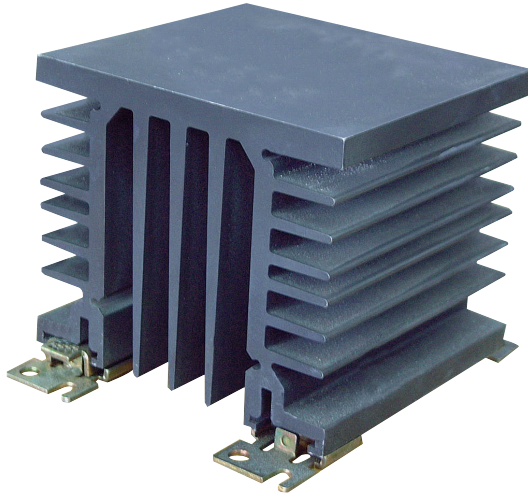


# RHS90A, RHS90AD



## Accessories: Heatsinks



### Main features

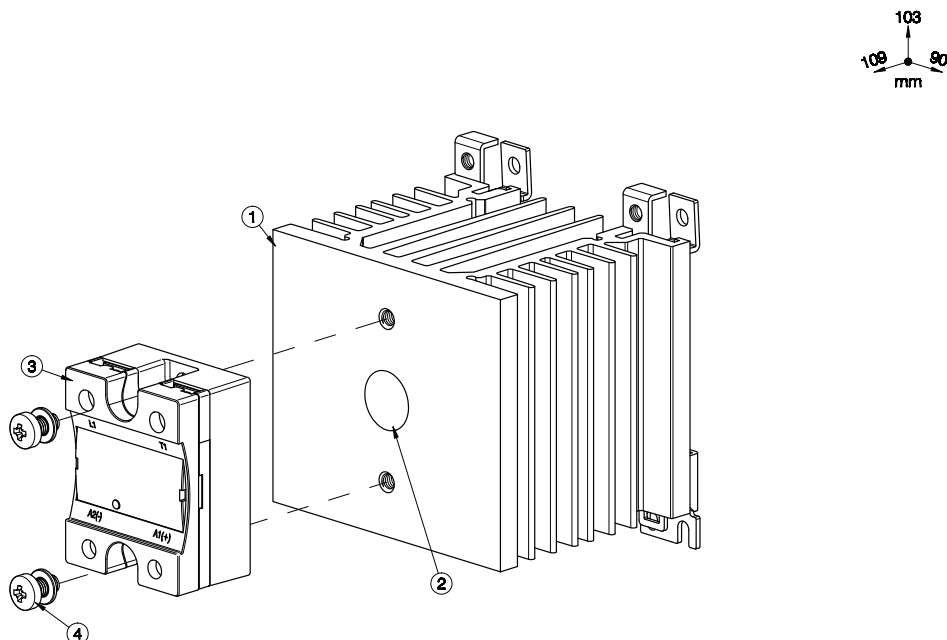
- 0.97°C/W thermal resistance
- Suitable for mounting of 1-phase SSRs
- DIN rail mounting
- Suitable for panel mounting
- Dimensions W x H x D: 90 x 103 x 80 mm
- RoHS compliant

### Description

Heatsink assembly suitable for mounting of 1x 1-phase solid state relay (SSR).

Suffix H16 added to SSR part no. refers to factory mounted heatsink. Conditions apply. Please ask your sales representative for further details.

## Structure



| Element | Component                | Qty | RHS90A       | RHS90AD      |
|---------|--------------------------|-----|--------------|--------------|
| 1       | RHS90A Heatsink Assembly | 1   | Provided     | Provided     |
| 2       | Thermal Compound HTS02S  | 1   | Provided     | Not provided |
| 3       | 1-phase SSR 45x59mm      | 1   | Not provided | Not provided |
| 4       | M5x10mm PZ2 + Washer     | 2   | Provided     | Provided     |

Note:

\* 113mm for RK..C, 124mm for RK..P (including plug).

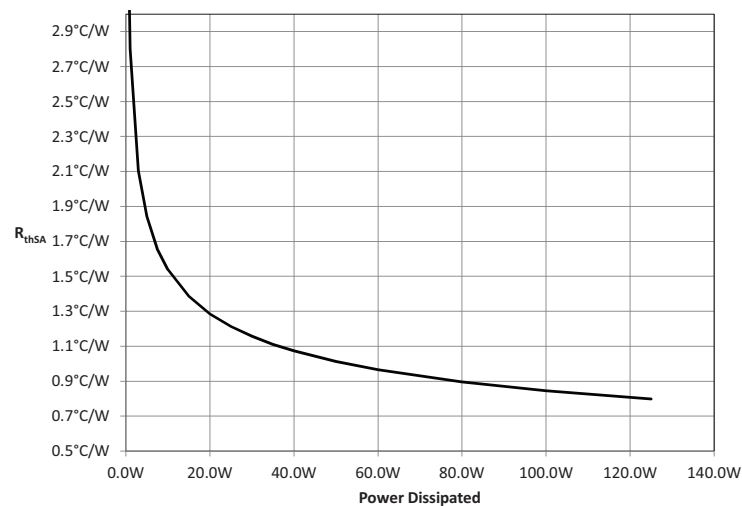
Dimensions including the SSR.

