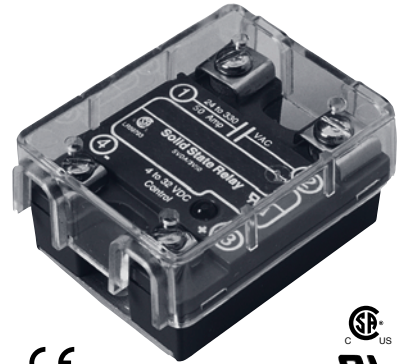


# Thermal Devices' SV Series - Panel Mount Solid State Relays

## FEATURES/BENEFITS

- 10 - 75 amps, 330Vac max.
- 50 - 75 amps, 660Vac max.
- Single phase, zero crossing
- LED input indicator
- Clear safety cover included
- Panel mount
- DC and AC input versions
- Superior surge survival
- Meets EN60947-4-3
- UL recognized, CSA listed



## SPECIFICATIONS

Dimensions inches (mm): 2.25(57.1)H x 1.75(44.5)W x 1.37(34.8)D on vertical panel

Load type: Resistive

### Inputs:

#### SVDA-DC Input

DC Logic: 10-25A ON  $\geq$  4Vdc/5.4mA, 32Vdc/10mA max., current limited  
50-75A ON  $\geq$  4Vdc/3.5mA, 32Vdc/8mA max., current limited  
OFF  $\leq$  1Vdc

#### SVAA-AC Input

AC Logic: ON  $\geq$  100V, 280Vac max.  
OFF  $\leq$  2mA, 10k $\Omega$  impedance

Current ratings: 10A, 25A, 50A and 75A

Voltage ratings: 3Vxx rating option: 24V to 330V max.  
6Vxx rating option: 24V to 660V max.

Operating temperature: 0°C to 40°C (up to 80°C with derating)

I<sup>2</sup>t (A<sup>2</sup>/secs): 10A-60, 25A-260, 50A-1620, 75A-7010

Peak blocking voltage: 800V, impulse (300Vac), 1200V, impulse (600Vac)

Offstate dVdT: **300V 600V**  
10A-750V/ $\mu$ sec 50A-500V/ $\mu$ sec  
25A-750V/ $\mu$ sec 75A-500V/ $\mu$ sec  
50A-1000V/ $\mu$ sec  
75A-1000V/ $\mu$ sec

See page 2 for fuses  
and fuse holders

## ORDERING CODES

Model	Rating

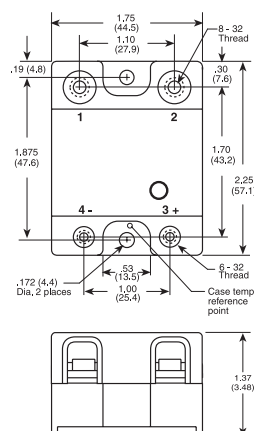
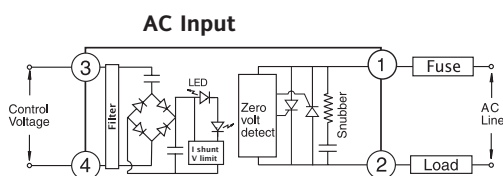
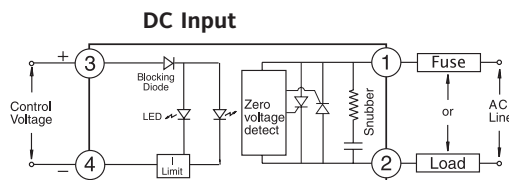
Model	Rating
SVDA 4-32Vdc input, AC output	3V10 10 amps, 300 volts
SVAA 100-280Vac input, AC output	3V25 25 amps, 300 volts
	3V50 50 amps, 300 volts
	3V75 75 amps, 300 volts
	6V50 50 amps, 600 volts
	6V75 75 amps, 600 volts

## Heat sinks and Accessories (mm)

S505-heatsk-1.5	76.2 H x 111.8 W x 66.8 D
S505-heatsk-1.0	139.7 H x 111.8 W x 66.8 D
Heatsk-DIN-1.6	80 H x 60 W x 71.1 D
Heatsk-DIN-1.0	116.59 H x 60 W x 86.3 D
Heatsk-6pk-1.2	579 H x 60 W x 71.1 D
Cover Safety-000	Clear Cover
Thermal-pad-005	5 pack of thermal pads
Thermal-pad-025	25 pack of thermal pads

NOTE: Adequate heat sinking, including consideration of air temperature and flow, is essential to the proper operation of a solid state relay. Units should not be mounted in an enclosed area without proper air flow. Units should also never be mounted to a plastic base or to a painted surface. Failure to provide adequate heat sinking with thermal gel or pad will cause a solid state relay to fail.

