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Yokogawa Meters & Instruments Releases WT3000E Precision Power Analyzer

Yokogawa Meters & Instruments announces its latest Precision Power Analyzer, the Model WT3000E, offering the world's highest power measurement accuracy of 0.01% of reading + 0.03% of range. This new addition to Yokogawa's highly recognized digital power analyzer product line offers innovative measurement functions which benefit the engineer with electrical power measurements. It is the ideal measurement solution for testing Product Efficiency, and the design of Inverters, Motor Drives, Lighting Systems, Uninterruptible Power Supplies, Transformer Testing, Aircraft Power Systems, and other power conversion devices.

The WT3000E Precision Power Analyzer is the enhanced model of the existing WT3000. Its power measurement accuracy has been improved and is now considered as the top level in the world. Power electronics technology is being challenged for better energy conservation and improvement in the level of product efficiency. In order to evaluate the energy loss of the latest product designs more precisely, higher accuracy is required for the power measurement instruments. With its cutting-edge performance, the WT3000E satisfies such market needs.

The WT3000E offers two types of Input Elements. The Low Current element provides selectable input ranges of 5, 10, 20, 50, 100, 200 and 500 mA and 1 and 2 Amps. The High Current element provides selectable ranges of 0.5, 1, 2, 5, 10, 20 and 30 Amps. Both offer eight selectable voltage ranges from 15 to 1000 Volts. From one to four input elements can be installed with any combination of Low and High current versions. Measurements of Crest Factors of up to 300 are possible. This is very important in dealing with power electronic circuits. The measurement frequency range is from DC and 0.1Hz to 1MHz.

Many of today's power conversion circuits use energy saving switching techniques. These can cause highly distorted voltage or current waveforms with high harmonic content. To measure these waveforms accurately, the WT3000E uses high resolution sixteen bit Analog to Digital converters. This will benefit the design and test engineer in product performance evaluation and for power quality conformance testing. The Normal power parameters and Harmonic data are measured simultaneously providing

for faster and more accurate power analysis.

Two new measurement functions are provided as standard with the WT3000E. The Delta Calculation function allows users to calculate the individual phase voltages, Line-to-Neutral, from the Line-to-Line voltages measured in a three-phase three-wire system. This function can be very beneficial to the engineer in applications such as motor testing and others where there are no neutral lines. The Cycle by Cycle measurement function enables users to list the measurement parameters of Voltage, Current and Active Power for each cycle in a time series. This is a unique method to capture the fluctuating transient power with high precision.

For Electric Motor testing applications, the WT3000E offers a unique and powerful Motor Evaluation function. In one unit, you can measure all the electrical power parameters along with Rotation Speed, Torque, Mechanical Power, Synchronous Speed, Slip, Motor Efficiency and Total System Efficiency.

For IEC Standards Compliance testing, the WT3000E provides Harmonic measurement in accordance with the latest IEC61000-3-2 and IEC61000-4-7 standards. Voltage Fluctuation and Flicker Measurements can be made in accordance with the latest IEC61000-3-3 and IEC61000-4-15 standards. The Yokogawa Harmonic and Flicker software, 761922, used with the WT3000E provides a complete compliance measurement test system per the IEC standards.

With its large high resolution 8.4 inch TFT LCD display, it is simple to set up and display up to nine different pages of measurement items in formats such as Numeric, Waveforms, Harmonic spectrum Bar Graphs and Trends. In addition a Vector display is available for Voltage and Current phase Analysis.

All the latest communication interface ports such as Ethernet, USB and GPIB, as well as RS232 are available in the WT3000E. Plus, support for USB removable storage media is also available.

For further information about the WT3000E, please visit

 $\underline{\text{http://tmi.yokogawa.com/products/digital-power-analyzers/digital-power-analyzers/precision-power-analyzer-wt3000e/}$

About Yokogawa

Yokogawa's global network of 88 companies spans 56 countries. Founded in 1915, the US\$3.5 billion company engages in cutting-edge research and innovation. Yokogawa is active in the industrial automation and control (IA), test and measurement, and aviation and other businesses segments. The IA segment plays a vital role in a wide range of industries including oil, chemicals, natural gas, power, iron and steel, pulp and paper, pharmaceuticals, and food. For more information about Yokogawa, please visit www.yokogawa.com.