

TPS3 09

Type 1 Surge Protective Device (SPD)

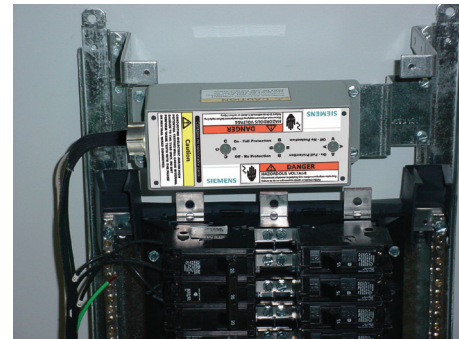
Mounts External to Electrical Distribution Equipment or Internal to P1, P2 Lighting Panelboards, P3 Power Panelboards and Busway Systems

Features:

- UL 1449 3rd Edition – 2009, cUL
- Type 1 SPD (Type 2 cUL)
- Mounts external to electrical distribution equipment
 - Weatherproof hub included
- Mounts internal to P1 panelboards & busway
 - P1 - Field retrofit or factory install
 - P2 and P3 - Factory install only
 - Consult factory for field retrofit*
- Large block, individually fused, thermally protected, 50 kA MOVs
- 20 kA I_n (most models)
- 200 kA SCCR (most models)
- All UL-required OCP & safety coordination included
- UL96A Lightning Protection Master Label compliant (@ 20 kA I_n)
- SPD Specifications
 - Surge Current Rating Per Phase

Per Phase	L-N	L-G	N-G
100 kA	50 kA	50 kA	50 kA

 - 100% monitoring (Every MOV is monitored, incl. N-G)
 - Individually fused and thermally protected MOVs
 - Solid state bi-directional operation
 - Repetitive impulse: 5,000 hits
 - Less than 1 nanosecond response time
 - Relative humidity range: 0 -95% non-condensing
 - Operating frequency: 47-63 Hz
 - Operating temperature: -40°C (-40°F) to +85°C (185°F)
- Standard Configuration
 - Standard NEMA 4X polycarbonate enclosure (UL 746C (f1), UL 94-5VA)
 - Wire size: Prewired with 3' (91.4cm) of #10 AWG
 - Standard size: 8.3" x 3.6" x 3.0" (211 mm x 91 mm x 77 mm)
 - Standard weight: 3 lbs. (1.4 kg)



UL 1449 3rd Edition SPD

SIEMENS

- SPD Features
 - UL 1449 3rd Edition effective September 2009
 - Designed, manufactured and tested consistent with:
 - ANSI/IEEE C62.41.1-2002, c62.41.2-2002, C62.45-2002,
 - 1992/2000 NEMA LS-1
 - NEC Article 285
 - IEC 61643, CE
 - Large block, individually fused, thermally protected, 50 kA MOVs
 - 10 year warranty

- SPD Monitoring
 - LED indicators
- Available Options
 - Dry contacts & audible alarm
- Available Accessories
 - RMSIE = Remote monitor
 - FMKITC = Flush mount plate
 - TPS9IKITP1 = Mounting bracket for installation in P1 panels
 - TPS9IKITP2 = Mounting bracket for installation in P2 panels (factory install only)

- Key Bid Specifications
 - UL 1449 3rd Edition – 2009, cUL
 - Type 2 SPD¹
 - Protection modes on L-N, L-G, L-L, N-G
 - I_n Rating – 20 kA
 - Short Circuit Current Rating – 200 kA
 - Surge Current Rating
 - Per Phase = L-N + L-G
 - 100 kA 50 kA 50 kA

Ordering Information

Catalogue # **TPS3** **09** **2**

Voltage Code
 A = 120/240V, 1Ø, 3W (Fig 1)
 B = 120/240V, 3Ø, 4W (Fig 3)
 C = 120/208V, 3Ø, 4W (Fig 2)
 D = 240V, 3Ø, 3W (Fig 4)
 E = 277/480V, 3Ø, 4W (Fig 2)
 F = 480V, 3Ø, 3W (Fig 4)
 G = 600V, 3Ø, 3W, (Fig 4)
 K = 380/220V, 3Ø, 4W (Fig 2)
 L = 600/347V, 3Ø, 4W (Fig 2)
 S = 400/230V, 3Ø, 4W (Fig 2)

Surge Current (kA)
 10 = 100 kA per phase

Options
 E = Extended indicator light
 I = Internal mounting in P1, P2 panels²
 D = Dry contact & audible alarm

- Example: TPS3C0910D002 = Type 2 SPD for a 208/120V panelboard with a surge current capacity of 100 kA per phase with standard NEMA 4X enclosure, dry contacts and audible alarm option.
 - Available for field retrofit in P1 panels
 - When an option is not selected, include a zero (0) in the field

UL 1449 3rd Edition - 2009 Test Data Summary Voltage Protection Rating (VPR - 6kV, 3 kA)									
Voltage Code	Service Voltage	L-N	L-G	N-G	L-L	Type ¹	I _n	SCCR	MCOV
A	120/240V, 1Ø, 3W (Fig 1)	600	700	500	1000	Type 2	20 kA	100 kA	150
B	120/240V, 3Ø, 4W (Fig 3)	600 / 1200	700 / 1200	500	1000/ 1000	Type 2	20 kA	200 kA	150 / 320
C	120/208V, 3Ø, 4W (Fig 2)	600	700	500	1000	Type 2	20 kA	200 kA	150
D	240V, 3Ø, 3W (Fig 4)		1200		1200	Type 2	20 kA	200 kA	320
E	277/480V, 3Ø, 4W (Fig 2)	1200	1200	1000	1800	Type 2	20 kA	200 kA	320
F	480V, 3Ø, 3W (Fig 4)		1800		1800	Type 2	10 kA	200 kA	552
G	600V, 3Ø, 3W (Fig 4)		2500		2500	Type 2	10 kA	200 kA	690
K	380/220V, 3Ø, 4W (Fig 2)	1200	1200	1000	1800	Type 2	20 kA	200 kA	320
L	600/347V, 3Ø, 4W (Fig 2)	1500	1500	1500	2500	Type 2	10 kA	200 kA	420
S	400/230V, 3Ø, 4W (Fig 2)	1200	1200	1000	1800	Type 2	20 kA	200 kA	320

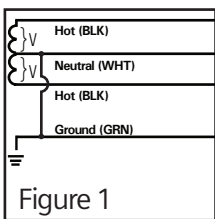


Figure 1
Split
2 Hots, 1 Neu, 1 Grnd

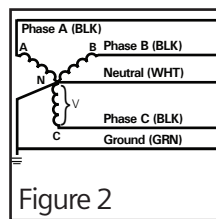


Figure 2
Wye
3 Hots, 1 Neu, 1 Grnd

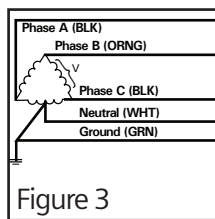


Figure 3
Hi-Leg Delta (B High)
3 Hots, (B High),
1 Neu, 1 Grnd

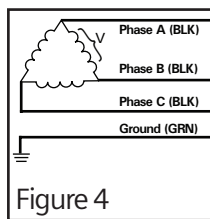


Figure 4
Delta & HRG Wye
3 Hots, 1 Grnd

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Notes:

- ¹ Type 1 UL
- ² Requires TPS9IKITP1 or TPS9IKITP2 mounting bracket accessory, see available Accessories