
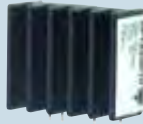







# Solid state relays PCB type, 1-phase

	AC zero switching			DC switching
Types	<b>RP1A - RP1B</b> 3/5/5.5 A (AC)	<b>RP..10A</b> 10 A (AC)	<b>RAP</b> 3/5 A (AC)	<b>RP1D</b> 1 A, 4 A, 8 A (DC)
PCB mounting SSRs, AC and DC operating. Rated isolation voltage $\geq 4000$ Vrms				
Dimensions H x W x D (mm)	25.4 x 43 x 10.5	37 x 43 x 22	25.4 x 43 x 10.5	25.4 x 43 x 10.5
Features	Standard AC switching SSR	With integral heatsink	LED indication High blocking voltage	DC switching SSR
<b>Input specifications</b>				
Control input range	3-32 VDC [RP1A23..] 3-32 VDC [RP1A40..] 4-32 VDC [RP1A48..] 15-32 VAC [RP1A23A6]	3-32 VDC [RP1A23..] 4-32 VDC [RP1A40..] 4-32 VDC [RP1A48..]	3.5-40 VDC [RAP40..] 4.5-40 VDC [RAP48..]	4.5 - 32 VDC
Max. input current	10 mA	10 mA	12 mA	15 mA
<b>Output specifications</b>				
Rated operational current				DC1: 1/4/8 ADC
AC 51 @ Ta=25°C	3 A [RP1...3] 5 A [RP1...5] 5.5 A [RP1...6]	10 A	3 A [RAP...A3] 5 A [RAP...A5]	
AC 53a @ Ta=25°C	2 A [RP1...3] 3 A [RP1...5] 5 A [RP1...6]	7 A	2.5 A [RAP...A3] 3 A [RAP...A5]	
Min. operational current	20 mA	10 mA	20 mA	1 mADC
Non rep. surge current (t=20 ms)	65 Ap [RP1...3] 80 Ap [RP1...5] 250 Ap [RP1...6]	250 Ap	60 Ap [RAP...A3] 90 Ap [RAP...A5]	
Off-state leakage current	$\leq 1$ mA	$\leq 3$ mA	$\leq 1$ mA	0.01 mADC
I <sup>2</sup> t for fusing (t=10 ms)	20 A <sup>2</sup> s [RP1...3] 50 A <sup>2</sup> s [RP1...5] 340 A <sup>2</sup> s [RP1...6]	340 A <sup>2</sup> s	18 A <sup>2</sup> s [RAP...A3] 40 A <sup>2</sup> s [RAP...A5]	
Critical dV/dt off-state	250 V/ $\mu$ s [RP1...3] 500 V/ $\mu$ s [RP1...5] 500 V/ $\mu$ s [RP1...6]	1000 V/ $\mu$ s	100 V/ $\mu$ s	
<b>General specifications</b>				
Operational voltage range	12-265 Vrms [RP1A23..] 20-440 Vrms [RP1A40..] 20-530 Vrms [RP1A48..]	12-265 Vrms [RP1A23..] 20-440 Vrms [RP1A40..] 20-530 Vrms [RP1A48..]	10-440 Vrms [RAP40..] 20-530 Vrms [RAP48..]	1- 60 VDC [RP1D060...] 1 - 350 VDC [RP1D350...]
Blocking voltage	650 Vp [RP1A23..] 850 Vp [RP1A40..] 1000 Vp [RP1A48..]	650 Vp [RP1A23..] 850 Vp [RP1A40..] 1000 Vp [RP1A48..]	1000 Vp [RAP40..] 1200 Vp [RAP48..]	
Power factor	0.5	0.5	0.2	0.5
Operating temperature	-20°C to +70°C	-30°C to +80°C	-20°C to +70°C	-20°C to +80°C
Terminals	4 pins x $\varnothing$ 0.1 mm	4 pins x $\varnothing$ 0.1 mm	4 pins x $\varnothing$ 0.1 mm	4 pins x $\varnothing$ 0.1 mm
Approvals/Marks	CE - UR - cUR - VDE	CE - UR - cUR	CE - UR - CSA - VDE	CE - UR - cUR
<b>References</b>				
	3 A	10 A	3 A	1 A
	<b>RP1A23D3</b>	<b>RP1A23D10</b>	<b>RAP40A3</b>	<b>RP1D350D1</b>
	<b>RP1A40D3</b>	<b>RP1A40D10</b>	<b>RAP48A3</b>	
	<b>RP1A48D3</b>	<b>RP1A48D10</b>		4 A
	5 A		5 A	<b>RP1D060D4</b>
	<b>RP1A23D5</b>		<b>RAP40A5</b>	
	<b>RP1A40D5</b>		<b>RAP48A5</b>	8 A
	<b>RP1A48D5</b>			<b>RP1D060D8</b>
	5.5 A			
	<b>RP1A23D6</b>			
	<b>RP1A23A6</b>			
	<b>RP1A40D6</b>			
	<b>RP1A48D6</b>			

\* Other options available on request: Instant-on switching (RP1B..), see Accessories for DIN-rail adaptor.

