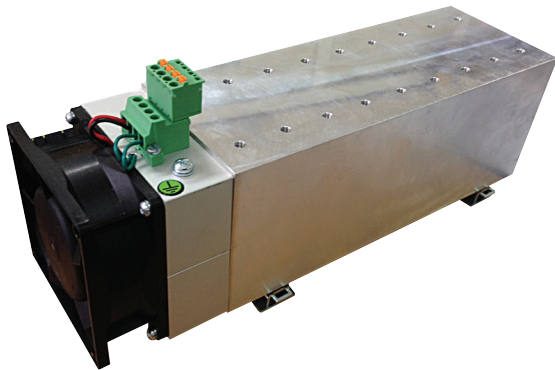


# RHS28009F80-24P



## Accessories: Heatsinks



### Main features

- 0.12°C/W thermal resistance
- Suitable for mounting of 9x 1-phase SSRs
- DIN rail mounting
- Dimensions W x H x D: 280 x 87 x 122 mm
- Integrated overtemperature protection
- RoHS compliant

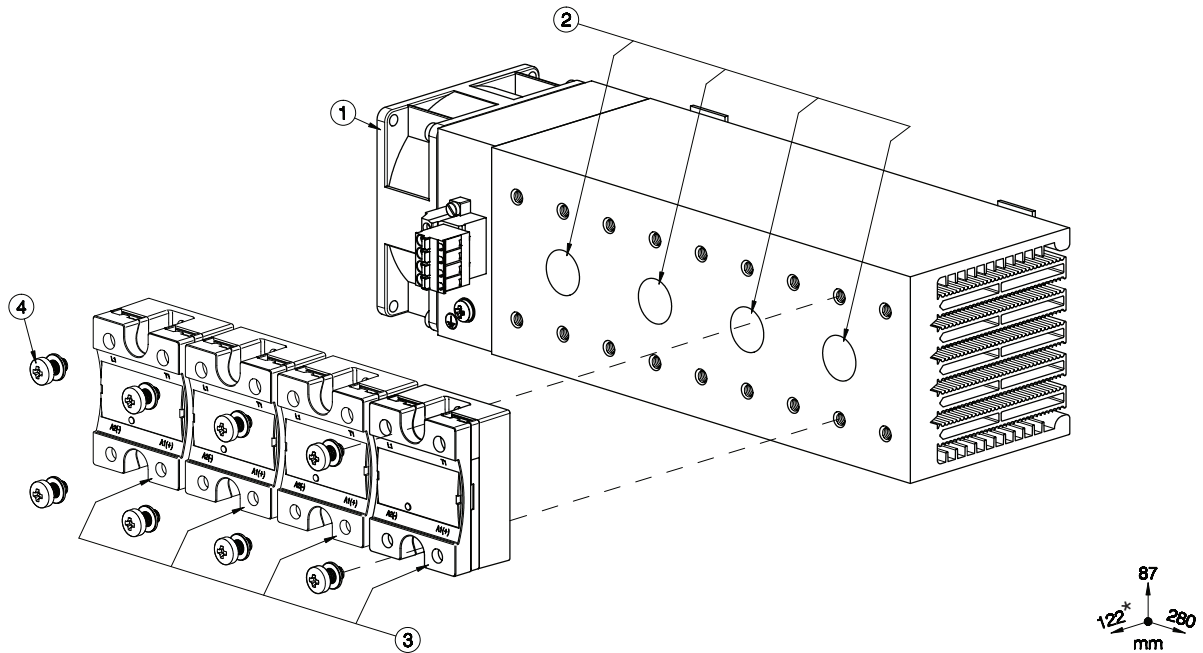
### Description

Heatsink assembly, including fan and overtemperature protection, suitable for mounting a maximum of 9x 1-phase solid state relays (SSRs).

Suffix H41 added to SSR part no. refers to factory mounted heatsink. Conditions apply. Please ask your sales representative for further details.

