48	LM80048	215	LM80135	212		
LM32962	51	LM33053	134	LM60042	48	LM80049	215	LM80136	212		
LM32963	51	LM33054	134	LM60043	48	LM80050	214	LM80137	212		
LM32964	51	LM33055	134	LM60044	48	LM80051	214	LM80138	212		
LM32965	51	LM33056	134	LM60045	48	LM80052	214	LM80139	212		
LM32966	51	LM33057	134	LM60046	48	LM80053	214	LM80140	212		
LM32967	51	LM33058	134	LM60047	48	LM80054	214	LM80141	212		
LM32968	51	LM33059	134	LM60048	48	LM80055	214	LM80142	212		
LM32969	51	LM33060	134	LM60049	48	LM80056	214	LM80143	212		
LM32970	51	LM33061	134	LM60050	48	LM80057	214	LM80144	212		
LM32971	51	LM33062	134	LM60051	48	LM80058	214	LM80145	212		
LM32972	51	LM33063	134	LM60052	48	LM80059	214	LM80146	212		
LM32973	51	LM33064	134	LM60053	48	LM80060	214	LM80147	212		

LEESON MOTOR MODEL NUMBER NOMENCLATURE

All LEESON motors, both stock and custom, have a catalog number and a model number. The model number appears on the motor's nameplate and describes pertinent electrical and mechanical features of the motor. An example follows along with a listing of the various letters and positions used.

Odd frequencies other than 50 Hz show synchronous speed code.

DC and special motors may have one, two, or three digits indicating motor speed rounded to the nearest hundred RPM.

EXAMPLE:

Position No.	1	2	3	4	5	6	7	8	9	10
Sample Model No.	A	B	4	C	17	D	B	1	A	(A-Z)

POSITION 1: U.L. PREFIX

A = Auto protector. U.L. recognized for locked rotor plus run, also recognized construction (U.L. 1004)*.
M = Manual protector. U.L. recognized for locked rotor plus run, also recognized construction (U.L. 1004)*.
L = Locked rotor protector (automatic). U.L. recognized for locked rotor only, also recognized construction (U.L. 1004)*.
C = Component recognition. (U.L. 1004) No protector.
U = Auto protector. U.L. recognized construction (UL1004). Motor/protector combination not UL recognized.
P = Manual protector. U.L. recognized construction (UL1004). Motor/protector combination not UL recognized.
T = Thermostat, not U.L. recognized.
N = No overload protection.

*This applies only to 48, S56, and 56 frame designs through 1 HP, Open & TENV.

POSITION 2: (OPTIONAL)

This position is not always used.
M = Sub-Fractional HP Motors.
Z = BISSC Approved.
Other = Customer Code

POSITION 3: FRAME

4 = 48 Frame	23 = 23 Frame	40 = 40 Frame
6 = 56 Frame	30 = 30 Frame	43 = 43 Frame
42 = 42 Frame	34 = 34 Frame	44 = 44 Frame
143 = 143T Framei	36 = 36 Frame	53 = 53 Frame
145 = 145T Frame	38 = 38 Frame	65 = 65 Frame
182 = 182T Frame	39 = 39 Frame	
184 = 184T Frame		
213 = 213T Frame		
215 = 215T Frame		
254 = 254T Frame		
256 = 256T Frame		
284 = 284T Frame		
286 = 286T Frame		
324 = 324T Frame		
326 = 326T Frame		
364 = 364T Frame		
365 = 365T Frame		
404 = 404T Frame		
405 = 405 T Frame		
444 = 444T Frame		
447 = 447T Frame		
449 = 449T Frame		

POSITION 4: MOTOR TYPE

C = Cap. Start/Ind. Run	T = Three Phase
D = Direct Current	B = Brushless DC
K = Cap. Start/Cap. Run	H = Hysteresis Sync.
P = Permanent Split	R = Reluctance Sync.
S = Split Phase	

POSITION 5: RPM

RPM-Single Speed	RPM-Multi-Speed
34 = 3450 RPM 60 Hz 2 Pole	24 = 2 and 4 Poles
28 = 2850 RPM 50 Hz 2 Pole	26 = 2 and 6 Poles
17 = 1725 RPM 60 Hz 4 Pole	82 = 2 and 8 Poles
14 = 1425 RPM 50 Hz 4 Pole	212 = 2 and 12 Poles
11 = 1140 RPM 60 Hz 6 Pole	46 = 4 and 6 Poles
9 = 950 RPM 50 Hz 6 Pole	48 = 4 and 8 Poles
8 = 960 RPM 60 Hz 8 Pole	410 = 4 and 10 Poles
7 = 720 RPM 50 Hz 8 Pole	412 = 4 and 12 Poles
7 = 795 RPM 60 Hz 10 Pole	68 = 6 and 8 Poles
6 = 580 RPM 50 Hz 10 Pole	
6 = 580 RPM 60 Hz 12 Pole	

POSITION 6: ENCLOSURE

D = Drip-Proof
E = Explosion-Proof TENV
F = Fan Cooled
N = TENV
O = Open
S = Splashproof
W = Weatherproof, Severe Duty, Chemical Duty, WASHGUARD - TEFC
X = Explosion-Proof TEFC
V = Weatherproof, Severe Duty, Chemical Duty, WASHGUARD - TENV

POSITION 7: MOUNTING

B = Rigid base standard
C = “C” face - no base - NEMA
D = “D” flange - no base - NEMA
H = 48 frame - 56 frame mounting/shaft rigid
J = 48 frame - 56 frame mounting/shaft resilient
K = Rigid mount with “C” flange
L = Rigid mount with “D” flange
M = Motor parts - rotor and stator
R = Resilient base
S = Shell motor
T = Round body
Z = Special mounting

POSITION 8: SEQUENCE NUMBER

Number assigned as required when new designs with new characteristics are needed.

POSITION 9: MODIFICATION LETTER

Major modification letter. Used when revisions made in existing model ***will*** affect service parts.

POSITION 10: (OPTIONAL)

A date code consisting of either A-Z, and two digits 00-99.

Letter when shown on nameplate indicates model has U.L. primary single phasing recognition. (Applies to 3 phase motors only.)

Code letters indicate manufacturing location:
A = Grafton, WI
B = Black River Falls, WI
C = Saukville, WI
E = Neillsville, WI
G = Lincoln, MO
P = West Plains, MO

LINCOLN INDEX

NOTES & SYMBOLS/HOW TO ORDER

NOTES AND SYMBOLS

A = NEMA Design A
AG = Conforms to GM-7EH
AH = Conforms to GM-7EH and satisfies Chrysler NPEM-100 and Ford EM-1 specifications.
AQ = Conforms to GM-7EQ, Chrysler NPEM-100 and Ford EM-1 specifications.
AT = Auto rest overload protection
C = Meets or exceeds NEMA Design C starting (locked rotor) torque requirements for 1 - 200 HP, 1800 & 1200 RPM.
D = Item to be discontinued when present stock is depleted.
E3 = Class H Insulation
F = Meets Ford EM1-1996 specifications
NN = No-Nafta
ML = Manual reset overload protection
S = Stock item
TT = Thermostat overload protection

Nameplated for the following operation:
H = 208 V, 60 Hz @ 1.15 SF
J = 208 V, 60 Hz @ 1.05 SF
K = 208 V, 60 Hz @ 1.00 SF
M = 380-415 V, 50 Hz @ 1.15 SF
N = 380-415 V, 50 Hz @ 1.00 SF
P = 208/415 V, 50 Hz @ 1.15 SF
Q = 208/415 V, 50 Hz @ 1.00 SF
T = 415 V, 50 Hz @ 1.15 SF
U = 415 V, 50 Hz @ 1.00 SF
V = 190-208/380-415, 50 Hz @ 1.15 SF
W = 190-208/380-415, 50 Hz @ 1.00 SF
X = 190/380, 50 Hz @ 1.15 SF
Y = 190/380, 50 Hz @ 1.00 SF
Z = 200/400, 50 Hz @ 1.15 SF
▼ = 190/380, 50 Hz at next lower HP @ 1.00 SF
◆ = 190/380, 50 Hz at next lower HP @ 1.15 SF
= 190-208/380-415, 50 Hz at next lower HP @ 1.15 SF
= 190-208/380-415, 50 Hz at next lower HP @ 1.00 SF

THREE WAYS TO ORDER QUALITY LINCOLN MOTORS

I. Product Number
LM16110

II. Model Number
SF2P50TSC61YB

III. Generic Description
50HP 3600RPM 326TS Steel Frame Ultimate E1® (P) TEFC 230/460/3/60 with drive end C-Face and F-2 mount.

I. The **Product Number**, LM16110, is a unique letter and number combination that permanently identifies a motor and its options/modifications. It is assigned by the factory. Any change to a motor already assigned a Product Number dictates a different Product Number.

II. The **Model Number**, SF2P50TSC61YB, is a unique letter/number combination that permanently identifies a motor. Each character in conjunction with its position in the Model Number has significance (see Quick Reference). Options/modifications are addressed by additional letters/numbers inserted in the appropriate slot.

III. The **Generic Description** completely describes the motor by listing HP (50), speed (3600 RPM), frame size (326TS), construction material (steel), efficiency code (P), enclosure (TEFC), voltage (230/460), frequency (60) and options/modifications (C-Face, F-2 mount).

MODEL NUMBER - QUICK REFERENCE

A Frame Material & Enclosure
B Poles/Speed (RPM)
F Shaft and Mounting
G Frequency, Voltage and Starting Options.

SF 2 P 50 TSC 61Y B

C Efficiency Level
D Horsepower
E NEMA Frame Series
H Options/Modifications

A Frame Material (first letter): A = extruded aluminum; C = cast iron, M = steel with encapsulated windings; R (56-56H) and S (143T-449T) = steel.

Enclosure (second letter): A = TEAO; B = TEBC; C and F = TEFC; D = ODP; E = ODP w/encapsulated windings; EW = Wash-Thru™ motor, J and N = TENV; P = IEEE 841 Severe Duty; S = Severe Duty.

B Poles/Speed (rpm): this leads to motor synchronous speed
60 Hz: 2 = 3600, 4 = 1800, 6 = 1200, 8 = 900.
50 Hz: 2 = 3000, 4 = 1500, 6 = 1000, 8 = 750.

C Efficiency Level: B = exceeds NEMA MG-1 Table 12-10 values; P = meets NEMA MG-1 Table 12-10.

D Horsepower: Fractional thru largest available. 0.25 (1/4 HP) to 800 (800 HP).

E NEMA Frame Series and Dimensions: T or U = sets frame number and dimensions in accordance with NEMA design standards.

F Shaft and Mounting: C = C-Face; JM & JP = NEMA Pump bracket and shaft; N = No feet; R = Resilient mount; S = NEMA short shaft.

G Frequency (first digit): 6 = 60 Hz; 5 = 50 Hz.

Voltage (all digits): 61 = 230/460; 62 = 200/400; 64 = 460; 65 = 575; 6024 = 2300/4000; 51 = 220/380; 55 = 380.

Reduced voltage start capability:
P = Part winding start; Y = Y delta start.

H Options/Modifications: Listed in alphabetical sequence.
B = F-2 mount; Q10 = CTAC® w/feedback mount provision;
Q15 = CTAC w/1024 ppr encoder; Q20 = CTAC w/o encoder mount;
Q40 = Premium efficient CTAC w/o encoder mount;
RB = Roller Bearing.

A TYPICAL SINGLE PHASE MOTOR MODEL NUMBER

SRF 4 S 0.5 TC 1C6028 TP2

A Frame Material & Enclosure

B Poles (Speed)

C Efficiency Level

D Horsepower

E NEMA Frame Series and Standard

F Shaft and Mounting

G Electrical Type (1-PH only), Frequency, Voltage and Starting.

H Options/Modifications

A Frame Material:

A, AA = Extruded aluminum
AV = Alum 63 frame
AP = Alum 71 frame
AR = Alum 80 frame
C = Cast iron
M = Steel (encapsulated windings, 284T-445T frames)
S = Steel (143T-449T frames)

Signature Series Motors

SP = Steel (48 frames)
SR = Steel (56 frames)
SS = Steel (143T-215T frames)
CC = Cast iron (143T and larger)

Enclosure (follows Frame Material*):

A = TEAO	FW = TEFC, Washdown
B = TEBC	FX = TE, Explosion-proof
D = ODP	NW = TENV, Washdown
E = ODP-Encapsulated	RA = TEAO, Steel
EW = Wash-Thru™ Motor	NX = XP, TENV
F = TEFC	YF = TEFC, Metric
RN = Steel TENV 48 frame	PA = Steel 48 frame
N = TENV	PN = Steel TENV 48 frame
P = Severe Duty IEEE 841	RN = Steel TENV 48 frame
S = Severe Duty	

B Number of Magnetic Poles: this leads to motor synchronous speed (rpm).

Poles	Speed 60 Hz	Speed 50 Hz
2	3600 RPM	3000 RPM
4	1800	1500
6	1200	1000
8	900	750

Single speed motors:
4 = 1800 (60 Hz) or 1500 (50 Hz)

Two speed motors:
2/4/1 = 3600 and 1800 (60 Hz), one winding
4/8/2 = 1800 and 900 (60 Hz), two windings

C Efficiency Level:

B = Motors built after 12/19/10 meet NEMA Premium Table Table 12-12. Motors over 200 HP having a B, exceed Epact levels.
G = Below NEMA MG-1 Table 12-10, GM7EQ
P = Meets EPAct, NEMA MG-1 Table 12-10 and GM-7EH.
S, H = Below NEMA MG-1 Table 12-10

D Horsepower:

Single speed motor examples: 0.25, 0.5, 1.5, 75, 800

Horsepower range example: 5-7 = 5 to 7

Two speed motor example:
10/2.5 = 10 HP high speed, 2.5 HP low speed

E NEMA Frame Series and Dimensions:
T or U = sets frame number and dimensions in accordance with NEMA T or U design standards for the motor's HP, speed and enclosure.
E = Metric design IEC

F Shaft and Mounting:

AD = Auger drive	R = Resilient mount
C = C-Face, B14	S = NEMA short shaft
D = D-Flange, B5	Y = special mounting (ie. extended thru-bolts)
J = Jet Pump	
JM = JM Pump Mount	Z = non-standard shaft dimensions (-1, -2, -3, etc. will appear at the end of the Model Number)
JP = JP Pump Mount	
L = Locked bearing	
N = No feet	

Double shaft motors are identified by two symbols, the first for the "normal drive end" and the second for the "opposite normal drive end": SD4B30TTM61Y and SD4P75TSTS61Y

Each end of the double shaft can have its own mounting: MD4S125TSCTSC61 and CS6P15TTMC61Y

Mounting symbols are listed in alphabetical order when more than one is specified: SSD2S25TJMN61

Lincoln MOTORS

MODEL NUMBERS DEFINED

G **Electrical Type (Single Phase Only):**

1A = permanent split capacitor
1B = capacitor start, capacitor run
1C = capacitor start, induction run
1N = split phase start, capacitor run
1S = split phase

Frequency:
6_ = 60 Hz and 5_ = 50 Hz

Voltage:

The specific number has no significance. Lincoln will assign the next number in sequence to a new, previously unmanufactured voltage when it is ordered.

Commonly used voltage codes:

60 Hz	50 Hz
61 = 230/460 V	51 = 220/380 V
62 = 200/400	52 = 240/415
63 = 208	53 = 230/400
64 = 460	54 = 200/400
65 = 575	55 = 380
66 = 230	56 = 400
67 = 440	57 = 415
68 = 380	58 = 440
69 = 480	59 = 220/440
6003 = 220/380	5001 = 190/380
6004 = 220/440	5007 = 346
6011 = 400V 60Hz	5012 = 550
6020 = 2300	5014 = 380-415
6021 = 4000	
6024 = 2300/4000	
6026 = 208-230/460	
6027 = 115/230	
6028 = 115/208-230	
6029 = 208-220/440	

Reduced Voltage Start Capability:

P = Part winding start (PWS)
Y = Wye-delta start (YDS)
PY = PWS and YDS

H **Options/Modifications:**

If a motor has more than one Option / Modification, the symbols will appear in alphabetical order.

AP1 CE Compliant Motor
AP5 Fire Pump certified
AP7 Farm Duty, High Torque
AP8 Farm Duty, Extra High Torque
AP9 Grain Stirring
AP10 PSC Variable Speed

H **Options/Modifications (cont'd):**

AP11 PSC Variable Speed, expanded speed range
AP13 UL Listed Class 1 Groups C & D and Class 2 Groups F & G, thermostats
AP14 UL Listed Class 1 Groups C & D and Class 2 Groups F & G, auto reset thermal protector
AP15 UL Listed Class 1 Group D and Class 2 Groups F & G, thermostats
AP21 China sourced
AP23 India sourced
AP25 China sourced
B F-2 Mount
C_ Ceiling Mount - NEMA position follows "C"; 1-2
E3 Class H Insulation
E5 Class H Insulation & High Temperature Grease
F Fungus Proofing (Tropicalization)
H4 Leads exit motor at 12 o'clock position
HS Precision Dynamic Balance
HT1 Space Heater, 120V
HT2 Space Heater, 240 V
K Omit Terminal Box
L_ Additional Lead Length - "L" followed by additional length in inches
MB3 Insulated bearings, both ends
MB6 Double sealed bearings, both ends
MK_ Brake installed on motor
Q10 CTAC® Inverter Duty Motor with provision for mounting feedback device
Q15 CTAC Inverter Duty Motor with factory installed Dynapar 625 1024 ppr encoder
Q15_ CTAC Inverter Duty Motor with factory installed encoder - letter following "Q15" represents brand and ppr rating of encoder, A through S.
Q20 CTAC Inverter Duty motor without provision for mounting feedback device
Q40 CTAC Inverter Duty Motor without provision for mounting feedback device
QS10 Crop dryer (single phase, auto reset)
QS11 Crop dryer (single phase, thermostats)
QS12 Crop dryer (three phase, thermostats)
RB Roller bearing on drive end
T1 Thermostats, Class F, 3 in series
T5 Thermostats (2) Class F
TD1,2 RTD - Winding, 100 platinum
TD4 RTD - Winding, 10 copper
TD6 RTD - Winding, 120 nickel
TP1 Overload protection, manual reset
TP2 Overload protection, auto reset
TX1 Thermistors, 3 in series
W_ Wall Mount - W followed by NEMA position number, 1-8
X_ Paint color deviation

MOTOR SELECTION

Electric motors are the workhorses of industry. Many applications exist where more than one motor can be used and/or the exact replacement is not available. LEESON makes every effort to maximize interchangeability, mechanically and electrically, where compromise does not interfere with reliability and safety standards. If you are not certain of a replacement condition, contact any LEESON Authorized Distributor or the LEESON District Sales Office.

