

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_{max}: 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

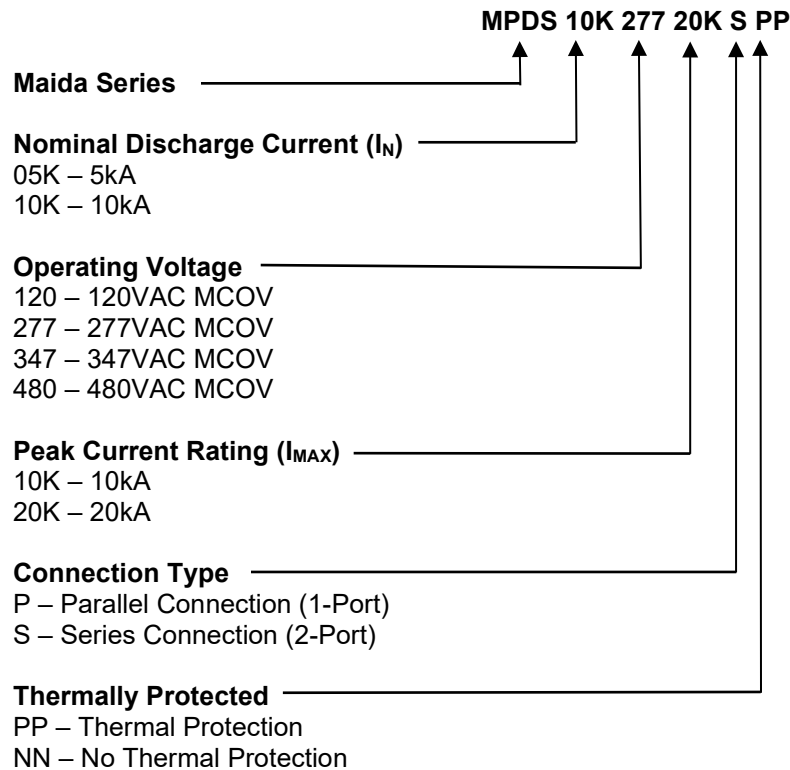




STYLE DESIGNATION

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:



SPECIFICATIONS

Maida Style Number	Maximum Continuous Operating Voltage (MCOV)	Peak Current (8 x 20 us)		UL Type Rating	Rated Current	Thermally Protected	Connection Type (# Wires) Type
		In	I _{max}				
	(VAC)	(kA)	(kA)	I _r (A)	(ns)		
MPDS05K12010KPNN	120	5	10	5	N/A	No	Parallel
MPDS05K12010KPPP				4CA	N/A	Yes	Parallel
MPDS05K12010KSPP				4CA	7	Yes	Series
MPDS05K27710KPNN	277	5	10	5	N/A	No	Parallel
MPDS05K27710KPPP				4CA	N/A	Yes	Parallel
MPDS05K27710KSPP				4CA	7	Yes	Series
MPDS05K34710KPNN	347	5	10	5	N/A	No	Parallel
MPDS05K34710KPPP				4CA	N/A	Yes	Parallel
MPDS05K34710KSPP				4CA	7	Yes	Series
MPDS05K48010KPNN	480	5	10	5	N/A	No	Parallel
MPDS05K48010KPPP				4CA	N/A	Yes	Parallel
MPDS05K48010KSPP				4CA	7	Yes	Series
MPDS10K12020KPNN	120	10	20	5	N/A	No	Parallel
MPDS10K12020KPPP				4CA	N/A	Yes	Parallel
MPDS10K12020KSPP				4CA	7	Yes	Series
MPDS10K27720KPNN	277	10	20	5	N/A	No	Parallel
MPDS10K27720KPPP				4CA	N/A	Yes	Parallel
MPDS10K27720KSPP				4CA	7	Yes	Series
MPDS10K34720KPNN	347	10	20	5	N/A	No	Parallel
MPDS10K34720KPPP				4CA	N/A	Yes	Parallel
MPDS10K34720KSPP				4CA	7	Yes	Series
MPDS10K48020KPNN	480	10	20	5	N/A	No	Parallel
MPDS10K48020KPPP				4CA	N/A	Yes	Parallel
MPDS10K48020KSPP				4CA	7	Yes	Series



