

# Surge-Trap<sup>®</sup> Modular SPD

## DIN-rail Style SPD

Surge-Trap<sup>®</sup> Modular Surge Protective Device (SPD) is a no-fuse, fail-safe surge suppressor featuring Mersen's patented TPMOV<sup>®</sup> technology inside. The modular SPD is UL 1449 Third 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/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

### Applications:

- AC/DC distribution
- Power supplies
- Industrial automation
- Telecommunications
- Motor controls and starter systems
- Programmable logic controller (PLC) applications
- Power transfer equipment
- HVAC applications
- AC drives
- UPS systems
- Security systems
- IT/Data centers
- Medical equipment

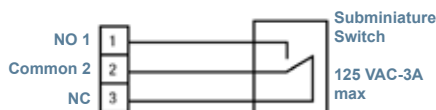
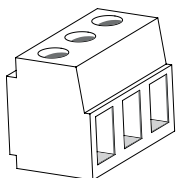
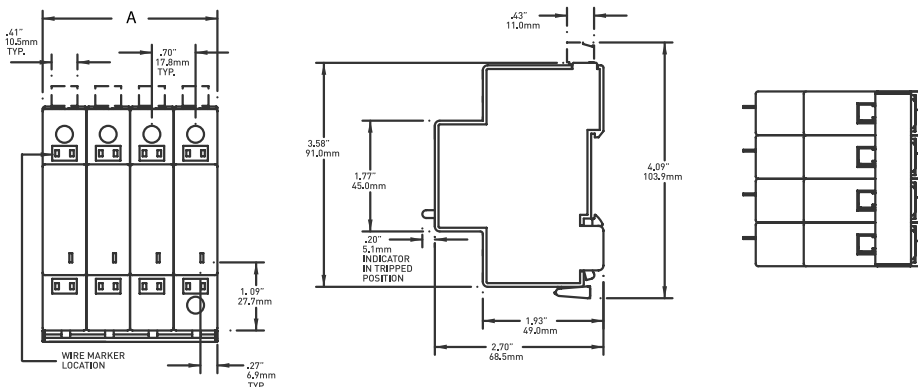
### Dimensions

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

\*\* Wire Size: 6-14 AWG

\*\* Torque: 15 lbs-in

\*\* Use 35mm DIN-rail



#### 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



### Ratings:

#### Max Discharge Current

: 50kA per phase

**Volts** : 120V to 600V AC

: 600V to 1000V DC  
(PV only)

**SCCR** : 200kA

#### Operating & storage temp

: -40°C to +85°C

#### Wiring range:

: #6 to #14AWG

#### Nominal discharge current

: 20kA (most models)

### Approvals:

- UL 1449 Third Edition Approved, File E210793
- Type 4 UL Recognized Component (Tested to UL Type 2 SPD)
- IEC 61643-11
- RoHS Compliant
- ANSI/IEEE C62.41
- CE



# Surge-Trap<sup>®</sup> Modular SPD

Product Type	Voltage	System Type	Mode	Auxiliary Microswitch
ST	480	3PY	G	M
ST- Modular	120 120/208 120/240 240 277 347 480 240/480 277/480 347/600 600 1000	1P - Single Phase SP - Split Phase 3PD - 3 Phase Delta  3PY - 3 Phase Wye PV - Photovoltaic	Blank - Includes N-G Mode G - Does Not Provide N-G Mode	Blank - No Microswitch M - Microswitch Included

