

# SURGE-TRAP® PLUGGABLE

## SURGE PROTECTIVE DEVICE

## DIN-RAIL PLUGGABLE SPD FOR ANSI/UL 1449 TYPE 1 AND 2 APPLICATIONS



Surge-Trap® Pluggable Surge Protective Device (SPD) is a no-fuse, fail-safe surge suppressor featuring Mersen's patented TPMOV® technology inside. UL 1449 4th Edition approved, it is DIN-rail mountable featuring a fail-safe self-protected design, visual indicator, and a small footprint. A remote indicator option provides status to critical control circuitry. The Surge-Trap Pluggable SPD has a high short circuit rating and a thermally protected MOV, which eliminates the need for additional overcurrent protection devices.

### NEW AND IMPROVED 75KA RATING

Mersen's DIN-Rail Pluggable SPD is one of a kind - the combination of a robust 75kA surge capacity along with no requirement of backup fusing creates an offering unique to the market. Add this to the reliability and safety of Mersen's patented TPMOV technology and you have a truly superior product.

### RATINGS:

- **Volts ( $U_n$ ):** 120-690VAC
- **Nominal Discharge Current Rating ( $I_n$ ):** 10-20kA
- **Surge Capacity:** 75kA
- **Short-Circuit Current Rating (SCCR):** 200kA

### FEATURES/BENEFITS:

- Easy installation or retrofit
- DIN-rail mountable
- Fail-safe, self-protected design
- Remote indicator
- Visual indicator
- IP20 finger-safe design
- Small footprint
- No additional overcurrent protection devices required
- Easy to replace modules
- 2-year warranty

### APPROVALS:

- ANSI/UL 1449 4th Edition, Type 1 Component Assembly SPD, File E210793
- ANSI/IEEE C62.41.1, C62.41.2, C62.45
- RoHS Compliant

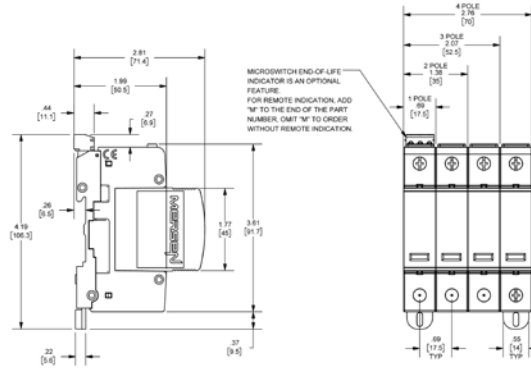


GENERAL PRODUCT SPECIFICATIONS													
Mounting:	35mm DIN-Rail	Operating & Storage Temperature:				– 40°C to + 85°C							
Wire Range:	4-14AWG Solid / Stranded CU	Visual End of Life Indicator:				RED = End of Life							
Terminal Torque:	35.4 lbs-in	Remote End of Life Indicator:				NO/NC Dry Contact							
Degree of Protection:	IP 20	Frequency:				50-60 Hz							
Flammability:	UL94 V0												
1-POLE, SINGLE-PHASE, 2-WIRE													
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				REPLACEMENT PLUG		I <sub>n</sub> (kA)	
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	L-1			
STP120P07(M)	120	175	-	-	-	600	-	-	-	SP07U175		20	
STP230P07(M)	240	275	-	-	-	600	-	-	-	SP07U275		20	
STP277P07(M)	277	320	-	-	-	600	-	-	-	SP07U320		20	
STP347P07(M)	347	420	-	-	-	800	-	-	-	SP07U420		10	
2-POLE, SPLIT-PHASE, 3-WIRE													
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				REPLACEMENT PLUG		I <sub>n</sub> (kA)	
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	L1, L2			
STP240S07(M)	120/240	175	-	-	350	600	-	-	1800	SP07U175		20	
STP480S07(M)	240/480	275	-	-	550	600	-	-	1200	SP07U275		20	
3-POLE, 3-PHASE DELTA, 4-WIRE													
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				REPLACEMENT PLUG		I <sub>n</sub> (kA)	
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	L1, L2, L3			
STP240D07(M)	240	-	275	-	550	-	900	-	1800	SP07U275		20	
STP480D07(M)	480	-	550	-	1100	-	1500	-	3000	SP07U550		10	
3-POLE, 3-PHASE WYE, 4-WIRE													
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				REPLACEMENT PLUG		I <sub>n</sub> (kA)	
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	L1, L2, L3			
STP208Y07(M)	120/208	175	-	-	350	600	-	-	1200	SP07U175		20	
STP480Y07(M)	277/480	320	-	-	640	1500	-	-	2500	SP07U320		20	
STP600Y07(M)	347/600	420	-	-	840	1500	-	-	2500	SP07U420		10	
STP690Y07(M)	400/690	420	-	-	840	1500	-	-	2500	SP07U420		10	
4-POLE, 3-PHASE WYE, 5-WIRE, INCLUDING N-G MODE													
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				REPLACEMENT PLUG		I <sub>n</sub> (kA)	
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	L1, L2, L3	N-G		
STP208YN07(M)	120/208	175	175	175	350	600	1200	600	1200	SP07U175	SP07U175	20	
STP480YN07(M)	277/480	320	495	175	640	1000	1500	600	2000	SP07U320	SP07U175	20	
STP600YN07(M)	347/600	420	695	275	840	1500	2000	800	2500	SP07U420	SP07U275	10	
STP690YN07(M)	400/690	420	740	320	840	1500	2000	800	2500	SP07U420	SP07U320	10	
4-POLE, 3-PHASE DELTA HIGH-LEG, 5-WIRE, INCLUDING N-G MODE													
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				REPLACEMENT PLUG			I <sub>n</sub> (kA)
		L-L/L-G	L-N/N-G	H-L/H-G	H-N	L-L/L-G	L-N/N-G	H-L/H-G	H-N	L1, L3	L2	N-G	
STP240HN07(M)	120/240	350	175	450	275	1200	600	1500	800	SP07U175	SP07U275	SP07U175	20
STP480HN07(M)	240/480	550/450	275/175	825/725	550	1500	800/600	2500/2000	1500	SP07U275	SP07U550	SP07U175	10