SPECIFICATIONS

GENERAL SPECIFICATIONS

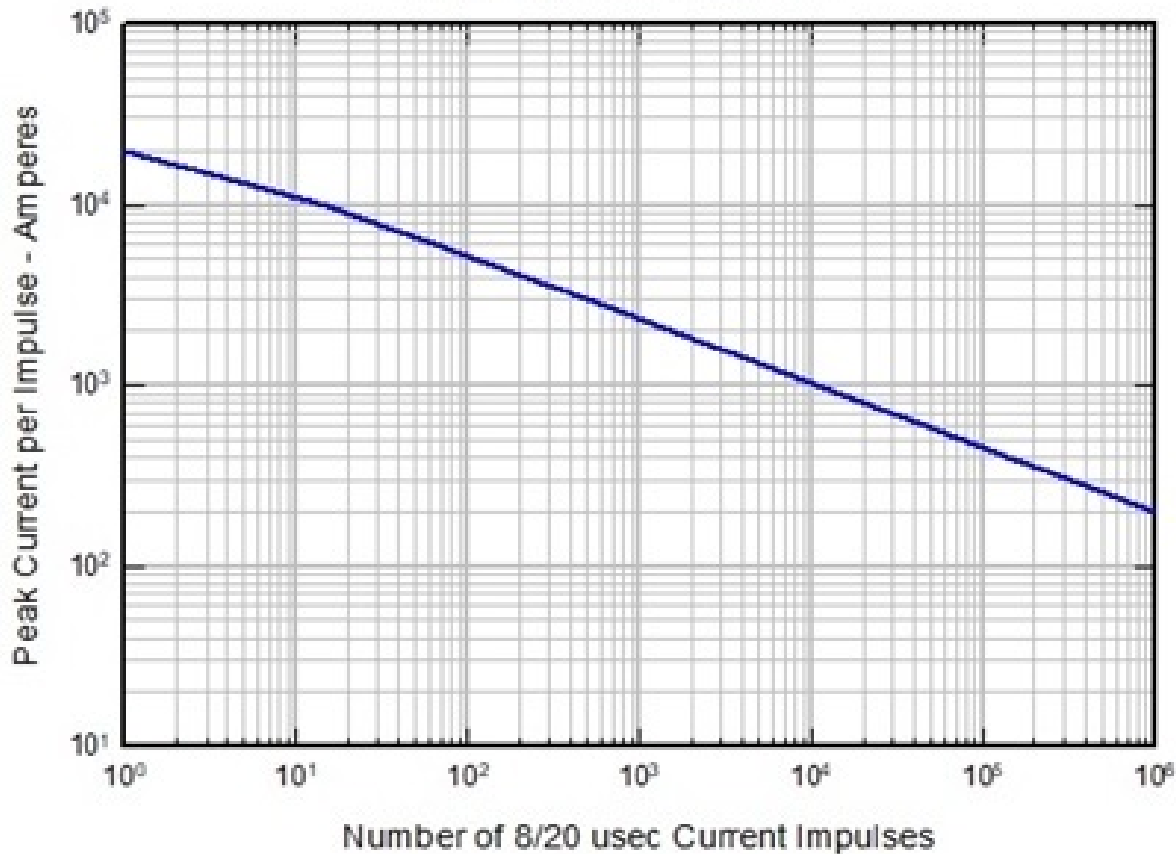
Operating Voltage Range	120VAC to 480VAC
Rated Continuous RMS Current	7A (Series only)
Insulation Resistance	> 1000MOhm
Operating Temperature Range	-40°C to +85°C
Storage Temperature Range	-55°C to +125°C
Degree of Enclosure Protection	IP65
Response Time	< 100ns

SAFETY AGENCY APPROVAL

Agency	File Number
UL	E321173
cUL	E321173

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

(PULSE INTERVAL = 1 MINUTE)

