

# RHS703F



## Accessories: Heatsinks



### Main features

- 0.37°C/W thermal resistance
- Suitable for mounting of 1-phase SSRs
- DIN rail mounting
- Suitable for panel mounting
- Dimensions W x H x D: 72 x 141 x 75 mm
- RoHS compliant

### Description

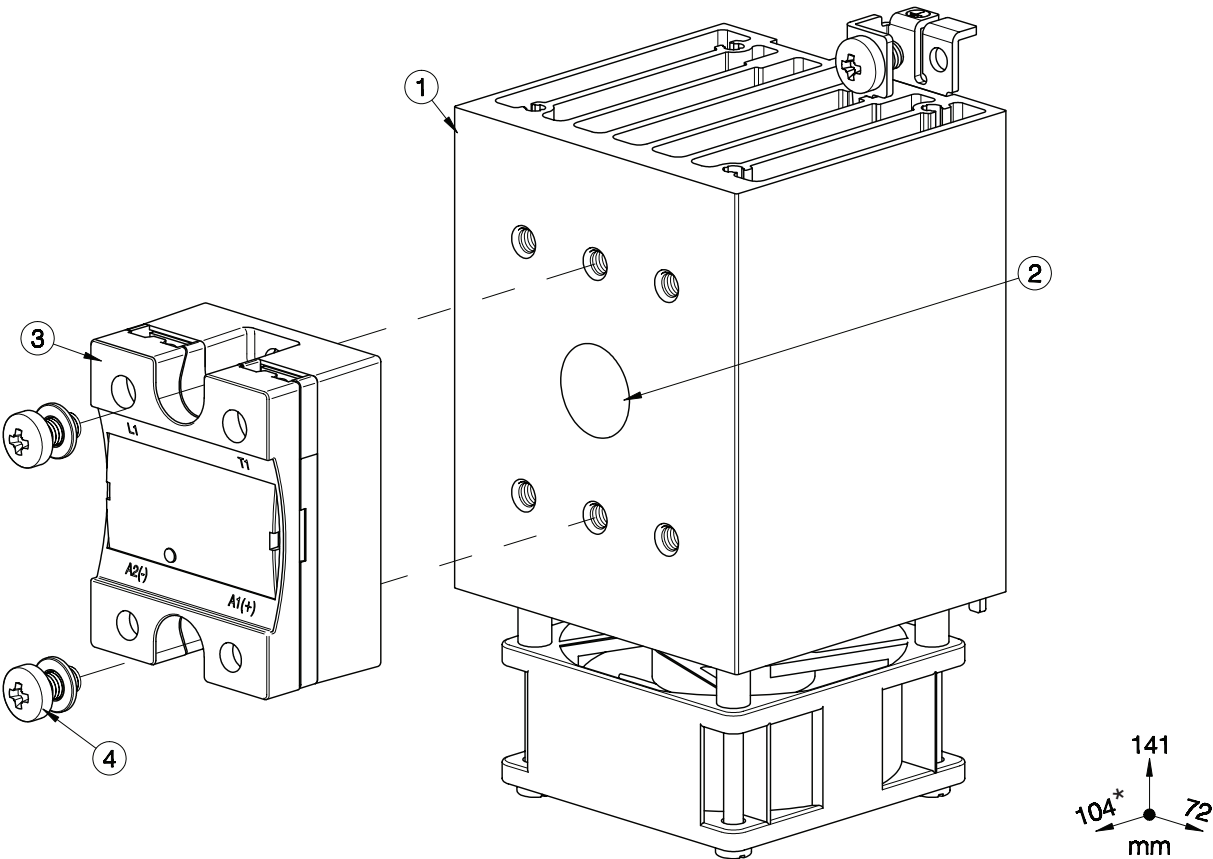
Heatsink assembly, including fan, suitable for mounting of maximum 3x 1-phase solid state relay (SSRs).

Suffix H76 or H77 (for 24VDC or 240VAC fans respectively) added to SSR part no. refers to factory mounted heatsink. Conditions apply. Please ask your sales representative for further details.



