



POWERCLAMP SERIES 1 HYBRID MULTI-STAGED HIGH ENERGY TRANSIENT VOLTAGE SURGE SUPPRESSOR



POWERCLAMP is a sophisticated surge suppression unit that provides the ultimate in transient protection with *much lower clamping levels* than any other TVSS device.

The ***POWERCLAMP*** Series 1 plug-in PARALLEL TVSS duplex, fourplex and wire-in devices are ideally suited for isolating extremely sensitive electronic equipment, especially in areas where such equipment is not on a dedicated line. Series 1 units are rated at 20,000 surge amps per phase, and will attenuate transients generated by office copiers, computer printers, XRAY/CAT/MRI machines, and similar heavy-duty industrial equipment. ***POWERCLAMP*** Series 1 will prevent transients generated by such equipment from affecting other electronic equipment, as well as protect the equipment plugged into it. The Series 1 fourplex (with two duplex outlets) is ideal in these environments, as each pair of receptacles is isolated from the other pair. Its operation is *not* affected by the power requirements of the load. Hospital-grade (20 amp) units are available upon special order.

HOW *POWERCLAMP* OPERATES

POWERCLAMP Transient Voltage Surge Suppressor (TVSS) device is a passive, multi-staged hybrid high energy parallel device designed to react to the onset of surges with fast rise times and high amplitude ranges such as those which follow sags or other external or atmospheric induced impulses. ***POWERCLAMP*** senses the fast ramp of the transient and automatically fixes on the peak of the line voltage waveform. The unit incorporates *sine wave tracking*, to 'float' the clamping threshold with the rise and fall of the peak of the AC waveform without creating wave shape distortion. ***POWERCLAMP*** will clamp many transients to within 2 volts of the AC waveform. All response times including sets, resets, transfers from the first stage to the second stage and back to the first stage, are within 1-2 nanoseconds. ***POWERCLAMP*** units are designed to operate at up to 120% of the normal line voltage.

FEATURES AND BENEFITS:

- 20,000 Surge Amps
- Passive System
- Non-degrading
- Meets ANSI/IEEE C62-41 1980
- 2 Volt Clamping Level
- Simple Installation
- Meets UL-1449-1994
- Wire-in Fault Indicating Light
- Sine Wave tracking
- Plug-in 6 ft. 15 amp cord
- 5 Year Warranty
- 1-2Nanosecond Response Time
- Maintenance Free
- Voltage Reactive
- High Energy Dissipation
- Plug-in Series/Parallel Design

CLAMPS MOST TRANSIENTS TO WITHIN 2 VOLTS OF THE AC WAVEFORM.

POWERCLAMP SERIES 1

HYBRID MULTI-STAGED HIGH ENERGY TRANSIENT VOLTAGE SURGE SUPPRESSOR

TECHNICAL SPECIFICATIONS

POWERCLAMP is a sophisticated surge suppression unit that offers the ultimate in transient protection, with much lower clamping thresholds than any other TVSS device.

POWERCLAMP is installed at the main electrical panel, IN PARALLEL with the electrical service. Its operation is not affected by the power requirements or current draw of the load(s).

When tested to the ANSI/IEEE C62.41-1991/UL-1449 Standard, its hybrid multistage circuitry will suppress (clamp) transient surges and spikes in all modes and bi-directionally, as listed below.

Category A waveform (6kV, 200amps, 0.5us, 100kHz): TWO (2) VOLTS of the peak of the sine wave. Measured from the baseline at the 90° point of the power sine wave (@ WAVEFORM PEAK).

Category B ringwave (6kV, 500amps, 0.5us, 100kHz): TEN (10) VOLTS of the peak of the sine wave. Measured from the baseline at the 90° point of the power sine wave (@ WAVEFORM PEAK).

Category B impulse (6kV, 1.2/50us, 3,000 amps): THIRTY (30) VOLTS of the peak of the sine wave. Measured from the baseline at the 90° point of the power sine wave (@ POSITIVE WAVEFORM PEAK).

SCIC Model Number	Type Service 40-420Hz	Max RMS Voltage	Surge Joules Per Ø	Surge Amps 20 Mic/Sec	Modes of Protection
*120VPC-F2 Duplex plug-in	120V 1Ø	0-135 L-N	336	20,000	L-N/L-G/N-G
*120VFC-F4 Fourplex plug-in	120V 1Ø	0-135 L-N	336	20,000	L-N/L-G/N-G
*120VF2 Duplex wire-in	120V 1Ø	0-135 L-N	336	20,000	L-N/L-G/N-G
1240VF2 Duplex wire-in	120/240V 1Ø	0-135 L-N	216	20,000	L-L/L-N/L-G

L-L = line to line; L-N = line to neutral; L-G = line to ground; N-G = neutral to ground common mode*

*Common mode: Neutral to Ground, needed when not installed at main panel where Neutral and Ground are tied.

- Response time: 1-2 nanoseconds
- Maximum leakage current: 3mA
- Minimum Humidity Range: 5% to 97%
- Operating temperature: -20°C (-68° F) to 70° C (158° F) ambient temperature
- Dimensions: (plug-in unit) 4" wide, 4" high, 3" deep (wire-in unit) 4" wide, 6" high. 3.5" deep
- Shipping weight: approximately 5 lbs. (including packaging)
- 20, 30, 50 amp, Hospital Grade plug-in units optional, specify when ordering
- All foreign or special AC or DC voltages and configurations available, contact factory
- 5 Year pro-rated Limited Replacement Warranty
- Unsurpassed Performance

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