Transient Voltage Surge Suppression (TVSS)

STV100K *STV25K*

Surge protection devices are an effective and economical way to protect critical, microprocessor based equipment/ applications from the damaging effects of transients. Transient voltage spikes are generated externally due to lightning, utility grid switching and electrical accidents or internally due to copiers, generators and large motors. Sola surge suppression products quickly divert the high energy transients to levels that are safe for AC equipment.

Sola/Hevi-Duty's industrial surge suppression devices protect equipment with low clamping levels on all electrical paths. This not only prevents catastrophic failure but also extends the life of any electronic equipment.

These devices meet UL 1449, 2nd Edition standards and provide AIC ratings for safe distribution panel use. These surge protection devices come in a compact design allowing the user to install the product as close as possible to the sensitive load.

Surge suppression is one part of a total power quality solution. They can be used alone or in conjunction with other Sola/Hevi-Duty products to solve more complex power quality problems.

The STV25K DIN Rail Series

This series provides point-of-use protection, at the dedicated equipment level, against damaging transients. Ideal for installation in electronic control cabinets found in harsh industrial environments such as the factory floor or at remote locations. These devices provide 50,000 amps of surge protection, sinewave tracking, LED status indication and form "C" dry contacts. This DIN Rail series also provides protection on all electrical paths and comes with a standard ten year product warranty. The STV25K DIN Rail series surge suppressors are UL recognized to Standard 1449, 2nd Edition.

Related Products

- DIN Rail Power Supplies
- Industrial Control Transformers
- Line Reactors

The STV100K Hardwired Series

Sola/Hevi-Duty's STV100K series is a hardwired surge suppressor designed for installation at the service entrance, branch panel or a dedicated sensitive electronic load. These units feature all mode protection, LED and audible alarm status indication, sinewave tracking and form "C" dry contacts. The STV100K series also contains the highest levels of safety built into the product including thermal fusing and a fault current fusing level of 65 kAIC.

Related Products

- Power Conditioners
- UPS
- Drive Isolation Transformers
- K-Factor Transformers

The STV25K DIN Rail Series

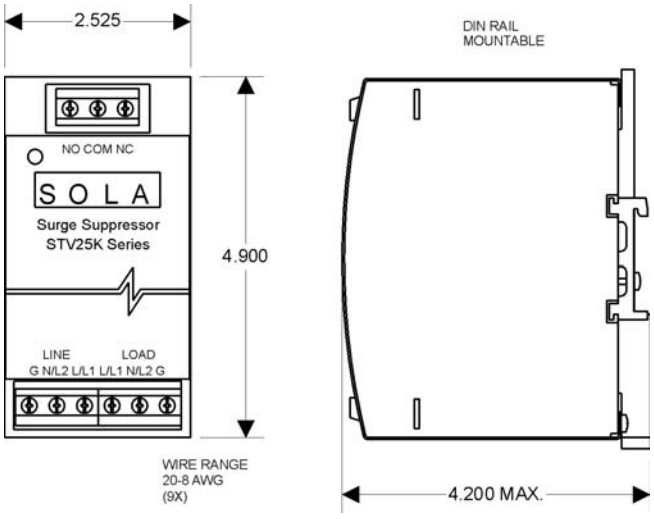
Features

- Compact and narrow design maximizes panel space.
- Low clamping levels for more effective protection.
- Easy access terminal screws for quick mounting and installation.
- 50,000 amps of surge protection.
- Sinewave tracking and all mode protection provide consistent and reliable protection on all electrical paths.
- Patented thermal fusing prevents MOV overheating caused by excessive current levels.