Structure

1-phase SSR

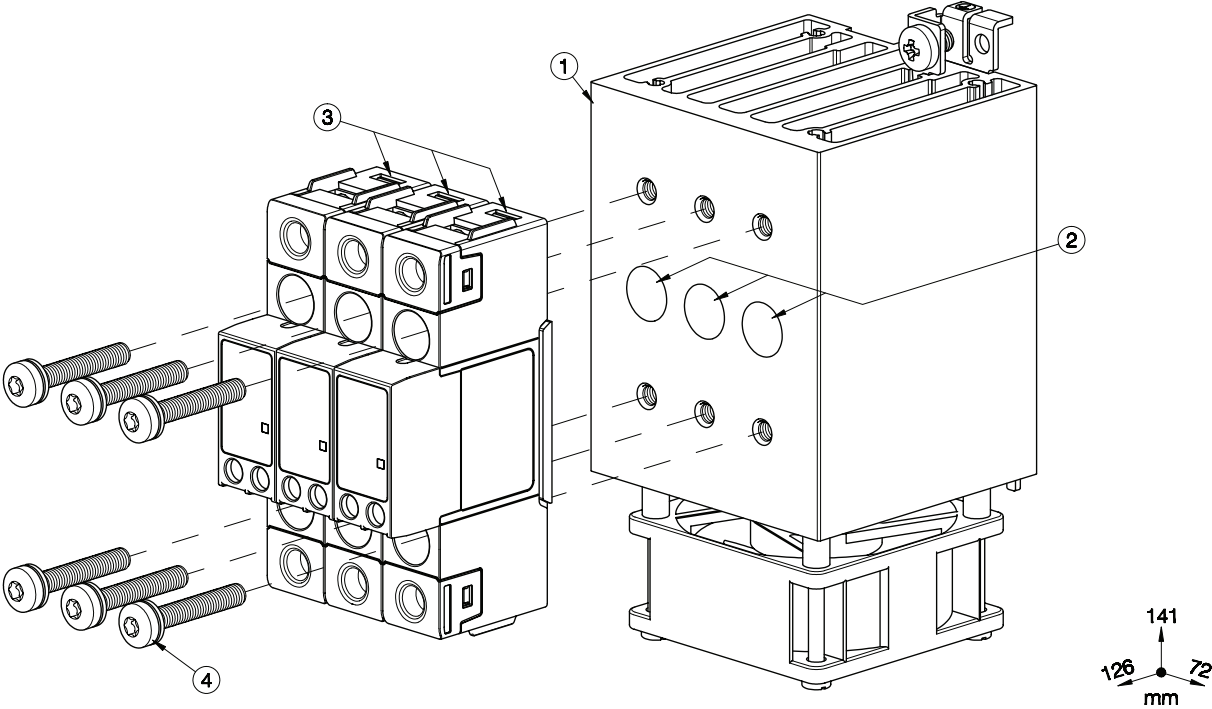


| Element | Component                 | Qty | RHS703F      |
|---------|---------------------------|-----|--------------|
| 1       | RHS703F heatsink assembly | 1   | Provided     |
| 2       | Thermal Compound HTS02S   | 1   | Provided     |
| 3       | 1-phase SSR 45x59mm       | 1   | Not provided |
| 4       | M5x10mm PZ2 + Washer      | 2   | Provided     |

Note:  
\* 108mm for RK..C, 119mm for RK..P (including plug).  
Dimensions including the SSR.



