

Stock Product  
Quick Reference Guide



Performance Matched Solutions™



Thousands of solutions.  
One matched perfectly to your needs.

# More than 6,000 stock motors, gearmotors, gear reducers and control designs available.

## Yes, there's an industrial strength LEESON solution for your application.

Together with our sister companies, Lincoln Motors and Grove Gear, LEESON offers over 6,000 AC and DC stock motors, gearmotors, gear reducers and control solutions. All built for industrial use with the features you expect for new installation requirements and convenient replacement. Twenty-three stocking warehouses in the USA.

### Application Issues? LEESON'S STATeam has your solution.

Whether you require a motor that withstands extreme temperatures, requires a unique mount, or other application requirements, LEESON's STATeam has solutions.

The LEESON Strategic Technical Application Team is a group of experienced engineers with design, process, quality, and sales

application expertise that is ready to help you find your specific application solution. More Expertise. More Speed. More Solutions. That's STATeam.

To turn your idea into reality, call your local LEESON sales office or visit [LEESON.com](http://LEESON.com)

### AC & DC Motors of all types

Our stock motor lineup includes AC and DC designs in sub-fractional through hundreds of horsepower sizes for general purpose use and specific-duty applications. All popular enclosures and configurations are available, along with some not-so-easy-to-find items. For an extra margin of protection from inverter-induced voltage spikes, LEESON's Inverter-Rated Insulation System (IRIS™) comes standard—at no extra cost—on all stock NEMA three-phase motors (1 HP and larger). Similarly, Lincoln Motors offers "Ultimate Spike Defense™" inverter-rated insulation system on its 1HP and larger frame three-phase motors.

### Adjustable speed drives

Speedmaster drives are a perfect fit with many types of LEESON and Lincoln three-phase motors. Our Micro Series inverter line is available through 60 HP at 230 Volts, and through 150 HP at 460 Volts. Micro Series offers easy-to-use, English programming with built in PID software, making them closed-loop drives, 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 you require a simple "Shaft-turner," select economical SM-Series drives, which feature the same small footprint and many features of our SM-Plus Series. Vector inverters with 200% starting torque—when run with a vector duty motor—provide full output torque down to 1Hz, in both NEMA 1 and NEMA 4X enclosures.

And look to LEESON for a competitive line of SCR, PWM, Regenerative and Low Voltage DC Controls.

### Gearing products

Recognized worldwide as a leader in the industrial-duty, gear-reducer marketplace, Grove Gear offers solutions to meet any application requirement. Our IRONMAN product line includes right angle worm gear reducers as well as high efficiency options. The revolutionary E Series is a high efficiency right angle gear reducer that meets the increasing demand for efficiency in the compact footprint of traditional worm gear products.

Electra-Gear is the only industrial-duty aluminum worm reducer line designed and built in the USA. Featuring the same premium features as the IRONMAN line, Electra-Gear products are perfect for washdown applications.

LeCENTRIC™ and Bravo® reducers are compact and lightweight alternatives to traditional cast iron units.

Combine Grove Gear or Electra-Gear reducers with LEESON or Lincoln c-face motors to create a performance-matched GEAR+MOTOR™ or integral gearmotor.

## 1-Phase General Purpose Motors



### Hundreds of Industrial Designed "Off-the-Shelf" Solutions

- 42–215T Frame
- 1/12–10 HP
- Totally enclosed and drip-proof designs
- Rigid base, C-face, Rigid C-face and Resilient base
- Overload protection available

#### Applications:

Pumps	Material Handling
Machine Tools	Compressors
Fans and Blowers	Conveyors



## Agricultural Motors



### High Torque Rugged Industrial Designs

- 48–286T Frame
- Designed especially for the ag customer 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	Conveyors
Silo Uploaders	Pumps
Crop Drying	Barn Cleaners
Compressors	Grain Stirrers



## Washdown Motors



### Broadest Industry Solutions for Maximum Service in Harsh Environments

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

#### Applications:

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



## Fan & Blower Motors



### Industrial and Commercial Fan Motors Available

- General Purpose 1/4–3 HP
- PSC Type: 1/4–1 HP
- Two-speed: 1/4–1 HP
- TEAO: 3/4–3 HP
- HVAC Blower: 1/3–5 HP
- Condenser Fan: 1–1.5 HP
- Commercial Duty: 1/4–1/2 HP
- Furnace & Air Conditioner: 1/4–3/4 HP
- Fan & Heat Pump: 1/6–3/4 HP
- Outdoor Condenser Fan: 1/6–3/4 HP

#### Applications:

Direct and Belt-drive Air Handlers	Industrial Fans
Exhaust Fans	Commercial Fans
Pedestal Fans	Two-speed Fans



## DC Motors



### Industrial & Commercial Design DC motors for Low & High Voltage Applications

- 1/4–3 HP
- Permanent magnet designs
- Removable bolt-on base
- NEMA C-face designs
- 12, 24, 36, 48, 90 and 180 Volt designs
- PWM or SCR type controller rated
- High starting torque
- Permanently lubricated sealed bearings
- Washdown, explosion proof and IEC models

