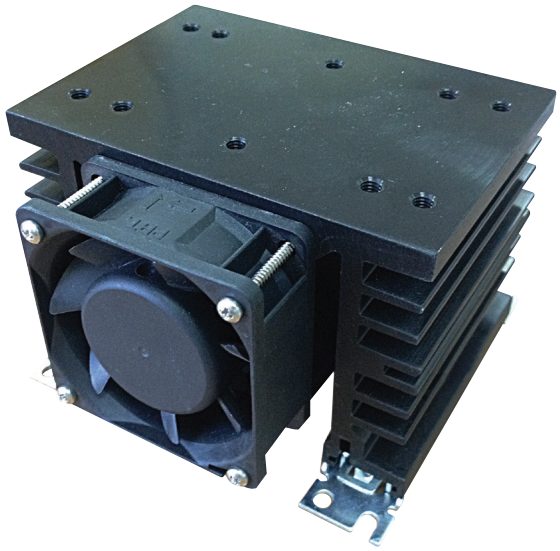
# RHS112AF60-24

## Accessories: Heatsinks



### Main features

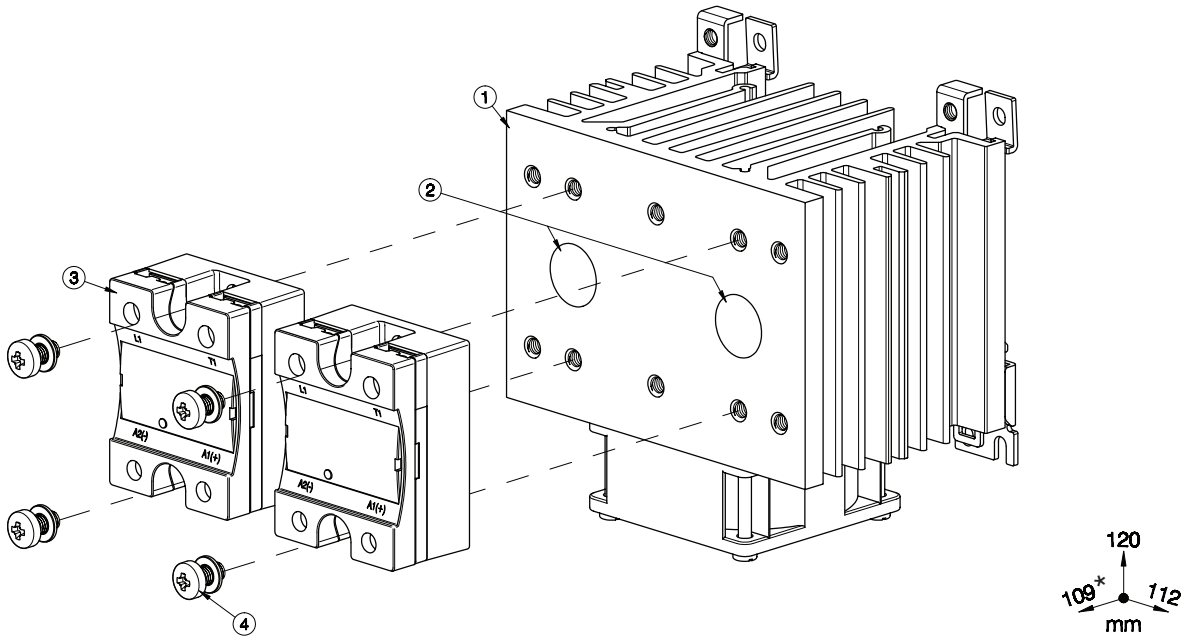
- 0.35°C/W thermal resistance
- Suitable for mounting of 1-phase SSRs or 3-phase SSRs
- Integrated fan (24VDC or 240VAC)
- DIN rail mounting
- Suitable for panel mounting
- Dimensions W x H x D: 112 x 120 x 80 mm
- 24VDC fan
- RoHS compliant

### Description

Heatsink assembly, including fan, suitable for mounting of maximum 2x 1- phase solid state relay (SSR) or 1x 3-phase SSR.
Suffix H18 added to SSR part no. refers to factory mounted heatsink. Conditions apply. Please ask your sales representative for further details.

