

# UNLEASH THE POWER OF REGAL

marathon<sup>®</sup>  
Motors



## COMMERCIAL AND INDUSTRIAL MOTORS

PRODUCT QUICK REFERENCE GUIDE

**REGAL**<sup>®</sup>

# TWO GREAT TEAMS UNITED TO BECOME EVEN STRONGER.

We've merged our LEESON® and Marathon®/Century® Commercial and Industrial Systems selling teams together bringing you enhanced industry knowledge and expertise.

## A STABLE FOUNDATION

With a tradition of providing great customer care combined with a wealth of products and the foundation of Regal, our combined selling team is better equipped to serve you than ever before. So, whether you required a Marathon brand or LEESON brand motor in the past, today we have more than 12,000 stock options. Most are in-stock, ready to keep you up and running.





# THE SOLID REPUTATION OF OUR BRANDS AND MOTOR TYPES

- Our robust larger horsepower motors from our legacy Marathon® Motors brand are reliable and ready to tackle your toughest application challenges.
- Our LEESON® Washguard® motors are known for their ability to stand up in tough washdown environments.
- With a deep industry install base, our HVAC motors are built for OEM's and to serve as field replacements and are available in many varieties.
- With the most comprehensive range of reliable motors in the industry, rely on Regal to help you find the right motor for your application when you need it.

## ENHANCED LOCAL INVENTORY

With stocked warehouses located throughout the U.S., we are ready with off-the-shelf solutions 24/7.

## CUSTOM MOTORS FAST

Our Motor Modification Program utilizes a component system to configure custom NEMA®\* frame motors—fast.

## YOU'LL HAVE QUESTIONS. WE'LL HAVE ANSWERS.

As you become familiar with specifying and buying commercial and industrial motors from this expanded offering, know that we're ready to assist. We've added more customer service professionals to guide you. Your local field sales representative is also there for you, so lean on us, we're ready and here to assist.

To turn your ideas into reality, contact your local sales office or visit [regalbeloit.com](http://regalbeloit.com)

# UNLEASH THE POWER OF **REGAL.**



\*NEMA is believed to be the trademark of National Electrical Manufacturers Association and is not owned or controlled by Regal Beloit Corporation.

# THE RIGHT MOTOR. THE OPTIMAL FIT. THE

MORE CHOICES FROM THREE LEADING BRANDS.

## GENERAL PURPOSE MOTORS

**LEESON**

**marathon**  
Motors

**Century**

### SINGLE PHASE

- 1/6–15 HP
- Standard and NEMA Premium<sup>®</sup>\* models
- Drip-proof & totally enclosed enclosures
- Rigid base, C-Face, rigid C-face and resilient base
- Overload protection available

### THREE PHASE

- 1/6–450 HP
- Standard and NEMA Premium models
- Drip-proof & totally enclosed enclosures
- Inverter rated models
- Cast iron, steel, and aluminum frame models



## WASHDOWN MOTORS

**LEESON**

- Single Phase, Three Phase, and DC models available
- Available 1/4–30 HP
- Standard and NEMA Premium models
- IP55, IP56, and IP69 enclosures
- USDA-approved white epoxy paint
- Stainless steel motors
- Encapsulated washdown motors—IP69 certified
- Special designs including: brakemotors, pump motors, AC and DC washdown gearmotors and feather picker motors



## AGRICULTURAL MOTORS

**LEESON**

**marathon**  
Motors

**Century**

- 1/3 - 30HP
- Single phase and three phase designs available
- Manual and auto reset overload thermal protection
- Fully gasketed designs for additional protection
- Extra-high starting torque designs: General purpose, crop dryer, auger drive, fan ventilation, grain stirring and more



\*NEMA Premium is believed to be the trademark of National Electrical Manufacturers Association, and is not owned or controlled by Regal Beloit Corporation.

# PERFECT SOLUTION.

## HVAC/AIR MOVING MOTORS



- 1/3 - 10HP
- Built for the OEM and the replacement market
- Many designed in features for easy installation
- Patented Voltage Change Device (VCD) for easy voltage selection on select designs
- Drip-proof and totally enclosed constructions
- Many shaft lengths and diameters available with combination key/flat
- VFD suitable products in three phase platforms



## DC MOTORS



- 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



## AC & DC GEARMOTORS



- AC: 115/230V single phase & 230/460V three phase designs
- DC: 90V, 180V and low voltage designs
- Right-angle and parallel shaft designs
- Most common full load torque and RPM designs
- AC and DC washdown designs
- Bison®\*, Bodine®\* and Dayton®\* Direct Interchanges



\*Bison is believed to be the trademark or trade name of Gear and Engineering Corporation and is not owned or controlled by Regal Beloit Corporation.

\*Bodine is believed to be the trademark or trade name of Bodine Electric Company and is not owned or controlled by Regal Beloit Corporation.

\*Dayton is believed to be the trademark or trade name of Dayton Electric Manufacturing Company and is not owned or controlled by Regal Beloit Corporation.