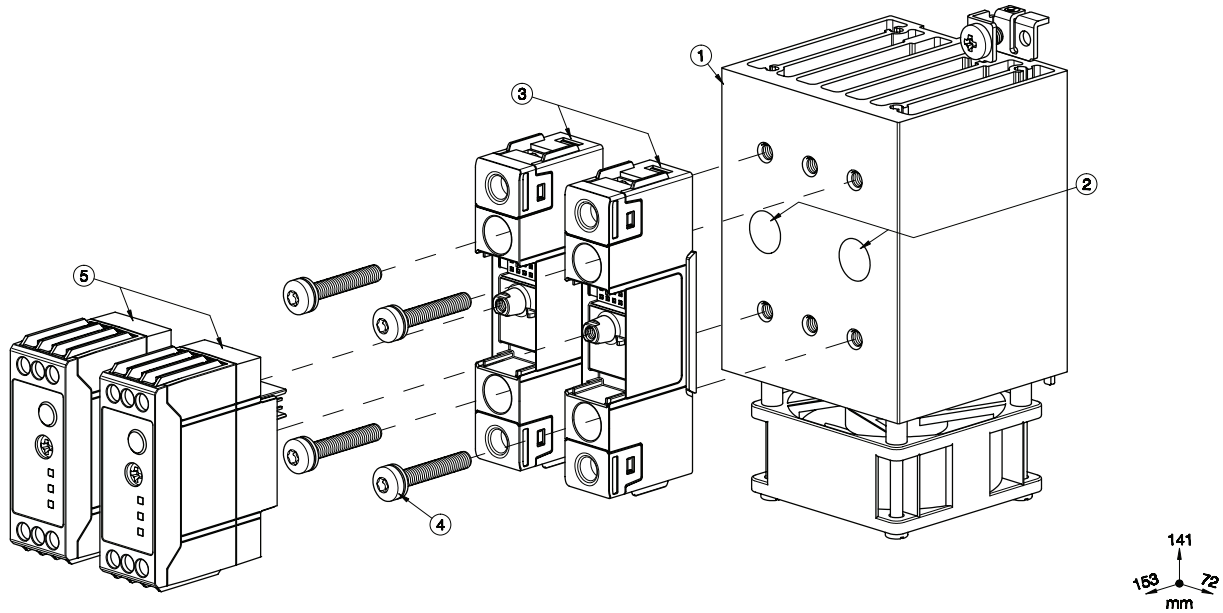
RGS1 18mm Module



| Element | Component                           | Qty | RHS703F       |
|---------|-------------------------------------|-----|---------------|
| 1       | RHS703F heatsink assembly           | 1   | Provided      |
| 2       | Thermal Compound HTS02S             | 1   | Provided      |
| 3       | RGS1 SSR 18x90mm (max.)             | 3   | Not provided  |
| 4       | M5x30mm Torx T20 + Washer (per SSR) | 2   | Provided (x6) |

Note:  
Dimensions including the SSR.

# RGS1 22.5mm Module



| Element | Component                             | Qty | RHS703F       |
|---------|---------------------------------------|-----|---------------|
| 1       | RHS703F heatsink assembly             | 1   | Provided      |
| 2       | Thermal Compound HTS02S               | 1   | Provided      |
| 3       | RGS1 Power Module 18x90mm (max.)      | 2   | Not provided  |
| 4       | M5x30mm Torx T20 + Washer (per SSR)   | 2   | Provided (x6) |
| 5       | RGS1S Control Module 22.5x65mm (max.) | 2   | Not provided  |

