

# Eaton's SPD Series for mounting external to electrical distribution equipment



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## Introduction

### Eaton's SPD Series surge protective devices

Eaton's SPD Series surge protective devices are the latest and most advanced UL® 1449 3rd Edition certified surge protectors. Units are available integrated within Eaton electrical assemblies, including panelboards, switchboards, motor control centers, switchgear, and bus plugs. Sidemount versions of the SPD Series are also available for installation external to an electrical assembly. Application of SPD Series units throughout a facility will ensure that equipment is protected with the safest and most reliable surge protective devices available.

## Applications

SPD Series units are available in all common voltages and configurations and also in a variety of surge current capacity ratings from 50 through 400 kA. Three feature package options are also available to choose from. The breadth of the SPD Series' features, options, and configurations ensures that the correct unit is available for all electrical applications, including service entrances, distribution switchboards, panelboards, and point-of-use applications.

## Features

- Uses thermally protected metal oxide varistor (MOV) technology
- 20 kA nominal discharge current ( $I_n$ ) rating (maximum rating assigned by UL)
- 50 through 400 kA surge current capacity ratings
- Three feature package options
- 200 kA short-circuit current rating (SCCR)
- 10-year warranty

## Standards and certifications



- UL 1449 3rd Edition listed device
- Canadian Standards Association® (CSA®)



SPD Series sidemount unit mounted externally to an Eaton panelboard

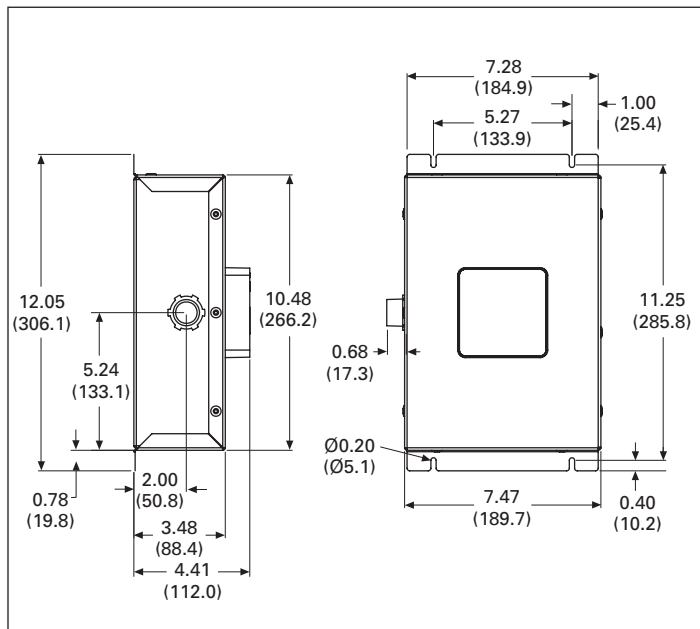
### Feature package options

The SPD Series provides users with the option of selecting between three feature packages. These feature packages are the basic, standard, and standard with surge counter. The proper feature package can be selected based on the requirements of the application or specification.