SELECTION

Identifying a motor for replacement purposes or specifying a motor for new applications can be done easily if the following information is known:

1. Nameplate Data
2. Motor Type
3. Electrical and Performance Characteristics
4. Mechanical Construction

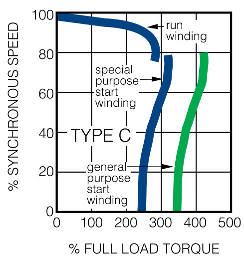
NAMEPLATE DATA

Nameplate data is the most important first step in determining motor replacement. Much of the information needed can generally be obtained from the nameplate of the motor to be replaced. Take time to record all the nameplate information because it can save time, avoid confusion and MISAPPLICATION.

MOTOR TYPE

Alternating current (AC) induction motors are divided into two electrical categories, based on power source—single phase and polyphase (three phase). Direct current (DC) motors are used in applications where precise speed control is required or when battery or generated direct current is the available power source.

TYPICAL SPEED TORQUE CURVES



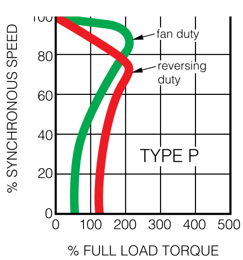
Capacitor Start/Induction Run

A single phase general purpose design, with an electrolytic capacitor in series with the start winding, offering maximum starting torque per ampere.

A centrifugal switch removes the auxiliary winding and capacitor when the motor approaches full load speed. The design is a heavy-duty unit which has approximately 300% (of full load) starting torque. Common applications include compressors, pumps, conveyors and other “hard-to-start” applications.

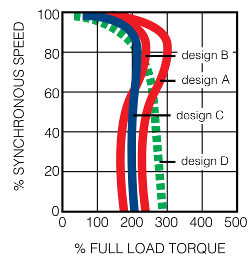
Capacitor Start/Capacitor Run

This design has two capacitors of different values. A centrifugal switch is used to remove the electrolytic capacitor when the motor approaches full load speed. A second run capacitor remains in series with the auxiliary winding during full load operation. This type of design has lower full-load amps as a result of the run capacitor and is consequently used on most higher horsepower single phase motors.



Permanent Split Capacitor (PSC)

This design has an auxiliary winding with a “run” capacitor, but unlike the capacitor start/induction run motor, the capacitor and auxiliary winding remain in the circuit under running conditions. (There is no centrifugal switch on this type motor.) A permanent split capacitor design has low starting torque and low starting current. They are generally used on direct-drive fans and blowers. They can also be designed for higher starting torque and intermittent applications, where rapid reversing is desired.

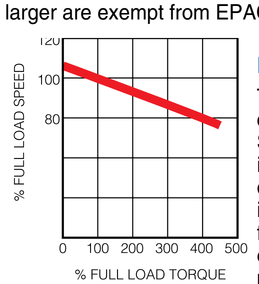


Three Phase or Polyphase

General purpose three phase motors have different electrical design classifications as defined by NEMA. NEMA Design A and B motors are of normal starting torque with normal starting current. NEMA Design C motors have higher starting torque with normal starting current. All three types have slip of less than 5%. (“Slip” being a term which expresses, as a percentage, the difference between synchronous motor speed and full load motor speed, for example, 1800 rpm synchronous versus a full load speed of 1740 rpm.

NEMA’s Design B and C standards are minimum performance standards. In practice, some manufacturers (including LEESON) build small integral HP Design B motors with locked rotor and breakdown torque levels equalling NEMA Design C standards.

NEMA T frame motors 1 through 200 HP *covered* by EPACT (identified with a “G” catalog prefix) are labeled Design B, exceed NEMA Design B performance levels, and have efficiencies equal to EPACT mandated levels. EPACT *exempt* three phase, base-mounted motors are labeled Design C and have performance characteristics meeting NEMA’s Design C standards, with standard motor efficiencies. Motors 250 HP and larger are exempt from EPACT legislation.



Permanent Magnet DC

This design has linear speed/torque characteristics over the entire speed range. SCR rated motor features include high starting torque for heavy load applications and dynamic braking, variable speed and reversing capabilities. Designs are also available for use on generated low voltage DC power or remote applications requiring battery power.

ELECTRICAL AND PERFORMANCE CHARACTERISTICS

One of the best ways to guarantee economical performance and long motor life is to make sure your motors operate at nameplate voltage. Applying too high a voltage may reduce the motor’s efficiency and increase operating temperatures. The net result is shorter motor life.

Under-voltage can also shorten motor life. Operating on too low a voltage reduces the motor’s effective horsepower. The motor will attempt to drive the load it was intended to drive, become overloaded, draw more current than normal, and overheat. Again, the result will be premature failure.

ENCLOSURES AND ENVIRONMENT

DRIP-PROOF: Venting in end frame and/or main frame located to prevent drops of liquid from falling into motor within a 15˚ angle from vertical. Designed for use in areas that are reasonably dry, clean, and well ventilated (usually indoors). If installed outdoors, it is recommended that the motor be protected with a cover that does not restrict the flow of air to the motor.

TOTALLY ENCLOSED AIR OVER (TEAO): Dust-tight fan and blower duty motors designed for shaft mounted fans or belt driven fans. The motor must be mounted within the airflow of the fan.

TOTALLY ENCLOSED NON-VENTILATED (TENV): No vent openings, tightly enclosed to prevent the free exchange of air, but not airtight. Has no external cooling fan and relies on convection for cooling. Suitable for use where exposed to dirt or dampness, but not for hazardous (explosive) locations.

TOTALLY ENCLOSED FAN COOLED (TEFC): Same as the TENV except has external fan as an integral part of the motor, to provide cooling by blowing air around the outside frame of the motor.

TOTALLY ENCLOSED, HOSTILE AND SEVERE ENVIRONMENT MOTORS: Designed for use in extremely moist or chemical environments, but not for hazardous locations.

TOTALLY ENCLOSED BLOWER COOLED MOTORS (TEBC): Used to extend the safe speed range of inverter-fed motors. Similar to TEFC except a small, constant-speed fan provides uniform airflow regardless of the drive motor’s operating speed.

EXPLOSION-PROOF MOTORS: These motors meet Underwriters Laboratories and Canadian Standards Association standards for use in hazardous (explosive) locations, as indicated by the UL label affixed to the motor. Locations are considered hazardous because the atmosphere does or may contain gas, vapor, or dust in explosive quantities.

NEMA SERVICE FACTORS

HP	ENCLOSURE	RPM 3600	RPM 1800	RPM 1200
1/4-1/3	Open	1.35	1.35	1.35
1/2-3/4	Open	1.25	1.25	1.25
1 & Larger	Open	1.15	1.15	1.15
All	Totally Enclosed	1.00	1.00	1.00

Most LEESON Totally Enclosed Motors have 1.15 Service Factor. Refer to the Service Factor information on each page to identify specific totally enclosed motors with NEMA 1.00 Service Factor or LEESON 1.15 Service Factor. All drip-proof motors have NEMA Service Factors of 1.15 or higher. All three phase totally enclosed motors have NEMA Service Factors of 1.15 except when noted ( ).

SCR PM DC MOTORS ON PWM POWER SUPPLIES

Pulse width modulated DC controls have a voltage output similar to pure direct current which has a form factor of 1.00. SCR thyristor drives, such as the SPEEDMASTER® controls listed on page 117, have a form factor of 1.4.

LEESON stock SCR rated motors can also be used with PWM controls. In fact, the motor's HP rating can be increased because of less heating in the motor. In addition, the motor will operate quieter and the brush life will be extended.

Rated HP 1.40 FF	Rated RPM	Rated Volts	Catalog Number	Rated HP 1.05 FF
1/4	1750	90	**098002**	0.40
	1750	180	**098003**	0.50
1/3	1750	90	**098004**	0.50
	1750	90	**108424**	0.56
	1750	180	**098005**	0.50
1/2	2500	90	**098006**	0.75
	2500	180	**098007**	0.70
	1750	90	**098000**	0.70
	1750	90	**108014**	0.75
	1750	90	**108226**	0.75
	1750	180	**098008**	0.56
	1750	180	**108015**	0.70
	1750	180	**108227**	0.70
3/4	2500	90	**098009**	1.00
	2500	90	**108016**	1.00
	2500	180	**098010**	1.00
	2500	180	**108017**	0.86
	1750	90	**098032**	1.00
	1750	90	**108018**	1.00
	1750	90	**108228**	1.25
	1750	180	**098069**	1.00
	1750	180	**108019**	1.00
	1750	180	**108229**	1.25
1	2500	90	**108020**	1.50
	2500	180	**108021**	1.50
	1750	90	**108022**	1.25
	1750	90	**108230**	1.25
	1750	180	**108023**	1.25
	1750	180	**108231**	1.25
1 1/2	2500	180	**108265**	2.00
	1750	180	**108092**	1.75
	1750	180	**108262**	1.75
	1750	180	**108232**	1.75
	1750	180	**128000**	--
2	2500	180	**108266**	3.00
	1750	180	**128001**	--
	1750	180	**128010**	--
3	2500	180	**128008**	--
	1750	180	**108502**	--

METRIC (IEC) DESIGNATIONS

The International Electrotechnical Commission (IEC) is a European-based organization that publishes and promotes worldwide mechanical and electrical standards for motors, among other things. In simple terms, it can be said that IEC is the international counterpart to the National Electrical Manufacturers Association (NEMA), which publishes the motor standards used in the United States.

IEC standards are expressed in metric units.

IEC ENCLOSURE PROTECTION INDEXES

Like NEMA, IEC has designations indicating the protection provided by a motor's enclosure. However, where NEMA designations are word descriptive, such as Open Drip-Proof or Totally Enclosed Fan Cooled. IEC uses a two-digit Index of Protection (IP) designation. The first digit indicates how well-protected the motor is against the entry of solid objects, the second digit refers to water entry.

By way of general comparison, an IP22 motor relates to Open Drip-Proof, IP54 to totally enclosed.

Protection Against Solid Objects		Protection Against Liquids	
Number	Definition	Number	Definition
0	No protection	0	No protection
1	Protected against solid objects of over 50 mm (e.g. accidental hand contact)	1	Protected against water vertically dripping (condensation)
2	Protected against solid objects of over 12 mm (e.g. finger)	2	Protected against water dripping up to 15° from the vertical
3	Protected against solid objects of over 2.5 mm (e.g. tools, wire)	3	Protected against rain falling at up to 60° from the vertical
4	Protected against solid objects of over 1 mm (e.g. thin wire)	4	Protected against water splashes from all directions
5	Protected against dust	5	Protected against jets of water from all directions
6	Totally protected against dust.	6	Protected against jets of water comparable to heavy seas
		7	Protected against the effects of immersion to depths of between 0.15 and 1m
		8	Protected against the effects of prolonged immersion at depth

IEC DESIGN TYPES

The electrical performance characteristics of IEC Design N motors in general mirror those of NEMA Design B—the most common type of motor for industrial applications. By the same token, the characteristics of IEC Design H are nearly identical to those of NEMA Design C. There is no specific IEC equivalent to NEMA Design D.

MOTOR EFFICIENCY TEST METHODS

Performance data of single phase motors is determined by using I.E.E.E. Std. 114 (Method B), three phase motors by I.E.E.E. Std. 112 (Method B). Motor efficiency is calculated using CSA C390. These testing methods meet the requirements of EPACT of 1992 and most utility companies.

For complete performance data on all LEESON motors, please review the Find-A-Product section on *www.leeson.com*.

Motors Designed For Use In The Automotive Industry

Automotive Duty 56 frame and U Frame motors (pages 233-240) are designed to meet automotive industry specifications from General Motors (GM-7EQ, GM-7EH), Ford (EM1) and Chrysler (NPEM-100). Actual qualifications for individual ratings are indicated in the footnotes on the price pages.

Automotive Duty T Frame motors (pages 233-240) are designed to meet or exceed Ford EM1-1996 specification(see footnotes on the price pages).

UL Recognized Component Listing

Low voltage (< 600 V) motors in frames 48-449T and 182U-445U listed in this catalog (excludes REW, SREW, SEW, SSEW, MD and SE models) carry UL Recognized Component Listing (contact Lincoln for file number).

Web: www.ul.com

NAFTA

A NAFTA (North American Free Trade Agreement) Certificate of Origin can be supplied on request.

Canadian Standards Association (CSA)

Low voltage (< 600 V) motors in frames 48-449T and 182U-445U listed in this catalog have Canadian Standards Association approval (contact Lincoln for file number).

Web: www.csa-international.org

CE (Conformité Européene)

Lincoln offers a variety of CE-compliant motors. Copies of Lincoln's Declaration of Conformity for the Low Voltage Directive and Manufacturer's Declaration for the Machinery Directive are available on request.

Motors for Hazardous Locations

NEMA defines an explosion-proof motor as follows: "a totally-enclosed machine designed and constructed to withstand an explosion of a specified gas or vapor which may occur within it and to prevent ignition of specified gas or vapor surrounding the machine by sparks, flashes or explosions of the specified gas or vapor which may occur within the machine casing".

Typical applications include petroleum and chemical plants or pipelines, gasoline pumps and natural gas compressors.

A **dust-ignition-proof** motor is "a totally enclosed machine whose enclosure is designed and constructed in a manner which will exclude ignitable amounts of dust or amounts which might affect performance or rating, and which will not permit arcs, sparks, or heat otherwise generated or liberated inside of the enclosure to cause ignition of exterior accumulations or atmospheric suspensions of a specific dust on or in the vicinity of the enclosure. Successful operation of this type of machine requires avoidance of overheating from such causes as excessive overloads, stalling, or accumulation of excessive quantities of dust on the machine".

Typical applications include grain elevators, coal handling equipment, feed and cereal mills, sugar refineries and chemical plants. Both types of motors are submitted to Underwriters Laboratories (UL) for approval.

The following is a brief description of the hazardous locations of both gaseous and dusty atmospheres as classified by the National Fire Protection Association's (NFPA) National Electrical Code (NEC) and printed from the 1996 Handbook. Consult the National Electrical Code for more information on explosion proof regulations.

Class 1 Group Classifications:

Class C - Atmospheres containing ethyl ether, ethylene, or gases or vapors of equivalent hazard.

Class D - Atmospheres such as acetone, ammonia, benzene, butane, cyclopropane, ethanol, gasoline, hexane, methanol, methane, natural gas, naphtha, propane,or gases or vapors of equivalent hazard.

Class 2 Group Classifications:

Group F - atmospheres containing carbonaceous dusts, including carbon black, charcoal, coal or coke dusts that have more than 8% total entrapped volatiles, or dusts that have been sensitized by other materials so that they present an explosion hazard.

Group G - atmospheres containing combustible dusts not included in Group E or F, including flour, grain, wood, plastic, and chemicals.

Lincoln Explosion-Proof motors are UL listed in the following NEC locations (indicated by ✔ mark):

Because these motors are suitable for Division 1 locations, they are also suitable for Division 2 locations of the same Class and Group.

BAKING INDUSTRY SANITATION STANDARDS COMMITTEE

WASHGUARD II, stainless steel washdown duty motors, NEMA frames 56, 143T, 145T, 182T and 184T are certified to Standard No. 29 for Electric Motors and Accessory Equipment, authorization number 769. The WBMQ Series of gear reducers are BISSC certified to Standard No. 29 for Electric Motors and Accessory Equipment, authorization number 941.

SAUDI ARABIAN STANDARDS ORGANIZATION

SCCP Ref. No.: R-100157

The CE Mark

CE is an acronym for the French phrase *"Conformite Europeene"* and is similar to the UL or CSA marks of North America. However, unlike UL or CSA which require independent laboratory testing, the CE mark can be applied by the motor manufacturer through "self certifying" that its products are designed to the appropriate standards. The European Union has issued 24 directives related to the **CE** mark. Three Directives apply to electric motors.

Low Voltage Directive (2006/95/EC) This directive applies to electrical equipment operating in the voltage range of 50-1000 volts AC or 75-1500 volts DC. Virtually all LEESON motors (except low voltage DC) are included in this directive.

Based on our testing to the applicable electrical and mechanical standards EN60034 and IEC 34, LEESON certifies conformity to this directive. All three phase 50 Hz stock motors comply with the nameplate designations, lead markings and connection diagrams required. A "Declaration of Conformity" accompanies these motors and a CE label is applied.

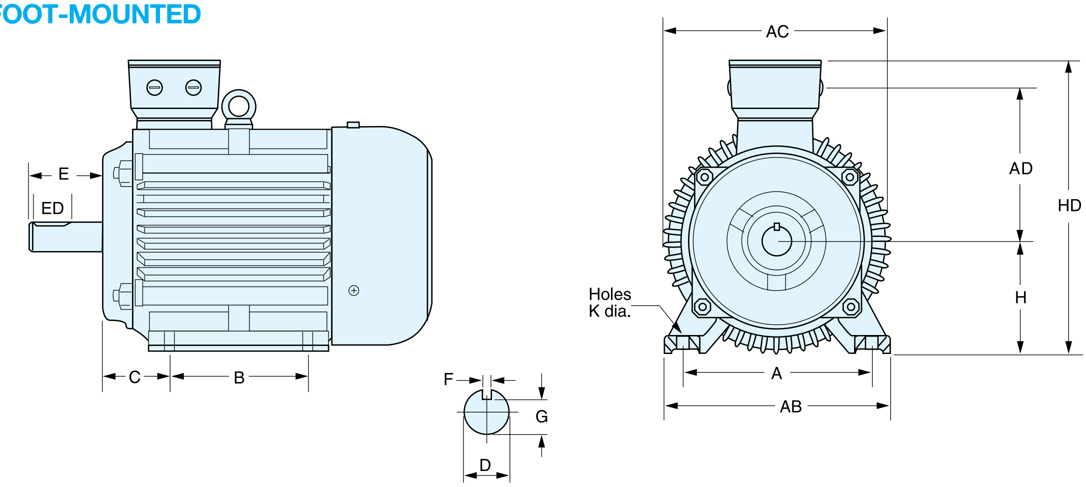
Machinery Directive (89/3392/EEC) This directive applies to machinery that may contain certain motors. This is an issue with equipment manufacturers and requires the use of a motor meeting the Low Voltage Directive and requires a "Declaration of Incorporation" document which means that only the motor complies with the requirements of the Low Voltage Directive. A CE label is applied to the motor but it remains the responsibility of the equipment manufacturer to obtain certification for the finished product.

Electromagnetic Compatibility (EMC) Directive (2004/108/EC) This directive addresses the final product and is again a concern for the equipment manufacturer. Since this Directive addresses electromagnetic interference (EMI) concerns, it does not affect three phase AC motors because they do not produce EMI. DC motors, however, do produce EMI. How much of the "noise" is emitted outside the machine depends on a host of factors. LEESON's Engineering Department can assist OEM's in applying DC motors in machinery destined for Europe and requiring certification to the EMC Directive.

