THOUSANDS OF SOLUTIONS. ONE MATCHED PERFECTLY TO YOUR NEEDS.

PRODUCT QUICK REFERENCE GUIDE
THOUSANDS OF MOTOR AND CONTROL SOLUTIONS.
ONE MATCHED PERFECTLY TO YOUR NEEDS.

The LEESON® brand spans more than 6,000 stock AC and DC motors, gearmotors and variable-speed control solutions. All are built for rugged commercial and industrial applications. Whether you need thousands of motors for OEM applications or a single replacement motor, count on our twenty-three stocking warehouses in the USA to get it there right when you need it. Whether you need a motor that withstands extreme temperatures, utilizes a unique mount or other requirement, we have solutions. Look to LEESON brand motors for innovative custom solutions, and personalized service through your local sales office.

To turn ideas into reality, contact your local LEESON sales office or visit leeson.com

AC & DC MOTORS OF ALL TYPES
- Sub-fractional to 5,000 HP
- Permanent Magnet AC & DC
- General Purpose 1- & 3-Phase
- Agricultural Duty
- Explosion Proof
- IEC Metric Motors
- Severe Duty and IEE841
- Washdown Duty
- Inverter Duty
- HVAC—Fan Motors
- AC & DC Gearmotors
- Brakemotors
- Definite Purpose Motors
- Special Voltage

ADJUSTABLE SPEED DRIVES

SCR, PWM, Regenerative & Low Voltage DC Controls.

AC Control Families include:
Micro Series
- 115 Volt, 230 Volt and 460 Volt input options
- 1/4–150 HP ratings
- IP20, IP31 & IP65 enclosure protection
- English readout display

SM & SM–Plus Series
- 115 Volt, 230 Volt and 460 Volt input options
- 1/4–25 HP ratings
- IP20 enclosure protection
- Three digit LED display

SM2 & SM4 Vector Series
- 115 Volt, 230 Volt and 460 Volt input options
- 1/3–60 HP ratings
- IP31 and IP65 enclosure protection
- Four digit LED display

Platinum VSD & Platinum VSD–Plus Series
- 230 Volt and 460 Volt input options
- 1/3–30 HP ratings
- IP20 enclosure protection
- Permanent magnet AC & Induction AC motor capable
23 SALES OFFICES AND WAREHOUSES ACROSS THE U.S.

ALLENTOWN, PA
ATLANTA, GA
BOSTON, MA
CHARLOTTE, NC
CHICAGO, IL
CINCINNATI, OH
CLEVELAND, OH
DALLAS, TX
DENVER, CO
DES MOINES, IA
GRAND RAPIDS, MI
HOUSTON, TX
INDIANAPOLIS, IN
KANSAS CITY, MO
LOS ANGELES, CA
MIAMI, FL
MILWAUKEE, WI
MINNEAPOLIS, MN
SALT LAKE CITY, UT
SAN FRANCISCO, CA
SEATTLE, WA
ST. LOUIS, MO
TAMPA, FL
THOUSANDS OF
CUSTOM MOTORS &
GEARMOTORS

As a leading designer and manufacturer of application-specific AC and DC motors and gearmotors (sub-fractional, fractional and integral horsepower sizes), our experienced engineering teams ensure the best, most cost-effective solution.

Custom Multi-Speed & Low-Speed Motors
The LEESON® PDQ Modular Production Program utilizes a component system to configure custom NEMA® frame motors—fast.
- Two, three and four-speed motors
- Speed ranges: 900, 720, 600, 450 & 300 RPM
- Non-standard shaft designs available

Quick-turn Mod-Squad Programs
Stock motors can be modified easily—in many cases, the same day the order is received. Services include:
- Cord options and switches
- Mounting plate changes
- Lead extensions
- Custom colors
- Severe-duty modifications

For modified gear reducers try the LEESON Gear Mod-Squad program. Stock gear products may be modified with:
- Mounting options
- Shaft extensions

Modified Gear+Motor™ Packages
Drawing on the extensive range of LEESON NEMA C-Face motors, you can modify a gear/motor solution optimized to your application.

