Cost-effective surge protection for easy field installation

Eaton's retrofit surge protection FD-frame series (RSPF) consists of UL® 1449 4th Edition-listed surge protective devices (SPD) that provide a reliable, cost-effective, aftermarket solution for surge protection and integrated surge installation. Designed for easy installation, this Type 1 or Type 2 SPD is approved for field installation and is capable of easy installation directly into a panelboard or switchboard without any modifications. The RSPF is available in multiple configurations that are specifically designed for Eaton panelboards and switchboards, allowing for installation on systems utilizing most common voltages. Easy mounting options coupled with a compact footprint enable quick installation of the RSPF in panelboards and switchboards in less than 10 minutes.

Installation and operation

The RSPF is installed in existing Eaton PRL3 and PRL4/ PRLC panelboards and switchboards, utilizing the form and fit of the Eaton three-pole FD-frame molded case circuit breaker (MCCB). The surge protector connects to existing three-pole FD-frame provisional mounting hardware and deadfronts to ensure proper installation. The device is to be installed where there is a provision in an existing panelboard and switchboard installation or where there is available space for a three-pole FD-frame MCCB.
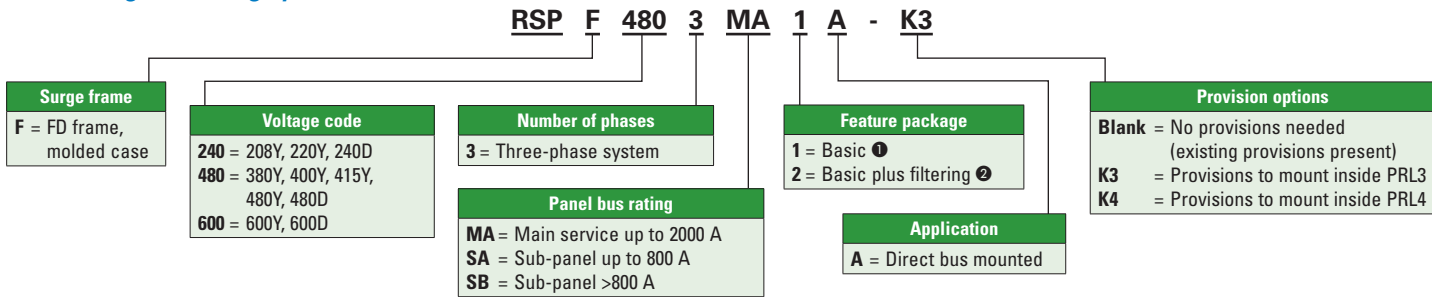
The surge protector is similar in size and appearance to an FD-frame breaker, with a blue cover, LED indicator lights where the breaker actuator/lever normally reside, standard line-side terminals and a surge ground terminal on the load-side of the enclosure (no load terminals).

The surge ground terminal can accommodate wire sizes between 6 and 10 AWG. To minimize the surge ground wire length, the ground should be directly connected to either the neutral bus or ground bus, whichever is closest to the surge ground terminal.

Features and benefits

- 20 kA nominal discharge current rating (I_n)
- 50 kA and 100 kA per phase surge current capacity
- Compact footprint—6.00 L x 4.13 W x 3.69 D inches
- Direct bus mounting
- Available in Type 1 and Type 2 applications
- 2-year warranty

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RSP catalog numbering system

RSP F 480 3 MA 1 A - K3

Surge frame	Voltage code	Number of phases	Panel bus rating	Feature package	Application	Provision options

Surge frame
F = FD frame, molded case

Voltage code
240 = 208Y, 220Y, 240D
480 = 380Y, 400Y, 415Y, 480Y, 480D
600 = 600Y, 600D

Number of phases
3 = Three-phase system

Panel bus rating
MA = Main service up to 2000 A
SA = Sub-panel up to 800 A
SB = Sub-panel >800 A

Feature package
1 = Basic ❶
2 = Basic plus filtering ❷

Application
A = Direct bus mounted

Provision options
Blank = No provisions needed (existing provisions present)
K3 = Provisions to mount inside PRL3
K4 = Provisions to mount inside PRL4

❶ Available only with SB and MA options.
❷ Available only with SA option.

