



P R E S S R E L E A S E

NOVEMBER 2005

FOR IMMEDIATE RELEASE

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YASKAWA OFFERS FREE HARMONIC ESTIMATING SOFTWARE TOOL FOR E7 DRIVES

NEW BERLIN, WIS – Yaskawa Electric America, Inc. announces the release of its new E7 Harmonic Estimating Tool (E7/HET) software. Available at no cost as a downloadable file from the company's web site, the new software enables users to estimate and calculate the voltage and current harmonic distortion produced by Yaskawa's E7 Variable Frequency Drives on almost any electrical system at the point of common coupling and/or at the drive input terminals.

According to the company, Variable Frequency Drives (VFDs) such as the Yaskawa E7, which are increasingly used in HVAC systems and numerous industrial applications to control the speed and torque of electric motors, place a non-linear load on an electrical system that can result in power quality problems. Non-linear loads are loads in which the current waveform does not have a linear relationship with the voltage waveform. Non-linear loads generate voltage and current harmonics, which can have adverse effects on equipment used to deliver electrical energy, such as power system transformers, feeders, circuit breakers, etc. This equipment is subject to higher heating losses due to harmonic currents consumed by non-linear loads. Harmonics can also have a detrimental effect on emergency or standby power generators, telephones and other sensitive electrical equipment.

Yaskawa's E7 Harmonic Estimating Tool can provide a fast and easy diagnosis of the electrical system. A user simply enters in the source transformer data, the linear load and the drive

information. The software also provides recommended solutions for mitigating harmonics within a system, which can then be evaluated using the software itself. Compare results of 6-pulse drives (the base E7 model) with added 3% or 5% impedance (bus chokes or AC line reactors), 12-pulse front ends, or even an 18-pulse drive.

“Power quality, especially in hospitals and airports, is becoming a much more important issue,” stated Joe Twohill, Yaskawa’s Business Manager for Building Automation.

“Commercial and industrial engineers are more concerned about meeting the IEEE 519-1992 standards which have established acceptable levels of voltage and current harmonics. At Yaskawa, we do whatever we can to help our customers meet the standards and achieve the most efficient, cleanest running systems possible. The new Harmonic Estimating software should make that easier for E7 customers.”

The E7 Harmonic Estimating Tool software works with any PC (Pentium or faster) running Microsoft® Windows® 98SE, ME, NT4 (SP6), 2000 or XP. The system should have 512MB of RAM, a VGA monitor with a minimum resolution of 800x600 (256 colors), and 15MB of available hard disk space.

The free software can be obtained by visiting www.yaskawa.com/harmonics. A 20-page white paper, entitled *Passive Techniques for Reducing Input Current Harmonics*, is also available at the same URL. The white paper discusses the cause of harmonics, the methods for calculation, and the pros and cons of the several common solutions to help engineers choose the best solution.

Yaskawa Electric is the world’s largest producer of AC drives. The drives business of Yaskawa Electric America, Inc. operates from facilities in New Berlin, Wisconsin; Waukegan and Buffalo Grove, Illinois; Los Angeles, California, and offices throughout the Americas. For further information, visit the Yaskawa web site at www.yaskawa.com, or contact the company at 16555 West Ryerson Road, New Berlin, WI 53151. Phone: (800) YASKAWA. Fax: (847) 887-7310.

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