

TPS3 12

Type 1 / Type 2 Surge Protective Device (SPD) For Line Side or Load Side Applications

Features:

- UL 1449-4 Type 2 SPD, UL 1283 Listed, CSA 22.2 No. 269.2
- Optional UL 1449 4th Edition Listed Type 1, CSA 22.2 No. 269.1
- Type 1 / Type 2 SPD
- Mounts external to electrical distribution equipment
 - Recommended for line side or load side applications
- Large block, individually fused, thermally protected, 50 kA MOVs
- 20 kA I_n
- 200 kA SCCR (most models)
- Provides redundant replaceable module protection for low to high exposure applications
- Designed, manufactured and tested consistent with:
 - ANSI/IEEE C62.41.1-2002, C62.41.2-2002, C62.45-2002, C62.62-2010, C62.72-2016 & CSA C22.2 No. 269.1 and .2
 - 1992/2000 NEMA LS-1
 - NEC Article 285
 - IEC 61643, CE
- All UL required OCP & safety coordination included
 - Type 1 SPDs intended for Line or Load side of Main Disconnect
 - Type 2 SPDs intended for Load side of Main Disconnect

- UL96A Lightning Protection Master Label compliant
- 10 year warranty

SPD Specifications

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
400 kA	200 kA	200 kA	200 kA
500 kA	250 kA	250 kA	250 kA

- 100% monitoring (Every MOV is monitored, incl. N-G)
- Individually fused and thermally protected MOVs
- Solid state bi-directional operation
- EMI/RFI filtering: Active tracking up to -50 db from 10 kHz to 100 MHz (Type 2 option only, includes UL 1283 Listing)
- Repetitive impulse: 5,000 hits
- <1 nanosecond response time
- Relative humidity range: 0 -95% non-condensing
- Operating frequency: 47-63 Hz
- 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" (305 mm x 305 mm x 178 mm)*
 - Standard weight: 20 lb. (9.07 kg)*

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

- SPD Monitoring
 - LED indicators
 - Audible alarm with silence switch and test button
 - Dry contacts
 - Surge counter

- Options
 - Internal rotary disconnect switch
 - Thru-door disconnect switch



Ordering Information

TPS3 **□** **12** **□□** **□** **X** **□2**

Voltage Code **Surge Current (kA)** **Enclosure** **Options**

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)

10 = 100 kA per phase
 15 = 150 kA per phase
 20 = 200 kA per phase
 25 = 250 kA per phase
 30 = 300 kA per phase
 40 = 400 kA per phase
 50 = 500 kA per phase

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 ①

2 = Type 2 SPD (Default)
 Includes UL 1283
 EMI/RFI Filters
 0 = Type 1 SPD
 (Contact factory)

D = Internal rotary disconnect
 T = Thru-door disconnect
 0 = No disconnect switch

X = Surge counter (Standard)

Example: TPS3C12100XD2 = Type 2 SPD (Default) 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

**Available Accessories:
 Ordered Separately**
 RMSIE - Remote monitor

UL 1449 Fourth Edition - Test Data Voltage Protection Rating (VPR - 6 kV, 3 kA) ④

