

TPS3 06

Surge Protection Device (SPD)

for Service Entrance Applications – SB1, SB2, SB3, Type RCS Switchboards, Type WL Low Voltage Switchgear, Motor Control Centers and Busway Systems

Features:

- Mounts internal to:
 - SB1, SB2, SB3 & Type RCS switchboards
 - Type WL low voltage switchgear
 - TIASTAR motor control centers - standard 12" bucket
 - STP series busplug on SX series busway
- UL 1449 3rd Edition Recognized – 2009
- UL 1283
- 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, 50kA MOV's
- 20kA I_n (most models)
- 200kA SCCR (most models)
- Rotary disconnect switch included
- All UL-required OCP & safety coordination included
- Applications
 - Provides main service entrance or downstream protection for sensitive computer and electronic loads
 - Standard redundancy use: 300kA per phase
 - Increased redundancy use: 400kA per phase
 - Maximum redundancy use: 500kA per phase

■ 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
- EMI/RFI filtering: Active tracking up to -50db from 10kHz to 100MHz
- Repetitive impulse: 5,000 hits
- Less than ½ nanosecond response time
- Relative humidity range: 1-95% non-condensing
- Operating frequency: 47-63Hz
- 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, 50kA MOV's
 - 10 year warranty

- SPD Monitoring
 - LED indicators
 - Audible alarm with silence switch and test button
 - Dry contacts
 - Rotary disconnect switch

- Available Options
 - Surge counter

- Key Bid Specifications
 - UL 1449 3rd Edition Recognized - 2009
 - UL 1283
 - 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_n Rating - 20kA
 - Short Circuit Current Rating - 200kA
 - Surge Current Rating
 - Per Phase = L-N + L-G
 - 300kA 150kA 150kA

Ordering Information

Catalog # TPS3 06

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) ②
 E = 277/480V, 3Ø, 4W (Fig 2)
 F = 480V, 3Ø, 3W (Fig 4) ②
 G = 600V, 3Ø, 3W (Fig 4) ③
 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

Options

B = Busway application ①
 M = MCC application ①
 X = Surge counter

- Example: TPS3C0640X0 = SPD for a 208/120V switchboard with a surge current capacity of 400kA per phase and a surge counter option

- When an option is not selected, include a zero (0) in the field

Available Accessories: Ordered Separately

- RMSIE - Remote monitor
- WHXWDP120 = 10' Display cable extension

| UL 1449 3rd Edition - 2009 Test Data Summary | | | | | | | | | |
|--|--------------------------|------------|------------|------|-------------|--------|------|-------|-----------|
| Voltage Protection Rating (VPR - 6kV, 3kA) ④ | | | | | | | | | |
| Voltage Code | Service Voltage | L-N | L-G | N-G | L-L | Type | In | SCCR | MCOV |
| A | 120/240V, 1Ø, 3W (Fig 1) | 700 | 700 | 700 | 1200 | Type 4 | 20kA | 100kA | 150 |
| B | 120/240V, 3Ø, 4W (Fig 3) | 700 / 1200 | 700 / 1200 | 700 | 1800 / 1800 | Type 4 | 20kA | 200kA | 150 / 275 |
| C | 120/208V, 3Ø, 4W (Fig 2) | 700 | 700 | 700 | 1200 | Type 4 | 20kA | 200kA | 150 |
| D | 240V, 3Ø, 3W (Fig 4) | | 1200 | | 1200 | Type 4 | 20kA | 200kA | 320 |
| E | 277/480V, 3Ø, 4W (Fig 2) | 1200 | 1200 | 1200 | 2000 | Type 4 | 20kA | 200kA | 320 |
| F ⑤ | 480V, 3Ø, 3W (Fig 4) | | 1800 | | 1800 | Type 4 | 20kA | 200kA | 550 |
| G ⑤ | 600V, 3Ø, 3W (Fig 4) | | 2500 | | 2500 | Type 4 | 20kA | 200kA | 690 |
| K | 380/220V, 3Ø, 4W (Fig 2) | 1200 | 1200 | 1200 | 2000 | Type 4 | 20kA | 200kA | 320 |
| L ⑤ | 600/347V, 3Ø, 4W (Fig 2) | 1500 | 1500 | 1500 | 2500 | Type 4 | 20kA | 200kA | 420 |
| S | 400/230V, 3Ø, 4W (Fig 2) | 1200 | 1200 | 1200 | 2000 | Type 4 | 20kA | 200kA | 320 |

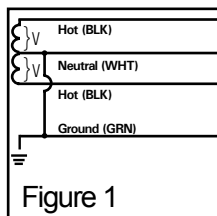


Figure 1
Split
2 Hots, 1 Neu, 1 Gmd

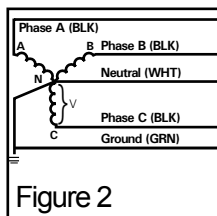


Figure 2
Wye
3 Hots, 1 Neu, 1 Gmd

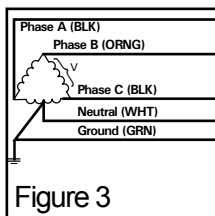


Figure 3
Hi-Leg Delta (B High)
3 Hots, (B High),
1 Neu, 1 Gmd

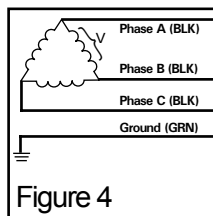


Figure 4
Delta & HRGWye
3 Hots, 1 Gmd

Notes:

- ① G voltage code only available in 200 & 250kA
- ② Not available in 500kA
- ③ Available in 100kA, 150kA, 200kA & 250kA only
- ④ VPR may increase when disconnect switch is added
VPR may decrease for products 400 & 500kA per phase
- ⑤ In rating for 100 - 300kA per phase is 10kA

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