\*NEMA Premium is believed to be the trademark of National Electrical Manufacturers Association and is not owned or controlled by Regal Beloit Corporation.



# THE RIGHT MOTOR. THE OPTIMAL FIT. THE

MORE CHOICES FROM THREE LEADING BRANDS.

## BRAKE MOTORS



marathon<sup>®</sup>  
Motors

- 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<sup>®</sup> and stainless motors
- High cycle brake motors
- IEC brakemotors
- Brake kits and coupler brakes available



## IEC - METRIC MOTORS



marathon<sup>®</sup>  
Motors

- 63–250 IEC frame
- 0.18kW (1/4 HP)–75kW (100HP)
- 208–230/460 and 575 volt three 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 brakemotor designs available



## DEFINITE PURPOSE MOTORS



marathon<sup>®</sup>  
Motors



- 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
- Pressure Washer: 1/3 - 5HP
- Elevator duty: 15–100 HP
- Automotive duty: 3/4–100 HP
- Bearing Current Protected (BCP) : 10–250HP



# PERFECT SOLUTION.

## INVERTER & VECTOR DUTY MOTORS

- 1/8 -350HP
- microMAX™ is a direct replacement for PMDC motors & delivers up to 1000:1 constant torque
- MAX Plus provides 1000:1 constant torque, integrated HS20, 1024 ppr encoder
- Black MAX® provides 1000:1 constant torque, maximum performance & cost-effective construction
- Blue MAX® 2000 provides 2000:1 constant torque and cast iron construction
- MAX GUARD® insulation system exceeds NEMA®\* MG 1-31 requirements & eliminates cable length restrictions

**marathon®**  
Motors



## PERMANENT MAGNET MOTORS

- Available up to 1/2 -50HP (37kW)
- NEMA and IEC Frames available
- Superior energy efficiency levels - up to IE5
- Speed and voltage can be optimized for application
- Power density and potential reduction in frame size
- Synchronous motor operation - better speed and torque
- Lower motor operating temperature
- Maximum flexibility and easy drive selection
- Severe duty available

**marathon®**  
Motors



## AC AND DC CONTROLS

**LEESON®**

### AC CONTROLS

- IP20, IP21, IP31, and IP65 enclosures
- 1/4-150 HP
- 115 volt, single phase input-3 HP, (three Phase output)
- 230, 460 & 575 volt ratings
- Standard V/Hz, vector duty, and PMAC designs available

### 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



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## SEVERE DUTY MOTORS



marathon<sup>®</sup>  
Motors

- Severe Duty: 1–600 HP
  - IEEE-841 Duty: 1-350HP
  - Crusher/Quarry Duty: 50–250 HP
  - 143T-5011LS Frame
  - Premium efficient XRI<sup>®</sup> design
  - 100% cast iron construction
  - Internal and external epoxy coatings
  - Brass drain and breather
  - MAX GUARD<sup>®</sup> insulation system surpasses NEMA<sup>®</sup>\* MG1, Part 31
  - CSA Certified for Division 2 hazardous locations
- IEEE-841 meets IP56 & features special foot flatness, Inpro-Seal<sup>®</sup> bearing isolators and five year warranty
  - IEEE45 USCG Marine Duty models available



## EXPLOSION PROOF MOTORS



marathon<sup>®</sup>  
Motors

- Single phase 1/3–2 HP, 56 frame
- Three phase 1/3–350 HP, 56-449T frame
- 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
- Automatic overload protection or thermostat protected
- UL listed for use with inverters
- Severe duty features
- Available in standard & NEMA Premium<sup>®</sup>\* efficiency



## PUMP MOTORS



marathon<sup>®</sup>  
Motors

- Single phase and three phase designs available
- 1/4 - 50HP
- Drip-proof, totally enclosed enclosures
- Standard and NEMA Premium efficiency designs available
- JM/JP close coupled pump motors, vertical and horizontal mounts available
- Vertical solid shaft P-Base motors
- Fire pump: 3-450HP  
-UL listed & inverter rated
- Carbonator pump, SAE pump motors, jet pump designs and more offered





# PERFECT SOLUTION.

## SPECIAL VOLTAGE MOTORS



marathon<sup>®</sup>  
Motors

- 200/400 Volt : 1–40 HP
- 575 Volt: 1/2–300 HP
- 50 HZ Motors:
  - › Single Phase, 1/3–5 HP
  - › Three Phase, 1/4–5 HP



## LARGE AC LOW & MEDIUM VOLTAGE MOTORS

marathon<sup>®</sup>  
Motors

### NEMA<sup>®</sup> FRAME

- Open drip-proof, totally enclosed fan cooled, and weather protected, type II enclosures
- 500 -1750 HP
- 60 or 50HZ
- 2300/4000, 2300/4000-4160, 3300 voltage designs
- Standard features include: Conduit box, end turn, corrosion protection, and anti-friction bearings