Applications (20 Amp Max)

- Control cabinets for industrial automation
- Point of use industrial/service equipment
- Remote commercial or industrial equipment
- Instrumentation and large test equipment
- Commercial and building automation systems

Dimensions



Selection Table

Catalog Number	Input Voltage	
STV25K-10S	120 V	Single Phase
STV25K-24S	240 V	Single Phase

STV25 K Specifications

Description	Catalog Number	
	STV25K-10S	**STV25K-24S**
Input Voltage	120 VAC, Single Phase 0-135 VRMS	240 VAC, Single Phase 0-260 VRMS
Maximum Continuous Operating Voltage (MCOV)	120 VAC - 150 VRMS	240 VAC - 275 VRMS
Line Frequency	47-63 Hz	
Connection/ Mounting Type	DIN Rail Mount (Chassis Mount Bracket Optional order SDN-PMBRK) with screw terminals for #12 AWG.	
Input Current Rating	20 Amps	
Phase Configuration	2 wire + GND	
Weight	3 lbs	
Dimensions (H x W x D)	4.87 x 2.5 x 4.375 (in) includes mounting bracket	
Modes Of Protection	All Mode: L - N, L - L, L - G, N-G	
Safety Agency Approvals	UL 1449-2, c UL us	
UL 1449 (2nd Edition) Suppressor Classification **120 VAC Normal/Common Mode** **240 VAC Normal/Common Mode**	 400 VAC 800 VAC	
Status Indication	Green LED, Form C Contacts	
Packaging	Metal DIN Rail Mount Enclosure, IP20	
Response Time	< 0.5 nsec	
Operating Temperature	-40°C to +60°C	
Operating Humidity	0% to 95% Non-condensing	
Noise Attenuation		
Normal Mode **Common Mode**	50 dB Min 40 dB Min	
Peak Surge Current Capability (8 x 20 µs)		
Line to Neutral **Line to Ground** **Neutral to Ground**	25 kA 25 kA 25 kA	
Warranty	10 Years	

The STV100K Series

Features

- 100,000 amp peak current rating provides all mode protection against severe transients.
- Low clamping levels for more effective protection
- 65 kAIC fault current fusing level provides safety and NEC conformance
- LED status and audible alarms
- Listed to UL 1449, 2nd Edition, UL 1283
- Compact, rugged metal NEMA 12 enclosure

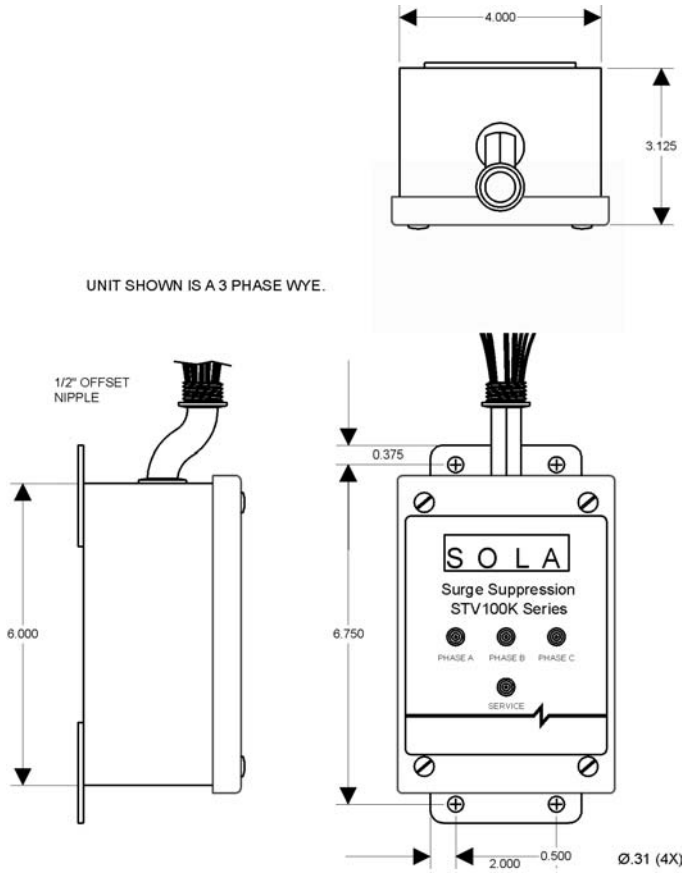
Applications

- Distribution panels (<1200 A)
- Branch, lighting and control panels
- Factory automation installations
- Dedicated industrial equipment