Product selection

System voltage	Maximum continuous operating voltage (MCOV)	Catalog number
240	300 L-L, L-G	RSPF2403MA1A
		RSPF2403MA1A-K3
		RSPF2403MA1A-K4
240	300 L-L, L-G	RSPF2403SA2A
		RSPF2403SA2A-K3
		RSPF2403SA2A-K4
240	300 L-L, L-G	RSPF2403SB1A
		RSPF2403SB1A-K3
		RSPF2403SA2A-K4
480	640 L-L, L-G	RSPF4803MA1A
		RSPF4803MA1A-K3
		RSPF4803MA1A-K4
480	640 L-L, L-G	RSPF4803SA2A
		RSPF4803SA2A-K3
		RSPF4803SA2A-K4
480	640 L-L, L-G	RSPF4803SB1A
		RSPF4803SB1A-K3
		RSPF4803SB1A-K4
600	840 L-L, L-G	RSPF6003MA1A
		RSPF6003MA1A-K3
		RSPF6003MA1A-K4
600	840 L-L, L-G	RSPF6003SA2A
		RSPF6003SA2A-K3
		RSPF6003SA2A-K4
600	840 L-L, L-G	RSPF6003SB1A
		RSPF6003SB1A-K3
		RSPF6003SB1A-K4

Specifications

Description	Ratings
kA per phase	50, 100
Nominal discharge current	20 kA
System voltages	208Y, 220Y, 240D, 380Y, 400Y, 415Y, 480Y, 480D, 600Y, 600D
Input power frequency	50/60 Hz
Protection modes	Wye L-N or L-G, L-L / Delta L-G, L-L
Operating temperature	−40 ºC to +60 ºC
Relative humidity	5%–95%, noncondensing
Maximum altitude	2000 m
Weight	3 lb
Certification/listing	UL 1449 4th Edition, CSA® 269.1-14, 269.2-15, C22.2 No. 8-13 EMI filter ❶ / Tested to 1283 7th Edition
SPD type	Type 1 and Type 2 SPD
RoHS compliant	Yes
Enclosure rating	Type 1 enclosure, IP56

❶ Available only with SA option.

Dimensions in inches (mm)
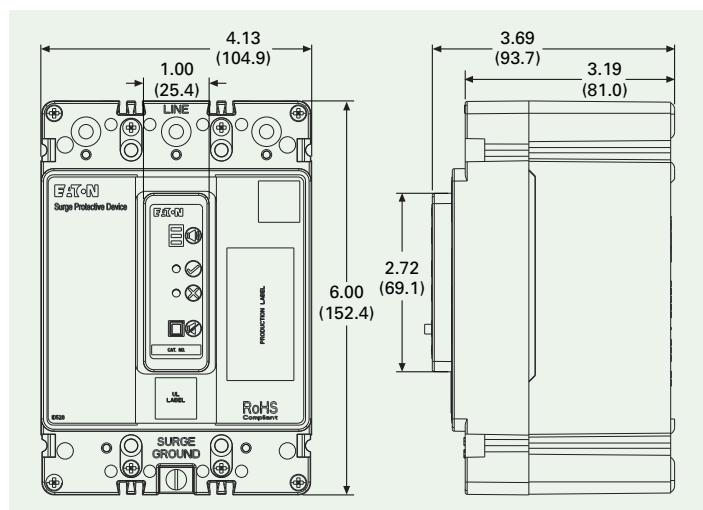
For more information, visit **Eaton.com/rsp**.

For questions or additional information, please contact the Eaton Technical Resource Center at **1-800-809-2772**, option 4, option 2 or email inquiries to **surgeprotection@eaton.com**

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