# Features

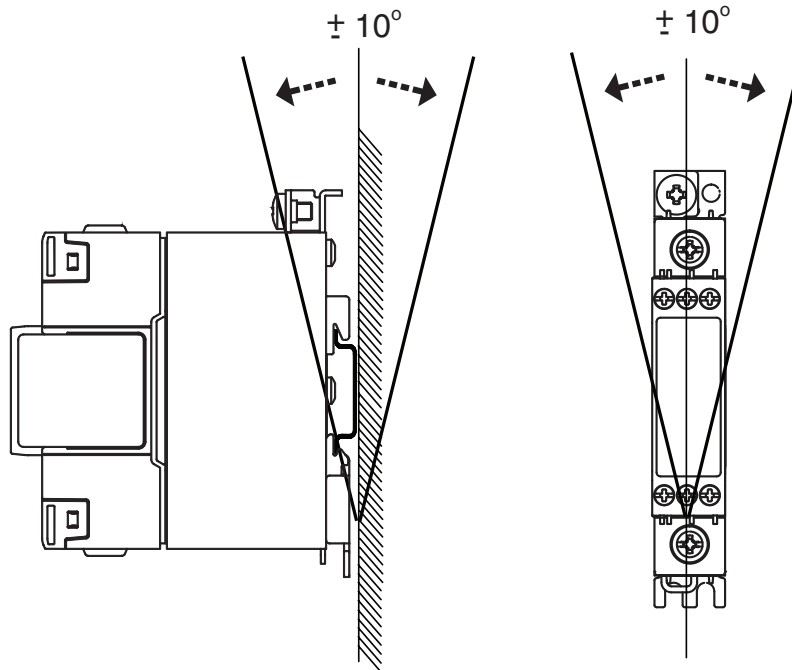
## General

|                                 |                     |
|---------------------------------|---------------------|
| <b>SSR max. mounting torque</b> | 1.5Nm (13.3 lb-in)  |
| <b>Weight (excl. SSR)</b>       | approx. 650g        |
| <b>Material</b>                 | Aluminium           |
| <b>Finish</b>                   | Black anodization   |
| <b>Fan mounting</b>             | Possible: RHSF60-24 |

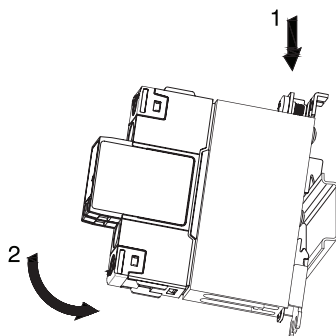
## Thermal resistance curve



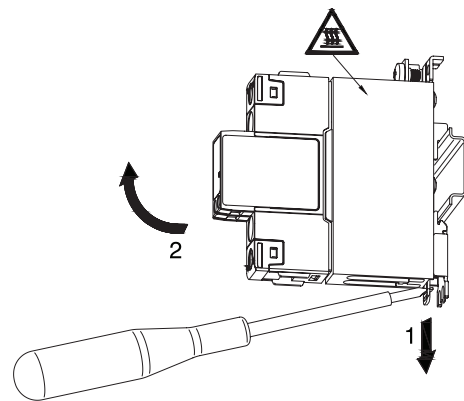
## Mounting position



## 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](http://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<br>2-pole<br>SSR | Surrounding temperature |          |          |           |           |           |           |           |
|---------------------|-------------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|
|                     | °C<br>°F                | 20<br>68 | 30<br>86 | 40<br>104 | 50<br>122 | 60<br>140 | 70<br>158 | 80<br>176 |
| RK 2.. (per pole)   | 50                      | 44.5     | 39.5     | 34.5      | 30        | 25        | 20        | 15        |
|                     | 51                      | 49       | 43.5     | 38        | 32.5      | 27        | 21.5      | 16.5      |
|                     | 75                      | 56       | 50       | 43.5      | 37        | 31        | 24.5      | 18        |

