

Submittal specification for versions of the SPC series surge protective device (SPC050) installed external to an electrical assembly

Eaton's SPC series surge protective devices (SPDs) are used to protect equipment from damage caused by surge events. This submittal specification represents the side-mount version of the SPC series units with a catalog number beginning with "SPC050." These versions are designed to be mounted external to electrical distribution assemblies and interfaced via conduit and wires.

Table 1. Surge current capacity

Configuration	Minimum surge current capacity				
	Per phase	L-N mode	L-G mode	N-G mode	L-L mode
Single-phase (2W + G)	50	50	—	50	—
Single split-phase (3W + G)	50	50	—	50	—
Three-phase wye (4W + G)	50	50	—	50	—
Three-phase delta (3W + G)	50	—	50	—	50
Three-phase high-leg delta (4W + G)	50	50	—	50	—

Table 2. Catalog number configuration

(Check appropriate boxes that apply)

SPC050 240S 1 P

Voltage code	Feature package	SPD application
<input type="checkbox"/> 120N = 120 single-phase (2W + G)	<input type="checkbox"/> 1 = No options (standard configuration)	Type 1
<input type="checkbox"/> 240N = 240 single-phase (2W + G)	<input type="checkbox"/> 2 = Filtering, UL 1283 6th Edition	Type 2
<input type="checkbox"/> 277N = 277 single-phase (2W + G)	<input type="checkbox"/> 3 = Audible alarm	Type 1
<input type="checkbox"/> 480N = 480 single-phase (2W + G)	<input type="checkbox"/> 4 = Form C relay	Type 1
<input type="checkbox"/> 240S = 120/240 split-phase (3W + G)	<input type="checkbox"/> 5 = Audible alarm and Form C relay	Type 1
<input type="checkbox"/> 240D = 240 delta (3W + G)	<input type="checkbox"/> 6 = Filtering and audible alarm	Type 2
<input type="checkbox"/> 480D = 480 delta (3W + G)	<input type="checkbox"/> 7 = Filtering and Form C relay	Type 2
<input type="checkbox"/> 600D = 600 delta (3W + G)	<input type="checkbox"/> 8 = Filtering, audible alarm, and Form C relay	Type 2
<input type="checkbox"/> 240H = 240 delta high leg (4W + G)		
<input type="checkbox"/> 208Y = 120/208 wye (4W + G)		
<input type="checkbox"/> 415Y = 240/415 wye (4W + G)		
<input type="checkbox"/> 480Y = 277/480 wye (4W + G)		
<input type="checkbox"/> 600Y = 347/600 wye (4W + G)		

Enclosure
P = NEMA 4X

Available optional equipment	Catalog number
Flush-mount plate for P1 enclosure	FLUSHMNTPLATE13
Flush-mount plate for P2 enclosure	FLUSHMNTPLATE14



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Performance specifications and features of the SPD series surge protective device

- ANSI/UL® 1449 4th Edition voltage protection rating (VPR)
 - VPR for units rated, 50, 80–100, and 120–200 kA, respectively
- Overcurrent protection
 - All units contain thermally protected metal oxide varistors that contain an internal thermal element that disconnects the device safely when exposed to abnormal conditions such as temporary overvoltage or high fault current conditions.
- Monitoring and features (refer to **Table 2** for a listing of individual features contained in each feature package)
- Enclosure dimensions and weight
 - NEMA® 4X; 11.30 L x 8.70 W x 5.40 D inches, 14.6 lb

Table 3. Voltage code

Voltage code	Protection mode			
	L-N	L-G	N-G	L-L
50 kA unit VPR				
120N	700	1200	700	—
240N	1200	2000	1500	—
277N	1200	2000	1500	—
480N	1800	1800	1800	—
240S	700	1200	700	1200
208Y	700	1200	700	1200
415Y	1200	2000	1500	2000
480Y	1200	2000	1500	2000
600Y	1500	1500	1500	2500
240D	—	1000	—	1000
480D	—	2000	—	2500
600D	—	2500	—	2500
240H ②	700	1200	700	1200

② Additional 240H VPRs: 2000 H-L, 1200 H-N, 2000 H-G

Table 4. Specifications

Description	Specification
Peak surge current capacity ratings available	50, 80, 100, 120, 150, 160, 200 kA per phase
Nominal discharge current (I _n)	20 kA
Short-circuit current rating (SCCR)	200 kA
Single-phase voltages available (2W + G)	120, 240, 277, 480
Split-phase voltages available (3W + G)	120/240
Three-phase wye system voltages available (4W + G)	120/208, 240/415, 277/480, 347/600
Three-phase delta system voltages available (3W + G)	240, 480, 600
Three-phase high-leg delta system voltages available (4W + G)	240
Input power frequency	50/60 Hz
Protection modes	
Single-phase	L-N, L-G, N-G
Single split-phase	L-N, L-G, N-G, L-L
Three-phase wye	L-N, L-G, N-G, L-L
Three-phase delta	L-G, L-L
Maximum continuous operating voltage (MCOV)	
120N voltage code	150 L-N, 150 L-G, 150 N-G
240N, 277N voltage code	320 L-N, 320 L-G, 320 N-G
480N voltage code	550 L-N, 550 L-G, 550 N-G
240S, 208Y voltage code	150 L-N, 150 L-G, 150 N-G, 300 L-L
240H voltage code	150 L-N, 150 L-G, 150 N-G, 300 L-L, 470 H-L, 320 H-N, 320 H-G
415Y, 480Y voltage code	320 L-N, 320 L-G, 320 N-G, 640 L-L
600Y voltage code	420 L-N, 420 L-G, 420 N-G, 840 L-L
240D voltage code	320 L-G, 300 L-L
480D voltage code	550 L-G, 640 L-L
600D voltage code	840 L-G, 840 L-L
Ports	1
Operating temperature	-40 °F to +140 °F (-40 °C to +60 °C)
Storage temperature	-40 °F to +140 °F (-40 °C to +60 °C)
Operating humidity	5% through 95%, noncondensing
Operating altitude	Up to 2000 m (6561 ft)
Agency certifications/listing	UL 1449 4th Edition, UL 1283 7th Edition, CSA® C22.2 No. 269.1-14 for Type 1 SPD, CSA C22.2 No. 269.2-13 for Type 2 SPD, CSA C22.2 No. 8-13 for EMI filter
Durability repetitive strike test	Passed 12,000 strikes to ANSI/IEEE® C62.41 (20 kV, 10 kA) Category C waveform
SPD type	UL 1449 4th Edition and CSA Type 1 and Type 2 SPD (dependent on feature options)
Enclosure rating	NEMA 4X enclosure ①
Form C relay contact ratings	2 A at 30 Vdc or 250 Vac
Form C relay contact logic	Power ON, normal state— NO contact = open, NC contact = closed Power OFF or fault state— NO contact = closed, NC contact = open
EMI/RFI filtering attenuation	Up to 40 dB from 10 kHz to 100 MHz
RoHS compliant	Yes
Warranty	5 years standard, 10 years with product registration at Eaton.com/spc

① Mounting feet required to achieve NEMA 4X rating.

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