# Solid state relays, 1-phase




Types	RGS1A..KKE	RGS1A..KGE	RGS1A..MKE
Single phase, chassis mounting with LED for control status indication, IP20 protection, 45-65 Hz operating frequency, $\geq 4000$ VACrms isolation voltage, 100 kArms short circuit current rating, certified motor ratings			
Dimensions (mm)	90 x 17.8 x 50.6	90 x 17.8 x 50.6	90 x 17.8 x 63.6
Features	17.8 mm wide solid state relay with integrated varistor on output, AC or DC control range, screw terminals with captivated clamp for power and control connections, E-type layout	17.8 mm wide solid state relay with integrated varistor on output, AC or DC control range, box clamp for power connections (up to 25 mm <sup>2</sup> /AWG3), screw for control connections, E-type layout	17.8 mm wide solid state relay with integrated varistor on output, AC or DC control range, screw terminals with captivated clamp for power connections and pluggable spring for control, E-type layout
<b>Input specifications</b>			
Control input range	3-32 VDC [RG.23D.] / 4-32 VDC [RG.60D.] 20-275 VAC, 24-190 VDC [RG..A.]	4-32 VDC [RG..D.] 20-275 VAC, 24-190 VDC [RG..A.]	3-32 VDC [RG..23D..], 4-32 VDC [RG..60D..] 20-275 VAC, 24-190 VDC [RG..A.]
Max. input current	11 mA DC [RG..D.] 30 mA AC [RG..A.]	11 mA DC [RG..D.] 30 mA AC [RG..A.]	11 mA DC [RG..D.] 30 mA AC [RG..A.]
<b>Output specifications</b>			
Rated operational current AC-51 @ Ta=40°C	25 AAC [RG..25] / 50 AAC [RG..50/51] 75 AAC [RG..75] / 90 AAC [RG..90/91/92]	50 AAC [RG..50] 90 AAC [RG..92]	25 AAC [RG..25] / 50 AAC [RG..50] 90 AAC [RG..90/92]
AC-53a @ Ta=40°C	5 AAC [RG..25] / 10 AAC [RG..50/51] 14.8 AAC [RG..75] / 18 AAC [RG..90/91/92]	10 AAC [RG..50] 18 AAC [RG..92]	5 AAC [RG..25] / 10 AAC [RG..50] 18 AAC [RG..90/92]
Min. operational current	150 mA AC [RG..25] / 250 mA AC [RG..50/51] 400 mA AC [RG..75] / 500 mA AC [RG..90/91/92]	250 mA AC [RG..50] 500 mA AC [RG..92]	150 mA AC [RG..25] / 250 mA AC [RG..50] 500 mA AC [RG..90/92]
Non rep. surge current (t=10 ms)	325 Ap [RG..25] / 600 Ap [RG..50/51] 800 Ap [RG..75] / 1150 Ap [RG..90/91] 1900 Ap [RGS..92]	600 Ap [RG..50] 1900 Ap [RG..92]	325 Ap [RG..25] / 600 Ap [RG..50] 1150 Ap [RG..90] / 1900 Ap [RG..92]
Max. Off-state leak current	3 mA AC	3 mA AC	3 mA AC
I <sup>2</sup> t for fusing (t=10 ms)	525 A <sup>2</sup> s [RG..25] / 1800 A <sup>2</sup> s [RG..50/51] 3200 A <sup>2</sup> s [RG..75] / 6600 A <sup>2</sup> s [RG..90/91] 18000 A <sup>2</sup> s [RGS..92]	1800 A <sup>2</sup> s [RG..50] 18000 A <sup>2</sup> s [RG..92]	525 A <sup>2</sup> s [RG..25] / 1800 A <sup>2</sup> s [RG..50] 6600 A <sup>2</sup> s [RG..90] / 18000 A <sup>2</sup> s [RG..92]
Critical dV/dt (@ Tj init = 40°C)	1000 V/μs	1000 V/μs	1000 V/μs
<b>General specifications</b>			
Operational voltage range	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60...]	42-600 VAC +10%	24-240 VAC +10% [RG..23..] 42-600 VAC +10% [RG..60..]
Blocking voltage	800 Vp [RG..23..] 1200 Vp [RG..60..] 1600 Vp [RG..60..51/91]	1200 Vp	800 Vp [RG..23..] 1200 Vp [RG..60..]
Power factor	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage
Operating temperature	-40°C to 80°C	-40°C to +80°C	-40°C to +80°C
Approvals/Marks	CE - cURus - CSA - VDE	CE - cURus - CSA - VDE	CE - cURus - CSA - VDE
<b>References</b>			
230 VAC, 800 Vp	25 AAC: <b>RGS1A23X25KKE</b>		25 AAC: <b>RGS1A23X25MKE</b>
	50 AAC: <b>RGS1A23X50KKE</b>		50 AAC: <b>RGS1A23X50MKE</b>
	75 AAC: <b>RGS1A23X75KKE</b>		
600 VAC, 1200 Vp	25 AAC: <b>RGS1A60X25KKE</b>		25 AAC: <b>RGS1A60X25MKE</b>
	50 AAC: <b>RGS1A60X50KKE</b>	50 AAC: <b>RGS1A60X50KGE</b>	50 AAC: <b>RGS1A60X50MKE</b>
	75 AAC: <b>RGS1A60X75KKE</b>		
	90 AAC: <b>RGS1A60X90KKE</b>		90 AAC: <b>RGS1A60X90MKE</b>
	90 AAC: <b>RGS1A60X92KKE</b>	90 AAC: <b>RGS1A60X92KGE</b>	90 AAC: <b>RGS1A60X92MKE</b>
600 VAC, 1600 Vp	50 AAC: <b>RGS1A60X51KKE</b>		
	90 AAC: <b>RGS1A60X91KKE</b>		

X must be replaced with D for DC control 3-32 VDC, 4-32 VDC (for 600 VAC versions)

