# RGS..U, RGS..UDIN

## 1-Phase, 17.5mm solid state relays ‘U’ type connection



## Description

Aim of this solid state switching device is to switch heater loads and motor loads frequently. The range offers solutions up to 30 AAC in 17.5 mm width.

Output connections are provided via a box clamp. Input connections are via a screw connection having a captivated washer allowing for safe looping. Options with integrated heatsink are available in the RGC range.

The RGS...DIN provides an option for DIN mounting of the RGS series with a rating of 10 AAC @ 40˚C.

Specifications are at a surrounding temperature of 25°C unless otherwise specified.

## Benefits

- **Panel space savings.** Product width of only 17.5 mm giving up to 60% space savings compared to the standard hockey puck platform.
- **Less maintenance costs.** Wire bonding technology reduces thermal and mechanical stresses of the output chips resulting in a larger number of operational cycles compared to other assembly technologies.
- **Low machine downtime.** Integrated overvoltage protection prevents the solid state relay from breaking down due to uncontrolled transients that may occur on the lines.
- **Cost effective protection co-ordination**. The high I²t specification permits easy Type 2 protection co-ordination with B-type Minitaure Circuit Breakers.
- **Fast wiring**. Power connections are equipped with terminals that can handle cables up to 25 mm² / AWG3 cables.
- **Accommodates UL508A requirements for Industrial Control Panels.** All models carry a 100 kArms Short Circuit Current Rating.

## Applications

Plastic injection machines, Extrusion machines, Blow moulding machines, Thermoformers, Dryers, Electrical ovens, Fryers, Shrink tunnels, Air handling units, Sterilisation equipment, Climatic chambers, Ovens and furnaces.

## Main features

- Zero cross or Instant on switching AC solid state relay
- Ratings up to 660 VAC, 30 AAC
- Up to 1800 A²s for I²t
- Control voltages: 4-32 VDC, 20-275 VAC (24-190 VDC)
- Integrated overvoltage protection with varistor



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## Order code

RGS1 ☐ 60 ☐ 30KGU ☐

Enter the code option instead of ☐. Refer to selection guide section for valid part numbers.

| Code | Option | Description | Comments |
|---|---|---|---|
| R | - | Solid State Relay (RG) | |
| G | - | | |
| S | - | Without integrated heatsink | |
| 1 | - | 1-pole switching | |
| ☐ | A | Switching mode: Zero Cross (ZC) | |
| | B | Switching mode: Instant ON (IO) | |
| 60 | | Rated voltage: 42-660 VAC, 1200 Vp | |
| ☐ | D | Control voltage: 4-32 VDC | |
| | A | Control voltage: 20-275 VAC, 24-190 VDC | |
| 20 | - | Rated current: 20 AAC | Available with DIN rail mount accessory only |
| 30 | - | Rated current: 30 AAC | |
| K | - | Screw connection for control terminals | |
| G | - | Box clamp connection for power terminals | |
| U | - | Contactor configuration | |
| ☐ | - | | Single packaging |
| | HT[1] | Thermal pad | Option |
| | DIN[1] | Din rail mount | Option |
| | X40 | Bulk packaging of 40 pcs. | Option |

1. Add suffix 'HT' to RGS part number for RGS with attached thermal pad. Add suffix 'DIN' to RGS part number for DIN rail mountable RGS.



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## Selection guide - RGS..

| Rated voltage, Blocking voltage | Switching mode | Control voltage | Maximum rated operational current |
|---|---|---|---|
| | | | 30 AAC (1800 $A^2s$) |
| 600 VAC, 1200 Vp | Zero Cross (ZC) | 4 - 32 VDC | RGS1A60D30KGU |
| | | 20-275 VAC, 24-190 VDC | RGS1A60A30KGU |
| | Instant ON (IO) | 4 - 32 VDC | RGS1B60D30KGU |

## Selection guide - RGS..DIN (RGS for DIN Rail Mounting)

| Rated voltage, Blocking voltage | Switching mode | Control voltage | Maximum rated operational current |
|---|---|---|---|
| | | | 10 AAC (525 $A^2s$) |
| 600 VAC, 1200 Vp | Zero Cross (ZC) | 4 - 32 VDC | RGS1A60D20KGUDIN |

KGU: input terminals = screw, output terminals = box clamp

## Carlo Gavazzi compatible components

| Description | Component code | Notes |
|---|---|---|
| **Screw kits** | SRWKITM5X30MM | - RGS Screw kit for mounting to heatsink<br>- Torx T20, size M5 x 30 mm<br>- Packing qty: 20 pcs |
| **Thermal pad** | RGHT | Pack of 10 thermal pads size of 34.6 x 14mm |
| **RG DIN clip** | RGS1DIN | Din clip accessory |
| **Heatsinks** | RHS | Heatsinks and accessories |

