

STV 200/400K Series - Surge Protective Devices

SolaHD STV 200/400K Series offers continuous protection from damaging voltage transients and electrical noise commonly found at the service entrance or distribution panel. The modular design of the STV 200/400K allows for installation flexibility and its' robust design allows for installation in the most severe exposure locations. They are capable of handling the high-impulse, potentially damaging transients commonly found at the service entrance or distribution panels. The modular design of the STV 200/400K allows for installation flexibility. Its robust design allows for placement in the most severe exposure locations.

The STV 200/400K utilizes circuitry to monitor the status of all protection modes, including neutral to ground. Should protection be unavailable in any mode, the Green LED will be extinguished, and the Red LED will be illuminated. In addition, high isolation form C dry contacts provide remote monitoring of protection system failure, under voltage, phase and power loss. The STV 200/400K protection integrity monitoring indicates failure for both shorted or opened protection components.

These devices are built to meet your unique requirements, and are available in hardwire, three phase configuration. They are designed for years of trouble free operation and require little or no operator intervention after installation.

Applications

The STV 200/400K Series can be a facility-wide product family and may be installed from service entrances to distribution panels to branch panels.

- Industrial Plants
- Commercial Buildings
- Institutional Facilities
- Any facility that has an environment with electronics based equipment



Features

- Modular design allows for flexibility
- Surge current capacity of 200 to 400 kA per phase
- Industry's highest surge current repeatability
- All modes transient protection (L-N, L-G, and N-G)
- Form C dry contacts and audible alarm status indications
- Internal/external monitoring, including neutral to ground
- EMI/RFI Filtering
- Five year limited warranty



- Custom options (contact technical support)
  - NEMA 12 enclosure, NEMA 3R, 4, and 4X
  - Optional rotary disconnect, transient counter and remote monitor panel

Certifications and Compliances

-  Listed
  - UL 1449, Type 1 locations
  - UL rated 200 kA with component level fusing for safe operation
-  Listed/NEMA type 12 enclosure; 3R, 4, 4X available
- ANSI/IEEE C62.11, C62.41, C62.45 Categories A, B, and C3 tested
- Tested to NEMA LS1, ISO 9001

Related Products

- Power Conditioners
- Uninterruptible Power System
- Transformers
- STV 25K, STV 100K, STF, STFV and STC Series

Selection Table

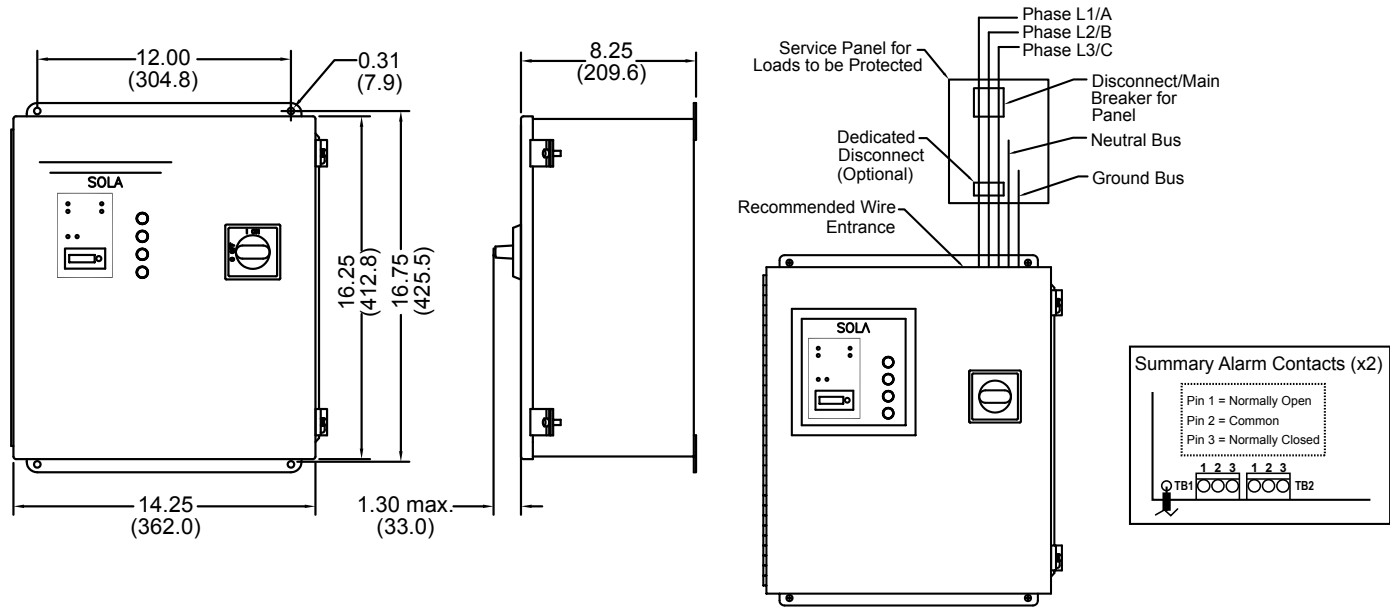
Catalog Number	Input Voltage	
STV 400K-10Y	120/208 V	Three Phase Wye, 4 wire + Ground
STV 200K-10Y	208 Y/120 V	Three Phase Wye, 4 wire + Ground
STV 400K-27Y	480 Y/277 V	Three Phase Wye, 4 wire + Ground
STV 200K-27Y	480 Y/277 V	Three Phase Wye, 4 wire + Ground
STV 400K-48D	480 V	Three Phase Δ, 3 wire + Ground
STV 200K-48D	480 V	Three Phase Δ, 3 wire + Ground