# Structure

## 1-phase SSR



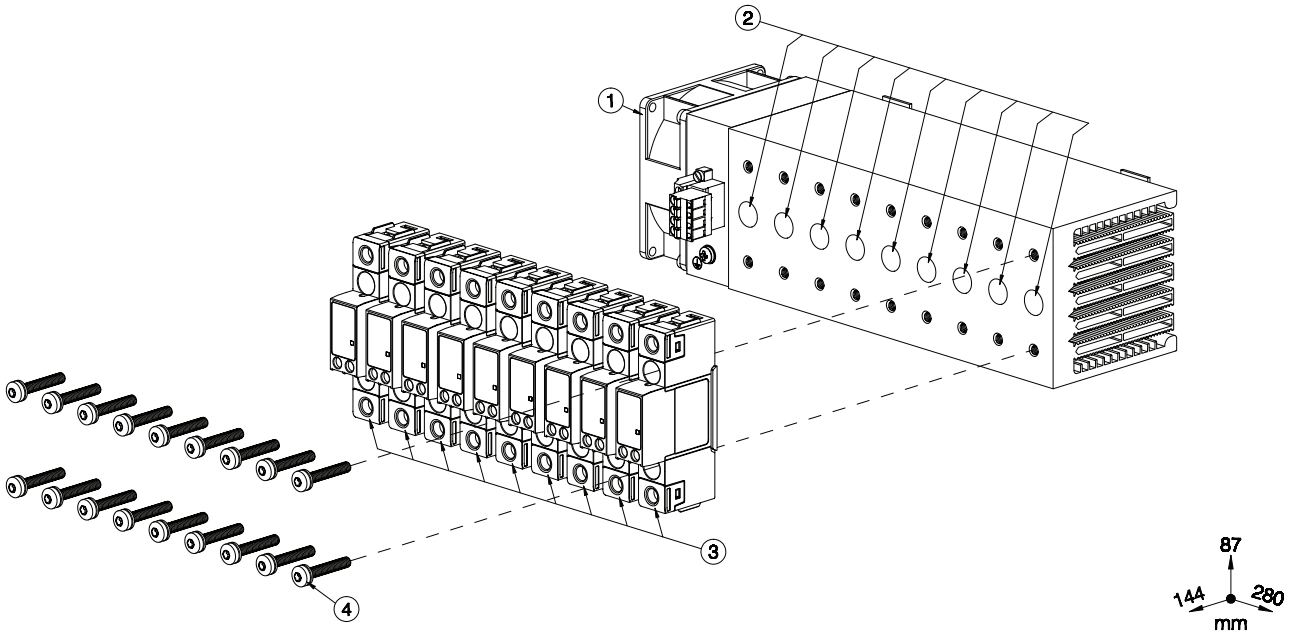
Element	Component	Qty	RHS28009F
1	RHS28009F80-24P heatsink assembly	1	Provided
2	Thermal Compound HTS02S	1	Provided
3	1-phase SSR 45x59mm (max.)	4	Not provided
4	M5x10mm PZ2 + Washer (per SSR)	2	Provided (x8)

Note:

\* 126mm for RK..C, 137mm for RK..P (including plug).

Dimensions including the SSR.

