

# Solid State Relays 1-Phase Integrated Heatsink Zero Cross or Instant On Switching Types RGC Solid State Contactor 'U' Connection



- Product width ranging from 17.5mm up to 70mm
- Rated operational voltage: up to 660 VAC
- Rated operational current: up to 85 AAC @ 40°C
- Up to 18000A<sup>2</sup>s for I<sup>2</sup>t and 1200Vp blocking voltage
- Control voltages: 3-32 VDC, 20-275 VAC (24-190 VDC)
- Design according to EN/IEC60947-4-2, EN/IEC60947-4-3, EN/IEC62314, UL508, CSA 22-2 No. 14-13
- Integrated voltage transient protection with varistor
- 100kA short circuit current rating according to UL508



## Product Description

This new range of solid state contactors presents a unique opportunity to maximize efficiency in panel space and is an evolution of solid state switches for which Carlo Gavazzi is very well known.

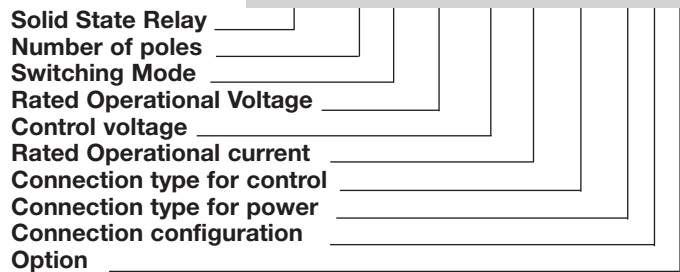
Voltage transient protection is standard across the output with a varistor. Specifications are stated at 25°C unless otherwise noted.

The nominal current ratings are at 40°C. The smallest width is 17.5mm and is rated at 25 AAC.

1. Germanischer Lloyd approval applicable only to models RGC...15KGU, RGC...20KGU, RGC...25KGU and RGC...30KGU

## Ordering Key

**RGC 1 A 60 A 40 K G U \_**



## Ordering Key (Refer to page 2 for available part numbers)

1 Phase SSR with heatsink	Rated voltage, Blocking voltage	Control voltage	Rated current at 40°C <sup>2</sup>	Connection control	Connection power	Connection configuration	Option
<b>RGC1A: ZC<sup>4</sup></b>	23: 230V +10% - 15%, 800Vp	D: 3 or 4-32VDC	15: 20AAC, 525A <sup>2</sup> s	K: Screw	G: Box clamp	U: SSR	P: Overtemperature protection (OTP) <sup>3</sup>
<b>RGC1B: IO<sup>4</sup></b>	60: 600V +10% -15%, 1200Vp	A: 20 - 275VAC, 24-190 VDC	20: 23AAC, 525A <sup>2</sup> s 25: 25AAC, 1800A <sup>2</sup> s 30: 30AAC, 1800A <sup>2</sup> s 40: 40AAC, 3200A <sup>2</sup> s 42: 43AAC, 18000A <sup>2</sup> s 60: 60AAC, 3200A <sup>2</sup> s 62: 65AAC, 18000A <sup>2</sup> s 90: 85AAC, 6600A <sup>2</sup> s	G: Box clamp			