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

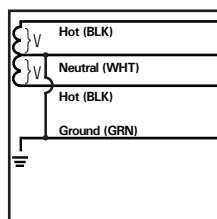


Figure 1
 Split
 2 Hots, 1 Neu, 1 Grnd

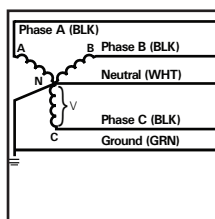


Figure 2
 Wye
 3 Hots, 1 Neu, 1 Grnd

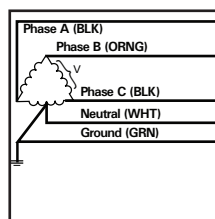


Figure 3
 Hi-Leg Delta (B High)
 3 Hots, (B High),
 1 Neu, 1 Grnd

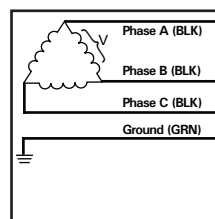


Figure 4
 Delta & HRG Wye
 3 Hots, 1 Grnd

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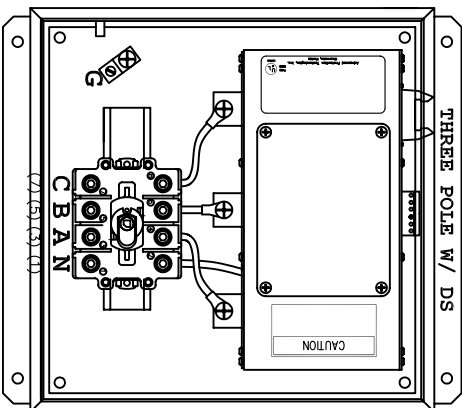
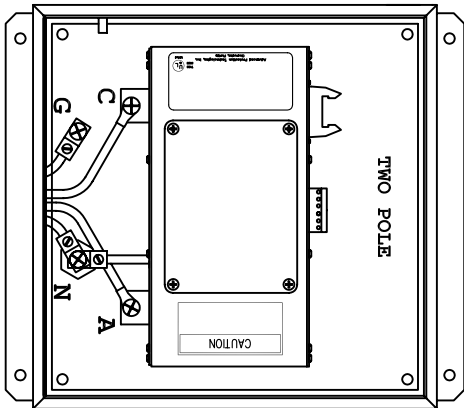
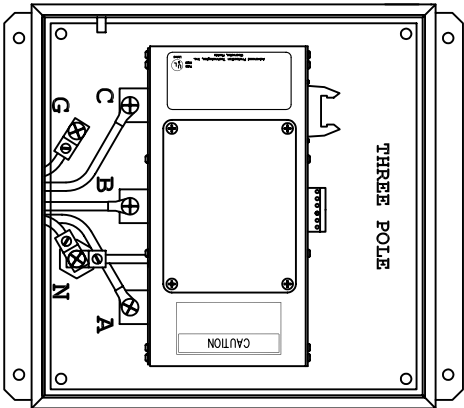
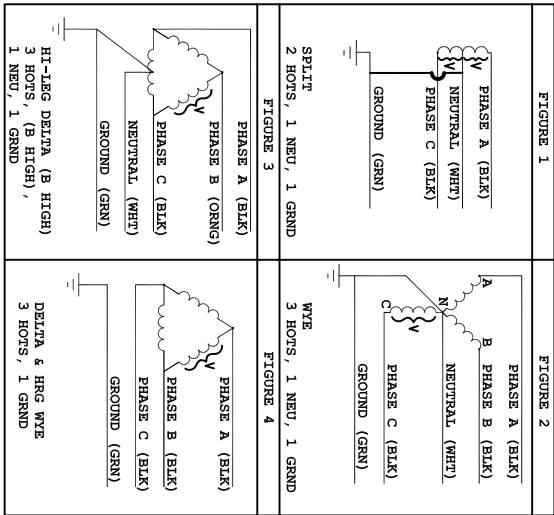
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Notes:

- ① For line side mounting in SWBD/SWGR
- ② Not available in 500kA
- ③ Available in 100kA, 150kA, 200kA & 250 kA only

- ④ VPR may increase when disconnect switch is added; VPR may decrease for products 400 & 500kA per phase