 Thermal compound, HTS02S

| 1x<br>1-phase<br>SSR                         | Surrounding temperature |          |          |           |           |           |           |           |
|----------------------------------------------|-------------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|
|                                              | °C<br>°F                | 20<br>68 | 30<br>86 | 40<br>104 | 50<br>122 | 60<br>140 | 70<br>158 | 80<br>176 |
| RA..L<br>RA..T                               | 10                      | 10       | 10       | 10        | 10        | 10        | 10        | -         |
|                                              | 25                      | 25       | 25       | 23        | 20        | 17        | 13.5      | -         |
| RA..                                         | 25                      | 25       | 25       | 25        | 22.5      | 18.5      | 14        | -         |
|                                              | 50                      | 45       | 42.5     | 36.5      | 30.5      | 24.5      | 18.5      | -         |
|                                              | 90                      | 60.5     | 56.5     | 48.5      | 40.5      | 32.5      | 24.5      | -         |
|                                              | 110                     | 68.5     | 64       | 55        | 45.5      | 36        | 27        | -         |
| RA60..                                       | 50                      | 44.5     | 42       | 36.5      | 30.5      | 25        | 19        | -         |
| RA2A.. (per pole)                            | 25                      | 25       | 25       | 25        | 23        | 18        | 12        | -         |
|                                              | 40                      | 34.5     | 33       | 29.5      | 25.5      | 20        | 13        | -         |
|                                              | 25M                     | 25       | 25       | 25        | 23        | 18        | 12        | -         |
|                                              | 40M                     | 35.5     | 33.5     | 30        | 26        | 19.5      | 13        | -         |
| RS1A..                                       | 10                      | 10       | 10       | 10        | 9.5       | 7.5       | 5.5       | -         |
|                                              | 25                      | 25       | 25       | 25        | 25        | 25        | 18.5      | -         |
|                                              | 40                      | 40.0     | 40.0     | 40        | 38.5      | 29        | 20        | -         |
| RS1A..E                                      | 25                      | 23       | 22       | 19        | 16.5      | 14        | 11        | -         |
|                                              | 40                      | 28       | 26       | 23        | 19.5      | 16.5      | 13.5      | -         |
| RM1A..<br>RM1B..<br>RM1C..                   | 25                      | 25       | 25       | 25        | 25        | 25        | 18.5      | -         |
|                                              | 50                      | 50       | 50       | 47.5      | 38.5      | 29        | 20        | -         |
|                                              | 75                      | 73.5     | 69       | 58        | 46.5      | 35        | 24        | -         |
|                                              | 100                     | 83       | 76.5     | 63.5      | 50.5      | 38        | 25.5      | -         |
| RM1A60..<br>RM1B60..<br>RM1C60..<br>RM1E60.. | 50                      | 49.5     | 47.5     | 42.5      | 37.5      | 30        | 20.5      | -         |
| RAM1A..<br>RAM1B..<br>RM1E..                 | 25                      | 25       | 25       | 25        | 25        | 25        | 18.5      | 10.5      |
|                                              | 50                      | 50       | 50       | 47.5      | 38.5      | 29        | 20        | 11        |
|                                              | 75                      | 73.5     | 69       | 58        | 46.5      | 35        | 24        | 13        |
|                                              | 100                     | 73.5     | 69       | 58        | 46.5      | 35        | 24        | 13        |
|                                              | 125                     | 83       | 76.5     | 63.5      | 50.5      | 38        | 25.5      | 14        |
| RM1D060                                      | 10                      | 10       | 10       | 10        | 10        | 10        | 10        | 10        |
|                                              | 20                      | 20       | 20       | 20        | 20        | 20        | 20        | 10        |
|                                              | 50                      | 50       | 50       | 50        | 50        | 43.5      | 32        | 16.5      |
|                                              | 100                     | 100      | 100      | 97        | 83.5      | 68        | 49.5      | 24.5      |
| RM1D200                                      | 20                      | 20       | 20       | 20        | 20        | 19.5      | 17        | 13.5      |
|                                              | 50                      | 50       | 50       | 46        | 41.5      | 37        | 31.5      | 25.5      |
| RM1D500                                      | 10                      | 10       | 10       | 10        | 10        | 10        | 10        | 9         |

