

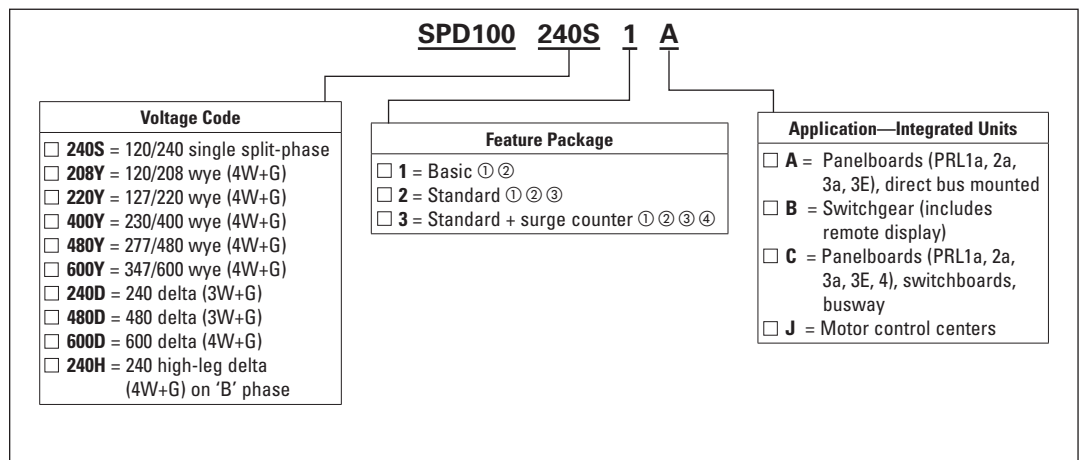
Submittal specification for 100 kA SPD Series integrated versions

Eaton's SPD Series Surge Protective Devices (SPD) are used to protect equipment from damage caused by surge events. This submittal specification represents integrated versions of the SPD Series units with a catalog number beginning with "SPD100." These versions are integrated within Eaton electrical assemblies, including panelboards, switchboards, motor control centers, switchgear, bus plugs, and automatic transfer switches.

Table 1. Surge Current Capacity

Configuration	Per Phase	L-N Mode	L-G Mode	N-G Mode	L-L Mode
Single split phase (3W+G)	100	50	50	50	—
Three-phase wye (4W+G)	100	50	50	50	—
Three-phase delta (3W+G)	100	—	50	—	50
Three-phase high-leg delta (4W+G)	100	50	50	50	—

Table 2. Catalog Numbering System



① Dual-colored LED per phase to indicate protection status.

② Dual-colored LED to indicate protection status of the N-G mode on units with a neutral wire.

③ Audible alarm with silence button, Form C relay contact, EMI/RFI filtering providing up to 50 dB of noise attenuation from 10 kHz to 100 MHz.

④ Surge counter with Reset button.

Performance Specifications and Features

- A. ANSI/UL® 1449 3rd Edition Voltage Protection Rating (VPR)
 - a. VPR for panelboard units mounted directly to the electrical bus (catalog number ends with A)

Table 3. Voltage Code and VPR

Voltage Code	VPR for Each Protection Mode			
	L-N	L-G	N-G	L-L
240S	500	600	500	900
208Y and 220Y	500	600	500	900
400Y and 480Y	1000	1200	1000	1800
600Y	1200	1500	1200	2500
240D	—	1000	—	900
480D	—	1800	—	1800
600D	—	2500	—	2500
240H	500	600	500	900



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- b. VPR for units interfaced via a circuit breaker (catalog number ends in B, C, or J)

Table 4. Voltage Code and VPR

Voltage Code	VPR for Each Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	700	700	1000
208Y and 220Y	700	700	700	1000
400Y and 480Y	1200	1200	1200	1800
600Y	1500	1500	1500	2500
240D	—	1200	—	1200
480D	—	2000	—	2000
600D	—	2500	—	2500
240H	700	700	700	1000