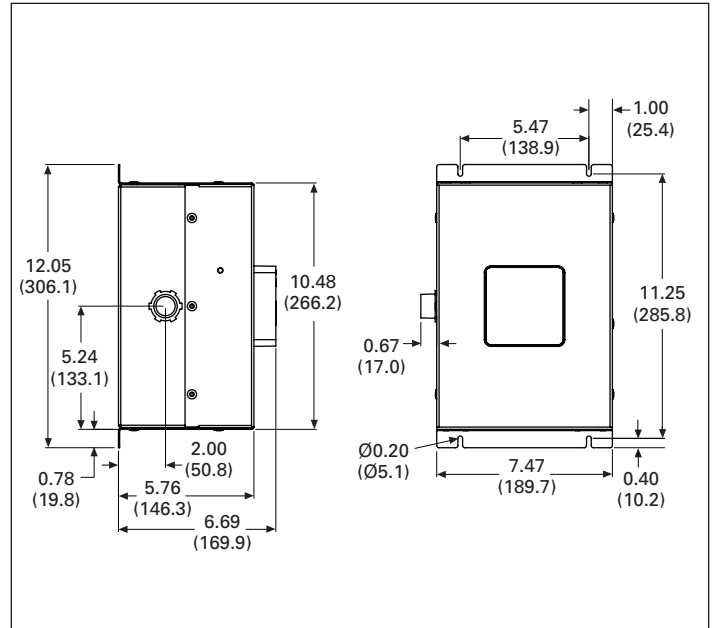
**Table 1. Feature Package Comparison**

Feature	Basic	Standard	Standard with Surge Counter
Surge protection using thermally protected MOV technology	✓	✓	✓
Dual-colored protection status indicators for each phase	✓	✓	✓
Dual-colored protection status indicators for the neutral-ground protection mode	✓	✓	✓
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		✓	✓
Surge counter with reset button			✓

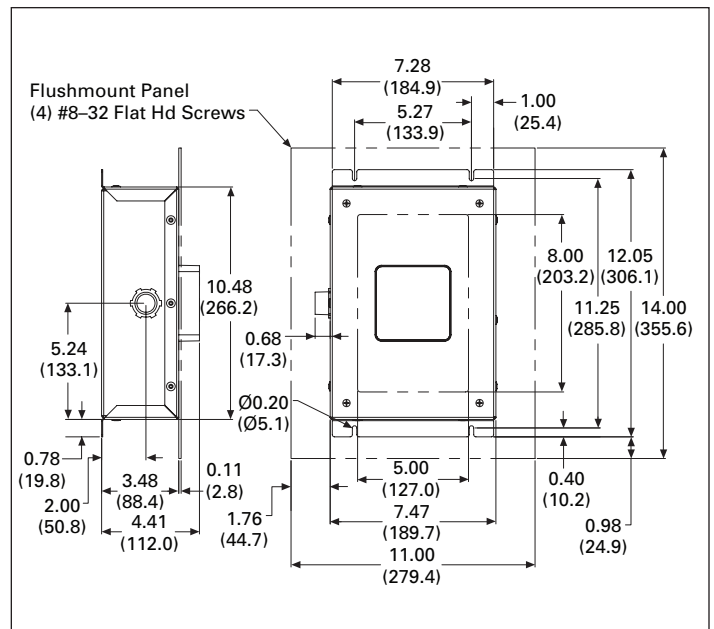
### Enclosure options, dimensions, and weights



**Figure 1. 50–200 kA Units in a NEMA® 1 Rated Enclosure, Weight = 6.8 lbs**



**Figure 2. 250–400 kA Units in a NEMA 1 Rated Enclosure, Weight = 13.5 lbs**



**Figure 3. 50–200 kA Units in a NEMA 1 Rated Flushmount Enclosure, Weight = 6.8 lbs**

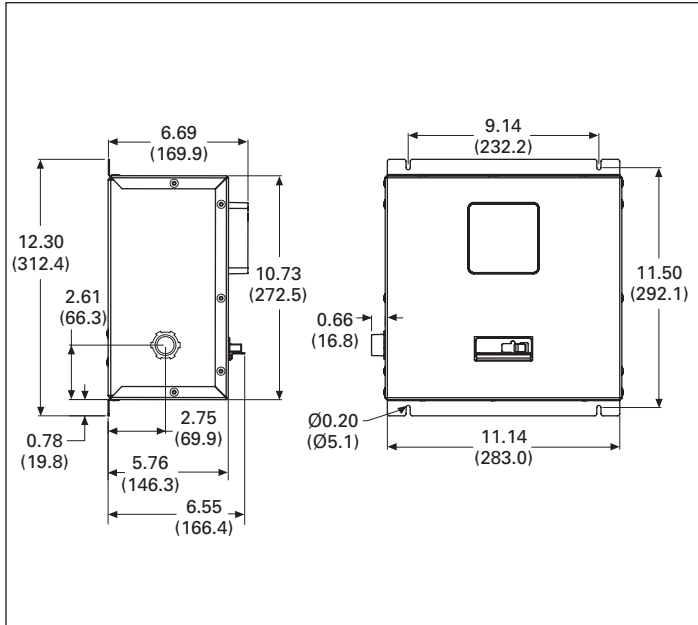


Figure 4. 50-400 kA Units in a NEMA 1 Rated Enclosure with Internal Disconnect, Weight = 14.7 lbs