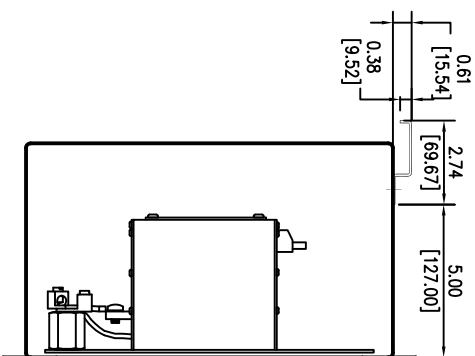
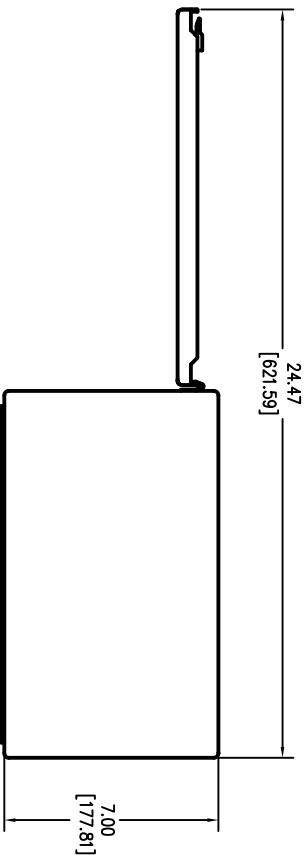
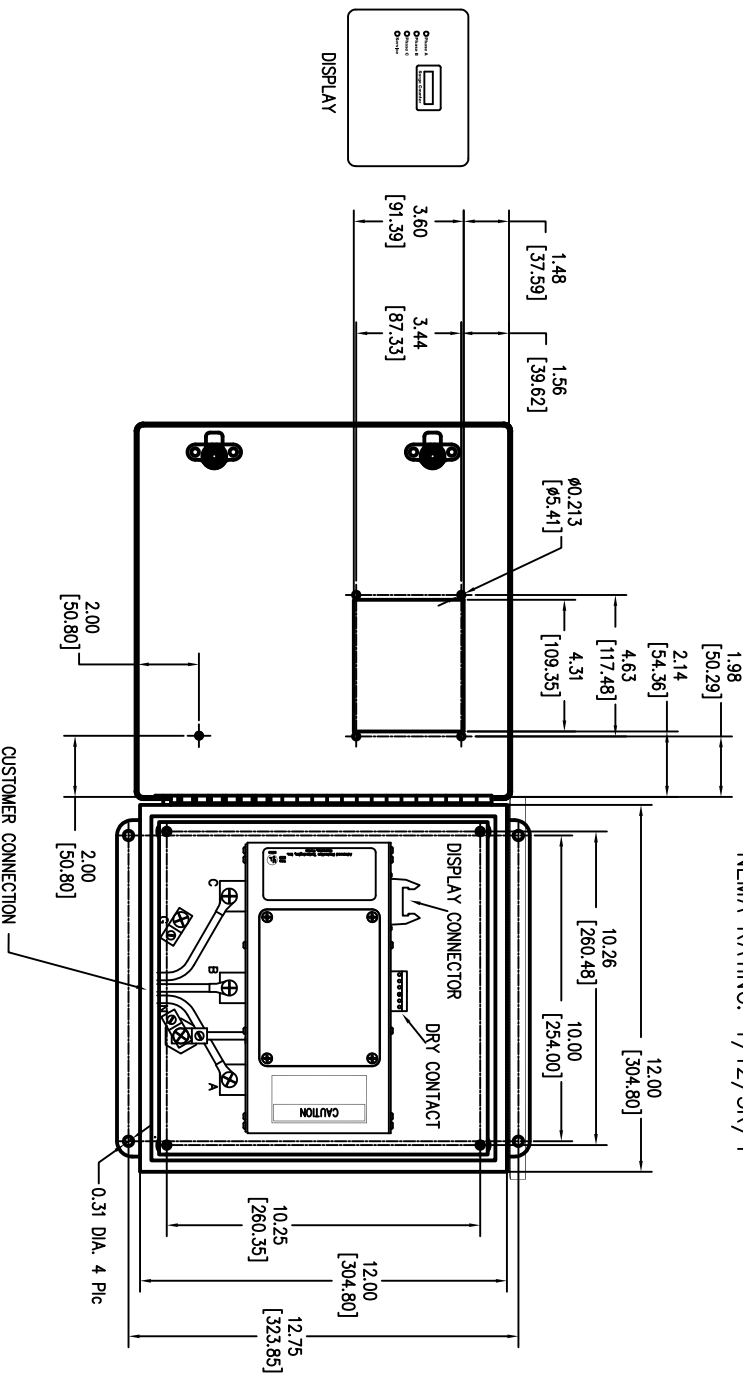
CUSTOMER CONNECTIONS PER FIGURES AT LEFT



