

STABILINE®

PT2 Series-Transient Voltage Surge Suppressors
Parallel-connected Design



Pigtail Protectors for Service and Distribution Panels

PT2 Series models are housed in a compact, plastic, hermetically sealed housing that ensures weatherproof protection for outdoor and indoor installations. Color-coded wiring conforms to US and International standards and convenient pigtail design makes installation flexible and easy. Thermal disconnects and fusing for each MOV plus a sand-filled enclosure permit benign end-of-life mode during sustained line overvoltage conditions, thus eliminating smoke and fire damage to adjacent equipment.

Method of Operation

When a transient surge exceeds the normal system voltage, the PT2 Series device responds within nanoseconds and changes state from a high-impedance open circuit to a low-impedance shunt (short circuit). Connected in parallel with the facility's loads, the PT2 Series device diverts damaging current away from sensitive loads while simultaneously reducing (clamping) the high transient voltage to harmless levels. Upon the end of the transient event, the PT2 Series device automatically returns to its normal operating condition without service interruption.

PT2 Series Features

- ◆ 40 kA Surge Amp Capacity Protection per Mode
- ◆ Single Phase 120 and 220 VAC Models (2 Wire)
- ◆ Single Phase 120/240 VAC (Split Phase 3 Wire)
- ◆ Three Phase 208Y/120, 380Y/220 and 480Y/277 VAC Models
- ◆ Pigtail Design Makes Installation Flexible and Easy
- ◆ Individual Fusing and Thermal Disconnects for Each MOV
- ◆ LED Provides Visual Summary Status of L-N MOV Elements
- ◆ Form C (SPDT) Relay Contacts for Remote Monitoring