Help from Your Local LEESON Pro
For quotations, availability and application assistance contact your local LEESON office.
SINGLE-PHASE GENERAL PURPOSE MOTORS

Hundreds of Industrial Designed “Off-the-Shell” Solutions
- 42–250T Frame
- 1/2–20 HP
- Totally enclosed and drip-proof designs
- Rigid base, C-Face, Rigid C-Face and Resilient base
- Overload protection available

Applications:
- Pumps
- Machine Tools
- Fans/Blowers

Material Handling
- Compressors
- 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
- Sealed bearings
- Premium efficient models—Eco Ag® 1-Phase and 3-Phase
- 16 HP 1-Phase crop dryer—ODP
- 15 HP 1-Phase crop dryer—TEFC

Applications:
- Poultry Feeders
- Silo Uploading
- Crop Drying
- Compressors
- Tobacco Barns

Auger Drive
- Conveyors
- Pumps
- Barn Fans
- Grain Stirrers

WASHDOWN MOTORS

Broader 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
- 100% stainless steel 1-Phase and 3-Phase designs available
- 1/2–10 HP
- Stainless steel motors
- Stainless motors with shaft grounding rings available
- Encapsulated washdown motors—IP69K
- Stainless steel pedestal fan motors

Applications:
- Dairies
- Beverage Plants
- Food Processing
- Slaughter Houses
- Feather Pickers

Pump Industry
- Bakers
- Pharmaceutical Plants
- Car Washes

THROUGH 30 HP
COMING LATE 2017
**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
- 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
- Cooling Tower: 3–250 HP
- Stainless pedestal fan 1/4–1/2 HP
- Kiln Duty 2–30 HP

**Applications:**

<table>
<thead>
<tr>
<th>Pumps</th>
<th>Direct and Belt-drive Air Handlers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveyors</td>
<td>Exhaust Fans</td>
</tr>
<tr>
<td>Turntables</td>
<td>Pedestal Fans</td>
</tr>
</tbody>
</table>

- Cooling Towers
- Industrial Fans
- Commercial Fans
- Two-speed Fans

**DC MOTORS**

**Industrial & Commercial Design DC motors for Low & High Voltage**

**Applications**

- 1/20–3 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

<table>
<thead>
<tr>
<th>Pumps</th>
<th>Reeling Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveyors</td>
<td>Medical Equipment</td>
</tr>
<tr>
<td>Turntables</td>
<td>Treadmills</td>
</tr>
<tr>
<td>Textile Machinery</td>
<td>Solar Panels</td>
</tr>
</tbody>
</table>

**AC & DC GEARMOTORS**

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

- AC: 115/230V 1-Phase and 230/460V 3-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**

<table>
<thead>
<tr>
<th>Conveyors</th>
<th>Packaging Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turntables</td>
<td>Augers</td>
</tr>
<tr>
<td>Food Processing Equipment</td>
<td>Material Handling</td>
</tr>
</tbody>
</table>

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PUMP MOTORS

Commercial, Washdown and Explosion Proof Ratings Available
- JM/JP close coupled
- Jet Pump in 1- and 3-Phase from 1/2–3 HP
- UL listed Fire Pump—Lincoln
- Drip-proof, totally enclosed, washdown duty
- EPAct efficient designs
- Stainless steel washdown
- Carbonator pump designs
- SAE pump motors
- Premium efficiency JM/JP pump

Applications:
- Centrifugal Pumps
- Hydraulic Pumps
- Water System
- Fire Pumps
- Turbine Pumps
- Vertical end Suction
- Propeller Pumps

EXPLOSION PROOF MOTORS

Industrial & Commercial Application Designs
- 56–449T Frame
- Single-Phase 1/3–2 HP
- Three-Phase fractional to severe duty 449T frame
- Three-Phase 1/3–350 HP
- DC: 1/3–3/4 HP, 12, 24, 90 & 180 VDC
- 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

Applications:
- Pumps
- Compressors
- Gear Reducers
- Machine Tools
- Conveyors
- Petroleum and Gasoline
- Grain Elevators
- Paint Booths

Regal Overview
AC Electric Motor Principles
DC Electric Motor Principles
PMAC Electric Motor Principles
Motor Applications
Power Transmission
Gear Reducer Principles
Manufacturing Plant Workshop
leeson.com Review

CONTACT YOUR LOCAL LEESON SALES OFFICE FOR MORE INFORMATION
LEESON’s new catalog is available in both printed copies as well as online. The online catalog is searchable by item number or item type, with electronic links to the current motor data for a specific product. It is available on leeson.com.