#### Applications:

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



## AC & DC Gearmotors



### Little Motors, Big Solutions with Industry Interchange Designs

- 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
- AC and DC washdown designs
- Bison, Bodine and Dayton Direct Interchange

#### Applications:

Conveyors
Turntables
Packaging Equipment
Augers
Food Processing Equipment



## Pump Motors



### Commercial, Washdown and Explosion Proof Ratings Available

- JM/JP close coupled
- UL listed fire pump—Lincoln
- Drip-proof, totally enclosed, washdown duty
- EPACT efficient designs
- Jet Pump in single- and three-phase from 1/2–3 HP
- Stainless steel washdown

#### Applications:

Centrifugal Pumps	Turbine Pumps
Hydraulic Pumps	Vertical end Suction
Water System Pumps	Propeller Pumps
Fire Pumps	



## Explosion Proof Motors



### Industrial & Commercial Application Designs

- 56–449T Frame
- Single-phase fractional to severe duty 449T frame
- Class I Group D or Class I Groups C & D or 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	PWM Drives
Compressors	Petroleum and Gasoline
Gear Reducers	Grain Elevators
Machine Tools	Paint Booths
Conveyors	



## IEC—Metric Motors



### IEC Global Designs to Meet International Specifications

- 63–250 IEC frame
- 0.18KW (1/4 HP)–37W (50 HP)
- 208–230/460 and 575 Volt 3-Phase
- TEFC, Aluminum and Cast Iron Frame construction
- B3, B3/B5 and B3/B14 Mountings
- Removable bases—90 frame and lower
- IP 55 enclosure protection
- Premium efficient 90 frame and higher

#### Applications:

Machine Tools
Textile Machinery
Conveyors
Pumps



## Brakemotors



### Dependable Stopping and Holding Brakemotors

- 1-Phase: 1/3–2 HP
- 3-Phase: 1/3–10 HP
- Totally enclosed and drip-proof designs
- Rigid base, Rigid C-Face and C-Face mounts available
- Washguard and stainless
- Brake kits and coupler brakes

#### Applications:

Conveyors  
Machine Tools  
Door Openers  
Elevators  
Hoists  
Baggage Handling  
Packaging Equipment



## AC & DC Controls



### Energy Saving and Precision Speed Controllers

- DC Controls
- Open Chassis, NEMA 1 and NEMA 4/12 enclosures
- SCR and PWM and Regenerative Controls
- 1/40–3 HP rated
- Low voltage 16–120 Amps
- AC Controls
- IP20, IP31 and IP65 enclosures
- 1/4–150 HP
- 115 volt, 1-Phase input–3 HP, (3-Phase output)
- 230, 460 & 575 Volt ratings
- Standard V/Hz and Vector Duty designs available

#### Applications:

Conveyors  
Handling Equipment  
Hoists  
Packaging Equipment  
Fans  
Machine Tools



## Special Duty Motors



### High Quality, Short Run Specials—Application Specific Solutions

- Boat Hoist Duty: 1/2–2 HP
- Instant Reversing: 1/3–1 HP
- Woodworking: 3/4–4 HP
- Two-speed: 1/.25–10/2.5 HP
- Compressor Duty: 1–20 HP
- Severe Duty IEEE-841: 1–100 HP
- 50 HZ Motors: 1-Phase, 1/3–5 HP, 3-Phase, 1/4–5 HP
- 200–400 Volt : 1–10 HP
- 575 Volt: 1/3–450 HP
- Medium Voltage: 150–700 HP
- Elevator Duty: 15–100 HP
- Automotive Duty: 3/4–100 HP

#### Applications:

Boat Hoist  
Woodworking Equipment  
Compressors  
Fans and Blowers  
Parking Gates  
Foundries  
Elevators/Escalators



## 3-Phase General Purpose Motors



### NEMA Premium—Meets IE3 Specifications—Inverter Duty

- 143–449T frame offers high efficiency levels that meet NEMA Premium™
- Built for high cycle or long run-time applications
- Drip-proof, totally enclosed, washdown and explosion-proof enclosures
- IRIS™ insulation system—WATTSAVERe
- Premium efficient motors with 3-year warranty
- Inverter duty

**Applications:**  
Pumps  
Gear Reducers  
Conveyors  
Compressors  
HVAC



## Vector Duty Motors



### Constant Torque 2000:1 Speed Control

- 1–350 HP
- Class F thermostat protection
- Precision balanced
- TENV and TEBC designs
- 3-year warranty
- Encoder provisions
- 2000:1 constant torque

**Applications:**  
Material Handling  
Extruders  
Conveyors  
Machine Tools  
Transportation



For product information, news and instructional tools, there's no better resource than [Leeson.com](http://Leeson.com)





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GROVE GEAR

ELECTRA-GEAR