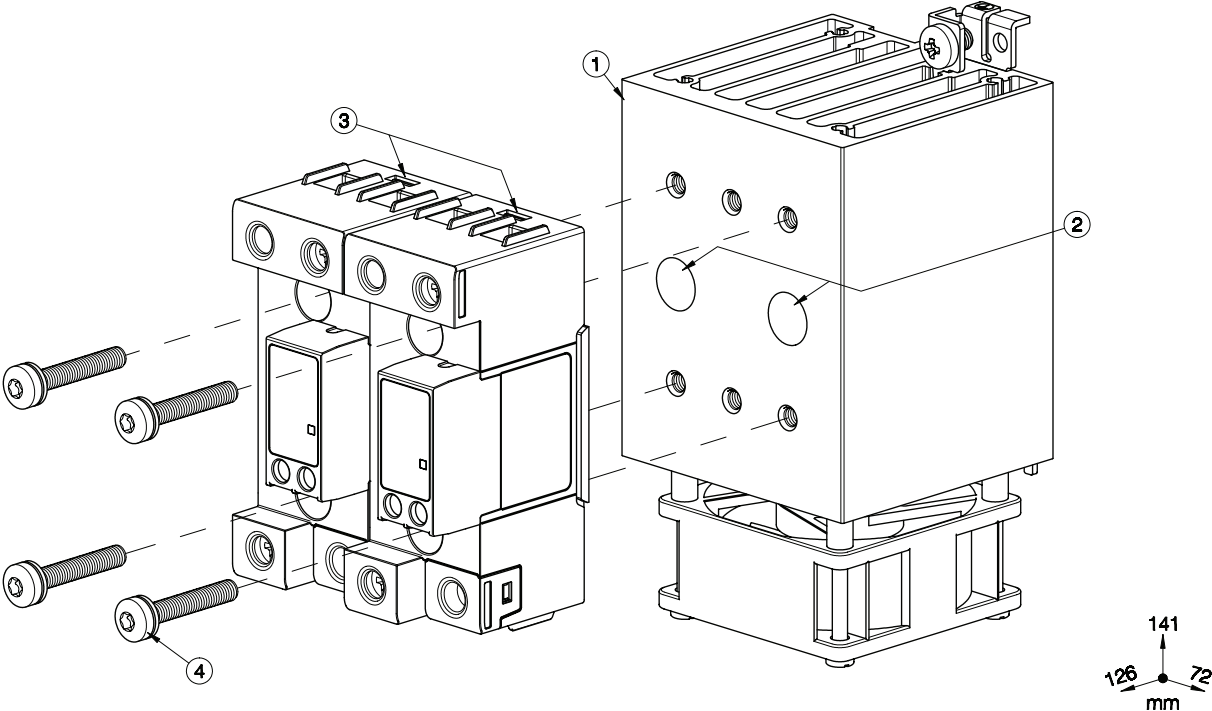
## Note:

Dimensions including the SSR.

When only 1 SSR is utilized it shall be mounted at the centre of the heatsink.



