

Surge-Trap[®] Pluggable STP-75 Series

Surge Protective Device

SURGE PROTECTION

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



Surge-Trap Pluggable STP-75 Series Surge Protective Device (SPD) is a no-fuse, fail-safe surge suppressor featuring Mersen's TPMOV[®] technology inside – no need for additional overcurrent protection. DIN-rail mountable featuring a fail-safe self-protected design, visual indicator, and a small footprint. A remote indicator provides status to critical control circuitry. High short circuit rating makes it suitable for most industrial control panels.

Technical Data Overview	
Surge Current Rating (I_{max})	75kA
Nominal discharge current (I_n) (8x20 μ s)	10 – 20kA
Short Circuit Current Rating (SCCR)	200kA
Nominal power frequency	50 Hz or 60 Hz
Response Time	Less than 1 nanosecond (one per phase)
Mounting	35mm DIN-Rail
Wire Range	4 - 14AWG Solid / Stranded CU
Torque	35.4 lbs-in
Degree of Protection	IP 20 (finger-safe)
Flammability	UL94 V0
Operating & Storage Temperature	-40°C to + 85°C
Visual Status Indicator flag	Green = Functional / Red = Replace
Remote Status Indicator	Form C Dry Contacts

FEATURES/BENEFITS

- Designed with industry leading Mersen TPMOV technology
- Easy installation or retrofit
- Reversible chassis allows cable entry from top or bottom
- Replaceable modules with mechanical coding to avoid replacement errors
- 5-year warranty

APPLICATIONS

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

APPROVALS/STANDARDS

- ANSI/UL 1449 5th Edition, Open Type 1 SPD Listed, File E210793
- ANSI/IEEE C62.41.1, C62.41.2, C62.45
- CSA C22.2 No. 269 Certified, File 162842
- RoHS Compliant



CATALOG NUMBERS AND ELECTRICAL CHARACTERISTICS

1 Pole - 2 Wires

Catalog Number	Nominal System Voltage (VAC)	I _n (kA)	Surge Current Rating	Maximum Continuous Operating Voltage (MCOV, VAC)				Voltage Protection Rating (VPR, VAC)				Replacement plugs
				L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	
STP120P07M	120 - 1Ø, 2W	20	75 kA	175	-	-	-	600	-	-	-	SP07U175
STP230P07M	240 - 1Ø, 2W	20	75 kA	275	-	-	-	900	-	-	-	SP07U275
STP277P07M	277 - 1Ø, 2W	20	75 kA	320	-	-	-	1000	-	-	-	SP07U320
STP347P07M	347 - 1Ø, 2W	10	75 kA	420	-	-	-	1500	-	-	-	SP07U420

2 Poles - 3 Wires

Catalog Number	Nominal System Voltage (VAC)	I _n (kA)	Surge Current Rating	Maximum Continuous Operating Voltage (MCOV, VAC)				Voltage Protection Rating (VPR, VAC)				Replacement plugs
				L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	
STP240S07M	120/240 - Split Ø, 3W	20	75 kA	175	-	-	350	600	-	-	1200	SP07U175
STP480S07M	240/480 - Split Ø, 3W	20	75 kA	275	-	-	550	900	-	-	1800	SP07U275

3 Poles - 4 Wires

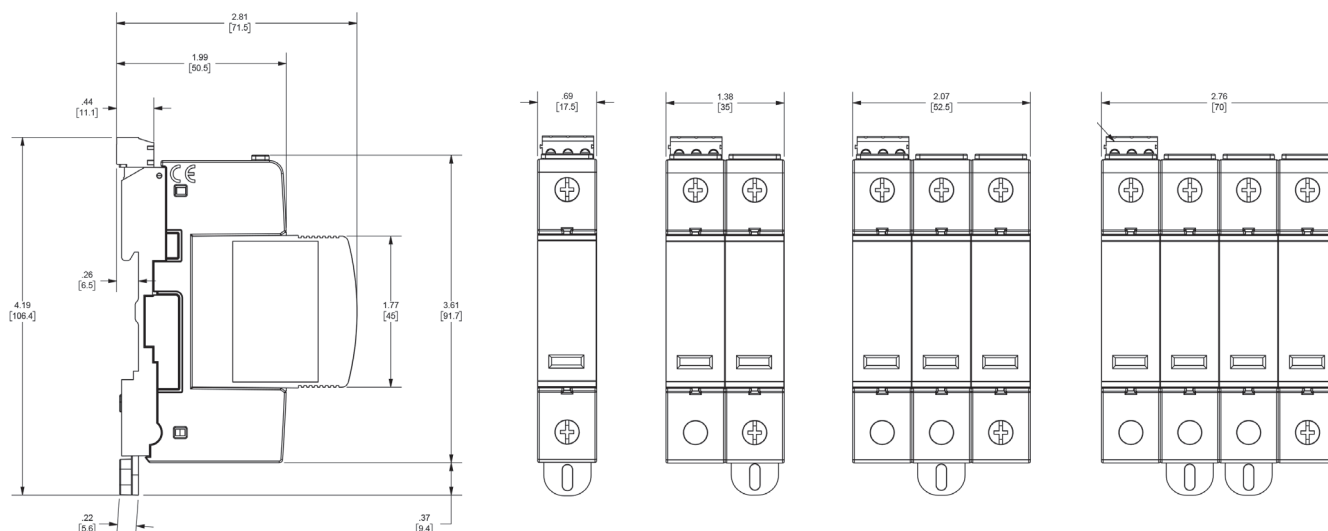
Catalog Number	Nominal System Voltage (VAC)	I _n (kA)	Surge Current Rating	Maximum Continuous Operating Voltage (MCOV, VAC)				Voltage Protection Rating (VPR, VAC)				Replacement plugs
				L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	
STP240D07M	240 - 3Ø Delta, 4W	20	75 kA	-	275	-	550	-	900	-	1800	SP07U275
STP480D07M	480 - 3Ø Delta, 4W	10	75 kA	-	550	-	1100	-	1500	-	3000	SP07U550
STP208Y07M	120/208 - 3Ø Wye, 4W	20	75 kA	175	-	-	350	600	-	-	1200	SP07U175
STP480Y07M	277/480 - 3Ø Wye, 4W	20	75 kA	320	-	-	640	1000	-	-	2000	SP07U320
STP600Y07M	347/600 - 3Ø Wye, 4W	10	75 kA	420	-	-	840	1500	-	-	2500	SP07U420
STP690Y07M	400/690 - 3Ø Wye, 4W	10	75 kA	550	-	-	1100	1500	-	-	3000	SP07U550

