The STV100K Series - Surge Protective Devices

SolaHD STV100K Series hardwired surge protective devices are 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 short circuit current protection rating of 100kA.



E324279

Applications

- Distribution Panels (<1200 A)
- Branch, Lighting and Control Panels
- Factory Automation Installations
- Dedicated Industrial Equipment

Features

- 100,000 amp peak current rating provides all mode protection against severe transients
- Low clamping levels for more effective protection
- LED status and audible alarms
- Compact, rugged metal

Certifications and Compliances

- c UL us Listed
  - UL 1449, type 2 locations
  - UL Listed/NEMA type 12 enclosure
  - CSA C22.2 No. 8, CSA TI I-IIB, TI A-24
- ABS Type Approved
- RoHS Compliant

Related Products

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

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	400Y/230 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

Dimensional Diagram - in. (mm)

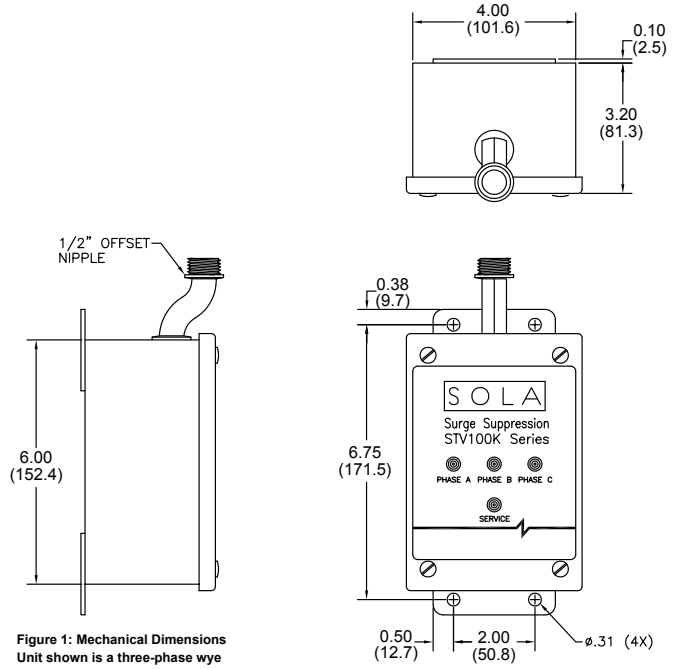

Figure 1: Mechanical Dimensions
Unit shown is a three-phase wye

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STV100K Specifications

Description	Catalog Number									
	STV100K–10S	**STV100K–10N**	**STV100K–24L**	**STV100K–10Y**	**STV100K–23Y**	**STV100K–27Y**	**STV100K–24D**	**STV100K–48D**	**STV100K–10D4**	**STV100K–24D4**
Nominal Input Vac	120/240 V	120 V	240 V	208Y/120 V	400Y/230 V	480Y/277 V	240 V	480 V	240 D/120 V	480 D/240 V
System Configuration	Single Phase 3 wire + Ground	Single Phase 2 wire + Ground		Three Phase Wye 4 wire + Ground			Three Phase Delta 3 wire + Ground		Three Phase Delta High Leg 4 wire + Ground	
Maximum Continuous Operating Voltage (MCOV)	125% of the nominal level for 120 V; 115% for all other voltages									
Line Frequency	47-63 Hz									
Response Time	< 0.5 nsec									
Short Circuit Current Rating (SCCR)	100kA									
Fusing	Thermal and Fault Current									
Nominal Discharge Current Rating	20 kA									
Modes of Protection	All Mode: L - N, L - L, L - G, N - G									
Operating Temperature	-40°C to +60°C									
Operating Humidity	0% to 95% Non-condensing									
Noise Attenuation	40 dB max.									
Dimensions – W x D x H – in. (mm)	6.00 x 4.00 x 3.20 (152.4 x 101.6 x 81.3)									
Net Weight – lbs (kg)	8.0 (3.63) max.									
Enclosure	Metal, UL Listed/NEMA Type 12 Enclosure									
Connection/ Mounting Type	Parallel/Flange									
Status Indication	Red and green LED status indicators, audible alarm, form C contacts									
Warranty	10 year limited warranty									
UL 1449, Type 2 Voltage Protection Ratings (VPRs) Vpeak										
Line to Neutral	600 V	600 V	N/A	600 V	1200 V	1200 V	N/A	N/A	600 V	1200 V
Line to Line	1000 V	N/A	1000 V	1000 V	1800 V	1800 V	1000 V	2000 V	1000 V	1800 V
Line to Ground	700 V	700 V	1200 V	700 V	1200 V	1200 V	1200 V	1800 V	700 V	1200 V
Neutral to Ground	600 V	600 V	N/A	600 V	1200 V	1000 V	N/A	N/A	600 V	1200 V
High Leg to Neutral	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1200 V	1800 V
High Leg to Line	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1200 V	1800 V
High Leg to Ground	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1800 V	3000 V
Peak Surge Current Capability										
Per Phase	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA	100 kA
Line to Neutral	50 kA	50 kA	N/A	50 kA	50 kA	50 kA	N/A	N/A	50 kA	50 kA
Line to Line	50 kA	N/A	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Line to Ground	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA	50 kA
Neutral to Ground	50 kA	50 kA	N/A	50 kA	50 kA	50 kA	N/A	N/A	50 kA	50 kA

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