# Structure

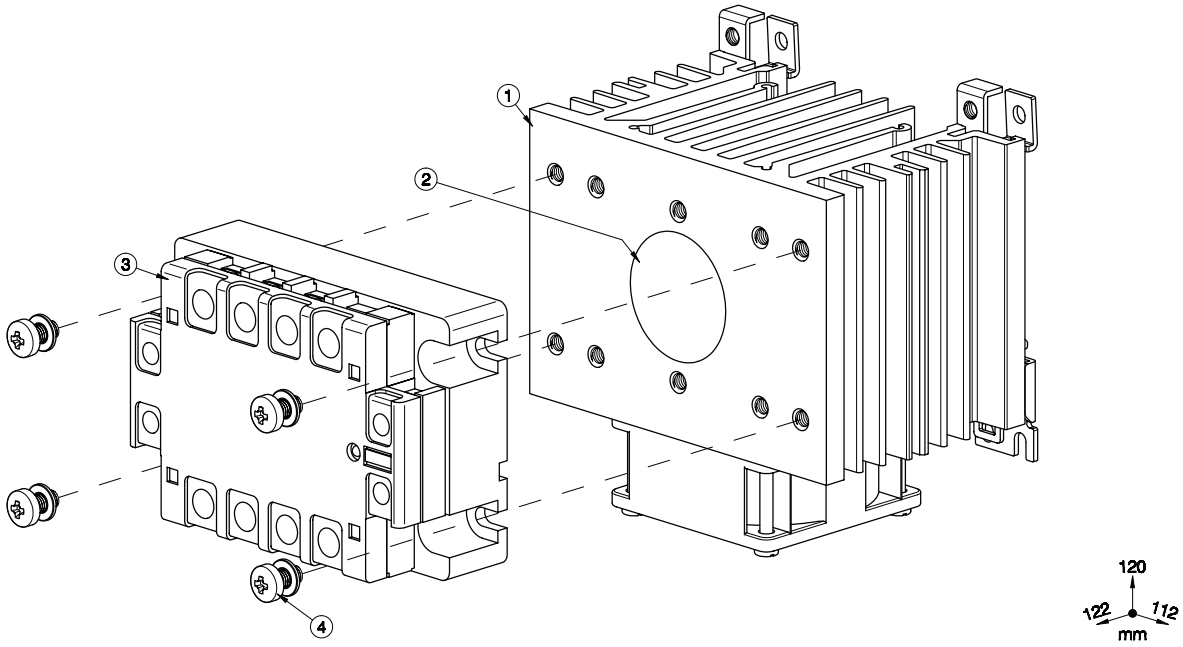
## 1-phase SSR




| Element | Component | Qty | RHS112AF60-24 |
|---|---|---|---|
| 1 | RHS112AF60-24 heatsink assembly | 1 | Provided |
| 2 | Thermal Compound HTS02S | 1 | Provided |
| 3 | 1-phase SSR 45x59mm (max.) | 2 | Not provided |
| 4 | M5x10mm PZ2 + Washer (per SSR) | 2 | Provided (x4) |

Note:
* 113mm for RK..C, 124mm for RK..P (including plug).
Dimensions including the SSR.
When only 1 SSR is utilized it shall be mounted at the centre of the heatsink.

## 3-phase SSR




| Element | Component | Qty | RHS112AF60-24 |
|---|---|---|---|
| 1 | RHS112AF60-24 heatsink assembly | 1 | Provided |
| 2 | Thermal Compound HTS02S | 1 | Provided |
| 3 | 3-phase SSR 104x74mm | 1 | Not provided |
| 4 | M5x10mm PZ2 + Washer (per SSR) | 4 | Provided (x4) |