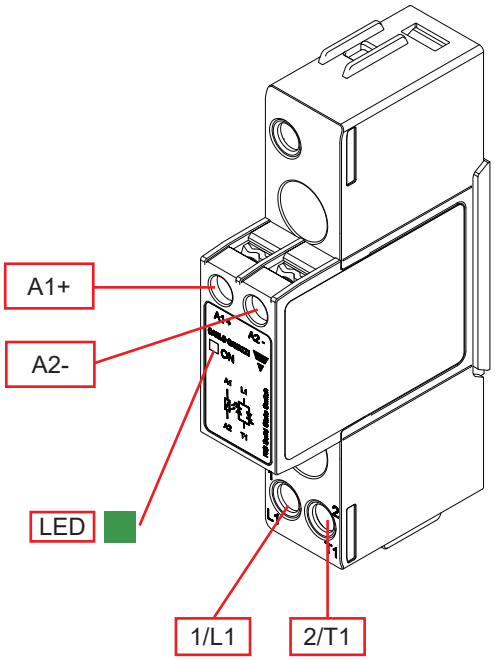
## Carlo Gavazzi further reading

| Information | Where to find it | Notes |
|---|---|---|
| **Datasheet** | https://gavazziautomation.com/images/PIM/DATASHEET/ENG/rgc_u.pdf | Solid state contactor, RGC with 'U' - type configuration |
| **Datasheet** | https://gavazziautomation.com/images/PIM/DATASHEET/ENG/rgs.pdf | Solid state relay, RGS (without heatsink), 'E' - type configuration |
| **Datasheet** | https://gavazziautomation.com/images/PIM/DATASHEET/ENG/SSR_Accessories.pdf | Heatsink range overview |
| | https://gavazziautomation.com/nsc/hq/en/solid_state_relays | Online Heatsink selector tool |



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# Structure




| Element | Component | Function |
|---|---|---|
| **1/L1** | Power connections | Mains connections |
| **2/T1** | Power connections | Load connections |
| **A1, A2** | Control connection | Terminals for control voltage |
| **Green LED** | Control indicator | Indicates presence of control voltage and supply voltage |



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# Features

## General data

| | | |
|---|---|---|
| **Material** | PA66 or PA6 (UL94 V0), RAL7035<br>850°C, 750°C/2s according to GWIT and GWFI requirements of EN 60335-1 | |
| **Mounting** | Panel mount | |
| **Touch Protection** | IP20 | |
| **Overvoltage category** | III, 6 kV (1.2/50 µs) rated impulse withstand voltage | |
| **Isolation** | Input and Output to Case<br>Input to Output | 4000 Vrms<br>4000 Vrms |
| **Weight** | RGS..<br>RGS...DIN | approx. 103 g<br>approx. 155 g |

# Performance

## Output Specifications

| | RGS..U | RGS..UDIN |
|---|---|---|
| **Operational voltage range, Ue** | 42-600 VAC<br>+10%, -15% on max. | |
| **Blocking voltage** | 1200 Vp | |
| **Max. operational current per pole[2]: AC-51 @ Ta=40°C** | 30 AAC | 10AAC[4] |
| **Max. operational current per pole[2]: AC-53a @ Ta=40°C** | 8 AAC | - |
| **Operational frequency range** | 45 to 65 Hz | |
| **Output protection** | Integrated varistor | |
| **Leakage current @ rated voltage** | 3 mAAC | |
| **Minimum operational current** | 250 mACA | 150 mACA |
| **Repetitive overload current (Motor rating) UL508: Ta=40°C, $t_{ON}$=1 s, $t_{OFF}$=9 s, 50 cycles** | 84 AAC | - |
| **Non-repetitive surge current ($I_{TSM}$), t=10 ms** | 600 Ap | 325 Ap |
| **$I^2t$ for fusing (t=10 ms), minimum** | 1800 $A^2s$ | 525 $A^2s$ |
| **No. of motor starts per hour[2,3] (x: 6, Tx:6s, F:50%) @ 40°C** | 30 | - |
| **Power factor** | >0.5 at rated voltage | - |
| **Critical dV/dt (@Tj init = 40°C)** | 1000 V/µs | |

2. Refer to Heatsink selection table
3. Overload profile for AC-53a: Ie: AC-53a: x-Tx: F-S, where Ie = nominal current (AC-53a AAC), x = overload current factor, Tx = duration of overload current (s), F = duty cycle (%), S = number of starts per hour. Example; 8A: AC-53a: 6 - 6 : 50 - 30 = max. 30 starts for the RGS..30 with an overload profile of 48A for 6 seconds with a duty cycle of 50%
4. Refer to Derating vs. Spacing Curves

## Motor Ratings[2]: HP (UL508) / kW (EN/IEC 60947-4-2) @ 40°C

| | 115 VAC | 230 VAC | 400 VAC | 480 VAC | 600 VAC |
|---|---|---|---|---|---|
| **RGS..30** | 3/4HP / 0.37kW | 2HP / 1.1kW | 3HP / 1.5kW | 5HP / 2.2kW | 5HP / 3.7kW |



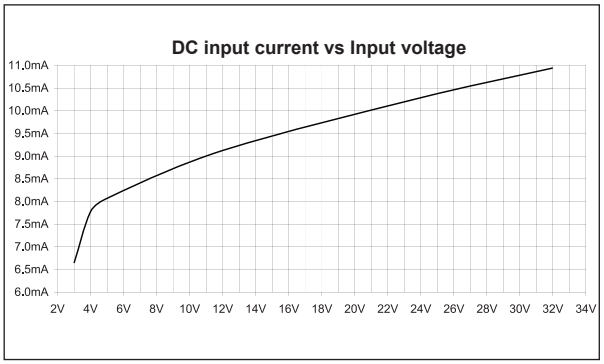
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## Inputs

