

## California Instruments MX Compliance Test Systems

30–90 kVA

### Harmonics and Flicker testing of high power AC products

150–300 V

#### Introduction

The MX45/30-CTS Series is a complete, turn-key compliance test system for EN IEC 61000-3-12 (Harmonics), EN IEC 61000-3-11 (Flicker) and various EN IEC 1000-4 AC immunity tests. Consisting of an AC power source, a power analyzer & conditioning system (PACS-3-75) and a PC based data acquisition system, the MX45/30-CTS provides a complete turn-key solution for IEC testing. The Windows™ based MXCTS software performs all required IEC tests and generates detailed test reports. Comprehensive data files are stored on disk to allow post test analysis.

The MXCTS system implements various IEC standards including the new Amendment 14 and provides a software only upgrade path for future standard changes.

Three phase loads are connected using rear terminal blocks.

#### Covered EN61000 Standards

The following tests can be performed using an MX45/30 based CTS system:

EN 61000-3-12	Harmonics
EN 61000-3-11	Flicker CTSH
EN 61000-3-2	Harmonics (option)
EN 61000-3-3	Flicker (option)
EN 61000-4-11	Pre-Compliant
EN 61000-4-13	Harmonics and Inter-harmonics (requires option -413)
EN 6100-4-17	DC Ripple
EN 61000-4-14	Voltage Fluctuations
EN 61000-4-28	Frequency Variations
EN 61000-4-29	DC Dips and Interruptions (Pre-compliance)
EN 61000-3-12	Harmonics

Full compliance testing for current harmonics emissions products is supported. Support for the 2001 version (Amendment 14) of the Harmonics



standard is built-in for full compliance with both harmonics standards.

#### EN 61000-3-11 Flicker

Flicker PST & PLT results are displayed in real-time during the entire test. No need to wait until the entire test is completed to know if the EUT passed or failed. A Ztest reference impedance (OMNI-3-75) is provided for IEC 61000-3-11 flicker testing (-CTSH) and a Zref (OMNI-3-37MX) for IEC 61000-3-3 flicker testing (-CTSL).

#### Configurations

The MX45/30-CTS system is available with flicker reference impedance for either IEC61000-3-11 (-CTSH) or IEC 61000-3-3 (-CTSL). A system with both impedances and both high and low power software is available as well (-CTS HL). It is strongly recommended that California Instruments supply the required PC with the test system due to A/D card compatibility. (Option CIC-PC)

#### CENELEC - Amendment 14

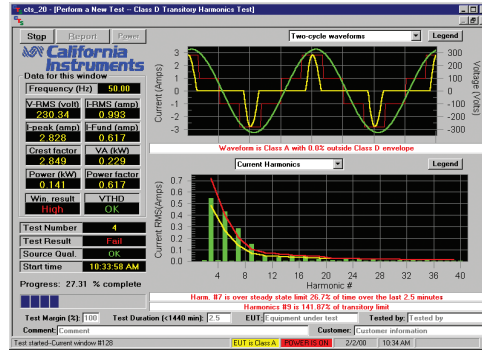
The MX45-CTS, with its flexible architecture, allows the user to select measurements to be made per the recently harmonized amendment, or older standards.

0–62.5 A/Phase

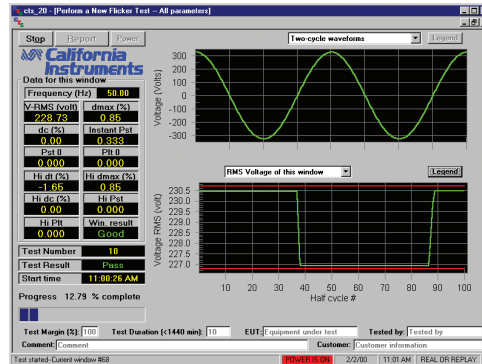
**AMETEK**  
**Programmable Power**  
 9250 Brown Deer Road  
 San Diego, CA 92121-2267  
 USA

# MX Compliance Test Systems

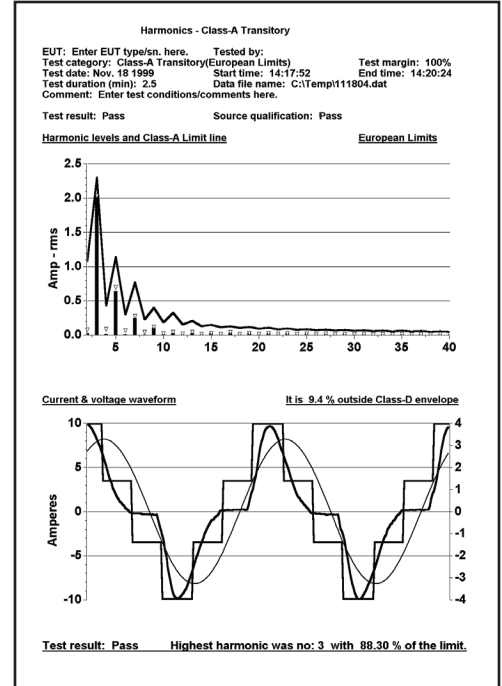
MX45-CTS Series Model Numbers			
Model	Description	Flicker Impedance	Software
MX45-CTSH	IEC 61000-3-11/12 harmonics and flicker test system	OMNI-3-75	CTSMXH
MX45-CTSL	IEC 61000-3-2/3 harmonics and flicker test system	OMNI-3-37MX	CTSMXL
MX45-CTSHL	Combination harmonics and flicker test system	OMNI-3-37MX OMNI-3-75	CTSMXL CTSMXH



Current Harmonics test display



Real-time Flicker test display



Detailed Test Reports and Data