

CRANE & HOIST

**INVERTER
DUTY
MOTORS**



MAGNETEK
MATERIAL HANDLING

ELECTROMOTIVE SYSTEMS

INVERTER DUTY MOTORS

CRANE & HOIST INVERTER DUTY MOTORS

Magnetek combines its application experience with Marathon Electric to offer a line of superior performing, yet economical, inverter duty motors, designed to meet the demands of crane and hoist applications.

Blue Max® and Black Max® Motors are manufactured with premium construction in mind.

Inverter Duty Motors, combined with our precision motor controls, allow you to maximize the performance of your overhead material handling system!



Our economical Black Max Motors are designed to meet the needs of more common crane applications through 50 HP.



Blue Max Motors are ideal when the application requires more precise motion control and up to 400 HP.

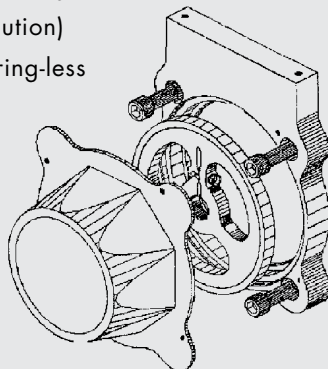


We even offer a high horsepower version of the Blue Max Motor, providing up to 1000 HP.

ENCODERS

Encoders are available as optional equipment, featuring:

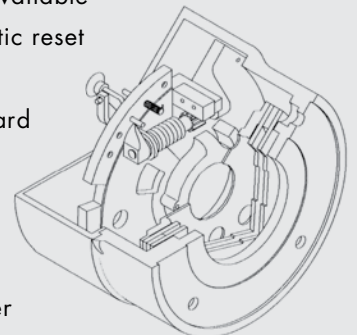
- Rugged zero speed, magneto-resistive sensing technology
- Operation range -40 to +80 degrees C
- 1024 PPR (pulses per revolution)
- Modular, non-contact, bearing-less design optimized for AC vector motor applications
- Unaffected by oil, grease, salt water, dust, or other common contaminants



BRAKES

Optional brakes furnished with Magnetek motors are manufactured by Stearns. They feature:

- Unitized construction for easy friction disc replacement
- Standard enclosure is drip-proof. Optional dust-tight and waterproof enclosures available
- Manual release with automatic reset
- Simple two wire connection
- Class B coil insulation standard with Class H insulation available for use in higher ambient temperatures
- 230/460 volt, single phase, 60Hz coils are standard. 95VDC coils with economizer circuit are optional

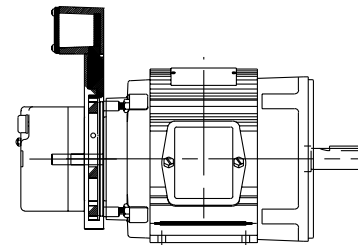
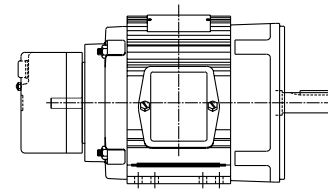
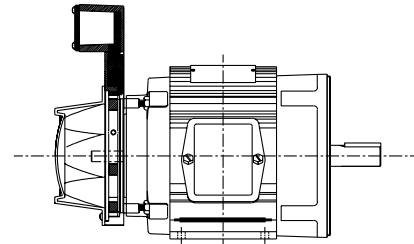


BLACK MAX[®] MOTORS

Black Max[®] motors meet the needs of more common crane applications. The modular design consists of a foot mounted NEMA motor, and a "C" face. This design feature shortens delivery time and can be furnished with a variety of options, including encoders and brakes. Capable of a 1000:1 speed range, this motor series is a perfect companion to Magnetek's Pre-Engineered Single Motion Crane Controls.

FEATURES:

- ½ to 50 HP
- Suitable for CMAA Class A through E
 - (½ to 30 HP Cont. Duty)
 - (½ to 50 HP 60 Min. Duty)
- 1.0 Service Factor on PWM drive
- Totally Enclosed Non-Ventilated (TENV)
- NEMA Design A, optimized for operation with IGBT inverters
- Class F insulation, with a patented Max Guard[®] winding system for use with IGBT variable frequency drives
- Class F thermostats (Klixons) in all three phases
- Modular design with C-Face end bells for maximum flexibility and quick delivery
- 230/460 volt and 575 volt, 3 phase, 60 Hz
- Optional brakes and encoders
- Two-year warranty



BLACK MAX, BLUE MAX, and MAX GUARD are trademarks of Marathon Electric.

