

FOR LIGHTING PANELS, BUSWAY AND MCC

# **TPS4 01/L1 Surge Protection Devices**

## siemens.ca/powerdistribution

# **Product specifications**

#### **General specifications**

Maximum surge current rating range	Standard - 100kA to 500kA per phase 10 Mode - 150kA to 750kA per phase
UL Type designation	SPD Type 1 and 2
UL 1449 & CSA C22.2 No. 269 I-nominal rating	20kA
UL 1449 & CSA C22.2 No. 269 short circuit current rating	200kA
Repetitive impulse	5,000 hits
Response time	< 1/2 ns

#### **Physical specifications**

Humidity range	0-95% non-condensing
Operating frequency	47-63Hz
Operating temperature	-25°C to +60°C
Dimensions in inches (mm)	9.25" (235) x 4.50" (114.3) x 4.29" (109)
Weight	4.55 lbs (2064 g)
Neutral/ground connection	#8 AWG

## Diagnostic monitoring specifications

Green LEDs per phase
Red service LED
Audible alarm with silence switch
Form C dry contact, 240V, 5A
Event counter with time and date stamp

#### **Design specifications**

Stacked distribution grade MOV design
Integrated optimized thermal protection
Mounts internal to: RP1, P2, P3 TIASTAR MCC 6" Bucket (M option) STP Series Busplug on SX Series Busway (B option)
Direct bus connection or wired breaker connection (W option)



## **Model Number Catalog Logic**

TPS4 01 SPD for "RP1", P2, P3 Lighting Panelboards, MCC and Busway General Suppressor Series

Please note: The TPS4 01 series is not suitable for use TPS4 01 **Catalog Number** in the Original P1 Lighting Panels - Only Revised P1 Lighting Panels. Voltage Code **Surge Current Rating** Options (1 Alpha numeric Character) X = Surge Counter (Standard) A = 240/120V, 1Ø, 3W (Figure 1)\*\* 10 = 100kA per phase15 = 150kA per phaseB = 240/120V, 3Ø, 4W (Figure 3) **0** = Standard Configuration (Default) C = 208/120V, 3Ø, 4W (Figure 2) 20 = 200kA per phaseW = Terminal Lug W = 220/127V, 3Ø, 4W (Figure 2) 25 = 250kA per phase0 = Standard Configuration (Default) **D** = 240V, 3Ø, 3W (Figure 4) 30 = 300kA per phase**B** = Busway Application **E** = 480/277V, 3Ø, 4W (Figure 2) 40 = 400kA per phase**M** = MCC Application  $F = 480V, 3\emptyset, 3W$  (Figure 4) 50 = 500kA per phase2 = Type 2 SPD (Default) Includes UL 1283 EMI/RFI Filters  $G = 600V, 3\emptyset, 3W (Figure 4)*$ 0 = Type 1 SPD $K = 380/220V, 3\emptyset, 4W$  (Figure 2)  $L = 600/347V, 3\emptyset, 4W$  (Figure 2) **S** = 400/230V, 3Ø, 4W (Figure 2) Example: TPS4C0120X000 = **T** = 415/240V, 3Ø, 4W (Figure 2) SPD for a 208/120V panelboard with a surge current capacity of 200kA per phase and a surge counter option. \*Not avilable in 300, 400 or 500kA versions When an option is not selected, include a zero (0) in the field. \*\*Can also be used on 208Y/120V, 1∅, 3W System. TPS4 L1 10 Mode SPD for "RP1", P2, P3 Lighting Panelboards, MCC and Busway **General Suppressor Series** Please note: The TPS4 L1 series is not suitable for use **Catalog Number** TPS4 L1 in the Original P1 Lighting Panels - Only Revised P1 Lighting Panels. Voltage Code **Surge Current Rating Options** (1 Alpha numeric Character) X = Surge Counter (Standard) A = 240/120V, 1Ø, 3W (Figure 1)\*\* 15 = 150kA per phaseB = 240/120V, 3Ø, 4W (Figure 3) 30 = 300kA per phase0 = Standard Configuration (Default) W = Terminal Lug C = 208/120V, 3Ø, 4W (Figure 2) 45 = 450kA per phase **W** = 220/127V, 3Ø, 4W (Figure 2) 55 = 550kA per phase **0** = Standard Configuration (Default) **E** = 480/277V, 3Ø, 4W (Figure 2) 75 = 750kA per phase **B** = Busway Application  $K = 380/220V, 3\emptyset, 4W$  (Figure 2) **M** = MCC Application L = 600/347V, 3Ø, 4W (Figure 2)\* 2 = Type 2 SPD (Default) Includes UL 1283 EMI/RFI Filters  $S = 400/230V, 3\emptyset, 4W$  (Figure 2)  $\mathbf{0} = \text{Type 1 SPD}$ T = 415/240V, 3Ø, 4W (Figure 2) Example: TPS4CL120X000 = SPD for a 208/120V panelboard with a surge current capacity of \*Not available in 450, 550 or 750kA versions 200kA per phase and a surge counter option. \*\*Can also be used on 208Y/120V, 1Ø, 3W System. When an option is not selected, include a zero (0) in the field.