- B. Internal overcurrent protection
 - a. All units contain thermally protected metal-oxide varistors. Each of these devices is internally fused by a thermal element that safely removes them from the circuit under abnormal conditions, such as temporary overvoltage or high fault current conditions.
- C. Monitoring and features (refer to **Table 2** for a listing of the individual features contained in each feature package)
- D. Panelboard unit features
 - a. Available in PRL1a, 2a, 3a, 3E, and 4 panelboards
 - b. Available direct bus mounted (direct bus mount option available on PRL1a, 2a, 3a, and 3E only) or interfaced via a 30A, thermal-magnetic circuit breaker (available for all panelboards)
- E. Switchboard unit features
 - a. Available in PRLC switchboards
 - b. Interfaced via a 30A, thermal-magnetic circuit breaker
- F. Motor control center unit features
 - a. Available in all Freedom™ and Advantage™ motor control centers
 - b. Unit is mounted in an 18-inch bucket
 - c. Bucket is acceptable for installation in both NEMA® 1 and NEMA 12 environments
 - d. Aftermarket buckets containing SPD Series units available
 - e. Interfaced via a 30A, thermal-magnetic breaker
- G. Switchgear unit features
 - a. Unit is mounted in a standard switchgear cell
 - b. Interfaced via a 30A, thermal-magnetic circuit breaker
 - c. Display is mounted remotely from the SPD Series unit
- H. Bus plug unit features
 - a. Mounted in an 18.6 L x 14.0 W x 5.5 D Pow-R-Way III® bus plug
 - b. Interfaced via a 30A, thermal-magnetic circuit breaker

Table 5. Specifications

Description	Specification
Surge capacity ratings available	50, 80, 100, 120, 160, 200, 250, 300, 400 kA per phase
Nominal discharge current (I _n)	20 kA
Short circuit current rating (SCCR)	200 kA
SPD type	Basic feature package = Type 1 (can also be used in Type 2 applications) Standard and Standard with Surge Counter feature packages = Type 2
Single split phase voltages available	120/240
Three-phase wye system voltages available	120/208, 127/220, 230/400, 277/480, 347/600
Three-phase delta system voltages available	240, 480, 600
Input power frequency	50/60 Hz
Power consumption (basic units)—voltage codes	
208Y, 220Y, 240S, 240D, and 240H	0.5W
400Y, 480Y, and 480D	1.1W
600Y and 600D	1.3W
Power consumption—voltage codes ①	
208Y, 220Y, 240S, 240D, and 240H	0.6W
400Y, 480Y, and 480D basic	1.7W
600Y and 600D	2.1W
Protection modes	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 Three-phase high-leg Delta L-N, L-G, N-G, L-L
Maximum continuous operating voltage (MCOV)	
240S, 208Y, 220Y, and 240H	150 L-N, 150 L-G, 150 N-G, 300 L-L
400Y and 480Y	320 L-N, 320 L-G, 320 N-G, 640 L-L
600Y	420 L-N, 420 L-G, 420 N-G, 840 L-L
240D	320 L-G, 320 L-L
480D	640 L-G, 640 L-L
600D	840 L-G, 840 L-L
Ports	1
Operating temperature	-20°C–50°C (-4°F–122°F)
Operating humidity	5%–95%, noncondensing
Operating altitude	Up to 16,000 ft (5000m)
Seismic withstand capability	Meets or exceeds the requirements specified in IBC® 2006, CBC 2007, and UBC® Zone 4
Weight	50–200 kA units approximately 3.5 lbs (1.6 kg) 250–400 kA units approximately 7.0 lbs (3.2 kg)
Form C relay contact ratings	150 Vdc or 125 Vac, 1A maximum
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 50 dB from 10 kHz–100 MHz
Agency certifications and approvals	UL 1449 3rd Edition recognized component for the U.S. and Canada; UL 1283 (Type 2 SPDs only)
Warranty	10 years

① Standard and standard with surge counter units.

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Printed in USA
Publication No. TD01005007E / Z8878
August 2009



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