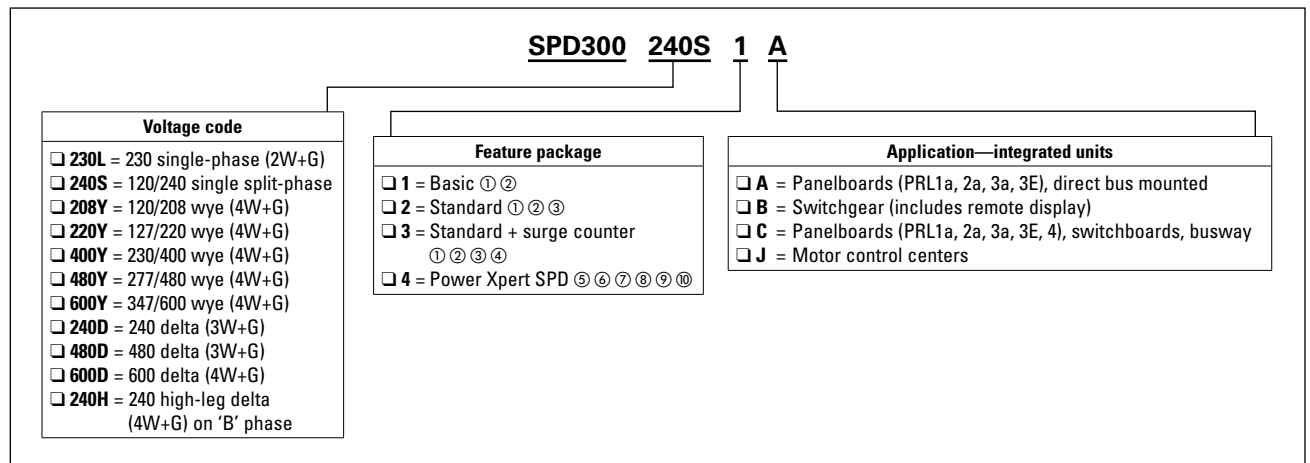


Submittal specification for 300 kA SPD Series integrated versions

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 "SPD300." 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)	300	150	150	150	—
Three-phase wye (4W+G)	300	150	150	150	—
Three-phase delta (3W+G)	300	—	150	—	150
Three-phase high-leg delta (4W+G)	300	150	150	150	—

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.
- ⑤ Tri-colored LED per phase to indicate protection status.

- ⑥ Tri-colored LED to indicate protection status of the N-G mode on units with a neutral wire.
- ⑦ Percentage protection remaining status.
- ⑧ RJ45 Ethernet port for LAN connection, Modbus® TCP/IP, or BACnet/IP.
- ⑨ UI webpage and programmable settings.
- ⑩ Time-and-date stamped surge log and surge categorization.

Performance specifications and features

- A. ANSI/UL® 1449 4th Edition Voltage Protection Rating (VPR)
- a. VPR for units interfaced via a circuit breaker (catalog number ends in B, C, or J)

Table 3. Voltage code and VPR

Voltage code	VPR for each protection mode			
	L-N	L-G	N-G	L-L
230L	1200	1200	900	—
240S	600 ①	700	600	1000
208Y and 220Y	600 ①	700	600	1000
400Y and 480Y	1000	1200	900	1800
600Y	1500	1500	1200	2500
240D	—	1000	—	1000
480D	—	1800	—	1800
600D	—	2500	—	2500
240H	600 ①	700	600	1000

- ① L-N VPR for 250 kA units containing the standard and standard with surge counter feature packages is 600 V. L-N VPR for units containing the basic feature package is 700 V. All other VPR numbers reported in this table represent the VPR for all feature packages.

- 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 PRL4 panelboards
 - b. Interfaced via a 30 A, thermal-magnetic circuit breaker
- E. Switchboard unit features
 - a. Available in PRLC switchboards
 - b. Interfaced via a 30 A, 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 30 A, thermal-magnetic breaker
- G. Switchgear unit features
 - a. Unit is mounted in a standard switchgear cell
 - b. Interfaced via a 30 A, 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 30 A, thermal-magnetic circuit breaker

Table 4. 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 Power Xpert SPD = Type 2
Single split-phase voltages available	120/240
Single-phase voltages available	230
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	0.5 W
400Y, 480Y, and 480D	1.1 W
600Y and 600D	1.3 W
Power consumption—voltage codes ①	
208Y, 220Y, 240S, 240D, and 240H	0.6 W
400Y, 480Y, and 480D basic	1.7 W
600Y and 600D	2.1 W
Power consumption (Power Xpert SPD units)—voltage codes	
208Y, 220Y, 230L, 240S, 240D, and 240H	4.0 W
400Y, 480Y, and 480D	4.0 W
600Y and 600D	4.0 W
Protection modes	Single split-phase L-N, L-G, N-G, L-L Single-phase L-N, L-G, N-G 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)	
230L	320 L-N, 640 L-G, 320 N-G
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 (5000 m) Power Xpert SPD up to 6561 ft (2000 m)
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 lb (1.6 kg) 250–400 kA units approximately 7.0 lb (3.2 kg)
Form C relay contact ratings	150 Vac at 0.46 A, 30 Vdc at 1 A 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 to 100 MHz
Agency certifications and approvals	UL 1449 4th Edition recognized component for the U.S. and Canada; UL 1283 (Type 2 SPDs only)
Warranty	10 years 15 years if you register on www.eaton.com/spd and click the warranty registration icon

① Standard and standard with surge counter units.

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