

Surge-Trap® STZ Series

Surge Protective Device

SURGE PROTECTION

PANEL MOUNT SPD FOR UL 1449 TYPE 1 AND 2 APPLICATIONS



The Surge-Trap Type 1 STZ Series is Mersen's premium-featured surge option to be installed at service entrance locations and for protection of the most critical loads. Designed with industry leading Mersen TPMOV® Technology, the STZ series is ideal for industrial and commercial environments. Does not require additional overcurrent protection. The STZ series has mounting options (internal and external/in enclosure) suitable for both new construction and retrofit applications.

Technical Data Overview	
Surge Current Rating (I_{max})	100, 150, 200, 300, 450kA ⁽¹⁾
System Voltage	120VAC-600VAC
Nominal discharge current (I_n) (8x20 μ s)	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	- Externally Mounted Panel - Internally Mounted for Panel integration
Enclosure Options	NEMA 1 / 12 / 3R / 4 / 4X Stainless Steel
EMI/RFI Filter	Up to -50dB from 10kHz to 100MHz
Wiring	8 AWG - 1/0 Phase & Neutral - 8 AWG - 2/0 Ground ⁽²⁾
Flammability	UL94-5VA
Operating & Storage Temperature	-31°F [-35°C] to +185°F [85°C]
Visual Status Indicator LED	Green = 67 to 100% Life Yellow = 34 to 66% Life Red = 0 to 33% Life
Remote Status Indicator	Form C Dry Contacts
⁽¹⁾ 450kA Surge Capacity available for 240S, 208Y, 240D and 480Y voltage configurations only.	
⁽²⁾ See Installation Instructions for details by option and lug torque.	

FEATURES/BENEFITS

- The field-replaceable SPD module mounts in any orientation to reduce lead length and optimize performance
- Standard features include LED phase loss indication, EMI/RFI filter, surge counter, dry contacts and audible alarm with silence button
- Optional disconnect switch
- Up to 10 modes of protection
- 15-year warranty

APPLICATIONS

- Service entrance locations
- OEM's Automatic Transfer Switch panel integration
- Switchboards
- Data centers
- Any critical application that requires a high level of protection

APPROVALS/STANDARDS

- ANSI/UL 1449 5th Edition, Type 1 SPD, File E210793
- CSA C22.2, Type 1 SPD
- UL96A Lightning Protection
- RoHS Compliant



PART NUMBER SELECTOR

Don't see what you need? Please contact Technical Services.

STZ Series	480Y Voltage and System Configuration	30 Surge Capacity	B Standard Features	1 Enclosure	T Disconnect Switch
STZ	240S: 240/120V Split 208Y: 208/120V WYE 380Y: 380/220V WYE 480Y: 480/277V WYE 240D: 240V DELTA 480D: 480V DELTA & HRG WYE 600Y: 600/347V WYE	10: 100kA 15: 150kA 20: 200kA 30: 300kA 45: 450kA ^[1]	LED Status Indicators Phase Loss Indication Audible Alarm Form C Dry Contacts EMI/RFI Filter Surge Counter	1: NEMA 1/12/3R/4 X: NEMA 4X Stainless Steel Q: Field-replaceable module R: Without enclosure for internal mounting	BLANK: None T: UL 98 switch with door mounted handle on enclosed units ^[2] U: UL 98 switch with shaft and door mountable switch handle for internally mounted units

Example Part Number:

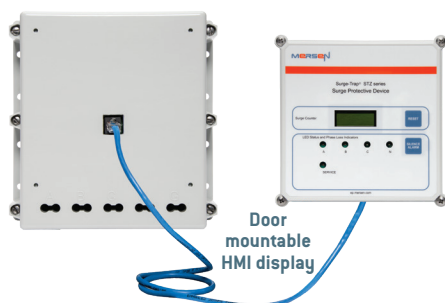
STZ 480Y 20 B 1 T

[1] 450kA Surge Capacity not available for 380Y, 480D, and 600Y voltage configurations.

[2] The enclosure dimensions for units with the disconnect switch option are larger than those without. Please refer to the dimensions on the next page.

[3] For door mounting HMI display, Options R and RU additional communication cable (5 ft.) is provided.

Option "R" for Internal Mounting^[3]