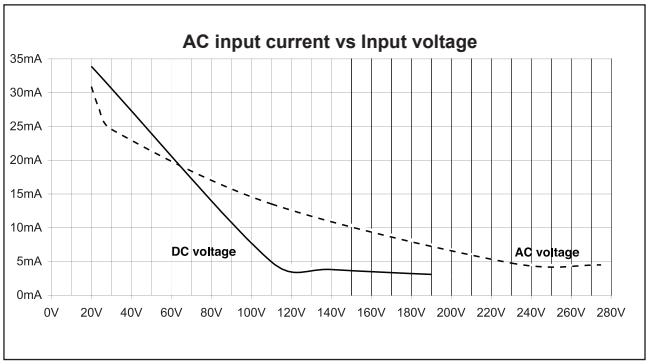
| | RGS..D.. | RGS..A.. |
|---|---|---|
| **Control voltage range (A1, A2)** | 4 - 32 VDC | 20-275 VAC,<br>24 (-10%) -190 VDC |
| **Pick-up voltage** | 3.8 VDC | - |
| **Drop-out voltage** | 1.0 VDC | 5 VAC/DC |
| **Maximum reverse voltage** | 32 VDC | - |
| **Maximum response time, RGS1A** | 0.5 cycle + 500 µs @ 24 VDC | 2 cycles @ 230 VAC/110 VDC |
| **Maximum response time, RGS1B** | 350 µs @ 24 VDC | N/A |
| **Response time drop-out** | 0.5 cycle + 500µs @ 24VDC | 0.5 cycle + 40 ms @ 230 VAC/ 110 VDC |
| **Input current @ 40°C** | See diagrams below | |

## Input current vs. input voltage

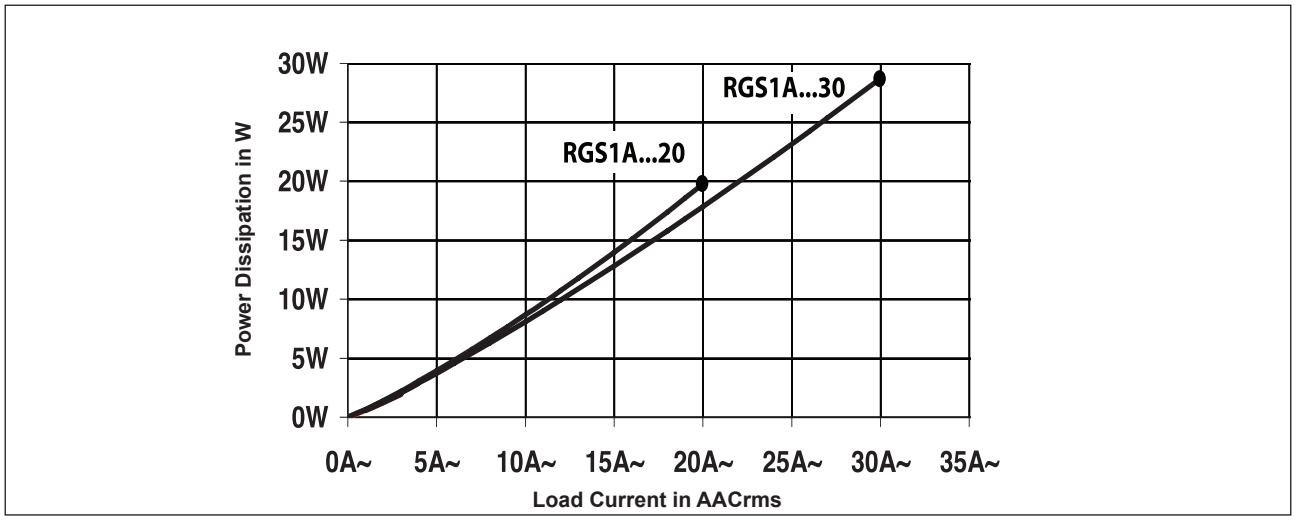
**RGS..D..**




**RGS..A..**



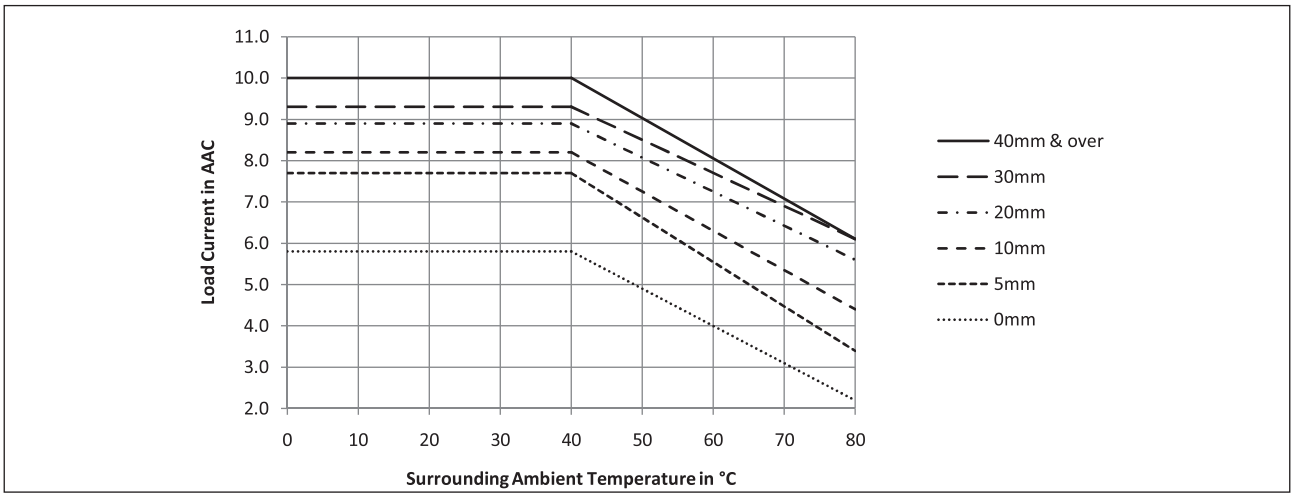

## Output power dissipation






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## Derating vs. spacing curves for RGS...DIN