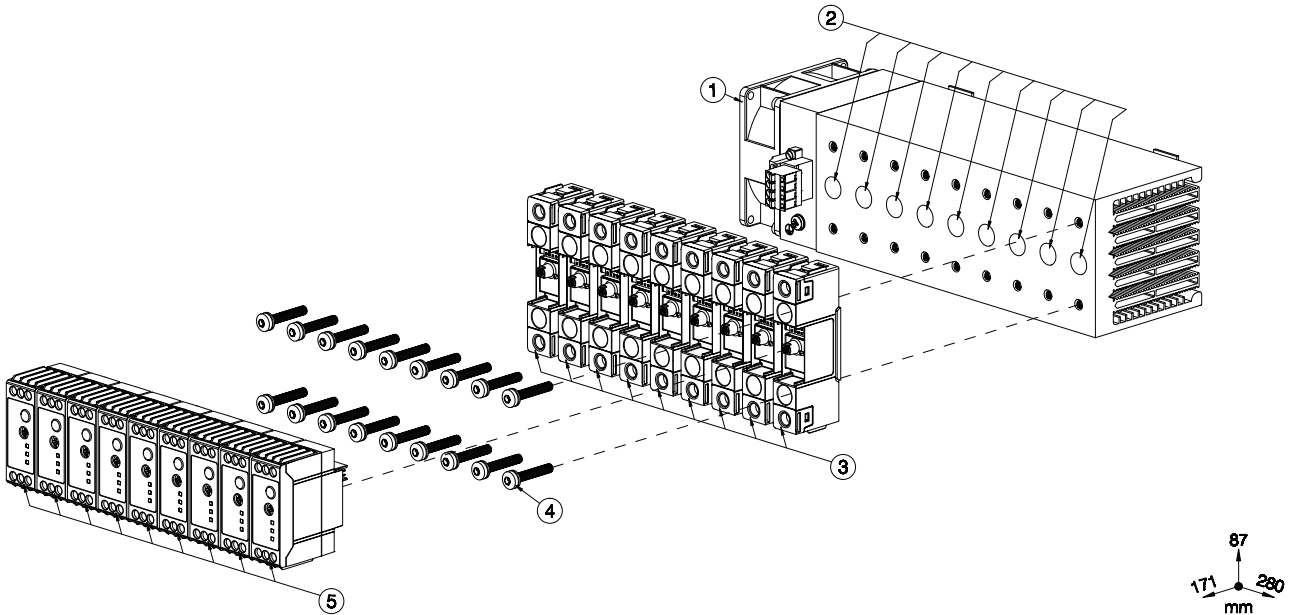
**RGS1 18mm Module**



Element	Component	Qty	RHS28009F
1	RHS28009F80-24P heatsink assembly	1	Provided
2	Thermal Compound HTS02S	1	Provided
3	RGS1 SSR 18x90mm (max.)	9	Not provided
4	M5x30mm Torx T20 + Washer (per SSR)	2	Provided (x18)

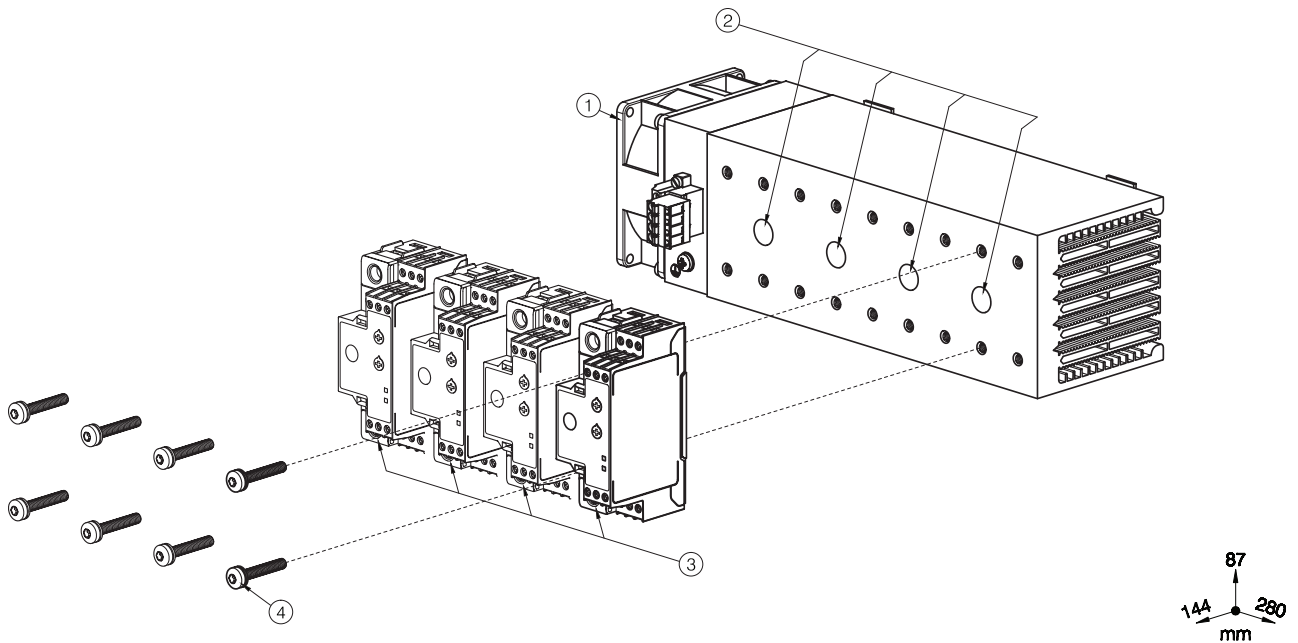
Note:  
Dimensions including the SSR.

