

Surge protection devices (SPD)



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# Eaton SP2 surge protection device

## Compact, cost-effective surge protection

With a wide range of voltages and configurations to meet equipment protection needs in light commercial and machine control panel applications, the SP2 delivers superior surge protection and eliminates the need for additional overcurrent protection—reducing space, cost and downtime.

### Eaton SP2 benefits

**Enhance equipment protection:** Tap a wide range of voltage-specific models to protect electrical systems and equipment better than a “one-size-fits-all” or economy SPD solution.

**Reduce costs:** Lower equipment and installation costs with the SP2’s unique thermal disconnect technology, which mitigates the need for additional equipment investments in overcurrent devices.

**Maximize space:** Simplify installation and control panel building with the SP2’s compact form-factor.

**Simplify troubleshooting and maintenance:** Obtain real-time status of surge protection devices with highly visible LED indicators that provide surge protection status at a glance.

**Increase deployment flexibility:** Apply the SP2 in indoor or outdoor environments with a compact UV-resistant NEMA® 4X enclosure. The device can also be used on single-phase, split-phase and wye and delta systems to simplify equipment protection.

### Product features

- Short-circuit current rating (SCCR) of 200 kAIC
- Voltages from 120 to 600 Vac
- Peak surge current ( $I_{max}$ ) rating of 45 kA
- Nominal discharge current ( $I_n$ ) rating of 10 kA
- Eight part numbers
- Can be used for UL 96A compliance
- Can be used for NFPA 780 compliance
- Two-year warranty

### Standards and certifications

- Type 1 UL 1449 4th Edition and UL 1283 7th Edition listed
- Designed and tested to:
  - IEEE® C62.41.1
  - IEEE C62.41.2
  - IEEE C62.43-2005
  - IEEE C62.45-2002
  - IEEE C62.48-2005
  - IEEE C62.62-2010
- RoHS compliant

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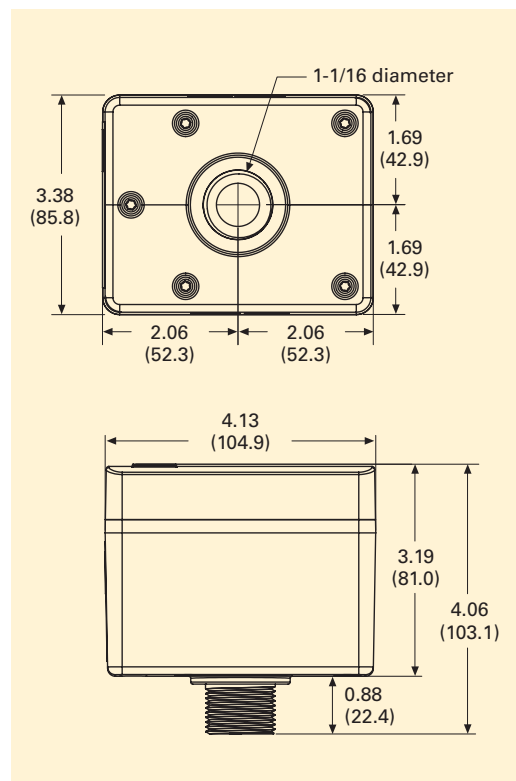
SP2 for light commercial and UL 508A panel applications

## SP2 surge protection device model selection guide

Nominal system voltage	Maximum continuous operating AC voltage (MCOV)	System type	Voltage protection ratings (VPR)	Connection points	Catalog number
120	150	Single-phase, two-wire	700 L-N	2	<b>SP2-120</b>
240	320	Single-phase, two-wire	1200 L-N	2	<b>SP2-240</b>
120/240	150	Split-phase, three-wire	700 L-N, 120 L-L	3	<b>SP2-240S</b>
240	320	Three-phase delta, three-wire + ground	1200 L-G, 2500 L-L	4	<b>SP2-240D</b>
480	550	Three-phase delta, three-wire + ground	1800 L-G, 3000 L-L	4	<b>SP2-480D</b>
120/208	150	Three-phase wye, three-wire + ground	700 L-G, 1200 L-L	4	<b>SP2-208Y</b>
277/470	320	Three-phase wye, three-wire + ground	1200 L-G, 2500 L-L	4	<b>SP2-480Y</b>
347/600	420	Three-phase wye, three-wire + ground	1500 L-G, 2500 L-L	4	<b>SP2-600Y</b>

## SP2 surge protection device specifications

Description	Specification
Markets	Light commercial and UL 508A panels
Product warranty	2 years
System types	Single, split, delta and wye
Nominal system voltage	120, 208, 240, 480, 600 Vac
Installation	Two-, three-, four-wire
Maximum continuous operating AC voltage	Matched to nominal voltage
MCOV	150–550 Vac (see table above)
L-N protection	Yes (single-phase units)
L-L protection	Yes
L-G protection	Yes (three-phase units)
N-G protection	No
Protection	Surges and transients
SCCR	200 kA
Nominal discharge current (8 x 20 μs) I <sub>n</sub>	10 kA
Maximum discharge current (8 x 20 μs) I <sub>max</sub>	45 kA
Response time t <sub>A</sub>	<25 ns
Voltage protection ratings (VPRs)	See technical data in table above
Frequency	50/60 Hz
Operating status / fault indication	One bi-color LED—green (good) / red (replace)
Conductor gauge / length	10 AWG stranded copper / 18 inches
Mounting	Chase nipple / bracket
Enclosure rating	NEMA 4X—UL 94-5VA
Degree of protection (installed state)	IP20 (finger-safe)
Install location	Indoor / outdoor
Circuit location	Lineside / loadside
Standards / agency information	UL 1449 4rd Edition Type 1 and UL 1283 7th Edition listed SPD—cULus, RoHS compliant
Operating temperature	–40 °C to +65 °C
Maximum operating altitude	12,000 feet



SP2 enclosure dimensions in inches (mm)

For details, please visit [Eaton.com/SPD](http://Eaton.com/SPD)  
 For technical support, call **1-800-809-2772**,  
 option 4, option 2  
 For other queries, email [spd@eaton.com](mailto:spd@eaton.com)

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