

# Surge-Trap<sup>®</sup> Type 1 XR Series SPD

The Surge-Trap<sup>®</sup> Type 1 XR Series meets requirements for UL1449 Third Edition and is ideal for the replacement of obsolete surge arrestors. The XR Series SPD feature TPMOV<sup>®</sup> technology inside making them the safest product available. With a small, compact design and line or load installation flexibility the XR series is the perfect fit from service entrance all the way down to a specific control panel.

## Features/Highlights:

- UL 1449 Third Edition Listed, Type 1 SPD
- Can be installed line-side or load-side of main disconnect
- 20kA Nominal discharge current
- 200kA SCCR (most models)
- UL 96A Lightning Protection Master Label compliant (20kA, 1n)
- Large block 50kA Thermally Protected MOVs
- Standard NEMA 4X polycarbonate enclosure
- Tri-mount installation kit Included (pipe nipple, bracket, DIN-rail)
- Two-year warranty

## Applications:

- AC Distribution
- Power supplies
- Drive Protection
- Fire Alarms
- Control Panels
- Telecommunications
- Residential
- IT / Data centers

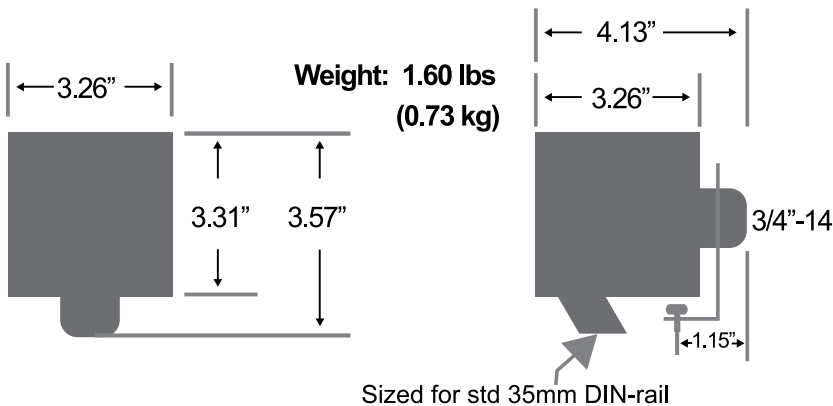
## Mounting:

- STD 3/4" -14 nipple
- DIN-rail mount
- Bracket mount (flat surface)

## General Product Specifications

Relative Humidity Range	0 to 95% non-condensing
Frequency	47 - 63 Hz
Response Time	< 1 ns
Visual End of Life Indicator	GREEN = OK, OUT = REPLACE
Operating and Storage Temperature	- 40°C to + 85°C
Wiring Method	Pre-wired with 3' (1m) 10 AWG conductors

## Dimensions & Weight



## Ratings:

### Max Discharge Current

: 50kA per phase

### Volts

: 120V to 600V AC

### Nominal discharge current

: 20kA rating (most models)

### SCCR

: 200kA (most models)

### Operating & storage temp

: -40°C to +85°C

### Wiring Size

: 3' (1m) #10AWG

integral leads

### Enclosure

: NEMA 4X Polycarbonate

## Approvals:

- UL 1449 Third Edition Listed, File E210793
- IEC 61643, CE
- ANSI/IEEE C62.41
- Burn-In tested prior to shipment
- UL 96A Lightning Protection Master Label (@20kA I<sub>n</sub>, most models)

