



# Solid State Relays



## Family SSR-48

Solid State Relays are electronic devices used to switch resistive or inductive loads and have several advantages over standard relays or electromechanical contactors.

Since they have no moving parts, there is no wear or mechanical operating noise. The zero-crossing actuator drastically reduces electrical switching noise. Electrical isolation between input, output, and metal housing simplifies and ensures safer installation and maintenance. Properly installed, they can operate without failure for many years.

**SSR** solid-state relays can be supplied with or without the heatsink.

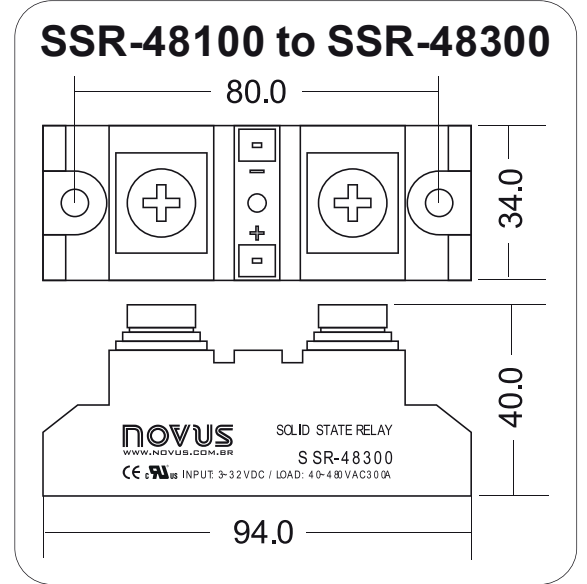
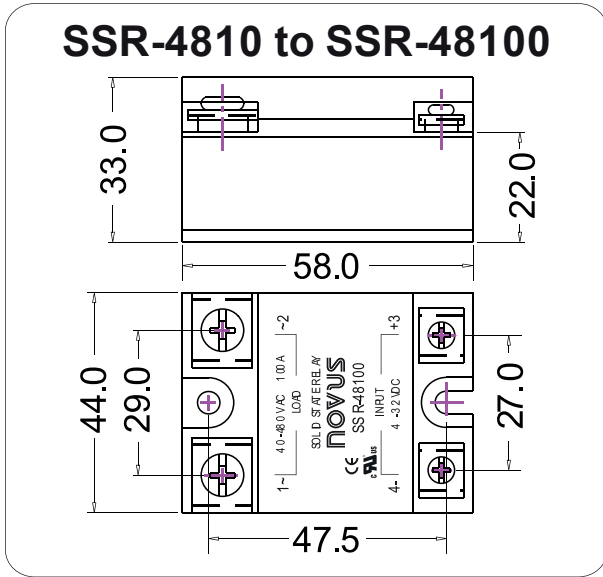
## Features and Specifications

- No electrical noise, sparking, or mechanical wear.
- Triggering requires low power.
- LED status indicator of the trigger signal.
- Metal isolated housing.
- Internal dv/dt protection snubber sized to switch resistive or inductive loads with power factor up to 0.5.
- Zero Crossing: Turns on at zero Volt, turns off at zero Ampere.
- Optical isolation between command and power.