CE CONFORMITE EUROPEENE

DIMENSIONS
AC METRIC (IEC) MOTORS

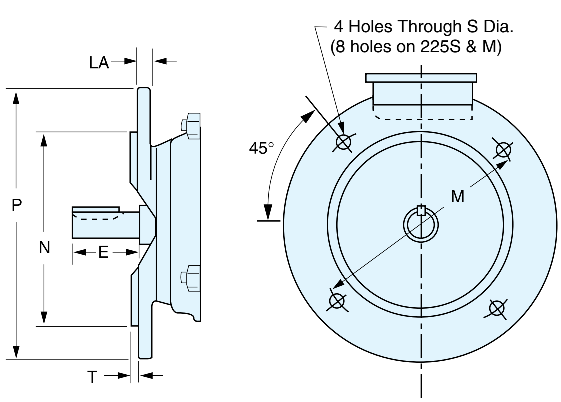
B3 FOOT-MOUNTED



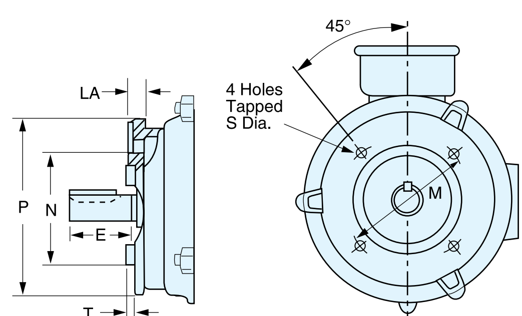
METRIC (IEC) FRAME DIMENSIONS (Millimeters)

Frame	Mounting						Shaft						General			B5 Flange						B14 Face					
	A	B	C	H	AB	K	D	E	F	G	ED	DH	AC	AD	HD	M	N	P	S	T	LA	M	N	P	S	T	LA
D56	90	71	36	56	107	6	9	20	3	7.5	8	M3 x 8	–	–	–	100	80	120	7	2.5	7	65	50	80	M5	2.5	7
D63	100	80	40	63	122	7	11	23	4	8.5	10	M4 x 10	126	84	171	115	95	140	10	3.0	7	75	60	90	M5	2.5	7
D71	112	90	45	71	136	7	14	30	5	11.0	20	M5 x 12.5	141	94	191	130	110	160	10	3.5	7	85	70	105	M6	2.5	9
D80	125	100	50	80	154	10	19	40	6	15.5	25	M6 x 16	159	102	206	165	130	200	12	3.5	12	100	80	120	M6	3.0	9
D90S	140	100	56	90	172	10	24	50	8	20.0	32	M8 x 19	180	112	229	165	130	200	12	3.5	12	115	95	140	M8	3.0	9
D90L	140	125	56	90	172	10	24	50	8	20.0	32	M8 x 19	180	112	229	165	130	200	12	3.5	12	115	95	140	M8	3.0	9
DF100L	160	140	63	100	205	12	28	60	8	24.0	40	M10 x 22	205	130	270	215	180	250	15	4.0	11	130	110	160	M8	3.5	14
DF112M	190	140	70	112	230	12	28	60	8	24.0	40	M10 x 22	240	150	300	215	180	250	15	4.0	12	130	110	160	M8	3.5	11
DF132S	216	140	89	132	270	12	38	80	10	33.0	56	M12 x 28	275	180	345	265	230	300	15	4.0	12	165	130	200	M10	3.5	14
DF132M	216	178	89	132	270	12	38	80	10	33.0	56	M12 x 28	275	180	345	265	230	300	15	4.0	12	165	130	200	M10	3.5	14
DF160M	254	210	108	160	320	15	42	110	12	37.0	80	M16 x 36	330	210	420	300	250	350	19	5.0	13	215	180	250	M12	4.0	13
DF160L	254	254	108	160	320	15	42	110	12	37.0	80	M16 x 36	330	210	420	300	250	350	19	5.0	13	215	180	250	M12	4.0	13
DF180M	279	241	121	180	355	15	48	110	14	42.5	80	M16 x 36	360	236	455	300	250	350	19	5.0	15	–	–	–	–	–	–
DF180L	279	279	121	180	355	15	48	110	14	42.5	80	M16 x 36	360	236	455	300	250	350	19	5.0	15	–	–	–	–	–	–
DF200L	318	305	133	200	395	19	55	110	16	49.0	100	M20 x 42	420	260	505	350	300	400	19	5.0	18	–	–	–	–	–	–
DF225S	356	286	149	225	435	19	55*/ 60	110*/ 140	16*/ 18	49*/ 53	100*/ 125	M20 x 42	450	275	580	400	350	450	19	5.0	18	–	–	–	–	–	–
DF225M	356	311	149	225	435	19	55*/ 60	110*/ 140	16*/ 18	49*/ 53	100*/ 125	M20 x 42	450	275	580	400	350	450	19	5.0	18	–	–	–	–	–	–
DF250M	406	349	168	250		24	60*/ 65	140*/ 140	18*/ 18	53*/ 58	125*/ 125	M20 x 42	508	300	625	–	–	–	–	–	–	–	–	–	–	–	–

* 2 Pole Dimensions
The overall length dimension for each catalog item is listed on pages 148-151 of this catalog.
Frames DF100L through DF132M, conduit box is located in the center of the frame.



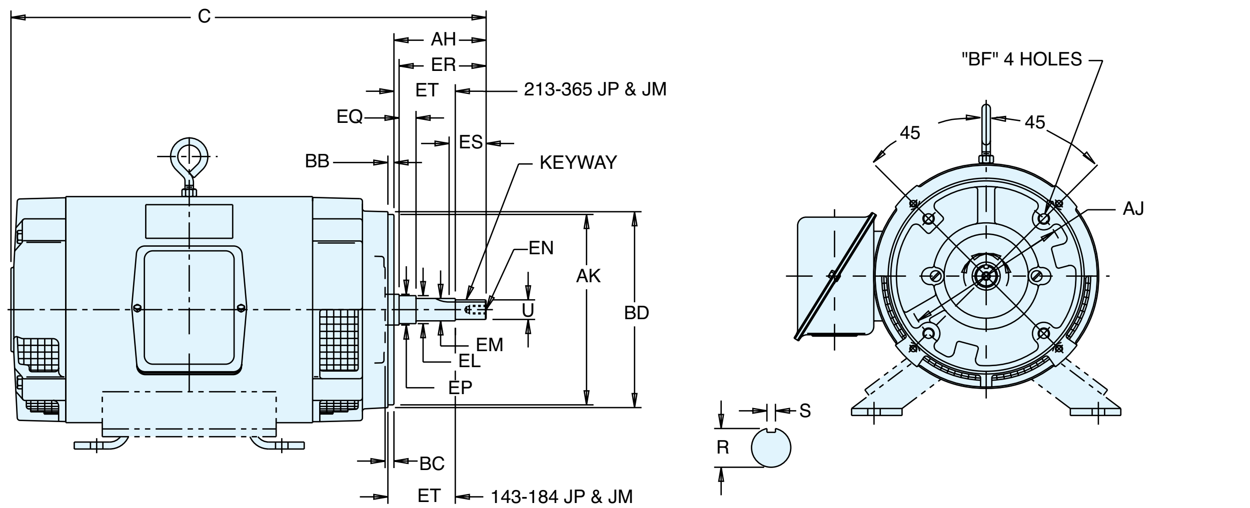
B5 FLANGE



B14 FACE

INFORMATION

TYPICAL CLOSE COUPLED PUMP MOTOR



For standard NEMA base dimensions, see pages 280 and 282.

DIMENSIONS FOR TYPE JM

Frame Desig.	U	AH	AJ	AK	BB	BD Max.	BF No.	BF Tap Size	BF Bolt Pen. Allow.	EL	EM	EN Tap Size	EN Tap Drill Depth Max.	EN Bolt Pen. Allow.	EP Min.	EQ	ER Min.	Keyseat R	Keyseat ES Min.	Keyseat S	ET
143 &	0.8745	4.15	5.890	4.500	0.150	6.62	4	3/8-16	0.56	1.156	1.0000	3/8-16	1.12	0.75	1.156	0.640	4.25	0.771	1.65	0.190	2.890
145JM	0.8740	4.10	5.860	4.497	0.10					1.154	0.9995					0.610		0.756		0.188	2.860
182 &	0.8745	4.13	5.89	4.500	0.16	6.62	4	3/8-16	0.56	1.250	1.0000	3/8-16	1.12	0.75	1.250	0.640	4.25	0.771	1.65	0.190	2.890
184JM	0.8740	4.09	5.86	4.497	0.125					1.248	0.9995					0.610		0.756		0.188	2.860
213 &	0.8750	4.25	7.265	8.500	0.312	9.00	4	1/2-13	0.75	1.250	1.0000	3/8-16	1.12	0.75	1.750	0.640	4.25	0.771	1.65	0.190	2.890
215JM	0.8745		7.235	8.497	0.250					1.248	0.9995					0.610		0.756		0.188	2.860
254 &	1.2495	5.25	7.250	8.500	0.312	10.00	4	1/2-13	0.75	1.750	1.3750	1/2-13	1.50	1.00	1.750	0.640	5.25	1.112	2.53	0.252	3.015
256JM	1.2490			8.497	0.250					1.748	1.3745					0.610		1.097		0.250	2.985
284 &	1.2495	5.281	11.00	12.500	0.312	14.00	4	5/8-11	0.94	1.750	1.3750	1/2-13	1.50	1.00	2.125	0.645	5.25	1.112	2.53	0.252	3.020
286JM	1.2490	5.219		12.495	0.250					1.748	1.3745					0.605		1.097		0.250	2.980
324 &	1.2495	5.281	11.00	12.500	0.312	14.00	4	5/8-11	0.94	1.750	1.3750	1/2-13	1.50	1.00	2.125	0.645	5.25	1.112	2.53	0.252	3.020
326JM	1.2490	5.219		12.495	0.250					1.478	1.3745					0.605		1.097		0.250	2.980

DIMENSIONS FOR TYPE JP

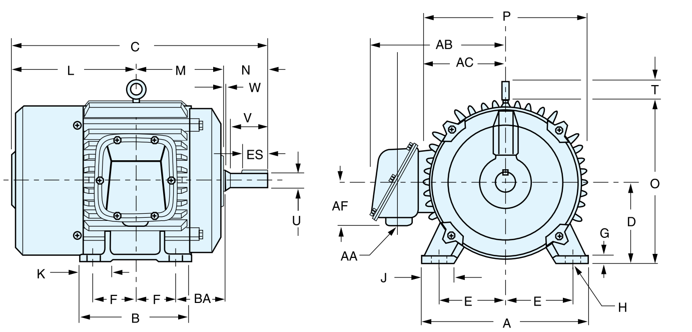
Frame Desig.	U	AH	AJ	AK	BB	BD Max.	BF No.	BF Tap Size	BF Bolt Pen. Allow.	EL	EM	EN Tap Size	EN Tap Drill Depth Max.	EN Bolt Pen. Allow.	EP Min.	EQ	ER Min.	Keyseat R	Keyseat ES Min.	Keyseat S	ET
143 &	0.8745	7.19	5.890	4.500	0.156	6.62	4	3/8-16	0.56	1.156	1.0000	3/8-16	1.12	0.75	1.156	1.578	7.312	0.771	1.65	0.190	5.952
145JP	0.8740	7.15	5.860	4.497	0.125					1.154	0.9995					1.548		0.756	1.65	0.188	5.922
182 &	0.8745	7.21	5.890	4.500	0.156	6.62	4	3/8-16	0.56	1.250	1.0000	3/8-16	1.12	0.75	1.250	1.578	7.312	0.771	1.65	0.190	5.952
184JP	0.8740	7.15	5.860	4.497	0.100					1.248	0.9995					1.548		0.756		0.188	5.922
213 &	1.2495	8.12	7.250	8.500	0.312	9.00	4	1/2-13	0.75	1.750	1.3750	1/2-13	1.50	1.00	1.750	2.390	8.125	1.112	2.53	0.252	5.890
215JP	1.2490			8.497	0.250					1.748	1.3745					2.360		1.097		0.250	5.860
254 &	1.2495	8.156	7.250	8.500	0.312	10.00	4	1/2-13	0.75	1.750	1.3750	1/2-13	1.50	1.00	1.750	2.390	8.125	1.112	2.53	0.252	5.890
256JP	1.2490	8.094		8.497	0.250					1.748	1.3745					2.360		1.097		0.250	5.855
284 &	1.2495	8.156	11.00	12.500	0.312	14.00	4	5/8-11	0.94	1.750	1.3750	1/2-13	1.50	1.00	2.125	2.390	8.125	1.112	2.53	0.252	5.895
286JP	1.2490	8.094		12.495	0.250					1.748	1.3745					2.360		1.097		0.250	5.860
324JP &	1.2495	8.12	11.00	12.500	0.312	14.00	4	5/8-11	0.94	1.750	1.3750	1/2-13	1.50	1.00	2.125	2.395	8.125	1.112	2.53	0.252	5.895
326JP	1.2490			12.495	0.250					1.748	1.3745					2.355		1.097		0.250	5.855
364JP &	1.6245	8.12	11.00	12.500	0.312	14.00	4	5/8-11	0.94	2.125	1.7500	1/2-13	1.50	1.00	2.500	2.395	8.125	1.416	2.53	0.377	5.895
365JP	1.6240			12.495	0.250					2.13	1.7495					2.355		1.401		0.375	5.855

All dimensions are measured in inches. For "C" dimensions, refer to the appropriate catalog page. Certified drawings are available upon request - contact LEESON for details.

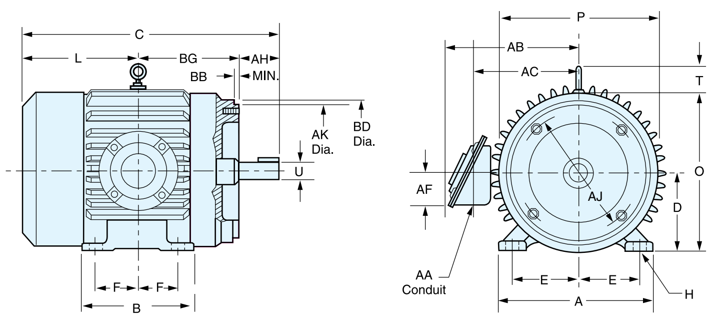
DIMENSIONS

NEMA EXPLOSION-PROOF • 158 SERIES

RIGID MOUNT 158 SERIES



C FACE 158 SERIES



NEMA EXPLOSION-PROOF • 158 SERIES • RIGID MOUNT DIMENSIONS (Inches)

Frame Size	A	B	D	E	F	G	H	J	K	L	M	N	O	P	T	U	V	N-W	ES	AA	AB	AC	AF	BA	KEY
182T	9	6	4 1/2	3 3/4	2 1/4	7/16	7/16	1 3/4	1 7/8	6 13/16	4 15/16	2 13/16	9 1/8	9 1/4	—	1.125	2 1/2	2 3/4	1 7/8	3/4	7 13/16	6 9/16	3 1/8	2 3/4	
184T		7			2 3/4					7 5/16	5 7/16	2 15/16													
213T	10 1/2	7	5 1/4	4 1/4	2 3/4	7/16	7/16	2	1 7/8	8 1/8	6 3/16	3 7/16	10 1/2	10 1/2	2 5/16	1.375	3 1/8	3 1/4	2 7/16	1	9 1/4	7 5/8	3 1/2	3 1/2	5/16
215T		8 1/2			3 1/2					8 7/8	6 15/16														
254T	12 1/2	10 1/4	6 1/4	5	4 1/8	5/8	9/16	2 1/2	2 5/8	10 3/8	8 5/16	4 1/16	12 1/2	12 1/2	2 5/16	1.625	3 3/4	3 7/8	2 15/16	1 1/4	10 1/4	8 7/8	3 7/8	4 1/4	
256T		12			5					11 1/4	9 3/16														
284T	13 3/4	11 1/2	7	5 1/2	4 3/4	5/8	9/16	2 1/2	2 3/4	11 13/16	9 7/16	4 11/16	14	14	2 7/16	1.875	4 3/8	4 1/2	3 1/4	1 1/2	12 1/8	10	4 7/16	4 3/4	1/2
284TS												3 5/16				1.625	3	3 1/8	1 15/16						3/8
286T		13			5 1/2					12 9/16	10 3/16	4 11/16				1.875	4 3/8	4 1/2	3 1/4						1/2
286TS												3 5/16				1.625	3	3 1/8	1 15/16						3/8
324T	15 1/2	13 1/4	8	6 1/4	5 1/4	5/8	11/16	2 3/4	3 1/8	13 3/16	10 7/16	5 5/16	16	16	2 5/8	2.125	5	5 1/8	4	2	14 3/8	11 3/4	5 3/8	5 1/4	
324TS												3 13/16				1.875	3 1/2	3 5/8	2						
326T		14 3/4			6					13 15/16	11 3/16	5 5/16				2.125	5	5 1/8	3						
326TS												3 13/16				1.875	3 1/2	3 5/8	2 1/16						
364T	17	15	9	7	5 5/8	7/8	11/16	2 3/4	3 7/8	16 1/16	11 3/8	6	18 1/2	19	12 7/8	2.375	5 5/8	5 3/4	4 1/4	3	16 1/16	13 5/16	6 7/8	5 7/8	5/8
364TS												3 7/8				1.875	3 1/2	3 5/8	2 1/16						1/2
365T					6 1/8					15 9/16	11 7/8	6				2.375	5 5/8	5 3/4	4 1/4						5/8
365TS								3 3/4				3 7/8				1.875	3 1/2	3 5/8	2 1/16						1/2
405T	19	16	10	8	6 7/8	1 1/8	13/16	3 1/4	3 1/4	17 9/16	13 1/8	7 5/8	21 5/16	22 5/16	2 15/16	2.875	7	7 1/8	5 11/16	4	16 3/8	13 1/4	7 1/2	6 5/8	3/4
405TS												4 5/8				2.125	4	4 1/8	2 7/8						1/2

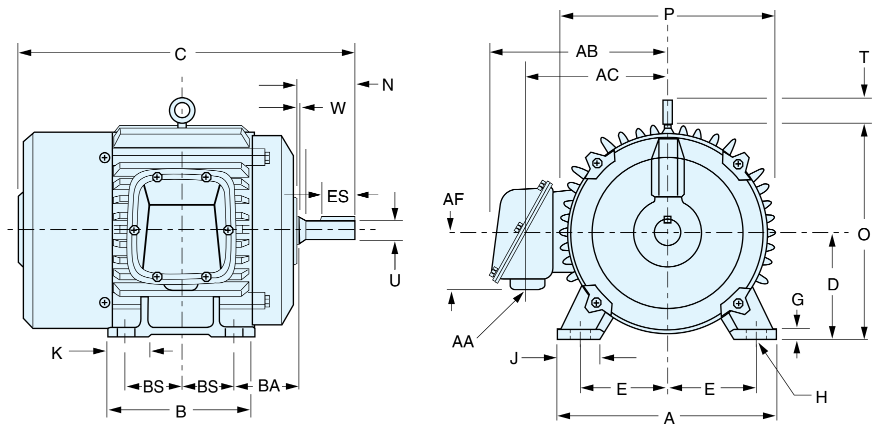
NEMA EXPLOSION-PROOF • 158 SERIES • C FACE DIMENSIONS (Inches)

Frame Size	A	B	D	E	F	H	L	O	P	T	U	V	AH	AJ		BB	AK	BD	BG	AA	AB	AC	AF	KEYWAY
														DIA.	BARR.									
182T	9	6	4 1/2	3 3/4	2 1/4	7/16	6 5/8	9 1/8	9 1/4	—	1.1250	2 1/2	2 5/8	7 1/4	4	9/32	8.500	8 3/4	5 7/8	3/4	9 3/8	7 1/8	2 1/2	1/4
184T		7			2 3/4		7 1/8												6 3/8					

The condensed dimensions shown on these pages are for general reference only and are not for construction. The overall length or "C" dimension for each catalog item is included in this catalog. Certified drawings of all ratings are available for construction purposes.