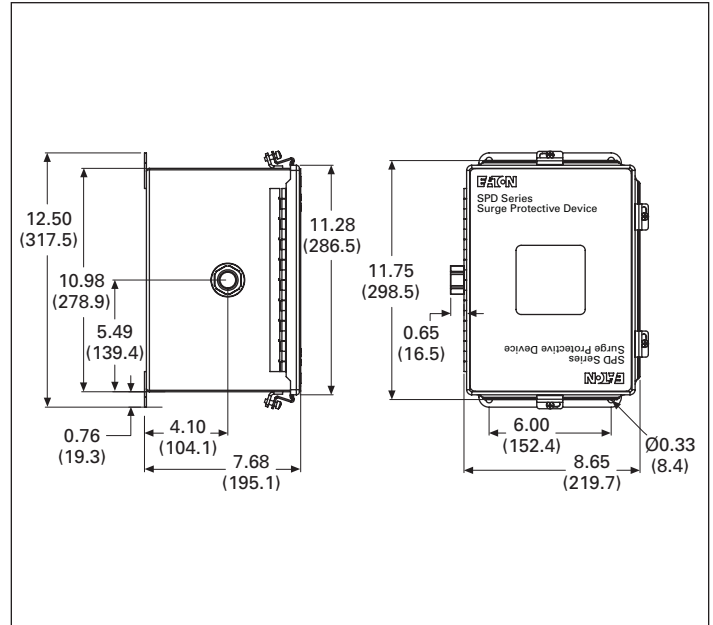


Figure 6. 250-400 kA Units in a NEMA 4 or 4X Rated Enclosure, Weight = 14.6 lbs

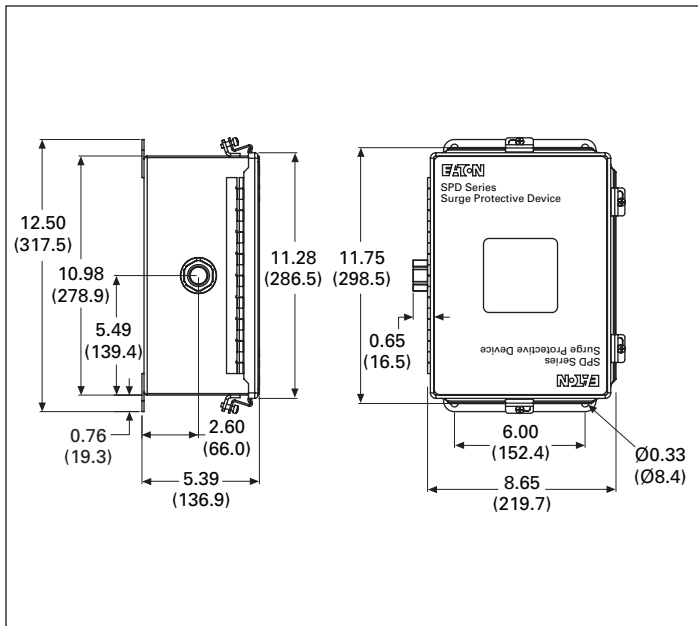


Figure 5. 50-200 kA Units in a NEMA 4 or 4X Rated Enclosure, Weight = 14.6 lbs

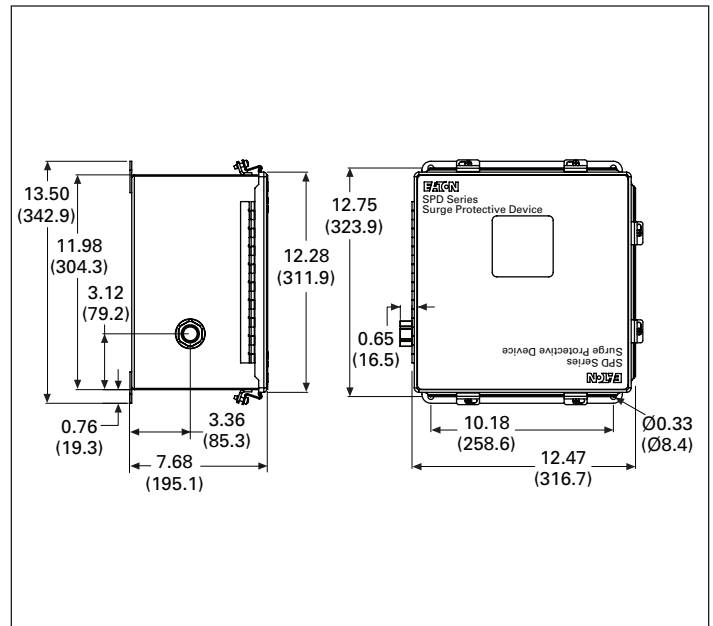


Figure 7. 50-400 kA Units in a NEMA 4 or 4X Rated Enclosure with Internal Disconnect, Weight = 27.5 lbs

## Performance data

### ANSI/UL 1449 3rd Edition voltage protection ratings

In the tables on the following pages, voltage protection rating (VPR) data is included for all sidemount units, but varies based upon the feature package and enclosure option. VPR values for units containing the basic feature package are found on the left-hand side of each page. Tables on the right-hand side of the page contain VPR values for units containing the standard or standard with surge counter feature package.

VPR data for units in a NEMA 1 enclosure without an internal disconnect (catalog number ends with K or L)

Table 2. 50 kA Unit VPR (Cat. No. Ends with 1K or 1L)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	1200	700	1200
208Y and 220Y	700	1200	700	1200
400Y and 480Y	1200	2000	1200	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	700	1200	700	1200

Table 3. 80–100 kA Unit VPR (Cat. No. Ends with 1K or 1L)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	700	700	1200
208Y and 220Y	700	700	700	1200
400Y and 480Y	1200	1200	1200	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	700	700	700	1200

Table 4. 120–200 kA Unit VPR (Cat. No. Ends with 1K or 1L)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	700	700	1200
208Y and 220Y	700	700	700	1200
400Y and 480Y	1200	1200	1200	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	700	700	700	1200

Table 5. 250–300 kA Unit VPR (Cat. No. Ends with 1K or 1L)

Voltage Code	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	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	700	700	700	1000

Table 6. 400 kA Unit VPR (Cat. No. Ends with 1K or 1L)

Voltage Code	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	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	700	700	700	1000