**RGS1 22.5mm Module**



Element	Component	Qty	RHS28009F
1	RHS28009F80-24P heatsink assembly	1	Provided
2	Thermal Compound HTS02S	1	Provided
3	RGS1 Power Module 18x90mm (max.)	9	Not provided
4	M5x30mm Torx T20 + Washer (per SSR)	2	Provided (x18)
5	RGS1S Control Module 22.5x65mm (max.)	9	Not provided

Note:  
Dimensions including the SSR.


**RGS1P 35mm Module**


Element	Component	Qty	RHS28009F
1	RHS28009F80-24P heatsink assembly	1	Provided
2	Thermal Compound HTS02S	1	Provided
3	RGS1P SSR 35x90mm (max.)	4	Not provided
4	M5x30mm Torx T20 + Washer (per SSR)	2	Provided (x18)

Note:  
Dimensions including the SSR.

## Features

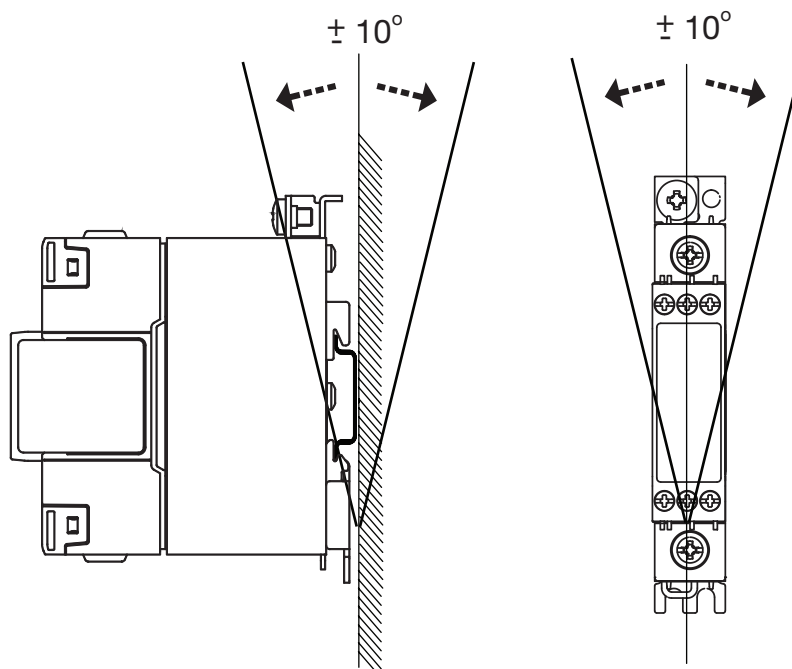
### General

SSR max. mounting torque	1.5Nm (13.3 lb-in)
PE screw	M4, max. 1.5Nm (13.3 lb-in)
Weight (excl. SSR)	approx. 2575g
Material	Aluminium
Finish	Silver anodization
Fan mounting	Integrated
Fan supply voltage	24VDC
Power consumption	6 Watts
Current consumption	250 mA
Overtemperature protection	90°C

### Terminal Block Specifications

Number of positions	4
Conductor cross section Solid / Stranded	min. 0.2mm <sup>2</sup> (AWG24) max. 2.5mm <sup>2</sup> (AWG12)
Conductor cross section Stranded with ferrule	min. 0.25mm <sup>2</sup> max. 2.5mm <sup>2</sup>
2 conductors with same cross section, stranded TWIN ferrules with plastic sleeve	min. 0.5mm <sup>2</sup> max. 1.5mm <sup>2</sup>

### Mounting position



Installation

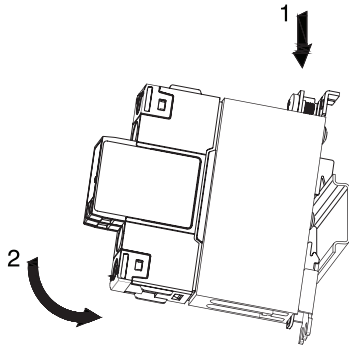


Fig. 1 Mounting on DIN rail

Illustrations are for example only.