INFORMATION

RIGID MOUNT G-SERIES



NEMA EXPLOSION-PROOF • G-SERIES • RIGID MOUNT DIMENSIONS (Inches)

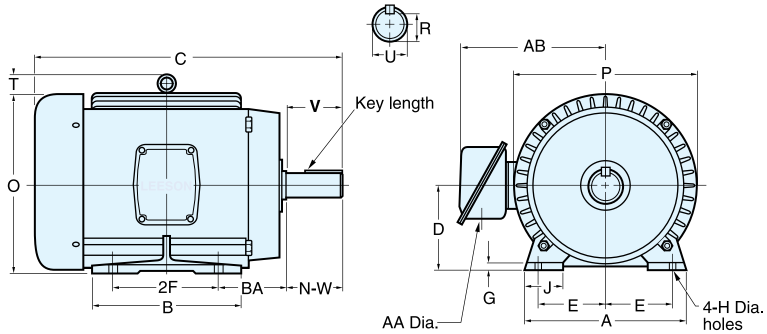
Frame Size	A	B	D	E	2F*	G	H	J	K	N	O	P	T	U	N-W	ES	AA	AB	AC	AF	BA	BS	KEY	C Dim
182T 184T	8.88	7.75	—	3.75	6.75	0.45	0.41-0.46	1.56	—	2.78	9.36	9.76	2.62	1.125	2.75	1.75	0.75	9.73	7.13	—	2.75	3.37	0.25	17.12
213T	10.38	8.50	5.19	4.25	7.00	0.60	0.44	1.87	_	3.41	10.60	11.50	2.62	1.375	3.38	2.38	0.75	10.94	8.32	2.55	3.50	3.50	0.31	20.18
215T			5.25																					
254T	12.12	10.25	6.19	5.00	8.25	0.55	0.53-0.58	2.08	—	4.19	14.07	14.12	—	1.625	4.00	2.88	1.25	13.67	10.65	3.12	4.25	4.12	0.38	23.52
256T			6.25		10.00																	5.00		25.27
284T	13.00	11.50	6.94	5.50	9.50	0.88	0.53-0.58	2.50	2.50	4.81	14.74	15.50	3.25	1.875	4.62	3.25	1.50	15.33	11.44	5.38	4.75	4.75	0.50	26.30
284TS										3.44				1.625		1.88							0.38	24.94
286T		13.00	7.00		11.00					4.81				1.875		3.25						5.50	0.50	27.80
286TS										3.44				1.625		1.88							0.38	26.44
324T	15.75	13.00	7.94	6.25	10.50	0.86	0.66-0.71	3.50	—	5.50	17.10	16.00	3.25	2.125	5.25	3.88	2.00	16.50	12.64	5.38	5.25	5.25	0.50	28.87
324TS										4.00				1.875	3.75	2.00								27.37
326T		14.50	8.00		12.00					5.50				2.125	5.25	3.88						6.00	0.50	30.37
326TS										4.00				1.875	3.75	2.00								28.87
364T	17.75	13.25	8.94	7.00	11.25	1.12	0.66-0.71	4.00	3.25	6.12	19.00	20.00	3.62	2.375	5.88	4.24	2.50	19.75	14.50	5.38	5.88	5.62	0.62	31.50
364TS										4.00				1.875	3.75									29.38
365T		14.25	9.00		12.25					6.12				2.375	5.88							6.12		32.50
365TS										4.00				1.875	3.75									30.38
405T	19.25	16.25	—	8.00	13.75	1.12	0.81-0.86	4.25	3.75	7.50	20.87	21.75	3.62	2.875	7.25	5.62	2.50	21.50	16.38	5.38	6.62	6.88	0.75	37.12
405TS										4.50				2.125	4.25	2.75							0.50	34.12
444T	21.50	18.00	10.94	9.00	14.50	1.25	0.81-0.86	3.75	4.50	8.75	23.12	24.25	3.62	3.375	8.50	6.88	2.50	22.75	17.50	5.38	7.50	7.25	0.88	41.25
444TS										5.00				2.375	4.75	3.00							0.62	37.50
445T		19.75	11.00		16.50	1.22			5.12	8.75	24.11	26.31	2.44	3.375	8.50	6.88	3.00	27.24	20.06	6.18		8.25	0.88	43.19
445TS										5.00				2.375	4.75	3.00							0.62	39.44
449T		28.25			25.00	1.25			9.88	8.75	24.19	26.31	0.77	3.375	8.50	6.88		26.09	18.88			1.78	0.88	51.69
449TS										5.00				2.375	4.75	3.00							0.62	47.97

* 182-4T and 213-5T frames have eight-hole bases. 449T and TS frames have six-hole bases. Others have four-hole bases.

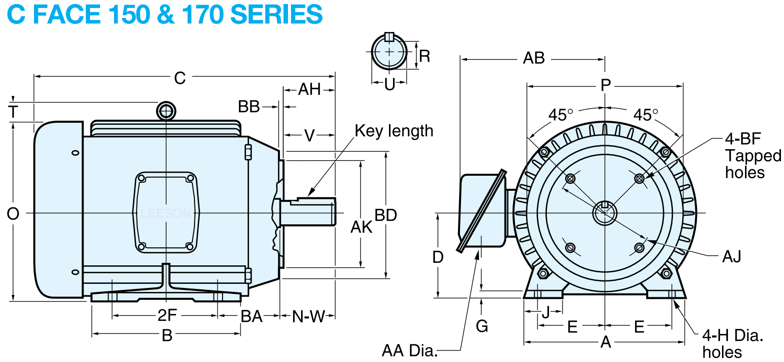
DIMENSIONS

NEMA CAST IRON FRAME • 150 & 170 SERIES

RIGID MOUNT 150 & 170 SERIES



C FACE 150 & 170 SERIES



NEMA SHAFT AND KEYWAY DIMENSIONS ■ (Inches)

NEMA SHAFT (U)	KEYWAY DIMENSIONS (R)	KEYWAY DIMENSIONS (S)	NEMA SHAFT (U)	KEYWAY DIMENSIONS (R)	KEYWAY DIMENSIONS (S)
3/8	21/64	FLAT	1-7/8	1-19/32	1/2
1/2	29/64	FLAT	2-1/8	1-27/32	1/2
5/8	33/64	3/16	2-3/8	2-1/64	5/8
7/8	49/64	3/16	2-1/2	2-3/16	5/8
1-1/8	63/64	1/4	2-7/8	2-29/64	3/4
1-3/8	1-13/64	5/16	3-3/8	2-7/8	7/8
1-5/8	1-13/32	3/8	3-7/8	3-5/16	1

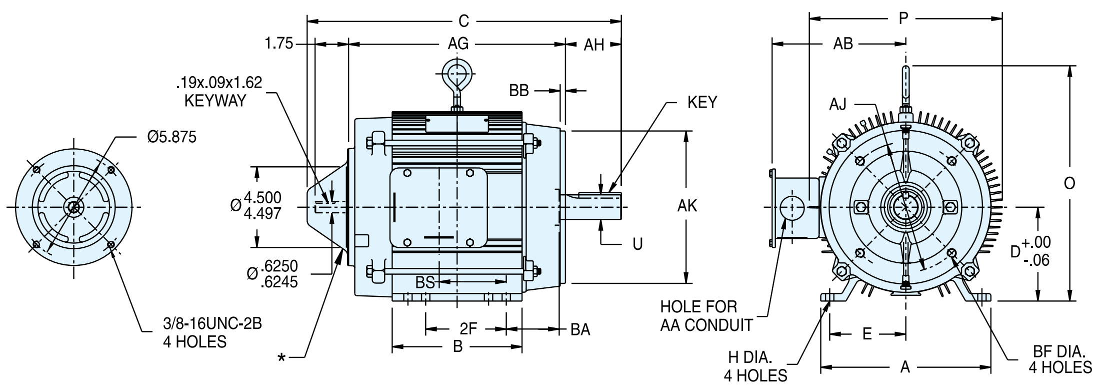
■ S is keyway width.
U minus R is keyway depth.

NEMA CAST IRON FRAME • 150 & 170 SERIES DIMENSIONS (Inches)

Frame Size ▲	B TEFC	B ODP	D	E	2F	H	N	O	P	U	N-W	AA	AB	AH	AJ	AK	BA	BB	BD	T TEFC ODP	V T TS	TAP **	KEY
182T	7 1/4	6 7/8	4 1/2	3 3/4	4 1/2	13/32	2 7/8	8 3/4	8 15/32	1 1/8	2 3/4	3/4	6 3/8	2 5/8	7 1/4	8 1/2	*2 3/4	1/4	8 7/8	1 9/16	2 1/2	1/2-13	1/4
184T					5 1/2															1 3/4			
213T	7 1/2	7 1/2	5 1/4	4 1/4	5 1/2	13/32	—	10 11/16	10 13/16	1 3/8	3 3/8	1	8 5/16	3 1/8	7 1/4	8 1/2	*3 1/2	1/4	9	1 15/16	3 1/8	1/2-13	5/16
215T	9	9			7															2			
254T	10 3/8	10 3/8	6 1/4	5	8 1/4	17/32	—	12 15/16	13 1/4	1 5/8	4	1 1/4	11 5/8	3 3/4	7 1/4	8 1/2	*4 1/4	1/4	9 5/8	2 19/32	3 3/4	1/2-13	3/8
256T	12 1/8	12 1/8			10															2 11/16			
284TS	11 3/4	11 3/4	7	5 1/2	9 1/2	17/32	—	14 1/2	14 3/4	1 5/8	3 1/4	1 1/2	11 3/4	3	9	10 1/2	4 3/4	1/4	11	2 19/32	4 3/8	1/2-13	3/8
284T										1 7/8	4 5/8			4 3/8									1/2
286TS	13 1/4	13 1/4			11					1 5/8	3 1/4			3						3 1/8	3		3/8
286T										1 7/8	4 5/8			4 3/8									1/2
324TS	12 7/8	13 3/8	8	6 1/4	10 1/2	21/32	—	15 3/4	15 3/4	1 7/8	3 3/4	2	13 1/2	3 1/2	11	12 1/2	5 1/4	1/4	13 3/8	2 3/4	5	5/8-11	1/2
324T										2 1/8	5 1/4			5									
326TS	14 3/8	14 7/8			12					1 7/8	3 3/4			3 1/2						2 3/16	3 1/2		
326T										2 1/8	5 1/4			5									
364TS	13 3/8	14 7/16	9	7	11 1/4	21/32	—	17 13/16	16	1 7/8	3 3/4	3	15 7/16	3 1/2	11	12 1/2	5 7/8	1/4	14	2 1/2	5 5/8	5/8-11	1/2
364T										2 3/8	5 7/8			5 5/8									5/8
365TS	14 3/8	15 7/16			12 1/4					1 7/8	3 3/4			3 1/2						2 13/16	3 1/2		1/2
365T										2 3/8	5 7/8			5 5/8									5/8
404TS	15 15/16	15 15/16	10	8	12 1/4	13/16	—	19 5/16	19 1/8	2 1/8	4 1/4	3	16 5/16	4	11	12 1/2	6 5/8	1/4	15 1/2	2 25/32	7	5/8-11	1/2
404T										2 7/8	7 1/4			7									3/4
405TS	17 7/16	17 7/16			13 3/4					2 1/8	4 1/4			4						3 1/8	4		1/2
405T										2 7/8	7 1/4			7									3/4
444T	18 11/16	20 5/8	11	9	14 1/2	13/16	—	22 1/4	22	3 3/8	8 1/2	3	21 11/16	8 1/4	14	16	7 1/2	1/4	18	3	8 1/4	5/8-11	7/8
444TS										2 3/8	4 3/4												5/8
445T	20 5/8	20 5/8			16 1/2					3 3/8	8 1/2									3 3/4	4 1/2		7/8
445TS																							7/8
447T	24 3/16	29 1/8	11	9	20	13/16	—	24 1/4	26 1/2	3 3/8	8 1/2	3	25 15/16	8 1/4	14	16	7 1/2	1/4	18	3 3/16	8 1/4	5/8-11	7/8
449T																							

* 182-184TC NEMA C face BA dimension is 3½", 213-215TC NEMA C face BA dimension is 4¼", 254-256T NEMA C face BA dimension is 4¾".
** 326TC and smaller have 4 mounting holes in NEMA C face, 364TC and larger have 8 mounting holes.
▲ Blue shading denotes dimensions established by NEMA standard MG1, others are unique to LEESON, and will vary with each manufacturer.

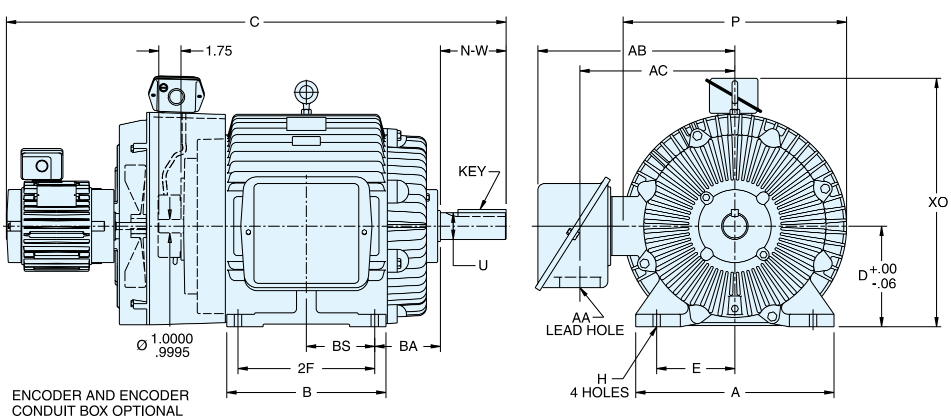
TENV—C FACE, RIGID BASE



TENV • C FACE • RIGID BASE • DIMENSIONS (Inches)

Frame Size	D	E	2F	H	O MAX.	P MAX.	U	AA	AB MAX.	AG MAX.	AH	AJ	AK	BA	BB	BF	BS	KEY
143TC	3.50	2.75	4.00	.38	7.45	7.98	.875	1.09	7.04	9.25	2.12	5.875	4.50	2.62	.13	3/8-16	2.81	.19 x .19 x 1.38
145TC	3.50	2.75	5.00	.35	7.45	7.98	.875	1.09	7.04	10.25	2.12	5.875	4.50	2.62	.13	3/8-16	3.81	.19 x .19 x 1.38
182TC	4.50	3.75	4.50	.41	9.36	9.76	1.125	1.09	8.08	11.75	2.62	7.250	8.50	3.50	.27	1/2-13	2.25	.25 x .25 x 1.75
184TC	4.50	3.75	5.50	.41	9.36	9.76	1.125	1.09	8.08	12.75	2.62	7.250	8.50	3.50	.27	1/2-13	2.75	.25 x .25 x 1.75
213TC	5.25	4.25	5.50	.44	10.97	11.50	1.375	1.09	9.31	15.12	3.12	7.250	8.50	4.25	.27	1/2-13	3.50	.31 x .31 x 2.38
215TC	5.25	4.25	7.00	.44	10.97	11.50	1.375	1.09	9.31	17.31	3.12	7.250	8.50	4.25	.27	1/2-13	6.18	.31 x .31 x 2.38
254TC	6.25	5.00	8.25	.53	14.09	14.27	1.625	1.25	9.83	19.06	3.75	7.250	8.50	4.75	.27	1/2-13	6.31	.38 x .38 x 2.88
256TC	6.25	5.00	10.00	.56	14.09	14.27	1.625	1.25	11.08	18.82	3.75	7.250	8.50	4.75	.27	1/2-13	5.00	.38 x .38 x 2.88
284TC	7.00	5.50	9.50	.56	14.16	14.32	1.875	1.50	12.31	20.57	4.38	9.000	10.50	4.75	.27	1/2-13	5.50	.50 x .50 x 3.25

TEBC—TOTALLY ENCLOSED BLOWER COOLED, RIGID BASE

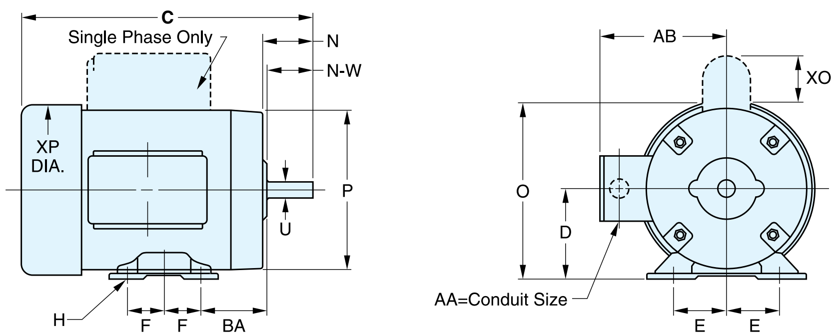


TEBC • TOTALLY ENCLOSED BLOWER COOLED • RIGID BASE • DIMENSIONS (Inches)

Frame Size	D	E	2F	H	O MAX.	P MAX.	U	AA	AB MAX.	AC MAX.	BA	BS	FU	N-W	KEY
325T	8.00	6.25	10.50	.66	16.00	15.88	2.12	2.00	13.69	10.69	5.25	5.25	1.00	5.25	.50 x .50 x 3.88
326T	8.00	6.25	12.00	.66	16.00	15.88	2.12	2.00	13.69	10.69	5.25	6.00	1.00	5.25	.50 x .50 x 3.88
364T	9.00	7.00	11.25	.66	19.00	20.00	2.38	3.62	17.85	14.56	5.88	5.62	1.00	5.88	.62 x .62 x 4.25
365T	9.00	7.00	12.25	.66	19.00	20.00	2.38	3.62	17.85	14.56	5.88	6.12	1.00	5.88	.62 x .62 x 4.25
404T	10.00	8.00	12.25	.81	20.88	21.75	2.88	3.62	18.75	14.75	6.62	6.12	1.00	7.25	.75 x .75 x 5.62
405T	10.00	8.00	13.75	.81	20.88	21.75	2.88	3.62	19.75	16.25	6.62	6.88	1.00	7.25	.75 x .75 x 5.62
444T	11.00	9.00	14.50	.81	24.19	25.31	3.38	3.62	20.94	17.38	7.50	7.25	1.00	8.50	.88 x .88 x 6.88
445T	11.00	9.00	16.50	.81	24.19	26.31	3.38	3.62	20.94	17.38	7.50	8.25	1.00	8.50	.88 x .88 x 6.88
449T	11.00	9.00	25.00	.81	24.22	26.31	3.38	4.62	25.90	19.31	7.50	1.78	1.00	8.50	.88 x .88 x 6.88

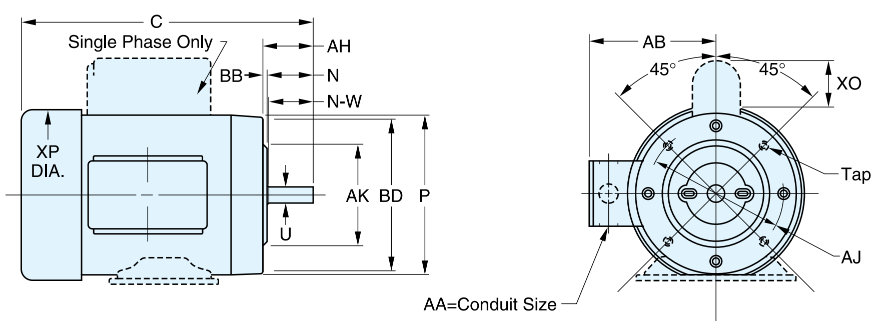
INFORMATION

RIGID MOUNT



The condensed dimensions shown on these pages are for general reference only and are not for construction. The overall length or "C" dimension for each catalog item is included in this catalog. Certified drawings of all ratings are available for construction purposes.