Table 7. 50 kA Unit VPR (Cat. No. Ends with 2K, 2L, 3K, or 3L)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	1200	700	1200
208Y and 220Y	700	1200	700	1200
400Y and 480Y	1200	2000	1200	2500
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	3000	N/A	2500
240H	700	1200	700	1200

Table 8. 80–100 kA Unit VPR (Cat. No. Ends with 2K, 2L, 3K, or 3L)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	800	700	1200
208Y and 220Y	700	800	700	1200
400Y and 480Y	1200	1200	1200	2500
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	3000	N/A	2500
240H	700	800	700	1200

Table 9. 120–200 kA Unit VPR (Cat. No. Ends with 2K, 2L, 3K, or 3L)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	600	800	600	1000
208Y and 220Y	600	800	600	1000
400Y and 480Y	1200	1200	1200	1800
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	2500	N/A	2500
240H	700	800	700	1200

Table 10. 250–300 kA Unit VPR (Cat. No. Ends with 2K, 2L, 3K, or 3L)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	600	800	600	1000
208Y and 220Y	600	800	600	1000
400Y and 480Y	1000	1200	1000	1800
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	600	800	600	1000

Table 11. 400 kA Unit VPR (Cat. No. Ends with 2K, 2L, 3K, or 3L)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	600	700	600	1000
208Y and 220Y	600	700	600	1000
400Y and 480Y	1000	1200	1000	1800
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	600	800	600	1000

VPR data for units in a NEMA 1 enclosure with an internal disconnect (catalog number ends with M)

Table 12. 50 kA Unit VPR (Cat. No. Ends with 1M)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	1200	700	1500
208Y and 220Y	800	1200	700	1500
400Y and 480Y	1500	2500	1200	2500
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	800	1200	700	1500

Table 13. 80–100 kA Unit VPR (Cat. No. Ends with 1M)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	800	700	1500
208Y and 220Y	800	800	700	1500
400Y and 480Y	1500	1500	1200	2500
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	800	800	700	1500