MODEL	VOLTAGE CODE	SERVICE VOLTAGE	FIGURE
TPS3A12/L12	A	240/120V 1Ø, 3W Plus Ground	1
TPS3B12/L12	B	240/120V 3Ø, 4W Plus Ground High Leg Delta	3
TPS3C12/L12	C	208Y/120V 3Ø, 4W Plus Ground	2
TPS3D12	D	240V 3Ø, 3W Plus Ground	4
TPS3E12/L12	E	480Y/277V 3Ø, 4W Plus Ground	2
TPS3F12	F	480V 3Ø, 3W Plus Ground	4
TPS3G12	G	600Y/3Ø, 3W Plus Ground	4
TPS3H12/L12	K	380Y/220V 3Ø, 4W Plus Ground	2
TPS3I12	L	600Y/347V 3Ø, 4W Plus Ground	2
TPS3J12/L12	S	400Y/230V 3Ø, 4W Plus Ground	2

B		3-26-10		
Rev		C.N.		Date
△ - Denotes latest changes.				
□ - Critical dimension.				
		REVISIONS H. DRICKERS M.G. 4/7/78 TPS3-12 SERIES ELECTRICAL TPS3-12-E NONE		
		TPS3-12 SERIES ELECTRICAL		
		Siemens Industry, Inc.		
		43D-TPS3-12-E		
		NONE		
		1 of 1		