C FACE



NEMA SHAFT AND KEYWAY DIMENSIONS ■ (Inches)

NEMA SHAFT (U)	KEYWAY DIMENSIONS (R)	(S)	NEMA SHAFT (U)	KEYWAY DIMENSIONS (R)	(S)
3/8	21/64	FLAT	1-7/8	1-19/32	1/2
1/2	29/64	FLAT	2-1/8	1-27/32	1/2
5/8	33/64	3/16	2-3/8	2-1/64	5/8
7/8	49/64	3/16	2-1/2	2-3/16	5/8
1-1/8	63/64	1/4	2-7/8	2-29/64	3/4
1-3/8	1-13/64	5/16	3-3/8	2-7/8	7/8
1-5/8	1-13/32	3/8	3-7/8	3-5/16	1

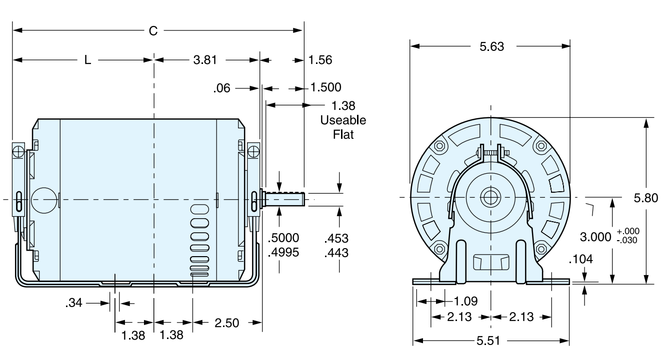
■ S is keyway width.
U minus R is keyway depth.

NEMA STEEL FRAME DIMENSIONS (Inches)

Frame Size ▲	D	E	F	H	N	O	P	U	N-W	AA	AB	AH	AJ	AK	BA	BB	BD	XO	XP	TAP **	KEY
42	2 5/8	1 3/4	27/32	9/32 Slot	1 3/16	5 1/16	4 7/8	3/8	1 1/8	3/8	4 1/2	1 5/16	3 3/4	3	2 1/16	1/8	4 7/8	1 5/8	5 1/8	1/4-20	3/64 Flat
48	3	2 1/8	1 3/8	11/32 Slot	1 9/16	5 13/16	5 19/32	1/2	1 1/2	1/2	4 7/8	1 11/16	3 3/4	3	2 1/2	1/8	5	2 1/4	5 7/8	1/4-20	3/64 Flat
S56 56	3 1/2	2 7/16	1 1/2	11/32 Slot	1 15/16	6 5/16 6 13/16	5 19/32 6 19/32	5/8	1 7/8	1/2	4 7/8 5 5/16	2 1/16	5 7/8	4 1/2	2 3/4	1/8	6 1/2	2 1/4	5 7/8 7 5/32	3/8-16	3/16
143T 145T	3 1/2	2 3/4	2 2 1/2	11/32	2 3/8	6 13/16	6 19/32	7/8	2 1/4	3/4	5 5/16	2 1/8	5 7/8	4 1/2	*2 1/4	1/8	6 1/2	2 1/4	7 5/32	3/8-16	3/16
182T 184T	4 1/2	3 3/4	2 1/4 2 3/4	13/32	2 7/8	8 3/4	8 15/32	1 1/8	2 3/4	3/4	6 7/16	2 5/8	7 1/4	8 1/2	*2 3/4	1/4	8 7/8	2 1/4	9 7/32	1/2-13	1/4
S213T 213T 215T	5 1/4	4 1/4	2 3/4 2 3/4 3 1/2	13/32	3 1/2 —	9 27/32 10 5/8	8 13/32 9 21/32	1 3/8	3 3/8	3/4	7 19/32	3 1/8	7 1/4	8 1/2	*3 1/2	1/4	8 7/8 8 5/8	2 1/4	9 7/32 10 13/16	1/2-13	5/16

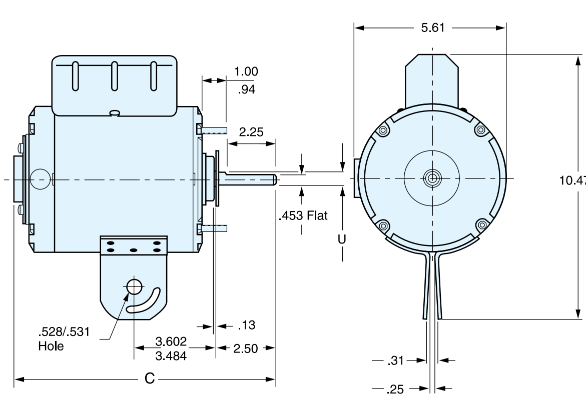
* 143-5TC NEMA C face BA dimension is 2¾". 182-4TC NEMA C face BA dimension is 3½". 213-5TC NEMA C face BA dimension is 4¼".
** 326TC and smaller have 4 mounting holes in NEMA C face, 364TC and larger have 8 mounting holes.
▲ Blue shading denotes dimensions established by NEMA standard MG1, others are unique to LEESON, and will vary with each manufacturer.

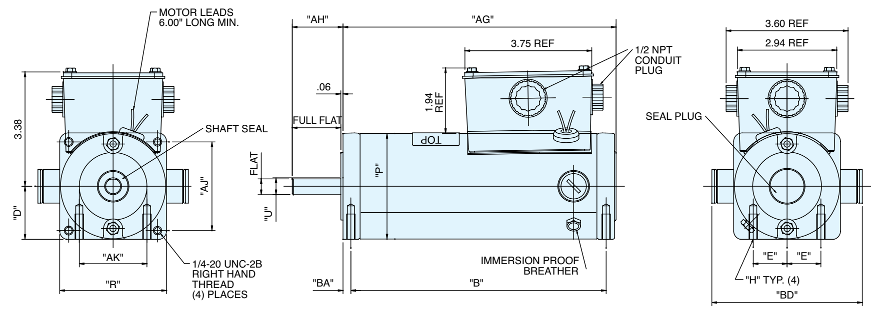
Split-Phase Motors - 191868, 191869 & 191870 (page 111)



Pedestal Fan Motors (page 111)

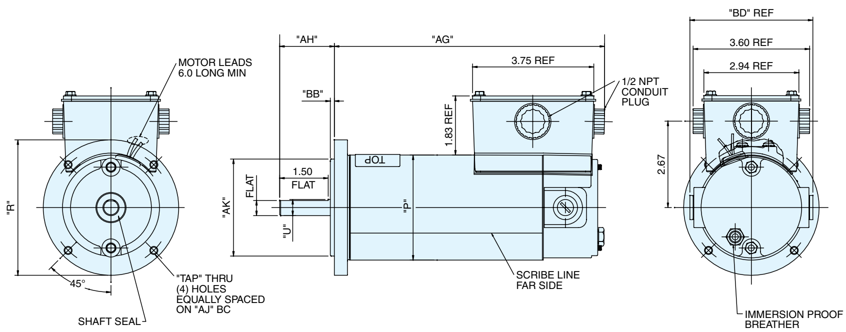
Note: Motors with U = .625 have a 3/16" keyway.





WASHGUARD 31 FRAME SQUARE FLANGE MOUNT STYLE DIMENSIONS (Inches)

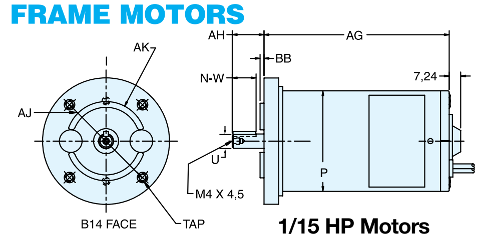
Catalog Number	Frame	AG	P	BD	U	AH	AH-BB	AJ	Tap	R	AK	BB	D	BA	E	F	H
M1120181	31S	7.07	3.13	3.80	.50000	1.5	1.44	2.63	1/4-20	3.16	1.99	.07	1.57	.235	1.000	6.55	1/4-20
M1120182	31S	6.57	3.13	4.45	.50000	1.5	1.44	2.63	1/4-20	3.16	1.99	.07	1.57	.235	1.000	6.05	1/4-20
M1120183	31S	8.57	3.13	3.80	.50000	1.5	1.44	2.63	1/4-20	3.16	1.99	.07	1.57	.235	1.000	8.05	1/4-20
M1120184	31S	8.07	3.13	4.45	.50000	1.5	1.44	2.63	1/4-20	3.16	1.99	.07	1.57	.235	1.000	7.55	1/4-20



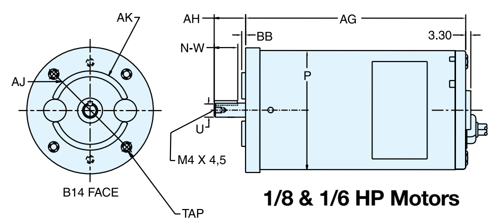
WASHGUARD 42C FACE MOUNT STYLE DIMENSIONS (Inches)

Catalog Number	Frame	AG	P	U	AH	AH-BB	KEY	AJ	TAP	AK	R	BD
M1120185	32F42CZ	8.36	3.25	.500	1.69	1.50	.13 SQ	3.750	1/4-20	3.00	4.19	3.80
M1120186	32F42CZ	7.86	3.25	.500	1.69	1.50	.13 SQ	3.750	1/4-20	3.00	4.19	4.43

COMMERCIAL DUTY METRIC (IEC) FRAME MOTORS



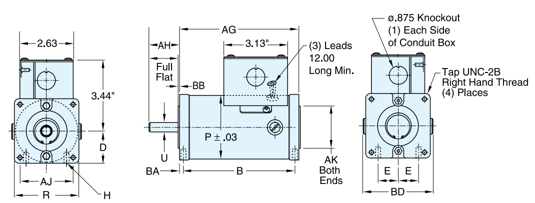
1/15 HP Motors



1/8 & 1/6 HP Motors

DIMENSIONS (Inches)

Frame	Voltage	AG	P	U	AH	N-W	AJ	TAP	AK	BB
2.50	12	4.59	2.50	.35	.787	.591	2.56	M5x.8	1.97	.10
	24	4.59	2.50	.35	.787	.591	2.56	M5x.8	1.97	.10
	90	4.59	2.50	.35	.787	.591	2.56	M5x.8	1.97	.10
3.00	12	5.53	3.00	.35	.787	.591	2.56	M5x.8	1.97	.10
	24	5.53	3.00	.35	.787	.591	2.56	M5x.8	1.97	.10
	90	5.53	3.13	.35	.787	.591	2.56	M5x.8	1.97	.10
3.00	12	5.87	3.00	.35	.787	.591	2.56	M5x.8	1.97	.10
	24	5.87	3.00	.35	.787	.591	2.56	M5x.8	1.97	.10
	90	5.87	3.13	.35	.787	.591	2.56	M5x.8	1.97	.10



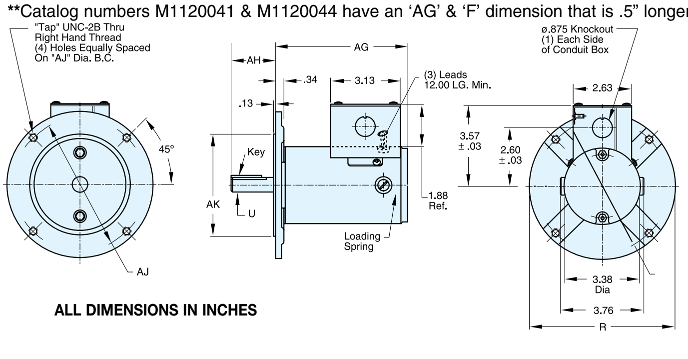
25 & 31 FRAME SQUARE FLANGE MOUNT DIMENSIONS (Inches)

Frame & Type		AG	P	BD	U	AH	AH-BB	AJ	TAP	R	AK	BB	D	BA	E	B	H
25	**AS**	4.08	2.50	3.00	.312	1.5	1.00	1.73	8-32	2.62	.997	.03	1.28	.125	.625	3.83	8-32
	CS	4.94	2.50	3.00	.312	1.5	1.00	1.73	8-32	2.62	.997	.03	1.28	.125	.625	4.69	8-32
31	**BS**	5.39	3.07	3.45	.5000	1.5	1.00	2.63	1/4-20	3.16	1.99	.07	1.57	.235	1.000	4.92	1/4-20
	CS**	5.89	3.07	3.45	.5000	1.5	1.00	2.63	1/4-20	3.16	1.99	.07	1.57	.235	1.000	5.42	1/4-20
	ES**	6.89	3.07	3.45	.5000	1.5	1.00	2.63	1/4-20	3.16	1.99	.07	1.57	.235	1.000	6.42	1/4-20
	GS	7.89	3.07	3.45	.5000	1.5	1.00	2.63	1/4-20	3.16	1.99	.07	1.57	.235	1.000	7.42	1/4-20

Note: Optional conduit box not included on 25 frame models.

Conduit box dimensions shown here are for 31 frame only.

**Catalog numbers M1120041 & M1120044 have an 'AG' & 'F' dimension that is .5" longer than stated in table.



ALL DIMENSIONS IN INCHES

42C FACE MOUNT DIMENSIONS (Inches)

Frame	AG	P	U	AH	AH-BB	KEY	AJ	TAP	AK	R
34D42C	6.43	3.38	.500	1.38	1.25	.13 SQ	3.750	1/4-20	3.00	4.25

56C FACE MOUNT DIMENSIONS (Inches)

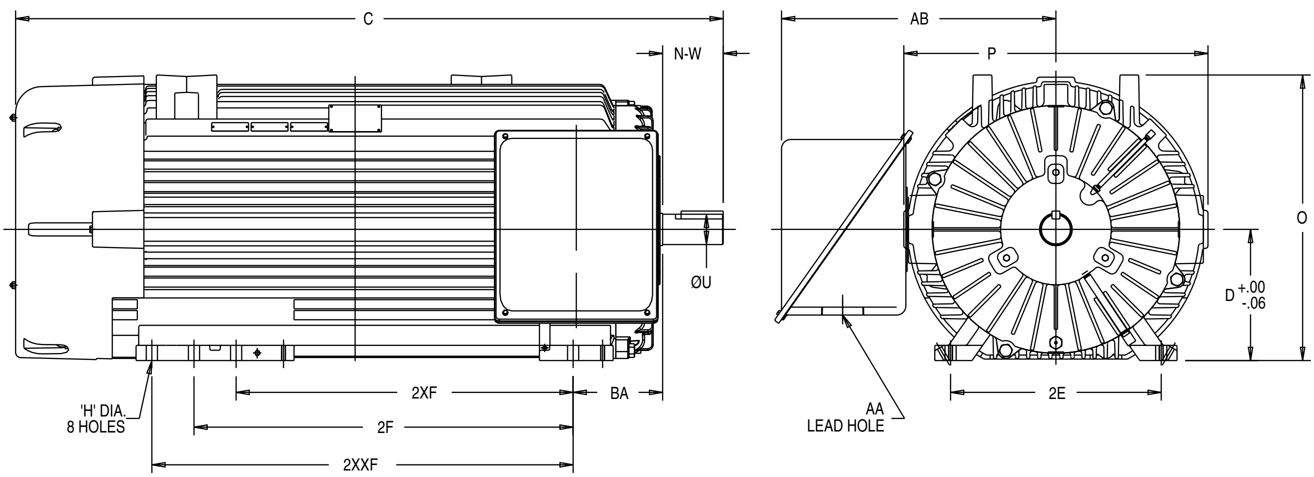
Frame	AG	P*	U	AH	AH-BB	KEY	AJ	TAP	AK	R
34E56C	6.87	3.38	.625	2.06	1.93	.19 SQ	5.875	3/8-16	4.50	6.50
34G56C	8.59	3.38	.625	2.06	1.93	.19 SQ	5.875	3/8-16	4.50	6.50

*For 1/4 HP 34 frame TEFC designs. Fan cover diameter is 3.88".

