

STABILINE®

PT1 Series-Transient Voltage Surge Suppressors
Parallel-connected Design



Reliability Means Value

PT1 Series STABILINE® Transient Voltage Surge Suppressors deliver worry-free performance with an innovative and proven technology design. The tested single-pulse surge current capacity (per mode) meets NEMA recommendations. Sand-packed MOV arrays equally share current to suppress transients before they reach sensitive loads while capacitors filter out high frequency noise and low-level transients. The PT1 Series is designed and tested to withstand surge currents in accordance with ANSI/IEEE recommendations.

Instantaneous Protection

PT1 Series Transient Voltage Surge Suppressors respond immediately and reliably to repeated high-current lightning incidents and other transient voltage surges. All PT1 Series models are designed to exceed the minimum performance criteria of Bellcore and withstand larger impulses referenced in IEEE.

Superior Internal Construction

The PT1 Series design ensures dependable operation. The suppression filter components are bolted directly to copper bus bars, lowering system impedance and clamping voltage and increasing reliability. Measuring only 7"W x 7"H x 5"D, units install in tight spaces. The NEMA 4X fiber-glass-reinforced polyester (FRP) housing features a nonremovable cover for protection against tampering. LEDs for all phases illuminate to clearly indicate protection is active.

Versatility

For ease of installation, all PT1 Series units are prewired with 24" stranded #10 AWG pigtail conductors. The conductors can be cut to fit the application to permit the shortest connection for optimum performance. All PT1 Series units are equipped with single form "C" dry contacts for remote alarm monitoring. Two conduit installation kits are available; PT1-INSTALLKIT-A has a 3/4" x 3" metallic nipple; PT1-INSTALLKIT-B provides 18" flexible conduit. Each kit contains all associated hardware required to complete the installation.

PT1 Series Features

- ◆ **Four Surge Amp Capacity Ratings to Choose From (25kA, 50kA, 80kA, and 100kA Per Mode)**
- ◆ **Single Phase 120/240 VAC and Three Phase (208Y/120, 380Y/220, 480Y/277 and 600Y/347 VAC) Models**
- ◆ **Prewired Pigtail Conductors**
- ◆ **LED Visual Protection Status**
- ◆ **Standard Form "C" Dry Contacts for Remote Alarm Monitoring**
- ◆ **5-Year Warranty**
- ◆ **UL and cUL Listed**

		PT1-25 Models		PT1-50 Models		PT1-80 Models		PT1-100 Models		
PERFORMANCE SPECIFICATIONS	Tested Single Pulse Surge Current Capacity per Mode	L-N, L-G, N-G, L-L 25,000A	Per Phase 50,000A	L-N, L-G, N-G, L-L 50,000A	Per Phase 100,000A	L-N, L-G, N-G, L-L 80,000A	Per Phase 160,000A	L-N, L-G, N-G, L-L 100,000A	Per Phase 200,000A	
	Nominal Voltage	See System Voltage/Service Configuration/Model Number Chart Below								
	Maximum Continuous Operating Voltage (MCOV)	> 115% of Nominal Voltage; Compliant with Test and Evaluation Procedures Outlined in NEMA LS 1-1992, paragraphs 2.2.6 & 3.6								
	Nominal Frequency	47-63 Hz								
	Protection Modes	All Modes								
		WYE Configured Models Provide L-N, L-G, N-G & L-L Protection, DELTA Configured Models Provide L-L & L-G Protection								
	SPD Category	Service Entrance or Distribution Panel-Permanently Connected								
	Technology	Parallel Design-Multiple Metal Oxide Varistors (MOVs)								
	Upstream Overcurrent Device	*See Footnote								
	Typical Clamping Voltage (6kV/500A Comb. Waveform)									
	120/240 VAC, 208Y/120 VAC		L-N 391	L-G 391		N-G 388		L-L 735		
	380Y/220 VAC		890	868		820		1165		
	480Y/277 VAC		890	868		820		1165		
	600Y/347 VAC		948	1006		1080		1773		
	Filtering Atten. Frequencies									
EMI / RFI Noise Rejection		100KHz	1MHz		10MHz		100MHz			
6" Hook Up Wire, 50' Noise Source Path		50 dB	-34 dB		-34 dB		-47 dB			
6" Hook Up Wire, 100' Noise Source Path		50 dB	-39 dB		-40 dB		-53 dB			
Component Response Time	< 1 ns									
Form "C" Relay Contact Rating	Minimum 50 mA (> 2mA or >5 VDC), Maximum 5A, 250 VAC & 30 VDC									
Connection Means	In Parallel With Load									
Minimum Wire Size	24", Stranded #10-AWG THHN Pigtail Conductors									