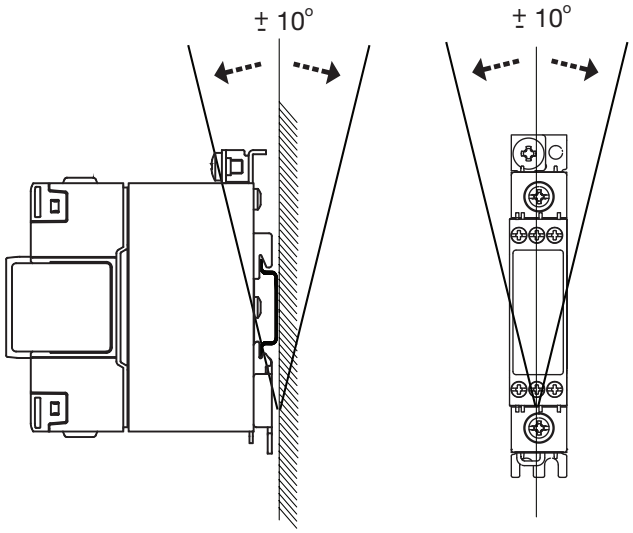
Dimensions including the SSR.

# Features

## General

| | |
|---|---|
| **SSR max. mounting torque** | 1.5 Nm (13.3 lb - in) |
| **Weight (excl. SSR)** | approx. 1020 g |
| **Material** | Aluminium |
| **Finish** | Black anodization |
| **Fan mounting** | Integrated |
| **Fan supply voltage** | 24 VDC |
| **Power consumption** | 1.8 Watts |
| **Current consumption** | 75 mA |

## Mounting position




## Installation

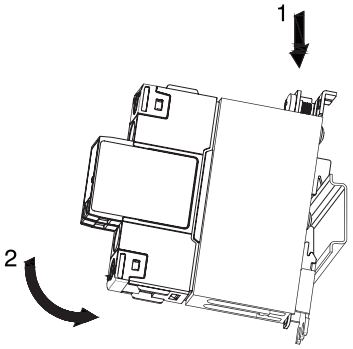



**Fig. 1** *Mounting on DIN rail*

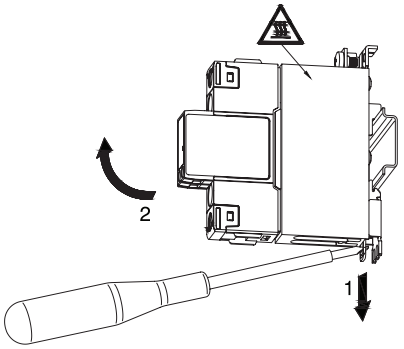



**Fig. 2** *Dismounting from DIN rail*

Illustrations are for example only.

# Recommended maximum current rating (per SSR)

1. The below recommendations are only valid when the assembly (SSR + heatsink) is mounted as shown in the mounting instructions unless otherwise indicated.
2. The indicated ratings are applicable to one SSR, one pole. Please refer to the online selector tool at www.productselection.net for different load currents, surrounding temperatures or multiple units on one heatsink.
3. These recommendations are applicable only with the indicated Carlo Gavazzi thermal interface material between SSR and heatsink. In case a different thermal interface is utilised these recommendations may no longer be valid.

## Pre-attached phase change paste

| 1x 2-pole SSR | Surrounding temperature | | | | | | |
|---|---|---|---|---|---|---|---|
| | **°C** | **20** | **30** | **40** | **50** | **60** | **70** |
| | **°F** | **68** | **86** | **104** | **122** | **140** | **158** |
| **RK 2.. (per pole)** | **50** | 50 | 50 | 50 | 50 | 46 | 39 |
| | **51** | 50 | 50 | 50 | 50 | 50 | 44 |
| | **75** | 75 | 75 | 75 | 70 | 61 | 51.5 |

## Thermal compound, HTS02S

| 1x 3-phase SSR | Surrounding temperature | | | | | | |
|---|---|---|---|---|---|---|---|
| | **°C** | **20** | **30** | **40** | **50** | **60** | **70** |
| | **°F** | **68** | **86** | **104** | **122** | **140** | **158** |
| **RZ3A..** | **25** | 25 | 25 | 25 | 25 | 22.5 | 18.5 |
| | **55** | 49 | 47 | 42.5 | 38 | 33.5 | 28.5 |
| | **75** | 66 | 63 | 57.5 | 52 | 46 | 36 |

## Thermal pad, RZHT

| 1x 3-phase SSR | Surrounding temperature | | | | | | |
|---|---|---|---|---|---|---|---|
| | **°C** | **20** | **30** | **40** | **50** | **60** | **70** |
| | **°F** | **68** | **86** | **104** | **122** | **140** | **158** |
| **RZ3A..** | **25** | 25 | 25 | 25 | 23 | 19 | 15.5 |
| | **55** | 41.5 | 39.5 | 35.5 | 32 | 28 | 24 |
| | **75** | 59 | 56.5 | 51.5 | 46.5 | 41 | 35.5 |

