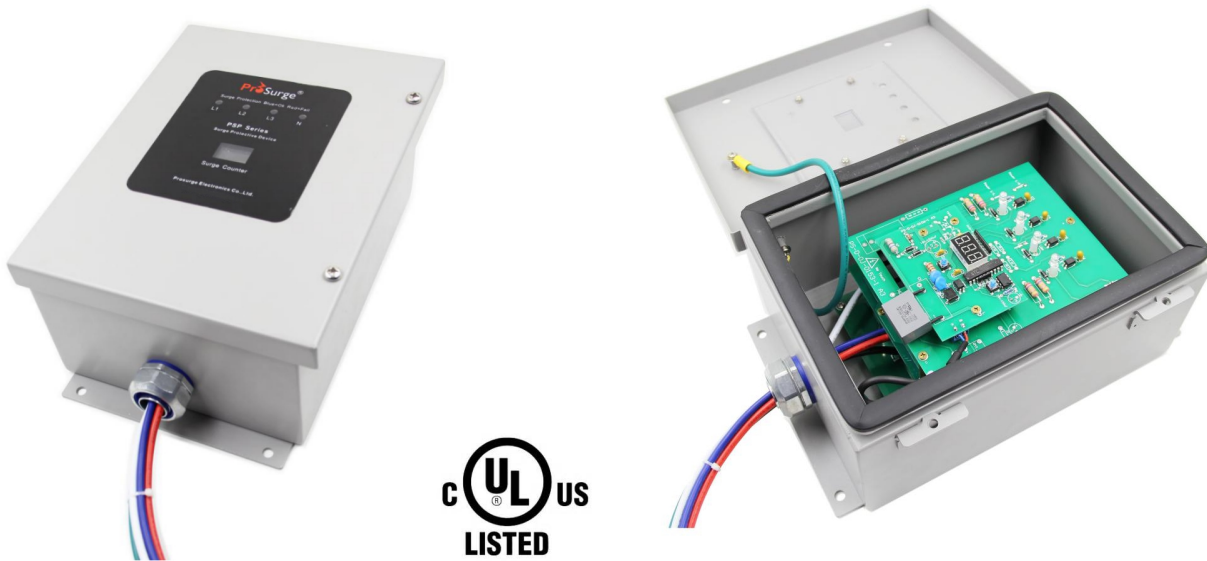


PSP C series

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:**

- UL 1449 4th and CSA C22.2 No. 269.1-14 listed Type 1 SPDs
- UL1283, UL1449 4th and CSA C22.2 No. 269.2-13 listed Type 2 SPDs with Sine Wave Tracking (EMI/RFI filter)
- Up to 200kArms SCCR 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.
- With surge event counter
- UL1283 listed Sine Wave Tracking (EMI/RFI filter) filtering up to -45dB from 10kHz to 100MHz
- Two type enclosure, NEMA 4X plastic and NEMA 4 metal enclosure to resist dirt, dust and water
- Audible alarm, beep while SPD fail
- With remote alarm
- Threaded NPT

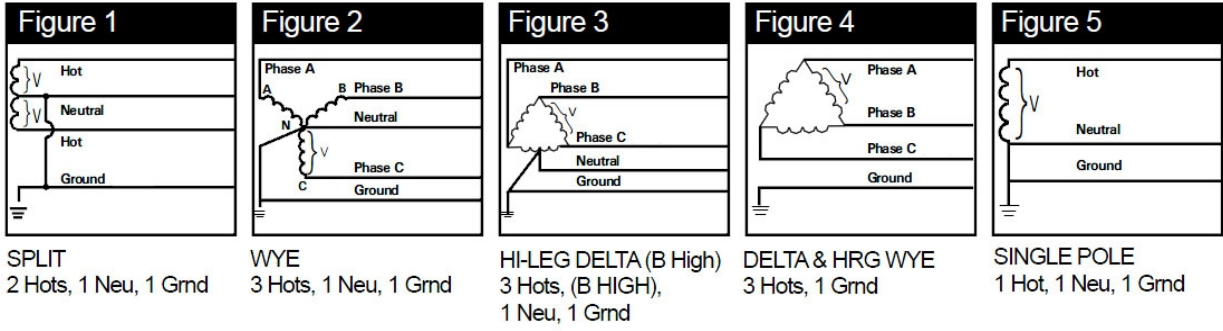
■ **Configure & Ordering Information:**

<u>PSP</u> Model series	<u>240Y</u> Voltage and system configuration	<u>C</u> Protection mode	<u>42</u> Surge capacity	<u>M</u> Enclosure	<u>/ T2F</u> SPD Category	<u>CTA</u> Additional function
<u>PSP</u>	<u>240Y</u> : 240/415V WYE ...	<u>C</u> : Delete N-G protection mode	<u>42</u> :200kA per phase	<u>M</u> : metal enclosure (Only C2 type)	<u>T2F</u> : UL type 2 SPD with sine wave tracking UL 1283 listed	<u>C</u> : surge event counter