 Thermal pad, KK071CUT

| 1x<br>1-phase<br>SSR                         | Surrounding temperature |          |          |           |           |           |           |           |
|----------------------------------------------|-------------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|
|                                              | °C<br>°F                | 20<br>68 | 30<br>86 | 40<br>104 | 50<br>122 | 60<br>140 | 70<br>158 | 80<br>176 |
| RA..L<br>RA..T                               | 10                      | 10       | 10       | 10        | 10        | 10        | 10        | -         |
|                                              | 25                      | 24       | 23       | 20.5      | 17.5      | 15        | 12        | -         |
| RA..                                         | 25                      | 25       | 25       | 24.5      | 21        | 17        | 13        | -         |
|                                              | 50                      | 40       | 37.5     | 32.5      | 27        | 22        | 16.5      | -         |
|                                              | 90                      | 50       | 47       | 40.5      | 34        | 27        | 20.5      | -         |
|                                              | 110                     | 56       | 52.5     | 45.0      | 37.5      | 30        | 22.5      | -         |
| RA60..                                       | 50                      | 39.5     | 37       | 32.5      | 27.5      | 22.5      | 17        | -         |
| RA2A.. (per pole)                            | 25                      | 25       | 25       | 23.5      | 21        | 18        | 12.5      | -         |
|                                              | 40                      | 31       | 29.5     | 26.5      | 23        | 19.5      | 13.5      | -         |
|                                              | 25M                     | 25       | 25       | 23.5      | 21        | 18.0      | 12.5      | -         |
|                                              | 40M                     | 32       | 30       | 27        | 23.5      | 20        | 13.5      | -         |
| RS1A..                                       | 10                      | 10       | 10       | 10        | 9         | 7         | 5         | -         |
|                                              | 25                      | 25       | 25       | 25        | 25        | 22        | 15.5      | -         |
|                                              | 40                      | 40       | 40       | 38        | 31        | 23.5      | 16.5      | -         |
| RS1A..E                                      | 25                      | 20.5     | 19.5     | 17        | 14.5      | 12.5      | 10        | -         |
|                                              | 40                      | 24       | 22.5     | 19.5      | 17        | 14        | 11.5      | -         |
| RM1A..<br>RM1B..<br>RM1C..                   | 25                      | 25       | 25       | 25        | 25        | 22        | 15.5      | -         |
|                                              | 50                      | 48.5     | 45       | 38        | 31        | 23.5      | 16.5      | -         |
|                                              | 75                      | 56       | 52       | 44        | 35.5      | 27        | 19        | -         |
|                                              | 100                     | 61.5     | 57       | 48        | 38.5      | 29        | 20        | -         |
| RM1A60..<br>RM1B60..<br>RM1C60..<br>RM1E60.. | 50                      | 44       | 42       | 37.5      | 31.5      | 24.5      | 17        | -         |
| RAM1A..<br>RAM1B..<br>RM1E..                 | 25                      | 25       | 25       | 25        | 25        | 22        | 15.5      | 9         |
|                                              | 50                      | 48.5     | 45       | 38        | 31        | 23.5      | 16.5      | 9         |
|                                              | 75                      | 56       | 52       | 44        | 35.5      | 27        | 19        | 10.5      |
|                                              | 100                     | 56       | 52       | 44        | 35.5      | 27        | 19        | 10.5      |
|                                              | 125                     | 61.5     | 57       | 48        | 38.5      | 29        | 20        | 11        |
| RM1D060                                      | 10                      | 10       | 10       | 10        | 10        | 10        | 10        | 9.5       |
|                                              | 20                      | 20       | 20       | 20        | 20        | 20        | 18.5      | 9.5       |
|                                              | 50                      | 50       | 50       | 50        | 49        | 40.5      | 30        | 15.5      |
|                                              | 100                     | 100      | 97.5     | 87.4      | 75        | 61.5      | 45.5      | 23        |
| RM1D200                                      | 20                      | 20       | 20       | 20        | 20        | 18        | 15.5      | 12.5      |
|                                              | 50                      | 46       | 44.5     | 41        | 37        | 33        | 28.5      | 23.5      |
| RM1D500                                      | 10                      | 10       | 10       | 10        | 10        | 10        | 10        | 8.5       |

## References

### CARLO GAVAZZI compatible components

| Purpose          | Component name/code | Notes                                            |
|------------------|---------------------|--------------------------------------------------|
| Thermal pads     | KK071CUT            | Packing qty. 50 pcs.                             |
| Thermal compound | HTS02S              | 2.38 ml sachet of silicon based thermal compound |
| Screw Kits       | SRWKITM5X10MM       | Packing qty. 20 pcs.                             |
| Fans             | RHSF60-24           | 24VDC, 60x60mm                                   |

### Further reading

| Information                   | Where to find it                                                                                                                                                    |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Online heatsink selector tool | <a href="https://gavazziautomation.com/nsc/HQ/EN/solid_state_relays">https://gavazziautomation.com/nsc/HQ/EN/solid_state_relays</a>                                 |
| Accessories                   | <a href="https://gavazziautomation.com/images/PIM/DATASHEET/ENG/SSR_Accessories.pdf">https://gavazziautomation.com/images/PIM/DATASHEET/ENG/SSR_Accessories.pdf</a> |

### Order code



RHS90A



Enter the code entering the corresponding option instead of ☐

| Code                     | Option | Description                   |
|--------------------------|--------|-------------------------------|
| R                        | -      |                               |
| H                        | -      |                               |
| S                        | -      |                               |
| 9                        | -      |                               |
| 0                        | -      |                               |
| A                        | -      |                               |
| <input type="checkbox"/> |        | With thermal compound         |
|                          | D      | Thermal compound not included |



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