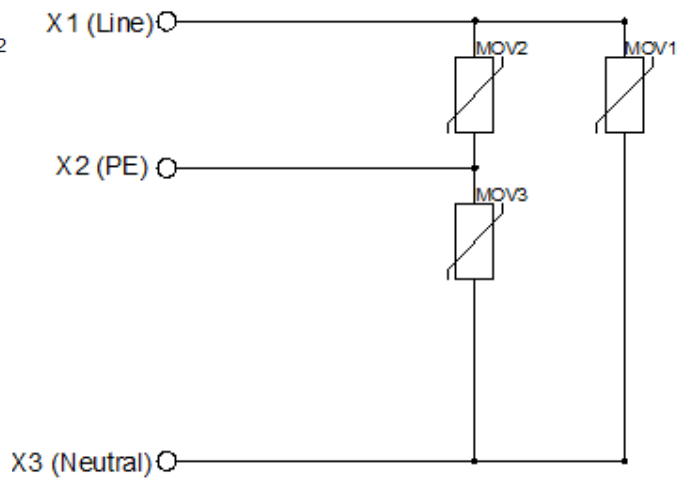
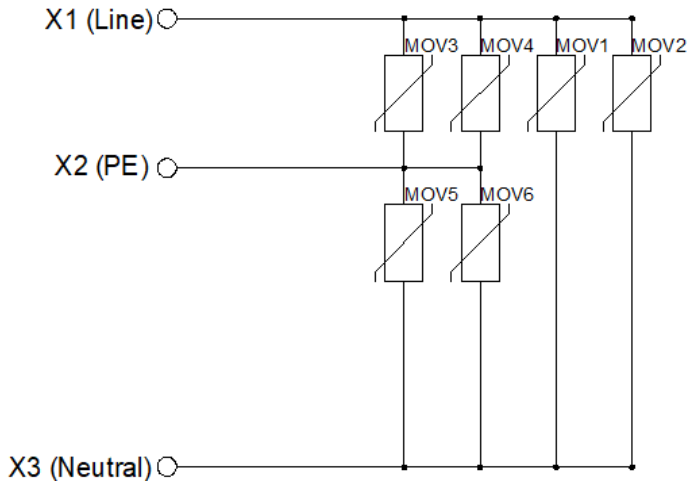


SCHEMATICS

Type 5:

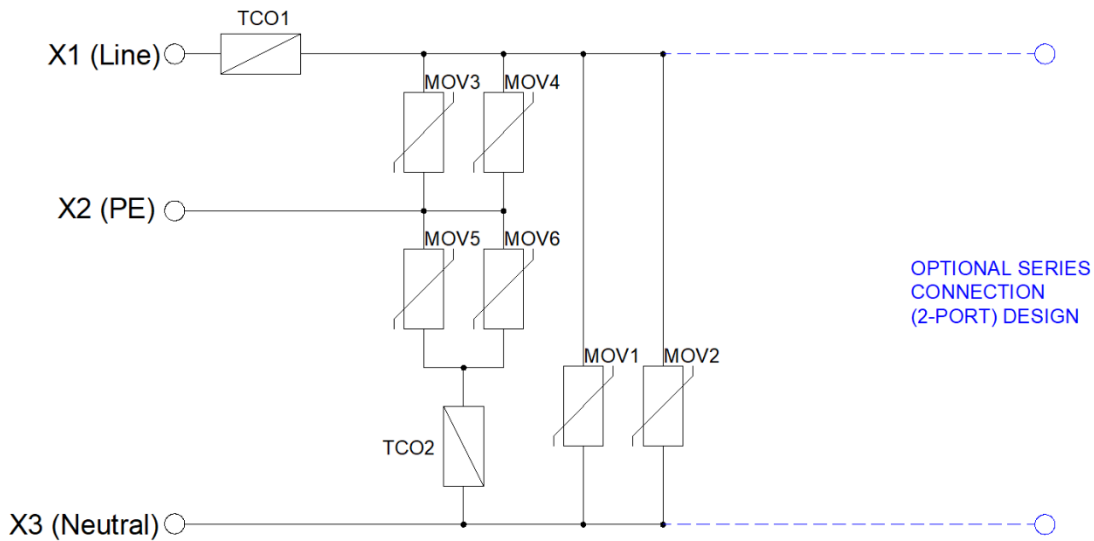
10kA

5kA



Type 4CA:

