

POWERTRIP®

TRANSIENT VOLTAGE SURGE SUPPRESSOR

Model PT-SPT

**20-40 kA Per Mode
with Sinewave Tracking**

The **PowerTrip SPT series** device provides the best ring wave transient protection available for a device of its type. These devices are intended for single 24 or 120 or 240 VAC circuit applications at locations feeding sensitive/critical equipment. It is extremely effective in limiting transients generated inside the facility and is an absolute must on circuits feeding critical microprocessor based equipment. It boasts a robust 20kA per mode peak surge current rating on the 15 amp models and 40kA per mode on the 30 amp models.

This device is designed as a stand-alone surge suppression device and requires no special enclosure when used outside an existing enclosure or cabinet. The SPT series has dedicated "all mode" Enhanced Sinewave Tracking and completely encapsulated Optimal Response Network.

Description: Series wired parallel-connected transient voltage surge suppressor with encapsulated Optimal Response Network circuitry (20kA per mode peak surge current.)

Application: Designed for use at ANSI/IEEE Category A with susceptibility up to medium exposure levels to protect sensitive/critical loads fed by a single 120 or 240VAC circuit.

Enclosure: NEMA 4 ABS Composite - UL94-5VA

Mounting: External mounting feet

Connection Method: 3-Lug screw terminal strip at both the input and output sides of the device.

Shipping Weight: 2 lbs.

Circuit Design: Series wired, parallel connected hybrid design incorporating discrete all mode protection and utilizing our encapsulated Optimal Response Network and Enhanced Sinewave Tracking circuitry design to provide lowest possible let-through-voltages.

Protection Modes: Dedicated protection components and circuitry for each mode. Discrete L-N (Normal Mode), and Discrete L-G, N-G (Common Mode)

Input Power Frequency: 50-60Hz

Max Continuous Operating Current: 15 and 30 Amps AC (60 Amp models available)

Response Time: < 1 nanosecond

Circuit Diagnostics: Super Bright LED normally on.

Circuit Interrupt: External (see installation instructions).

Remote Alarm Options: Dry Relay Contacts, 125Vrms, 0.5 amps; 30VDC, 1.0 amps - N/O, N/C. These contacts are for use in conjunction with external status monitoring devices and are connected via the 18ga wires provided. Add suffix "C" for DRC option.

Warranty: 25 Years Unlimited Free Replacement

KEY FEATURES

- Discrete "All Mode" Circuitry
- Industry Leading Measured Limiting Voltage (let-through) Performance
- Multi-stage Hybrid Optimal Sinewave Tracking™ Circuit
- Local & Remote Diagnostics
- Independent Verification of Performance and Safety
- Component-Level, Thermal Fusing
- Patent Pending, Internal, Circuit Board Mounted.



LISTED 1449
Second Edition



MADE IN THE U.S.A.

Model PT-SPT VOLTAGE PERFORMANCE AND ELECTRICAL SPECIFICATIONS					
Model	MCOV	Mode	*ANSI/IEEE C62.41 & C62.45 Let-Through Voltage Test Results		
			*A1	* A3	* B3/C1)
PT-SPT120-15	150 L-N 150 L-G 150 N-G	L-N L-G N-G	28V (D) 62V (D) 41V (S)	94V (D) 190V (D) 94V (S)	281V (D) 360V (D) 550V (S)
PT-SPT120-30	150 L-N 150 L-G 150 N-G	L-N L-G N-G	22V (D) 50V (D) 34V (D)	55V (D) 160V (D) 94V (D)	289V (D) 380V (D) 550V (D)
PT-SPT240-15	300 L-N 300 L-G 300 N-G	L-N L-G N-G	38V (D) 70V (D) 51V (D)	121V (D) 220V (D) 121V (D)	610V (D) 605V (D) 605V (D)
PT-SPT240-30	300 L-N 300 L-G 300 N-G	L-N L-G N-G	38V (D) 70V (D) 51V (D)	121V (D) 220V (D) 121V (D)	610V (D) 605V (D) 605V (D)

*Measured Limiting Voltage (Let-Through) Test Environment: Dynamic (D) or Static (S), positive polarity. All voltages are peak ($\pm 10\%$). Time Base is 1ms. 180° phase angle voltages are measured from the zero crossing, 90° phase angle voltages are measured from the positive peak of the sine wave to the positive peak of the surge indicating actual excess voltage let through. All tests were performed with the device connected in series simulating actual installation.**Suppressed Voltage Test Environment using test parameters as defined by Underwriters Laboratory: Dynamic (D) or Static (S), Positive Polarity. Time base=10ms. All voltages are peak ($\pm 10\%$), 90E phase angle voltages are measured from the zero crossing to the peak of the surge.

- * **A1** - 2kV, 67A 100KHz Ring Wave 180° Phase Angle
- * **A3** - 6kV, 200A 100KHz Ring Wave 90° Phase Angle
- * **C3** - 6kV, 3kA 100KHz Inpulse Wave 90° Phase Angle

Enclosure Dimensions	
Dimensions (in.)	Standard Model
A	5.750
B	5.250
C	4.625
D	2.250
E	3.125
Type	NEMA 4 (ABS)
Weight	2.0 lbs.