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, 380Y/220V,400Y/230V,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, 220V,230V,240V, 277V, 347V-----single-phase two-wire + ground (Figure5)

One-port Panel SPDs

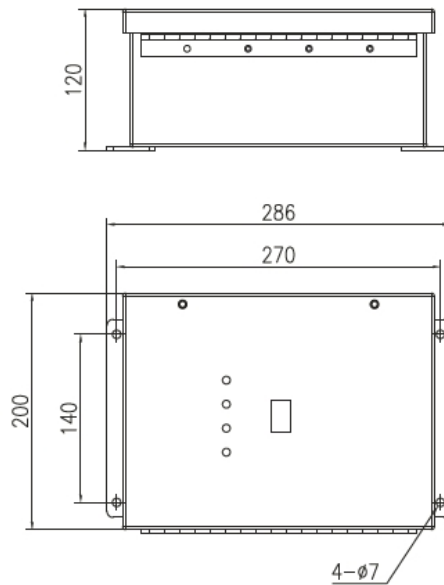


■ **M:** Metal enclosure

Dimensions (unit: mm)



PSP C2 (NEMA 4 metal enclosure)



PSP series can be fixed with bolts.

2.*: SPD Type per UL1449 4th edition

- T2F= UL type 2 SPD with sine wave tracking UL 1283 listed

3.# : Additional function

- C = Surge Counter
- T=Failure Test
- A=Remote Alarm



■ Basic circuit diagram

Note: x means 1 to 6 (Surge capacity 50kA~300kA)

Un/ Power system (50/60 HZ)	Basic circuit diagram of surge protection circuit
	240/415 VAC WYE ...

■ General Specification:

PSP category	C2
Certification	ANSI/UL1449 4th edition, CSA C22.2 No. 269.1-14 for Type1 ANSI/UL1449 4th edition, CSA C22.2 No. 269.2-13, UL1283 for Type2
Connection Type	Parallel Connected
Surge Capacity	200kA per Phase
SCCR	200kArms
UL1283 EMI/RFI filter	Sine wave tracking, up to -45dB from 10kHz to 100MHz (Type2 only)
Lightning counter Current	≥ 200A (with Reset button)
Response Time (all modes)	1ns
Measured Limited Voltage 2kV, 67A	25 - 47V
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℃~+75℃, Humidity relative 5~95% (25℃) , Altitudes≤3km
Dimensions (W x D x H)	286 x 200 x 120 mm
Threaded NPT	3/4"NPT
Enclosure	Metal enclosure, NEMA 4
Net Weight (typical value)	4.3 kg

One-port Panel SPDs

■ Technical Data:

Model No.	System voltage (50/60Hz)	In (kA)	Protected mode				Voltage Protection Ratings(UL 1449 4th) (VPR @6kV/ 3kA)				Surge Capability	MCOV (Vac)
			L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L		
PSP347S42M/T1CTA	347V Single-phase	20	✓	✓	✓	×	1500	1500	1500	-	200kA/phase, 100kA/mode	420

Model No.	System voltage (50/60Hz)	In (kA)	Protected mode				Voltage Protection Ratings(UL 1449 4th) (VPR @6kV/ 3kA)				Surge Capability	MCOV (Vac)
			L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L		
PSP347S62M/T1CTA	347V Single-phase	20	✓	✓	✓	×	1500	1500	1500	-	300kA/phase, 150kA/mode	420

Model No.	System voltage (50/60Hz)	In (kA)	Protected mode				Voltage protection level (IEC61643-11) (Up @In 20kA)				Surge Capability	Uc (Vac)
			L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L		
PSP347Y42M/T2FCTA	600Y347V Three-phase wye	20	✓	✓	✓	✓	1500	1500	1500	2500	200kA/phase, 100kA/mode	420

Model No.	System voltage (50/60Hz)	In (kA)	Protected mode				Voltage protection level (IEC61643-11) (Up @In 20kA)				Surge Capability	Uc (Vac)
			L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L		
PSP347Y62M/T1CTA	600Y347V Three-phase wye	20	✓	✓	✓	✓	1500	1500	1500	2500	300kA/phase, 150kA/mode	420