X must be replaced with A for AC control 20-275 VAC, 24-190 VDC

RGS1B.. models for Instant On (Random) switching are available on request

# Solid state relays, 1-phase




Types	RGS1A..MGE	RGS1A..KGU	RGS1A..DIN
<p>Single phase, chassis mounting with LED for control status indication, IP20 protection, 45-65 Hz operating frequency, <math>\geq 4000</math> VACrms isolation voltage, 100 kArms short circuit current rating, certified motor ratings</p>   			
Dimensions (mm)	90 x 17.8 x 63.6	90 x 17.8 x 50.6	106 x 17.8 x 65
Features	17.8 mm wide solid state relay with integrated varistor on output, AC or DC control range, box clamps for power connections (25mm <sup>2</sup> /AWG3) and pluggable spring for control, E-type layout	17.8 mm wide solid state relay with integrated varistor on output, AC or DC control range, box clamps for power and control connections, U-type layout	17.8 mm wide solid state relay mounted on DIN mountable module
<b>Input specifications</b>			
Control input range	4-32 VDC [RG..D..] 20-275 VAC, 24-190 VDC [RG..A..]	3-32 VDC [RG..23D..] 4-32 VDC [RG..60D..] 20-275 VAC, 24-190 VDC [RG..A..]	3-32 VDC [RG..23D..] 4-32 VDC [RG..60D..] 20-275 VAC, 24-190 VDC [RG..A..]
Max. input current	11 mA DC [RG..D..] 30 mA AC [RG..A..]	11 mA DC [RG..D..] 30 mA AC [RG..A..]	11 mA DC [RG..D..] 30 mA AC [RG..A..]
<b>Output specifications</b>			
Rated operational current AC-51 @ Ta=40°C	50 AAC [RG..50] 90 AAC [RG..92]	20 AAC [RG..20] 30 AAC [RG..30]	10 AAC [RG..20/25..DIN] 12 AAC [RG..50/90..DIN]
AC-53a @ Ta=40°C	10 AAC [RG..50] 18 AAC [RG..92]	5 AAC [RG..20] 8 AAC [RG..30]	5 AAC [RG..20/25..DIN] 5 AAC [RG..50/90..DIN]
Min. operational current	250 mA AC [RG..50] 500 mA AC [RG..92]	150 mA AC [RG..20] 250 mA AC [RG..30]	150 mA AC [RG..20/25..DIN] 250 mA AC [RG..50..DIN] 400 mA AC [RG..90..DIN]
Non rep. surge current (t=10 ms)	600 Ap [RG..50] 1900 Ap [RG..92]	325 Ap [RG..20] 600 Ap [RG..30]	325 Ap [RG..20/25..DIN] 600 Ap [RG..50..DIN] 1150 Ap [RG..90..DIN]
Max. Off-state leak current	3 mA AC	3 mA AC	3 mA AC
I <sup>2</sup> t for fusing (t=10 ms)	1800 A <sup>2</sup> s [RG..50] 18000 A <sup>2</sup> s [RG..92]	525 A <sup>2</sup> s [RG..20] 1800 A <sup>2</sup> s [RG..30]	525 A <sup>2</sup> s [RG..20/25..DIN] 1800 A <sup>2</sup> s [RG..50..DIN] 6600 A <sup>2</sup> s [RG..90..DIN]
Critical dV/dt (@ Tj init=40°C)	1000 V/μs	1000 V/μs	1000 V/μs
<b>General specifications</b>			
Operational voltage range	42-600 VAC +10%	24-240 VAC +10% [RG..23..] 42-600 VAC +10% [RG..60...]	24-240 VAC +10% [RG..23..] 42-600 VAC +10% [RG..60..]
Blocking voltage	1200 Vp	800 Vp [RGS..23..] 1200 Vp [RGS..60..]	800 Vp [RG..23..] 1200 Vp [RG..60..]
Power factor	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage
Operating temperature	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Approvals/Marks	CE - cURus - CSA - VDE	CE - cURus - CSA - VDE	CE - cURus - CSA - VDE
<b>References</b>			
230 VAC, 800 Vp, E-type			10 AAC: <b>RGS1A23X25KKEDIN</b> 12 AAC: <b>RGS1A23X50KKEDIN</b>
600 VAC, 1200 Vp, E-type	50 AAC: <b>RGS1A60X50MGE</b> 90 AAC: <b>RGS1A60X92MGE</b>		10 AAC: <b>RGS1A60X25KKEDIN</b> 12 AAC: <b>RGS1A60X50KKEDIN</b> 12 AAC: <b>RGS1A60D90KKEDIN</b>
230 VAC, 800 Vp, U-type		20 AAC: <b>RGS1A23X20KGU</b> 30 AAC: <b>RGS1A23X30KGU</b>	10 AAC: <b>RGS1A23D20KGUDIN</b>
600 VAC, 1200 Vp, U-type		20 AAC: <b>RGS1A60X20KGU</b> 30 AAC: <b>RGS1A60X30KGU</b>	

X must be replaced with D for DC control 3-32 VDC, 4-32 VDC (for 600 VAC versions)  
X must be replaced with A for AC control 20-275 VAC, 24-190 VDC  
RGS1B.. models for Instant On (Random) switching are available on request

# Solid state relays, 1-phase

## Industrial Housing DC Output Switching

## Industrial Housing - AC Output Switching Integrated Current Measurement

Types	RGS1D...KKE	RGS1S..EP	RGS1S..UP
Single phase, chassis mounting industrial relays with LED for control status indication and IP20 protection, Rated isolation voltage $\geq 4000$ Vrms, 100 kArms Short Circuit Current Rating for AC switching versions			
Dimensions HxWxD (mm)	90 x 17.8 x 50.6	90 x 22.5 x 78	90 x 35.6 x 78
Features	17.8 mm wide solid state relay with IGBT output, integrated free wheeling diode, DC control voltage, screw terminals with captivated clamp, E-type layout	22.5 mm wide solid-state relay with thyristor output, integrated varistor, DC control, local or remote TEACH, detection of partial load failure (1/6), SSR and load malfunction, SSR overheat protection.	35 mm wide solid-state relay with thyristor output, integrated varistor, DC control, local or remote TEACH, detection of partial load failure (1/6), SSR and load malfunction, SSR overheat protection.

