

# 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 fiberglass-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

Automatic Voltage Regulators • Power Conditioners • Uninterruptible Power Supplies

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

<b>Special</b>	Surface-mount NEMA 4X Enclosure, Form "C" Dry Contacts for Remote Alarm Monitoring							
<b>Optional</b>	Conduit Fitting Kits-Metallic or Plastic Conduit Installation Kits							
<b>Warranty</b>	Five Years							
<b>Protection Present Status</b>	LEDs for all Phases Illuminate to Indicate Protection							
<b>Operating Temperature</b>	-40°C to 60°C (-40°F to 140°F)							
<b>Humidity</b>	5% to 95% Non-condensing							
<b>Weight</b>	12.7 lbs (5.8 kg)							
<b>Dimensions</b>	7.0 x 7.0 x 5.0							
<b>H x W x D Inches</b>	(178 x 178 x 127)							
<b>H x W x D (mm)</b>								
<b>Standards Compliance</b>	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
<b>Single Phase Models</b>				
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
<b>Three Phase WYE Models</b>				
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
<b>Three Phase DELTA Models</b>				
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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