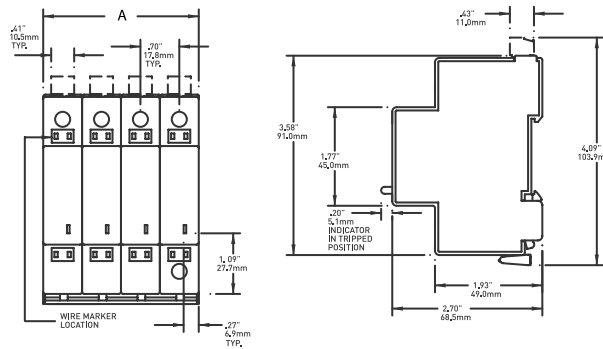
**DIMENSIONS - STP SERIES**

POLES	A	
	IN	MM
1 Pole	0.69	17.5
2 Pole	1.38	35
3 Pole	2.07	52.5
4 Pole	2.76	70



**DIMENSIONS - ST SERIES**

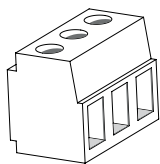
POLES	A	
	IN	MM
1 Pole	0.7	17.8
2 Pole	1.39	35.5
3 Pole	2.1	53.3
4 Pole	2.8	71



**WIRING DIAGRAMS**

<p><b>1-POLE, SINGLE-PHASE, 2-WIRE</b></p>	<p><b>2-POLE, SPLIT-PHASE, 3-WIRE</b></p>	<p><b>3-POLE, 3-PHASE DELTA, 3-WIRE</b></p>	<p><b>3-POLE, 3-PHASE DELTA, 3-PHASE WYE, 4-WIRE</b></p>	<p><b>4-POLE, 3-PHASE WYE, 5-WIRE</b></p>	<p><b>4-POLE, 3-PHASE DELTA HIGH-LEG, 5-WIRE</b></p>
<p><b>SINGLE PHASE 2 WIRE + GROUND</b></p>	<p><b>SPLIT PHASE 3 WIRE + GROUND</b></p>	<p><b>3 PHASE DELTA 3 WIRE + GROUND</b></p>	<p><b>3 PHASE WYE 4 WIRE + GROUND</b></p>		

**REMOTE STATUS INDICATOR**



Signal Wire Range	#16 to #30 AWG
Terminal Torque	2.2 lb-in
Cont. between Comm + NO	Product Offline, Not Protected
Cont. between Comm + NC	Product Online, Protected

**ST AND STP SERIES:** FOR REMOTE INDICATION, ADD "M" TO THE END OF THE CATALOG NUMBER. FOR EXAMPLE, ST4803PYGM.