



## SSR... Series – Single-Phase Solid-State Relay

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Single-phase solid-state relays with 230Vac, 24Vac or 12Vdc input and 440Vac rated output for loads up to 80 amps\*.

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### Range Overview

#### Solid-State Relay

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|-----------------------|------------------------------------|
| <b>SSR-40A-240VAC</b> | ▪ 240Vac input, 440Vac 40A* output |
| <b>SSR-20A-24VAC</b>  | ▪ 24Vac input, 440Vac 20A* output  |
| <b>SSR-40A-24VAC</b>  | ▪ 24Vac input, 440Vac 40A* output  |
| <b>SSR-80A-24VAC</b>  | ▪ 24Vac input, 440Vac 80A* output  |
| <b>SSR-40A-12VDC</b>  | ▪ 12Vdc input, 440Vac 40A* output  |

\* Requires fan-forced cooling and heat sink. Without fan then down-rate 50% for resistive loads, down-rate 70% for inductive loads

#### Heat Sink (ordered as separate item):

- |                |                           |
|----------------|---------------------------|
| <b>HH-060</b>  | ▪ SSR 20A                 |
| <b>HH-061</b>  | ▪ SSR 40A                 |
| <b>HH-061D</b> | ▪ SSR 40A, DIN rail mount |
| <b>HH-062</b>  | ▪ SSR 60A & 80A           |

#### Thermal Paste: (ordered as separate item):

- |               |                |
|---------------|----------------|
| <b>HTC20S</b> | ▪ 20ml syringe |
|---------------|----------------|
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### Installation



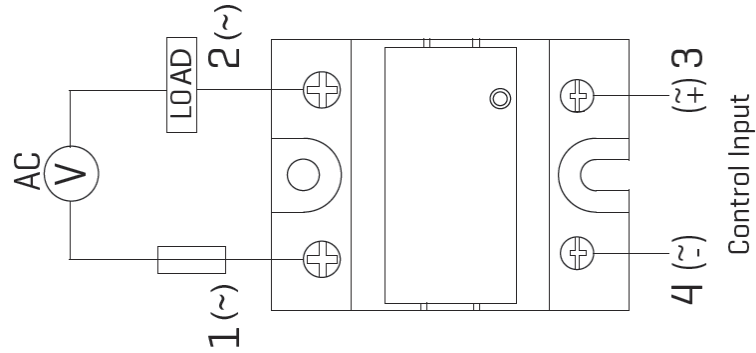
- Always ensure the connected load is within the load limits of the selected SSR
- Stated load is in combination with a heatsink and fan-forced ventilation designed to provide sufficient heat-dissipation. If without fan-forced ventilation, then down rate 50% for resistive loads / down-rate 70% for inductive loads
- The SSR should be mounted securely to the selected heatsink
- Heat-conducting paste must be applied between the SSR and the heatsink to ensure efficient heat transfer takes place
- The radiator fins of the Heat sink must be in vertical orientation to ensure good convection flow for heat dissipation
- Adequate ventilation should be provided in the electrical panel, top and bottom, to ensure heat is dissipated from the heatsink efficiently



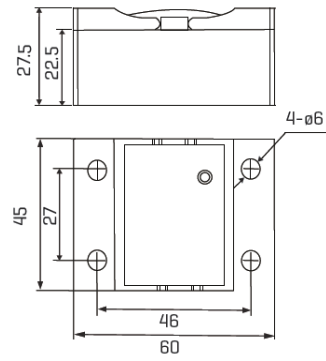
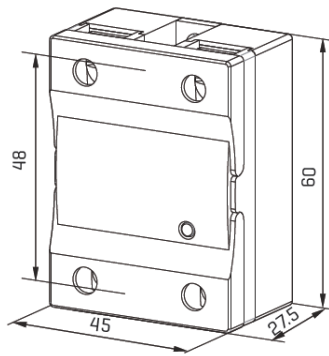
- Only suitably qualified personnel should perform installation or maintenance of these devices
- Always disconnect the mains power supply before carrying out any installation or maintenance of these devices



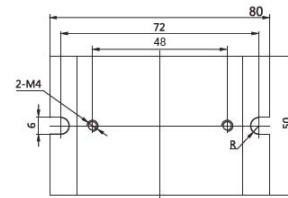
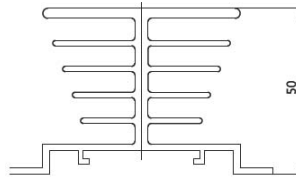
## Connections



