

Surge-Trap[®] Monobloc ST Series

Surge Protective Device

SURGE PROTECTION

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



Surge-Trap[®] Monobloc Surge Protective Device (SPD) ST Series is a no-fuse, fail-safe surge suppressor featuring Mersen's patented TPMOV[®] technology inside - No need for additional overcurrent protection. UL 1449 5th Edition approved, DIN-rail mountable featuring a fail-safe self-protected design, visual indicator, and a small footprint. A remote indicator provides status to the critical control circuitry. A high short circuit rating makes it suitable for most industrial control panels.

Technical Data Overview	
Surge Current Rating (I _{max})	50kA
Nominal Discharge Current Rating (I _n) (8x20 μs):	20kA
Short-Circuit Current Rating (SCCR)	200kA
Nominal power frequency	50-60 Hz
Response Time	Less than 1 nanosecond (one per phase)
Mounting	35mm DIN-Rail
Wire Range	6 - 14AWG (25mm ² - 2.5mm ²) Solid Stranded CU
Torque	14.75 lbs-in (1.67 Nm)
Degree of Protection	IP 20 (finger-safe)
Flammability	UL94 V0
Operating & Storage Temperature	- 40°F (40°C) to + 185°F (85°C)
Visual Status Indicator	Visual Tab - Tab Out = Replace
Remote Status Indicator	Form C Dry Contacts

FEATURES/BENEFITS

- Designed with industry leading Mersen TPMOV technology
- Easy installation
- Cost-effective protection
- Remote Indicator (optional)
- 2-year warranty

APPLICATIONS

- Industrial Control Panels
- Water treatment
- AC Drives
- Smart grid & LV Metering
- Security Systems
- Traffic / ITS applications.
- Intended for use on a wide range of low voltage applications inside appropriate enclosures

APPROVALS/STANDARDS

- ANSI/UL 1449 5th Edition, Type 1 Component Assembly, File E210793
- ANSI/IEEE C62.41.1, C62.41.2, C62.45
- RoHS Compliant



CATALOG NUMBERS AND ELECTRICAL CHARACTERISTICS

1 Pole

Catalog Number	Nominal Voltage (VAC)	I _n (kA)	Maximum Continuous Operating Voltage (MCOV, VAC)				Voltage Protection Rating (VPR, VAC)			
			L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L
ST1201PGM	120 - 10, 2W	20	180	180	-	-	500	500	-	-
ST2301PGM	240 - 10, 2W	20	270	270	-	-	800	800	-	-
ST2771PGM	277 - 10, 2W	20	320	320	-	-	900	900	-	-

2 Poles

Catalog Number	Nominal Voltage (VAC)	I _n (kA)	Maximum Continuous Operating Voltage (MCOV, VAC)				Voltage Protection Rating (VPR, VAC)			
			L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L
ST240SPGM	120/240 - Split 0, 3W	20	180	180	-	360	500	500	-	900
ST480SPGM	240/480 - Split 0, 3W	20	270	270	-	540	800	800	-	1500

3 Poles

Catalog Number	Nominal Voltage (VAC)	I _n (kA)	Maximum Continuous Operating Voltage (MCOV, VAC)				Voltage Protection Rating (VPR, VAC)			
			L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L
ST2083PYGM	120/208 - 30 Wye, 4W	20	180	18	-	360	500	500	-	900
ST4803PYGM	277/480 - 30 Wye, 4W	20	320	320	-	640	900	900	-	1800
ST6003PYGM	347/600 - 30 Wye, 4W	20	420	420	-	840	1200	1200	-	2000
ST6903PYGM	400/690 - 30 Wye, 4W	20	510	510	-	1020	1500	1500	-	3000
ST2403PDGM	240 - 30 Delta, 4W	20	270	270	-	540	800	800	-	1500
ST4803PDGM	480 - 30 Delta, 4W	20	550	550	-	1100	1500	1500	-	3000

4 Poles

Catalog Number	Nominal Voltage (VAC)	I _n (kA)	Maximum Continuous Operating Voltage (MCOV, VAC)				Voltage Protection Rating (VPR, VAC)			
			L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L
ST2083PYM	120/208 - 30 Wye, 5W	20	180	360	180	360	500	900	500	900
ST4803PYM	277/480 - 30 Wye, 5W	20	320	470	150	640	1000	1500	500	1800
ST6006PYM	347/600 - 30 Wye, 5W	20	420	690	270	840	1500	2500	800	2500
ST6903PYM	400/690 - 30 Wye, 5W	20	1020	510	510	1020	3000	1500	1500	3000