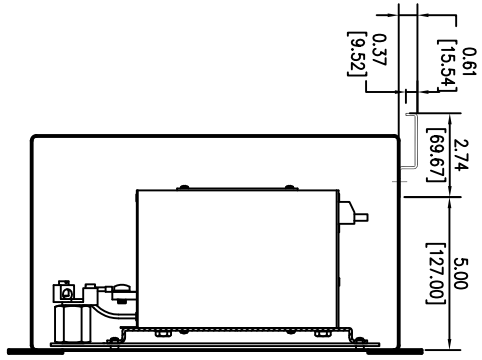
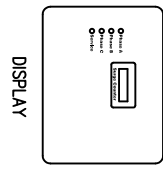
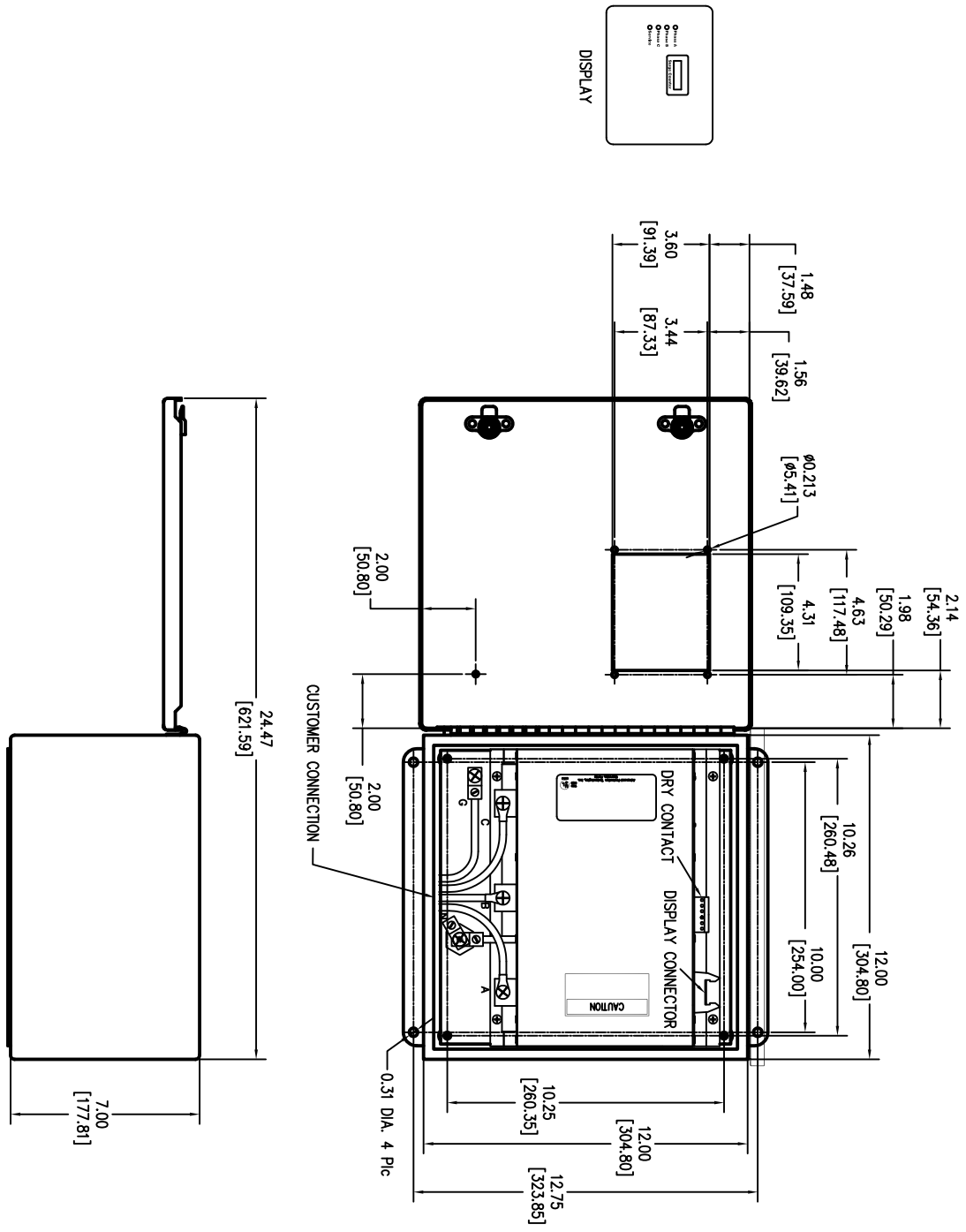
SURGE PROTECTIVE DEVICE (SPD)
WEIGHTS & DIMENSIONS
NEMA RATING: 1/12/3R/4



ENCLOSURE SPECS.
DESC: ENCLOSURE, HINGED
DIM: 12"H x 12"W x 7"D
MAT: CARBON STEEL, 16 GAUGE
FINISH: POWDERCOAT ANSI 61 GRAY
NEMA RATING: 1/12/3R/4
DEVICE WEIGHT: 21.70LBS. (9.84KG.)

Rev	C.N.	Date
△ - Denotes latest changes.		
□ - Critical dimension.		
Material Specification: 304 Stainless Steel, 1/2" thick, 1/4" wide, 1/4" high, 1/4" thick, 1/4" wide,		

SURGE PROTECTIVE DEVICE (SPD)
WEIGHTS & DIMENSIONS
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Rev	C.N.	Date
1		
Denotes latest changes.		
Critical dimension.		
H. DRIGERS 6/17/20		
DESIGNED BY: H. DRIGERS		
CHECKED BY: M. G. 6/17/20		
APPROVED BY: M. G. 6/17/20		
TPS3-12 SERIES		
400K-500K w/o DS		
NEMA RATING: 1/12/3R/4		
43D-TPS3-12500-123RM		
NONE		
SHEET 1 OF 1		

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