MAX GUARD[®]

The **MAX GUARD** insulation system combines corona magnet wire and a unique low stress winding configuration to deliver long, dependable motor life under the stresses of IGBT-based variable frequency drive operation. **MAX GUARD** surpasses the requirements of NEMA MG1, Part 31, and is standard on **BLUE MAX** and **BLACK MAX** motors.



SEVERE DUTY SERVICE TREATMENT

The severe duty service option is recommended for particularly dirty or caustic environments, or where the motor is subject to wash down as part of normal maintenance. Available on BLUE MAX motors, this treatment includes the following:

- All cast iron construction, including fan covers if supplied
- External and internal surfaces treated with corrosion resistant epoxy paint
- Lead separator between frame and conduit box
- Diagonally split, gasketed, 4 position, NPT threaded conduit box
- Corrosion resistant, brass, UL approved drain and breather
- Hardware is zinc electrolytic coated with zinc dichromate dip

BLUE MAX[®] MOTORS

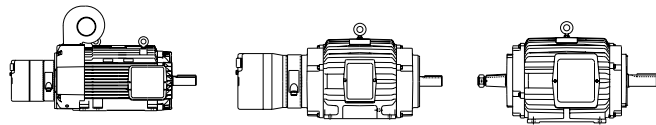


Blue Max[®] motors offer the most complete line of inverter duty motors in the industry.

This motor series, designed to Magnetek's specifications, is ideal for use in any application where precise motion control is needed. Tests have shown that these motors are capable of a 1500:1 speed range when used with our IMPULSE[®]•VG+ Series 4 Flux Vector motor control.

FEATURES:

- 1 to 400 HP
- Suitable for CMAA Class A through F
- 1.0 Service Factor on PWM drives
- Available:
 - Totally Enclosed Non-Ventilated (TENV) 60 Min. duty
 - Totally Enclosed Blower Cooled (TEBC) continuous duty
 - Totally Enclosed Non-Ventilated (TENV) continuous duty
- NEMA design A, optimized for operation with IGBT inverters
- Class F insulation (449T Frame Class H) with patented Max Guard[®] winding system for use with IGBT variable frequency drives
- Class F thermostats (Klixons) in all three phases
- Cast iron frame and brackets for strength and corrosion resistance
- 230/460 volt and 575 volt, 3 phase, 60 Hz (143T to 286T frame)
- 460 and 575 volt, 3 phase, 60 Hz (324T to 449T frame)
- Available options include encoders, NEMA C Face mounting, Class H insulation, space heaters, explosion proof, severe duty treatment, doubleshaft/tapershaft, brakes, and inpro seals
- Two-year warranty



BLUE MAX[®] HIGH HORSEPOWER MOTORS

For applications requiring a higher horsepower motor, Magnetek offers Blue Max motors in a 5000 series frame, capable of up to 1000 HP. This motor is suitable for CMAA Class A through F applications and has a service factor of 1.0 on PWM drives. Like our lower HP version, the Blue Max High Horsepower Motor is capable of a 1500:1 speed range, when used with our IMPULSE[®]•VG+ Series 4 Flux Vector motor control. When precision motion control and higher horsepower are required, Blue Max High Horsepower motors provide the solution.



FEATURES:

- Up to 1000 HP
- 5000 series frame
- Suitable for CMAA Class A through F
- 1.0 Service Factor on PWM drives
- Available:
 - Totally Enclosed Non-Ventilated (TENV) 60 Min. duty
 - Totally Enclosed Blower Cooled (TEBC) continuous duty
 - Totally Enclosed Non-Ventilated (TENV) continuous duty
- NEMA design A, optimized for operation with IGBT inverters
- Standard Class H insulation with patented Max Guard[®] winding system for use with IGBT variable frequency drives
- Class F thermostats (Klixons) in all three phases
- Cast iron frame and brackets for strength and corrosion resistance
- 380, 460, 575 and 690 volt, 3 phase, 60 Hz
- Available options include encoders, space heaters, explosionproof, severe duty treatment, doubleshaft/tapershaft, brakes, and inpro seals
- Two-year warranty



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ELECTROMOTIVE SYSTEMS

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