

# TPS3 01

## Surge Protection Device (SPD)

### for P1, P2 Lighting Panelboards and P3 Power Distribution Panelboards, Motor Control Centres and Busway Systems

#### Features:

- Mounts internal to:
  - P1, P2 and P3 panels
  - TIASTAR motor control centres - standard 6" bucket
- Consult factory for field retrofit in P1 panels
- UL 1449 3rd Edition – 2009, cUL
- Type 4 SPD intended for use in Type 1 applications (Type 2 cUL)
- UL Type 1 tested with all internal OCP and safety coordination features included
- Large block, individually fused, thermally protected, 50 kA MOVs
- 20 kA  $I_n$  (most models)
- 200 kA SCCR (most models)

#### ■ Applications

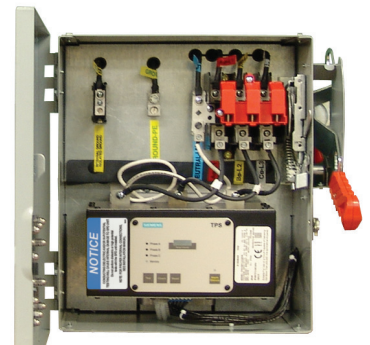
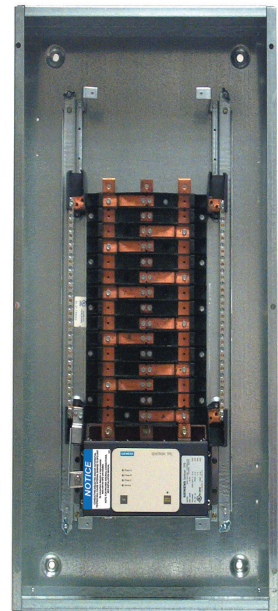
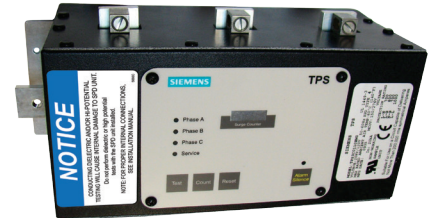
- Provides main service or downstream protection for sensitive computer and electronic loads
  - Standard redundancy use: 100 kA per phase
  - Increased redundancy use: 200 kA per phase
  - Maximum redundancy use: 300 kA per phase

#### ■ SPD Specification

- Surge Current Rating Per Phase

Per Phase	L-N	L-G	N-G
100 kA	50 kA	50 kA	50 kA
150 kA	100 kA	50 kA	50 kA
200 kA	100 kA	100 kA	100 kA
250 kA	150 kA	100 kA	100 kA
300 kA	150 kA	150 kA	150 kA

- 100% monitoring (Every MOV is monitored, incl. N-G)
- EMI/RFI filtering: Active tracking up to -50 db from 10 kHz to 100 MHz
- Repetitive impulse: 5,000 hits
- Less than 1/2 nanosecond response time
- Relative humidity range: 1-95% non-condensing
- Operating frequency: 47-63 Hz
- Operating temperature: -25°C (-15°F) to +60°C (140°F)



UL 1449 3rd Edition SPD

SIEMENS

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

- SPD Features
  - Direct bus connected or can be wired to a circuit breaker (include W option)
  - 10 year warranty
- Standard Monitoring
  - LED indicators
  - Audible alarm with silence switch and test button
  - Dry contacts
- Available Options
  - Surge counter
  - Terminal lug for circuit breaker connection

- Available Accessories
  - RMSIE = Remote monitor
- Key Bid Specifications
  - UL 1449 3rd Edition - 2009, cUL
  - Audible alarm with silence switch and test button
  - Dry contacts
  - EMI/RFI filtering
  - Protection modes on L-N, L-G, L-L, N-G
  - I<sub>n</sub> 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 #

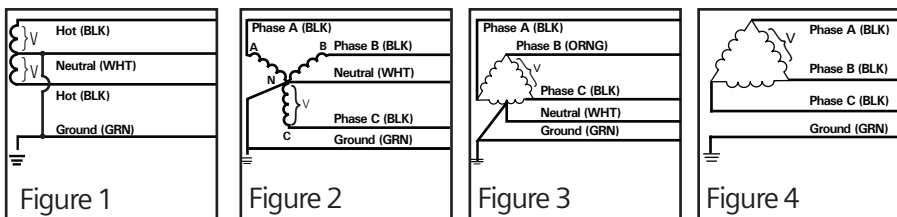
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<p><u>Voltage Code</u></p> <p>A = 120/240V, 1Ø, 3W (Fig 1)</p> <p>B = 120/240V, 3Ø, 4W (Fig 3)</p> <p>C = 120/208V, 3Ø, 4W (Fig 2)</p> <p>D = 240V, 3Ø, 3W (Fig 4)</p> <p>E = 277/480V, 3Ø, 4W (Fig 2)</p> <p>F = 480V, 3Ø, 3W (Fig 4)</p> <p>G = 600V, 3Ø, 3W (Fig 4) ❶</p> <p>K = 380/220V, 3Ø, 4W (Fig 2)</p> <p>L = 600/347V, 3Ø, 4W (Fig 2)</p> <p>S = 400/230V, 3Ø, 4W (Fig 2)</p>	<p><u>Surge Current (kA)</u></p> <p>10 = 100 kA per phase</p> <p>15 = 150 kA per phase</p> <p>20 = 200 kA per phase</p> <p>25 = 250 kA per phase</p> <p>30 = 300 kA per phase</p>	<p><u>Options</u></p> <p>B = Busway application</p> <p>M = MCC application</p> <p>W = Terminal lug</p> <p>X = Surge counter</p>
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- Example: TPS3C0120X00 = SPD for a 208/120V panelboard with a surge current capacity of 200 kA per phase and a surge counter option

- 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	I <sub>n</sub>	SCCR	MCOV
A	120/240V, 1Ø, 3W (Fig 1)	700	700	700	1200	Type 4	20 kA	100 kA	150
B	120/240V, 3Ø, 4W (Fig 3)	700 / 1200	700 / 1200	700	1800 / 1800	Type 4	20 kA	200 kA	150 / 320
C	120/208V, 3Ø, 4W (Fig 2)	700	700	700	1200	Type 4	20 kA	200 kA	150
D	240V, 3Ø, 3W (Fig 4)		1200		1200	Type 4	10 kA	200 kA	320
E	277/480V, 3Ø, 4W (Fig 2)	1200	1200	1200	2000	Type 4	20 kA	200 kA	320
F	480V, 3Ø, 3W (Fig 4)		1800		1800	Type 4	10 kA	200 kA	550
G	600V, 3Ø, 3W (Fig 4)		2500		2500	Type 4	10 kA	200 kA	690
K	380/220V, 3Ø, 4W (Fig 2)	1200	1200	1200	2000	Type 4	20 kA	200 kA	320
L	600/347V, 3Ø, 4W (Fig 2)	1500	1500	1500	2500	Type 4	10 kA	200 kA	420
S	400/230V, 3Ø, 4W (Fig 2)	1200	1200	1200	2000	Type 4	20 kA	200 kA	320



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Notes:

- ❶ Available 100 kA & 150 kA only

www.siemens.ca/surge  
www.siemens.ca