2. Refer to Derating Curves

3. Default control connection for RGC...P is box clamp. See Connections Specifications.

4. ZC = Zero cross switching, IO = Instant On switching

## Selection Guide

Rated voltage, Blocking voltage, Switching mode	Control voltage	Connection control/power	Rated operational current @ 40°C (I <sub>t</sub> value)			
			Product width			
			20 AAC (525A <sup>2</sup> s) 17.5mm, low depth	23 AAC (525A <sup>2</sup> s) 17.5mm	25 AAC (1800A <sup>2</sup> s) 17.5mm, low depth	30 AAC (1800A <sup>2</sup> s) 22.5mm
230V, 800Vp ZC	3-32VDC	Screw/Box	RGC1A23D15KGU	RGC1A23D20KGU	RGC1A23D25KGU	RGC1A23D30KGU
	20-275VAC, 24-190VDC	Screw/Box	RGC1A23A15KGU	RGC1A23A20KGU	RGC1A23A25KGU	RGC1A23A30KGU
			20 AAC (525A <sup>2</sup> s) 17.5mm, low depth	23 AAC (525A <sup>2</sup> s) 17.5mm	25 AAC (1800A <sup>2</sup> s) 17.5mm, low depth	30 AAC (1800A <sup>2</sup> s) 22.5mm
600V, 1200Vp ZC	4-32VDC	Screw/Box	RGC1A60D15KGU	RGC1A60D20KGU	RGC1A60D25KGU	RGC1A60D30KGU
	20-275VAC, 24-190VDC	Screw/Box	RGC1A60A15KGU	RGC1A60A20KGU	RGC1A60A25KGU	RGC1A60A30KGU
			40 AAC (3200A <sup>2</sup> s) 35mm	43 AAC (18000A <sup>2</sup> s) 35mm	60 AAC (3200A <sup>2</sup> s) 70mm	65 AAC (18000A <sup>2</sup> s) 70mm
	4-32VDC	Screw/Box	RGC1A60D40KGU	RGC1A60D42KGU	RGC1A60D60KGU	RGC1A60D62KGU
	20-275VAC, 24-190VDC	Screw/Box	RGC1A60A40KGU	RGC1A60A42KGU	RGC1A60A60KGU	RGC1A60A62KGU
			20 AAC (525A <sup>2</sup> s) 17.5mm, low depth	23 AAC (525A <sup>2</sup> s) 17.5mm	25 AAC (1800A <sup>2</sup> s) 17.5mm, low depth	30 AAC (1800A <sup>2</sup> s) 22.5mm
600V, 1200Vp IO	4-32VDC	Screw/Box	RGC1B60D15KGU	RGC1B60D20KGU	RGC1B60D25KGU	RGC1B60D30KGU
			40 AAC (3200A <sup>2</sup> s) 35mm	43 AAC (18000A <sup>2</sup> s) 35mm	60 AAC (3200A <sup>2</sup> s) 70mm	65 AAC (18000A <sup>2</sup> s) 70mm
	4-32VDC	Screw/Box	RGC1B60D40KGU	RGC1B60D42KGU	RGC1B60D60KGU	RGC1B60D62KGU

## Selection Guide - RGC..P (Integrated Overtemperature Protection)

Rated voltage, Blocking voltage, Switching mode	Control voltage	Connection control/power	Rated operational current @ 40°C (I <sub>t</sub> value)		
			Product width		
			40 AAC (3200A <sup>2</sup> s) 35mm	60 AAC (3200A <sup>2</sup> s) 70mm	85 AAC (6600A <sup>2</sup> s) 70mm + fan
600V, 1200Vp ZC	5-32VDC	Box/Box	RGC1A60D40GGUP	RGC1A60D60GGUP	RGC1A60D90GGUP
	20-275VAC, 24-190VDC	Box/Box	RGC1A60A40GGUP	RGC1A60A60GGUP	RGC1A60A90GGUP
			85AAC (6600A <sup>2</sup> s) 70mm + fan		
600V, 1200Vp IO	5-32VDC	Box/Box	RGC1B60D90GGUP		

## Output Voltage Specifications

	RGC..23..	RGC..60..
Operational voltage range	24-240 VAC, +10%, -15% on max	42-600 VAC, +10% -15% on max
Blocking voltage	800Vp	1200 Vp
Internal varistor	275V	625V

## General Specifications

Latching voltage (across L1-T1)	20V	Rated impulse withstand	6 kV (1.2/50µs) for voltage, Uimp
Operational frequency range	45 to 65Hz	Over-voltage category	III (fixed installations)
Power factor	> 0.5 @ Vrated	Isolation	
Touch Protection	IP20	Input to Output RGC...	4000 Vrms
Control input status	continuously ON Green LED, when control input is applied	RGC...D..P	2500 Vrms
Pollution degree	2 (non-conductive pollution with possibilities of condensation)	RGC...A..P	4000 Vrms
		Input and Output RGC... to case RGC...D..P	4000 Vrms 4000 Vrms
		RGC...A..P	4000 Vrms
		Input to Fan/ Alarm Output RGC...A..P	2500 Vrms