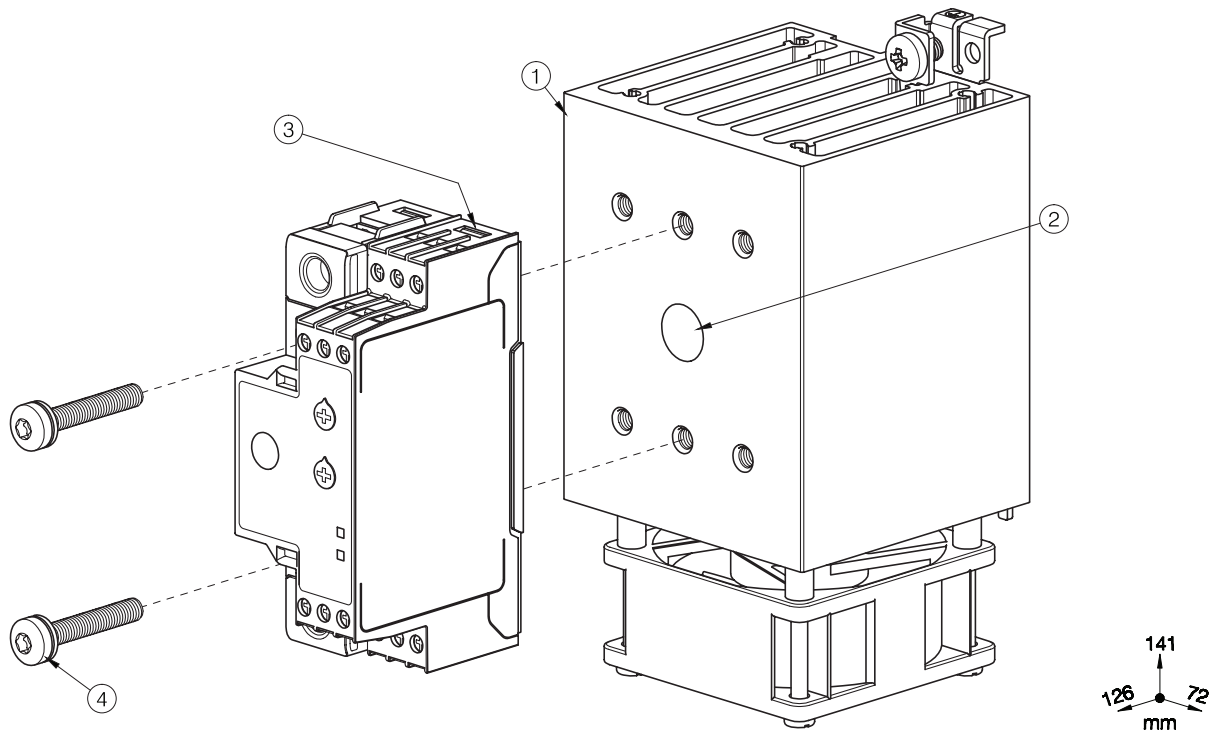
▶ RGS1 35mm Module



| Element | Component                           | Qty | RHS703F       |
|---------|-------------------------------------|-----|---------------|
| 1       | RHS703F heatsink assembly           | 1   | Provided      |
| 2       | Thermal Compound HTS02S             | 1   | Provided      |
| 3       | RGS1 or RGS1S SSR 36x90mm (max.)    | 2   | Not provided  |
| 4       | M5x30mm Torx T20 + Washer (per SSR) | 2   | Provided (x6) |

Note:  
Dimensions including the SSR.  
When only 1 SSR is utilized it shall be mounted at the centre of the heatsink.

## RGS1P 35mm Module



| Element | Component                           | Qty | RHS703F       |
|---------|-------------------------------------|-----|---------------|
| 1       | RHS703F heatsink assembly           | 1   | Provided      |
| 2       | Thermal Compound HTS02S             | 1   | Provided      |
| 3       | RGS1P SSR 35x90mm                   | 1   | Not provided  |
| 4       | M5x30mm Torx T20 + Washer (per SSR) | 2   | Provided (x6) |

Note:

Dimensions including the SSR.

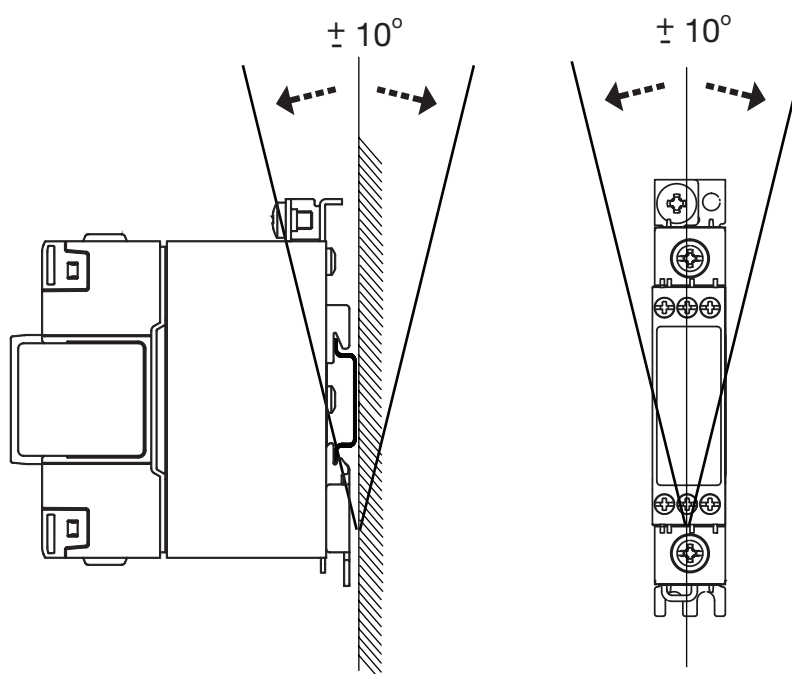
When only 1 SSR is utilized it shall be mounted at the centre of the heatsink.