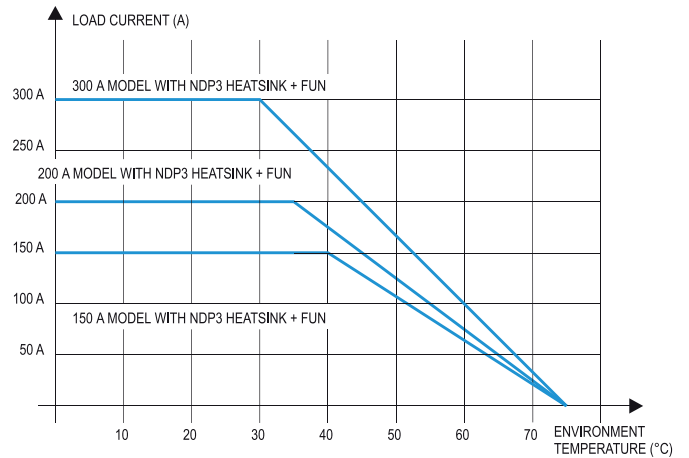
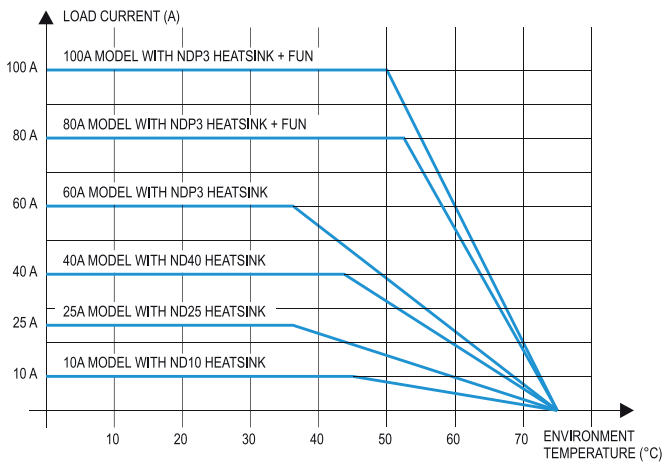
PARAMETER	UNIT	MODEL									
		SSR 4810*	SSR 4825	SSR 4840	SSR 4860	SSR 4880	SSR 48100*	SSR 48100-M	SSR 48150-M	SSR 48200-M	SSR 48300-M
Load current	Arms	10	25	40	60	80	100	100	150	200	300
Load voltage	Vrms	75 to 480			40 to 480			40 to 480			
Conduction voltage	Vrms	1,1 to 1,5			1,6 to 1,8			2,0			
Leakage current	mArms	<14			<5			<5			
Frequency	Hz	47 to 70			47 to 63			47 to 63			
dv/dt	V/μs	50 to 200			300			300			
Control voltage	Vdc	4 to 32			3 to 32			3 to 32			
Control current	mAcc	5 to 12			6 to 25			6 to 20			
Switching time	ms	<10			<10			<10			
Trigger		Zero crossing			Zero crossing			Zero crossing			
Isolation	Vrms	4000			2000			2000			
Housing temperature	°C	-30 to 80			-40 to 80			-40 to 80			

\*Product without UL

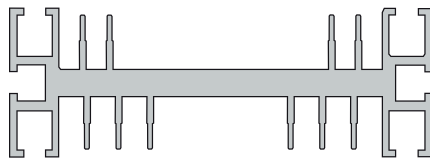
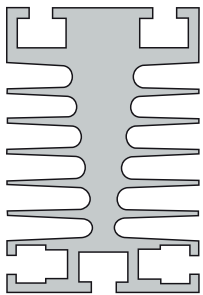
## Dimensions



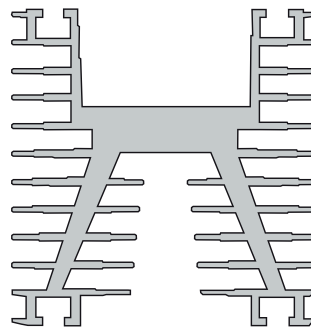
## Heat dissipation features



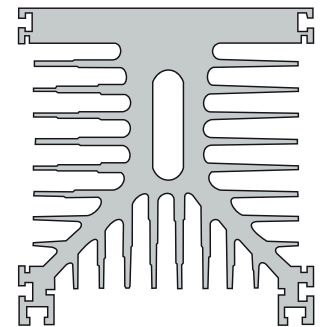
Heatsink ND10  
(65mm:  $R_{thha} = 2,0 \text{ } ^\circ\text{C} / \text{W}$ )



Heatsink ND25  
(120 mm:  $R_{thha} = 1,1 \text{ } ^\circ\text{C} / \text{W}$ )



Heatsink ND40  
(100 mm:  $R_{thha} = 0,65 \text{ } ^\circ\text{C} / \text{W}$ )



Heatsink NDP3  
(120 mm:  $R_{thha} = 0,52 \text{ } ^\circ\text{C} / \text{W}$ )