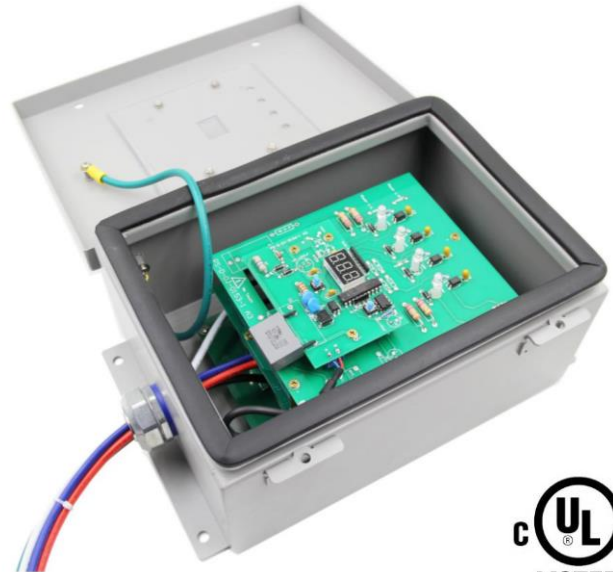


PSP C series
PSP240Y42M/T2FCTA



PROSURGE® PSP C series panel SPDs are defined as high performance surge protection solution for most commercial and industrial environments with critical operations. They include Type 1 and Type 2 Surge Protective Devices (SPDs) that protect 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 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.

PSP C is constructed with Prosurge’s patented PTMOVs, which has a thermally protected and arc extinguishing technology as the core of Prosurge’s competency. PSP C has a significant advantage in abnormal over-voltage & high fault current safety and thus ensures industry’s highest level of safety and performance. The parallel redundancy modules design makes the SPDs extremely robust and reliable, and thus may handle great impulse current up to 300kA (8/20 μs) and multiple impulse current at its highest rated level.

The Prosurge PSP C series are tested and listed as UL1449 4th Type 1 and Type 2 SPD (UL1283 listed with sine wave tracking function). Their front panels integrate functionality of SPD working status monitor and self-diagnosis to enhance the performance and usability. They feature with indicator and colored LEDs to demonstrate the power & protection status of each protected power phase. They are constructed with NEMA 4/4X enclosures to ensure that dirt, dust and water are resisted for either indoor or outdoor usage.

Outstanding PTMOV Technology

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

■ **Typical Applications:**

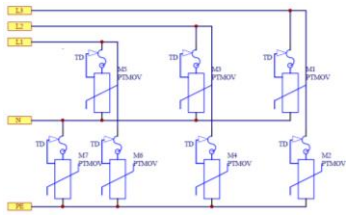
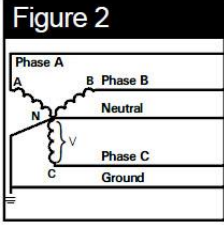
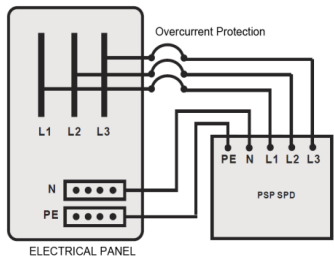
In high & medium exposure locations

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

■ **Features:**

- UL1283, UL1449 4th and CSA C22.2 No. 269.2-17 listed Type 2 SPDs with Sine Wave Tracking (EMI/RFI filter)
- Class I / T1 SPDs per IEC/EN 61643-11
- Max surge current 8/20 up to 200kA per phase, 100kA per mode
- Lightning impulse current 10/350 up to 20kA per phase
- UL1283 listed Sine Wave Tracking (EMI/RFI filter) filtering up to -45dB from 10kHz to 100MHz
- Short Circuit current rating (SCCR): 200 kArms - tested without external CB or fuse
- Prosurge Patented SCCR 200kArms thermally protected MOV technology(**PTMOV**) as core component
- Full modes protection
- High surge energy capability with compact size
- Low voltage protection rating
- Degradation failure indication
- Surge event counter
- NEMA 4 metal enclosure to resist dirt, dust and water
- Audible alarm, beep while SPD fail
- Remote Alarm optional
- Threaded NPT