## SCHEMATICS/DIMENSIONS



# Thermal Devices' Semiconductor Fuses & Fuse Holders

## FEATURES/BENEFITS

- Touch safe design - No exposed contacts
- DIN rail mount (35mm)
- Excellent for switchboard panel, control consoles and similar applications
- Handle/fusepuller to install and remove fuses easily
- Available in single and 3 pole configurations
- UL recognized
- CSA listed



Use the solid state relay fuse code to select the correct fuse and fuse holder, or replacement fuse. Protecting solid state relays from short circuit conditions is the main job of an I<sup>2</sup>T semiconductor fuse, not providing overload protection. Continental Industries' recommended fuses have been selected to provide the best match of short circuit protection over a wide range of operating voltages and ambient temperatures. Applying overload protection is specific to every application. Always consult applicable electrical codes for guidance in selecting an appropriate "overload protection" device, fuse, or circuit breaker.

**For a complete document on the application and installation of solid state relays, please contact technical support at 800-282-9100 or e-mail [sales@thermaldevices.com](mailto:sales@thermaldevices.com)**

## FUSE SELECTOR CHART

Semiconductor Fuse Replacements & Accessories			Used with:
External:	Fuse and Fuse Holder		
	FUSE-KIT-14-010	10 AMP	SV Series
	FUSE-KIT-14-025	25 AMP	SV, RV Series
	FUSE-KIT-14-330	30 Amp/3 phase/3pole	RS 3 Phase
	FUSE-KIT-14-040	40 AMP	RV25, RV40, SV50
	FUSE-KIT-14-050	50 AMP	SV50
	FUSE-KIT-22-063	63 AMP	RS50
	FUSE-KIT-22-075	80 AMP	SV75
	FUSE-KIT-22-100	100 AMP	RS75, RS100
Fuse only (I <sup>2</sup> T fuse)			
Internal fuses <sup>(1)</sup> :	FUSE-SEMIBR-63A	63 AMP	RS50
	FUSE-SEMIBR-100	100 AMP	RS75, RS100
External fuses <sup>(2)</sup> :	FUSE-EXT-14-010	10 AMP	SV Series
	FUSE-EXT-14-025	25 AMP	SV, RV Series
	FUSE-EXT-14-030	30 AMP	RS 30 Amp/3Phase
	FUSE-EXT-14-040	40 AMP	RV40, SV50
	FUSE-EXT-14-050	50 AMP	SV50
	FUSE-EXT-22-063	63 AMP	RS50
	FUSE-EXT-22-075	80 AMP	SV75
	FUSE-EXT-22-100	100 AMP	RS75, RS100
Fuse Holders Only			Dimensions H x W x D in (mm)
	FUSE-HLDR-14-01	10-50 AMP	3.74 x 1.02 x 3.38 (95 x 26 x 86)
	FUSE-HLDR-22-01	75-100 AMP	5.51 x 1.38 x 3.54 (140 x 35 x 90)
	FUSE-HLDR-14-03	30 AMP/3 PHASE	3.74 x 3.11 x 3.38 (95 x 26 x 86)
Handle (Gang3)	FUSE-3HANDLE-00	30 AMP/3 PHASE	

### Notes:

(1) The internal fuses are used in the RS family of 50, 75, and 100 Amp relays. Due to local electrical codes or due to thermal stress on the fuse, some customers may choose to use the external fuse and fuse holder #FUSE-KIT-22-063 or -100.

(2) The external fuses are 14mm diameter x 51 mm long or 22mm diameter x 58mm long.

Contact Continental Industries for the internal bus bar, -B00 option.