

# Reliable, cost-effective surge protection



Eaton's SP1 is a UL® 1449 4th Edition-listed surge protective device that provides reliable, cost-effective surge protection. This Type 1 SPD is capable of being installed on either the line or load side of the service entrance disconnect and can be used as a replacement for devices formerly known as secondary surge arrestors or lightning arrestors, which could not be manufactured after UL 1449 4th Edition went into effect on September 29, 2009. The unit is available in many common voltages and configurations. Multiple mounting options coupled with a compact footprint enables installation of the SP1 in a wide range of applications, including panelboards, loadcenters, pump panels, control cabinets, and other electrical assemblies and applications.

#### Installation and operation

Installation and operation of the SP1 is simple. The unit comes pre-wired with 24 inches of 12-gauge wire and is mounted via the 1/2-inch nipple that is molded into its enclosure. Wall or DIN rail mounting can also be accomplished with the addition of an optional kit. When powered, the unit's light-emitting diode (LED) indicator reports the status of the protection elements and is active when all of them are intact and providing protection. Any loss of protection is signaled when the LED extinguishes.

#### Features

- Type 1 SPD capable of installation on either the line or load side of the service entrance disconnect
- 20 kA nominal discharge current rating ( $I_n$ ) on most models
- 50 kA per phase surge current capacity
- Compact footprint—4.8" L x 2.9" W x 2.5" D
- Pre-wired with 24 inches of 12-gauge wire
- 1/2-inch nipple molded into enclosure enables quick and easy mounting
- Optional kit enables wall or DIN rail mounting
- Can be used for UL 96A compliance
- Can be used for NFPA 780 compliance
- 2-year warranty

#### Standards and certifications

- UL 1449 4th Edition and UL 1283 7th Edition listed device



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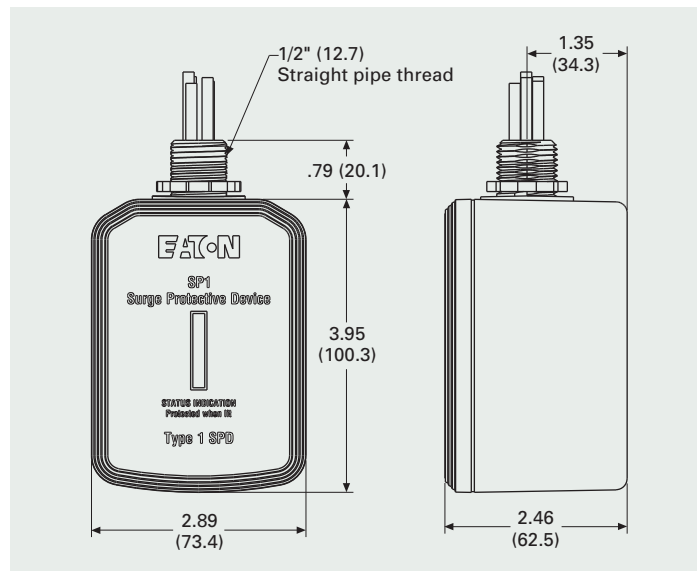
## Specifications

Description	Ratings
Surge current capacity per phase	50 kA
Nominal discharge current (I <sub>n</sub> )	20 kA for SP1-240S, 208Y, 480Y, 240D and 480D 10 kA for SP1-600Y and 600D
Short-circuit current rating (SCCR)	200 kA
SPD type	Type 1 (can also be used in Type 2 applications)
System voltages available (Vac)	
Single split-phase	120/240
Three-phase wye	120/208, 277/480, 347/600
Three-phase delta	240, 480, 600
Protection modes	
Single split-phase and three-phase wye	L-N, L-L
Three-phase delta	L-G, L-L
Maximum continuous operating voltage (MCOV)	
SP1-240S and SP1-208Y	150 L-N, 300 L-L
SP1-480Y	320 L-N, 640 L-G
SP1-600Y	420 L-N, 840 L-G
SP1-240D	300 L-G, 300 L-L
SP1-480D	640 L-G, 640 L-L
SP1-600D	840 L-G, 840 L-L
Input power frequency	50/60 Hz
Enclosure rating	NEMA® 4
Operating temperature	-20 °C to +50 °C (-4 °F to +122 °F)
Operating humidity	5–95%, noncondensing
Operating altitude	Up to 16,000 ft (5000m)
Agency certification and approvals	UL 1449 4th Edition and UL 1283 7th Edition listed device
Warranty	2 years

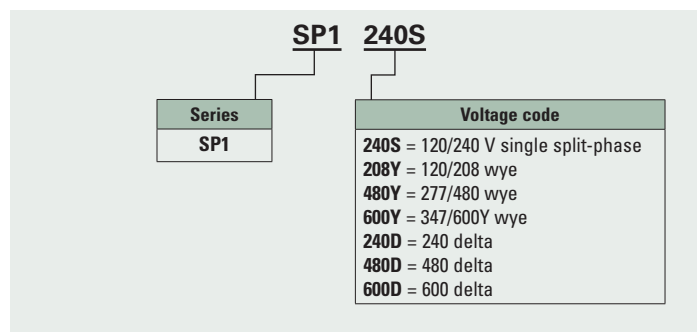
## ANSI/UL 1449 4th Edition voltage protection ratings

Protection mode			
L-N	L-G	L-L	Catalog number
600	N/A	1000	<b>SP1-240S</b>
600	N/A	1000	<b>SP1-208Y</b>
1200	N/A	2000	<b>SP1-480Y</b>
1500	N/A	2500	<b>SP1-600Y</b>
N/A	1000	1000	<b>SP1-240D</b>
N/A	2000	2000	<b>SP1-480D</b>
N/A	2500	2500	<b>SP1-600D</b>

## SP1 dimensions— inches (millimeters)



## SP1 catalog number configuration



SP1MNTGKIT = optional wall or DIN rail mounting kit  
(order separately—not included with SP1 unit)

## Technical support information

If you have any questions or need additional information, please contact the Eaton Technical Resource Center at [800-809-2772](tel:800-809-2772), option 4, option 2. You may also submit inquiries via email: [surgeprotection@eaton.com](mailto:surgeprotection@eaton.com).

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Printed in USA  
Publication No. PA1005006E / Z21664  
November 2018

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