■ **Basic circuit diagram**

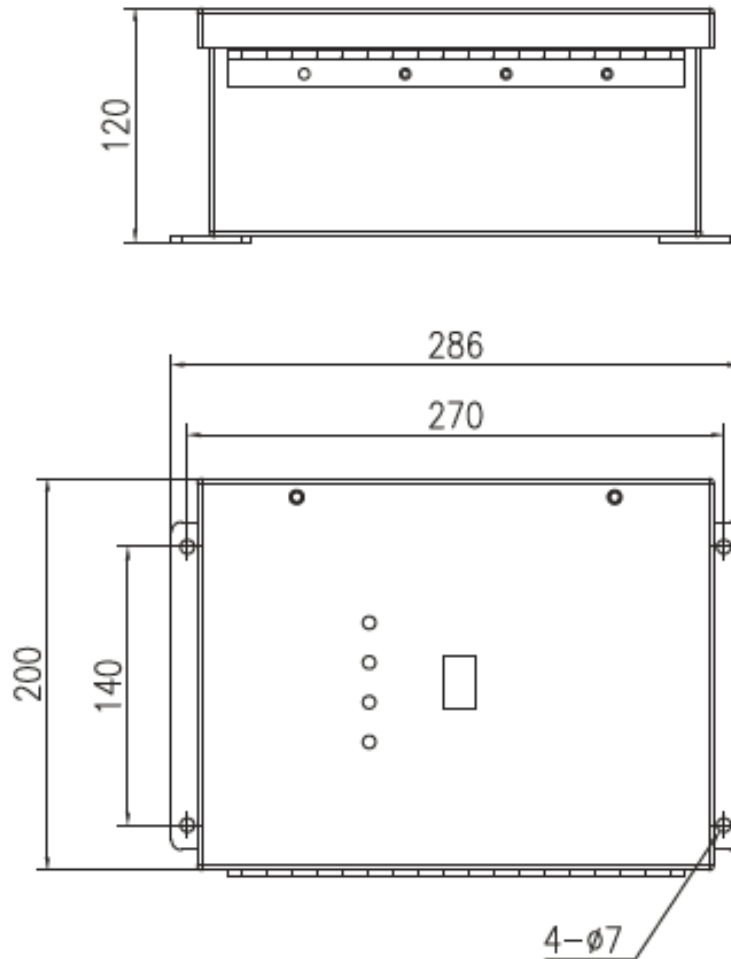
Basic circuit diagram of surge protection circuit	Un/ Power system (50/60 HZ)	Power distribution applied	Wire connection
<p>PSP240Y42MT2FCTA</p> 	<p>220/380 VAC WYE,4W+G 230/400 VAC WYE,4W+G 240/415VAC WYE, 4W+G</p>	<p>Figure 2</p>  <p>WYE 3 Hots, 1 Neu, 1 Grnd</p>	

■ General Specification:

PSP Part No.	PSP240Y42M/T2FCTA
Voltage configuration	220/380VAC WYE 4W+G (TN/TT)
Operating frequency range	47 - 63 Hz
SPD category per UL/IEC/EN	Type 2 / Class I / T1
Connection Type	Parallel Connected
Protection mode	L-N,L-G,N-G,L-L, Full mode protection
Max. continuous operating voltage (MCOV)	320VAC
Voltage protection level (VPR)	L-N:1200V, L-G:1200V,N-G:1200V, L-L:2000V
Nominal discharge current (In,8/20 μ s)	20kA
Surge capacity (8/20 μ s)	100kA (per mode); 200kA (per phase)
Lightning impulse current (10/350 μ s)	20kA (per phase)
Short circuit current rating (SCCR)	200kArms
UL1283 EMI/RFI filter	Sine wave tracking, up to -45dB from 10kHz to 100MHz
Response time	≤ 25 ns
Lightning counter Current	≥ 200A (with Reset button)
Failure pre-test	Press 2S (test button)
Power Status Indication	Normal=Blue LED ON
Working Status Indication	Normal= Blue LED ON; Fail= Blue LED turn to Red Buzzer inside, beep while SPD fail
Power Connecting	10AWG, 762mm (30") length, (L1=black; L2=red; L3=blue; N=white; PE=green)
Signal cable	16AWG, 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)	286 x 200 x 120 mm
Threaded NPT	3/4"NPT
Enclosure	Metal enclosure, NEMA 4
Storage	Temperature -10°C~+45°C, Humidity relative ≤75% (25°C)
Certification	ANSI/UL1449 4th edition, CSA C22.2 No. 269.2-17, UL1283

■ Dimensions (unit: mm)

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



(end)