

SP1 Surge Protective Device**SP1 Surge Protective Device****Product Description**

Eaton's SP1 is a UL 1449 3rd 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 the load side of the service entrance disconnect, and can be used as a replacement for devices formerly known as secondary surge arresters or lightning arresters, which could not be manufactured after UL 1449 3rd 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 of the SP1 is simple. The unit comes pre-wired with 24.00 inches of 10-gauge wire and is mounted via the half-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.

Contents**Description**

	Page
Introduction	V3-T2-2
Product Overview	V3-T2-5
SPD Series for Integration into Electrical Distribution Equipment	V3-T2-7
SPD Series for Mounting External to Electrical Distribution Equipment	V3-T2-11
SPD MAX Series Surge Protection	V3-T2-16
SPC Surge Protective Device	V3-T2-20
CVX050/100	V3-T2-24
SP1 Surge Protective Device	
Catalog Number Selection	V3-T2-28
Technical Data and Specifications	V3-T2-28
Dimensions	V3-T2-28
SP2 Surge Protective Device	V3-T2-29
AEGIS Powerline Filters	V3-T2-31
Sag Ride-Through (SRT2)	V3-T2-36
Electronic Voltage Regulator (EVR)	V3-T2-40
Power-Sure 800	V3-T2-42
Power-Suppress 100	V3-T2-46

Features

- Type 1 SPD capable of installation on either the line or the 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—4.80-inch L x 2.90-inch W x 2.50-inch D
- Pre-wired with 24.00 inches of 10-gauge wire
- Half-inch nipple molded into enclosure enables quick and easy mounting
- Optional kit enables wall or DIN rail mounting
- Two-year warranty

Standards and Certifications

- UL 1449 3rd Edition-listed device



2.1

SPD, Power Conditioning, PF Capacitors and Harmonic Filters

Surge Protection and Power Conditioning

Catalog Number Selection

SP1

2

SP1 - XXXX

Series	Voltage Code
SP1	240S = 120/240 V single split-phase 208Y = 120/208 wye 480Y = 277/480 wye 600Y = 347/600Y wye 240D = 240 delta 480D = 480 delta 600D = 600 delta

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

Technical Data and Specifications

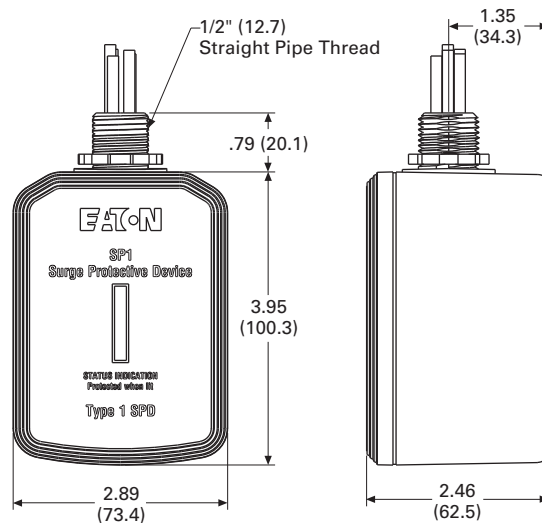
SP1

Description	Ratings
Surge current capacity per phase	50 kA
Nominal discharge current (I _n)	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 (5000 m)
Agency certification and approvals	UL 1449 3rd Edition Listed device
Warranty	2 years

Dimensions

Approximate Dimensions in Inches (mm)

SP1



ANSI/UL 1449 3rd Edition Voltage Protection Ratings

Catalog Number	Protection Mode		
	L-N	L-G	L-L
SP1-240S	600	N/A	1000
SP1-208Y	600	N/A	1000
SP1-480Y	1200	N/A	2000
SP1-600Y	1500	N/A	2500
SP1-240D	N/A	1000	1000
SP1-480D	N/A	2000	2000
SP1-600D	N/A	2500	2500