Table 14. 120–200 kA Unit VPR (Cat. No. Ends with 1M)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	800	700	1500
208Y and 220Y	800	800	700	1500
400Y and 480Y	1500	1500	1200	2500
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	800	800	700	1500

Table 15. 250–300 kA Unit VPR (Cat. No. Ends with 1M)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	800	700	1500
208Y and 220Y	800	800	700	1500
400Y and 480Y	1200	1200	1200	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	800	800	700	1500

Table 16. 400 kA Unit VPR (Cat. No. Ends with 1M)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	800	700	1500
208Y and 220Y	800	800	700	1500
400Y and 480Y	1200	1200	1200	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	800	800	700	1500

Table 17. 50 kA Unit VPR (Cat. No. Ends with 2M or 3M)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	1200	700	1500
208Y and 220Y	800	1200	700	1500
400Y and 480Y	1200	2000	1200	2500
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	3000	N/A	2500
240H	800	1200	700	1500

Table 18. 80–100 kA Unit VPR (Cat. No. Ends with 2M or 3M)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	900	700	1200
208Y and 220Y	800	900	700	1200
400Y and 480Y	1200	1200	1200	2500
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	3000	N/A	2500
240H	800	900	700	1200

Table 19. 120–200 kA Unit VPR (Cat. No. Ends with 2M or 3M)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	900	700	1200
208Y and 220Y	800	900	700	1200
400Y and 480Y	1200	1200	1200	2500
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	2500	N/A	2500
240H	800	900	700	1200

Table 20. 250–300 kA Unit VPR (Cat. No. Ends with 2M or 3M)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	900	700	1200
208Y and 220Y	700	900	700	1200
400Y and 480Y	1200	1200	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	700	900	700	1200

Table 21. 400 kA Unit VPR (Cat. No. Ends with 2M or 3M)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	900	700	1200
208Y and 220Y	700	900	700	1200
400Y and 480Y	1200	1200	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	700	900	700	1200

VPR data for units in a NEMA 4 or 4X enclosure without an internal disconnect (catalog number ends with N or P)

Table 22. 50 kA Unit VPR (Cat. No. Ends with 1N or 1P)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	1200	700	1200
208Y and 220Y	700	1200	700	1200
400Y and 480Y	1200	2000	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	700	1200	700	1200

Table 23. 80–100 kA Unit VPR (Cat. No. Ends with 1N or 1P)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	800	700	1200
208Y and 220Y	700	800	700	1200
400Y and 480Y	1200	1200	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	700	800	700	1200

Table 24. 120–200 kA Unit VPR (Cat. No. Ends with 1N or 1P)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	800	700	1200
208Y and 220Y	700	800	700	1200
400Y and 480Y	1200	1200	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	700	800	700	1200

Table 25. 250–300 kA Unit VPR (Cat. No. Ends with 1N or 1P)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	800	700	1200
208Y and 220Y	700	800	700	1200
400Y and 480Y	1200	1200	1200	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	700	800	700	1200

Table 26. 400 kA Unit VPR (Cat. No. Ends with 1N or 1P)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	700	800	700	1200
208Y and 220Y	700	800	700	1200
400Y and 480Y	1200	1200	1200	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	700	800	700	1200

Table 27. 50 kA Unit VPR (Cat. No. Ends with 2N, 2P, 3N, or 3P)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	900	1500	700	1500
208Y and 220Y	900	1500	700	1500
400Y and 480Y	1200	2000	1000	2500
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	3000	N/A	2500
240H	900	1500	700	1500

Table 28. 80–100 kA Unit VPR (Cat. No. Ends with 2N, 2P, 3N, or 3P)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	900	900	700	1500
208Y and 220Y	900	900	700	1500
400Y and 480Y	1200	1200	1000	2500
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	3000	N/A	2500
240H	900	900	700	1500

Table 29. 120–200 kA Unit VPR (Cat. No. Ends with 2N, 2P, 3N, or 3P)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	900	900	700	1500
208Y and 220Y	900	900	700	1500
400Y and 480Y	1200	1200	1000	2500
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	2500	N/A	2500
240H	900	900	700	1500

