Submittal Specification for 400 kA PSPD Series Units

Eaton's PSPD Series Surge Protective Devices are used to protect equipment from damage caused by surge events. This submittal specification represents sidemount versions of the PSPD Series units with a catalog number beginning with "PSPD400."

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)	400	200	200	200	—
Three-phase wye (4W+G)	400	200	200	200	—
Three-phase delta (3W+G)	400	—	200	—	200

Table 2. Catalog Numbering System

PSPD400 240S 1 K

Voltage Code
- ☐ **240S** = 120/240 single split-phase
- ☐ **208Y** = 120/208 wye (4W+G)
- ☐ **400Y** = 230/400 wye (4W+G)
- ☐ **480Y** = 277/480 wye (4W+G)
- ☐ **240D** = 240 delta (3W+G)
- ☐ **480D** = 480 delta (3W+G)

Feature Package
- ☐ **1** = Basic ① ②
- ☐ **2** = Standard ① ② ③
- ☐ **3** = Standard + surge counter ① ② ③ ④

Enclosure Options
- ☐ **K** = NEMA® 1 enclosure
- ☐ **M** = NEMA 1 with internal disconnect

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 units containing the basic feature package without an internal disconnect (catalog number ends with 1K). For all other VPR values, please refer to Technical Data TD01005026E or insert Voltage Code and VPR Value in the fields below Table 3.

Table 3. 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	700	700	700	1000
400Y and 480Y	1200	1200	1200	1800
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000

Enter VPR if not listed

Voltage Code	VPR for Each Protection Mode			
	L-N	L-G	N-G	L-L

Powering Business Worldwide

b. VPR for units containing the standard or standard with surge counter feature package without an internal disconnect (catalog number ends with 2K or 3K). For all other VPR values, please refer to Technical Data TD01005026E or insert Voltage Code and VPR Value in the fields below Table 4.

Table 4. Voltage Code and VPR

Voltage Code	VPR for Each Protection Mode			
	L-N	L-G	N-G	L-L
240S	600	700	600	1000
208Y	600	700	600	1000
400Y and 480Y	1000	1200	1000	1800
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
Enter VPR if not listed				
Voltage Code	**VPR for Each Protection Mode**			
	L-N	**L-G**	**N-G**	**L-L**

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. General features

a. All units contain a factory-installed ¾-inch trade size chase nipple

b. All units are prewired at the factory. Phase, neutral, and ground connections are made via 10 AWG wires. Form C relay contact connections are made via 14 AWG wires ①

c. All units are factory sealed. No user intervention or internal connections are required

d. Units with an internal disconnect (catalog number ends with M) contain a three-pole, 30A thermal-magnetic circuit breaker, Eaton catalog number FDC3030

e. All enclosures are constructed of powder-coated steel

E. Enclosure dimensions and weights

a. NEMA 1 (catalog number ends with K): 10.50L x 7.50W x 5.80D inches, 13.5 lbs

b. NEMA 1 with disconnect (catalog number ends with M): 10.70L x 11.10W x 5.80D inches, 14.7 lbs

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, 230/400, 277/480
Three-phase delta system voltages available	240, 480
Input power frequency	50/60 Hz
Power consumption (basic units)—voltage codes 208Y, 240S, and 240D 400Y, 480Y, and 480D	 0.5W 1.1W
Power consumption—voltage codes ① 208Y, 240S, and 240D 400Y, 480Y, and 480D	 0.6W 1.7W
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
Maximum continuous operating voltage (MCOV) 208Y and 240S 400Y and 480Y 240D 480D	 150 L-N, 150 L-G, 150 N-G, 300 L-L 320 L-N, 320 L-G, 320 N-G, 640 L-L 320 L-G, 320 L-L 640 L-G, 640 L-L
Ports	1
Operating temperature	–40°C–50°C (–40°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
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 ①	Up to 50 dB from 10 kHz–100 MHz
Agency certifications and approvals	UL 1449 3rd Edition listed, CSA®, UL 1283 (Type 2 SPDs only)
Warranty	10 years

① Standard and standard with surge counter units.

Eaton Corporation
Electrical Sector
1111 Superior Ave.
Cleveland, OH 44114
United States
877-ETN-CARE (877-386-2273)
Eaton.com

Printed in USA
Publication No. TD01005035E / TBG311
June 2011

Powering Business Worldwide