LEESON

DIMENSIONS
5000 FRAME MOTORS

Lincoln MOTORS



FRAME	H	BA	2XF	2F	2XXF	N-W	U	AB (MAX.)	P (MAX.)	O (MAX.)	D	2E	AA
5010LS	1.062 1.077	8.50	32.00	—	—	5.75	2.875 2.874	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5011LS	1.062 1.077	8.50	—	36.00	—	5.75	2.875 2.874	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5012LS	1.062 1.077	8.50	—	—	40.00	5.75	2.875 2.874	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5013LS	1.062 1.077	8.50	45.00	—	—	5.75	2.875 2.874	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5010LX	1.062 1.077	8.50	32.00	—	—	12.00	3.875 3.874	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5011LX	1.062 1.077	8.50	—	36.00	—	12.00	3.875 3.874	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5012LX	1.062 1.077	8.50	—	—	40.00	12.00	3.875 3.874	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5013LX	1.062 1.077	8.50	45.00	—	—	12.00	3.875 3.874	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5010L	1.062 1.077	8.50	32.00	—	—	9.50	4.000 3.999	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5011L	1.062 1.077	8.50	—	36.00	—	9.50	4.000 3.999	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5012L	1.062 1.077	8.50	—	—	40.00	9.50	4.000 3.999	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5013L	1.062 1.077	8.50	45.00	—	—	9.50	4.000 3.999	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5010S	1.062 1.077	8.50	32.00	—	—	5.75	2.625 2.624	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5011S	1.062 1.077	8.50	—	36.00	—	5.75	2.625 2.624	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5012S	1.062 1.077	8.50	—	—	40.00	5.75	2.625 2.624	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT
5013S	1.062 1.077	8.50	45.00	—	—	5.75	2.625 2.624	26.05	28.88	27.08	12.470 12.410	20.00	4.00 NPT

All dimensions are measured in inches. For "C" dimensions, refer to the appropriate catalog page. Certified drawings are available upon request - contact LEESON Electric for details.

TERMS AND CONDITIONS OF SALES QUOTATIONS ARE MADE AND ORDERS ARE ACCEPTED BY SELLER ONLY TO THESE TERMS AND CONDITIONS. THE SELLER FOR THESE TERMS AND CONDITIONS APPLY TO BOTH LEESON ELECTRIC AND LINCOLN MOTORS PRODUCTS:

1. AGREEMENT AND MODIFICATION OF SALES TERMS.
The agreement between Seller and Buyer ("Sales Contract") is with respect to the sale of goods described on the other side hereof (the "Goods"). Any Terms and Conditions contained in any purchase order or other form of communication from Seller's customers, which are additional to or different from these Terms and Conditions, shall be deemed rejected by Seller unless expressly accepted in writing by Seller.

2. ACCEPTANCE OF ORDERS.
Acceptance by Seller of Buyer's purchase order(s) is expressly conditioned upon Buyer's assent to these Terms and Conditions. Buyer will be deemed to have assented to such Terms and Conditions unless Seller receives written notice of any objections within 10 days after Buyer's receipt of this form or in all events prior to any delivery or other performance by Seller of Buyer's order.

3. QUOTATIONS.
Quotations by Seller shall be deemed to be offers by Seller to sell the Goods described therein subject to these Terms and Conditions, and acceptance of such offers is expressly limited to acceptance by Buyer of all of these Terms and Conditions within 30 days from the date of the quotation or as specified. Purchase orders submitted by Buyer for the Goods quoted by Seller shall be subject to and will be deemed to constitute acceptance of these Terms and Conditions. All purchase orders will be subject to approval by Seller.

4. TERMINATION OR MODIFICATION.
The Sales Contract may be modified or terminated only upon Seller's express written consent, which consent will at all times be conditioned on Buyer's agreement to pay Seller's modification or termination charges including, but not limited to expenses and costs plus a reasonable profit, except that any Goods completed on or before Seller's acceptance of termination shall be accepted and paid in full by Buyer.

5. PRICES AND TERMS.
Fulfillment of Buyer's order is contingent upon the availability of materials. The price of the Goods sold pursuant to the Sales Contract shall be based upon Seller's prices in effect at the time of shipment and any acceptance of the order will be on the basis of the freight rates in effect at the time of shipment. In the event of an increase or decrease in the applicable freight charges before the material is shipped, such changes in freight charges will be for the account of Buyer. Price advances, discounts, extras and terms and conditions are subject to changes without notice. Unless otherwise provided on the front side hereof, price is F.O.B. Seller's point of shipment, and terms of payment shall be net 30 days from date of invoice. Seller may assess finance and service charges of 1-1/2 percent per month (or the highest rate allowed by state law) on invoices not paid within stated payment terms. Open account credit status is offered at the discretion of the Seller. Seller may discontinue open account status or change credit limit as warranted, in its opinion, by the financial condition and/or credit history of the Buyer. Seller may require full or partial payment or payment guarantees in advance of shipment whenever, in its opinion, the financial condition and/or credit history of Buyer so warrants. In addition, Seller may, at any time, suspend performance of any order or require payment in cash, security or other adequate assurance satisfactory to Seller when, in Seller's opinion, the financial condition and/or credit history of Buyer warrants such action.

6. TAXES.
Prices do not include sales, use or other similar federal, state or local taxes. Buyer shall either have a tax-exemption certificate on file with the Seller or pay to Seller, in addition to the price of the Goods, any and all applicable taxes, which may be invoiced separately at a later date.

7. DESIGN; EXTRA WORK; BUYER'S MATERIAL.
(a) If any order accepted by Seller contemplates the preparation of special designs by Seller, Buyer issuing such order will have a responsible representative specifically approve all designs prepared by Seller. (b) If Buyer requests extra work not included in the quotation or original order, Buyer will pay for the extra work at reasonable rates as determined by Seller. (c) In the event spoilage/damage occurs on orders where Buyer furnishes any material, Seller shall not be liable for replacement of or damage to such material.

8. RISK OF LOSS, SECURITY INTEREST.
Delivery shall occur, and risk of loss shall pass to Buyer, upon delivery of the Goods to a carrier at the F.O.B. point of shipment. Transportation shall be at Buyer's sole risk and expense, and any claims for losses or damage in transit shall be against the carrier only. Buyer agrees to perform all acts necessary to provide a fully perfected security interest in the Goods in favor of Seller. Seller may, at its option, repossess the same, upon Buyer's default in payment hereunder, and charge Buyer with any deficiency.

9. DELIVERIES AND QUANTITIES.
(a) Delivery dates are not guaranteed but are estimated on the basis of immediate receipt by Seller of all information to be furnished by Buyer and the absence of delay, direct or indirect, resulting from or contributed to by circumstances beyond Seller's reasonable control. If the Goods are non-catalog Goods, Seller may ship overages or underages to the extent of 10 percent of quantity ordered, and Buyer shall pay for such quantity based upon the unit price of the Goods. Seller shall not be required to maintain closer control of quantity, unless specifically agreed to by Seller in writing. Quantities of all Goods may be determined by weight. Any claims for shortage must be within 10 days from the date of receipt of the Goods by Buyer, and in every case the weights found in any particular shipment, including tare, must be given and Seller advised as to the method used by Buyer in computing the count of Goods. (b) In the event that Buyer is unable to accept delivery of the Goods at time of shipment, Seller shall invoice Buyer for the full purchase price as if shipment had been made and: (i) if Seller is able to store such Goods in its own facilities, Buyer will pay Seller the reasonable handling and storage charges for the period of such storage, and (ii) if Seller is unable to store such Goods at its own facility, Seller reserves the right to arrange handling and storage in a suitable bonded warehouse for the Buyer at Buyer's expense. In cases where handling and storage become necessary, it shall be Buyer's responsibility to notify Seller when shipment is to be made. Seller will make necessary arrangements for shipment at Buyer's expense.
Freight and handling charges by Seller may not reflect actual freight charges prepaid to the carrier by Seller due to incentive discounts earned by Seller based upon Seller's aggregate volume of freight tendered to a carrier or when a carrier must be used which charges a rate which is different than the rate upon which the Seller's freight and handling charges were based. When shipments are delivered in Seller's private trucks, Buyer will be charged an amount approximating the prevailing common carrier rate.

10. RETURNED GOODS.
Goods may not be returned. However, if Seller consents in writing or upon verbal authorization to the return of Goods for any reason, Buyer, who also shall assume all risk of loss of such returned Goods until actual receipt by Seller, must prepay transportation charges.

11. INSPECTION, ACCEPTANCE.
Buyer shall inspect the Goods immediately upon the receipt thereof. All claims by Buyer (including claims for shortages), except only those provided for under the WARRANTY AND LIMITATIONS OF LIABILITY and PATENTS clauses below, must be asserted in writing by Buyer within a 10-day period or they are waived. If this contract involves partial performances, all such claims must be asserted within a 10-day period for each partial performance. Rejection may be only for defects substantially impairing the value of the Goods. Buyer's remedy for lesser defects shall be those provided for under the Warranty and Limitations of Liability clauses. THERE SHALL BE NO REVOCATION OF ACCEPTANCE. If Buyer wrongfully rejects, revokes or delays acceptance of items or work tendered under this contract, or fails to make a payment due on or before delivery, or repudiates this contract, Seller shall, at its option, have the right to recover as damages, either the price as stated herein (upon recovery of the price, the Goods involved shall become the property of the Buyer) or the profit (including reasonable overhead) which the Seller would make from performance together with incidental damages and reasonable costs.

12. WARRANTIES, LIMITATIONS OF LIABILITY AND DISCLAIMER.
(a) Seller warrants to the Buyer that its motors, gear reducers, gearmotors, gearboxes, DC controllers, and AC drives are free from defects in workmanship and materials when operated under normal conditions and in accordance with nameplate characteristic limits. This warranty shall be in effect for a period of 12 months from date of installation, but in no event be in effect for more than 18 months from date of manufacture, with the following exceptions: i) EPACT motors ("G" prefix), which are warranted for a period of 24 months from date of installation but for not more than 30 months from date of manufacture, ii) Wattsaver Premium Efficiency three phase motors and Speedmaster Inverter-Duty motors are warranted for a period of 36 months from the date of installation but for not more than 42 months from the date of manufacture, & iii) Motor brakes provided as coupler brakes, brake kits, or as part of brakemotors are covered by the manufacturers' (Stearns or Dings) warranties. Certain Goods are warranted for different periods of time under specific conditions. Buyer must consult the current product catalog or internet site to confirm this warranty period.
(b) Seller's sole obligation under the foregoing warranties is limited to either, at Seller's option, replacing or repairing defective Goods (or defective parts thereof) within the warranty period. Seller shall not be liable under any circumstances, for consequential or incidental damages, including, but not limited to personal injury or labor costs. This warranty does not cover the cost of removal, installation, or re-testing of the new or repaired Goods or parts, or any other direct or incidental expenses incurred in shipping the Goods to or from Seller. Replacement Goods or parts are warranted for the remainder of the warranty period applicable to the Goods originally supplied by Seller. All claims for allegedly defective Goods must be made within 10 days after Buyer learns of such alleged defects. All claims not made in writing and received by Seller within such 10-day period shall be deemed waived. With prior approval from Seller, Buyer shall return a sample of the alleged defective part, freight prepaid, for Seller's inspection, and no other Goods shall be returned to Seller's District Office/Warehouse, nearest factory, or Authorized Service Center without Seller's written consent. This warranty shall not extend to Goods subjected to misuse, abuse, neglect, accident or improper installation or maintenance, incorrect lubrication, incorrect electrical connection, improper power supply, or Goods which have been altered or repaired by anyone other than Seller or its authorized representative.
(c) Under no circumstances will Seller be responsible for any expense in connection with any repairs made by anyone other than Seller or an Authorized Service Center, unless such repairs have been specifically authorized in writing by the Seller Service and Warranty Department.

(d) In the case of motors, drives, gears and reducers manufactured or marketed by Seller, Seller warrants only that such Goods, when shipped, shall be capable of delivering the service rating as indicated in Seller's written documents, including quotations and catalogs or as noted on such Goods, providing such Goods are properly installed, connected, and maintained, correctly lubricated, operating under normal conditions with competent supervision, and within the load limits and voltage range for which it was sold, and provided further that the equipment is free from critical speed, torsional or other type vibration, no matter how induced.
(e) If any prototype or sample was provided to the Buyer, it was used merely to illustrate the general type and quality of Goods and not to warrant that Goods shipped would be of that type or quality.
(f) UNLESS AUTHORIZED IN WRITING BY A CORPORATE OFFICER OR VICE PRESIDENT, NO AGENT, EMPLOYEE OR REPRESENTATIVE OF SELLER HAS ANY AUTHORITY TO BIND SELLER TO ANY AFFIRMATION, REPRESENTATION OR WARRANTY CONCERNING THE GOODS SOLD UNDER THE SALES CONTRACT AND ANY SUCH AFFIRMATION, REPRESENTATION OR WARRANTY HAS NOT FORMED A PART OF THE BASIS OF THE BARGAIN AND SHALL BE UNENFORCEABLE.
(g) THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND/OR ANY OTHER TYPE, WHETHER EXPRESS OR IMPLIED.
(h) Products not manufactured and work not performed by Seller are warranted only to the extent and in the manner that the same are warranted to Seller by Seller's vendors, and then only to the extent that Seller is reasonably able to enforce such warranty. In enforcing such warranty, it is understood Seller shall have no obligation to initiate litigation unless Buyer undertakes to pay all costs and expenses therefor, including but not limited to reasonable attorney's fees, and indemnifies Seller against any liability to Seller's vendors arising out of such litigation.
(i) THE FOREGOING IS SELLER'S ONLY OBLIGATION AND BUYER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY. BUYER'S FAILURE TO SUBMIT A CLAIM AS PROVIDED ABOVE SHALL SPECIFICALLY WAIVE ALL CLAIMS FOR DAMAGES OR OTHER RELIEF INCLUDING BUT NOT LIMITED TO CLAIMS BASED ON LATENT DEFECTS. EVEN IF THE REPAIR OR REPLACEMENT REMEDY SHALL BE DEEMED TO HAVE FAILED OF ITS ESSENTIAL PURPOSE UNDER SECTION 2-719 OF THE UNIFORM COMMERCIAL CODE, SELLER SHALL HAVE NO LIABILITY TO BUYER FOR CONSEQUENTIAL DAMAGES, SUCH AS LOST PROFITS, LOST REVENUE, DAMAGE TO OTHER EQUIPMENT OR LIABILITY OR INJURY TO A THIRD PARTY.IN NO EVENT SHALL BUYER BE ENTITLED TO INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES, NOR SHALL SELLER'S LIABILITY EXCEED THE PURCHASE PRICE OF THE GOODS. ANY ACTION ARISING HEREUNDER OR RELATED HERETO MUST BE COMMENCED WITHIN ONE (1) YEAR AFTER THE CAUSE OF ACTION OCCURS OR IT SHALL BE BARRED, NOTWITHSTANDING ANY STATUTORY PERIOD OF LIMITATIONS TO THE CONTRARY.
(j) In the event of the resale of any of the Goods, in whatever form, Buyer will include the following language in a conspicuous place and in a conspicuous manner in a written agreement covering such resale: "THE MANUFACTURER MAKES NO WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE GOODS SOLD HEREUNDER. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE GOODS PURCHASED HEREUNDER WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. IN NO EVENT WILL MANUFACTURER BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR OTHER DAMAGES."
(k) Nuclear Use Disclaimer - Goods sold by Seller are not intended for use in connection with any nuclear facility or activity. If so used, Seller disclaims all liability for any nuclear damage, injury or contamination, and Buyer shall indemnify and hold Seller, its officers, agents, employees, successors, assigns and customers harmless from and against any and all losses, damages or expenses of whatever form or nature (including attorneys' fees and other costs of defending any action) which they or any of them may sustain or incur, whether as a result of breach of contract, warranty, tort (including negligence) or otherwise, by reason of such use.

13. REMEDIES AND LIMITATIONS OF LIABILITY.
In the event Buyer claims Seller has breached any of its obligations under the Sales Contract, whether of warranty or otherwise, Seller may request the return of Goods and tender to Buyer, at Seller's option, a replacement shipment of Goods. If Seller so requests the return of the Goods, the Goods will be redelivered to Seller in accordance with Seller's instructions and at Buyer's expense. Except as herein provided, Seller shall have no further obligation under the Sales Contract. The remedies contained in this paragraph and paragraph 12 hereof shall constitute the sole recourse of Buyer against Seller for breach of any of Seller's obligations under the Sales Contract, whether warranty or otherwise.

14. TECHNICAL ADVICE.
Any technical advice furnished or recommendation made by Seller or any representative of Seller concerning any use or application of any of the Goods is believed to be reliable, but SELLER MAKES NO WARRANTY, EXPRESSED OR IMPLIED, ON RESULTS TO BE OBTAINED. BUYER ASSUMES ALL RESPONSIBILITY FOR LOSS OR DAMAGE RESULTING FROM THE HANDLING OR USE OF ANY OF THE GOODS.

15. FORCE MAJEURE.
Seller shall not be liable for failure to perform its obligations under the Sales Contract in whole or in part caused by the occurrence of any contingencies beyond the reasonable control either of Seller or of suppliers of Seller. If any such contingency occurs, Seller may allocate Goods and deliveries among Seller's customers.

16. ASSIGNMENT AND DELEGATION.
No right or interest in the Sales Contract shall be assigned by Buyer without Seller's prior written consent, and no delegation of any obligation owed, or to the performance of any obligation by Buyer shall be made without Seller's prior written consent. Any attempt at assignment or delegation shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.

17. PATTERNS AND TOOLING.
Unless otherwise agreed to in writing with Buyer, Seller shall retain title to and possession of all special tooling, patterns and dies whether paid for by Buyer or not, but such special tooling, patterns and dies that are specifically paid for by Buyer will be held by Seller exclusively for the manufacture of Buyer's Goods for not more than 2 years after the date of Buyer's last order requiring their use. Seller will exercise reasonable care in handling and storing any tooling, patterns or dies specifically paid for by Buyer, but Seller shall not be liable for damage or loss thereof.

18. PATENTS. SELLER MAKES NO REPRESENTATION OR WARRANTY WITH RESPECT TO THE PATENTABILITY OF THE GOODS OR THAT ANY OF THE GOODS WILL BE FREE FROM CLAIMS OF INFRINGEMENT.
Buyer agrees to indemnify and defend Seller in any such suit, action or proceeding for any claim resulting from actual or alleged infringement of any domestic or foreign letters patent for (i) any feature, construction or design incorporated at Buyer's request in any Goods or to adapt such Goods to the particular use of Buyer or Buyer's customers or (ii) any additions, changes or adaptations made by Buyer or Buyer's customers after delivery of the Goods.

19. CONFIDENTIAL INFORMATION.
All drawings, diagrams, specifications, technical data and other materials furnished by Seller and identified by Seller as confidential are and shall remain the exclusive property of Seller and shall be returned to Seller upon request. Buyer agrees to treat such information and material as confidential and not to reproduce or disclose such information or materials without Seller's prior written consent. This paragraph does not apply to any information already known to and readily accessible in the trade or which may become so through no fault of Buyer.

