SolaHD STV 25 K DIN Rail Series Instruction Manual

1.0 Introduction

The SolaHD STV 25K DIN Rail Series Surge Protective Device is a high quality, transient diversion system designed to protect sensitive equipment from damaging transient voltage surges resulting from load switching, lightning strikes and other sources.

The installer should perform the following steps to assure a quality installation. Please read all instructions before starting the installation of this product. These instructions do not replace national or local electrical codes—check applicable codes to ensure compliance.

2.0 Installation

DANGER!
Only qualified personnel should install or service this system. Electrical safety precautions must be followed when installing or servicing this equipment. To prevent risk of electrical shock, turn off and lock out all power sources before making electrical connections or servicing.

2.1 Environment

For use indoors, in an ambient temperature of -40ºC to +50ºC, with a relative humidity 0% to 95% (non-condensing).

2.2 Maximum Current Capability

The total current draw which the STV 25K may continuously handle is 20 A. **Overloading the unit can permanently damage the device.**

2.3 Recommended Fuse

Bussman type SC-25 class G, rated 250 V ac minimum; 25 A maximum or equivalent.

2.4 Nominal Voltage

The maximum continuous operating voltage (MCOV) for model STV 25K-10S is 150 V ac and the MCOV for model STV 25K-24S is 275 V ac. **Failure to use the unit at its rated voltage can permanently damage the unit or provide inadequate surge protection.**

2.5 Supplemental Enclosures

The STV 25K must be installed inside an enclosure and located to prevent accidental contact with terminals during maintenance or servicing.

2.6 Summary Alarm Contacts

Summary alarm Form C (1 N.O. and 1 N.C.) relay contacts rated 125 V ac, 5 A max. are provided for remote indication of protection status. Connections may be made to these terminals on the unit using #18 AWG conductors.

2.7 Conductor Size

The conductor size to the input and output of the STV 25K ranges from #14 AWG to #10 AWG.

2.8 Grounding

Input and output ground terminals must be connected for proper operation. This grounding is not only required for safety, but also for equipment performance. Incorrect grounding can reduce or impede the operation of the unit.

3.0 Product Ratings & Limitations

3.1 Voltage Protection Ratings

To obtain the voltage protection ratings (VPR), as obtained by Underwriters Laboratory, Incorporated, in accordance with the Standard for Safety, Surge Protective Devices, Standard 1449, Third Edition, dated September 29, 2006, marked on this product, #12 AWG wire must be utilized to connect the STV 25K to your protected load. Connections made with conductors other that #12 AWG may result in different voltage protection ratings.
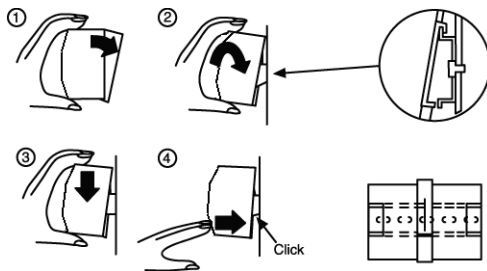
4.0 Operation

4.1 Wiring Connections

Before making connections to the unit, verify that the unit model number and nameplate voltage rating are appropriate for connection to the intended power source. See Table 1 on page 2 for voltage rating applications with typical power source configurations.

Table 1: Voltage Ratings & Power Source Configurations

Model	Nominal Voltage (50/60 Hz)	System Configuration	Source Configuration
STV 25K-10S	120 V ac	Single Phase, 2W + G	
STV 25K-24S	240 V ac	Single Phase, 2W + G	

4.2 DIN Rail Mounting

1. Tilt unit as illustrated.
2. Put unit onto the DIN rail.
3. Push unit downward until it stops.
4. Push at the lower front edge to lock.
5. Gently shake the unit to ensure that it is secure.

NOTE: Press the button located at the top (rear) of the enclosure downward to unlock and remove the unit from the DIN rail.

4.3 Applying Power

Apply power to the unit and assure status indications are normal. Under normal conditions, the green LED is illuminated.

If the green LED is not illuminated, check all connections and ensure reliable and proper voltages are supplied to the unit. For further assistance, please contact SolaHD Technical Support at (800) 377-4384/(847) 368-6000 or via e-mail at tech@solahd.com.

5.0 Registration & Warranty

5.1 Product Registration

To register your product for updates and information on service and support, visit our Web site at: http://www.solahd.com/support/registration.htm

5.2 Warranty Information

Please see the enclosed "Terms & Conditions of Sale".

SOLA HD