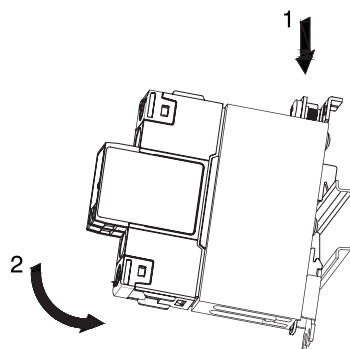
## Features

### General

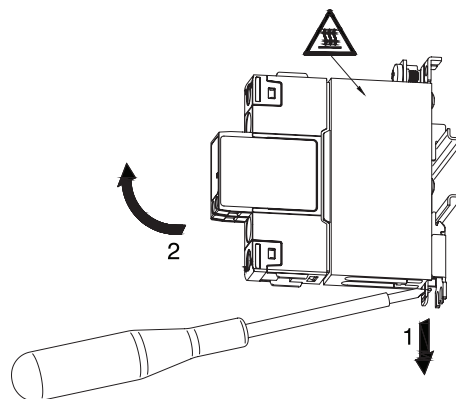
|                                                              |                                 |
|--------------------------------------------------------------|---------------------------------|
| <b>SSR max. mounting torque</b>                              | 1.5Nm (13.3 lb-in)              |
| <b>PE screw<br/>(Not provided with assembly)</b>             | M5, max. 1.5Nm (13.3 lb-in)     |
| <b>Weight (excl. SSR)</b>                                    | approx. 710g                    |
| <b>Material</b>                                              | Aluminium                       |
| <b>Finish</b>                                                | Black anodization               |
| <b>Fan mounting</b>                                          | Integrated                      |
| <b>Fan supply voltage</b><br>RHS703F60-24<br>RHS703F60-230   | 24 VDC<br>220 - 240VAC, 50/60Hz |
| <b>Power consumption:</b><br>RHS703F60-24<br>RHS703F60-230   | 1.8 Watts<br>4.1/4.4 Watts      |
| <b>Current consumption:</b><br>RHS703F60-24<br>RHS703F60-230 | 75 mA<br>198 mA                 |

### Mounting position



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

Illustrations are for example only.

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



## 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 pad, RKHT

| 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                      | 50       | 50       | 50        | 50        | 44.5      | 38        | 30.5      |
|                     | 51                      | 50       | 50       | 50        | 50        | 50        | 43        | 34.5      |
|                     | 75                      | 75       | 75       | 75        | 68        | 59        | 50        | 40.5      |

 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 |
| RD..                                         | 1                       | 1        | 1        | 1         | 1         | 1         | 1         |
|                                              | 5                       | 5        | 5        | 5         | 5         | 5         | 5         |
| RA..L<br>RA..T                               | 10                      | 10       | 10       | 10        | 10        | 10        | 10        |
|                                              | 25                      | 25       | 25       | 25        | 25        | 22.5      | 18.5      |
| RA..                                         | 25                      | 25       | 25       | 25        | 25        | 25        | 20        |
|                                              | 50                      | 50       | 50       | 50        | 44        | 37        | 29        |
|                                              | 90                      | 89       | 84.5     | 74.5      | 64.5      | 54        | 43        |
|                                              | 110                     | 104.5    | 98.5     | 87        | 75        | 62        | 49        |
| RA60..                                       | 50                      | 50       | 50       | 50        | 43.5      | 36.5      | 29.5      |
| RA2A.. (per pole)                            | 25                      | 25       | 25       | 25        | 25        | 25        | 25        |
|                                              | 40                      | 40       | 40       | 40        | 37.5      | 33        | 28.5      |
|                                              | 25M                     | 25       | 25       | 25        | 25        | 25        | 25        |
|                                              | 40M                     | 40       | 40       | 40        | 39        | 34        | 29        |
| 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        | 21.5      | 18.5      | 15.5      |
|                                              | 40                      | 37       | 35       | 31        | 27.5      | 23.5      | 19.5      |
| RM1A..<br>RM1B..<br>RM1C..                   | 25                      | 25       | 25       | 25        | 25        | 25        | 25        |
|                                              | 50                      | 50       | 50       | 50        | 50        | 50        | 45.5      |
|                                              | 75                      | 75       | 75       | 75        | 75        | 72.5      | 58        |
|                                              | 100                     | 100      | 100      | 100       | 97.5      | 85        | 64        |
| RM1A60..<br>RM1B60..<br>RM1C60..<br>RM1E60.. | 50                      | 50       | 50       | 50        | 50        | 45        | 39        |
| RAM1A..<br>RAM1B..<br>RM1E..                 | 25                      | 25       | 25       | 25        | 25        | 25        | 25        |
|                                              | 50                      | 50       | 50       | 50        | 50        | 50        | 45.5      |
|                                              | 75                      | 75       | 75       | 75        | 75        | 72.5      | 58        |
|                                              | 100                     | 100      | 100      | 92.5      | 82.5      | 72.5      | 58        |
|                                              | 125                     | 125      | 120.5    | 109       | 97.5      | 85        | 64        |
| RGS1..E<br>RGS1P..E (per pole)               | 25                      | 25       | 25       | 25        | 25        | 25        | 25        |
|                                              | 50                      | 50       | 50       | 50        | 50        | 50        | 50        |
|                                              | 51                      | 50       | 50       | 50        | 50        | 50        | 50        |
|                                              | 75                      | 75       | 75       | 75        | 75        | 69        | 59.5      |
|                                              | 90<br>91<br>92          | 90       | 90       | 90        | 84.5      | 74.5      | 64.5      |
| RGS1..U                                      | 20                      | 20       | 20       | 20        | 20        | 20        | 20        |
|                                              | 30                      | 30       | 30       | 30        | 30        | 30        | 30        |
| RGS1S..E                                     | 20                      | 23       | 23       | 23        | 23        | 23        | 23        |
|                                              | 30                      | 30       | 30       | 30        | 30        | 30        | 30        |
|                                              | 31                      | 30       | 30       | 30        | 30        | 30        | 30        |
|                                              | 92                      | 90       | 90       | 90        | 84.5      | 74.5      | 64.5      |
| RGS1S..U                                     | 61                      | 65       | 65       | 65        | 65        | 65        | 64.5      |
| RGS1D..                                      | 15                      | 15       | 15       | 15        | 15        | 15        | 15        |
|                                              | 25                      | 25       | 25       | 25        | 25        | 25        | 25        |

