

Solid State Relays

AC/DC Input; 10, 25, 40, 75 A, 330 Vac

Output; 50 and 75 A, 660 Vac Output

SSR330 Series



SSR330DC10
shown actual size.



**Safety Cover
Included!**

- Optically Isolated
- LED Status Indicator
- Clear Plastic Safety Cover Included
- 4000 Volt Isolation
- Zero Voltage Turn-On
- Built-In Snubber
- High Surge Capability
- 100% Tested at Rated Current

OMEGA's SSR330 and SSR660 Series solid state relays are single-pole, normally open switching devices with no moving parts, capable of millions 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 contactor.

"Switching" takes place at the 0 voltage crossover point of the alternating current cycle. Because of this, no appreciable noise is generated. Both DC and AC input control signal models are available.

DC Control Specifications

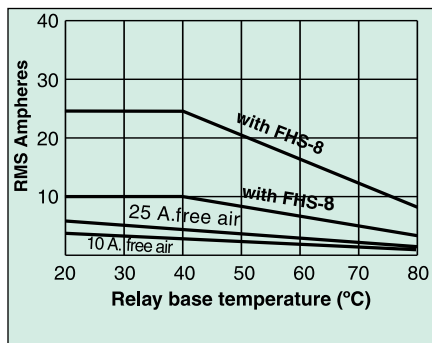
Model Number	Line Voltage Range (Vac)	Load Current Range (Arms)	Min Control Voltage and Current Draw	Max Control Voltage and Current Draw	Release Voltage (Vdc)
SSR330DC10	24 to 330	0.05 to 10	4 Vdc/5.4 mA	32 Vdc/10 mA	1
SSR330DC25	24 to 330	0.10 to 25	4 Vdc/5.4 mA	32 Vdc/10 mA	1
SSR330DC50	24 to 330	0.10 to 50	4 Vdc/3.5 mA	32 Vdc/8 mA	1
SSR330DC75	24 to 330	0.10 to 75	4 Vdc/3.5 mA	32 Vdc/8 mA	1
SSR660DC50	24 to 660	0.10 to 50	4 Vdc/3.5 mA	32 Vdc/8 mA	1
SSR660DC75	24 to 660	0.10 to 75	4 Vdc/3.5 mA	32 Vdc/8 mA	1

AC Control Specifications

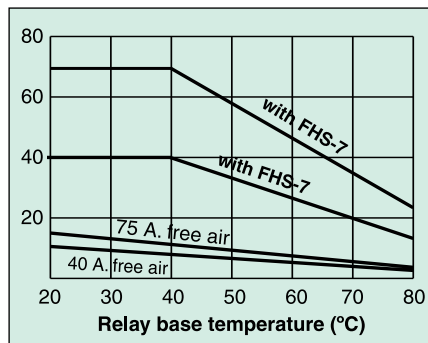
Model Number	Line Voltage Range (Vac)	Load Current Range (Arms)	Min Control Voltage and Current Draw	Max Control Voltage and Current Draw	Release Voltage (Vac)
SSR330AC10	24 to 330	0.05 to 10	100 Vac/2.5 mA	280 Vac/19 mA	20
SSR330AC25	24 to 330	0.10 to 25	100 Vac/2.5 mA	280 Vac/19 mA	20
SSR330AC50	24 to 330	0.10 to 50	100 Vac/2.5 mA	280 Vac/19 mA	20
SSR330AC75	24 to 330	0.15 to 75	100 Vac/2.5 mA	280 Vac/19 mA	20
SSR660AC50	24 to 660	0.15 to 50	100 Vac/2.5 mA	280 Vac/19 mA	20
SSR660AC75	24 to 660	0.15 to 75	100 Vac/2.5 mA	280 Vac/19 mA	20

Derating Curves

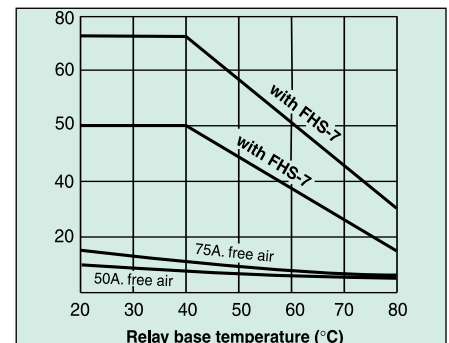
10 and 25 A (330 Vac)



40 and 75 A (330 Vac)



50 and 75 A (660 Vac)



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. Refer to the thermal derating curves shown on the previous page to determine the proper heat sink required.