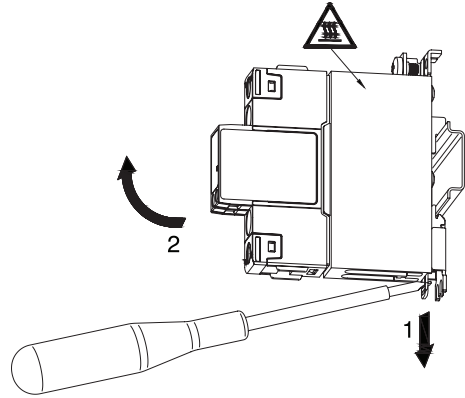
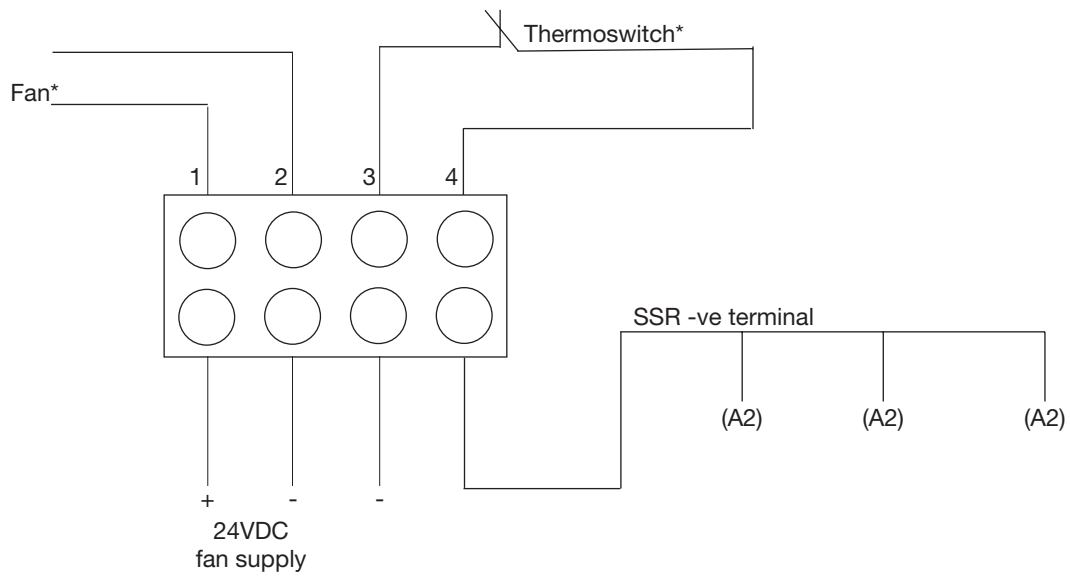


Fig. 2 Dismounting from DIN rail

## Connection Diagrams



1 red wire

2 black wire

3 green wire

4 green wire

\*Fan and thermoswitch are assembled by manufacturer



## 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 2-pole SSR	Surrounding temperature						
	°C °F	20 68	30 86	40 104	50 122	60 140	70 158
RK 2.. (per pole)	50	50	50	50	50	50	50
	51	50	50	50	50	50	50
	75	75	75	75	75	75	75