## Thermal compound, HTS02S

| 1x 1-phase SSR | Surrounding temperature | | | | | | |
|---|---|---|---|---|---|---|---|
| | °C<br>°F | 20<br>68 | 30<br>86 | 40<br>104 | 50<br>122 | 60<br>140 | 70<br>158 |
| RA..L<br>RA..T | **10** | 10 | 10 | 10 | 10 | 10 | 10 |
| | **25** | 25 | 25 | 25 | 25 | 22.5 | 19 |
| RA.. | **25** | 25 | 25 | 25 | 25 | 25 | 20 |
| | **50** | 50 | 50 | 50 | 44.5 | 37.5 | 29.5 |
| | **90** | 90 | 85.5 | 76 | 66 | 55 | 43.5 |
| | **110** | 106.5 | 100.5 | 88.5 | 76.5 | 63.5 | 50 |
| RA60.. | **50** | 50 | 50 | 50 | 44 | 37 | 29.5 |
| RA2A.. (per pole) | **25** | 25 | 25 | 25 | 25 | 25 | 25 |
| | **40** | 40 | 40 | 40 | 38.5 | 33.5 | 29 |
| | **25M** | 25 | 25 | 25 | 25 | 25 | 25 |
| | **40M** | 40 | 40 | 40 | 39.5 | 34.5 | 29.5 |
| RS1A.. | **10** | 10 | 10 | 10 | 10 | 9.5 | 7.5 |
| | **25** | 25 | 25 | 25 | 25 | 25 | 25 |
| | **40** | 40 | 40 | 40 | 40 | 40 | 40 |
| RS1A..E | **25** | 25 | 25 | 25 | 22 | 18.5 | 15.5 |
| | **40** | 37.5 | 35.5 | 31.5 | 27.5 | 23.5 | 19.5 |
| RM1A..<br>RM1B..<br>RM1C.. | **25** | 25 | 25 | 25 | 25 | 25 | 25 |
| | **50** | 50 | 50 | 50 | 50 | 50 | 46 |
| | **75** | 75 | 75 | 75 | 75 | 74 | 60.5 |
| | **100** | 100 | 100 | 100 | 99.5 | 87 | 66.5 |
| RM1A60..<br>RM1B60..<br>RM1C60..<br>RM1E60.. | **50** | 50 | 50 | 50 | 50 | 45.5 | 39 |
| RAM1A..<br>RAM1B..<br>RM1E.. | **25** | 25 | 25 | 25 | 25 | 25 | 25 |
| | **50** | 50 | 50 | 50 | 50 | 50 | 46 |
| | **75** | 75 | 75 | 75 | 75 | 74 | 60.5 |
| | **100** | 100 | 100 | 94 | 84 | 74 | 60.5 |
| | **125** | 125 | 123 | 111.5 | 99.5 | 87 | 66.5 |
| RM1D060 | **10** | 10 | 10 | 10 | 10 | 10 | 10 |
| | **20** | 20 | 20 | 20 | 20 | 20 | 20 |
| | **50** | 50 | 50 | 50 | 50 | 50 | 41.5 |
| | **100** | 100 | 100 | 100 | 100 | 87.5 | 68.5 |
| RM1D200 | **20** | 20 | 20 | 20 | 20 | 20 | 20 |
| | **50** | 50 | 50 | 50 | 50 | 50 | 46 |
| RM1D500 | **10** | 10 | 10 | 10 | 10 | 10 | 10 |