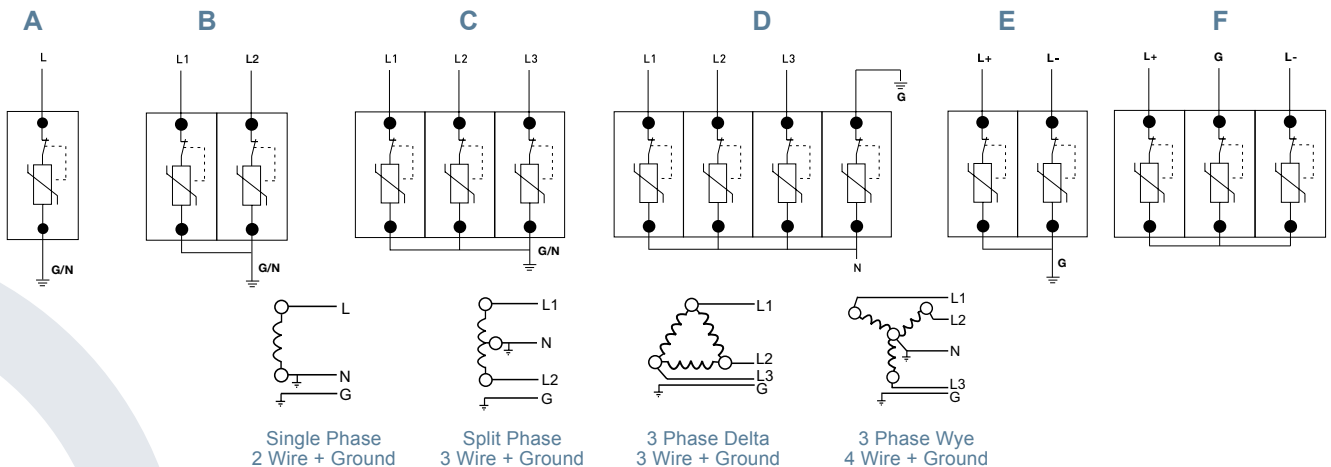
## Catalog Numbers

Catalog No.	Nominal Voltage (VAC)	MCOV L-G	No. of Poles	System Type	Nominal Discharge Current ( $I_n$ , kA)	Max. Discharge Current ( $I_{max}$ , 8/20 $\mu$ s, kA)	SCCR (kA)	Freq (Hz)	Voltage Protection Rating (VPR)				No. of Wires	Circuit Connection Wiring Diagrams
									L-N	L-G	N-G	L-L		
ST1201PG(M)	120	180	1	1P	20	50	200	50/60	500	-	-	-	2	A
ST2301PG(M)	240	270	1	1P	20	50	200	50/60	800	-	-	-	2	A
ST2771PG(M)	277	320	1	1P	20	50	200	50/60	900	-	-	-	2	A
ST2083PY(M)	120/208	360	4	3PY	20	50	200	50/60	500	900	500	900	5	D
ST2083PYG(M)	120/208	180	3	3PY	20	50	200	50/60	500	-	-	900	4	C
ST240SPG(M)	120/240	180	2	SP	20	50	200	50/60	500	-	-	900	3	B
ST480SPG(M)	240/480	270	2	SP	20	50	200	50/60	800	-	-	1500	3	B
ST2403PDG(M)	240D	270	3	3PD	20	50	200	50/60	-	800	-	1500	4	C
ST4803PY(M)	277/480	500	4	3PY	20	50	200	50/60	1200	2000	700	2000	5	D
ST4803PYG(M)	277/480	320	3	3PY	20	50	200	50/60	900	-	-	1800	4	C
ST4803PDG(M)	480D	550	3	3D	20	50	200	50/60	-	1500	-	3000	4	C
ST6003PY(M)	347/600	690	4	3PY	20	50	200	50/60	1500	2500	800	2500	5	D
ST6003PYG(M)	347/600	420	3	3PY	20	50	200	50/60	1200	-	-	2000	4	C

Indicates PV only

Catalog No. PV	Nominal Operating DC Voltage (V)	$U_{cpv}$ *	Nominal Discharge Current ( $I_n$ , 8/20, kA)	$I_{max}$ Discharge Current ( $I_{max}$ , 8/20 $\mu$ s, kA)	Voltage Protection Level (Up @ $I_n$ , kV)	$I_{scwpv}$ ** (kA)	L/R	Replacement Plug Part No	No. of Poles	Wiring Diagrams
ST600PVM	600	720	20	40	<1.5	10	<= 1mS	-	2	E
ST600YPVM	600	750	20	40	<2.4	10	<= 1mS	-	3	F
ST1000PVM	1000	1250	20	40	<3.0	10	<= 1mS	-	3	F

\*  $U_{cpv}$ : Maximum continuous operating DC voltage. \*\*Values based upon SPD type 2 testing



For the most current product performance data visit [ep-us.mersen.com](http://ep-us.mersen.com) and use catalog search.