

SPV

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SPV Surge Protective Device

Product Description

Eaton's SPV series is a commercial grade and light industrial surge protective device (SPD) that combines surge suppression components and EMI/RFI filtering, providing effective protection for sensitive electronic loads. Surges (also known as transients), due to lightning, utility grid switching, switching of external/internal inductive or capacitive loads, and other sources, travel on power line conductors throughout the electrical distribution system, causing system operating problems and equipment downtime. Use of the SPV units can prevent these costly occurrences and equipment damage. Available with six surge current capacity ratings, the SPV can be installed on the main of light commercial buildings, on any subpanel in a facility and in any control panel to protect sensitive electronic equipment.

Application Description

The ever-increasing use of microprocessors and other sensitive electronic equipment has increased the necessity for facility-wide surge protection. These sensitive electronic components are used within

many pieces of equipment, including computers, programmable logic controllers, and other commonly used electrical and electronic equipment. Surges can wreak havoc on equipment, causing catastrophic failures, process interruptions and premature aging leading to failure. The application of SPDs can mitigate problems with sensitive electronic equipment, keeping the equipment and the related processes up and running reliably without disruption or damage due to surge-related events.

In addition to externally generated surge events, such as lightning and grid switching, equipment is also susceptible to damage by internally generated surges. In fact, the majority of surges are generated internally by commonly used items, such as fluorescent lighting ballasts, light dimmers, photocopiers, fax machines and variable frequency drives. This further reinforces the necessity for facility-wide surge protection applied at all stages of the electrical distribution system, from the electrical service entrance down to the single-phase loads.

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Features

- SurgePlane™ technology to ensure reliability and performance by using a low impedance copper platform
- Compact design to enable close mounting to electrical distribution equipment
- Parallel hybrid filter technology
- Individually fused surge suppression components
- Status indicator lights to monitor supply power, surge suppression component status and fusing
- Can be remotely monitored using Form C contacts
- Audible alarm
- Ideal for OEM panel applications
- 50 through 200 kA surge current capacity ratings
- Contains no replaceable parts or items that require periodic maintenance
- 10-year warranty

Eaton is the leading supplier of power protection technology to a number of Fortune 500 companies. We have applied our extensive experience in power quality and have included a number of innovative features in the development of the Eaton SPV series.

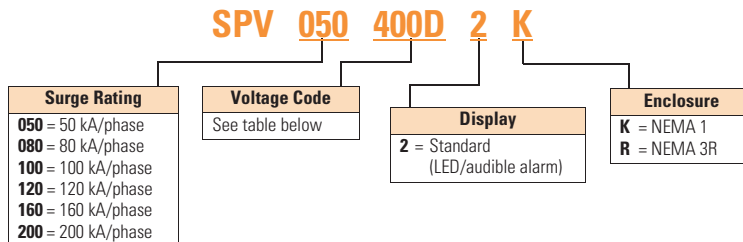
Standards and Certifications

- UL 1449 3rd Edition Listed
- UL 1283 Listed
- CSA TIL I-11B
- CSA C22.2 No.8



Catalog Number Selection

SPV



SPV Voltage Codes

Nominal Voltages (Use These Codes to Complete the Model Number)	Voltage Code		
	120/208 240V	230/400 499V ①	277/480 480V
120/240 single/split-phase (3W plus G)	240S	—	—
Three-phase wye (4W plus G)	208Y	400Y	480Y
Three-phase delta (3W plus G)	240D	400D	480D

Technical Data and Specifications

SPV

Description	SPV050	SPV080	SPV100	SPV120	SPV160	SPV200
Surge current per phase	50 kA	80 kA	100 kA	120 kA	160 kA	200 kA
Surge current per mode	25 kA	40 kA	50 kA	60 kA	80 kA	100 kA
Filter attenuation (MIL-STD-220A at 100 kHz)	0–40 dB	0–40 dB	0–40 dB	0–40 dB	0–40 dB	0–40 dB
Circuit construction	Surge-Plane	Surge-Plane	Surge-Plane	Surge-Plane	Surge-Plane	Surge-Plane
UL 1449 3rd Edition Listed	Yes	Yes	Yes	Yes	Yes	Yes
UL 1283 Listed	Yes	Yes	Yes	Yes	Yes	Yes
Nominal discharge current (I _n) ②	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
cUL Listed	Yes	Yes	Yes	Yes	Yes	Yes
Enclosure						
NEMA 1	Standard	Standard	Standard	Standard	Standard	Standard
NEMA 3R	Optional	Optional	Optional	Optional	Optional	Optional
Short-circuit current rating (SCCR) ③	42 kA	42 kA	42 kA	42 kA	42 kA	42 kA
Warranty	10 years	10 years	10 years	10 years	10 years	10 years

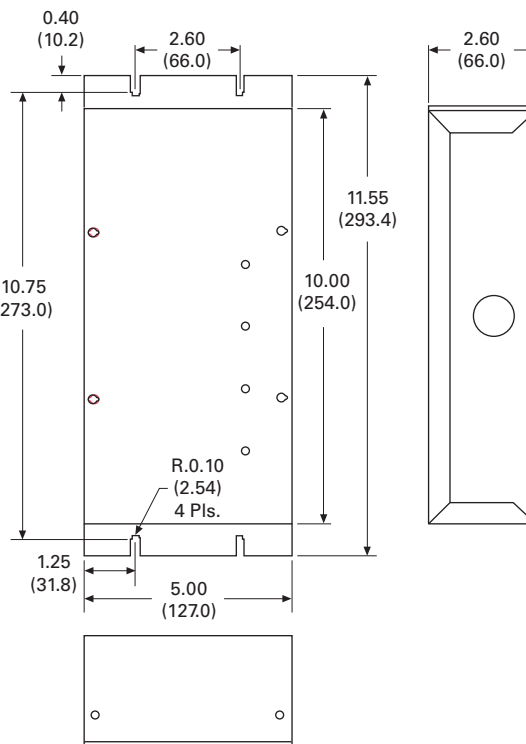
Physical Specifications

Description	Specification
Operating temp range	–40°C to +60°C
Altitude	< 13,000 ft (4000m)
Dimensions	5.00 x 11.55 x 2.60 inches (127.0 x 293.4 x 66.0 mm)
Weight	3.5 lbs (1.6 kg)

Dimensions

Approximate Dimensions in Inches (mm)

SPV—NEMA 1



Notes

- ① Contact factory for other configurations: Applicable for 220/380 and 240/415 system voltages.
- ② 208Y, 240S, 240D, 400Y and 480Y units rated 10 kA I_n.
- ③ 5 kA SCCR for 400D and 480D.