## Thermal pad, KK071CUT

| 1x 1-phase SSR | Surrounding temperature | | | | | | |
|---|---|---|---|---|---|---|---|
| | °C<br>°F | 20<br>68 | 30<br>86 | 40<br>104 | 50<br>122 | 60<br>140 | 70<br>158 |
| RA..L<br>RA..T | **10** | 10 | 10 | 10 | 10 | 10 | 10 |
| | **25** | 25 | 25 | 25 | 22.5 | 19.5 | 16 |
| RA.. | **25** | 25 | 25 | 25 | 25 | 22.5 | 17.5 |
| | **50** | 50 | 49.5 | 43.5 | 37.5 | 31 | 24.5 |
| | **90** | 69 | 65 | 57.5 | 49.5 | 41 | 32.5 |
| | **110** | 78.5 | 74.5 | 65 | 56 | 46 | 36 |
| RA60.. | **50** | 50 | 48.5 | 43 | 37 | 31 | 25 |
| RA2A.. (per pole) | **25** | 25 | 25 | 25 | 25 | 25 | 22 |
| | **40** | 40 | 40 | 37 | 33 | 29 | 24.5 |
| | **25M** | 25 | 25 | 25 | 25 | 25 | 22 |
| | **40M** | 40 | 40 | 37.5 | 33.5 | 29.5 | 25 |
| RS1A.. | **10** | 10 | 10 | 10 | 10 | 9 | 6.5 |
| | **25** | 25 | 25 | 25 | 25 | 25 | 25 |
| | **40** | 40 | 40 | 40 | 40 | 40 | 31.5 |
| RS1A..E | **25** | 25 | 24.5 | 21.5 | 19 | 16 | 13.5 |
| | **40** | 31 | 29.5 | 26 | 23 | 19.5 | 16 |
| RM1A..<br>RM1B..<br>RM1C.. | **25** | 25 | 25 | 25 | 25 | 25 | 25 |
| | **50** | 50 | 50 | 50 | 49.5 | 42 | 31.5 |
| | **75** | 75 | 75 | 70.5 | 60 | 48.5 | 36 |
| | **100** | 94 | 90 | 78.5 | 66 | 53 | 39 |
| RM1A60..<br>RM1B60..<br>RM1C60..<br>RM1E60.. | **50** | 50 | 50 | 49 | 44 | 38.5 | 32 |
| RAM1A..<br>RAM1B..<br>RM1E.. | **25** | 25 | 25 | 25 | 25 | 25 | 25 |
| | **50** | 50 | 50 | 50 | 49.5 | 42 | 31.5 |
| | **75** | 75 | 75 | 70.5 | 60 | 48.5 | 36 |
| | **100** | 81.5 | 78 | 70.5 | 60 | 48.5 | 36 |
| | **125** | 94 | 90 | 78.5 | 66 | 53 | 39 |
| RM1D060 | **10** | 10 | 10 | 10 | 10 | 10 | 10 |
| | **20** | 20 | 20 | 20 | 20 | 20 | 20 |
| | **50** | 50 | 50 | 50 | 50 | 48 | 37.5 |
| | **100** | 100 | 100 | 100 | 89 | 75.5 | 58.5 |
| RM1D200 | **20** | 20 | 20 | 20 | 20 | 20 | 18 |
| | **50** | 50 | 50 | 50 | 47.5 | 43.5 | 38.5 |
| RM1D500 | **10** | 10 | 10 | 10 | 10 | 10 | 10 |

# References

## CARLO GAVAZZI compatible components

| Purpose | Component name/code | Notes |
|---|---|---|
| Thermal pads | KK071CUT | Packing qty. 50 pcs, suitable for 1-phase SSRs |
| Thermal pads | RZHT | Packing qty. 10 pcs, suitable for 3-phase SSR |
| Thermal compound | HTS02S | 2.38 ml sachet of silicon based thermal compound |
| Screw Kits | SRWKITM5X10MM | Packing qty. 20 pcs. |
| Fans | RHSF60-24 | 24 VDC, 60x60 mm |

## Further reading

| Information | Where to find it |
|---|---|
| Online heatsink selector tool | https://www.gavazziautomation.com/en-global/products/solid-state-relays/heatsink-selector-tool |
| Accessories | https://gavazziautomation.com/images/PIM/DATASHEET/ENG/SSR_Accessories.pdf |

## Order code

**RHS112AF60-24**

| Code | Option | Description |
|---|---|---|
| R | - | |
| H | - | |
| S | - | |
| 1 | - | |
| 1 | - | |
| 2 | - | |
| A | - | |
| F | - | |
| 60 | - | 60x60 mm fan |
| - | - | |
| 24 | - | 24 VDC fan |

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