

### The STV100K Series - Surge Protective Devices

SolaHD's STV100K 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.

#### 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

- cULus 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)

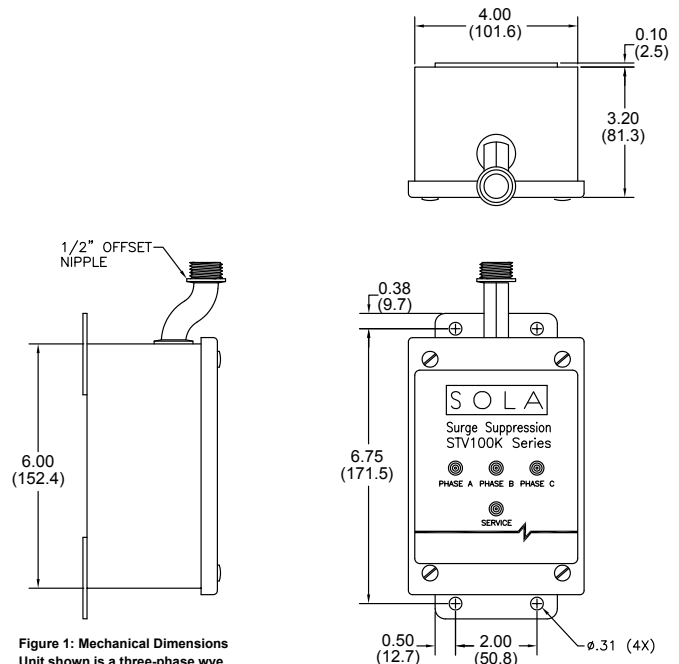


Figure 1: Mechanical Dimensions  
Unit shown is a three-phase wye

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