### IEC FRAME

- Open drip-proof, totally enclosed fan cooled, Totally enclosed air-to-air, and weather protected, type II enclosures
- 2,500 - 10,000 HP
- 60 or 50HZ
- 2300 thru 13.2kV voltage designs
- Standard features include: Conduit box, end turn, corrosion protection, and anti-friction bearings



## CUSTOM MOTORS & MODIFICATIONS

- Whether you need a modified stock motor or a custom motor built to specifications we can help. What you see here is only a sampling of our capabilities
- Custom designs could include: special shafts, special torques, custom paint color, unique plugs or cords, to custom windings to name a few
- We accommodate small lots and offer short cycle times

CHANGING FROM  
BALL TO ROLLER  
BEARINGS



ADDING SHAFT  
GROUNDING RINGS



RE-NAMEPLATING



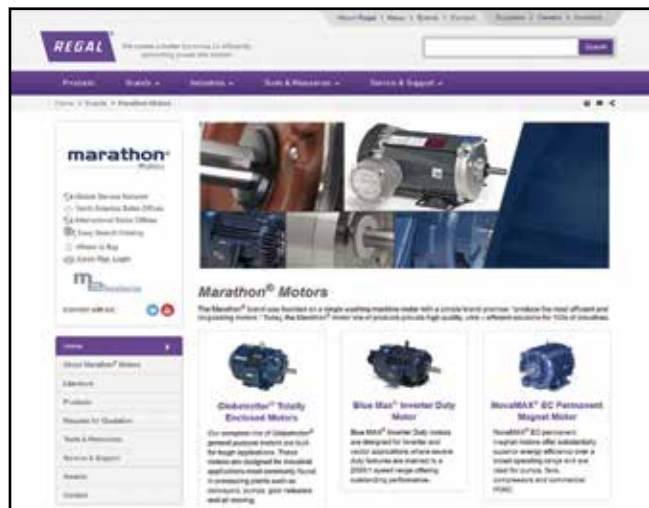
ADDING  
A C-FACE



ADDING  
AN ENCODER

# HAVE YOU TOURED THE REGAL WEBSITE?

REGALBELOIT.COM



## FEATURES:

- In depth information about Regal® brands and products
- Competitive cross-reference tool
- Robust product information details
- Rotating 360° views of products
- View products based on solution and application within a specific industry
- Access to dimensional drawings, CAD files, connection diagrams and more



## MANY SEARCH OPTIONS:

Search for products by part number, by product family, by industry, by application, by brand, by solution, by cross reference, by configurator, with engineering tools and more. It is a 360° model designed to guide you to the right item.

## INFORMATIONAL TOOL:

The website is packed with information, data, industry facts and statistics.



# LOCATED TO SERVE YOU!

DISTRICT SALES OFFICES AND WAREHOUSES CAN PROVIDE COMPLETE INFORMATION, INCLUDING PRICE AND AVAILABILITY ON BOTH STANDARD STOCK AND SPECIAL MOTORS.

**1.**  
**WASHINGTON - SEATTLE**  
(262) 377-8810

**2.**  
**CALIFORNIA - LOS ANGELES**  
(323) 278-7979

**CALIFORNIA - SAN FRANCISCO**  
(925) 371-8125

**3.**  
**CALIFORNIA - PALM DESERT**  
(760) 324-1555

**4.**  
**COLORADO - DENVER**  
**UTAH - SALT LAKE CITY**

**TEXAS - DALLAS**  
(972) 242-3300

**5.**  
**KANSAS - KANSAS CITY**  
(913) 599-6985

**6.**  
**OKLAHOMA - OK CITY**  
(405) 447-8113

**7.**  
**IOWA - DES MOINES**  
**MINNESOTA - MINNEAPOLIS**  
(952) 935-8273

**8.**  
**WISCONSIN - MILWAUKEE**  
(414) 475-9222

**9.**  
**ILLINOIS - CHICAGO**  
(630) 458-9511

**10.**  
**MISSOURI - ST. LOUIS**  
(636) 928-9555

**11.**  
**MICHIGAN - GRAND RAPIDS**  
(616) 249-8430

**12.**  
**INDIANA - INDIANAPOLIS**

**OHIO - CLEVELAND**  
(440) 951-5703

**OHIO - CINCINNATI**  
(513) 755-1000

**13.**  
**GEORGIA - ATLANTA**  
(770) 933-0453

**14.**  
**FLORIDA - TAMPA**  
(813) 663-9111

**15.**  
**NORTH CAROLINA - CHARLOTTE**  
(704) 847-9131

**16.**  
**PENNSYLVANIA - JIM THORPE**  
(570) 325-3684

**PENNSYLVANIA - ALLENTOWN**

**17.**  
**MASSACHUSETTS - BOSTON**  
(888) 479-7875

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**APPLICATION CONSIDERATIONS**

The proper selection and application of 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/or its affiliates ("Regal") 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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