

# SURGE-TRAP® MODULAR

## SURGE PROTECTIVE DEVICE

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



Surge-Trap® Modular 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 Modular SPD has a high short circuit rating and a thermally protected MOV, which eliminates the need for additional overcurrent protection devices.

### FEATURES AND BENEFITS:

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

### RATINGS:

- **Volts ( $U_n$ ):** 120-690VAC
- **Nominal Discharge Current Rating ( $I_n$ ):** 20kA
- **Surge Capacity (per phase and per mode):** 50kA
- **Short-Circuit Current Rating (SCCR):** 200kA

### APPROVALS:

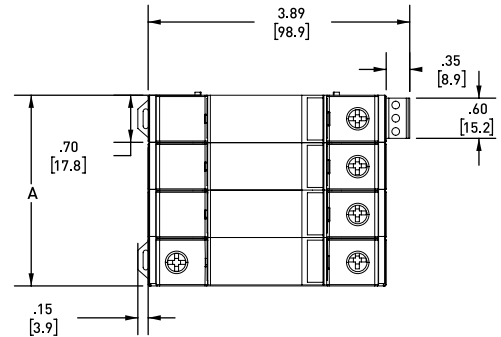
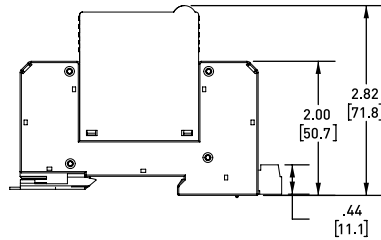
- ANSI/UL 1449 4th Edition, Type 1 Component Assembly SPD, File E210793
- ANSI/IEEE C62.41.1, C62.41.2, C62.45
- RoHS Compliant



GENERAL PRODUCT SPECIFICATIONS										
Mounting:	35mm DIN-Rail				Operating & Storage Temperature:	-40°C to + 85°C				
Wire Range:	6-14AWG Solid / Stranded CU				Visual End of Life Indicator:	Visual Tab				
Terminal Torque:	14.75 lbs-in				Remote End of Life Indicator:	NO/NC Dry Contact				
Degree of Protection:	IP 20				Frequency:	50-60 Hz				
Flammability:	UL94 V0				Response Time:	< 25 ns				
1-POLE, SINGLE-PHASE, 2-WIRE										
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				I <sub>n</sub> (kA)
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	
ST1201PG(M)	120	180	180	-	-	500	500	-	-	20
ST2301PG(M)	240	270	270	-	-	800	800	-	-	20
ST2771PG(M)	277	320	320	-	-	900	900	-	-	20
2-POLE, SPLIT-PHASE, 3-WIRE										
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				I <sub>n</sub> (kA)
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	
ST208SPG(M)	120/208	180	180	-	360	500	500	-	900	20
ST240SPG(M)	120/240	180	180	-	360	500	500	-	900	20
ST480SPG(M)	240/480	270	270	-	540	800	800	-	1500	20
3-POLE, 3-PHASE DELTA, 3-WIRE										
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				I <sub>n</sub> (kA)
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	
ST2403PD(M)	240	-	-	-	270	-	-	-	1000	20
ST4803PD(M)	480	-	-	-	550	-	-	-	3000	20
3-POLE, 3-PHASE DELTA, 4-WIRE										
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				I <sub>n</sub> (kA)
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	
ST2403PDG(M)	240	270	270	-	540	800	800	-	1500	20
ST4803PDG(M)	480	550	550	-	1100	1500	1500	-	3000	20
3-POLE, 3-PHASE WYE, 4-WIRE										
CATALOG NUMBER	NOMINAL VOLTAGE (VAC)	MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV, VAC)				VOLTAGE PROTECTION RATING (VPR, VAC)				I <sub>n</sub> (kA)
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	
ST2083PYG(M)	120/208	180	180	-	360	500	500	-	900	20
ST4803PYG(M)	277/480	320	320	-	640	900	900	-	1800	20
ST6003PYG(M)	347/600	420	420	-	840	1200	1200	-	2000	20
ST6903PYG(M)	400/690	510	510	-	1020	1500	1500	-	3000	20
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)				I <sub>n</sub> (kA)
		L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	
ST2083PY(M)	120/208	180	360	180	360	500	900	500	900	20
ST4803PY(M)	277/480	320	470	150	640	1000	1500	500	1800	20
ST6003PY(M)	347/600	420	690	270	840	1500	2500	800	2500	20
ST6903PY(M)	400/690	1020	510	510	1020	3000	1500	1500	3000	20
FOR REMOTE INDICATION, ADD "M" TO THE END OF THE PART NUMBER. EXAMPLE, ST4803PYM. OMIT "M" TO ORDER WITHOUT REMOTE INDICATION. EXAMPLE, ST4803PY.										

