

# TPS3 15

## Type 1 Surge Protective Device (SPD) For Line Side or Load Side Applications

### Features:

- UL 1449 3rd Edition – 2009, cUL
- UL 1283
- Type 1 SPD (Type 2 cUL)
- Mounts external to electrical distribution equipment
  - Recommended for line side or load side applications
- When "P" option is selected, TPS3 15, Type 1 SPD mounts internal to:  
SB1, SB3 and Type RCS switchboards, Type WL low voltage switchgear  
and TIASTAR motor control centers
- Large block, individually fused, thermally protected, 50kA MOV's
- 20kA  $I_{\text{in}}$  (most models)
- 200kA SCCR (most models)
- Provides redundant replaceable module protection for low to high  
exposure applications
- All UL-required OCP & safety coordination included
- UL96A Lightning Protection Master Label compliant (@20kA  $I_{\text{in}}$ )

### ■ SPD Specifications

- Surge Current Rating Per Phase

Per Phase	L-N	L-G	N-G
600kA	300kA	300kA	300kA
800kA	400kA	400kA	400kA
1000kA	500kA	500kA	500kA
- 100% monitoring – every MOV is monitored, incl. N-G
- Individually fused and thermally protected MOV's
- Solid state bi-directional operation
- EMI/RFI filtering: active tracking up to -50db from 10kHz to  
100MHz
- Repetitive impulse: 5,000 hits
- Less than 1 nanosecond response time
- Relative humidity range: 0 -95% non-condensing
- Operating frequency: 47-63Hz
- Operating temperature: -25°C (-15°F) to +60°C (140°F)

### ■ Standard Configuration

- Standard NEMA 1/12/3R/04 ANSI 61 steel enclosure
- Internal rotary disconnect switch
- Wire size: #8 AWG to 1/0
- Standard size: 20" x 20" x 7" (508mm x 508mm x 178mm) \*
- Standard weight: 64 lbs. (29kg) \*

\*Other NEMA ratings may increase enclosure size and weight



**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, 50kA MOV's
  - Internal rotary disconnect switch
  - 10 year warranty
- SPD Monitoring
    - LED indicators
    - Audible alarm with silence switch and test button
    - Dry contacts
  - Available Options
    - Surge counter
    - Thru-door disconnect switch
    - NEMA 4X non-metallic enclosure
    - NEMA 4X stainless steel enclosure
    - Flush mount enclosure
    - NEMA 1 enclosure with extended display②
- Key Bid Specifications
    - UL 1449 3rd Edition – 2009, cUL
    - UL 1283
    - Type 1 SPD①
    - Protection modes on L-N, L-G, L-L, N-G
    - $I_n$  Rating – 20kA
    - Short Circuit Current Rating – 200kA
    - Surge Current Rating
 

Per Phase	=	L-N	+	L-G
600kA		300kA		300kA

## Ordering Information

Catalog #

TPS3  15

### Options

T = Thru-door disconnect

X = Surge counter

Voltage Code	Surge Current (kA)	Enclosure	Options
A = 120/240V, 1Ø, 3W (Fig 1)	40 = 400kA per phase ③	0 = Standard NEMA 1/12/3R/4 steel	
B = 120/240V, 3Ø, 4W (Fig 3)	50 = 500kA per phase ③	V = NEMA 4X Non-metallic	
C = 120/208V, 3Ø, 4W (Fig 2)	60 = 600kA per phase	S = NEMA 4X Stainless steel	
D = 240V, 3Ø, 3W (Fig 4)④	80 = 800kA per phase	F = NEMA 1 Flush mount	
E = 277/480V, 3Ø, 4W (Fig 2)	1K = 1000kA per phase	P = NEMA 1 Screwcover pullbox with extended display on 5ft cable for line side mounting in SWBD/SWGR	
F = 480V, 3Ø, 3W (Fig 4)④			
G = 600V, 3Ø, 3W (Fig 4)⑤			
K = 380/220V, 3Ø, 4W (Fig 2)			
L = 600/347V, 3Ø, 4W (Fig 2)			
S = 400/230V, 3Ø, 4W (Fig 2)			

- Example: TPS3C1560SX0 = Type 1 SPD for a 208/120V application with a surge current capacity of 600kA per phase, in a NEMA 4X stainless steel enclosure with a surge counter option and standard disconnect switch
- When an option is not selected, include a zero (0) in the field
- Available Accessories: Ordered Separately
  - RMSIE - Remote monitor

UL 1449 3rd Edition - 2009 Test Data Summary									
Voltage Protection Rating (VPR - 6kV, 3kA)									
Voltage Code	Service Voltage	L-N	L-G	N-G	L-L	Type①	In	SCCR	MCOV
A	240/120V Split Phase (Fig 1)	700	700	700	1000	Type 1	20kA	100kA	150
B	240/120V B High Leg Delta (Fig 3)	700 /1200	700 /1200	700/1000	1000/1800	Type 1	20kA	200kA	150 / 320
C	208Y/120V 3Ø Wye (Fig 2)	700	700	700	1000	Type 1	20kA	200kA	150
D (Fig 4)									
E	480Y/277V 3Ø Wye (Fig 2)	1200	1200	1200	1800	Type 1	20kA	200kA	320
F	480V 3Ø Delta (Fig 4)	—	1800	—	1800	Type 1	20kA	200kA	550
G (Fig 4)									
K (Fig 2)									
L	600Y/347V 3Ø Wye (Fig 2)	1500	1500	1500	2500	Type 1	20kA	200kA	420
S (Fig 2)									

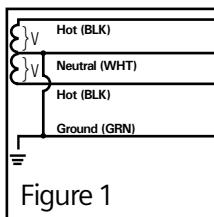


Figure 1

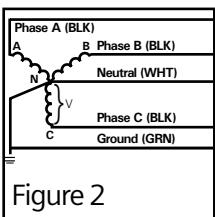


Figure 2

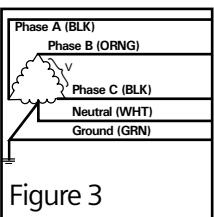


Figure 3

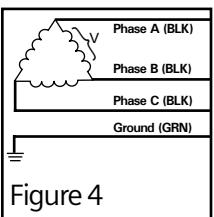


Figure 4

Split  
2 Hots, 1 Neu, 1 Grnd

Wye  
3 Hots, 1 Neu, 1 Grnd

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

Delta & HRG Wye  
3 Hots, 1 Grnd

## Notes:

- ① Type 2 cUL
- ② For line side mounting in SWBD/SWGR
- ③ Available in G voltage code only
- ④ Available in 600k & 800k only
- ⑤ Available in 400k & 500k only

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