

PA and PB Series Panel Protection Devices



The Sentrex PA and PB Series surge protection devices protect your sensitive electronic equipment from external or internal transient activity. Units can be customized with remote monitoring, noise filtration and flush mount options.


All PA and PB units are approved for indoor or outdoor use and feature all-mode protection. Units provide excellent protection when placed at branch panels or at specific pieces of equipment. They can also suppress external surges when mounted at the main service panel.

PA and PB Series surge protection devices are an integral part of the Sentrex Zoned Approach to Whole Building Protection.



The PA and PB Series provide surge protection at the main service panel, sub panel or at sensitive equipment.

Features & Benefits

- Up to 160kA maximum surge current protection per phase.
- Easy installation. Enclosure can be easily drilled or punched for conduit/cable access and positioned to the electrical panel at the discretion of the installer.
- All-mode protection is standard on all units.
- NEMA 1, 2, 3, 3S, 4, 4X, 12, 13 rated, water-tight, fire-resistant plastic enclosure.
- 34mm MOV circuitry. Well exceeds the capacity of 20mm MOVs in parallel to manage surges over time.
- Short circuit and thermal fusing.
- Low impedance circuitry.
- Visual indication of protection status.
- Ten-year product warranty.
- UL1449 Second Edition Listed.
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Available Options

- Remote diagnostic connection. Using NO/NC dry contacts via on-board relay. Remote monitoring device sold separately.
- EMI/RFI noise filter. Noise attenuation -20dB maximum 100 kHz to 100 MHz.
- Flush mount cover. Sold separately.

Product Selection Guide

PB Series – 160kA

CATALOG NUMBER	ELECTRICAL SERVICE	UL1449 CLAMPING LEVEL				ACTUAL CLAMPING LEVEL			
		L-N	L-L	N-G	L-G	L-N	L-L	N-G	L-G
PB120T	120/240V, Single Ø	400V	700V	400V	800V	360V	690V	370V	712V
PB120Y	120/208V, 3Ø Wye	400V	700V	400V	800V	360V	690V	370V	712V
PB277Y	277/480V, 3Ø Wye	800V	1800V	900V	1800V	780V	1600V	830V	1550V
PB240DCT	120/240/120V, Hi-Leg Delta	800V*	700V	400V	800V	780V*	690V	370V	720V

*Hi L-N

PA Series – 80kA

CATALOG NUMBER	ELECTRICAL SERVICE	UL1449 CLAMPING LEVEL				ACTUAL CLAMPING LEVEL			
		L-N	L-L	N-G	L-G	L-N	L-L	N-G	L-G
PA120T	120/240V, Single Ø	400V	700V	400V	800V	360V	690V	370V	712V
PA120Y	120/208V, 3Ø Wye	400V	700V	400V	800V	360V	690V	370V	712V
PA277Y	277/480V, 3Ø Wye	800V	1800V	900V	1800V	780V	1600V	830V	1550V
PA240DCT	120/240/120V, Hi-Leg Delta	800V*	700V	400V	800V	780V*	690V	370V	720V

*Hi L-N

Options: (select options by adding hyphen and suffix to part number)

A – Remote Monitoring Capability

Adds NO/NC dry contacts to PA/PB unit via on-board relay. Dry contacts will allow for connection of remote monitoring unit. Remote monitoring unit itself sold separately under part #ZHRMU. See page 3 for ZHRMU specifications.

B – Noise Filter

Provides noise attenuation of -20dB maximum 100kHz to 100 MHz.

How to Configure A Part Number:

- 1 Select CATALOG NUMBER.
- 2 Select OPTIONS if desired.
- 3 Part Number is CATALOG NUMBER, followed by HYPHEN, followed by OPTIONS in alphabetical order.

