

V-2980 Programmable, Single-Phase Isolation Unit

- Surge Voltage: Up to 6kV of isolation and attenuation from a "6kV, 100kHz" oscillatory waveform or a "6kV, 1.2 x 50μs" exponential continuous voltage wave
- Surge Current: Up to 3kA peak current isolation and attenuation for the "3kA, 8 x 20μs" exponential short circuit current wave
- Polarity Selector: positive or negative surge injection is front panel switch select able or bit programmable
- Injection Mode Selector: One normal and three common injection modes are switch selectable or bit programmable
- AC Line Voltage: Maximum line voltage to load, 277V RMS, 50/60 Hz
- AC Line Current: Maximum continuous current to load 25A RMS, maximum intermittent loading of 30A
- Approx. Weight: 95 lbs.

587E - Voltage and Current Surge Generator

Position 1: Combination Wave Open Circuit Exponential Waveform: 6kV, 1.2 x 50μs. Short Circuit Exponential Waveform: 143A. Source impedance 42 ohm.

Position 2: Combination Wave Open Circuit Exponential Waveform: 6kV, 1.2 x 50μs. Short Circuit Exponential Waveform: 500A. Source impedance 12 ohm.

Position 3: Combination Wave Open Circuit Exponential Waveform: 6kV, 1.2 x 50μs. Short Circuit Exponential Waveform: 3/4.5kA, 8 x 20μs. These waveforms meet part of Category B testing (C62.41).

Position 4: Oscillatory Waveform (Ring Wave): 6kV, 0.5μs, 100kHz. A selectable current range provides for 200A or 500A peak current to meet Category "A" and the remainder of Category "B" testing (C62.41).

The following specifications are common to all settings of the Model 587E Voltage and Current Surge Generator:

- External Trigger: The external trigger requirement is a 2.5 to 10V, 0.05μs minimum width, positive pulse
- Repetition Rate: Up to 0.04Hz, 0.1 Hz maximum depending on the surge selector position and programming.
- Output Isolation: The output circuitry is isolated from ground. One side of the output should always be strapped to chassis ground for safety, except when connected to an AC power line through Model V-2980 or equivalent Surge Coupler/Isolation Networks.
- Voltage Monitor Output: A front panel BNC connector provides an output voltage attenuated by 1000:1, for use with an oscilloscope.
- Current Monitor Output: A front panel BNC connector provides a 1V/100A current monitor, for use with an oscilloscope
- Phase Adjustment: Surge initiation from 0 to 360° of the selected AC line phase
- Scope Trigger Output: A ground isolated front panel oscilloscope trigger provides synchronization with the surge event
- Metering: A front panel digital voltmeter indicates approximate peak surge output voltage