### Input specifications

Control input range	4.5-32 VDC	4-32 VDC	4-32 VDC
Max. input current	13.7 mA	10 mA	10 mA
Supply voltage		24 VDC -15%, +20%	24 VDC -15%, +20%
Max. supply current		50 mA	50 mA

### Alarm specifications

Output type		NC PNP open collector max. 35 VDC / 50 mA	NC PNP open collector max. 35 VDC / 50 mA
Alarm Indication		Red LED (flash rate)	Red LED (flash rate)

### Output specifications

Rated operational current AC-51 @ $T_a=40^\circ\text{C}$		20 AAC [RGS1S..20] 30 AAC [RGS1S..30 / 31] 90 AAC [RGS1S..92]	65 AAC
DC Rated operational current	15 ADC [RGS1D..15.] 25 ADC [RGS1D..25.]		
Minimum TEACH / operational current	20 mA	1.2 AAC [RGS1S..20/30/31] 5 AAC [RGS1S..92]	5 AAC
Minimum partial load current		0.2 AAC [RGS1S..20/30/31] 0.83 AAC [RGS1S..92]	0.83 AAC
Detectable partial load failure		>16.67% from current setpoint	>16.67% from current setpoint
Non rep. surge current ( $I_{tsm}$ ) ( $t=10$ ms)	200 ADC [10 $\mu$ s]	325 Ap [RGS1S..20] - 600 Ap [RGS1S..30] 1150 Ap [RGS1S..31] - 1900 Ap [RGS1S..92]	1900 Ap
Max. Off-state leak current	1.5 mA	3 mA	3 mA
$I^2t$ for fusing ( $t=10$ ms)		525 A <sup>2</sup> s [RGS1S..20] - 1800 A <sup>2</sup> s [RGS1S..30] 6600 A <sup>2</sup> s [RGS1S..31] - 18000 A <sup>2</sup> s [RGS1S..92]	18000 A <sup>2</sup> s
Critical $dV/dt$ (@ $T_j$ init = $40^\circ\text{C}$ )		1000 V/ $\mu$ s	1000 V/ $\mu$ s

### General specifications

Operational voltage range	24-1000 VDC [CE] 24-600 VDC [UL508]	42-600 VAC +10%	42-600 VAC +10%
Blocking voltage	1200 VDC	1200 Vp	1200 Vp
Power factor		$\geq 0.9$ at rated voltage	$\geq 0.9$ at rated voltage
Operating temperature	-40°C to +80°C	-25°C to +70°C	-25°C to +70°C
Approvals/Marks	CE - cURus - CSA	CE - cURus - CSA	CE - cURus - CSA





### References

1000 VDC	15 ADC: RGS1D1000D15KKE 25 ADC: RGS1D1000D25KKE		
600 VAC, 525 A <sup>2</sup> s, E-type		20 AAC: RGS1S60D20GKEP	
600 VAC, 1800 A <sup>2</sup> s, E-type		30 AAC: RGS1S60D30GKEP	
600 VAC, 6600 A <sup>2</sup> s, E-type		30 AAC: RGS1S60D31GKEP	
600 VAC, 18000 A <sup>2</sup> s, E-type		90 AAC: RGS1S60D92GGEP	
600 VAC, 18000 A <sup>2</sup> s, U-type			65 AAC: RGS1S60D61GGUP




KK = screws for control terminals, screws for power terminals  
GK = box clamps for control terminals, screws for power terminals  
GG = box clamps for control terminals, box clamps for power terminals

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# Solid state relays, 1-phase

	Industrial Housing Zero switching		Industrial Housing Zero / Instant-on switching	
Types	RS1A 10/25/40 A	RS1A..A 25/40 A	RAM1A 25/50/75/100/125 A	RM1A 25/50/75/100 A
Single phase, chassis mounting, industrial relays with LED status indication and IP 20 protection. AC operating frequency range 45-65 Hz. Rated isolation voltage $\geq 4000$ Vrms				
Dimensions HxWxD (mm)	58.2 x 44.8 x 28.8	58.2 x 44.8 x 28.8	58.2 x 44.8 x 28.8	58.2 x 44.8 x 28.8
Features	Ideal for Ohmic loads	AC control Ohmic loads	Built-in snubber, VDE	Built-in Varistor
<b>Input specifications</b>				
Control input range	3-32 VDC [RS1A23D...] 4-32 VDC [RS.....D] 18-36 VAC/DC [RS...LA]	80-130 VAC [RS1A..A1] 200-260 VAC [RS1A..A2] 360-400 VAC [RS1A..A4]	3-32 VDC [RAM1A23D..] 4-32 VDC [RAM1A60D..] 20-280 VAC / 22-48 VDC [RAM..A.]	3-32 VDC [RAM1A23D..] 4-32 VDC [RM1A..D.] 20-280 VAC / 22-48 VDC [RM..A.]
Max. input current	12 mA [RS..D.] 15 mA [RS..LA.]	13 mA	12 mA [RAM1A..D.] 20 mA [RAM1A..A.]	12 mA [RM1A..D.] 20 mA [RM1A..A.]
<b>Output specifications</b>				
Rated operational current				
AC 51 @ Ta=25°C	10/25/40 A	25/40 A	25/50/75/100/125 A	25/50/75/100 A
AC 53a @ Ta=25°C			5/15/17/20/30 A	5/15/20/30 A
Min. operational current	150 mA	150 mA	150 mA	150 mA
Non rep. surge current (t=10 ms)	100 Ap [RS1A...10] 325 Ap [RS1A...23] 600 Ap [RS1A...40]	325 Ap [RS1A...25] 600 Ap [RS1A...40]	325 Ap [RAM1A..25] 600 Ap [RAM1A..50] 800 Ap [RAM1A..75] 1150 Ap [RAM1A..100] 1900 Ap [RAM1A..125]	325 Ap [RM1A..25] 600 Ap [RM1A..50] 1150 Ap [RM1A..75] 1900 Ap [RM1A..100]
Off-state leakage current	< 3 mA	< 3 mA	< 3 mA	< 3 mA
I <sup>2</sup> t for fusing (t=10 ms)	$\leq 50$ A <sup>2</sup> s [RS1A..10] $\leq 525$ A <sup>2</sup> s [RS1A..25] $\leq 1800$ A <sup>2</sup> s [RS1A..40]	$\leq 525$ A <sup>2</sup> s [RS1A..25] $\leq 1800$ A <sup>2</sup> s [RS1A..40]	$< 525$ A <sup>2</sup> s [RAM1A..25] $< 1800$ A <sup>2</sup> s [RAM1A..50] $< 3200$ A <sup>2</sup> s [RAM1A..75] $< 6600$ A <sup>2</sup> s [RAM1A..100] $< 18000$ A <sup>2</sup> s [RAM1A..125]	$< 525$ A <sup>2</sup> s [RM1A..25] $< 1800$ A <sup>2</sup> s [RM1A..50] $< 6600$ A <sup>2</sup> s [RM1A..75] $< 18000$ A <sup>2</sup> s [RM1A..100]
Critical dV/dt	500 V/ $\mu$ s	500 V/ $\mu$ s	1000 V/ $\mu$ s	1000 V/ $\mu$ s
<b>General specifications</b>				
Operational voltage range	42-265 Vrms [RS1A23..] 42-440 Vrms [RS1A40..] 42-530 Vrms [RS1A48..]	42-265 Vrms [RS1A23..] 42-440 Vrms [RS1A40..]	24-265 Vrms [RAM1A23..] 42-660 Vrms [RAM1A60..]	24-265 Vrms [RM1A23..] 42-440 Vrms [RM1A40..] 42-530 Vrms [RM1A48..] 42-660 Vrms [RM1A60..]
Blocking voltage	$\geq 650$ Vp [RS1A23..] $\geq 850$ Vp [RS1A40..] $\geq 1200$ Vp [RS1A48..]	$\geq 650$ Vp [RS1A23..] $\geq 850$ Vp [RS1A40..]	$< 650$ Vp [RAM1A23..] $< 1200$ Vp [RAM1A60..]	$< 650$ Vp [RM1A23..] $< 850$ Vp [RM1A40..] $< 1200$ Vp [RM1A48..] $< 1400$ Vp [RM1A60..]
Power factor	$\geq 0.95$	$\geq 0.95$	$\geq 0.5$	$\geq 0.5$
Operating temperature	-20°C to +70°C	-30°C to +70°C	-40°C to +80°C	-20°C to +70°C
Terminals	Screw type with clamp	Screw type with clamp	Screw type with clamp	Screw type with clamp
Approvals/Marks	CE - UR - CSA	CE - UR - CSA	CE - UR - CSA - VDE	CE - UR - CSA
<b>References</b>				
	10 / 25 / 40 A	25 / 40 A	25 / 50 / 75 / 100 / 125 A	25 / 50 / 75 / 100 A
230 Vrms	RS1A23D.. RS1A23LA..	RS1A23A1.. RS1A23A2.. RS1A23A4..	RAM1A23D.. RAM1A23A..	RM1A23D.. RM1A23A..
400 Vrms	RS1A40D.. RS1A40LA..	RS1A40A2.. RS1A40A4..		RM1A40D.. RM1A40A..
480 Vrms	RS1A48D.. RS1A48LA..			RM1A48D.. RM1A48A..
600 Vrms			RAM1A60D.. RAM1A60A..	RM1A60D.. RM1A60A..

