



## **POWERCLAMP SERIES 200**

**HYBRID MULTI-STAGED HIGH ENERGY  
TRANSIENT VOLTAGE SURGE SUPPRESSOR**



**For main entry panels,  
areas w/ extreme transients,  
high lightning-risk locations**



**200,000 amp rating  
20 µsec surge per phase**

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

***POWERCLAMP* Series 200 wire-in PARALLEL TVSS devices are ideally suited for hospitals, airports, data centers, military installations, manufacturing plants and similar mission-critical facilities.** They are rated at **200,000 surge amps per phase**, and will suppress lightning induced transients, massive high energy surges, and power line spikes. ***POWERCLAMP* Series 200** units prevent power surges from damaging computers and other sensitive equipment. Their superior surge suppression will greatly improve system reliability and prevent the failures that are caused by power line disturbances. Operation is *not* affected by the power requirements of the load. Each line phase is fused, with a fuse status LED. An unlikely failure will *not* interrupt power to the load. The Series 200 offers optional remote failure detection to monitor the suppression integrity of the device from a remote location. A Series 200 unit should be installed at the main entry electrical panel in any location where uncompromised surge and spike protection is necessary.

### **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. Response times are within 1-2 nanoseconds. *POWERCLAMP* will clamp most transients to within 2-10 volts of the AC waveform. Units operate at up to 120% of the normal line voltage.**

### **FEATURES AND BENEFITS:**

- 200,000 Surge Amps Per Mode
- Sine Wave tracking
- Non-degrading
- Maintenance Free
- Single/split and 3 phase WYE versions
- Fault Indicating LEDs
- UL Listed enclosure NEMA 4X rated
- 1-2 Nanosecond response time
- Voltage Reactive
- 2-10 Volt Clamp Level
- 5 Year Warranty
- Parallel Wire-in Design
- Passive System
- Simple Installation
- High Energy Dissipation

**CLAMPS MOST TRANSIENTS TO WITHIN 10 VOLTS OF THE AC WAVEFORM.**

# **POWERCLAMP SERIES 200**

## **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 *ultra-low clamping levels*. Its *parallel installation* provides these benefits:

- **No chance of power interruption**
- **No need to match load power**
- **No insertion power loss**

When tested to the ANSI/IEEE C62.41-1991 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, 200 amps, 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, 500 amps, 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).

Category C impulse (20kV, 1.2/50us, 10,000 amps): TWO HUNDRED TWENTY (220) VOLTS of the peak of the sine wave. Measured from the baseline at the 90° point of the power sine wave (@ WAVEFORM PEAK).

<b>MODEL NUMBER</b>	<b>VOLTAGE LINE TO NEU/GND</b>	<b>VOLTAGE LINE TO LINE</b>	<b>PHASE</b>	<b>MODES OF PROTECTION**</b>	<b>WIRES</b>
HP200-0-TX	240	N/A	SINGLE	L-L, L-G (Export only)	1-L, G
HP200-0*	240	N/A	SINGLE	L-N, L-G (Export only)	1-L, N, G
HP200-1-TX	120	240	1 SPLIT	L-L, L-G	2-L, G
HP200-2*	120	240	1 SPLIT	L-L, L-N, L-G, N-G	2-L, N, G
HP200-3	120	208	3 WYE	L-L, L-G	3-L, G
HP200-4*	120	208	3 WYE	L-L, L-N, L-G, N-G	3-L, N, G
HP200-7	277	480	3 WYE	L-L, L-G	3-L, G
HP200-8*	277	480	3 WYE	L-L, L-N, L-G, N-G	3-L, N, G
HP200-9*	120/HI LEG	208	3 WYE	L-L, L-N, L-G, N-G	3-L, N, G

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

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

- Response time: 1-2 nanoseconds
- Maximum leakage current: 6mA/phase
- Fusing: one 15A fuse per phase with failure indicator LEDs
- Minimum Humidity Range: 5% to 97%
- Operating temperature: -20°C (-68° F) to 70° C (158° F) ambient temperature
- Dimensions: 8.25" wide, 11.5" high, 6" deep (TX models: 6.5"w x 6.5"h x 4"d)
- Shipping weight: approximately 6 lbs.
- 5 Year pro-rated Limited Replacement Warranty

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