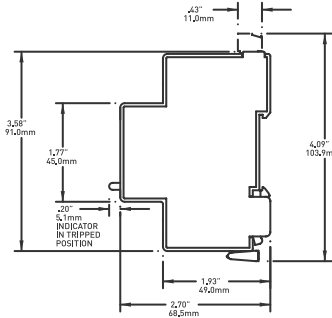
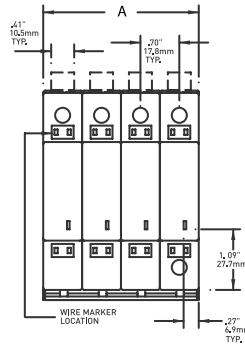
## DIMENSIONS - STP SERIES

POLES	A	
	IN	MM
1 Pole	0.71	18.03
2 Pole	1.42	36.06
3 Pole	2.13	54.1
4 Pole	2.84	72.13



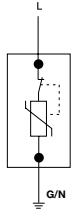
## DIMENSIONS - ST SERIES

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

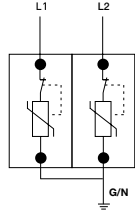


## WIRING DIAGRAMS

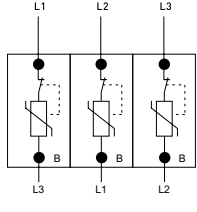
1-POLE, SINGLE-PHASE, 2-WIRE



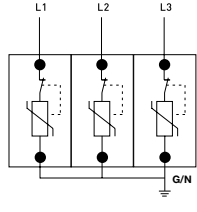
2-POLE, SPLIT-PHASE, 3-WIRE



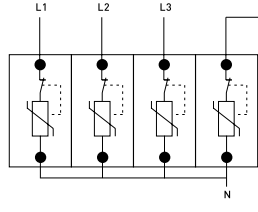
3-POLE, 3-PHASE DELTA, 3-WIRE



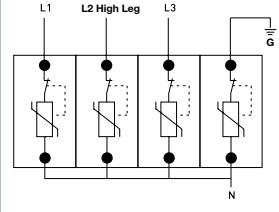
3-POLE, 3-PHASE DELTA, 3-PHASE WYE, 4-WIRE



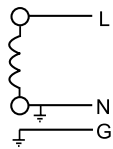
4-POLE, 3-PHASE WYE, 5-WIRE



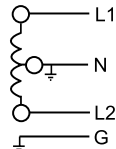
4-POLE, 3-PHASE DELTA HIGH-LEG, 5-WIRE



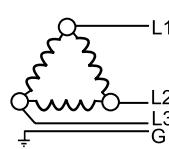
SINGLE PHASE  
2 WIRE + GROUND



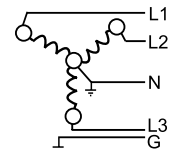
SPLIT PHASE  
3 WIRE + GROUND



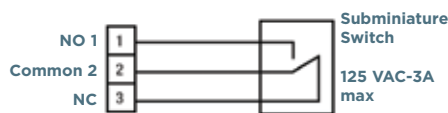
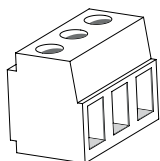
3 PHASE DELTA  
3 WIRE + GROUND



3 PHASE WYE  
4 WIRE + GROUND



## 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.