TPS3 12

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
- Large block, individually fused, thermally protected, 50kA MOV's
- 20kA I_n (most models)
- 200kA SCCR (most models)
- 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

- Surge Current Rating Per Phase

Per Phase	L-N	L-G	N-G
100kA	50kA	50kA	50kA
150kA	100kA	50kA	50kA
200kA	100kA	100kA	100kA
250kA	150kA	100kA	100kA
300kA	150kA	150kA	150kA
400kA	200kA	200kA	200kA
500kA	250kA	250kA	250kA

- 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 display❷

■ Key Bid Specifications
- UL 1449 3rd Edition – 2009, cUL
- UL 1283
- Type 1 SPD❶
- 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
100kA		50kA		50kA

Ordering Information

Catalog # TPS3 □ 12 □□ □ □□

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)❸
- E = 277/480V, 3Ø, 4W (Fig 2)
- F = 480V, 3Ø, 3W (Fig 4)❸
- G = 600V, 3Ø, 3W (Fig 4)❹
- 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 = 100kA per phase
- 15 = 150kA per phase
- 20 = 200kA per phase
- 25 = 250kA per phase
- 30 = 300kA per phase
- 40 = 400kA per phase
- 50 = 500kA per phase

Enclosure
- 0 = Standard NEMA 1/12/3R/4 Steel
- V = NEMA 4X non-metallic
- S = NEMA 4X stainless steel
- F = NEMA 1 flush mount
- P = NEMA 1 screwcover pullbox with extended display on 6ft cable for line side mounting in SWBD/SWGR

Options
- D = Internal rotary disconnect
- T = Thru-door disconnect
- X = Surge counter

- Example: TPS3C12100XD = Type 1 SPD for a 208/120V application with a surge current capacity of 100kA 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)❺

Voltage Code	Service Voltage	L-N	L-G	N-G	L-L	Type❶	In	SCCR	MCOV
A	120/240V, 1Ø, 3W (Fig 1)	700	700	700	1200	Type 1	20kA	100kA	150
B	120/240V, 3Ø, 4W (Fig 3)	700 / 1200	700 / 1200	700	1800/1800	Type 1	20kA	200kA	150 / 320
C	120/208V, 3Ø, 4W (Fig 2)	700	700	700	1200	Type 1	20kA	200kA	150
D	240V, 3Ø, 3W (Fig 4)		1200		1200	Type 1	20kA	200kA	320
E	277/480V, 3Ø, 4W (Fig 2)	1200	1200	1200	2000	Type 1	20kA	200kA	320
F	480V, 3Ø, 3W (Fig 4)		1800		1800	Type 1	10kA	200kA	552
G	600V, 3Ø, 3W (Fig 4)		2500		2500	Type 1	10kA	200kA	690
K	380/220V, 3Ø, 4W (Fig 2)	1200	1200	1200	2000	Type 1	20kA	200kA	320
L	600/347V, 3Ø, 4W (Fig 2)	1500	1500	1500	2500	Type 1	10kA	200kA	420
S	400/230V, 3Ø, 4W (Fig 2)	1200	1200	1200	2000	Type 1	20kA	200kA	320

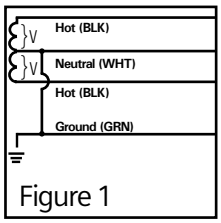

Figure 1

Split
2 Hots, 1 Neu, 1 Grnd

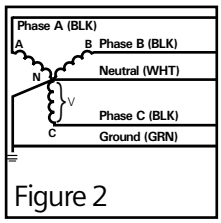

Figure 2

Wye
3 Hots, 1 Neu, 1 Grnd

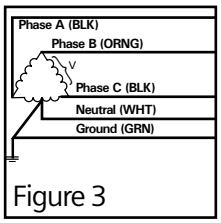

Figure 3

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

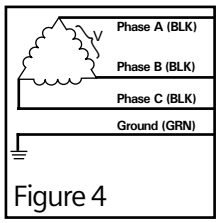

Figure 4

Delta & HRG Wye
3 Hots, 1 Grnd

Notes:
❶ Type 2 cUL
❷ For line side mounting in SWBD/SWGR
❸ Not available in 500kA
❹ Available in 100kA, 150kA, 200kA & 250kA only
❺ VPR may increase when disconnect switch is added; VPR may decrease for products 400 & 500kA per phase

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