

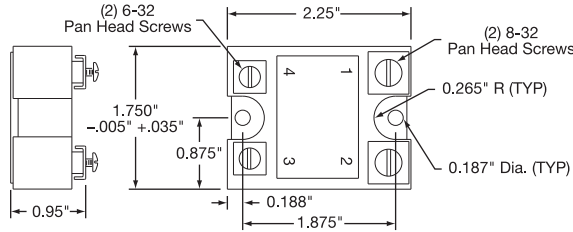
## Solid State Relays

### Single-Phase Solid State Relays (SSRs)

Tempco's Solid State Relays are a highly reliable alternative to mechanical or mercury contactors in high amperage or harsh environments. They offer years of trouble-free service and millions of cycles with no moving parts to wear out.

- \* 1-phase normally open models – current ratings from 10 Amp through 75 Amp
- \* Zero-cross outputs for general applications
- \* UL/cUL Recognized, CE Compliant
- \* Back-to-back SCR output stage
- \* AC or DC control inputs
- \* 240 or 480 Volt Outputs

- Select a **DC control** input relay to work with a temperature control having an **SSR drive output**.
- Choose an **AC control** input relay to work with a temperature control having a **mechanical relay output**.



*All Items Available from Stock*

### Standard Stock Single-Phase Relays

Nominal Output Voltage	240 VAC		480 VAC		Load Current
	DC	AC	DC	AC	
Control Input					
Part Number	RLS02110 RLS02125 RLS02145 RLS02175	RLS02210 RLS02225 RLS02245 RLS02275	RLS04110 RLS04125 RLS04150 RLS04175	RLS04210 RLS04225 RLS04250 RLS04275	10A 25A 50A 75A
Min. Control Input Current (mA)	7	5	7	5	
Max. Line Voltage (VAC, rms)	280	280	660	660	
Min. Line Voltage (VAC, rms)	24	24	48	48	
Max. Off-State Voltage (Vpeak)	±600	±600	±1200	±1200	
Max. Off-State Leakage (mA rms)	0.25		On-State Voltage Drop (Vpeak)		1.35
Static (Off-State) $\Delta v/\Delta t$ (V/ $\mu$ S)	500		Min. On-State Current (mA)		100
Operating Temp. Range (°C)	-20 to +80, (°F) -4 to +176		Line Frequency Range (Hz)		47 to 63

#### Notes:



1. DC control input = 3-32 VDC
2. AC control input = 90-280 VAC
3. Adequate heat sinking, including consideration of air temperature and flow, is essential to the proper operation of a solid state relay.

### Ordering Information

Choose the **Part Number** of the relay from the table that matches the needs for your application. We also offer other styles of Solid State Relays, such as random turn on; consult Tempco with your requirements. **Standard lead time is stock to 3 weeks.**

#### Accessories

For solid state relays Tempco offers a snap-on cover made of high impact, flame retardant polycarbonate that will provide "finger-safe" operation.

#### Snap-on Cover

For 1-phase SSR: **RLS90001**

#### Thermal Compound: RLS90003

2-ounce container

#### Thermal Heat Transfer Pads:

For 1-Phase SSR: **RLS90004**

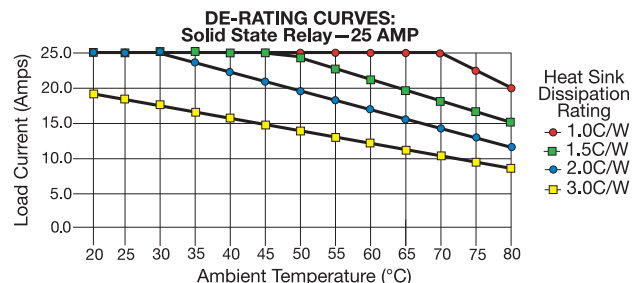
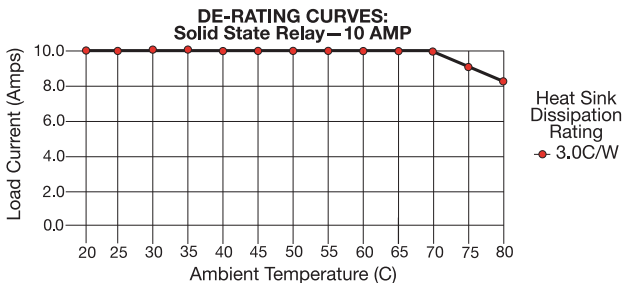
For 3-Phase SSR: **RLS90005**

### De-Rating Curves for Single Phase Solid State Relays



Solid state relay de-rating curves are used to determine the actual current the relay is capable of carrying vs. the ambient temperature in the enclosure. It also indicates the heat sink required to

dissipate the heat the relay produces at the ambient temperature. Failure to dissipate the internally generated heat will result in solid state relay failure.



**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**CONTINUED**