Option "1" for External Mounting

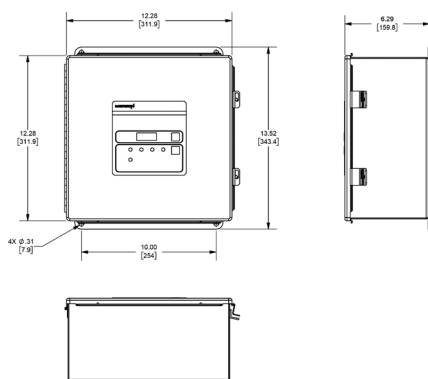


VOLTAGE SPECIFICATIONS

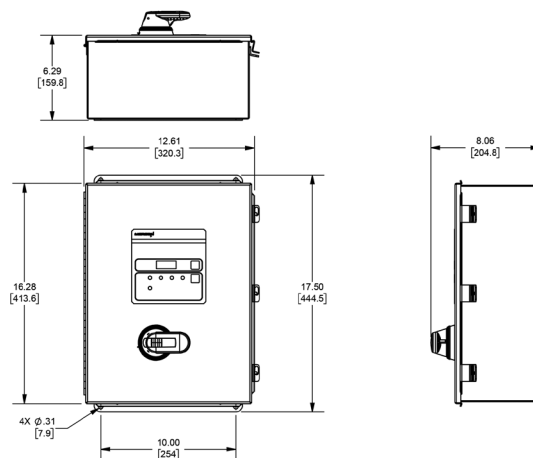
Part Number	System Voltage and Configuration	Maximum Continuous Operating Voltage (MCOV, U _c)				ANSI/UL 1449 5th Edition voltage protection ratings - VPR							
		L-N	L-G	L-L	N-G	Without Integral Switch				With Integral Switch [U]			
		L-N	L-G	L-L	N-G	L-N	L-G	L-L	N-G	L-N	L-G	L-L	N-G
STZ240S__B [1 or X]__	240/120V Split Phase	150	150	276	150	800	800	1200	700	800	900	1200	800
STZ208Y__B [1 or X]__	208/120V 3-Phase WYE	150	150	239	150	800	800	1200	700	800	900	1200	800
STZ480Y__B [1 or X]__	480/277V 3-Phase WYE	320	320	552	150	1500	1200	2000	700	1500	1500	2000	800
STZ240D__B [1 or X]__	240V 3-Phase DELTA	-	320	320	-	-	1200	2000	-	-	1200	2000	-
STZ380Y__B [Q or R]__	380/220 3-Phase WYE	552	320	320	150	2000	1200	1200	600	2000	1500	1500	800
STZ380Y__B [1 or X]__	380/220 3-Phase WYE	552	320	320	150	2000	1500	1200	700	2000	1500	1500	800
STZ480D__B [1 or X]__	480V 3-Phase DELTA & HRG WYE	690	420	420	150	2500	1500	1500	600	2500	1500	1500	800
STZ240S__B [Q or R]__	240/120V Split Phase	690	420	420	150	2500	1500	1500	700	2500	1500	1500	800
STZ208Y__B [Q or R]__	208/120V 3-Phase WYE	150	150	276	150	700	700	1000	600	800	900	1200	800
STZ480Y__B [Q or R]__	480/277V 3-Phase WYE	320	320	552	150	1200	1200	2000	600	1500	1500	2000	800
STZ240D__B [Q or R]__	240V 3-Phase DELTA	-	320	320	-	-	1200	2000	-	-	1200	2500	-
STZ480D__B [Q or R]__	480V 3-Phase DELTA & HRG WYE	-	552	552	-	-	1800	4000	-	-	1800	4000	-
STZ600Y__B [Q or R]__	600/347 3-Phase WYE	690	420	420	150	2500	1500	1500	600	2500	1500	1500	800
STZ600Y__B [1 or X]__	600/347 3-Phase WYE	690	420	420	150	2500	1500	1500	700	2500	1500	1500	800

DIMENSIONS AND MOUNTING CONFIGURATIONS

ENCLOSURE OPTIONS 1 or X - External Mounting

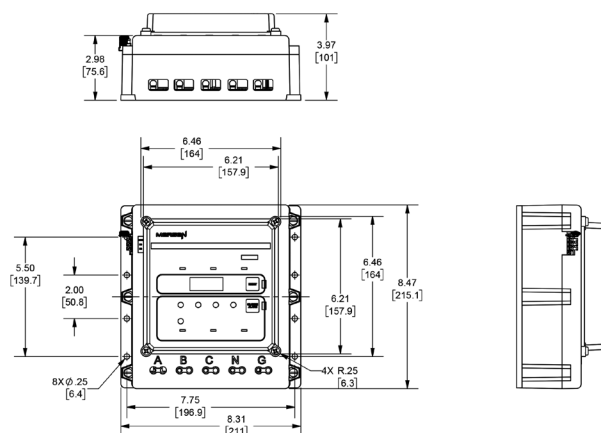


Without Disconnect Switch

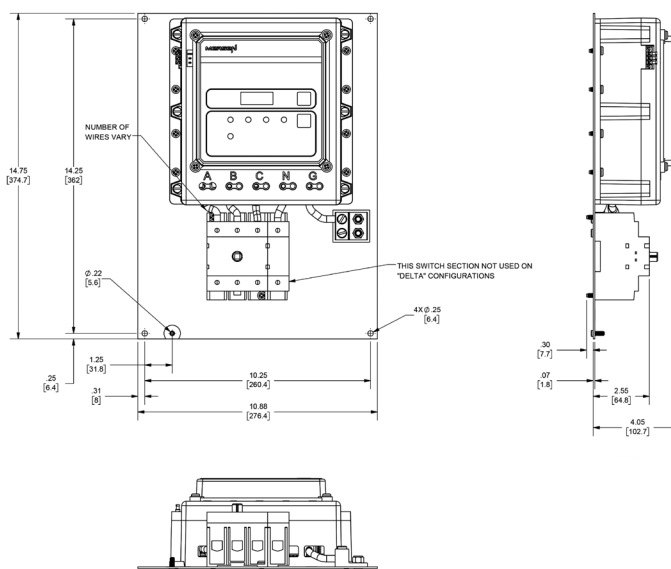


With Disconnect Switch

ENCLOSURE OPTIONS R - Internal Mounting



Without Disconnect Switch



With Disconnect Switch

ENCLOSURE OPTIONS Q - Field-replaceable Module

