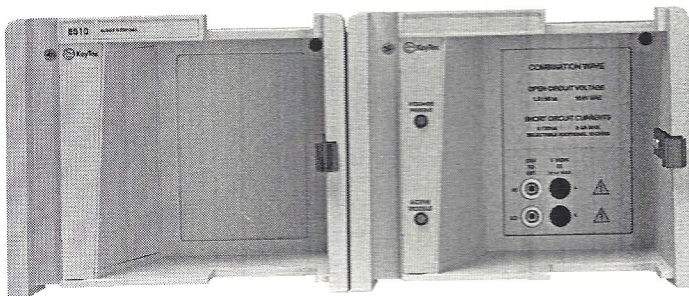


ECAT[®]

Model E510A

Surge Simulator for Extended Range Combination Waves



A plug-in module for ECAT systems to produce the combination wave specified by ANSI/IEEE C62.41 Cat. B and IEC 1000-4-5 to 10kV and 5kA.

FEATURES

- **Open-Circuit Voltage:** 1.2/50 μ s to 10kV peak
- **Short-Circuit Current:** 8/20 μ s to 5kA peak
- **Includes programmable output impedance** as required by IEC 1000-4-5, 2 ohms for ANSI and IEC normal mode; 12 ohms for IEC common mode.
- **All test parameters under software control** via KeyTek SurgeWare[™].
- **Ability to add a complete range of modules:**
 - Surge and EFT simulator modules for all major national and international standards.
 - AC mains coupler/decouplers for single or three-phase lines, to 600V rms, and 100A continuous AC line current.
 - I/O line coupler/decouplers for all types of lines, including telecom and RS-232.

SYSTEM BENEFITS

- **The ECAT is configurable as a compact, standalone system** with one test capability or as an integrated, multiple capability tester.
- **Unparalleled safety features** for high voltage testing, including a complete interlock system that not only disables simulator operation if activated, but completely removes AC mains power from the EUT, when using any KeyTek AC mains coupler/decoupler.
- **Automatic report generation** using KeyTek's exclusive Windows[®]-based software.
- **Modular system construction** provides the ability to upgrade test capabilities as requirements change or evolve.
- **Single port testing for Surge, EFT and PQF[™] mains coupled disturbances** allows changing test modes without switching off power to the EUT. This avoids lost time due to re-initializing the EUT between tests.

Model E510A

SPECIFICATIONS AND TOLERANCES

ELECTRICAL

Open-Circuit Voltage:	1.2/50 μ s, 0-10.1kV \pm 10% in 1 volt steps (same as 1/50 waveform defined in IEC 469-1)
Short-Circuit Current:	8/20 μ s, 0-5.05kA with 2 ohm effective source impedance, \pm 10% (same as 6.4/16 μ s waveform defined in IEC 469-1) With the additional 10 ohm resistor, the peak short-circuit current = open-circuit voltage \div 12, \pm 10%. (The short-circuit current waveform is modified by the additional resistance.)
Front Time Tolerance:	\pm 30% for voltage \pm 20% for current
Duration Tolerance:	\pm 20% voltage and current
Surge Repetition Rate:	1 shot/18 seconds
Line Sync Accuracy:	\pm 15° with optional coupler/decoupler
Compatible Powerline Coupler/Decouplers:	E455x-kV, E4555, E4556

PHYSICAL

Height:	21cm (8 $\frac{1}{4}$ ")
Width:	42cm (16 $\frac{1}{2}$ ")
Depth:	52cm (20 $\frac{3}{8}$ ")
Weight:	121kg (55 lbs.)

MINIMUM SYSTEM REQUIREMENTS

E100 series control center

AVAILABLE OPTIONS

- E510A-VI:** Provides monitoring of the peak surge voltages and currents at the output of the E510A module. All measurements are logged by software for diagnostic evaluation or Go/No-Go testing.
Note: If an ECAT coupler/decoupler is included, waveform monitoring is available at the output of the coupler/decoupler without the addition of Option E510A-VI.
- E510A-S:** Adds an oscilloscope trigger for any Surge Network.

For additional ECAT® product literature call, email or fax the KeyTek sales department.

ECAT: AN EXTRAORDINARY CONCEPT IN EMC TESTING FOR VULNERABILITY TO SURGE, EFT AND POWER QUALITY.

ECAT is a totally integrated and modularized system which offers unprecedented testing ease, accuracy and versatility to manufacturers, test houses, and anyone who will be testing for effects of Pulsed EMI.

ECAT is designed to test products according to a broad range of international standards developed by ANSI, the IEC, CENELEC and other agencies. The European Norms, developed by CENELEC, became mandatory on January 1, 1996 for all equipment shipped into the European Union or shipped across EU borders.



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