

## INTRODUCTION

The MPDS Series is a smaller form factor of our MPD Series, featuring an IP65 enclosure rating, and is used for transient overvoltage protection. The MPDS Series utilizes metal oxide varistors to provide a protection package for use in many applications such as commercial and residential indoor/outdoor LED lighting fixtures, with and without thermal protection. The MPDS Series can be connected in series or parallel, and is RoHS compliant. The MPDS Series is available with operating voltages of: 120VAC, 277VAC, 347VAC, and 480VAC.

## KEY FEATURES

- UL1449 - Type 4CA/Type 5
- Optional - Thermally Protected
- Series/Parallel Connectivity
- In: 5kA/10kA, I<sub>max</sub>: 10kA/20kA (@ 8/20us)
- IP65 enclosure rating
- 85°C Operating Temperature

## TYPICAL APPLICATIONS

- LED Street Lighting
- Traffic Lighting
- Roadway Lighting
- Parking/Garage Lighting
- Indoor/Outdoor LED Lighting Fixture
- AC Power Systems requiring thermal protection
- Digital Signs

## SAFETY AGENCY APPROVALS

- UL1449
- cUL

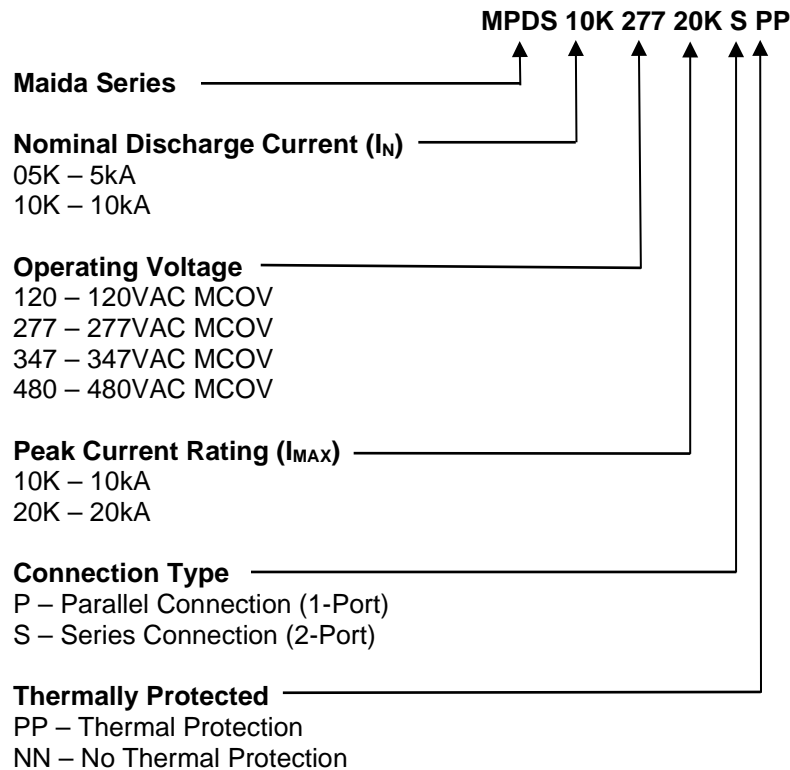




## STYLE DESIGNATION

The Maida Style Number is the typical means to identify our devices when ordered. The style number identifies several parameters that are important for the characteristics of the device. An alternative ordering method, if known, is by our Item Number.

The following example is the standard part numbering system when ordering our MPDS Series components by the Maida Style Number:



## GENERAL SPECIFICATIONS

<b>Operating Voltage Range</b>	120VAC to 480VAC
<b>Rated Continuous RMS Current</b>	7A (2-Port)
<b>Insulation Resistance</b>	> 1,000M $\Omega$
<b>Operating Temperature Range</b>	-40°C to +85°C
<b>Storage Temperature Range</b>	-55°C to +125°C