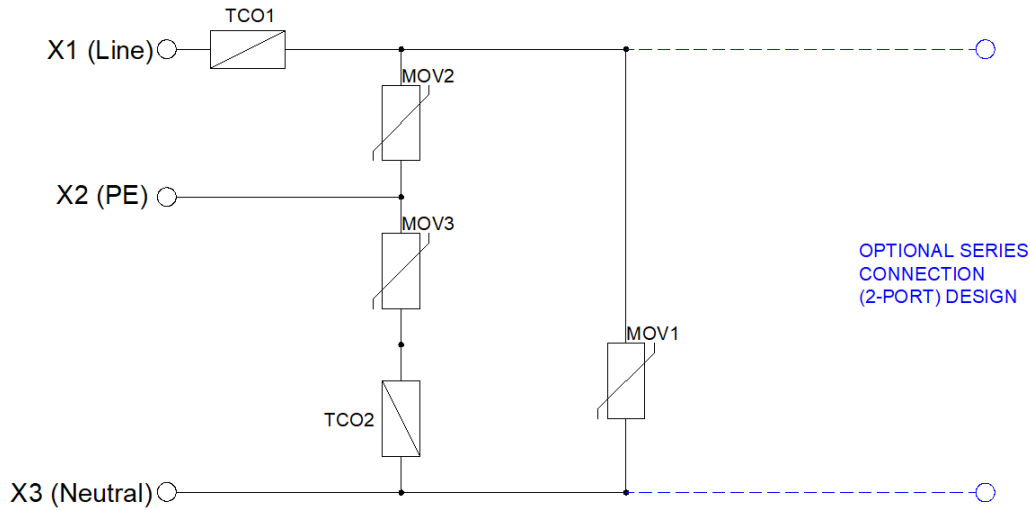
10kA



OPTIONAL SERIES CONNECTION (2-PORT) DESIGN

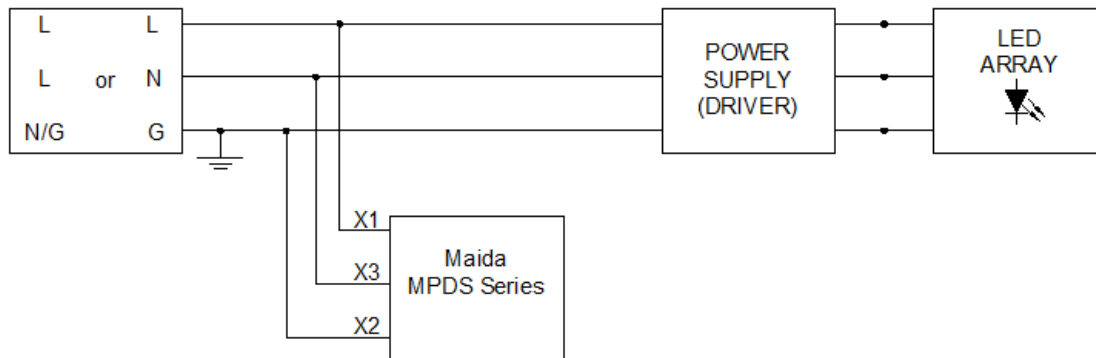
SCHEMATICS

5kA

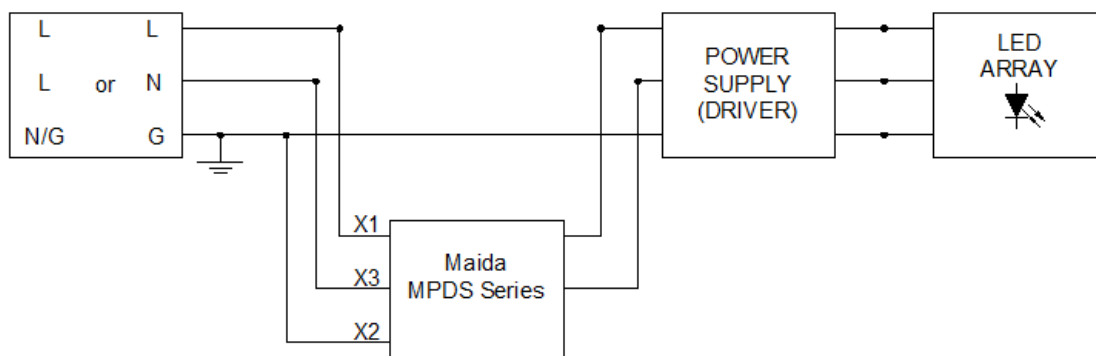


