TR5000

Transient Voltage Surge Suppressors

imagination at work

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Overview

It is a fact that transient voltage surges from both external and internal sources directly affect the performance and life expectancy of connected electronic equipment. From electronic lighting ballasts to computer servers, if there is a printed circuit board inside, it is susceptible to transient voltage surge damage. As microprocessors and components that make up this equipment grow smaller and faster with each new generation, their susceptibility to transient voltage surge damage becomes ever greater.

The TR 5000 series is ideal for both new and retrofit commercial and industrial applications where basic monitoring is required and performance cannot be compromised. Available in ratings from 25kA - 100kA per mode, (50kA - 200kA per phase) the TR 5000 series is the perfect surge suppression product for protecting your critical sensitive electronic equipment throughout your facility.

Recommended installation locations are primary and secondary distribution and point of use levels. Designed for distribution and point of use locations but rated for service entrance, the TR 5000 series has been third party tested to ANSI/IEEE C3 (10kA 8 x 20 µs) impulses. The entire TR 5000 line-up has been engineered to the highest standards and is designed for rigorous duty and long life as evidenced in our outstanding minimum repetitive surge current capacity test results.

GE engineers, designs and builds these transient voltage surge suppressors in our state of the art lab and production facilities. Extensive testing is performed at GE and 3rd party test labs across North America. Production is carried out at our ISO 9001 certified factory utilizing six sigma methodologies and lean manufacturing processes in Bonham, Texas.

Minimum Repetitive Surge Current Capacity

(Per ANSI/IEEE C62.41-1991 and ANSI/IEEE C62.45-1992)

The TR 5000 Series is capable of surviving the following impulses, at one-minute intervals, without failure and with less than 10% change in protective characteristics.

- 5,000 Category C3 impulses 20kV/10kA, 8x20µs for 65-100kA rated devices
- 3,500 Category C3 impulses 20kV/10kA, 8x20µs for 25-50kA rated devices
- 5,000 500V/2kA, 10x1000µs long wave impulses for 65-100kA rated devices

Recommended Applications

- Distribution Equipment
- Branch Panel
- Point of Use
- New Construction and Retrofits
- System Expansions

Benefits & Features

- The TR 5000 provides maximum surge protection with outstanding clamping characteristics for medium and low exposure locations through the use of industrial grade MOV architecture and state-of-the-art engineering.
- 3rd party tested up to device rating including fuses in the surge path.
- Maximum installation flexibility is achieved in the TR 5000 through its high surge suppression ratings to small footprint size ratio - one of the best in its class.
- Fast rise-times, high frequency transients and electrical line noise are reduced with standard EMI / RFI filtering technology on 65, 80 and 100kA per mode products. (Not applicable for 25 and 50 kA.)
- 10 Modes of protection (L-N, L-G, N-G, L-L)
- Green operational LEDs
- NO/NC Form C Dry Contacts for remote monitoring
- Patented Thermal Fuse Technology US patent # 6,282,073 combined with 200kAIC surge rated fuses
- 5 year standard warranty (10 year optional)
- Standard NEMA 12 painted steel enclosures

Standards

- UL1449 (2nd Edition), UL 1283, CSA C22.2 (cUL)
- ANSI/IEEE C62.41 - 1991 (R1995), C62.45 - 2002
- NEMA LS-1 - 1992 (R2000)
- MIL-STD-220B
- ANSI/NFPA70
- NEC (Article 285)

Operating Frequency	50/60 Hz
Connection	10 AWG Pre-wired Conductors, Parallel Connected
Operating Temperature	-40 C to +65 C
Operating Humidity	0% to 95% Non-Condensing
Weight	(25-50kA) 17 lbs., (65-100kA) 21 lbs.

Technical Specifications

Catalog # TR5 _ _ _ _ _ _ _ WM

Example: TR5277Y100WM

SVR = Suppressed Voltage Rating UL1449 2nd Edition
MCOV = Maximum Continuous Operating Voltage (50/60 Hz)

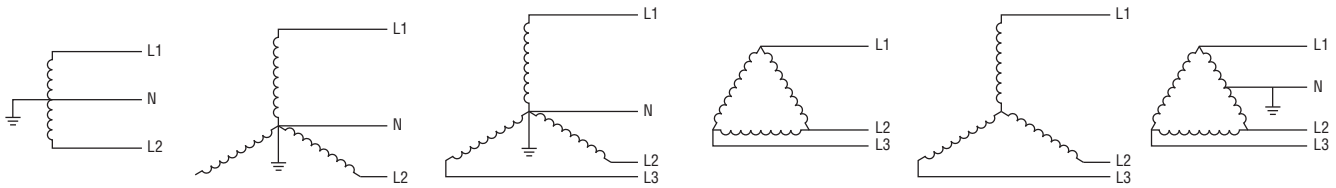
	Nominal Voltage (Vrms) (50/60 Hz)	System Voltage Configuration	65,80,100kA SVR L-N / L-G / N-G	25,50kA SVR L-N / L-G / N-G	MCOV
120S	120/240	1 Ph, 3 W + G	400 / 400 / 400	500 / 500 / 500	150V
120Y	120Y/208	3 Ph, 4 W + G	400 / 400 / 400	500 / 500 / 500	150V
220Y	220/380	3 Ph, 4 W + G	900 / 800 / 800	800 / 800 / 800	320V
240Y	240/415	3 Ph, 4 W + G	900 / 800 / 1500	800 / 800 / 800	320V
277Y	277Y/480	3 Ph, 4 W + G	900 / 800 / 1500	800 / 800 / 800	320V
240D	240 Delta	3 Ph, 3 W	- / 800 / -	- / 700 / -	270V
480D	480 Delta	3 Ph, 3 W	- /1500 / -	- /1500 / -	550V
240H	120/240 Delta HL	3 Ph, 4 W + G	- / 700 / 400	400 / 700 / 400	See Note