## SAFETY AGENCY APPROVAL

Agency	File Number
UL	E321173
cUL	E321173

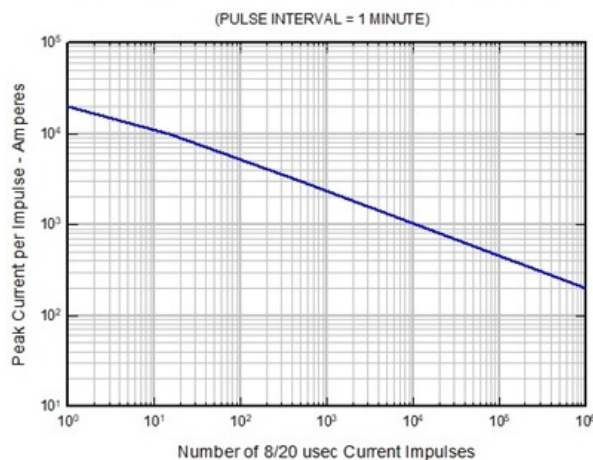


**SPECIFICATIONS**

Maida Style Number	Maximum Continuous Operating Voltage (MCOV)	Peak Current (8 x 20 us)		UL Type Rating	Rated Current	Response Time	Degree of Enclosure Protection
		In	I <sub>max</sub>				
	(VAC)	(kA)	(kA)	I <sub>r</sub>	(A)	(ns)	
MPDS05K12010KxNN MPDS05K12010KxPP	120	5	10	Type 5 Type 4CA	N/A 7	< 100	IP65
MPDS05K27710KxNN MPDS05K27710KxPP	277	5	10	Type 5 Type 4CA	N/A 7	< 100	IP65
MPDS05K34710KxNN MPDS05K34710KxPP	347	5	10	Type 5 Type 4CA	N/A 7	< 100	IP65
MPDS05K48010KxNN MPDS05K48010KxPP	480	5	10	Type 5 Type 4CA	N/A 7	< 100	IP65
MPDS10K12020KxNN MPDS10K12020KxPP	120	10	20	Type 5 Type 4CA	N/A 7	< 100	IP65
MPD10K27720KxNN MPD10K27720KxPP	277	10	20	Type 5 Type 4CA	N/A 7	< 100	IP65
MPDS10K34720KxNN MPDS10K34720KxPP	347	10	20	Type 5 Type 4CA	N/A 7	< 100	IP65
MPDS10K48020KxNN MPDS10K48020KxPP	480	10	20	Type 5 Type 4CA	N/A 7	< 100	IP65

\* "x" is P or S Option

PULSE REPETITION RATINGS FOR 8/20usec CURRENT WAVEFORM  
MAXIMUM PEAK CURRENT PER PULSE vs. NUMBER OF IMPULSES

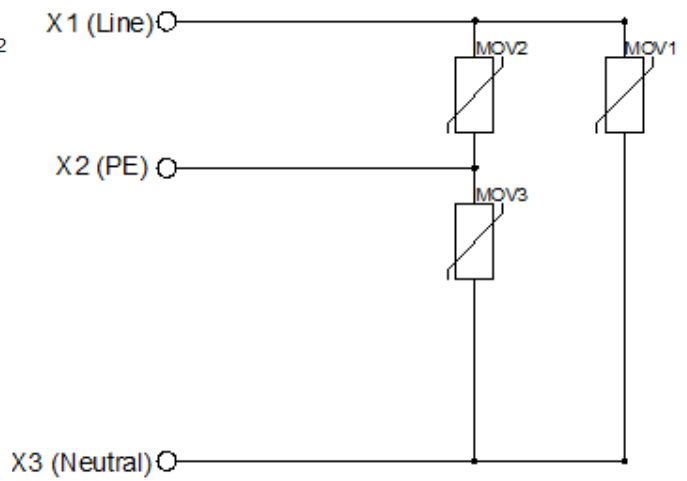
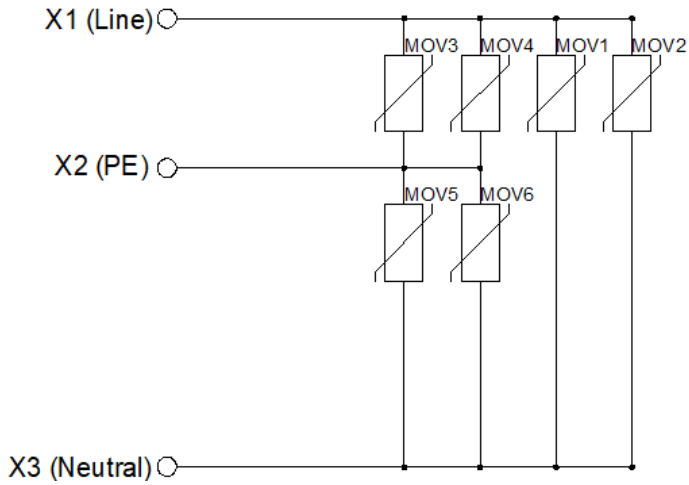