## Heatsink selection

Thermal resistance [°C/W] of RGS1..30

| Load current [A] | Surrounding ambient temperature [°C] | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20 | 30 | 40 | 50 | 60 | 70 | 80 |
| **32.0** | 3.58 | 3.05 | 2.55 | 2.09 | 1.65 | 1.24 | 0.84 |
| **29.0** | 4.26 | 3.62 | 3.03 | 2.48 | 1.97 | 1.49 | 1.03 |
| **25.5** | 5.36 | 4.53 | 3.78 | 3.09 | 2.45 | 1.87 | 1.32 |
| **22.5** | 6.75 | 5.66 | 4.69 | 3.82 | 3.03 | 2.31 | 1.66 |
| **19.0** | 9.37 | 7.72 | 6.31 | 5.09 | 4.02 | 3.06 | 2.21 |
| **16.0** | 13.5 | 10.8 | 8.68 | 6.88 | 5.36 | 4.06 | 2.93 |
| **13.0** | nh | 17.4 | 13.2 | 10.1 | 7.71 | 5.73 | 4.09 |
| **9.5** | nh | nh | nh | nh | 14.2 | 9.97 | 6.84 |
| **6.5** | nh | nh | nh | nh | nh | nh | 13.6 |
| **3.2** | nh | nh | nh | nh | nh | nh | nh |

Thermal resistance [°C/W] of RGS1..30..HT

| Load current [A] | Surrounding ambient temperature [°C] | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20 | 30 | 40 | 50 | 60 | 70 | 80 |
| **32.0** | 2.98 | 2.45 | 1.95 | 1.49 | 1.05 | 0.64 | 0.24 |
| **29.0** | 3.66 | 3.02 | 2.43 | 1.88 | 1.37 | 0.89 | 0.43 |
| **25.5** | 4.76 | 3.93 | 3.18 | 2.49 | 1.85 | 1.27 | 0.72 |
| **22.5** | 6.15 | 5.06 | 4.09 | 3.22 | 2.43 | 1.71 | 1.06 |
| **19.0** | 8.77 | 7.12 | 5.71 | 4.49 | 3.42 | 2.46 | 1.61 |
| **16.0** | 12.9 | 10.2 | 8.08 | 6.28 | 4.76 | 3.46 | 2.33 |
| **13.0** | nh | 16.8 | 12.6 | 9.56 | 7.11 | 5.13 | 3.49 |
| **9.5** | nh | nh | nh | 19.8 | 13.6 | 9.37 | 6.24 |
| **6.5** | nh | nh | nh | nh | nh | nh | 13.0 |
| **3.2** | nh | nh | nh | nh | nh | nh | nh |

## Thermal data

| | RGS..30.. |
|---|---|
| **Max. junction temperature** | 125°C |
| **Junction to case thermal resistance, $R_{thjc}$** | <0.3°C/W |
| **Case to heatsink thermal resistance, $R_{thcs}$ [5]** | <0.25°C/W |
| **Case to heatsink thermal resistance (RGS..HT), $R_{thcs_HT}$ [6]** | <0.85°C/W |

5: Thermal resistance case to heatsink values are applicable upon application of a fine layer of silicon based thermal paste HTS02S from Electrolube between SSR and heatsink.

6: Thermal resistance case to heatsink values for RGS..HT are applicable for the RGHT thermal pad that is pre-attached from the factory to the RGS.



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## Compatibility and conformance

| | |
|---|---|
| **Approvals** | |
| **Standards compliance** | LVD: EN/IEC 60947-4-2, EN/IEC 60947-4-3<br>EMCD: EN/IEC 60947-4-3<br>EE: EN 60947-4-3<br>EMC: EN 60947-4-3<br>cURus: UL508 Recognised (E172877), NMFT2, NMFT8<br>CSA: C22.2 No.14, (204075)<br>VDE: VDE0660-109 |
| **UL short circuit current rating** | 100k Arms (refer to short circuit current section, Type 1 – UL508) |

| **Electromagnetic compatibility (EMC) - Immunity** | |
|---|---|
| **Electrostatic discharge (ESD)** | EN/IEC 61000-4-2<br>8 kV air discharge, 4 kV contact (PC1) |
| **Radiated radio frequency** | EN/IEC 61000-4-3<br>10 V/m, from 80 MHz to 1 GHz (PC1)<br>10 V/m, from 1.4 to 2 GHz (PC1)<br>10 V/m, from 2 to 2.7 GHz (PC1) |
| **Electrical fast transient (burst)** | EN/IEC 61000-4-4<br>Output: 2 kV, 5 kHz (PC1)<br>Input: 1 kV, 5 kHz (PC1) |
| **Conducted radio frequency** | EN/IEC 61000-4-6<br>10 V/m, from 0.15 to 80 MHz (PC1) |
| **Electrical surge** | EN/IEC 61000-4-5<br>Output, line to line: 1 kV (PC1)<br>Output, line to earth: 2 kV (PC1)<br>Input, line to line: 1 kV (PC2)<br>Input, line to earth: 2 kV (PC2) |
| **Voltage dips** | EN/IEC 61000-4-11<br>0% for 0.5, 1 cycle (PC2)<br>40% for 10 cycles (PC2)<br>70% for 25 cycles (PC2)<br>80% for 250 cycles (PC2) |
| **Voltage interruptions** | EN/IEC 61000-4-11<br>0% for 5000 ms (PC2) |