SAMPLE

160kA for 120/208V
with Noise Filter

SAMPLE

80kA for 277/480V
with Remote Contacts
with Noise Filter

SAMPLE


80kA for 120/240V
No Options Selected

Part#: PB120Y-B

Part#: PA277Y-AB

Part#: PA120T

Accessories

Product	Description/Specifications
<p>ZHRMU*</p> 	<p>Remote Monitoring Unit – Offers clear audio/visual indication of the status of the surge suppressor unit. Can be installed remotely or adjacent to the suppressor. Powered locally by a plug-in transformer (included). Can also be used as a stand-alone diagnostic device using NO/NC dry contacts.</p> <p>SPECIFICATIONS</p> <p>Dimensions: 5 1/8" x 4" x 1 1/2" [135mm x 102mm x 38mm]</p> <p>Weight: 1 lb.</p> <p>Protection Indication: Bright green LED: Illuminated</p> <p>Fault Indication: Audible alarm. Bright red LED: Illuminated</p> <p>Test Functions: Switch tests audible alarm (checks monitoring circuitry)</p> <p>Silent Function: Switch silences audible alarm</p> <p>Connections: Accepts wires up to #14 AWG</p>
<p>ZHRMU250</p>	<p>Cable for Remote Monitoring Unit – 250' [76.2m] cable for use with ZHRMU Remote Monitoring Unit is available or use your own cable to connect the device.</p>
<p>PABFMC</p>	<p>Flush Mount Cover – For installing PA/PB units on sheetrock or firewall construction. Cover hides the hole cut and gives the unit a finished look. Brushed metal cover can be painted to match any decor.</p> <p>SPECIFICATIONS</p> <p>Dimensions: 9" x 7" [229mm x 178mm]</p>

* **NOTE:** ZHRMU can only be used on PA/PB Units with remote contacts (Option A). ZHRMU is also compatible with all ZoneMaster Units (see ED1165 for details).

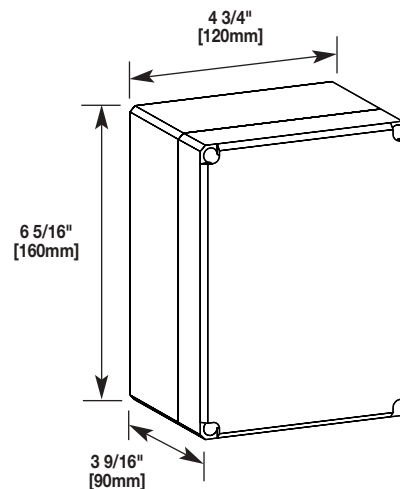


Mechanical Specifications:

Enclosure:	Durable, lightweight, corrosion-resistant high impact plastic. Approved for outdoor or indoor use. NEMA 1, 2, 3, 4, 4X, 12, and 13 rated.
Dimensions:	6 5/16" x 4 3/4" x 3 9/16" (160mm x 120mm x 90mm).
Weight:	PB Series: 1.8 lbs. (0.8 kg), PA Series: 1.4 lbs. (0.6 kg).
Operating Environment:	-40°C to 85°C, 95% relative humidity (non-condensing).
Construction:	Low impedance circuitry. Single board system to minimize transient impedance and suppression voltage.
Terminal Lugs:	#10 AWG maximum and recommended wire size.
Mounting:	Built-in mounting holes, 11/64" [4.4mm] diameter. Enclosure can be easily drilled or punched for conduit/cable access.

Electrical Specifications:

Maximum Surge Current Capacity Per Phase:	PB Series: 160,000A PA Series: 80,000A
Maximum Surge Current Capacity Per Mode:	PB Series: L-G 80,000A (8/20µs), L-N 80,000A (8/20µs), L-L 80,000A (8/20µs), N-G 80,000A (8/20µs) PA Series: L-G 40,000A (8/20µs), L-N 40,000A (8/20µs), L-L 40,000A (8/20µs), N-G 40,000A (8/20µs)
Duty Cycle Performance (Surge Life):	PB Series: 20 pulses at 10,000A PA Series: 10 pulses at 10,000A
Maximum Continuous Operating Voltage:	20% above nominal
Optional Remote Indication Contacts:	NO/NC dry contacts via on-board relay, 125VAC, 2A rated
Optional EMI/RFI Noise Attenuation:	-20dB Maximum 100 kHz to 100 MHz
Diagnostics:	Green LED per phase indicates protection present on each phase
Protection Technology:	34mm MOV based, backed by thermal and short circuit fusing
Installation:	Unit should be connected through a dedicated 30 amp circuit breaker with the appropriate poles (customer supplied).



Questions? Call Technical Support at 1-800-SENTREX

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