# Solid state relays, 1-phase





	Industrial Housing Zero switching	Industrial Housing Peak switching	Industrial Housing Phase angle
Types	RM1A..M 25/50/75/100 A	RM1C 25/50/75/100 A	RM1E 25/50/100 A
Single phase, chassis mounting, industrial relays with LED status indication and IP20 protection AC operating frequency range 45-65 Hz. Rated isolation voltage ≥ 4000 Vrms			
Dimensions HxWxD (mm)	58.2 x 44.8 x 28.8	58.2 x 44.8 x 28.8	58.2 x 44.8 x 28.8
Features	Low voltage AC/DC control	Ideal for transformers	Analog Phase-angle control
<b>Input specifications</b>			
Control input range	4.25-36 VDC / 4.25-27 VAC	4.25-32 VDC	4-20 mA [RM1E..AA..] 0-10 VDC [RM1E..V..]
Max. input current	18 mA @ 24 VAC/DC	18 mA	0.15 mA [RM1E..V..]
Supply voltage range			24 VDC [RM1E..V..]
Max. supply input current			20 mA [RM1E..V..]
<b>Output specifications</b>			
Rated operational current			
AC 51 @ Ta=25°C	25 / 50 / 75 / 100 A	25 / 50 / 100 A	25 / 50 / 100 A
AC 53a @ Ta=25°C	5 / 15 / 20 / 30 A		5 / 15 / 20 A
AC 56a @ Ta=25°C		10/20/30 A	
Min. operational current	150 mA	150 mA	150 mA
Non rep. surge current (t=10 ms)	325 Ap [RM1A..M25] 600 Ap [RM1A..M50] 1150 Ap [RM1A..M75] 1900 Ap [RM1A..M100]	325 Ap [RM1C..25] 600 Ap [RM1C..50] 1150 Ap [RM1C..75] 1900 Ap [RM1C..100]	325 Ap [RM1E..25] 600 Ap [RM1E..50] 1150 Ap [RM1E..100]
Off-state leakage current	< 3 mA	< 3 mA	< 3 mA
I <sup>2</sup> t for fusing (t=10 ms)	≤525 A <sup>2</sup> s [RM1A..M25] ≤1800 A <sup>2</sup> s [RM1A..M50] ≤6600 A <sup>2</sup> s [RM1A..M75] ≤18000 A <sup>2</sup> s [RM1A..M100]	≤525 A <sup>2</sup> s [RM1C..25] ≤1800 A <sup>2</sup> s [RM1C..50] ≤6600 A <sup>2</sup> s [RM1C..75] ≤18000 A <sup>2</sup> s [RM1C..100]	≤525 A <sup>2</sup> s [RM1E..25] ≤1800 A <sup>2</sup> s [RM1E..50] ≤6600 A <sup>2</sup> s [RM1E..100]
<b>General specifications</b>			
Operational voltage range	24-265 Vrms [RM1A23M..] 42-440 Vrms [RM1A40M..] 42-530 Vrms [RM1A48M..] 42-660 Vrms [RM1A60M..]	100-440 Vrms [RM1C40D..] 340-660 Vrms [RM1C60D..]	90-280/ 90-265 Vrms [RM1E23AA/V..] 340-460 Vrms [RM1E40AA..] 90-550/ 200-550 Vrms [RM1E48AA/V..] 410-660 Vrms [RM1E60AA/V..]
Blocking voltage	≥650 Vp [RM1A23M..] ≥850 Vp [RM1A40M..] ≥1200 Vp [RM1A48M..] ≥1400 Vp [RM1A60M..]	850 Vp [RM1C40D..] 1400 Vp [RM1C60D..]	<650 Vp [RM1E23..] <850 Vp [RM1E40..] <1200 Vp [RM1E48..] <1400 Vp [RM1E60..]
Power factor	≥ 0.5	≥ 0.95	≥ 0.75
Operating temperature	-20°C to +70°C	-30°C to +80°C	-20°C to +70°C
Terminals	Screw type with clamp	Screw type with clamp	Screw type with clamp
Approvals/Marks	CE - UR - CSA	CE - UR - CSA	CE - UR - CSA
<b>References 1-phase:</b>			
	25 / 50 / 75 / 100 A	25 / 50 / 75 / 100 A	25 / 50 / 100 A
230 Vrms	<b>RM1A23M..</b>		<b>RM1E23AA25**</b> <b>RM1E23AA50**</b> <b>RM1E23AA100**</b>
400 Vrms	<b>RM1A40M..</b>	<b>RM1C40D25</b> <b>RM1C40D50</b> <b>RM1C40D75</b>	<b>RM1E40AA25</b> <b>RM1E40AA50</b> <b>RM1E40AA100</b>
480 Vrms	<b>RM1A48M..</b>		<b>RM1E48AA25**</b> <b>RM1E48AA50**</b> <b>RM1E48AA100**</b>
600 Vrms	<b>RM1A60M..</b>	<b>RM1C60D25</b> <b>RM1C60D50</b> <b>RM1C60D100</b>	<b>RM1E60AA25**</b> <b>RM1E60AA50**</b> <b>RM1E60AA100**</b>