STV 200/400K Specifications

Parameters	Catalog Number					
	STV200K–10Y	STV200K–27Y	STV200K–48D	STV400K–10Y	STV400K–27Y	STV400K–48D
Input Voltage	208 Y/120 V	480 Y/277 V	480 V	208 Y/120 V	480 Y/277 V	480 V
	3Ph Wye, 4 W + G	3Ph Wye, 4 W + G	3Ph Delta, 3 W + G	3Ph Wye, 4 W + G	3Ph Wye, 4 W + G	3Ph Delta, 3 W + G
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 ns					
Enclosure	Metal, UL Listed /NEMA type 12 (3R, 4, 4X also available)					
Mounting Type	Wall Mounted (mounting hardware ¼ in.)					
Connection	Internally connected					
Status Indication	Red and green LED status indicators, audible alarm, summary alarm contacts					
Operating Temperature	-40°C to +50°C					
Operating Humidity	0% to 95% non-condensing					
Noise Attenuation	50 dB maximum					
Modes of Protection	All Modes: L–N, L–L, L–G, N–G *					
Short Circuit Current Rating (SCCR)	200 kA					
Nominal Discharge Current Rating (I <sub>n</sub> )	20 kA					
Warranty	5 year limited warranty					
UL 1449, Type 1 Voltage Protection Ratings (VPRs)						
Line to Neutral	800 V	1200 V	N/A	700 V	1200 V	N/A
Line to Line	1200 V	2000 V	2000 V	1200 V	1800 V	2000 V
Line to Ground	900 V	1200 V	1800 V	800 V	1200 V	1800 V
Neutral to Ground	700 V	1000 V	N/A	700 V	1000 V	N/A
Peak Surge Current Capability						
Per Phase	200 kA	200 kA	200 kA	400 kA	400 kA	400 kA
Line to Neutral	100 kA	100 kA	N/A	200 kA	200 kA	N/A
Line to Line	100 kA	100 kA	100 kA	200 kA	200 kA	200 kA
Line to Ground	100 kA	100 kA	100 kA	200 kA	200 kA	200 kA
Neutral to Ground	100 kA	100 kA	N/A	200 kA	200 kA	N/A

\* Delta Model does not offer N–G mode of protection

Dimensional Diagram - in. (mm)



Installation Specifications

STV 200/400K Series						
Model	Weight lbs (kg)	Dimensions D x W x H – in. (mm)	Suggested Breaker Size	Suggested Wire Size AWG	Allowable Breaker Range	Allowable Wire Range
STV200K	35.0 (15.88)	8.25 x 14.25 x 16.25 (209.6 x 362.0 x 412.8)	40 A	#8	15–100 A	#14–2
STV400K	42.0 (19.05)	8.25 x 14.25 x 16.25 (209.6 x 362.0 x 412.8)	100 A	#2	15–100 A	#14–2

Units with Rotary Disconnect						
Model	Weight lbs (kg)	Dimensions D x W x H – in. (mm)	Suggested Breaker Size	Suggested Wire Size AWG	Allowable Breaker Range	Allowable Wire Range
STV200K	38.0 (17.23)	8.25 x 14.25 x 16.25 (209.6 x 362.0 x 412.8)	40 A	#8	15–175 A	#14–2/0
STV400K	45.0 (20.41)	8.25 x 14.25 x 16.25 (209.6 x 362.0 x 412.8)	100 A	#2	15–175 A	#14–2/0