| **Electromagnetic compatibility (EMC) - Emissions** | |
|---|---|
| **Radio interference field emission (radiated)** | EN/IEC 55011<br>Class A: from 30 to 1000 MHz |
| **Radio interference voltage emissions (conducted)** | EN/IEC 55011<br>Class A: from 0.15 to 30 MHz<br>(External filter may be required - refer to Filtering section) |



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## Additional conformance to railway standards

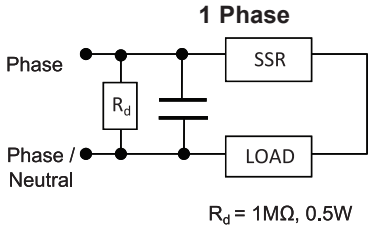
| | |
|---|---|
| **Applicable to variants** | RGS..U |
| **Additional conformance specific to railway applications** | EN 50155<br>EN 45545-2<br>EN 50121-3-2 |
| **Hazardous level conformance according to EN 45545-2** | HL1, HL2 for requirement R23<br>HL1 for requirement R22 |
| **Operating temperature class according to EN 50155** | OT3 (-25 °C to +70 °C ) |
| **Vibration and shock** | EN 61373 Category 1, Class B |
| **Additional EMC conformance** | according to EN 50121-3-2 |
| **Radiated radio frequency immunity** | EN/IEC 61000-4-3<br>20 V/m, from 80 MHz to 1 GHz (PC1)<br>10 V/m, from 1.4 to 2 GHz (PC1)<br>5 V/m, from 2 to 2.7 GHz (PC1)<br>3 V/m, 5.1 - 6 GHz (PC1) |
| **Power quality measurement** | EN/IEC 61000-4-30<br>50 Hz - 2 kHz, <8% THD (PASS) |

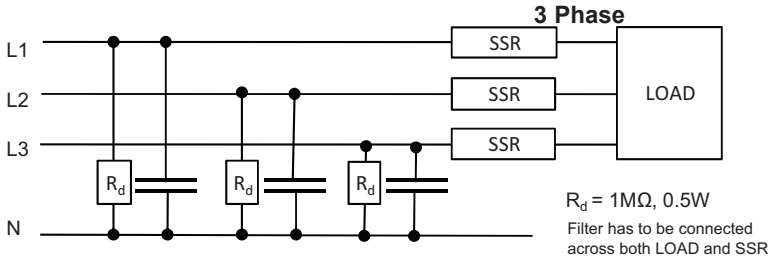
Note:

- Control input lines must be installed together to maintain products' susceptability to Radio Frequency interference.
- Use of AC solid state relays may, according to the application and the load current, cause conducted radio interferences. Use of mains filters may be necessary for cases where the user must meet E.M.C requirements. The capacitor values given inside the filtering specification tables should be taken only as indications, the filter attenuation will depend on the final application.

- Performance Criteria 1 (PC1): No degradation of performance or loss of function is allowed when the product is operated as intended.
- Performance Criteria 2 (PC2): During the test, degradation of performance or partial loss of function is allowed. However when the test is complete the product should return operating as intended by itself.
- Performance Criteria 3 (PC3): Temporary loss of function is allowed, provided the function can be restored by manual operation of the controls.

## Filter connection diagram




## Filtering

| Part number | Suggested filter for EN 55011 Class A compliance | Maximum heater current [AAC] |
|---|---|---|
| RGS1...20 | 100 nF / 760 V / X1 | 10 AAC |
| RGS1...30 | 330 nF / 760 V / X1 | 30 AAC |



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## Environmental specifications

| | |
|---|---|
| **Operating temperature** | -40°C to +80°C (-40°F to +176°F) |
| **Storage temperature** | -40 to +100 °C (-40 to +212 °F) |
| **Relative humidity** | 95% non-condensing @ 40°C |
| **Pollution degree** | 2 |
| **Installation altitude** | 0-1000 m. Above 1000 m derate linearly by 1% of FLC per 100 m up to a maximum of 2000 m |
| **Vibration resistance** | 2g / axis (2-100Hz, IEC 60068-2-6, EN 50155, EN 61373) |
| **Impact resistance** | 15/11 g/ms (EN50155, EN61373) |
| **EU RoHS compliant** | Yes |
| **China RoHS** |  |

The declaration in this section is prepared in compliance with People's Republic of China Electronic Industry Standard SJ/T11364-2014: Marking for the Restricted Use of Hazardous Substances in Electronic and Electrical Products.

| **Part Name** | **Toxic or Harardous Substances and Elements** | | | | | |
|---|---|---|---|---|---|---|
| | Lead (Pb) | Mercury (Hg) | Cadmium (Cd) | Hexavalent Chromium (Cr(VI)) | Polybrominated biphenyls (PBB) | Polybrominated diphenyl ethers (PBDE) |
| **Power Unit Assembly** | x | O | O | O | O | O |

O: Indicates that said hazardous substance contained in homogeneous materials fot this part are below the limit requirement of GB/T 26572.