Selection Table

Catalog Number	Input Voltage	
STV100K-10S	120/240 V	Single Phase 3 wire + Ground
STV100K-10Y	208Y/120 V	Three Phase Wye 4 wire + Ground
STV100K-10N	120 V	Single Phase 2 wire + Ground
STV100K-24L	240 V	Single Phase 2 wire + Ground
STV100K-23Y	380Y/220 V	Three Phase Wye 4 wire + Ground
STV100K-27Y	480Y/277 V	Three Phase Wye 4 wire + Ground
STV100K-24D	240 V	Three Phase Δ 3 wire + Ground
STV100K-48D	480 V	Three Phase Δ 3 wire + Ground
STV100K-10D4	240/120 CT	Three Phase Δ 4 wire + Ground
STV100K-24D4	480/240 CT	Three Phase Δ 4 wire + Ground

Dimensions



100 K Specifications

Description	Catalog Number									
	STV100K-10S	STV100K-10N	STV100K-24L	STV100K-10Y	STV100K-23Y	STV100K-27Y	STV100K-24D	STV100K-48D	STV100K-10D4	STV100K-24D4
Input VAC	120/240 V	120 V	240 V	208Y/120 V	380Y/220 V	480Y/277 V	240 V	480 V	120/240 CT	240/480 CT
	Single Phase 3 wire + Ground	Single Phase 2 wire + Ground		Three Phase Wye 4 wire + Ground			Three Phase Δ 3 wire + Ground		Three Phase Δ 4 wire + Ground	
Maximum Continuous Operating Voltage (MCOV)	125% of the nominal level for 120 V; 115% for all other input voltages									
Line Frequency	47-63 Hz									
Connection/ Mounting Type	Parallel/Flange									
Enclosure	Metal, NEMA 12 Enclosure									
Dimensions (H x W x D)	4 in x 6 in x 4 in									
Weight	8 lbs. Max									
Modes Of Protection	All Mode: L - N, L - L, L - G, N - G									
Safety Agency Approvals	UL 1449-2, cUL, UL 1283									
UL 1449 (2nd Edition) Suppressor Classification										
L - N	400 V	400 V	N/A	400 V	800 V	800 V	N/A	N/A	400 V	800 V
L - L	800 V	N/A	800 V	800 V	1500 V	1500 V	1500 V	1500 V	800 V	1500 V
L - G	400 V	400 V	800 V	400 V	800 V	800 V	1500 V	1500 V	400 V	800 V
N - G	400 V	400 V	N/A	400 V	800 V	800 V	N/A	N/A	400 V	800 V
A/C Rating	65 kAIC									
Status Indication	3-Green LEDs, 1 per phase, 1-Red LED, Form C Contacts, Audible Alarm									
Response Time	< 0.5 nsec									
Operating Temperature	-40°C to +60°C									
Operating Humidity	0% to 95% Non-condensing									
Fusing	Thermal and Fault Current									
Noise Attenuation	40 dB Max									
Peak Surge Current Capability										
Per Phase Line to Neutral Line to Line Line to Ground Neutral to Ground	100 kA 50 kA 50 kA 50 kA 50 kA	100 kA 50 kA N/A 50 kA 50 kA	100 kA N/A 50 kA 50 kA N/A	100 kA 50 kA 50 kA 50 kA 50 kA	100 kA 50 kA 50 kA 50 kA 50 kA	100 kA 50 kA 50 kA 50 kA 50 kA	100 kA N/A 50 kA 50 kA N/A	100 kA N/A 50 kA 50 kA N/A	100 kA 50 kA 50 kA 50 kA 50 kA	100 kA 50 kA 50 kA 50 kA 50 kA
Warranty	10 years									