

PSP B series



PROSURGE® PSP B series panel SPDs are compact Surge Protective Devices (SPDs) designed to protect single and multi-phase electrical distribution systems against the harmful effects of transient surges. These surges are the result of:

- Direct and indirect lightning strikes
- Power company load switching
- Upstream load switching at other facilities

The PSP B is constructed with Prosurge’s patented PTMOV (20PTMOV), which has a thermally protected and arc extinguishing technology as the core of Prosurge’s competency. PSP B has a significant advantage in abnormal over-voltage & high fault current safety and thus ensure industry’s highest level of safety and performance.

PSP B is tested and listed as UL1449 4th Type 1 and Type 2 SPD (with sine wave tracking function). It is constructed in a NEMA 4X plastic enclosure, with a LED light to demonstrate the protection status of the

SPD.

The SPD Types Per ANSI / UL 1449 4th:

Type 1 – Permanently connected SPDs intended for installation between the secondary of the service transformer and the line side of the service equipment overcurrent device, as well as the load side, including watt-hour meter socket enclosures and Molded Case SPDs intended to be installed without an external overcurrent protective device.

Type 2 – Permanently connected SPDs intended for installation on the load side of the service equipment overcurrent device; including SPDs located at the branch panel and Molded Case SPDs.

■ Typical Applications:

In low & medium exposure locations

- Commercial
- Industrial
- Communications
- Renewable energy
- Critical power (hospitals, data centers, etc)

Outstanding PTMOV Technology



Thermally Protected MOV technology. Fast and safely disconnect in the case of abnormal over-voltage or current fault conditions.



■ **Features:**

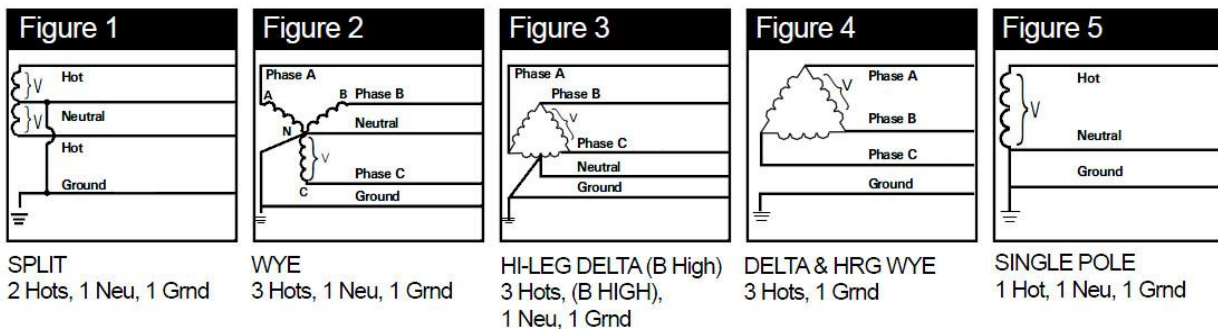
- UL 1449 4th Type 1 SPDs with SCCR up to 200kArms without external fuse or CB
- UL1449 4th Type 2 SPDs with Sine Wave Tracking, SCCR 200kArms
- Prosurge Patented SCCR 200kArms thermally protected MOV technology (PTMOV / 20PTMOV) as key component
- Full modes protection
- High surge energy capability with compact size
- Low voltage protection rating
- Degradation failure indication.
- Sine wave tracking function optional (for UL Type 2 listed)
- Remote Alarm optional
- Threaded NPT
- NEMA 4X plastic enclosure to resist dirt, dust and water

■ **Configure & Ordering Information:**

<u>PSP</u> Model series	<u>277Y</u> Voltage and system configuration	<u>C</u> Protection mode	<u>12</u> Surge capacity	<u>/ T1</u> SPD Category	<u>A</u> Function
<u>PSP</u> : In 10kA <u>20PSP</u> : In 20kA	<u>120SP</u> : 120/240V split <u>240SP</u> : 240/480V split <u>120Y</u> : 120/1208V WYE <u>277Y</u> : 277/480V WYE <u>120H</u> : 120/240V high leg delta <u>240D</u> : 240V delta <u>120S</u> : 120V 1ph, 2W+G ...	<u>C</u> : Delete N-G protection mode	<u>11</u> : 25kA per phase <u>12</u> : 50kA per phase	<u>T1</u> : UL type 1 SPD <u>T2F</u> : UL type 2 SPD with sine wave tracking	<u>A</u> : Remote Alarm