X: Indicates that said hazardous substance contained in one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

这份申明根据中华人民共和国电子工业标准
SJ/T11364-2014：标注在电子电气产品中限定使用的有害物质

| 零件名称 | 有毒或有害物质与元素 | | | | | |
|---|---|---|---|---|---|---|
| | 铅 (Pb) | 汞 (Hg) | 镉 (Cd) | 六价铬 (Cr(VI)) | 多溴化联苯 (PBB) | 多溴联苯醚 (PBDE) |
| 功率单元 | x | O | O | O | O | O |

O:此零件所有材料中含有的该有害物低于GB/T 26572的限定。

X: 此零件某种材料中含有的该有害物高于GB/T 26572的限定。



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## Short circuit protection

**Protection Co-ordination, Type 1 vs Type 2:**

Type 1 protection implies that after a short circuit, the device under test will no longer be in a functioning state. In Type 2 co-ordination the device under test will still be functional after the short circuit. In both cases, however the short circuit has to be interrupted. The fuse between enclosure and supply shall not open. The door or cover of the enclosure shall not be blown open. There shall be no damage to conductors or terminals and the conductors shall not separate from terminals. there shall be no breakage or cracking of insulating bases to the extent that the integrity of the mounting of live parts is impaired. Discharge of parts or any risk of fire shall not occur.

The product variants listed in the table hereunder are suitable for use on a circuit capable of delivering not more than 100,000 Arms Symmetrical Amperes, 600 Volts maximum when protected by fuses. Tests at 100,000 A were performed with Class J fuses, fast acting; please refer to the table below for maximum allowed ampere rating of the fuse. Use fuses only.

Tests with Class J fuses are representative of Class CC fuses.

**Protection co-ordination Type 1 according to UL 508**

| Part No. | Prospective short circuit current [kArms] | Max fuse size [A] | Class | Voltage [VAC] |
|---|---|---|---|---|
| RGS...20 | 100 | 10<br>15 | J<br>CC | Max. 600 |
| RGS...30 | | 30 | J or CC | |

**Protection co-ordination (IEC/EN 60947-4-2/ -4-3)**

| Part No. | Prospective short circuit current [kArms] | Ferraz Shawmut (Mersen) | | Siba | | Voltage [VAC] |
|---|---|---|---|---|---|---|
| | | Max fuse size [A] | Part number | Max fuse size [A] | Part number | |
| RGS...20 | 100 | 32 | 6.9xx CP URD 22x58 /32 | 32 | 50 142 06 32 | Max. 600 |
| RGS...30 | | 40 | A70QS40-4 | 32 | 50 142 06 32 | |

**Protection co-ordination Type 2 with Miniature Circuit Breakers (M.C.B.s)**

| Solid State Relay type | ABB Model no. for Z - type M. C. B. (rated current) | ABB Model no. for B - type M. C. B. (rated current) | Wire cross sectional area [$mm^2$] | Minimum length of Cu wire conductor [m][7] |
|---|---|---|---|---|
| RGS..20<br>(525 $A^2s$) | 1-pole<br>S201 - Z4 (4A)<br>S201 - Z6 UC (6A) | <br>S201 - B2 (2A)<br>S201 - B2 (2A) | <br>1.0<br>1.0<br>1.5 | <br>21.0<br>21.0<br>31.5 |
| RGS..30<br>(1800 $A^2s$) | 1-pole<br>S201 - Z10 (10A) | <br>S201 - B4 (4 A) | 1.0<br>1.5<br>2.5 | 7.6<br>11.4<br>19.0 |
| | S201 - Z16 (16A) | S201 - B6 (6 A) | 1.0<br>1.5<br>2.5<br>4.0 | 5.2<br>7.8<br>13.0<br>20.8 |
| | S201 - Z20 (20A) | S201 - B10 (10 A) | 1.5<br>2.5 | 12.6<br>21.0 |
| | S201 - Z25 (25A) | S201 - B13 (13 A) | 2.5<br>4.0 | 25.0<br>40.0 |
| | 2-pole<br>S202 - Z25 (25A) | <br>S202 - B13 (13 A) | 2.5<br>4.0 | 19.0<br>30.4 |

7. Between MCB and Load (including return path which goes back to the mains)

Note: A prospective current of 6 kA and a 230 / 400 V power supply is assumed for the above suggested specifications. For cables with different cross section than those mentioned above please consult Carlo Gavazzi's Technical Support Group.

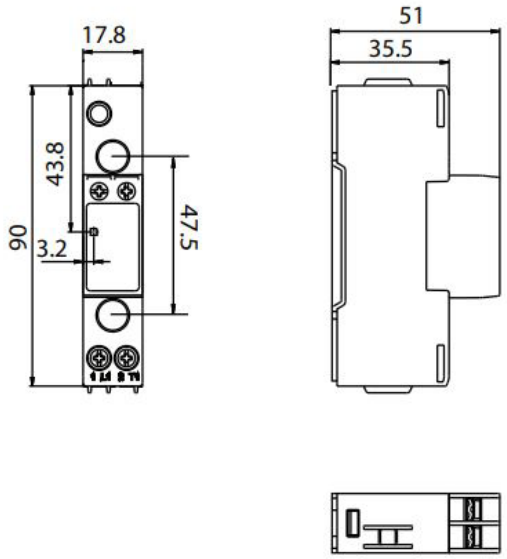
S201 models refer to 1-pole M.C.B., S202 models refer to 2-poles M.C.B.



