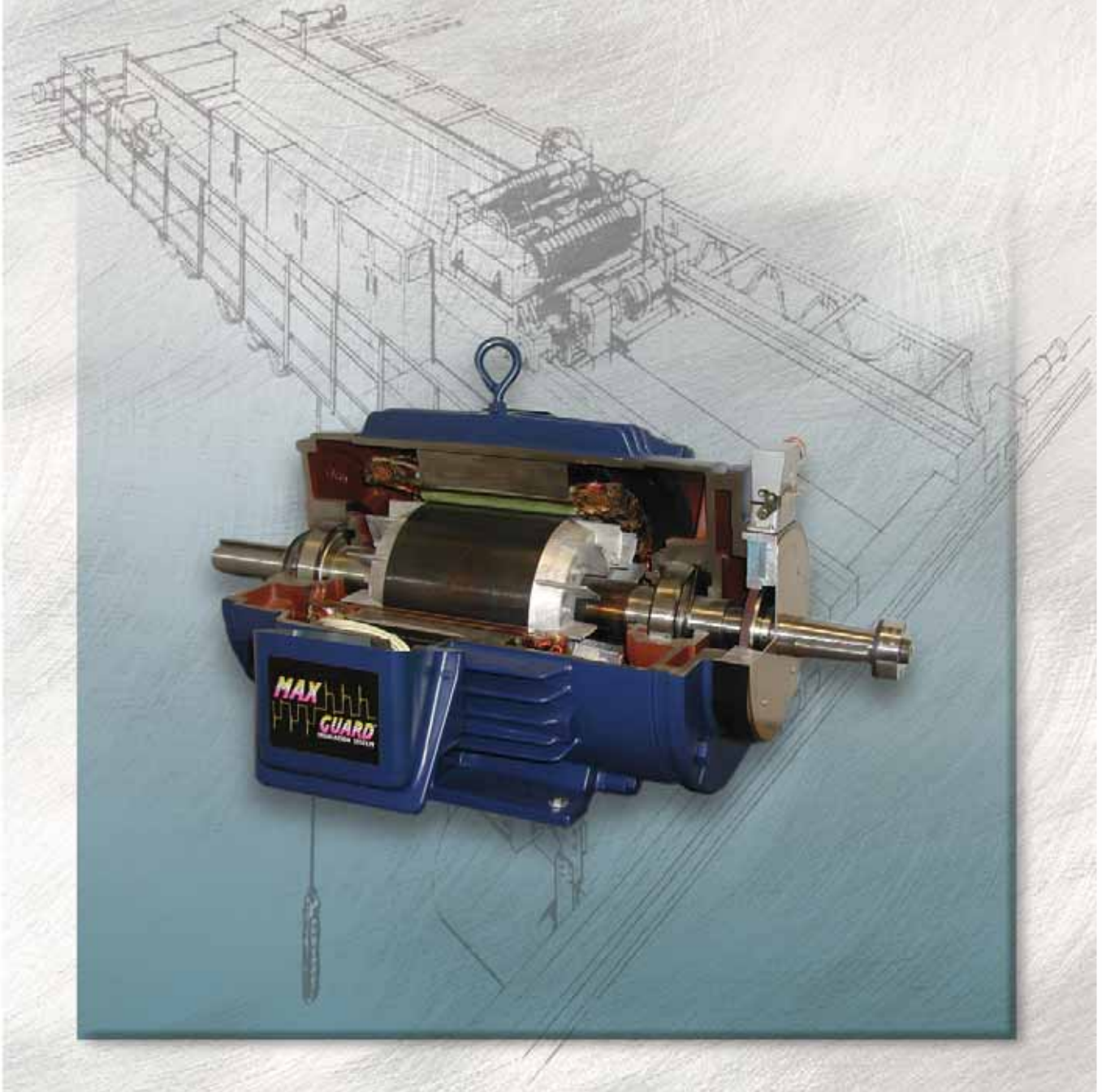


Electromotive Systems

Crane and Hoist Inverter Duty Motors



MAGNETEK  **UNCOMMON POWER**

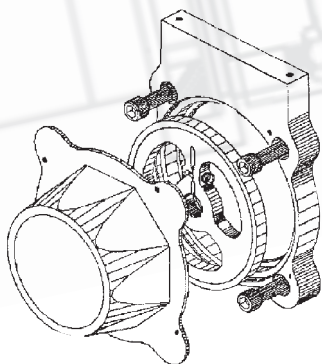
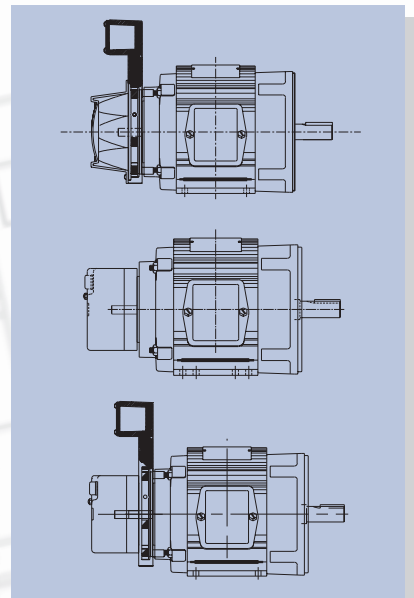
BLACK MAX[®] motors

Electromotive Systems Black Max[®] motor meets 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 Electromotive Systems Pre-Engineered Single Motion Crane Controls.



Features

- 1/2 to 50 Horsepower.
- Suitable for CMAA Class A through E.
 - ✓ (1/2 to 30 HP Cont. Duty)
 - ✓ (1/2 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.