4 Poles - 5 Wires

Catalog Number	Nominal System Voltage (VAC)	I _n (kA)	Surge Current Rating	Maximum Continuous Operating Voltage (MCOV, VAC)				Voltage Protection Rating (VPR, VAC)				Replacement plugs	
				L-N	L-G	N-G	L-L	L-N	L-G	N-G	L-L	L1, L2, L3	
STP208YN07M	120/208 - 3Ø Wye, 5W	20	75 kA	175	175	175	350	600	1200	600	1200	SP07U175	
STP480YN07M	277/480 - 3Ø Wye, 5W	20	75 kA	320	495	175	640	1000	1500	1000	2000	L1,2,3	SP07U320
												N-G	SP07U175
STP600YN07M	347/600 - 3Ø Wye, 5W	10	75 kA	420	695	275	840	1500	2000	800	2500	L1,2,3	SP07U420
												N-G	SP07U275
STP690YN07M	400/690 - 3Ø Wye, 5W	10	75 kA	550	870	320	1100	1500	2500	1000	3000	L1,2,3	SP07U550
												N-G	SP07U320
STP240HN07M	120/240 - 3Ø High-Leg Delta, 5W	20	75 kA	350	175	450	275	1200	600	1500	800	L1,3	SP07U175
												L2	SP07U275
												N-G	SP07U175
STP480HN07M	240/480 - 3Ø High-Leg Delta, 5W	10	75 kA	550/450	275/175	825/725	550	1500	800/600	2500/200	1500	L1,3	SP07U275
												L2	SP07U550
												N-G	SP07U175

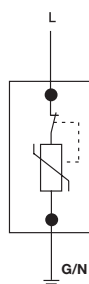
The unit comes equipped with a set of Form C dry contacts. Omit the letter "M" at the end of the part number to remove this feature.

PRODUCT DIMENSIONS

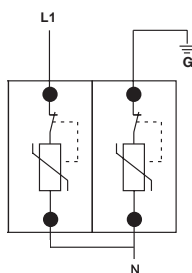


WIRING DIAGRAMS

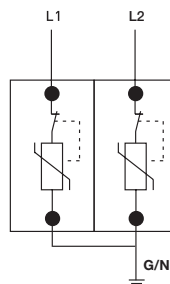
Single Phase
1 Pole - 2 Wire



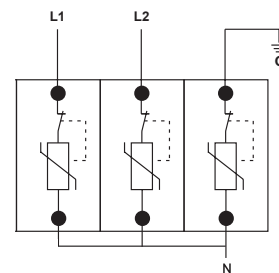
Single Phase
2 Pole - 3 Wire



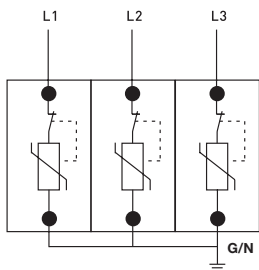
Split Phase
2 Pole - 3 Wire



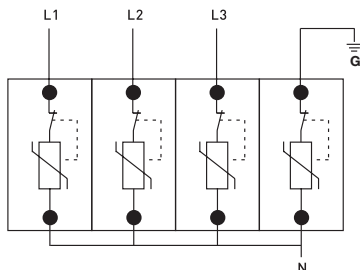
Split Phase
3 Pole - 4 Wire



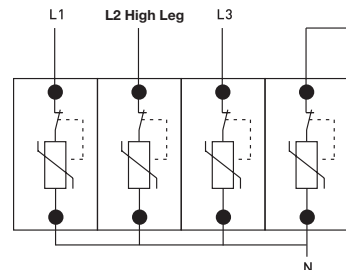
3 Phase Delta / 3 Phase Wye
3 Pole - 4 Wire



3 Phase Wye
4 Pole - 5 Wire



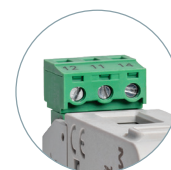
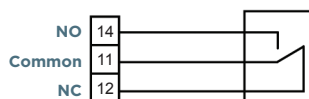
3 Phase Delta High-Leg
4 Pole - 5 Wire



REMOTE STATUS INDICATOR SPECIFICATIONS

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

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.



Screwless Pluggable
RC Connector