20. CHANGES.
Seller may, at any time, without notice, make changes (whether in design, material, improvements or otherwise) in any catalog Goods, and may discontinue the manufacture of any catalog Goods, all in its sole discretion, without incurring any obligations of any kind as a result thereof, whether for failure to fill an order of Buyer or otherwise.

21. CANCELLATION.
The Buyer may not cancel purchase orders without the prior written consent of Seller. This consent will be conditioned on Buyer's agreement to pay Seller's cancellation charges. Purchase orders for Goods that are substantially complete, as judged by Seller, may not be cancelled and will be shipped and invoiced at the price on the order. For Goods that are not substantially complete, the cancellation charge shall amount to all costs and expenses incurred by Seller and arising out of or in connection with Buyer's order, net of recoverability, but in no event less than 10% of the total invoice price of the equipment or more than the total invoice price.

22. INSTALLATION.
Installation of the Goods shall be by Buyer unless otherwise specifically stated in the Sales Contract.

23. SEVERABILITY.
If any term or provision contained in the Sales Contract is declared or held invalid by a court of competent jurisdiction, such declaration or holding shall not affect the validity of any other term, clause or provision contained herein.

24. GOVERNING LAW AND LIMITATION.
(a) These Terms and Conditions, and the contract of sale between Seller and Buyer, shall be governed by and construed in accordance with the laws of the State of Wisconsin. Seller and Buyer hereby agree that any legal action deemed necessary by either party hereto shall be brought in the Circuit Court in and for Ozaukee County, Wisconsin and hereby consent to the personal jurisdiction of such court in any such action over the parties hereto. The rights and obligations of Seller and Buyer shall not be governed by the provisions of the United Nations Convention on Contracts for the International Sale of Goods.
(b) Attorney's Fees – Buyer agrees to pay all of Seller's costs and expenses of collection and litigation, including but not limited to attorneys' fees and costs.
(c) Applicability - The Terms and Conditions as stated herein are applicable as of the date of this printing and until such time as changed by Seller.

Revised, December, 2007

MOTOR WARNINGS AND CAUTIONS

WARNING

IMPORTANT INFORMATION
PLEASE READ CAREFULLY

CAUTION

This catalog is not intended to provide operational instructions. Appropriate LEESON Electric instructions provided with the motor and precautions attached to the motor should be read carefully prior to installation, operation and/or maintenance of the equipment. Injury to personnel or motor failure may be caused by improper installation, maintenance or operation.

The following* WARNING *and* CAUTION *information is supplied to you for your protection and to provide you with many years of trouble free and safe operation of your LEESON Electric product:

WARNING

- Disconnect power and lock out driven equipment before working on a motor.
- Always keep hands and clothing away from moving parts.
- The lifting support on the motor is not to be used to lift the entire machine. Only the motor attached directly to the support may be safely lifted by the support.
- Install and ground per local and national codes.
- Discharge all capacitors before servicing a single phase motor.
- Misapplication of a motor in hazardous environments can cause fire or an explosion and result in serious injury. Only the end user, local authority having jurisdiction, and/or insurance underwriter are qualified to identify the appropriate class(es), group(s), division and temperature code LEESON Electric personnel cannot evaluate or recommend what motors may be suitable for use in hazardous environments. If a motor is name plated for hazardous locations, do not operate the motor without all of the grease and drain plugs installed.
- Never attempt to measure the temperature rise of a motor by touch. Temperature rise must be measured by thermometer, resistance, resistance, imbedded detector or thermocouple.
- Motors with automatic reset thermal protectors will automatically restart when the protector temperature drops sufficiently. Do not use motors with automatic reset thermal protectors in applications where automatic restart will be hazardous to personnel or equipment.
- Motors with manual reset thermal protectors may start unexpectedly after the protector trips when the surrounding air is at +20˚ Fahrenheit or lower. If the manual reset protector trips, disconnect motor from its power supply. After the protector cools (five minutes or more), it can be reset and power may be applied to the motor.
- Connect all protective device leads, marked P1, P2, etc., per instructions supplied with the motor.
- Operation of a motor at other than its nameplate rating may result in fire, damage to equipment or serious injury to personnel.
- For safety, Buyer or User should provide protective guards over all shaft extensions and any moving apparatus mounted thereon. The User is responsible for checking all applicable safety codes in his area and providing suitable guards. Failure to do so may result in bodily injury and/or damage to equipment.

CAUTION

- Consult qualified personnel with questions and all electrical repairs must be performed by trained and qualified personnel only.
- For motors nameplated as “belted duty only”, do not operate the motor without belts properly installed.
- Motors and/or driven equipment should not be operated faster than their rated speed.
- For inverter applications, follow the inverter manufacturer’s installation guidelines.
- Make sure the motor is properly secured and aligned before operation.

In the event of the resale of any of the goods, in whatever form, Resellers/Buyers will include the following language in a conspicuous place and in a conspicuous manner in a written agreement covering such sale:

> The manufacturer makes no warranty or representations, express or implied, by operation of law or otherwise, as to the merchantability or fitness for a particular purpose of the goods sold hereunder. Buyer acknowledges that it alone has determined that the goods purchased hereunder will suitably meet the requirements of their intended use. In no event will the manufacturer be liable for consequential, incidental or other damages. Even if the repair or replacement remedy shall be deemed to have failed of its essential purpose under Section 2-719 of the Uniform Commercial Code, the manufacturer shall have no liability to Buyer for consequential damages.

Resellers/Buyers agree to also include this entire document including the warnings and cautions above in a conspicuous place and in a conspicuous manner in writing to instruct users on the safe usage of the product.

This information should be read together with all other printed information supplied by LEESON Electric.

For more information contact: **LEESON Electric**, 2100 Washington Street, Grafton, Wisconsin 53024
Phone: 262-377-8810 or Fax: 262-377-3440

WARNING

IMPORTANT INFORMATION
PLEASE READ CAREFULLY

CAUTION

The following WARNING and CAUTION information is supplied to you for your protection and to provide you with many years of trouble free and safe operation of your LEESON Electric product:

Read **ALL** instructions prior to operating reducer. Injury to personnel or reducer failure may be caused by improper installation, maintenance or operation.

WARNING

- Written authorization from LEESON Electric is required to operate or use reducers in man lift or people moving devices.
- Check to make certain application does not exceed the allowable load capacities published in the current catalog.
- Buyer shall be solely responsible for determining the adequacy of the product for any and all uses to which Buyer shall apply the product. The application by Buyer shall not be subject to any implied warranty of fitness for a particular purpose.
- For safety, Buyer or User should provide protective guards over all shaft extensions and any moving apparatus mounted thereon. The User is responsible for checking all applicable safety codes in his area and providing suitable guards. Failure to do so may result in bodily injury and/or damage to equipment.
- Hot oil and reducers can cause severe burns. Use extreme care when removing lubrication plugs and vents.
- Make certain that the power supply is disconnected before attempting to service or remove any components. Lock out the power supply and tag it to prevent unexpected application of power.
- Reducers are not to be considered fail safe or self-locking devices. If these features are required, a properly sized, independent holding device should be utilized. Reducers should not be used as a brake.
- Any brakes that are used in conjunction with a reducer must be sized or positioned in such a way so as to not subject the reducer to loads beyond the catalog rating.
- Lifting supports including eyebolts are to be used for vertically lifting the gearbox only and no other associated attachments or motors.
- Use of an oil with an EP additive on units with backstops may prevent proper operation of the backstop. Injury to personnel, damage to the reducer or other equipment may result.
- Overhung loads subject shaft bearings and shafts to stress which may cause premature bearing failure and/or shaft breakage from bending fatigue, if not sized properly.

CAUTION

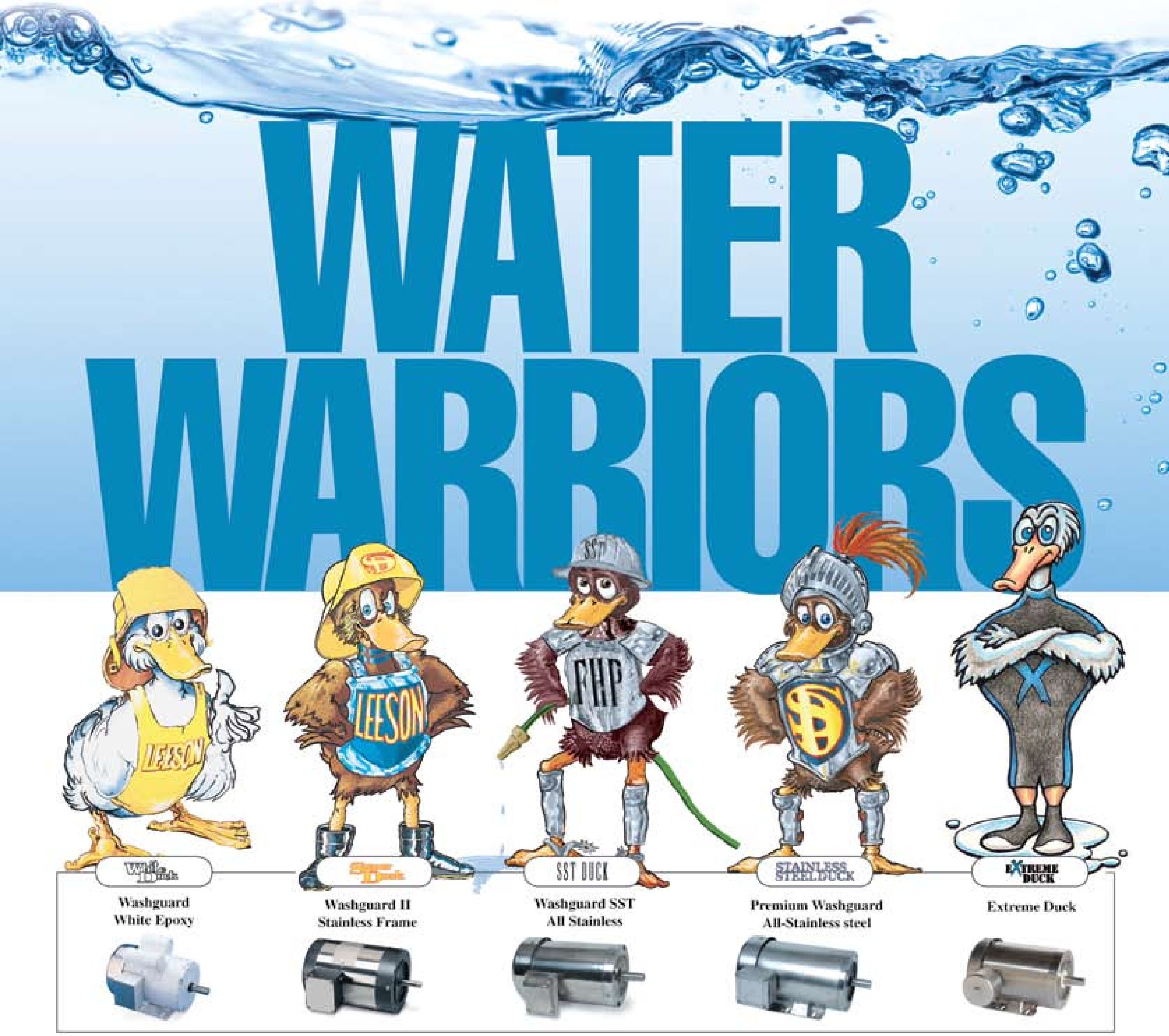
- Test run unit to verify operation. If the unit tested is a prototype, that unit must be of current production.
- If the speed reducer cannot be located in a clear and dry area with access to adequate cooling air supply, then precautions must be taken to avoid the ingestion of contaminants such as water and the reduction in cooling ability due to exterior contaminants.
- Mounting bolts should be routinely checked to ensure that the unit is firmly anchored for proper operation.

In the event of the resale of any of the goods, in whatever form, Resellers/Buyers will include the following language in a conspicuous place and in a conspicuous manner in a written agreement covering such sale:

> The manufacturer makes no warranties or representations, express or implied, by operation of law or otherwise, as to the merchantability or fitness for a particular purpose of the goods sold hereunder. Buyer acknowledges that it alone has determined that the goods purchased hereunder will suitably meet the requirements of their intended use. In no event will the manufacturer be liable for consequential, incidental or other damages. Even if the repair or replacement remedy shall be deemed to have failed of its essential purpose under Section 2-719 of the Uniform Commercial Code, the manufacturer shall have no liability to Buyer for consequential damages.

Resellers/Buyers agree to also include this entire document including the warnings and cautions above in a conspicuous place and in a conspicuous manner in writing to instruct users on the safe usage of the product.

This information should be read together with all other printed information supplied by LEESON Electric.



Harsh washdown environments require tough motors. LEESON's Washguard warriors fight off contaminants and seal out moisture found in the toughest food processing conditions. It all began 20 years ago with our white epoxy motors and continues today with our new patent pending Extreme Duck motor. LEESON's family of motors stands strong, ready to protect in even the harshest environments.

See pages 83-101 for more information on LEESON's family of Washguard Motors.

POWER TRANSMISSION SOLUTIONS FOR EVERY

Grove Gear IRONMAN
High Efficiency
Gear Reducers

Recognized throughout the world as a leader in industrial-duty gear reducers, GEAR+MOTORS™ and integral gearmotors, Grove Gear offers a solution for every power transmission need. From single reduction worm gear reducers to quintuple reduction helical-bevel reducers Grove Gear is a one-stop shop.

Grove Gear IRONMAN is the industry's most comprehensive and superior line of gear reducers, available in right angle worm and high efficiency options. Electra-Gear offers the industry's only industrial-duty aluminum worm reducers designed and built in the U.S.A. Electra-Gear products are built with premium features from the IRONMAN line and offer a clean, paint-free finish perfect for washdown applications.

LeCENTRIC™ and Bravo® reducers are a compact and lightweight alternative to traditional cast iron units.

By combining a Grove Gear or Electra-Gear reducer with any LEESON or Lincoln c-face motor, a performance-matched GEAR+MOTOR™ or integral gearmotor is created instantly.

Grove Gear IRONMAN
GR Series
Worm Gear Reducers

Grove Gear
Stainless Steel
Worm Gear Reducers

Grove Gear
WASHGUARD®
Worm Gear Reducers

Electra-Gear
EL Series
Worm Gear Reducers

Grove Gear IRONMAN
NH Series
Worm Gear Reducers

GROVE GEAR ***ELECTRA-GEAR***

Refer to Grove Gear / Electra-Gear Gearing Catalog 8050 for More Information

APPLICATION

SERIES COMPARISON

LEESON®

CAST IRON GR SERIES [redacted]

- Grove Gear IRONMAN 800 Series
- Cast Iron Housing Construction
- Mounting dimensions are interchangeable with most industry standard reducers
- Designed with industry leading premium features as standard
- Combines the premium features of the LEESON IRONMAN with the industry's broadest product offering of the Grove Gear Flexaline
- GEAR+MOTOR™ Available

CAST IRON NH SERIES [redacted]

- Grove Gear IRONMAN Narrow Housing 800 Series
- Cast Iron Housing Construction
- Designed with industry leading premium features as standard
- Replacement for Grove Gear OE Series and original Alling Lander gear reducers
- Compact housing design to fit where other reducer brands cannot
- GEAR+MOTOR™ Available

ALUMINUM EL SERIES [redacted]

ELECTRA-GEAR

- Electra-Gear 800 Series
- Aluminum Housing Construction
- Lightweight design with all the premium features of the GR and NH series as standard
- Replacement to original Electra-Gear reducers
- GEAR+MOTOR™ Available

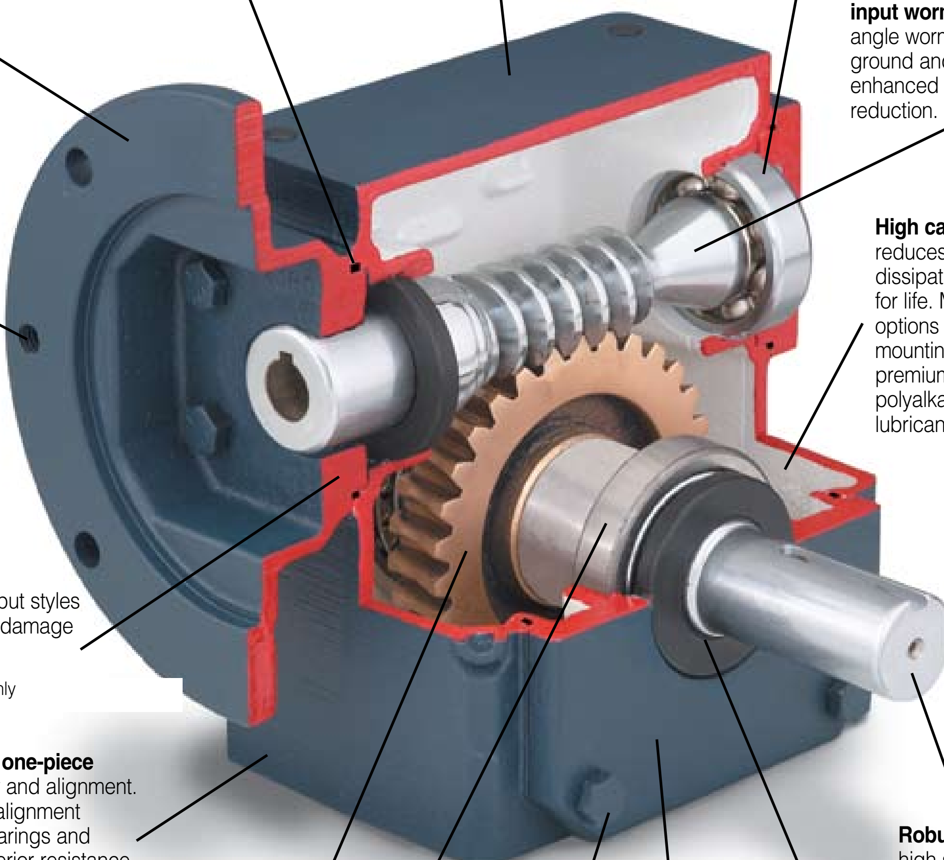
Grove Gear BRAVO® Gear Reducers

Grove Gear LeCENTRIC™ Gear Reducers

Refer to Grove Gear / Electra-Gear Gearing Catalog 8050 for More Information

Specifications are subject to change without notice

800 Series Gear Reducers Built For Industrial Use



Mounting dimensions are interchangeable with Baldor 900 series, Boston Gear, Browning Raider, Falk, Morse Invader and other "industry standard" reducers.