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, Cast Iron & Stainless Steel 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
- DC: .06KW to 2.2KW, 180 volts
- IEC Brakemotors

Applications:
- Machine Tools
- Textile Machinery
- Conveyors
- Pumps
- Food Processing

BRAKEMOTORS

Dependable Stopping and Holding Brakemotors

- Single-Phase: 1/3–2 HP
- Three-Phase: 1/3–10 HP
- Totally enclosed and drip-proof designs
- Rigid base, Rigid C-Face and C-Face mounts available
- Washguard® and stainless motors
- High cycle brake motors
- Brake kits and coupler brakes
- IEC Brakemotors

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, Vector Duty, and PMAC designs available

**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: 1–350 HP
- 50 Hz Motors: 1-Phase, 1/3–5 HP, 3-Phase, 1/4–5 HP
- 200–400 Volt: 1–20 HP
- 575 Volt: 1/2–300 HP
- Medium Voltage: 150–700 HP
- Elevator Duty: 15–100 HP
- Automotive Duty: 3/4–100 HP
- Crusher/Quarry Duty 50–250 HP

**THREE-PHASE GENERAL PURPOSE MOTORS**

NEMA Premium—Meets IE3 Specifications—Inverter Duty

- 1/6–400 HP
- 143–449T frame offers high efficiency levels that meet NEMA Premium™
- Built for high cycle or long run-time applications
- Drip-proof & totally enclosed, enclosures
- IRIS® insulation system—Wattsaver®e motor
- Premium efficient motors with 3-year warranty
- Inverter rated
- Ultimate E—Cast iron

**Applications:**

- Conveyors
- Handling Equipment
- Hoists
- Packaging Equipment
- Fans
- Machine Tools

**Applications:**

- Boat Hoist
- Woodworking Equipment
- Compressors
- Fans/Blowers
- Parking Gates
- Foundries
- Elevators/Escalators
- Rock Crusher Equipment and Applications
- Mining

**Applications:**

- Pumps
- Gear Reducers
- Conveyors
- Compressors
- HVAC
PERMANENT MAGNET (PMAC) MOTORS

High Efficient Motors Throughout Speed Range
- NEMA 48-286T (IEC 80-180)
- 72 in-lb through 100 lb-ft torque
- Cast iron construction 180T–286T frame, all others rolled steel
- Motor/Drive Package available 56–180 frame
- TENV and TEFC
- With and without feedback
- Open and closed loop available
- 3-Year Warranty

Applications:
- Pumps
- Fans/Blowers
- HVAC
- Compressors
- Conveyors
- Extruders
- Presses
- Process Applications
- Generators

INVERTER/VECTOR DUTY MOTORS

Constant Torque Speed Control
- 1–350 HP
- Class F thermostat protection
- Precision balanced
- ODP, TENV and TEBC designs
- 3-year warranty
- With encoders or encoder provisions
- 2000:1 constant torque
- 10:1 constant torque—ODP designs
- IRIS® insulation system
- Speedmaster Plus
- Platinum e™ PMAC
- Platinum e™ AC Drives
- 1000:1 constant torque

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

PULLEYS & SHEAVES

Thousands of Stock Power Transmission Solutions

Product Types:
- Taper Bushings
  - BTL—Bushing Taper Lock
  - 1008, 1108, 1210, 1215 and more
  - QTL—Quick Detachable
  - JA, SJ, SDS and more
  - STL—Split Taper Lock
  - G, H and more
- V-Pulleys
  - Finished Bore
    - AK, 2AK, BK, 2BK
  - Taper Bore—STL/H
    - AK-H, 2AK-H, BK-H, 2BK-H
  - Finished Bore—Adjustable Speed
    - VL, VM, 1VP, 2VP
  - Taper Bore—QTL A/B-C-D
  - Finished Bore—Light Duty—AL

Applications:
- Conveyor Belts
- Fans
- Air Handling
- Farm/Ag Equipment
- Compressors
TWO GREAT E-TOOLS, NOW AT YOUR FINGERTIPS.

The all new LEESON Mobile Experience puts all of the information you need available everywhere you are with our easy-to-use mobile app.

LEEBIZ PLUS GIVES YOU REAL-TIME ACCESS TO ALL OF YOUR MOST IMPORTANT ACCOUNT INFORMATION.

- Real time inventory visibility
- Shipment tracking
- PDF product packet information
- Alternative product suggestions

For product information, news and instructional tools, there’s no better resource than leeson.com

Also see us on YouTube

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APPLICATION CONSIDERATIONS

The proper selection and application of electric motors and related products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal Beloit America, Inc. and its affiliates with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

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