

**Surge Protective Device**

**Technical Documentation**



The MPAF-P Surge Protective Device (SPD) provides the industry's strongest level of surge protection in a very compact and easily installed unit. Unlike competitive bulky and expensive surge devices, the MPAF-P is modern state of the art with extreme performance. It can handle over three times the average lightning peak surge current.

The MPAF-P series is designed for primary protection at the service entrance. As the first in line protection device, the MPAF-P handles any incoming surges safely. Other applications include, branch panels, switches, equipment disconnects and generator transfer switches. The MPAF-P is used in OEM panels as well as solar combiner boxes. It fulfills the requirements for UL 96A lightning protection installations. The housing is constructed of UV-stabilized thermoplastic and meets the UL 50 Type 4x rating, making it ideal for both indoor and outdoor applications. All of the models have a 20kA nominal discharge current rating, the highest level recognized under the UL 1449 Edition 5 standard.

This allows installations on the line or load side (Type 1 or Type 2) of the service panel in accordance with the NEC® 2014 or CAN/CSA C233.1 without the requirement for additional circuit breakers or fuses.

**Features**

- Compact design can be directly mounted to panel or installed in a small space
- Front-facing design eases installation and performance monitoring
- 8/20  $\mu$ s maximum surge rating per mode
- UL® 50 Type 4X
- Optional light tube

**Certifications**

- UL 1449 5th Edition PENDING

**General Technical Specifications**

Nominal System Voltage	MPAF-3P (120/208VAC) MPAF-1P (120/240VAC) MPAF-U (277/480 WYE VAC)
Distribution System	3Ph 3W+G 1Ph 2W+G
Frequency	0 – 100 Hz
Short Circuit Current Rating	200kA
Nominal Discharge Current (In) , Per Mode	20kA 8/20 $\mu$ s
Max Discharge Current (Imax), Per Mode	40kA 8/20 $\mu$ s
Voltage Protection Rating (VPR), L-L	2,400V
Voltage Protection Rating (VPR), L-N	1200 V
Status Indication	RED LED/ light tube
Technology	MOV with thermal disconnect
Lead Length	44"
Lead Size	#12
Temperature	-40 to 176°F
Mounting	1/2" -13 NPTS



**DANGER!**

Only qualified personnel should install or service this system. Electrical safety precautions must be followed when installing or servicing this equipment. To prevent risk of electrical shock, turn off and lock out all power sources to the unit before making electrical connections or servicing.

## Ordering Information

### MODEL

MPAF-P-1P

MPAF-P-3P

MPAF-P-U

## Read and Understand These Instructions

### Note:

- Do not cut wires until the SPD is mounted and minimum wire lengths have been verified. All connection leads should be cut to minimum possible length; never coil or push aside excess length.
- For outdoor installations, include drip loop as additional precaution.

### Installation:

1. Detailed Instructions can be found in box or upon request.
2. Verify system voltage.
3. Identify proper location for the SPD.
4. Connect ground.
5. AC Rated Units: Connect neutral and phase conductors.
6. Connector and Lugs.

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