Encoders

Electromotive Systems motors utilize encoders as optional equipment.

They feature:

- 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.

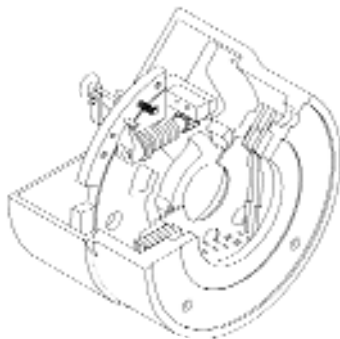
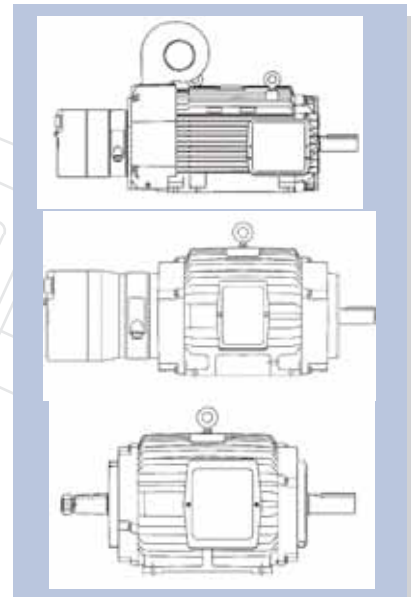
BLUE MAX[®] motors

Electromotive Systems 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 1000:1 speed range when used with our IMPULSE[®]•VG+ Series 3 Flux Vector motor control.



Features

- 1 to 400 Horsepower.
- 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, inpro seals.
- Two year warranty.



Brakes

Optional brakes furnished with Electromotive Systems motors are manufactured by Sterns. 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.

BLUE MAX[®]

high horsepower motors

For applications requiring a higher horsepower motor, Electromotive Systems offers Blue Max motors in a 5000 series frame, capable of up to 1000 horsepower. 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 1000:1 speed range, when used with our IMPULSE[®]•VG+ Series 3 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 Horsepower.
- 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, explosion proof, severe duty treatment, doubleshaft/tapershaft, brakes, inpro seals.
- Two year warranty.

MAX GUARD[®] INSULATION SYSTEM

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.

ELECTROMOTIVE SYSTEMS

crane & hoist inverter duty motors

Magnetek's Electromotive Systems division, combining its application experience with that of Marathon Electric, offers a line of superior performing, yet economical, inverter duty motors, designed to meet the demands of crane and hoist applications.

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



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.

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

Providing the Industry Expertise, Products and Services to Enhance the Success of our Customers.

Magnetek's Material Handling Group

ELECTROMOTIVE SYSTEMS, TELEMOTIVE INDUSTRIAL CONTROLS, MONDEL ENGINEERING

Dedicated to providing the industry expertise, products and services to enhance the success of our customers.

Headquartered in Menomonee Falls, Wisconsin with manufacturing facilities in both Wisconsin and Ontario, Canada, Magnetek's Material Handling Group offers the following products and services.

Engineered Systems & Solutions

Project Evaluation
Application Solutions
Engineering Design
PLC/PC Program
Development
System Manufacturing
Project Management
Installation Assistance
Field Startup and Test
Customer Training
Maintenance Support

IMPULSE® AC Adjustable Frequency Drives

230, 460, and 575 Volt Power Platforms
.25– 1,500 Hp
Exclusive Application Software
Specific Crane & Hoist Software

OmniPulse™ DSD Digital Drives

AC in/DC out
15-800 Hp

MAC™•2000 Motor Acceleration Control

Single & 2 Speed—up to 15.2 Amps
Contactor Panels

Variable Speed Motor Control Panels

Standard Pre-Engineered Systems
Custom Engineered Systems

Motors & Accessories

Standard Inverter Duty AC Induction Motors
Flux Vector Designed Motors

Power Delivery Systems

ELECTROBAR® — 90, 110, 250, 350 Amps
ELECTROBAR® FS — 90, 125, 250, 400 Amps
ELECTROBAR ELITE® — 60, 100, 130, 200 Amps
ELECTROBAR® HX — 400, 700, 1000, 1500 Amps
FABA® Conductor Bar Systems — 100 Amps

ELECTROMOTIVE™ Festooning Systems

Standard Duty
Heavy Duty
Mill Duty

SBP® & SBP2® Pendant Push Button Stations

Standard 2 thru 12 Button Stations
Custom Configured Stations

Radio Remote Control Systems

Pre Engineered Radio Control Systems

telePilot™
telePendant™
10K Series
SCS®—Stepless Control System

Engineered Radio Control Systems

18K Series
Exclusive Application Software
Specific Crane & Hoist Software
Locomotive Control Systems
Data Communication

Collision Avoidance Systems

Laser Guard®
Reflex®

Brakes

200S Industrial Shoe Brakes

4"–19" Diameter
6–2,650 Lb. Ft. Torque
AC, DC, Hydraulic Actuators
AC Explosion-proof Actuators

AISE-NEMA 300M Mill Duty Shoe Brakes

5"–30" Diameter
10–11,000 Lb. Ft. Torque
AC, DC, Hydraulic Actuators
AC Explosion-proof Actuators

400D Heavy Duty Disc Brakes

8"–50" Diameter
50–30,000 Lb. Ft. Torque
AC, DC, Hydraulic Actuators
AC Explosion-proof Actuators

Braketronic™ Control System

Braketronic Controller
Standard Pre-engineered Panel
Mill Duty Foot Pedal (optional)

Brake Kit

Remote Air/Hydraulic Bridge Brake
Conversion Kit



Electromotive

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