 Thermal compound, HTS02S

1x 1-phase SSR	Surrounding temperature						
	°C °F	20 68	30 86	40 104	50 122	60 140	70 158
RA..L RA..T	10	10	10	10	10	10	10
	25	25	25	25	25	24.5	20.5
RA..	25	25	25	25	25	25	22
	50	50	50	50	50	43.5	34.5
	90	90	90	90	83	70	56
	110	110	110	110	99	83	65.5
RA60..	50	50	50	50	50	43	34.5
RA2A.. (per pole)	25	25	25	25	25	25	25
	40	40	40	40	40	40	35
	25M	25	25	25	25	25	25
	40M	40	40	40	40	40	36.5
RS1A..	10	10	10	10	10	10	7.5
	25	25	25	25	25	25	25
	40	40	40	40	40	40	40
RS1A..E	25	25	25	25	23.5	20.5	17
	40	40	40	35.5	31	26.5	22
RM1A.. RM1B.. RM1C..	25	25	25	25	25	25	25
	50	50	50	50	50	50	50
	75	75	75	75	75	75	75
	100	100	100	100	100	100	98
RM1A60.. RM1B60.. RM1C60.. RM1E60..	50	50	50	50	50	50	45.5
RAM1A.. RAM1B.. RM1E..	25	25	25	25	25	25	25
	50	50	50	50	50	50	50
	75	75	75	75	75	75	75
	100	100	100	100	100	95	81.5
	125	125	125	125	125	115	98
RM1D060	10	10	10	10	10	10	10
	20	20	20	20	20	20	20
	50	50	50	50	50	50	44.5
	100	100	100	100	100	95.5	74.5
RM1D200	20	20	20	20	20	20	20
	50	50	50	50	50	48	42.5
RM1D500	10	10	10	10	10	10	10



 Thermal compound, HTS02S

1x 1-phase SSR	Surrounding temperature						
	°C °F	20 68	30 86	40 104	50 122	60 140	70 158
RGS1..E RGS1P..E*	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	75	75
	90 91 92	90	90	90	90	90	84.5
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	90	90	84.5
RGS1D..	15	15	15	15	15	15	15
	25	25	25	25	25	25	25

\* max. 70 °C / 158 °F for RGS1P..E

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

1x 1-phase SSR	Surrounding temperature						
	°C °F	20 68	30 86	40 104	50 122	60 140	70 158
RA..L RA..T	10	10	10	10	10	10	10
	25	25	25	25	24	20.5	17
RA..	25	25	25	25	25	24	19
	50	50	50	48.5	42	35	27.5
	90	79.5	75.5	66.5	57.5	48	38
	110	92	87	76.5	65.5	54.5	43
RA60..	50	50	50	47.5	41.5	34.5	27.5
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	35	30
RS1A..	10	10	10	10	10	9.5	7
	25	25	25	25	25	25	25
	40	40	40	40	40	40	40
RS1A..E	25	25	25	23	20.5	17.5	14.5
	40	34	32.5	28.5	25	21.5	17.5
RM1A.. RM1B.. RM1C..	25	25	25	25	25	25	25
	50	50	50	50	50	49.5	40
	75	75	75	75	73	62	46.5
	100	100	100	95.5	85	68.5	51
RM1A60.. RM1B60.. RM1C60.. RM1E60..	50	50	50	50	48.5	43	37
	25	25	25	25	25	25	25
	50	50	50	50	50	49.5	40
	75	75	75	75	73	62	46.5
	100	94.5	90	82	73	62	46.5
RM1D060	125	111	106	95.5	85	68.5	51
	10	10	10	10	10	10	10
	20	20	20	20	20	20	20
	50	50	50	50	50	50	39.5
	100	100	100	100	96	81.5	63.5
RM1D200	20	20	20	20	20	20	19
	50	50	50	49	45.5	41	36.5
RM1D500	10	10	10	10	10	10	10


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

1x 1-phase SSR	Surrounding temperature						
	°C °F	20 68	30 86	40 104	50 122	60 140	70 158
RGS1..E RGS1P..E*	25	25	25	25	25	25	25
	50	50	50	50	50	48	41.5
	51	50	50	50	50	47	40.5
	75	75	75	70	62.5	55	47.5
	90 91 92	85.5	82	74.5	67	59	50.5
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	85.5	82	74.5	67	59	50.5
RGS1D..	15	15	15	15	15	15	15
	25	25	25	25	25	23	20

\* max. 70 °C / 158 °F for RGS1P..E



## 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
Thermal compound	HTS02S	2.38 ml sachet of silicon based thermal compound
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="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



RHS28009F80-24P



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