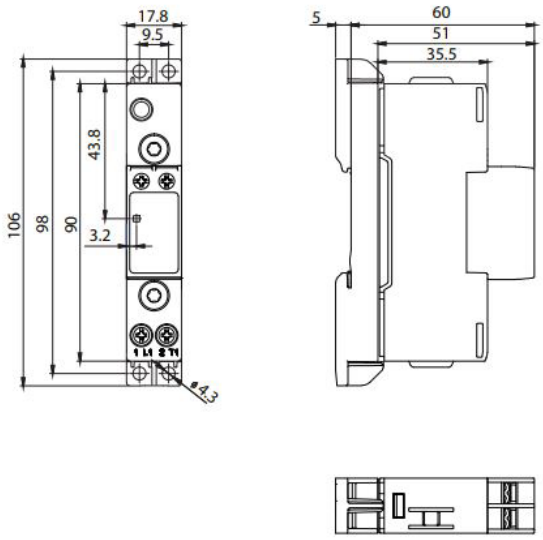
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## Dimensions

**RGS...KGU**

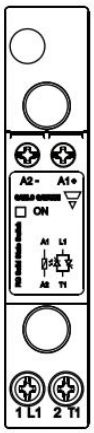



**RGS...KGUDIN**




Housing width tolerance +0.5mm, -0mm as per DIN 43880. All other tolerances +/- 0.5mm.
Dimensions in mm.

## Terminal Layout

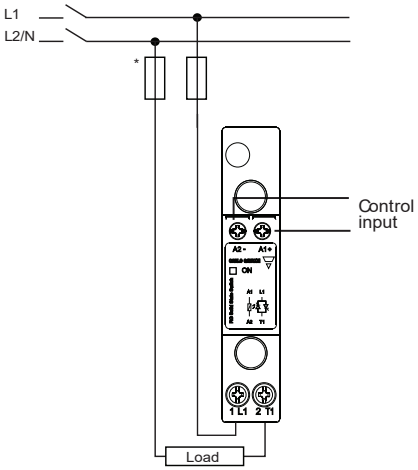



1/L1: Supply connection
2/T1: Load connection
A1 (+): Positive control signal
A2 (-): Control ground



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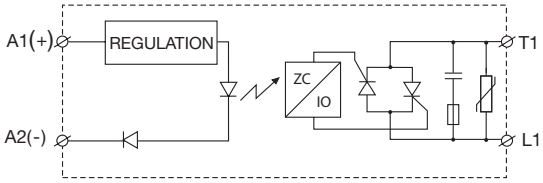
# Connection Diagram



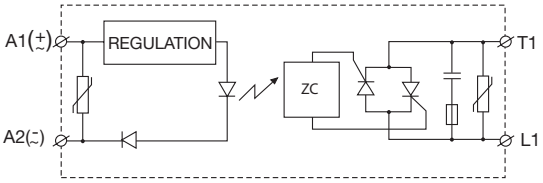

* depends on system requirements

## Functional diagram

**DC control**




**AC control**



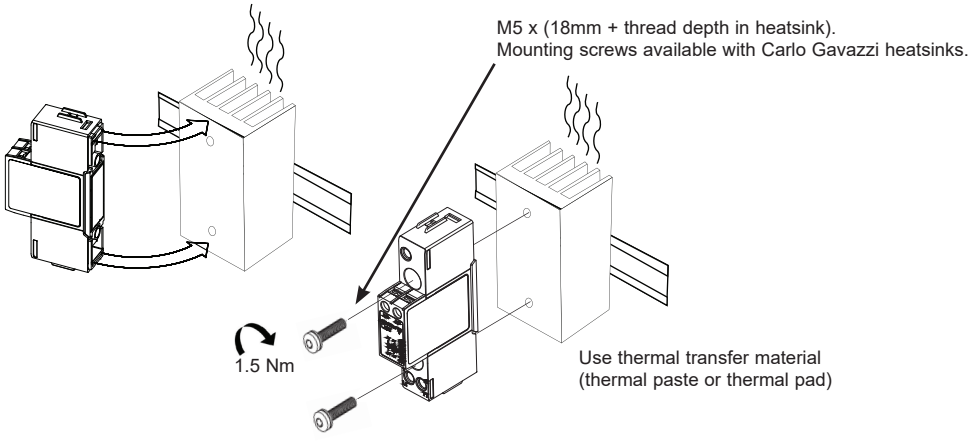

## Mounting instructions for RGS..KGU

Thermal stress will reduce the lifetime of the SSR. Therefore it is necessary to select the appropriate heatsinks, taking into account the surrounding temperature, load current and the duty cycle.

A fine layer of thermally conductive silicone paste must be evenly applied to the back of the SSR. RGS should be mounted on the heatsink with two M5 x 30mm screws (**SRWKITM5X30MM**).

Gradually tighten each screw (alternating between the two) until both are tightened with a torque of 0.75 Nm. Then tighten both screws to their final mounting torque of 1.5 Nm.

