

New Digital PWM Motor Controls from LCR Electronics Provide High Speed Switching and Bi-directional Operation

Norristown, Pa. May 2009 - LCR Electronics, a leading manufacturer of EMI filters, electronic products as well as high-end enclosures for military, telecom and commercial applications, now offers two new digital PWM (pulse-width modulation) motor controls. The controls - available in battery-powered and AC-line powered versions - incorporate H-bridge circuitry with high-speed switching to produce precise speed and torque control, bi-directional operation and overload protection.

The high voltage EC104 and the low voltage EC106, with control methods for either two or four quadrant operation, are adaptable to many different DC brush, shaded pole and PSC motor applications including appliances, pumps, compressors, blowers, conveyors and traction systems.

Onboard potentiometer and switch input options are provided for easy human interface. For applications requiring uni-directional DC brush motor operation, the controls can also be simplified to eliminate unneeded components and keep costs low. Other factory-installed options are parking brake, coast, open-loop (coarse control without feedback) or closed-loop ($\pm 2\%$ RPM using feedback) control and soft start to extend motor life.

Both the EC104 and EC106 boards can operate as a single-phase variable-frequency drive to adjust motor speed, making them ideal for use with AC motors with high starting loads and in-rush limitations.

The EC104 has an input of 120/240 VAC and a typical load current of 3 A that can be upgraded to 20 A. Output can be configured for 150 or 300 VDC. The EC106 has an input of 12 or 24 VDC and a 5 A maximum load current, also upgradable to 20 A. The controls, which operate at a de-rated temperature range of -20°C to 85°C (-4°F to $+185^{\circ}\text{F}$), are available with an optional conformal coating for use in humid or wet environments. The competitively-priced controls are RoHS-compliant and available in EMI-compliant versions.

Because LCR Electronics concentrates on product development and rapid prototyping, the boards, as with all motor controls from LCR, can be quickly and cost-effectively customized for specialized applications. The company's complementary EMI filters can easily be designed into a customized board early in the process, further decreasing design costs and cycle time.

Pricing starts at \$35 for the EC104 and at \$25 for the EC106 in quantities of 1,000. Delivery is four weeks ARO.

For more information, visit:

EC104 <http://www.lcr-inc.com/pdf/EC104.pdf>

EC106 <http://www.lcr-inc.com/pdf/EC106.pdf>

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ABOUT LCR ELECTRONICS:

With several distinct, yet complementary, product lines, LCR Electronics provides a well-rounded set of high-quality, cost-effective EMI filters, motor controls, electronic controls, and enclosure systems for numerous applications throughout the consumer, medical, commercial, telecommunications, military and defense industries.

Because of its focus on engineering, research and product development, LCR excels at quickly diagnosing situations and formulating specific solutions that meet industry problems from design through manufacturing. And, with its roots in design and development, LCR provides reliable custom and standard products that meet or exceed US and international industry standards. The company also offers EMC/RFI/EMI testing, consulting, value added and design application services to its customers.

LCR's engineering and manufacturing facilities, located in both Norristown, Pa. USA and Kunshan, China, enable the company to provide high-quality, low-cost components to its numerous OEM customers.