Thermal pad KK071CUT for 1-phase SSRs, RGHT for RG SSRs

| 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 |
| RD..                                         | 1                       | 1        | 1        | 1         | 1         | 1         | 1         |
|                                              | 5                       | 5        | 5        | 5         | 5         | 5         | 5         |
| RA..L<br>RA..T                               | 10                      | 10       | 10       | 10        | 10        | 10        | 10        |
|                                              | 25                      | 25       | 25       | 25        | 22.5      | 19        | 16        |
| RA..                                         | 25                      | 25       | 25       | 25        | 25        | 22        | 17.5      |
|                                              | 50                      | 50       | 49       | 43        | 37        | 31        | 24        |
|                                              | 90                      | 68       | 64.5     | 57        | 49        | 40.5      | 32        |
|                                              | 110                     | 78       | 73.5     | 64.5      | 55        | 45.5      | 35.5      |
| RA60..                                       | 50                      | 50       | 48       | 42.5      | 37        | 31        | 24.5      |
| RA2A.. (per pole)                            | 25                      | 25       | 25       | 25        | 25        | 25        | 22        |
|                                              | 40                      | 40       | 40       | 36.5      | 32.5      | 28.5      | 24.5      |
|                                              | 25M                     | 25       | 25       | 25        | 25        | 25        | 22        |
|                                              | 40M                     | 40       | 40       | 37.5      | 33.5      | 29        | 25        |
| RS1A..                                       | 10                      | 10       | 10       | 10        | 10        | 9         | 6.5       |
|                                              | 25                      | 25       | 25       | 25        | 25        | 25        | 25        |
|                                              | 40                      | 40       | 40       | 40        | 40        | 38        | 31.5      |
| RS1A..E                                      | 25                      | 25       | 24.5     | 21.5      | 18.5      | 16        | 13        |
|                                              | 40                      | 31       | 29.5     | 26        | 22.5      | 19.5      | 16        |
| RM1A..<br>RM1B..<br>RM1C..                   | 25                      | 25       | 25       | 25        | 25        | 25        | 25        |
|                                              | 50                      | 50       | 50       | 48.5      | 43.5      | 38        | 31.5      |
|                                              | 75                      | 75       | 75       | 69.5      | 59        | 47.5      | 35.5      |
|                                              | 100                     | 93       | 89       | 77        | 65        | 52        | 38.5      |
| RM1A60..<br>RM1B60..<br>RM1C60..<br>RM1E60.. | 50                      | 50       | 50       | 48.5      | 43.5      | 38        | 31.5      |
| RAM1A..<br>RAM1B..<br>RM1E..                 | 25                      | 25       | 25       | 25        | 25        | 25        | 25        |
|                                              | 50                      | 50       | 50       | 50        | 49        | 41        | 31        |
|                                              | 75                      | 75       | 75       | 69.5      | 59        | 47.5      | 35.5      |
|                                              | 100                     | 80.5     | 77       | 69.5      | 59        | 47.5      | 35.5      |
|                                              | 125                     | 93       | 89       | 77        | 65        | 52        | 38.5      |
| RGS1..E<br>RGS1P..E (per pole)               | 25                      | 25       | 25       | 25        | 25        | 25        | 25        |
|                                              | 50                      | 50       | 50       | 50        | 47.5      | 42        | 36        |
|                                              | 51                      | 50       | 50       | 50        | 46.5      | 41        | 35.5      |
|                                              | 75                      | 70       | 67       | 60.5      | 54.5      | 47.5      | 40.5      |
|                                              | 90<br>91<br>92          | 74.5     | 71       | 64.5      | 58        | 51        | 43.5      |
| RGS1..U                                      | 20                      | 20       | 20       | 20        | 20        | 20        | 20        |
|                                              | 30                      | 30       | 30       | 30        | 30        | 30        | 30        |
| RGS1S..E                                     | 20                      | 23       | 23       | 23        | 23        | 23        | 23        |
|                                              | 30                      | 30       | 30       | 30        | 30        | 30        | 30        |
|                                              | 31                      | 30       | 30       | 30        | 30        | 30        | 30        |
|                                              | 92                      | 74.5     | 71       | 64.5      | 58        | 51        | 43.5      |
| RGS1S..U                                     | 61                      | 65       | 65       | 64.5      | 58        | 51        | 43.5      |
| RGS1D..                                      | 15                      | 15       | 15       | 15        | 15        | 15        | 15        |
|                                              | 25                      | 25       | 25       | 25        | 24        | 21        | 18        |