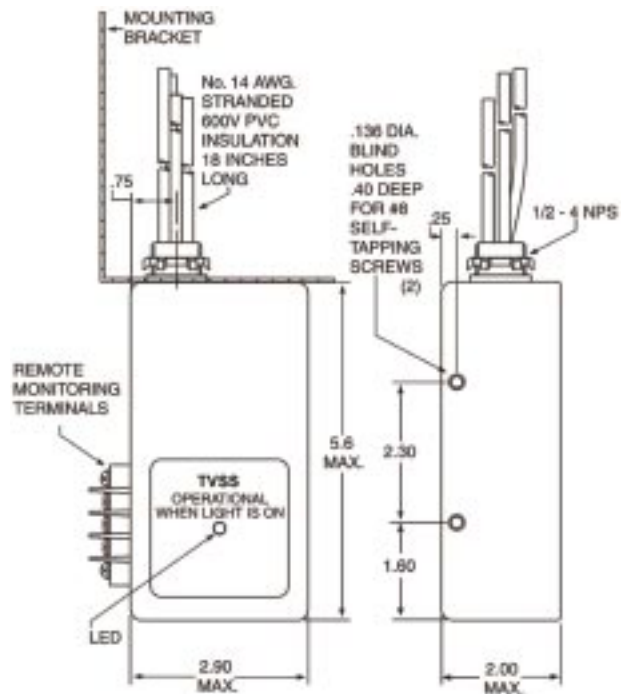


Illustration of TVSS mounted through a panel knockout

Illustration of TVSS right side mounting holes

PERFORMANCE SPECIFICATIONS

	Single Phase Models			Three Phase Models		
	120 VAC 2 Wire + Ground	220 VAC 2 Wire + Ground	120/240 VAC 3 Wire + Ground	208Y/120 VAC 4 Wire + Ground	380Y/220 VAC 4 Wire + Ground	480Y/277 VAC 4 Wire + Ground
	PT2-40-120-1G-L1	PT2-40-220-1G-L1	PT2-40-120/240-2G-L1	PT2-40-120/208-3GY-L1	PT2-40-220/380-3GY-L1	PT2-40-277/480-3GY-L1
Nominal Frequency	50/60 Hz			50/60 Hz		
Surge Protection Device & Category Technology	Service Entrance or Distribution Panel-Permanently Connected Parallel Design-Multiple Metal Oxide Varistors (MOVs)			Service Entrance or Distribution Panel-Permanently Connected Parallel Design-Multiple Metal Oxide Varistors (MOVs)		
Upstream Overcurrent Device	None Required			None Required		
Maximum Surge Current, Single-Pulse 8/20µs Capacity per Mode	40,000A			40,000A		
Maximum Continuous Operating Voltage (MCOV), L-N, 50 or 60 Hz	132 V	255 V	132 V	132 V	255 V	293 V
Protection Modes	L-N, N-G			L-N, N-G		
Varistor MCOV	150 V	300 V	150 V	150 V	300 V	320 V
Varistor Voltage @ 1mA _{dc}	240 V	470 V	240 V	240 V	470 V	495 V
Leakage, L-G						
at 120 VAC	< 100 µA	N/A	< 100 µA	< 100 µA	N/A	N/A
at 220 VAC	N/A	< 250 µA	N/A	N/A	< 250 µA	N/A
at 277 VAC	N/A	< 250 µA	N/A	N/A	N/A	< 300 µA
UL Suppression Voltage L-N, N-G using ANSI/IEEE C-62.41 Waveshapes						
200A, 100KHz (6kV)	410 V	735 V	410 V	410 V	735 V	765 V
500A, 100KHz (6kV)	460 V	800 V	460 V	460 V	800 V	840 V
500A, 8/20 µs (6kV)	370 V	690 V	370 V	370 V	690 V	730 V
3kA, 8/20 µs (6kV)	480 V	845 V	480 V	480 V	845 V	900 V
5kA, 8/20 µs (10kV)	560 V	900 V	560 V	560 V	900 V	955 V
10kA, 8/20 µs (20kV)	740 V	1095 V	740 V	740 V	1095 V	1175 V
UL 1449 Suppression Voltage L-N, N-G	400 V	800 V	400 V	400 V	800 V	800 V
Surge Energy Capability - Total	1250 joules	2080 joules	1875 joules	2500 joules	4160 joules	4160 joules
Surge Life	120 VAC, L-N applied 3kA, 8/20 µs 3000 times 100 times	220 VAC, L-N applied 3000 times 100 times	120 VAC, L-N applied 3000 times 100 times	120 VAC, L-N applied 3000 times 100 times	220 VAC, L-N applied 3000 times 100 times	277 VAC, L-N applied 3000 times 100 times
Component Response Time	< 1 ns			< 1 ns		
Form C Relay Contact Rating	* See Footnote 1	* See Footnote 2	* See Footnote 1	* See Footnote 1	* See Footnote 2	* See Footnote 2
Connection Means	In Parallel with Load			In Parallel with Load		
Minimum Wire Size	#14 AWG THHN			#14 AWG THHN		

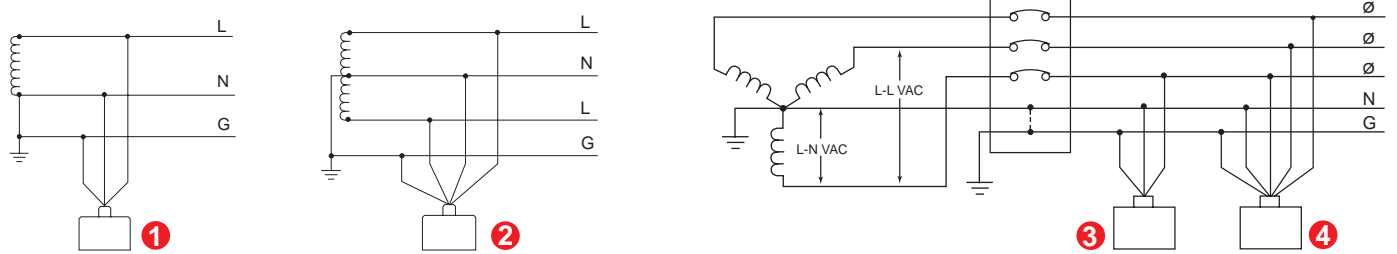
GENERAL SPECIFICATIONS

Special	Individual Fusing and Thermal Disconnects for Each MOV LED Provides Visual Summary Status of L-N MOV Protection Form C (SPDT) Relay Contacts for Remote Monitoring Housed in a NEMA 6, I.P. 67 Plastic Enclosure
Warranty	Five Years
Protection Present Status	Illuminated LED Indicates Proper Operation of the L-N MOV Elements
Operating Temperature	-40°C to 80°C (-40°F to 176°F)
Max. Operating Altitude	5000 meters
Weight (Shipping)	1 lb (0.45 kg)
Standards Compliance and Safety Approvals	Complies with 25 Amp "Loss of Neutral" Test of IEEE C62.34 UL Listed per UL 1449, XUHT cUL Certified per Canadian codes XUHT7 CE Compliant with Directive 73/23/EEC

Connections

- ① / ③ PT2-40-120-1G-L1
- ② PT2-40-120/240-2G-L1
- ① / ③ PT2-40-220-1G-L1
- ④ PT2-40-120/208-3GY-L1
PT2-40-220/380-3GY-L1
PT2-40-277/480-3GY-L1

The information and specifications stated in this document are subject to change without notice.
 1. Minimum 50mVA (>2mA or >5 VDC) Maximum 5A, 250 VAC & 30 VDC
 2. Minimum 50mVA (>1mA or >5 VDC) Maximum 5A, 250 VAC & 28 VDC



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