COMBINED SURGE & EFT COUPLER/DECOUPLERS

KeyTek ECAT® Model E455x

Single and three-phase AC line coupler/decouplers for EFT and Surge waves, as specified by IEC 61000-4-4 Edition 2 and IEC 61000-4-5

ELECTRICAL

Model	Single or Three-phase	Voltage	Current** per phase
E4551A/E4551kV*	Single-phase	250V rms	15/16A***
E4552A/E4552kV*	Single-phase	277V rms	32A
E4553A/E4553kV*	Three-phase	480V rms	16A
E4554A/E4554kV*	Three-phase	480V rms	32A
E4555	Three-phase	600V rms	50A
E4556	Three-phase	600V rms	100A

* kV version is required for operation with surge modules greater than 7kV, such as the E510A. All standard coupler/decoupler options apply

** Actual current capability may be limited by the AC line connectors selected

*** Depends on connector selected. Typically 15A with U.S. NEMA connector; 16A with appropriate European style connectors

Coupling Mode Coupling mode selection is controlled manually from the control selection center, or automatically using KeyTek SurgeWare™ or BurstWare™ software. Coupling is allowed from any line to any other line or combination of lines.

Monitoring Monitoring and peak detection of surge voltage across any two manually-selected lines. Monitoring can be at the EUT or at the front panel of the coupler/decoupler.

Monitoring and peak detection of surge current in either High or Neutral, selected by the ECAT Control Center or the computer, measured without including back-filter surge current.

Minimum Requirements E100 series control center EFT or mains - coupled surge module

Options

E455x-DC AC Allows the E455x coupler/decoupler to be used with DC as well as mains. The DC current ratings for essentially resistive loads are:

	to 48V	to 110 V	to 220V
E4551A/E4551kV	15A	5A	0.8A
E4552A/E4552kV	15A	5A	0.8A
E4553A/E4553kV	20A	8A	1.2A
E4554A/E4554kV	25A	8A	1.2A
E4555	50A	50A (120V)	30A
E4556	100A	50A (120V)	30A

E455x-VI Enhanced V and I monitoring. Adds monitoring and peak detection of surge voltage and current. Upper and lower limits can be placed on surge peaks. Monitoring of 3 wires is provided in single-phase systems, 5 wires in three-phase systems. Selection of the V and I inputs is performed from the control center or can be made automatically with SurgeWare control software

E455x-HV Increases the AC mains voltage rating from 277V to 480V rms in the E4552, and from 480V to 600V rms in the E4553 and E4554. The HV option is not available in the E4551, E4555 and E4556.

Physical Physical size of module varies depending on model number

PQF™ (POWER QUALITY FAILURE) MODULES

KeyTek ECAT Models EP61 and EP62

Plug-in modules provide swells, dips and interrupts on AC power mains in compliance with, and exceeding the requirements of IEC 61000-4-11 Edition 2. Model EP61 for single-phase AC lines to 240 RMS, 16A; Model EP62 for single-phase AC lines to 240 RMS, 32A

AC INPUTS/OUTPUTS

Input Voltage for 100%	50 to 240V at 50Hz and to 277V at 60Hz
Output Voltages on the Selected Phase	0% (open or short), 40%, 50%, 70%, 80%, 90%, 100%, 110%, 120% and 150%
EP61 Output Current	16A at 250V; 20A at 125V*
EP62 Output Current	32A at 250V; 30A at 125V*

*The actual AC mains voltage and current limit is based on the mains connector selected.

Inrush Current	>250A at 120V; >500A at 220-240V
Event Duration	From 0.03 cycle (10°) to 500 minutes; maximum 12 events per cycle
Switching Times	1-5µs into a 100 ohm load
Overshoot	<5%
Undershoot	<5%

MEASUREMENTS

rms Voltage	0-300V, 0.5% of range + 1% of reading
rms Current	0-40A, 0.5% of range + 1% of reading
Peak Current	0-1000A, 1% of range + 5% of reading
Inrush Current Qualification	Internal, built-in circuit according to IEC 61000-4-11. Automatically measures peak inrush current at 90° and 270°. Peak values are reported via the control software.
Minimum System Requirements:	E100 series control center