\*\* Replace "AA" by "V" for voltage controlled versions

CARLO GAVAZZI Automation Components. Specifications are subject to change without notice. Illustrations are for example only.

# Solid state relays, 1 / 2-phase

## Industrial Housing - AC Output Switching

Types	RA Sense 25/50/90/110 A	RA Low Noise 10/25 A	RA2A* 25/40 A	RA2A..C 25/40 A
Single Phase relays with special functions. 2 Phase industrial relays				
Dimensions HxWxD (mm)	58.2 x 44.8 x 28.8	58.2 x 44.8 x 28.8	57.8 x 44.5 x 31.7	57.8 x 44.5 x 34.8
Features	Detects supply and load failure	Complies with EN55022	Two independent poles	Two independent poles, faston terminals for power, pin connectors for control

### Input Specifications

Control input range	7-32 VDC	3-32 VDC	4.5-32 VDC	4.5-32 VDC
Max. input current	4 mA	32 mA	2 x 10 mA	2x 10 mA
Control supply	20-32 VDC (40 mA)			
Alarm output	PNP NPN	VCC - 2 VDC (100 mA) 2 VDC (100 mA)		

### Output Specifications

Rated operational current AC 51 @ Ta=40°C	25 A / 50 A / 90 A / 110 A	10 A / 25 A	25 A / 40 A per pole	25 A / 40 A per pole
AC 53a @ Ta=40°C			5 A / 15 A per pole	
Min. operational current	200 mArms	2 Arms	150 mArms [RA2A...25] 250 mArms [RA2A...40]	150 mArms [RA2A...25C] 250 mArms [RA2A...40C]
Non rep. surge current (t=10 ms)	325 Ap [RA..25..S] 600 Ap [RA..50..S] 1150 Ap [RA..90..S] 1900 Ap [RA..110..S]	90 Ap, t=20 ms [RA..10..L] 200 Ap, t=20 ms [RA..25..L]	325 Ap [RA2A..25] 600 Ap [RA2A..40] 325 Ap [RA2A..25M] 600 Ap [RA2A..40M]	325 Ap [RA2A...25C] 600 Ap [RA2A...40C]
Off-state leakage current	< 6 mArms	< 1 mArms	< 3 mArms	<3 mArms
I <sup>2</sup> t for fusing (t=10 ms)	525 A <sup>2</sup> s [RA..25..S] 1800A <sup>2</sup> s [RA..50..S] 6600 A <sup>2</sup> s [RA..90..S] 18000 A <sup>2</sup> s [RA..110..S]	120 A <sup>2</sup> s [RA..10..L] 200A <sup>2</sup> s [RA..25..L]	525 A <sup>2</sup> s [RA2A..25] 1800 A <sup>2</sup> s [RA2A..40] 525 A <sup>2</sup> s [RA2A..25M] 1800A <sup>2</sup> s [RA2A..40M]	525 A <sup>2</sup> s [RA2A..25C] 1800 A <sup>2</sup> s [RA2A..40C]




### General specifications

Operational voltage range	60-140 Vrms [RA12..S] 170-250 Vrms [RA23..S] 150-440 Vrms [RA40..S] 180-530 Vrms [RA48..S]	180-265 Vrms [RA24..L] 340-530 Vrms [RA40..L]	24-265 Vrms [RA2A23..] 42-440 Vrms [RA2A40..] 42-530 Vrms [RA2A48..] 42-660 Vrms [RA2A60..]	24-265 Vrms [RA2A23..] 42-660 Vrms [RA2A60..]
Blocking voltage	650 Vp [RA12..S] 650 Vp [RA23..S] 1000 Vp [RA40..S] 1200 Vp [RA48..S]	650 Vp [RA24..L] 850 Vp [RA40..L]	650 Vp [RA2A23..] 850 Vp [RA2A40..] 1200 Vp [RA2A48..] 1200 Vp [RA2A60..]	650 Vp [RA2A23..] 1200 Vp [RA2A60..]
Power factor	≥ 0.5	1	≥ 0.95 [RA2A...] ≥ 0.50 [RA2A...M]	≥ 0.95 at rated voltage
Operating temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Terminals	Screw / 5 way plug	Screw type with clamp	FASTONS 6.35 mm	FASTONS 6.35mm / 4 way plug
Approvals/Marks	CE - UR - CSA	CE - UR - CSA - VDE	CE - UR - CSA	CE - cURus