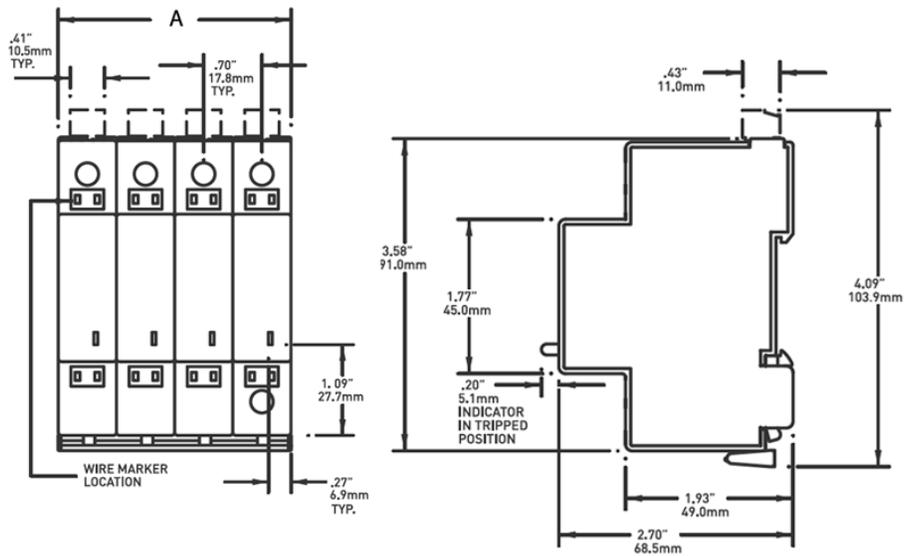
PV

Catalog Number	Nominal Voltage (VDC)	I _n (kA)	SCCR (kA)	Maximum Continuous Operating Voltage (MCOV, VAC)	Voltage Protection Rating (VPR, VAC)
ST600PVM	600 (2 Poles)	20	10	720	1500
ST600YPVM	600 (3 Poles)	20	10	750	2400
ST1000PVM	1000 (3 Poles)	20	10	1250	3000

Product is available without Form C Dry contacts. Omit the letter "M" at the end of the part number to remove this feature.

PRODUCT DIMENSIONS

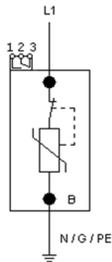
Poles	A	
	In	mm
1 Pole	0.70	17.8
2 Pole	1.39	35.5
3 Pole	2.10	53.3
4 Pole	2.80	71.0



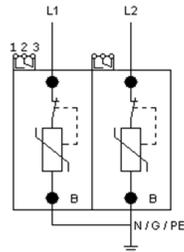
WIRING DIAGRAMS

For more information on wiring, please refer to the installation manual

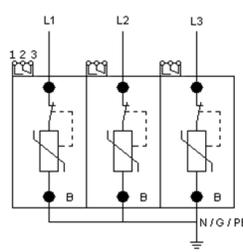
Single Phase
1 Pole - 2 wire



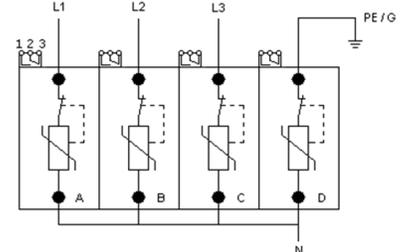
Single Phase
2 Pole - 3 wire



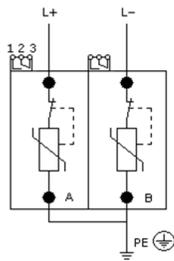
3 Phase Delta / 3 Phase Wye
3 Pole - 4 wire



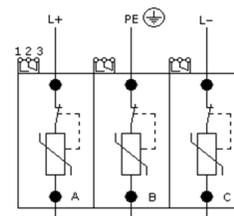
3 Phase Wye
4 Pole - 5 wire



2 Pole - Photovoltaic

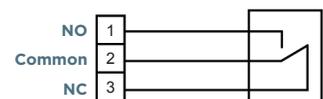
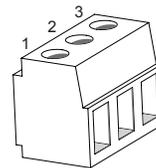


3 Pole - Photovoltaic



REMOTE STATUS INDICATOR SPECIFICATIONS

Signal Wire Range	#16 to #30 AWG [1.5 mm ² – 0.05 mm ²]
Terminal Torque	2.2 lb-in (0.25 Nm)
Max Voltage - Current	125VAC – 3A
Cont. between Comm + NO	Product Offline, Not Protected
Cont. between Comm + NC	Product Online, Protected



The unit comes equipped with a set of Form C Dry contacts.
Omit the letter "M" at the end of the part number to remove this feature.