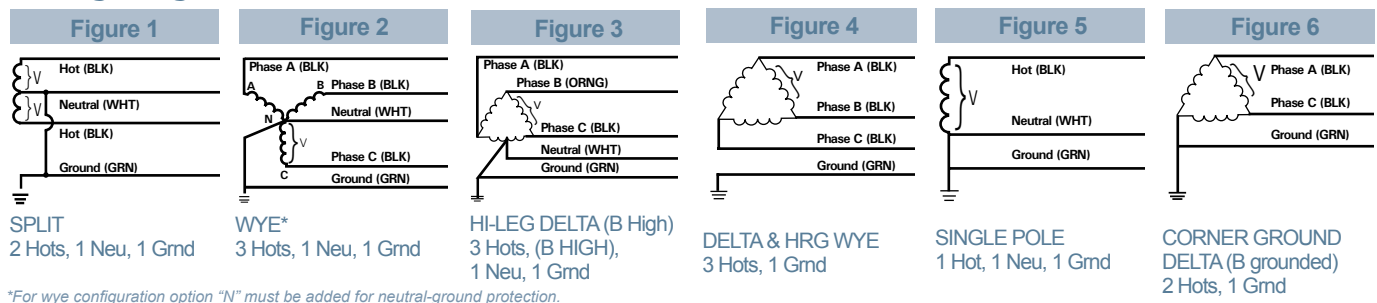


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## Catalog - Ordering System

STXR Series	System Voltage	System Config	Surge Rating	Options
STXR	120V	1P = One Pole, Single Phase	50	Blank
	127V	2P = Two Pole, Split Phase		N = Neutral to ground protection on 50kA units
	220V	3Y = Three Pole Wye		D = Dry contacts and audible alarm
	240V	3D = Three Pole Delta		F = Neutral and ground modes reversed
	277V	3H = Three Pole Hi-Leg		P = Diagnosis powered line to line
	347V			R = Removes all diagnostics
	480V			M = Provides TPMOV microswitches for use
	600V		8 = Replace 10AWG with 8AWG leads	
<b>Example</b> STXR480V3D50D				
STXR	480V	3D	50	D

## Wiring Diagrams



\*For wye configuration option "N" must be added for neutral-ground protection.

## Optional Form C Dry Contact and Audible Alarm

### Form C Dry Contact

Three (3) #18 wires exit the pipe nipple  
Gray is common, blue is normally open, Red is normally closed.

- Normally open: Use gray & blue
- Normally closed: Use gray & red

### Audible Alarm

Alarm sounds when any protection is lost (If diagnostic LED extinguishes (i.e. problem), alarm will sound)



Catalog No.	System Voltage & Config.	UL 1449 Third Edition (Sept 2009) Voltage Protection				In	SCCR	MCOV
		Rating VPR 3000A						
		L-N	L-L	N-G*	L-G*			
STXR120V1P50	120V	600		600*	1000*	20kA	200kA	150
STXR120V2P50	120V/240V	600	1000	600*	1000*	20kA	200kA	150
STXR120V3Y50	208Y/120V	600	1000	600*	1000*	20kA	200kA	150
STXR127V1P50	127V	700		600*	1200*	20kA	100kA	180
STXR127V2P50	127/254V	700	1200	600*	1200*	20kA	100kA	180
STXR127V3Y50	220Y/127V	700	1200	600*	1200*	20kA	100kA	180
STXR220V1P50	220V-1 pole	1200		1000*	1800*	20kA	200kA	320
STXR220V3Y50	380Y/220V	1200	2000	1000*	1800*	20kA	200kA	320
STXR240V3H50	120/240V - Hi-Leg Delta	600/1200	1000/1500	600	1000/1500	20kA	200kA	150/320
STXR240V1P50	240V-1 pole	1200		1000*	1800*	20kA	200kA	320
STXR240V3D50	240V Delta -		1500		1200	20kA	200kA	321
STXR277V1P50	277V	1200		1000*	1800*	20kA	200kA	320
STXR277V2P50	240/480V	1200	2000	1000*	1800*	20kA	200kA	320
STXR277V3Y50	480Y/277V	1200	2000	1000*	1800*	20kA	200kA	320
STXR347V3Y50	600Y/347Y	1500	2500	1200*	2500*	20kA	200kA	420
STXR480V1P50	480V-1 pole	1800				10kA	200kA	550
STXR480V3D50	480V Delta - 3 Pole		3000		1800	10kA	200kA	550
STXR480V3H50	240/480V -Hi-Leg Delta	1200/1800	2500			10kA	200kA	320/550
STXR600V3D50	600V Delta - 3 Pole		2500		2500	20kA	200kA	690

\*Add option "N" for N-G protection

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