### References

	25 / 50 / 90 / 110 A	10 / 25 A	25 / 40 A per pole	25 / 40 A per pole
120 Vrms	RA12..06..S			
230 Vrms	RA23..06..S	RA2410-D06L RA2425-D06L	RA2A23.. RA2A23..M	RA2A23D..C
400 Vrms	RA40..10..S	RA4010-D08L RA4025-D08L	RA2A40.. RA2A40..M	
480 Vrms	RA48..12..S		RA2A48.. RA2A48..M	
600 Vrms			RA2A60.. RA2A60..M	RA2A60D..C

# Solid state relays, 1 / 3-phase


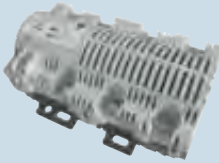
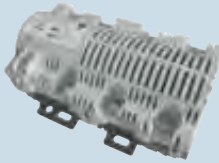
	Industrial Housing Zero switching	Industrial Housing DC switching	Industrial Housing 3-phase switching
Types	<b>RA</b> 25/50/90/110 A	<b>RD</b> 1/5 A DC	<b>RZ3A</b> 25/55/75 A
Single phase and 3 phase industrial relays			
Dimensions HxWxD (mm)	58.2 x 44.8 x 28.8	58.2 x 44.8 x 28.8	74 x 103 x 41
Features	General purpose	Ideal for DC valve coils	3-phase switching
<b>Input specifications</b>			
Control input range	3-32 VDC [RA..D..] 10-90 VAC / DC [RA..LA..] 90-280 VAC / DC [RA..HA..]	3-32 VDC	4-32 VDC [RZ3A..D.] 24-275 Vrms [RZ3A..A.]
Max. input current	22 mA [RA..D..] 17 mA [RA..LA..] 6.5 mA [RA..HA..]	32 mA	23 / 15 mA
<b>Output specifications</b>			
Rated operational current			
AC 51 @ Ta=25°C	25 A, 50 A, 90 A, 110 A	DC1: 1A / 5A	25 / 55 / 75 Arms
AC 53a @ Ta=25°C	5 A, 15 A, 20 A, 30 A		5 / 15 / 20 Arms
Min. operational current	20 mA	1 mA	
Non rep. surge current (t=10 ms)	325 Ap [RA..25.] 600 Ap [RA..50.] 1150 Ap [RA..90.] 1900 Ap [RA..110.]		325 Ap [RZ3A..25..] 600 Ap [RZ3A..55..] 1150 Ap [RZ3A..75..]
Off-state leakage current	< 3 mA	< 1 mA	< 3 mA
I <sup>2</sup> t for fusing (t=10 ms)	<525 A <sup>2</sup> s [RA..25.] <1800 A <sup>2</sup> s [RA..50.] <6600 A <sup>2</sup> s [RA..90.] <18000 A <sup>2</sup> s [RA..110.]		525 A <sup>2</sup> s [RZ3A..25..] 1800 A <sup>2</sup> s [RZ3A..55..] 6600 A <sup>2</sup> s [RZ3A..75..]
<b>General specifications</b>			
Operational voltage range	24-280 Vrms [RA24.06..] 42-480 Vrms [RA44.08..] 42-530 Vrms [RA48.12..] 24-690 Vrms [RA60.16..]	3-60 VDC [RD0605..D] 3-200 VDC [RD2001..D] 3-350 VDC [RD3501..D]	24-440 Vrms [RZ3A40..] 42-530 Vrms [RZ3A48..] 42-660 Vrms [RZ3A60..]
Blocking voltage	<650 Vp [RA24.06..] <850 Vp [RA44.08..] <1200 Vp [RA48.12..] <1600 Vp [RA60.16..]		<850 Vp [RZ3A40..] <1200 Vp [RZ3A48..] <1600 Vp [RZ3A60..]
Power factor	≥ 0.5		
Operating temperature	-20°C to +70°C	-20°C to +70°C	-30°C to +80°C
Terminals	Screw / 5 way plug	Screw type with clamp	Screw type with clamp
Approvals/Marks	CE - UR - CSA	CE - CSA	CE - UR - CSA
<b>References</b>			
230 Vrms	<b>RA24..-D..</b>	200 VDC: <b>RD2001-D</b>	
	<b>RA24..LA..</b>	350 VDC: <b>RD3501-D</b>	
	<b>RA24..HA..</b>		
400 Vrms	<b>RA44..-D..</b>	60 VDC: <b>RD0605-D</b>	
	<b>RA44..LA..</b>		<b>RZ3A40D..*</b>
	<b>RA44..HA..</b>		<b>RZ3A40A..*</b>
480 Vrms	<b>RA48..-D..</b>		
	<b>RA48..LA..</b>		<b>RZ3A48D..*</b>
	<b>RA48..HA..</b>		<b>RZ3A48A..*</b>
600 Vrms	<b>RA60..-D..</b>		<b>RZ3A60D..*</b>
			<b>RZ3A60A..*</b>