## References

### CARLO GAVAZZI compatible components

| Purpose                  | Component name/code | Notes                                          |
|--------------------------|---------------------|------------------------------------------------|
| Thermal pads             | KK071CUT            | Packing qty. 50 pcs, suitable for 1-phase SSRs |
|                          | RGHT                | Packing qty. 10 pcs, suitable for RG SSRs      |
| Phase change thermal pad | RKHT                | Packing qty. 10 pcs, suitable for RK series    |
| Thermal compound         | HTS02S              | 2ml syringe of silicone based thermal compound |
| Fans                     | RHSF60-24           | 24 VDC, 60x60mm                                |
|                          | RHSF60-230          | 240 VAC, 60x60mm                               |
| Screw Kits               | SRWKITM5X10MM       | Packing qty. 20 pcs.                           |
|                          | SRWKITM5X30MM       | Packing qty. 20 pcs.                           |

### Further reading

| Information                   | Where to find it                                                                                                                                          |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Online heatsink selector tool | <a href="http://www.productselection.net/heatsink/heatsinkSelector.php?LANG=UK">http://www.productselection.net/heatsink/heatsinkSelector.php?LANG=UK</a> |
| Accessories                   | <a href="http://www.productselection.net/Pdf/UK/SSR_Accessories.pdf">http://www.productselection.net/Pdf/UK/SSR_Accessories.pdf</a>                       |

### Order code



RHS703F60- ☐

Enter the code entering the corresponding option instead of ☐

| Code                     | Option | Description    |
|--------------------------|--------|----------------|
| R                        | -      |                |
| H                        | -      |                |
| S                        | -      |                |
| 7                        | -      |                |
| 0                        | -      |                |
| 3                        | -      |                |
| F                        | -      |                |
| 6                        | -      |                |
| 0                        | -      |                |
| -                        | -      |                |
| <input type="checkbox"/> | 24     | For 24VDC fan  |
|                          | 230    | For 240VAC fan |



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