Table 30. 250–300 kA Unit VPR (Cat. No. Ends with 2N, 2P, 3N, or 3P)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	900	700	1500
208Y and 220Y	800	900	700	1500
400Y and 480Y	1200	1200	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2000
600D	N/A	2500	N/A	2500
240H	800	900	700	1500

Table 31. 400 kA Unit VPR (Cat. No. Ends with 2N, 2P, 3N, or 3P)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	900	700	1500
208Y and 220Y	800	900	700	1500
400Y and 480Y	1200	1200	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2000
600D	N/A	2500	N/A	2500
240H	800	900	700	1500

VPR data for units in a NEMA 4 or 4X enclosure with an internal disconnect (catalog number ends with O or Q)

Table 32. 50 kA Unit VPR (Cat. No. Ends with 1O or 1Q)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	1200	700	1500
208Y and 220Y	800	1200	700	1500
400Y and 480Y	1200	2000	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	800	1200	700	1500

Table 33. 80–100 kA Unit VPR (Cat. No. Ends with 1O or 1Q)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	900	700	1500
208Y and 220Y	800	900	700	1500
400Y and 480Y	1200	1200	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	800	900	700	1500

Table 34. 120–200 kA Unit VPR (Cat. No. Ends with 1O or 1Q)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	900	700	1500
208Y and 220Y	800	900	700	1500
400Y and 480Y	1200	1200	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2500
600D	N/A	2500	N/A	2500
240H	800	900	700	1500

Table 35. 250–300 kA Unit VPR (Cat. No. Ends with 1O or 1Q)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	900	700	1500
208Y and 220Y	800	900	700	1500
400Y and 480Y	1200	1500	1200	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	800	900	700	1500

Table 36. 400 kA Unit VPR (Cat. No. Ends with 1O or 1Q)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	900	700	1500
208Y and 220Y	800	900	700	1500
400Y and 480Y	1200	1500	1200	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	1800	N/A	2000
600D	N/A	2500	N/A	2500
240H	800	900	700	1500

Table 37. 50 kA Unit VPR (Cat. No. Ends with 2O, 2Q, 3O, or 3Q)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	900	1500	700	1500
208Y and 220Y	900	1500	700	1500
400Y and 480Y	1200	2000	1000	2500
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	2500	N/A	2500
240H	900	1500	700	1500

Table 38. 80–100 kA Unit VPR (Cat. No. Ends with 2O, 2Q, 3O, or 3Q)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	900	900	700	1500
208Y and 220Y	900	900	700	1500
400Y and 480Y	1200	1200	1000	2500
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	2500	N/A	2500
240H	900	900	700	1500

Table 39. 120–200 kA Unit VPR (Cat. No. Ends with 2O, 2Q, 3O, or 3Q)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	900	900	700	1500
208Y and 220Y	900	900	700	1500
400Y and 480Y	1200	1200	1000	1800
600Y	1500	1500	1500	2500
240D	N/A	1000	N/A	1000
480D	N/A	2500	N/A	2500
600D	N/A	2500	N/A	2500
240H	900	900	700	1500

Table 40. 250–300 kA Unit VPR (Cat. No. Ends with 2O, 2Q, 3O, or 3Q)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	900	700	1500
208Y and 220Y	800	900	700	1500
400Y and 480Y	1200	1200	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2000
600D	N/A	2500	N/A	2500
240H	800	900	700	1500

Table 41. 400 kA Unit VPR (Cat. No. Ends with 2O, 2Q, 3O, or 3Q)

Voltage Code	Protection Mode			
	L-N	L-G	N-G	L-L
240S	800	900	700	1500
208Y and 220Y	800	900	700	1500
400Y and 480Y	1200	1200	1000	2000
600Y	1500	1500	1200	2500
240D	N/A	1000	N/A	1000
480D	N/A	2000	N/A	2000
600D	N/A	2500	N/A	2500
240H	800	900	700	1500