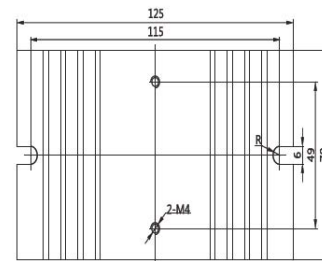
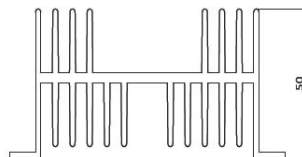
## Dimensions (mm)



HH-060

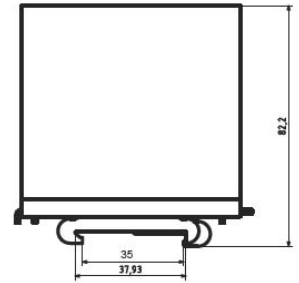
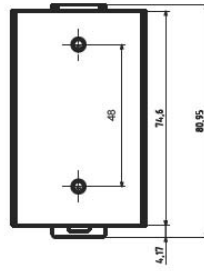
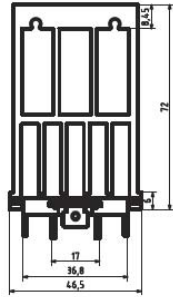


HH-061

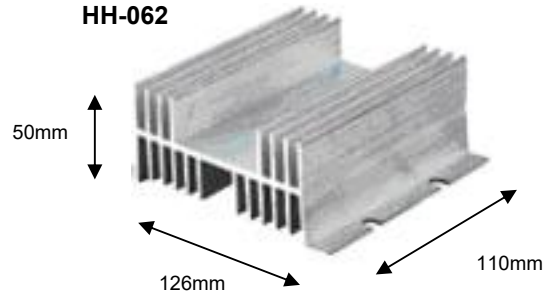




**HH-061D (DIN Rail Mount)**

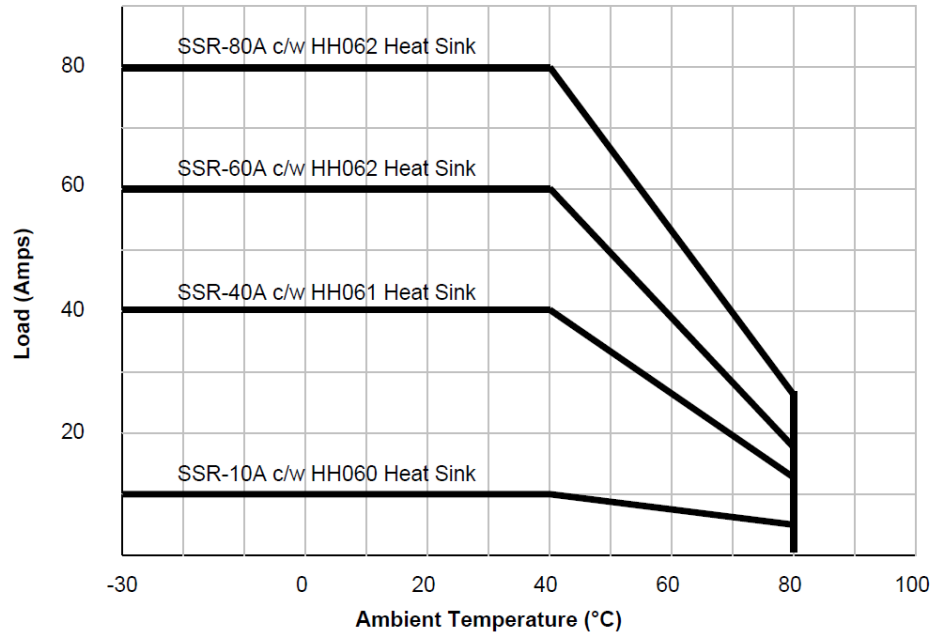


**HH-062**





## Temperature Load Curves (fan-forced cooling)



## Technical Data

Input voltage – 24Vac versions:	18...32Vac
Input voltage – 12Vdc versions:	3...12Vdc
	On state >3Vdc
	Off state <2Vdc
Input current:	6...35mA
Rated output voltage:	440Vac
Rated output current (I <sub>N</sub> ):	10A, 20A, 30A, 40A, 60A, 80A
ON state voltage drop:	<1.8V
Transition time:	<10ms
OFF state leakage current:	<10mA
Isolation voltage:	>2kV
Ambient operating temperature (T <sub>A</sub> ):	-25...+70°C with heat sink and fan-forced cooling. Above 40°C down-rate:
	$I_{MAX} = I_N - (I_N * (T_A - 40) * 0.01875)$
Operating indication:	LED