

# Crane and Hoist Inverter Duty Motors

Blue Max® / Black Max® Motors

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

## 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 Electromotive Systems' 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 2 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.

## 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 2 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.

# BLACK MAX<sup>®</sup> motors

The Electromotive Systems' Black Max<sup>®</sup> 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<sup>®</sup> 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.

## 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.

[www.magnetekmh.com](http://www.magnetekmh.com)



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