

# TPS3 L12

## True 10 Mode Protection

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

- 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
- Large block, individually fused, thermally protected, 50kA MOV's
- 20kA  $I_n$  (most models)
- 200kA SCCR (most models)
- Single TPS1 style replaceable modules
- Provides replaceable module protection for low to high exposure applications
- All UL-required OCP & safety coordination included
- UL96A Lightning Protection Master Label compliant (@20kA In)

#### ■ SPD SPECIFICATIONS

- Directly connected discrete protection elements between all possible modes providing true 10 mode protection
  - Surge Current Rating Per Phase
- | Per Phase | L-N   | L-G   | L-L   | N-G   |
|-----------|-------|-------|-------|-------|
| 150kA     | 50kA  | 50kA  | 50kA  | 50kA  |
| 300kA     | 100kA | 100kA | 100kA | 100kA |
| 450kA     | 150kA | 150kA | 150kA | 150kA |
- 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
- Wire size: #8 AWG to 1/0
- Standard size: 12" x 12" x 7" (305mm x 305mm x 178mm) \*
- Standard weight: 20 lbs. (9.07 kg) \*

\*Internal disconnect options and other NEMA ratings may increase enclosure size and weight



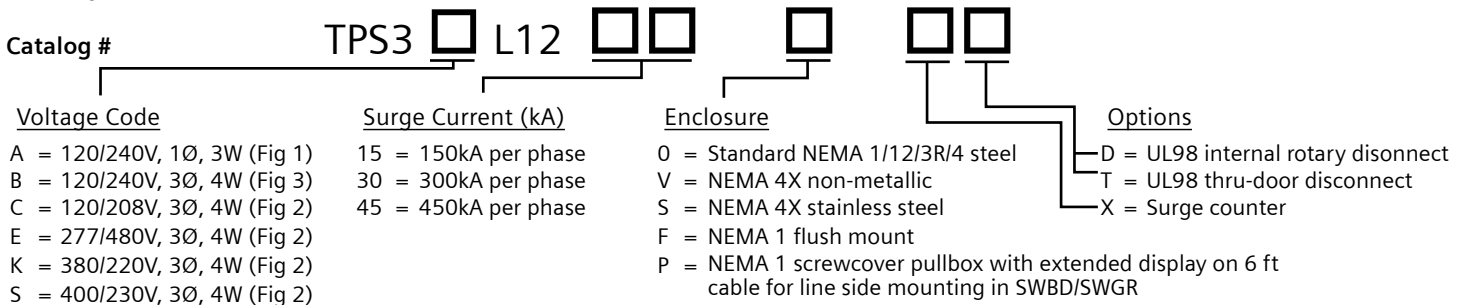
UL 1449 3rd Edition SPD

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
  - 10 year warranty
- SPD Monitoring
  - LED indicators
  - Audible alarm with silence switch and test button
  - Dry contacts
- Available Options
  - Surge counter
  - Internal rotary disconnect switch
  - Thru-door disconnect switch
  - NEMA 4X non-metallic enclosure
  - NEMA 4X stainless steel enclosure
  - Flush mount enclosure
  - NEMA 1 enclosure with extended display
- Key Bid Specifications
  - UL 1449 3rd Edition – 2009, cUL
  - UL 1283
  - Type 1 SPD
  - 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	+ L-L	
150kA	50kA	50kA	50kA

Ordering Information



- Example: TPS3CL12150XD = 10 Mode, Type 1 SPD for a 208/120V application with a surge current capacity of 150kA per phase, in a standard NEMA 1/12/3R/4 enclosure with a surge counter and internal rotary disconnect option
- 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) ③									
Voltage Code	Service Voltage	L-N	L-G	N-G	L-L	Type ①	In	SCCR	MCOV
A	120/240V, 1Ø, 3W (Fig 1)	700	700	700	1000	Type 1	20kA	100kA	150
B	120/240V, 3Ø, 4W (Fig 3)	800 / 1500	700 / 1200	700	1800/1800	Type 1	20kA	200kA	150 / 320
C	120/208V, 3Ø, 4W (Fig 2)	700	700	700	1000	Type 1	20kA	200kA	150
E	277/480V, 3Ø, 4W (Fig 2)	1200	1200	1200	1800	Type 1	20kA	200kA	320
K	380/220V, 3Ø, 4W (Fig 2)	1200	1200	1200	1800	Type 1	20kA	200kA	320
S	400/230V, 3Ø, 4W (Fig 2)	1200	1200	1200	1800	Type 1	20kA	200kA	320

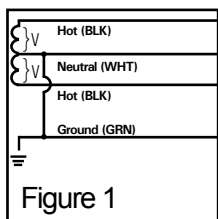


Figure 1  
Split  
2 Hots, 1 Neu, 1 Grnd

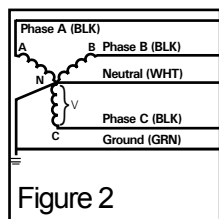


Figure 2  
Wye  
3 Hots, 1 Neu, 1 Grnd

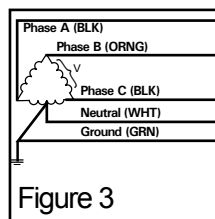


Figure 3  
Hi-Leg Delta (B High)  
3 Hots, (B High),  
1 Neu, 1 Grnd

Notes:

- ① Type 2 cUL
- ② For line side mounting in SWBD/SWGR
- ③ VPR may increase when disconnect switch is added  
VPR may decrease for 450kA per phase

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