TYPICAL INSTALLATION

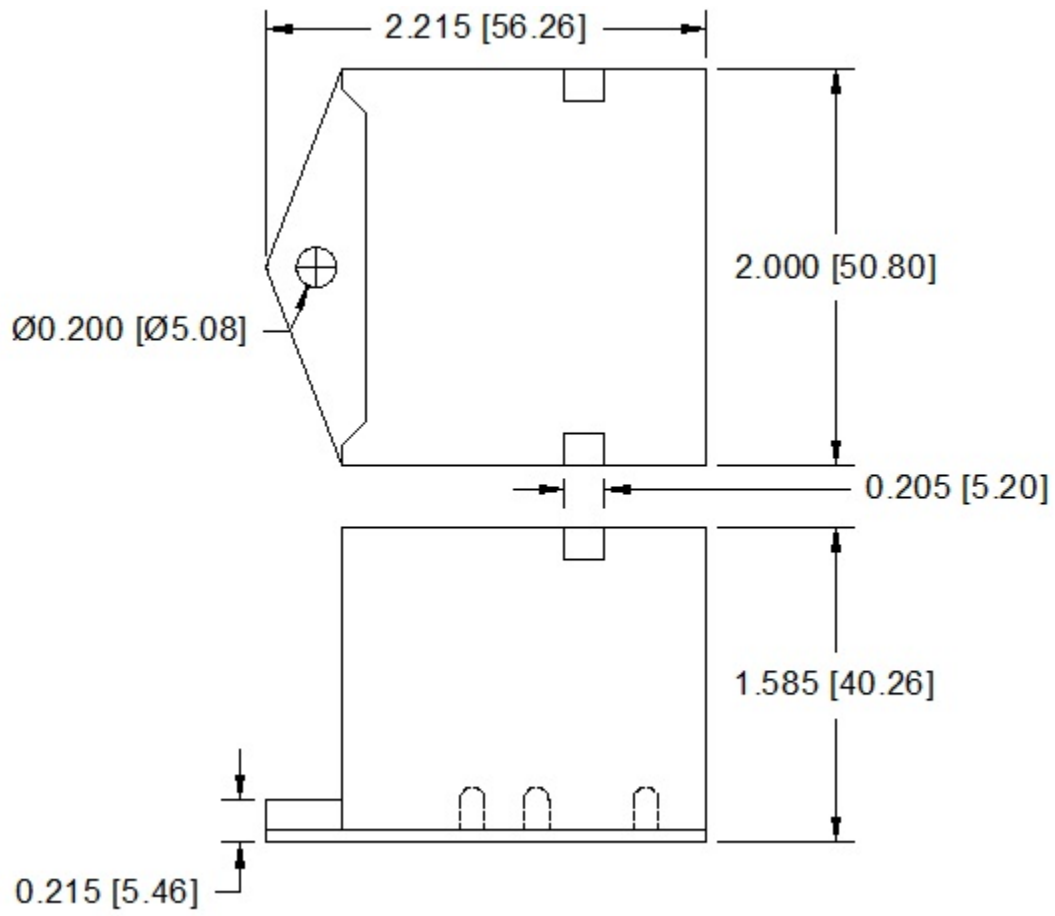
Parallel Connection (1-Port)



Series Connection (2-Port)



DIMENSIONS



Dimensions are in inches [mm]