Solid state relay cycle life is many times that of an equivalently priced mechanical contactor. OMEGA® 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 contactors, it should be noted that a solid state relay is more prone to failure due to overload and improper initial wiring. Solid state relays can fail, contact closed, on overloaded circuits.

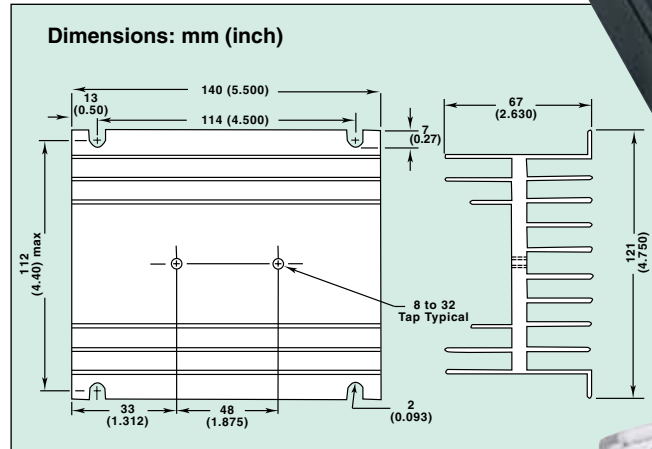
OMEGA® finned heat sinks (FHS) are aluminum fabrications and come complete with tapped mounting holes and screws. Refer to thermal derating curves for heat sink selection.

SSR baseplate to heat sink thermal resistance is affected by use of a thermally conducting compound. OMEGATHERM® OT-201 placed between the heat sink and SSR baseplate will significantly improve the thermal conductivity. It is also suggested that 10”/lb of torque be used on the SSR mounting screws.

SSR330DC10 shown smaller than actual size.



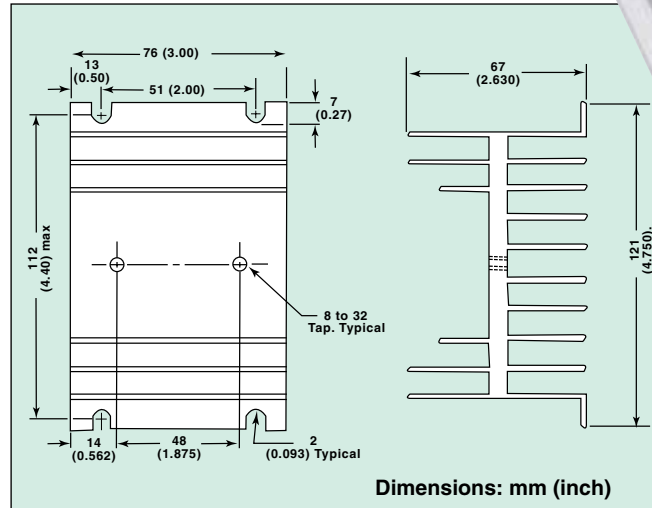
FHS-7 Finned Heat Sink



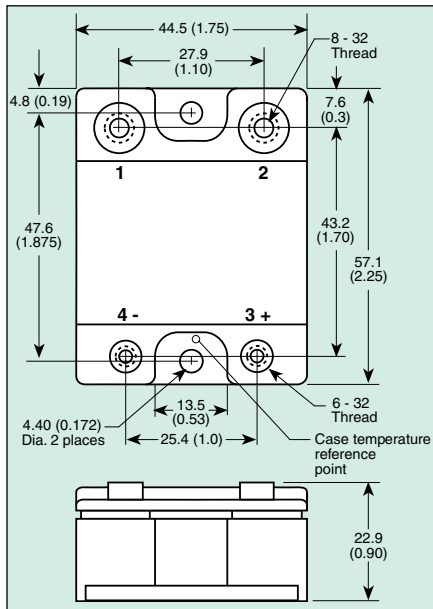
Safety Cover Included!



FHS-8 Finned Heat Sink



SSR330 Series



To Order		
Model No.	Description	Nominal Rating
SSR330DC10	DC control signal (330 Vac line)	10 A
SSR330DC25		25 A
SSR330DC50		50 A
SSR330DC75		75 A
SSR660DC50	DC control signal (660 Vac line)	50 A
SSR660DC75		75 A
SSR330AC10	AC control signal (330 Vac line)	10 A
SSR330AC25		25 A
SSR330AC50		50 A
SSR330AC75		75 A
SSR660AC50	AC control signal (660 Vac line)	50 A
SSR660AC75		75 A
FHS-7	Finned heat sink	1.0°C/W
FHS-8		1.5°C/W

Comes complete with operator's manual and safety cover.
Ordering Example: SSR330DC25, DC control signal, 25 A solid-state relay.

