One-port Panel SPDs

PSPB series
PSP240D12/T1A

PROSURGE® PSPB 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 PSPB is constructed with Prosurge's patented PTMOV, which has a thermally protected and arc extinguishing technology as the core of Prosurge's competency. PSPB has a significant advantage in abnormal over-voltage & high fault current safety and thus ensure industry's highest level of safety and performance.

PSPB is tested and listed as UL1449 5th Type 1 and Type 2 SPD (with sine wave tracking function). It is constructed in a waterproof plastic enclosure to ensure that dirt, dust and water are resisted for either indoor or outdoor usage, with remote alarm and a LED light to demonstrate the power & protection status.

The SPD Types Per ANSI / UL 1449 5th:

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.*

Outstanding PTMOV Technology

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

■ Typical Applications:

In low & medium exposure locations

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

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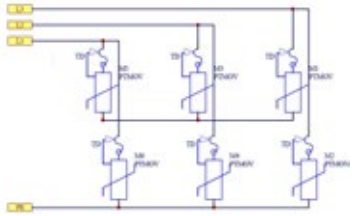
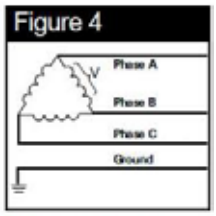
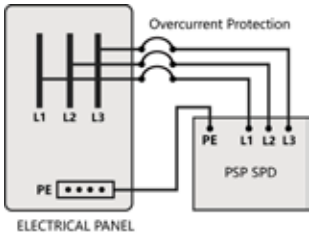
One-port Panel SPDs

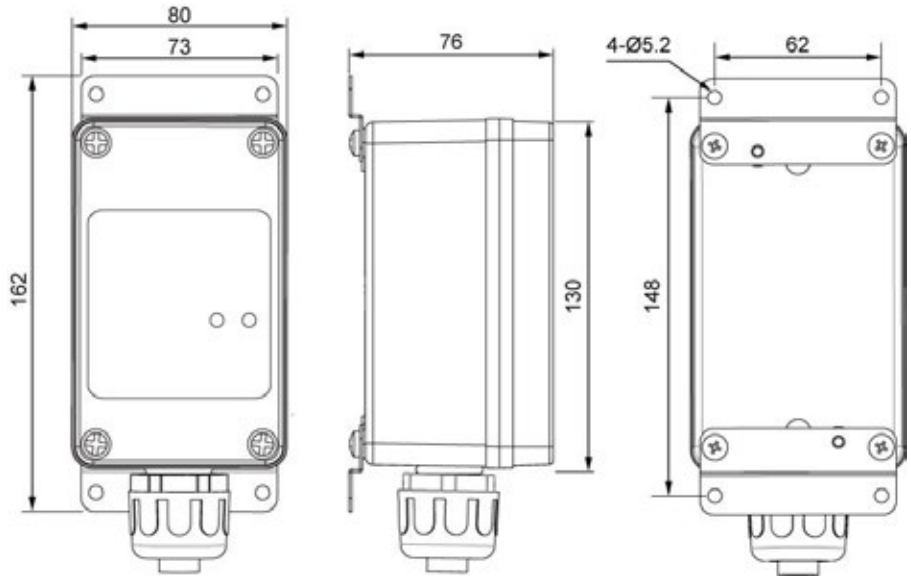
- **Features:**
  - UL1449 5th and CSA C22.2 listed Type 1 SPDs
  - Prosurge Patented SCCR 200kArms thermally protected MOV technology (PTMOV) as key component
  - Nominal discharge current 10kA 8/20
  - Surge capacity 8/20 up to 50kA per phase with compact size
  - Up to 200kArms SCCR tested without external CB or fuse
  - Full modes protection
  - High surge energy capability with compact size
  - Low voltage protection rating
  - Failure indication
  - With Remote Alarm
  - 1/2" NPT cable glands for wire connection
  - Waterproof plastic enclosure to resist dirt, dust and water

- **Basic circuit diagram**

Basic circuit diagram of surge protection circuit	Un/ Power system (50/60 HZ)	Power distribution applied	Wire connection
PSP240D12/T1A 	240 VAC Three phase Delta (3W+G)	 DELTA & HRG WYE 3 Hots, 1 Grnd	

- **Dimensions (unit: mm)**

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



■ General Specification:

PSP Part No.	**PSP240D12/T1A**
Voltage configuration	240 VAC Three phase Delta (3W+G)
Operating frequency range	47 - 63 Hz
Max. continuous operating voltage (MCOV)	320 VAC
SPD category per UL	Type 1
Connection Type	Parallel Connected
Protection mode	L-G, L-L
VPR (Voltage protection level)	L-G 1200V; ; L-L 1200V
Nominal discharge current	10kA
Surge Capacity	50kA per Phase
Short circuit current rating	200kArms
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; PE=green)
Signal cable	16AWG, 762mm (30") length,(C=red; NC=blue; NO=brown)
Working environments	Temperature –40℃～+75℃, Humidity relative 5~95% (25℃) , Altitude≤3km
Dimensions (W x D x H)	162 x 80 x 76 mm
Threaded NPT	1/2"NPT
Enclosure	Waterproof plastic enclosure
Storage	Temperature -10℃～+45℃, Humidity relative ≤75% (25℃)
Certification	ANSI/UL1449 5th edition, CSA C22.2

(end)