

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 (Imax)	100, 150, 200, 300, 450kA ⁽¹⁾
Nominal discharge current (In) (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	- 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	Wire Lugs for 6-10 AWG copper
Flammability	UL94-5VA
Operating & Storage Temperature	- 40°F (40°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 not available for 380Y, 480D, and 600Y voltage configurations.

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
- Datacenters
- 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



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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:

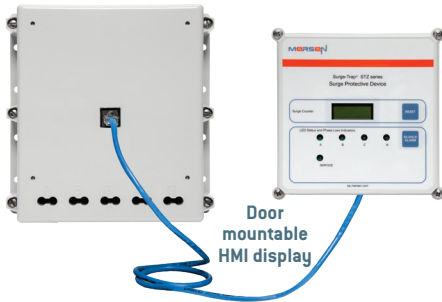
STZ 480Y 20 B 1 T

[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



Door mountable HMI display



Backplate mounted unit

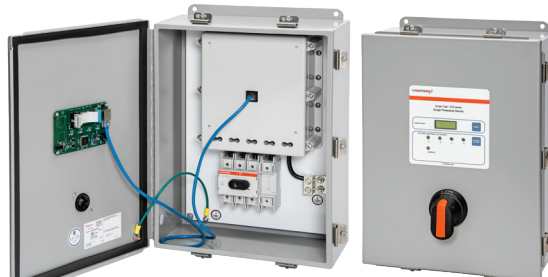


Backplate mounted unit with integral switch

Option "1" for External Mounting



With enclosure and without disconnect switch



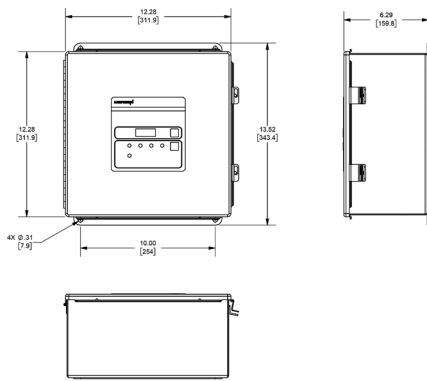
UL 98 switch with door mounted handle on enclosed units

VOLTAGE SPECIFICATIONS

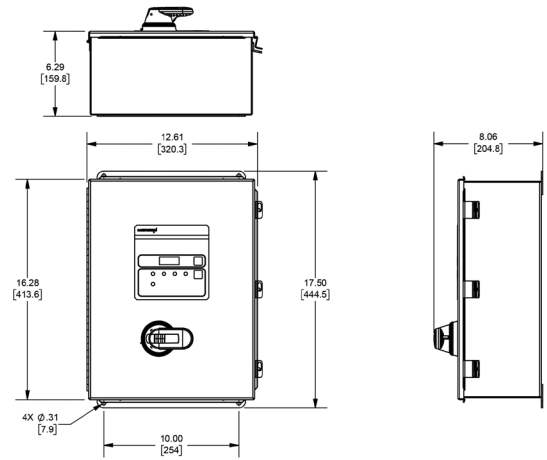
Part Number	System Voltage and Configuration	Maximum Continuous Operating Voltage (MCOV, U _c)				ANSI/UL 1449 5th Edition voltage protection ratings - VPR							
						Without Integral Switch				With Integral Switch [U]			
		L-N	L-G	L-L	N-G	L-N	L-G	L-L	N-G	L-N	L-G	L-L	N-G
STZ240S__B [1 or X]__	240/120V 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]__	380/200 3-Phase WYE	552	320	320	150	2000	1200	1200	600	2000	1500	1500	800
STZ380Y__B [1 or X]__	380/200 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

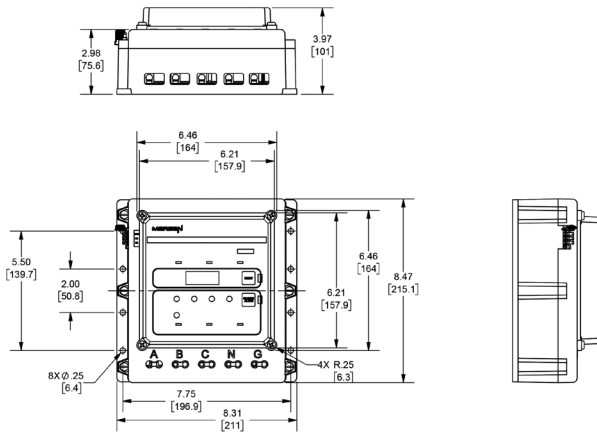


Without Disconnect Switch

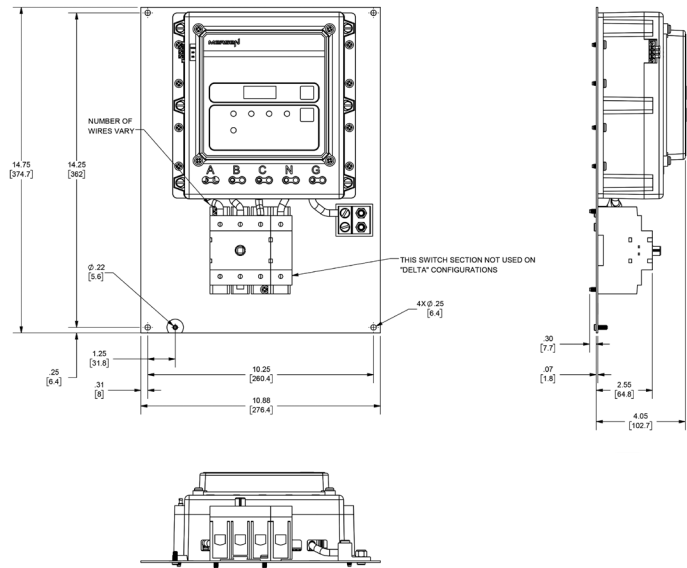


With Disconnect Switch

ENCLOSURE OPTIONS R - Internal Mounting



Without Disconnect Switch



With Disconnect Switch

ENCLOSURE OPTIONS Q - Field-replaceable Module

