



# SSR (SOLID STATE RELAYS)

## INTRODUCTION :-

Solid State Relay (SSR) is a single -pole, normally open, switching device with no moving parts, capable of million of cycles of operation. By applying a control signal, the SSR switches 'ON' the ac load current, just as moving contacts do on a mechanical contractor. "Switching" takes place at the zero voltage crossover point of the alternating current cycle. Because of this, no appreciable electrical noise is generated. Heat is developed in a Solid State Relay due to the nominal voltage drop across the switching device. To dissipate the heat, an SSR must be mounted vertically on a finned **heat sink** or an aluminum plate. An SSR should be located where the ambient temperature is relatively low, since the current switching rating is lowered as temperature increases. Solid State Relays cycle life is many times that of an equivalently priced mechanical contractor. Recommends Solid State Relays for use with proportional temperature controllers and other applications where long life and solid state reliability are needed. In contrasting Solid State Relays with mechanical contractors, it should be noted that a Solid State Relays is more prone to failure due to overload and improper initial wiring. Solid state relays can fail, contact closed, on overloaded circuits

## FEATURES :-

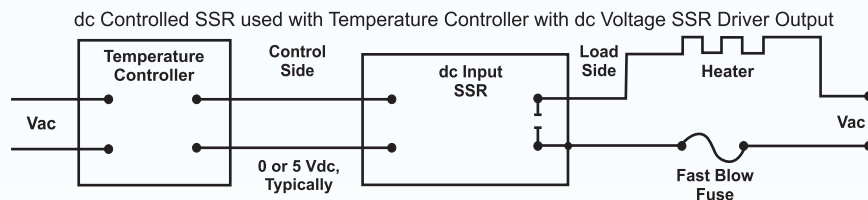
- Input / Output Isolation 2500 / 4000VAC.
- Contactless logic Relay with switching function performed by semi conductor device.
- TTL / CMOS compatibility
- Solid state construction
- True zero voltage turn ON/OFF
- High speed at high frequency switching
- Performance unaffected due to dust, gases, humidity, Alkaline - acidic atmosphere.
- Are less switching
- No contact bounce.
- Shock and vibration resistance
- Longer life due to infinite number of switching
- Model with Zero switching random turn on
- Custom Built specific requirements.
- Input LED indication / Output reversed LED indication



## TYPES :-

- SINGLE PHASE SSR.
  1. DC to AC up to 250 amps
  2. AC to AC up to 250 amps
  3. short circuit protection SSR up to 100 amps
- P.C.B MOUNT SSR.
- MINIATURE SIZE SINGLE PHASE SSR.
- THREE PHASE FORWARD - REVERSE SSR

## Typical Connection Diagram



## APPLICATION :-

- Microprocessor based controls.
- Proces control systems.
- Lighting control systems.
- Temperature control systems.
- Motor Controls.
- Machine tool control.
- Medical equipments.
- Uninterrupted power supplies.
- Traffic signals.
- Business machines.
- Laboratory equipments.
- Replacement of contactors.
- Primary transformer control.