Note: 150V (L-N/G) Phase A&C; 270V (L-N-G) Phase B

	Maximum Surge Current Capacity
025	25kA mode 50 kA phase
050	50kA mode 100 kA phase
065	65kA mode 130 kA phase
080	80kA mode 160 kA phase
100	100kA mode 200 kA phase

Phase Rating = (L-N + L-G)

Model	Nominal Voltage (50/60Hz)	Max. Continuous RMS Operating Voltage	System Voltage Configuration	Source Configuration
120S	120 / 208-240V	150V (L-N / L-G)	Single Phase, 3 Wire + Ground	A
			Dual Phase, 3 Wire + Ground	B
120Y	120 / 208V	150V (L-N / L-G)	Three Phase WYE, 4 Wire + Ground	C
220Y	220 / 380V	320V (L-N / L-G)		
240Y	240 / 415V	320V (L-N / L-G)		
277Y	277 / 480V	320V (L-N / L-G)		
240D	240V	270V (L-G)	Three Phase Delta, 3 Wire	D
480D	480V	550V (L-G)	Three Phase WYE, 3 Wire	E
240H	120 / 240V	150V (L-N / L-G) Phase A&C	Three Phase Delta Hi-Leg, 4 Wire + Ground	F
		270V (L-N / L-G) Phase B		

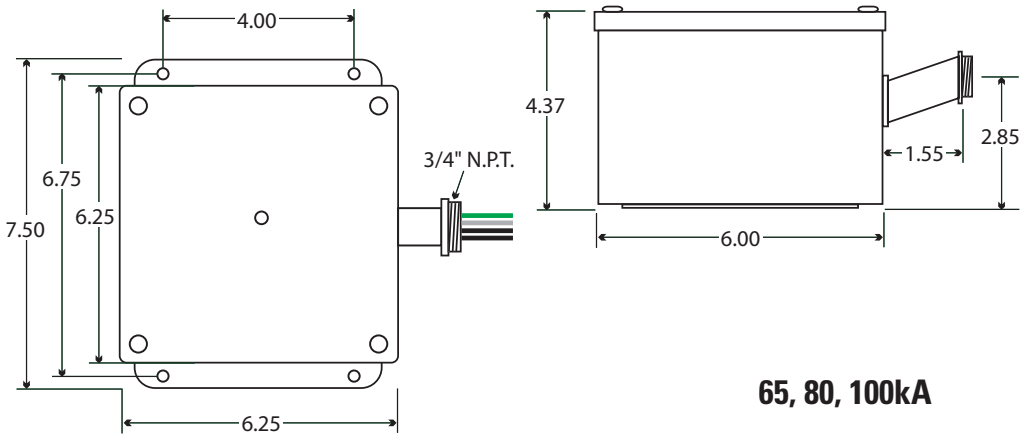


A B C D E F

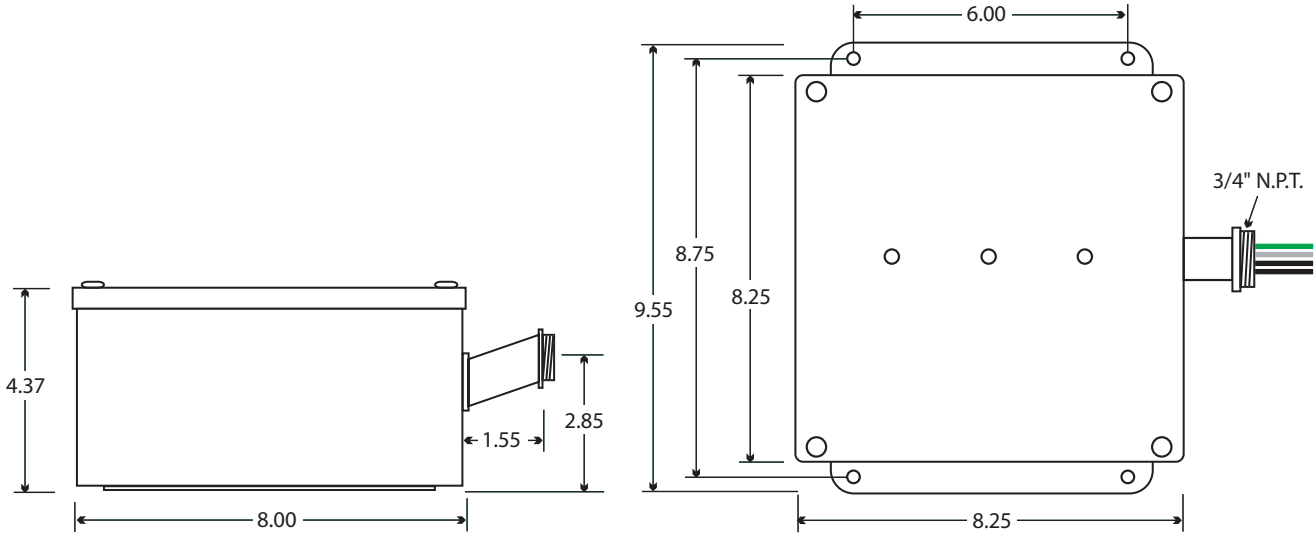
TR5000 Series Wallmount Dimensions

(Expressed in inches)

25, 50kA



65, 80, 100kA



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