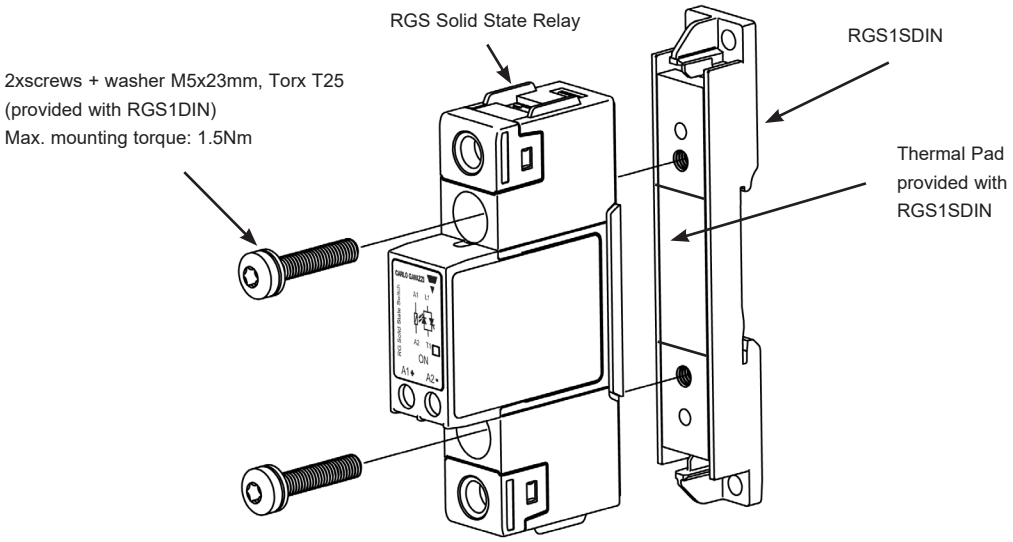
In case of a thermal pad attached to the back of the SSR, no thermal paste is required. The RGS is gradually tightened (alternating between the 2 screws) to a maximum torque of 1.5Nm.



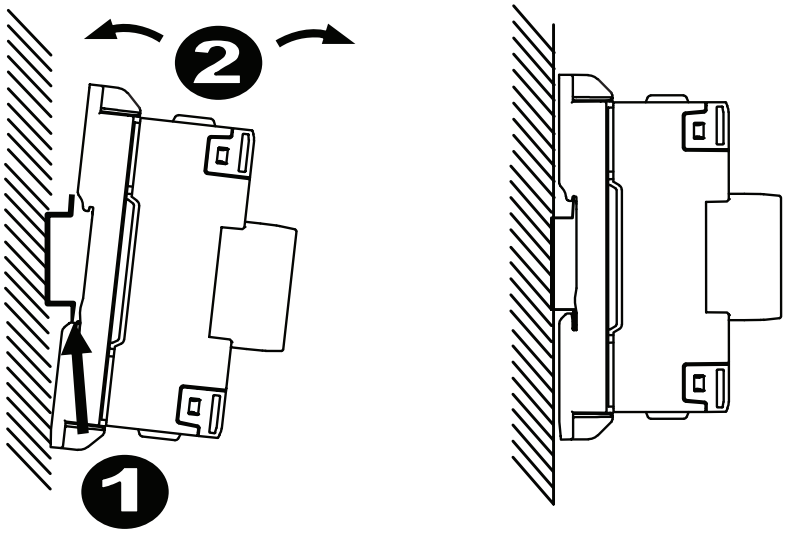



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## Mounting Instructions for RGS1DIN to RGS




## RGS..DIN installation instructions

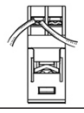
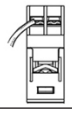





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# Connection Specifications

| Power connection | |
|---|---|
| **Terminal** | 1/L1, 2/T1 |
| **Conductors** | Use 75°C copper (Cu) conductors |
| |  |
| **Stripping length** | 12 mm |
| **Connection type** | M3.5 screw with box clamp |
| **Rigid (solid & stranded) UL/CSA rated data** | 1x 1..6 mm²<br>1x 18..10 AWG |
| **Flexible with end sleeve** | 1x 0.5..2.5 mm²<br>1x 20..14 AWG |
| **Flexible without end sleeve** | 1x 1..4 mm²<br>1x 18..12 AWG |
| **Torque specifications** | Posidrive bit 1<br>UL: 1 Nm (8.85 lb-in)<br>IEC: 0.9 - 1.1 Nm (8.0 - 9.7 lb-in) |

| Control connection | | |
|---|---|---|
| **Terminals** | A1(+), A2(-) | |
| **Conductors** | Use 60/75°C copper (Cu) conductors | |
| |  |  |
| **Stripping length** | 8 mm | |
| **Connection type** | M3 screw with captivated washer | |
| **Rigid (solid & stranded) UL/CSA rated data** | 2x 0.5 - 2.5 mm²<br>2x 18 - 12 AWG | 1x 0.5 - 2.5 mm²<br>1x 18 - 12 AWG |
| **Flexible with end sleeve** | 2x 0.5 - 2.5 mm²<br>2x 18 - 12 AWG | 1x 0.5 - 2.5 mm²<br>1x 18 - 12 AWG |
| **Torque specification** | Posidrive 1<br>UL: 0.5 Nm (4.4 lb-in)<br>IEC: 0.5-0.6 Nm (4.4-5.3 lb-in) | |



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## Bulk packaging option



- Packing qty.: 40 pcs.
- Weight: 4.2 kg



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