1. Voltage code for power distribution system

- 120SP, 240SP= 120/240V;240/480V-----Split-phase three-wire + ground (Figure1)
- 120Y, 127Y, 240Y, 277Y, 347Y = 208Y/120V,220Y/127V, 415Y/240V, 480Y/277V, 600Y/347V-----Three-phase wye (star) four-wire + ground (Figure2)
- 120H,240H = 120/240V, 240V/480V-----Three-phase high leg delta (Figure3)
- 240D, 480D, 600D = 240V,480V,600V-----Three-phase delta three-wire + ground (Figure4)
- 120S,127S,240S,277S,347S =120V,127V, 240V,277V, 347V-----Single-phase two-wire + ground (Figure5)

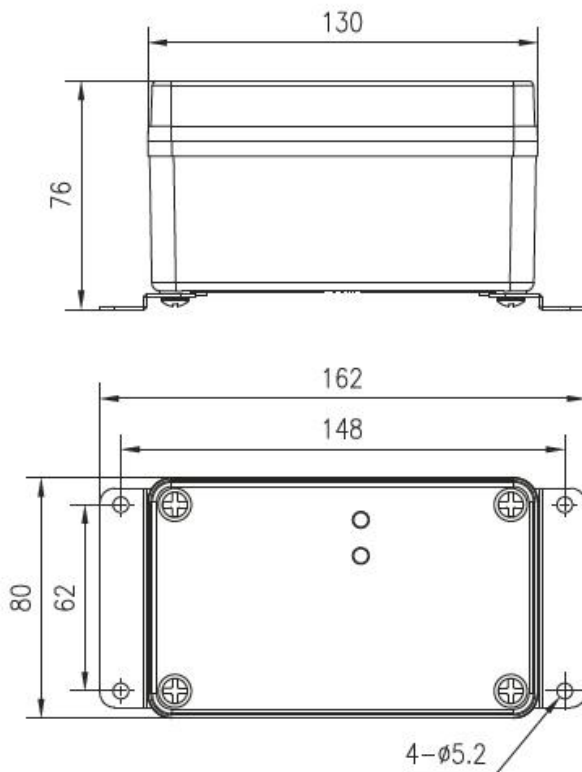


■ Basic circuit diagram

Un/ Power system (50/60 HZ)	Basic circuit diagram of surge protection circuit	
	Power System has Neutral Line	Power System has No Neutral Line
240 VAC Delta 480 VAC Delta 600 VAC Delta ...		PSP...D12...(3W+G)

■ Dimensions (unit: mm)

PSP series can be fixed with bolts. The dimension of the devices and bolt holes as below:



■ General Specification:

Category	B
Certification	ANSI/UL1449 4 th edition, Type1, Type 2
Connection Type	Parallel Connected
Surge Capacity	50kA per Phase
SCCR	200kArms
Sine wave tracking	Optional for UL Type 2 listed
Power Status Indication	Normal = Power LED ON
Working Status Indication	Fail = Surge protection LED ON
Power Connecting	12 AWG, 762mm (30") length (L1=black; L2=red; L3=blue; N=white; PE=green)
Signal cable	16 AWG, 762mm (30") length (C=red; NC=blue; NO=brown)
Working environments	Temperature -40°C~+75°C, Humidity relative 5~95% (25°C) , Altitude≤3km
Dimensions (W x D x H)	162 x 80 x 76 mm
Threaded NPT	1/2"NPT
Enclosure	Plastic enclosure, NEMA 4X
Net Weight (typical value)	0.47 kg

■ Technical Data:

Model No.	System voltage (50/60Hz)	In (kA)	Protected mode				Voltage Protection Ratings (VPR @6kV/ 3kA)				Surge Capability	MCOV (Vac)
			L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L		
PSP240D12/T1A	240V Three-phase delta	10	x	✓	x	✓	-	1200	-	1200	50kA/phase	320
PSP480D12/T1A	440V, 460V, 480V Three-phase delta	10	x	✓	x	✓	-	1800	-	3000	50kA/phase	550

(end)