**SCHEMATICS**

**Type 5:**

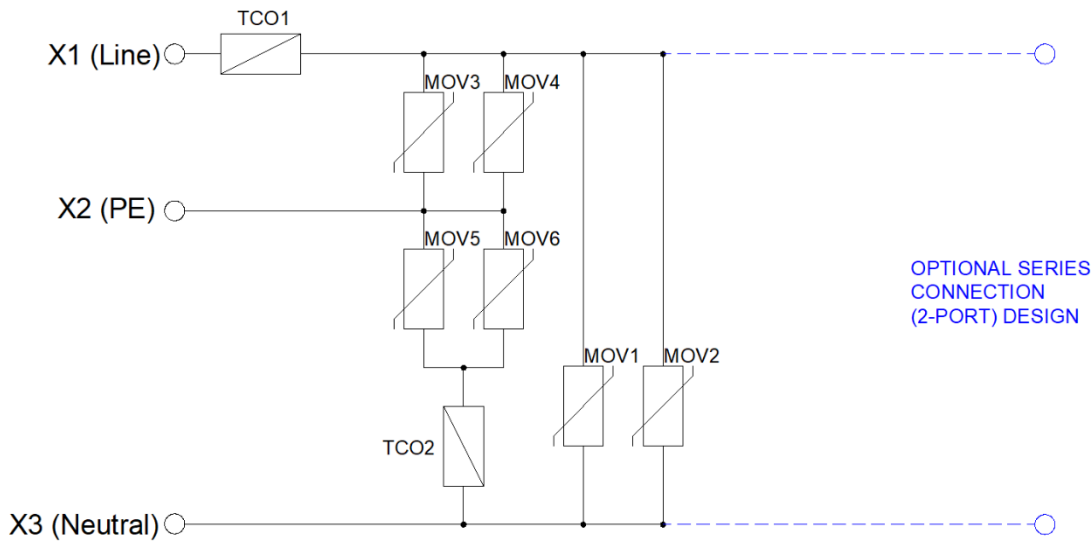
10kA

5kA



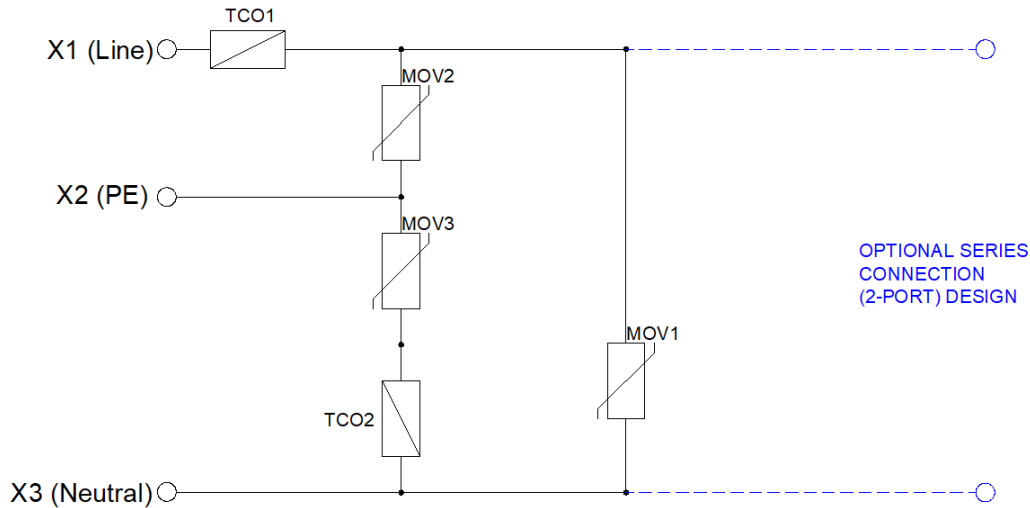
**Type 4CA:**

10kA



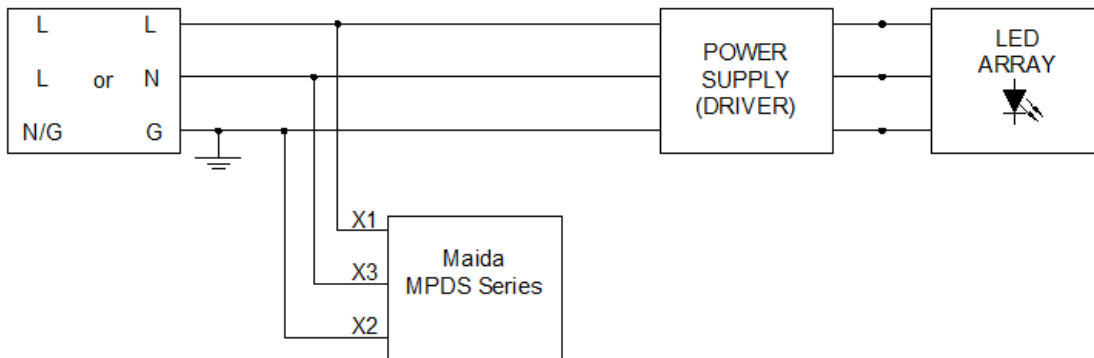
## SCHEMATICS

5kA