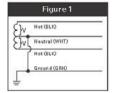


Figure 1: SPLIT 2 Hots, 1 Neu, 1 Grnd

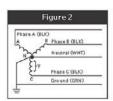


Figure 2: WYE 3 Hots, 1 Neu, 1 Grnd

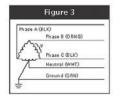


Figure 3: HI-LEG DELTA (B High) 3 Hots, (B HIGH), 1 Neu, 1 Grnd

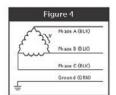


Figure 4: DELTA & HRG WYE 3 Hots, 1 Grnd

Voltage Code	System Voltage	L-N	L-G	L-L	N-G	MCOV
А	120/240V, 1Ø, 3W*	600	500	1200	500	150
В	240/120V, 3Ø, 4W	600/800	600/800	1200	500	150/320
С	208Y/120V, 3Ø, 4W	500	500	1000	500	150
W	220/127V, 3Ø, 4W	600	500	1200	500	150
D	240V, 3Ø, 3W	-	800	800	-	320
E	480Y/277V, 3Ø, 4W	1000	1000	2000	900	320
F	480V, 3Ø, 3W	-	1800	1800	-	550
G	600V, 3Ø, 3W	-	1800	1800	-	690
K	380Y/220V, 3Ø, 4W	900	900	1800	800	320
L	600Y/347V, 3Ø, 4W	1500	1200	2500	1200	420
S	400Y/230V, 3Ø, 4W	900	900	1800	800	320
T	415Y/240V, 3Ø, 4W	900	900	1800	800	320

<sup>\*</sup>Can also be used on 208Y/120V, 1Ø, 3W System.

#### **Modes of Protection**

Standard TPS4 01

## Includes 7 discrete modes of protection (L-N x3, L-G x3, N-G) and 3 indirect modes

(L-L through N or G)

- For WYE and Hi-leg delta systems only
- Delta systems do not have as many possible modes

### True 10-Mode (or discrete 10-mode) TPS4 L1\*

- Includes directly connected discrete protection elements between all possible modes providing true 10 mode protection.
- MOVs are placed directly in the L-L mode as well as all other modes.
- This full 10-mode protection is only achievable in Wye configurations (For 120/240 single phase TPS4 L1 provides all modes with 6-mode protection)

Discrete protection - There are directly connected MOVs in that mode of protection

Indirect protection - Protection through 2 MOVs (L-N-L or L-G-L)

#### Standards compliance and certifications

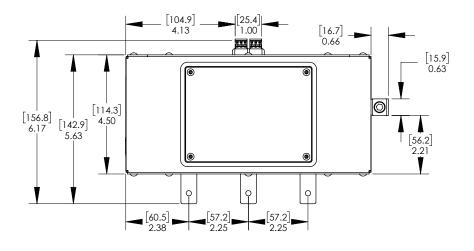
UL 1449 4th Edition, cUL, UL1283, CSA22.2 NO 269.1&2 NEC Article 285, UL 96A Compliant, ANSI/IEEE C62.41.1-2002, C62.41.2-2002, C62.45-2002

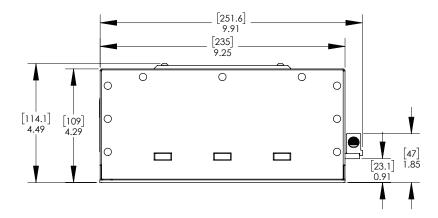
ISO 9001:2014 Quality Management System, ISO 17025:2007 Laboratory Certification (UL DAP Program), 100% Quality Tested prior to shipping

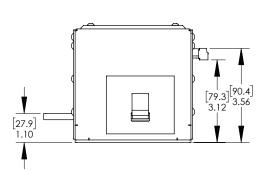
10-yr product warranty

<sup>\*</sup> L1 surge protection devices are priced higher.

## **Product Diagram [in millimeters] and inches**







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