Refer to Grove Gear / Electra-Gear Gearing Catalog 8050 for More Information

Specifications are subject to change without notice

GROVE GEAR
ELECTRA-GEAR

Geared To Be The Best

"Patent Pending"

Grove Gear IronMan ℰ Series
High Efficiency Gear Reducers

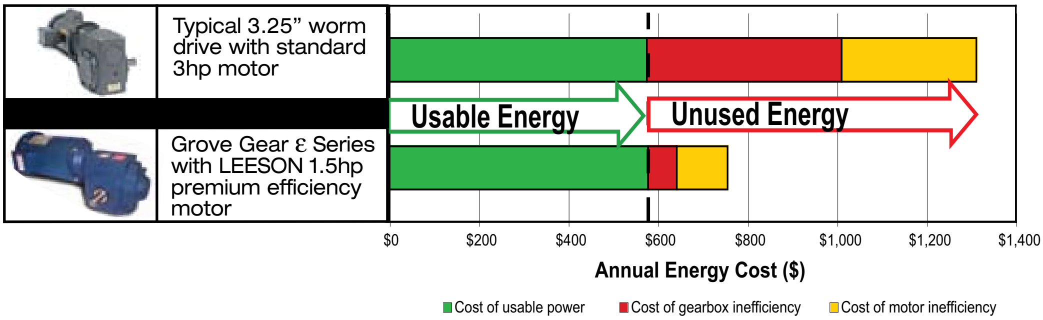
Product Highlights:

- Green product: 90% operating efficiency
- Up to 60% torque increase
- Interchangeable to major brands
- Rapid Payback – Up to $550 savings annually per motor horsepower
- 4 models available

Standard Features:

- 2 stage ratios to 60:1; 3 stage ratios to 450:1
- Available preassembled with LEESON WATTSAVER® premium efficiency motors
- Filled with premium synthetic lubricant - meets USDA Class H1 standards
- Viton® double-lip seals

Operating Cost Example*



Annual Savings*

- 42% energy savings ($550)
- 5,500 kW-hrs
- 3.9 tons of CO_2**

*Based on 60:1 Ratio, 2600 in. lbs. output torque, 1800 rpm input, 24/5 duty cycle
** 7.18×10^{-4} tons CO_2/kW-hrs *(source:www.epa.gov)*

Reduce. Conserve. Evolve.

Refer to Grove Gear / Electra-Gear Gearing Catalog 8050 for More Information

HIGH EFFICIENCY GEAR REDUCERS

Grove Gear offers a complete line of high efficiency gearing products including: helical inline, helical bevel, helical worm and parallel shaft reducers. System operating efficiency is maximized with gear reducer efficiencies up to 97%. In many cases, high efficiency gear products can do the same job as a conventional worm drive, but with a smaller motor and lower energy consumption. All Grove Gear high efficiency gearing products offer decreased motor power requirements, no thermal limitations, industry standard mounting capability and modular design.

	STANDARD	GROVE GEAR HIGH EFFICIENCY GEAR REDUCERS				
	Worm	Helical Worm	Helical Bevel	Helical Inline	Helical Parallel Drives	LeCentric Inline
Ratios	5:1 thru 60:1	Up to 3000:1	Up to 3400:1	Up to 3700:1	Up to 3333:1	Up to 280:1
Housing	Cast Iron, Aluminum, & Stainless Steel	Cast Iron & Stainless Steel	Cast Iron & Stainless Steel	Cast Iron & Stainless Steel	Cast Iron	Aluminum
C-Flange	Standard Product Offering					
Integral Motor	Available	Available	Available	Available	Available	Not Available
Self-Locking	Not Guaranteed	Not Guaranteed	Not Guaranteed	Not Guaranteed	Not Guaranteed	Not Guaranteed
Minimum Backlash	Available	No	No	No	No	No
Hollow Bore Output	Standard Product Offering			No	Available	No
Solid Shaft Output	Standard Product Offering					
Thermal Limits	No	No	No	No	No	No
Efficiency	48% - 85%	46% - 83%	**85% - 95%**	**90% - 97%**	**90 - 97%**	**93 - 97%**

IRONMAN HIGH EFFICIENCY GEAR REDUCERS

Helical Worm

- 4 sizes available in reducer, GEAR+MOTOR™ and integral gearmotor designs
- Input horsepower ratings up to 17 HP
- Available in double, triple and quadruple reduction with ratios from 7:1 to 3400:1
- Solid output shaft and hollow output shaft available in all sizes
- Hardened and ground steel worm shaft and high capacity bronze alloy worm gear give you the advantages of worm gearing with the efficiency of helical gearing

Helical Bevel

- 6 sizes available in reducer, GEAR+MOTOR™, and integral gearmotor designs
- Input horsepower ratings to 130 HP
- Available in triple and quintuple reduction with ratios from 6.2:1 to 3400:1
- Solid output shaft and hollow output shaft available in all sizes
- Precision carburized and hardened spiral bevel gearing for quiet, efficient, right angle speed reduction

Helical Inline

- 10 sizes available in reducer, GEAR+MOTOR™, and integral gearmotor designs
- Input horsepower ratings to 125 HP
- Available in double, triple and quadruple reduction with ratios from 2.2:1 to 3700:1
- Base mount and output flange designs available in all sizes

GEARING

GROVE GEAR *ELECTRA-GEAR*

IRONMAN HIGH EFFICIENCY GEAR REDUCERS

Helical Parallel Drives

- Power ratings from 1/4 to 20 HP
- Ratios from 3.42:1 thru 3333:1
- Output speeds .5 rpm to 280 rpm
- Universal base, flange and hollow bore mounting with competitive interchange capability
- Precision carburized and hardened crowned helical gearing
- Double lip spring loaded seals with precision ground seal journals
- High capacity ball and tapered bearings with splash lubrication, factory filled
- Enhanced high tensile strength steel shafting with low notch sensitivity
- Optimum structural designed housings made of high strength alloy case iron

LeCENTRIC INLINE GEAR REDUCERS

- LeCentric inline reducers available in four sizes with ratings to 15 HP and in ratios from 3.5:1 to 280:1
- Fit into small spaces. Up to one third smaller than other brands
- Sealed for life, never change or add oil
- Lightweight OEM design suitable for mobile equipment and difficult installations
- Mounting dimensions are interchangeable with most major worldwide competitors

IRONMAN HIGH EFFICIENCY STAINLESS STEEL REDUCERS

- Helical-Inline and Helical-Bevel reducers available.
- 316 stainless steel housing and covers.
- 303 stainless steel output shaft.
- Viton® double-lip seals.
- Vent-free “sealed-for-life” design with Enviroseal technology.
- Factory filled with premium Mobil Glygoyle 460 polyalkalene glygol lubricant - meets USDA Class H1 standards.

IRONMAN HIGH EFFICIENCY WASHGUARD® REDUCERS

- Helical-Inline, Helical-Worm, Helical-Bevel and Parallel Shaft Drives available.
- Factory-filled with premium Mobil Glygoyle 460 polyalkalene glycol lubricant - meets USDA Class H1 standards.
- Viton® double-lip seals.
- Patented Forsheda V-ring on output shaft provides extra protection from contaminants.
- O-ring on “flat-faced” input flange provides a positive seal against moisture intrusion.
- Food grade white epoxy paint.





Refer to Grove Gear / Electra-Gear Gearing Catalog 8050 for More Information

WASHGUARD GEAR REDUCERS & GEAR+MOTOR™ SOLUTIONS

With gear reducers in epoxy painted cast iron, polished aluminum and stainless steel, Grove Gear offers a solution for any washdown application.

CAST IRON WASHGUARD® GEAR REDUCERS

Grove Gear **IRONMAN WASHGUARD®** reducers are designed and built to withstand the rigors of high pressure washdown environments in food service and other wet or humid conditions. A white, food-grade epoxy finish provides superior durability in wet environments and resists caustic cleaning solutions. All standard cast iron products are available enhanced with WASHGUARD® features assuring trouble-free operation.

ALUMINUM PLATINUM GEAR REDUCERS

EL Series PLATINUM aluminum gear reducers are a light weight, yet durable alternative for food processing and washguard environments featuring a smooth, polished and paint-free finish. They are available off-the-shelf or customized to your exact specifications. Available in worm gear reducers, ratio multipliers and small, helical-concentric reducers.

STAINLESS STEEL GEAR REDUCERS

Premium WASHGUARD® All-Stainless reducers offer superior corrosion protection. Our stainless steel housing, shaft, covers and external hardware offer an exceptionally long life. Each reducer comes with USDA H1 synthetic oil, eliminating the need for oil changes. Our premium stainless gear reducers are supplied with 316 grade stainless steel housing and covers. These premium reducers offer superior corrosion protection, and can withstand the harshest conditions. Available in worm gear reducers, ratio multipliers, helical-concentric and helical-bevel reducers.

GEAR+ MOTOR™

STOCK GEAR+MOTOR™

By combining Grove Gear long lasting, energy efficient gear reducers with performance matched LEESON or Lincoln motors, you can maximize system efficiency and rely on unmatched product strength, precision and dependability.

Save Money. Save Energy. Save the Environment.

Refer to Grove Gear / Electra-Gear Gearing Catalog 8050 for More Information

GOOD

- Viton® double-lip seals - up to five times more durable than nitrile seals - provide added resistance to chemicals
- Patented Forsheda V-ring on output shaft provides extra protection from contaminants
- O-ring on "flat-faced" input flange provides a positive seal against moisture intrusion
- Food grade white epoxy paint
- Food-Grade Synthetic Lubricant, Mobil PAG 460 or equivalent, meets USDA Class H1 standards
- Enviroseal feature provides a vent-free and "sealed for life" design

BETTER

- Nine sizes available to 29 HP
- Available in single, double and triple reduction with ratios from 5:1 to 216,000:1
- Worm gear reducers and helical-worm gear reducers
- Clean, polished and paint-free finish
- Lightweight alternative to cast iron
- Lower cost alternative to stainless steel
- Superior corrosion resistance to painted cast iron
- Food-Grade Synthetic Lubricant, Mobil PAG 460 or equivalent, meets USDA Class H1 standards
- Stainless steel shafts and hardware

BEST

- O-ring on face of input flange provides a positive seal against moisture intrusion
- Stainless steel output shaft
- Stainless steel hardware, including square-head pipe plugs to eliminate particle entrapment in vent locations
- Enviroseal eliminates the need for a vent, creating a "sealed for life" design
- Viton® double-lip shaft seals for superior resistance to chemicals common in washdown applications
- Food-Grade Synthetic Lubricant, Mobil PAG 460 or equivalent, meets USDA Class H1 standards
- Housing and covers are 300 series cast stainless steel to withstand extreme environments

CHEMICAL COMPATIBILITY SUMMARY

	Reaction Level to Material		
Material	**Cast Iron**	**Aluminum**	**316 Stainless**
Ammonia Anhydrous	D	B	A
Acetic Acid	D	B	B
Arsenic Acid	D	D	A
Barium Chloride	C	D	A
Barium Sulfate	B	B	B
Beer	D	A	A
Butter	D	A	A
Butyl Alcohol	A	B	C
Calcium Chloride	C	D	B
Carbonic Acid	D	B	A
Catsup	D	D	A
Citric Acid	D	C	A
Chlorine (Dry)	A	C	A
Detergents	N/A	B	A
Diethylene Glycol	A	B	A
Formaldehyde	D	A	A
Grape Juice	D	N/A	A
Lactic Acid	D	B	B
Mayonaise	D	A	A
Nitric Acid (50%)	D	D	A
Salad Dressing	D	B	A
Soap Solutions	A	C	A
Sodium Hydroxide (80%)	D	D	B
Sodium Hypochlorite (<20%)	D	D	C
Sodium Sulfide	A	C	B
Soy Sauce	D	A	A
Sulferic Acid (<10%)	C	D	B
Sulfer Dioxide	N/A	C	A
Tannic Acid	C	C	A
Turpentine	A	C	B
Vegetable Juice	D	D	A
Vinegar	D	D	A
Water, Fresh	D	B	A
Water, Salt	D	B	B
Whey	N/A	B	A
Whiskey and Wines	D	C	A
Zinc Chloride	D	D	B
Zinc Sulfate	D	D	A

A = Excellent
B = Good, minor effect
C = Fair, moderate affect (not recommended for continuous use)
D = Severe effect, not recommended
N/A = Information not available

GEARING





Refer to Grove Gear / Electra-Gear Gearing Catalog 8050 for More Information

INDUSTRY STANDARD POWER TRANSMISSION SOLUTIONS!

ISO9001 certified manufacturing facility

STANDARDIZED TAPER BUSHINGS & SHEAVES FOR ALL YOUR POWER TRANSMISSION NEEDS!

Full split allowing the bushing to compress evenly throughout the bushing length for a secure, even fit

Made from GGG40 ductile iron, precision machined and phosphate coated

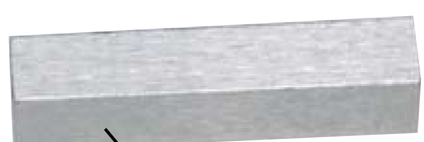
Precision machined taper insuring a snug, concentric fit with the sheave. Powerplus+ bushings & sheaves run true.

Set screw over the key secures key in place. Especially helpful for vertical shaft down applications
(Not available on smaller bushings, see catalog for detail)

2 sets of mounting holes to insure easy installation and removal. Use the thru holes to draw the bushing tight, use the threaded holes to push the bushing off the sheave.

Castings are vibration aged to relieve internal stresses insuring long, trouble free service life

Industry standard taper design insures interchangeability



Supplied with all necessary mounting hardware including 12.9 grade UNC bolts, Lock washers, set screws and shaft key

NOTES

DISTRICT SALES OFFICES AND WAREHOUSES

■ SALES OFFICE AND WAREHOUSE □ SALES OFFICE ONLY

LEESON District Sales Offices & Warehouses can provide complete information including price and availability on both standard stock and special motors.

□ **ARKANSAS, Little Rock**
District Mgr.,
Kevin Springstead
972/245-2017
Fax: 972/245-2328

■ **CALIFORNIA, Los Angeles**
Co-District Mgrs.,
Felix Wilson,
Oswald Aguirre
323/278-7979
Fax: 323/278-7955

■ **CALIFORNIA, San Francisco**
District Mgr.,
Dave Richardson
925/371-8125
Fax: 925/371-5673

■ **COLORADO, Denver**
District Mgr.,
Mike Kannawin
303/331-6500
Fax: 303/331-6510

■ **CONNECTICUT, Hartford / Metro Boston, MA**
Co-District Mgrs.,
Craig Brisbane,
Joel Casaubon
508/347-5117
Fax: 508/347-2612

■ **FLORIDA, Tampa**
District Mgr., Bill Taylor
813/740-2571
Fax: 813/663-9104

■ **GEORGIA, Atlanta**
District Mgr., Walter Brooks
770/933-0453
Fax: 770/933-0549

■ **ILLINOIS, Chicago**
Co District Mgrs.,
Mike Miller,
Robert Sheppard
630/458-9511
Fax: 630/458-1923

■ **INDIANA, Indianapolis**
District Mgr.,
Matt Simco
440/951-5117
Fax: 440/975-3575

□ **IOWA, Des Moines**
District Mgr.,
Bob Lewis
515/827-5011
Fax: 515/827-5011

■ **KANSAS, Kansas City**
District Mgr., Pat Donnelly
913/599-6983
Fax: 913/599-6987

■ **MARYLAND/Baltimore**
District Mgr., Craig Brisbane
570/325-3684
Fax: 570/325-3870

■ **MICHIGAN, Grand Rapids**
District Mgr., Greg Norris
616/249-8430
Fax: 616/249-8628

■ **MINNESOTA, Minneapolis**
District Mgr., John Marshalla
952/935-8273
Fax: 952/935-8399

■ **MISSOURI, St. Louis**
District Managers
Pat and Ken Anvender
314/714-1460
Fax: 314/714-1461

□ **NEW JERSEY/METRO NEW YORK/LONG ISLAND**
(Plainfield, NJ 18229)
Contact: Dave Beck
570/325-3684
Fax: 570/325-3870

■ **NEW YORK, Syracuse**
District Mgr.,
Chris Brisbane
866/505-8796
Fax: 570/325-3870

■ **NORTH CAROLINA, Charlotte**
District Mgrs.,
Steve McAbee
and Doug Landgraf
803/396-8200
Fax: 803/396-8208

■ **OHIO, Cincinnati**
District Mgr., Ken Simko
513/755-1000
Fax: 513/755-1081

■ **OHIO, Cleveland**
District Mgr., Matt Simko
440/951-5117
Fax: 440/975-3575
800/331-2911 (W.PA, WV)

■ **PENNSYLVANIA, Allentown/Philadelphia**
District Mgr., Craig Brisbane
570/325-3684
Fax: 570/325-3870

■ **TEXAS, Dallas**
District Mgr., Homer Rodden,
Kevin Springstead
972/245-2017
Fax: 972/245-2328

■ **TEXAS, Houston**
Contact,
Donnie Heckler
713/952-5337
Fax: 972/245-2328

■ **UTAH, Salt Lake City**
District Mgr., Dennis Vest
800/730-5290
Fax: 303/331-6510

■ **WASHINGTON, Seattle**
District Mgr.,
Amorette Gent
425/775-3504
Fax: 425/775-6706

■ **WISCONSIN, Milwaukee**
Co-District Mgrs., Brian Birtic & Mark Ziegler
414/475-9222
Fax: 414/475-9267

■ **INTERNATIONAL**
International Sales Administrator,
Sue Kastner
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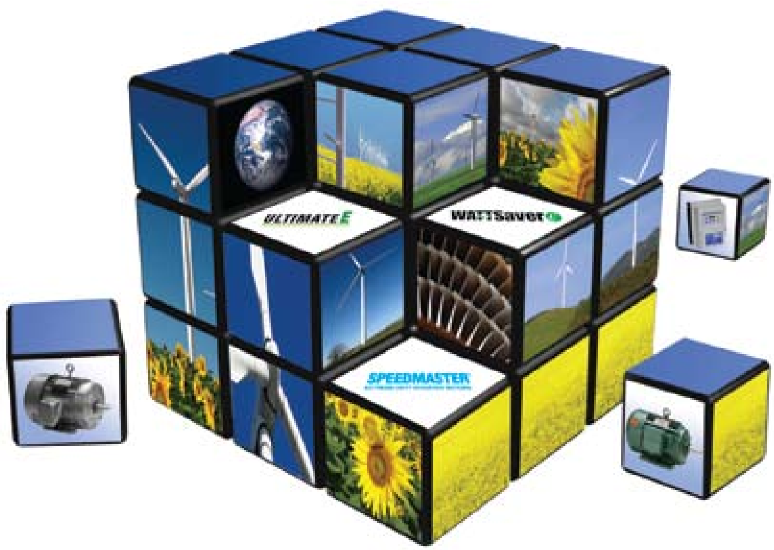

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