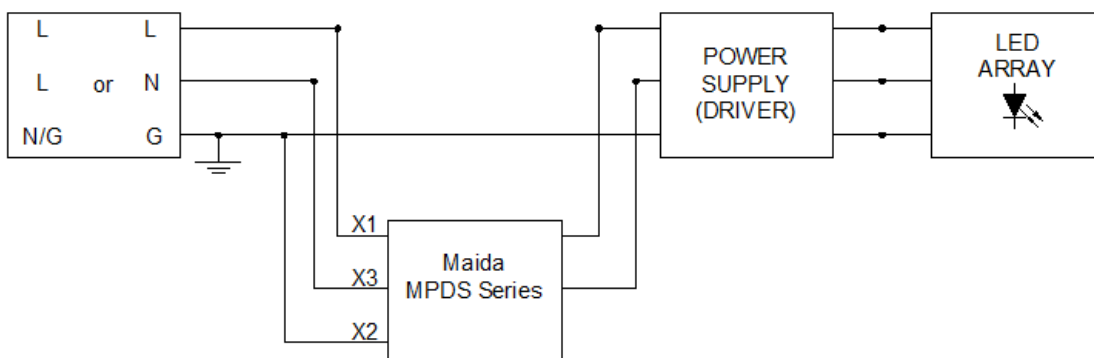


## TYPICAL INSTALLATION

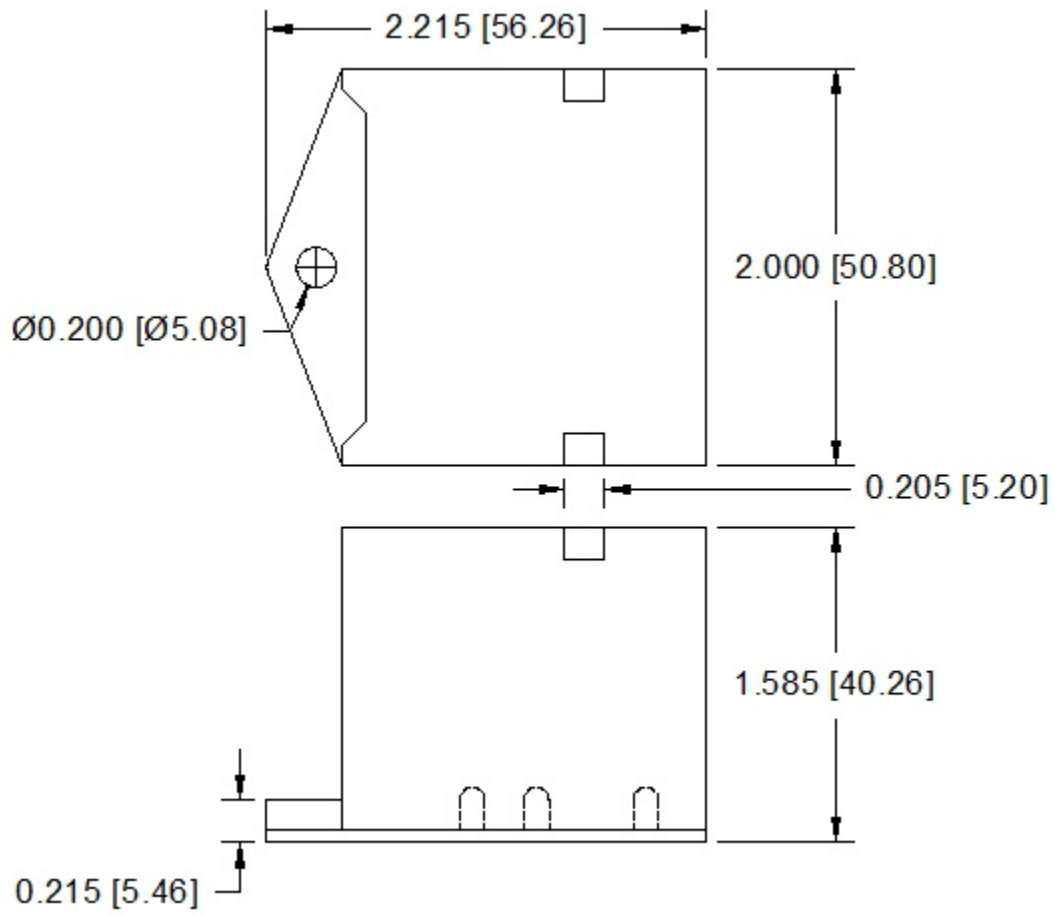
### Parallel Connection (1-Port)



### Series Connection (2-Port)



DIMENSIONS



Dimensions are in inches [mm]