

## Eaton's New M-Max<sup>TM</sup> Machinery Drives Increase Efficiency and Reliability

August 11, 2009, PITTSBURGH: Diversified industrial manufacturer Eaton Corporation announced today the availability of the M-Max series of sensorless vector adjustable frequency drives, the first offering from the new Max series of adjustable frequency drives. With a compact design, impressive torque response, and simple handling, Eaton's new M-Max series offers customers increased system efficiency and product life. Including both single and three-phase devices, the microprocessor-based drives incorporate standard features that can be programmed to tailor the drive's performance to suit a wide variety of applications, including: conveyor belts, transport drives, packaging machines, pumps and fans.

"The M-Max series highlights Eaton's commitment to making products that increase both efficiency and reliability," says Robert Fenton, product line manager for solid-state power control components, Eaton. "Because the M-Max series produces significantly less heat than similar units, it is able to increase efficiency and the life of the product."

The M-Max product line uses a 32-bit microprocessor and insulated gate bipolar transistors (IGBTs) that provide quiet motor operation, high motor efficiency and smooth low-speed performance. The size and simplicity of the M-Max allows for easy installation.

The standard drive includes a digital display and operating and programming keys on a visually appealing keypad. The display provides drive monitoring, as well as adjustment and diagnostic information. The keys are used for digital adjustment and programming of the drive, as well as for operator control. Separate terminal blocks for control and power wiring are provided for customer connections.

When mounted on DIN rail or mounting plates, the drive can be installed side by side. With integrated electromagnetic compatibility (EMC) filters, the M-Max series meets the requirements of both commercial and industrial networks. Additionally, internal filters for compliance with categories C2 (public network) and C3 (industrial network) are provided. In accordance with International Electrotechnical Commission/European Standard (IEC/EN) 61800-3, shield connection options are also included. The ground connection of the internal filter can be interrupted to use the device in IT networks.

Eaton's M-Max drives are easy to use with a start-up wizard, condensed parameter list and a parameter upload and download tool that minimizes set up and diagnostic time. Featuring a compact design, the M-Max drives include conformal coated boards, 50°C ratings and a temperature controlled fan which makes it rugged and reliable.



Additionally, Eaton's M-Max drives feature:

- RS-485/Modbus® as standard
- Standard proportional-integral (PI) controller
- Several fieldbus options

Models rated at 480V, three-phase, 50/60 Hertz (Hz) are available in sizes ranging from 1/2 to 10 horsepower (hp). Models rated at 240V, single- or three-phase, 50/60 Hz are available in sizes ranging from 1/4 to 3 hp. Models rated at 115V, single phase, 50/60 Hz are available in the 1/4 to 1-1/2 hp size range. The M-Max also supports the connection of external 24 volt (V) control power to maintain control and communication in the case of a main power loss.

The M-Max drives are available in the enclosure class IP20 as standard, and include options for IP21 and National Electrical Manufacturers Association® (NEMA) 1. To meet global application requirements, the new M-Max series meets Conformité Européenne (CE), Underwriters Laboratories® (UL), Canadian Underwriters Laboratories (cUL), and Australia and New Zealand's C-Tick standards. In addition, M-Max drives are Restriction of Hazardous Substances (RoHS) compliant.

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Zari Talebi (414) 449-6470