GENERAL SPECIFICATIONS	Special	Surface-mount NEMA 4X Enclosure, Form "C" Dry Contacts for Remote Alarm Monitoring							
	Optional	Conduit Fitting Kits-Metallic or Plastic Conduit Installation Kits							
	Warranty	Five Years							
	Protection Present Status	LEDs for all Phases Illuminate to Indicate Protection							
	Operating Temperature	-40°C to 60°C (-40°F to 140°F)							
	Humidity	5% to 95% Non-condensing							
	Weight	12.7 lbs (5.8 kg)							
	Dimensions	7.0 x 7.0 x 5.0 (178 x 178 x 127)							
H x W x D Inches									
H x W x D (mm)									
Standards Compliance		UL 1449, 2nd Edition, ANSI/IEEE C62.41; cUL, ANSI/IEEE C62.45; UL 1283, ANSI/IEEE C62.1; NEMA LS-1, ANSI/IEEE C62.11							

System Voltage/Service Configuration	PT1-25 Models	PT1-50 Models	PT1-80 Models	PT1-100 Models
Single Phase Models				
120/240 VAC, 1φ, 3-Wire SPLIT-PHASE, w/ground	PT1-25-120/240-2G-L1	PT1-50-120/240-2G-L1	PT1-80-120/240-2G-L1	PT1-100-120/240-2G-L1
Three Phase WYE Models				
208Y/120 VAC, 3φ, 4-Wire WYE, w/ground	PT1-25-120/208-3GY-L1	PT1-50-120/208-3GY-L1	PT1-80-120/208-3GY-L1	PT1-100-120/208-3GY-L1
380Y/220 VAC, 3φ, 4-Wire WYE, w/ground	PT1-25-220/380-3GY-L1	PT1-50-220/380-3GY-L1	PT1-80-220/380-3GY-L1	PT1-100-220/380-3GY-L1
480Y/277 VAC, 3φ, 4-Wire WYE, w/ground	PT1-25-277/480-3GY-L1	PT1-50-277/480-3GY-L1	PT1-80-277/480-3GY-L1	PT1-100-277/480-3GY-L1
600Y/347 VAC, 3φ, 4-Wire WYE, w/ground	PT1-25-347/600-3GY-L1	PT1-50-347/600-3GY-L1	PT1-80-347/600-3GY-L1	PT1-100-347/600-3GY-L1
Three Phase DELTA Models				
120/240 VAC, 3φ, High-Leg DELTA, w/ground (B Phase Must be 208V)	PT1-25-120/240-3GHD-L1	PT1-50-120/240-3GHD-L1	PT1-80-120/240-3GHD-L1	PT1-100-120/240-3GHD-L1
240 VAC, 3φ, 3-Wire DELTA, w/ground	PT1-25-240-3DG-L1	PT1-50-240-3DG-L1	PT1-80-240-3DG-L1	PT1-100-240-3DG-L1
380 VAC, 3φ, 3-Wire DELTA, w/ground	PT1-25-380-3DG-L1	PT1-50-380-3DG-L1	PT1-80-380-3DG-L1	PT1-100-380-3DG-L1
480 VAC, 3φ, 3-Wire DELTA, w/ground	PT1-25-480-3DG-L1	PT1-50-480-3DG-L1	PT1-80-480-3DG-L1	PT1-100-480-3DG-L1
600 VAC, 3φ, 3-Wire DELTA, w/ground	PT1-25-600-3DG-L1	PT1-50-600-3DG-L1	PT1-80-600-3DG-L1	PT1-100-600-3DG-L1

The information and specifications stated in this document are subject to change without notice.

* Typically fed by a Branch Circuit Breaker in a Power Distribution Panel. It is recommended this circuit breaker be rated at no less than 30 amps and no greater than 200 amps.
Use a 3-pole breaker for Three Phase units or a 2-pole breaker for Single Phase units



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