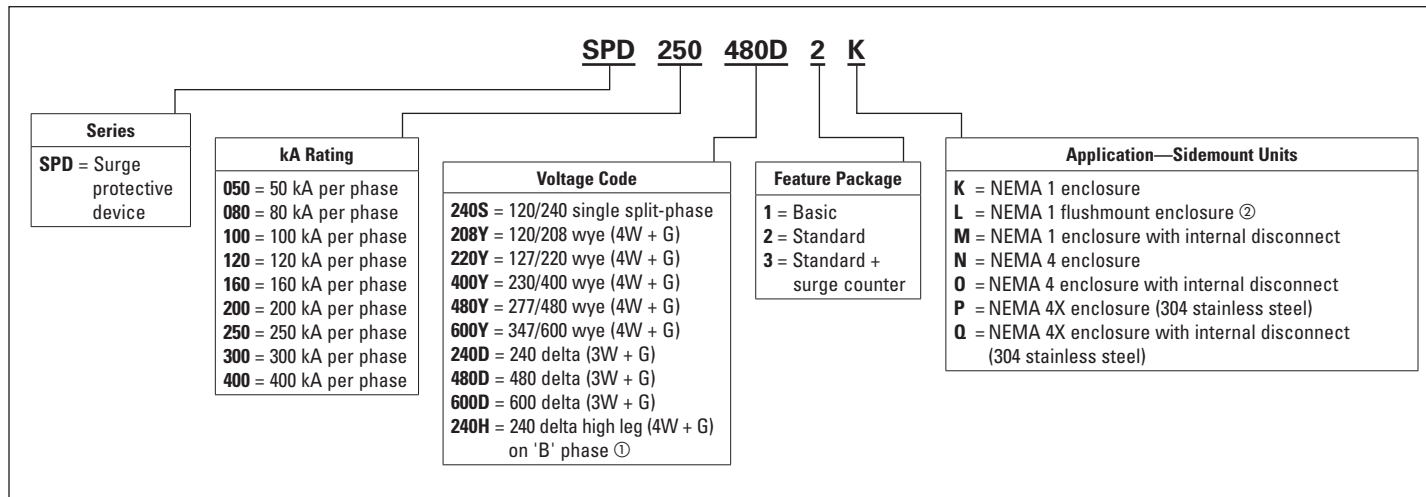
## Specifications

**Table 42. SPD Series Specifications**

Description	Specification
Surge capacity ratings available	50, 80, 100, 120, 160, 200, 250, 300, 400 kA per phase
Nominal discharge current (I <sub>n</sub> )	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): 208Y, 220Y, 240S, 240D, and 240H voltage codes 400Y, 480Y, and 480D voltage codes 600Y and 600D voltage codes	0.5W 1.1W 1.3W
Power consumption (standard and standard with surge counter units): 208Y, 220Y, 240S, 240D, and 240H voltage codes 400Y, 480Y, and 480D basic voltage codes 600Y and 600D voltage codes	0.6W 1.7W 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 MCOV 400Y and 480Y MCOV 600Y MCOV 240D MCOV 480D MCOV 600D MCOV	150 L-N, 150 L-G, 150 N-G, 300 L-L 320 L-N, 320 L-G, 320 N-G, 640 L-L 420 L-N, 420 L-G, 420 N-G, 840 L-L 320 L-G, 320 L-L 640 L-G, 640 L-L 840 L-G, 840 L-L
Ports	1
Operating temperature	–40°F through 122°F (–40°C through 50°C)
Operating humidity	5% through 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
Enclosure dimensions and weights	Refer to <b>Figures 1–7</b> for enclosure dimensions and weights
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 to 100 MHz
Agency certifications and approvals	UL 1449 3rd Edition listed device; CSA listed UL 1283 (Type 2 SPDs only)
Warranty	10 years

## Catalog number selection

**Table 43. SPD Series Catalog Number Configuration for Units Mounted External to Electrical Distribution Equipment**



**Example:** SPD250480D2K = SPD Series, 250 kA per phase, 480D voltage, standard feature package, housed in NEMA 1 enclosure

① Please consult the factory for 240 delta high leg (4W + G) applications with high leg on 'C' phase.

② NEMA 1 flushmount units are available in 50–200 kA ratings only.

## Technical support information

If you have any questions or need additional information, please contact the Eaton Technical Resource Center at 800-809-2772, option 4, option 2. You may also submit inquiries via e-mail: [surgeprotection@eaton.com](mailto:surgeprotection@eaton.com).



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Printed in USA  
Publication No. TD01005025E / Z9923  
June 2010



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