

For Immediate  
Release

## **The Next Generation in Motor Protection MotorGuard™ High Performance Output Filter for PWM Power Supplies now Available**

Milwaukee, Wisconsin, April 15, 2003

TCI is proud to announce the release of MotorGuard™ High Performance Output Filters.

Industry has greatly expanded the use of the PWM, (Pulse Width Modulated) power supplies for use in a variety of industrial and commercial applications. The ability to convert standard utility power into variable-frequency, variable-voltage electrical power has led to more flexible, efficient, and economical installations. The use of such power supplies may be limited when the load requires a more sinusoidal wave form.

In the case of adjustable frequency motor drives, the reflected wave or dv/dt phenomena can cause serious problems with the service life of the motor. Reflected wave is also a concern when applying multiple motors to a single power device. When used with a step-up transformer for medium voltage applications, the voltage distortion can cause excessive transformer heating and a reduction in capacity. In control and communication applications, the high frequency distortion, EMI/RFI, can cause a variety of problems with interference and radiated noise. The non-fundamental voltage distortion is also a known problem with shaft bearing currents in rotating machines.

The MotorGuard High Performance Output Filter is designed to be installed at the output terminals of PWM devices. The KMG filter converts the PWM square wave shape into a near sinusoidal wave form, removing the high frequency voltage distortion. The filter allows the output of a PWM power supply to attain near utility-grade power, typically five to seven percent voltage distortion, removing or greatly reducing common problems found in PWM applications.

The MotorGuard filter is available in 480 and 600 volt versions for applications ranging from 5 to 600 horsepower. It is UL and cUL Listed to UL 508A and is currently available in NEMA 1 and open panel designs. The KMG is an L-C-R, low pass filter, combining inductance, capacitance, and resistance to remove high frequency voltage distortion. Intended to be located within 10 (wire) feet of the output terminals of the PWM power supply, the KMG filter is easy to install and maintain. A comprehensive Installation, Operation and Maintenance Manual is available for complete installation details.

For more information on the KMG filters, including pricing, installation instructions, and selection charts, please feel free to visit our website at [www.transcoil.com](http://www.transcoil.com) or contact us at (800) TCI-8282.

*TCI's mission is to be the leading provider, as defined by their customers, of products and support that increase the value and improve the overall system performance of power inverters.*



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