\* Add suffix 'P' for additional integrated Over Temperature Protection






# Solid state relays, 1, 2 and 3-phase

Ready for use design - DIN rail mounting

Types	RMD1H	RMD2H	RMD3H
Hybrid relays. AC operating frequency range 45-65 Hz.			
Dimensions HxWxD (mm)	81 x 17.5 x 67.2	97 x 140.7 x 50.7	97 x 140.7 x 50.7
Features	Hybrid relay	2 pole switching hybrid relay	3 pole switching hybrid relay
<b>Input specifications</b>			
Control input range	4-32 VDC [RMD...D20] 24-275 VAC [RMD...A20]	24 VAC/DC +10/-15% [RMD2..LA..] 120 VAC/DC +10/-15% [RMD2..MA..] 240 VAC/DC +10/-15% [RMD2..HA..]	24 VAC/DC +10/-15% [RMD3..LA..] 120 VAC/DC +10/-15% [RMD3..MA..] 240 VAC/DC +10/-15% [RMD3..HA..]
Max. input current	5 mA [RMD..D20] 3 mA [RMD..A20]	400 mA	400 mA
<b>Output specifications</b>			
Rated operational current			
AC 51 @ Ta=25°C	20 A ACrms	30 AAC [RMD2..30] 40 AAC [RMD2..40]	30 AAC [RMD3..30] 40 AAC [RMD3..40]
Min. operational current	100 mA	150 mA	150 mA
<b>General specifications</b>			
Operational voltage range	195-253 Vrms	240 VAC -15% /+10% [RMD..24..] 277 VAC -15% /+10% [RMD..48..]	240 VAC -15% /+10% [RMD..24..] 277 VAC -15% /+10% [RMD..48..] 480 VAC + N [RMD..48..]
Power factor	≥ 0.9	≥ 0.9 at rated voltage	≥ 0.9 at rated voltage
Operating temperature	-5°C to +55°C	0°C to 70°C	0°C to 70°C
Terminals	Box clamp	Input 6.35 mm FASTON, Output screw	Input 6.35 mm FASTON, Output screw
Approvals/Marks	CE - cURus	CE - cURus	CE - cURus
<b>References</b>			
	<b>RMD1H23D20</b>	30 AAC	30 AAC
	<b>RMD1H23A20</b>	<b>RMD2H24LA30</b>	<b>RMD3H24LA30</b>
		<b>RMD2H24MA30</b>	<b>RMD3H24MA30</b>
		<b>RMD2H24HA30</b>	<b>RMD3H24HA30</b>
		40 AAC	<b>RMD3H48LA30</b>
		<b>RMD2H24LA40</b>	<b>RMD3H48MA30</b>
		<b>RMD2H24MA40</b>	<b>RMD3H48HA30</b>
		<b>RMD2H24HA40</b>	40 AAC
			<b>RMD3H24LA40</b>
			<b>RMD3H24MA40</b>
			<b>RMD3H24HA40</b>
			<b>RMD3H48LA40</b>
			<b>RMD3H48MA40</b>
			<b>RMD3H48HA40</b>

# Solid state contactors, 1-phase




Ready for use design - DIN rail mounting, AC Output Switching

Types	RGC1A..15KKE	RGC1A..25KKE	RGC1A..30KKE
Single phase, semiconductor contactors with integrated heatsink, LED indication and IP20 protection, AC operating frequency 45-65 Hz, Rated isolation voltage $\geq 4000$ Vrms, 100 kArms Short Circuit Current Rating, Motor ratings according to UL508			
Dimensions HxWxD (mm)	110 x 17.8 x 103.5	110 x 17.8 x 103.5	110 x 22.5 x 141
Features	17.8 mm wide solid state contactor, integrated output varistor, DC or AC control voltage, screw terminals for power and control, E-type layout	17.8 mm wide solid state contactor, integrated output varistor, DC or AC control voltage, screw terminals for power and control, E-type layout	22.5 mm wide solid state contactor, integrated output varistor, DC or AC control voltage, screw terminals for power and control, E-type layout
<b>Input Specifications</b>			
Input Specifications	3-32 VDC [RG.23D.] 4-32 VDC [RG.60D.] 20-275 VAC, 24-190 VDC [RG..A.]	3-32 VDC [RG.23D.] 4-32 VDC [RG.60D.] 20-275 VAC, 24-190 VDC [RG..A.]	3-32 VDC [RG.23D.] 4-32 VDC [RG.60D.] 20-275 VAC, 24-190 VDC [RG..A.]
Max. input current	11 mADC [RG..D.] 30 mAAC [RG..A.]	11 mADC [RG..D.] 30 mAAC [RG..A.]	11 mADC [RG..D.] 30 mAAC [RG..A.]
<b>Output Specifications</b>			
Rated operational current AC 51 @ $T_a=40^\circ\text{C}$	20 AAC	25 AAC	30 AAC
AC 53a @ $T_a=40^\circ\text{C}$	5 AAC	5 AAC	8 AAC [RGC..30.] 10 AAC [RGH..31.]
Min. operational current	150 mA [RGC..15.] 400 mA [RGH..15.]	250 mA	250 mA [RGC..30.] 400 mA [RGH..31.]
Non rep. surge current (t=10 ms)	325 Ap [RGC..15.] 1150 Ap [RGH..15.]	600 Ap	600 Ap [RGC..30.] 1150 Ap [RGH..31.]
Off-state leakage current	3 mAAC	3 mAAC	3 mAAC
$I^2t$ for fusing (t=10 ms)	525 A <sup>2</sup> s [RGC..15.] 6600 A <sup>2</sup> s [RGH..15.]	1800 A <sup>2</sup> s	1800 A <sup>2</sup> s [RGC..30.] 6600 A <sup>2</sup> s [RGH..31.]
Critical dV/dt (@ $T_j$ init=40°C)	1000 V/ $\mu\text{s}$	1000 V/ $\mu\text{s}$	1000 V/ $\mu\text{s}$
<b>General specifications</b>			
Operational voltage range	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]
Blocking voltage	800 Vp [RGC.23.] 1200 Vp [RGC.60.] 1600 Vp [RGH.60.]	800 Vp [RGC.23.] 1200 Vp [RGC.60.]	800 Vp [RGC.23.] 1200 Vp [RGC.60.] 1600 Vp [RGH.60.]
Power factor	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage
Operating temperature	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Approvals/Marks	CE - cULus - VDE - GL [RGC..15.]	CE - cULus - VDE - GL	CE - cULus - VDE - GL [RGC..30.]
<b>References</b>			
DC control voltage			
230 VAC, 800 Vp	RGC1A23D15KKE	RGC1A23D25KKE	RGC1A23D30KKE
600 VAC, 1200 Vp	RGC1A60D15KKE	RGC1A60D25KKE	RGC1A60D30KKE
600 VAC, 1600 Vp, 6600 A <sup>2</sup> s	RGH1A60D15KKE		RGH1A60D31KKE
AC/DC control voltage			
230 VAC, 800 Vp	RGC1A23A15KKE	RGC1A23A25KKE	RGC1A23A30KKE
600 VAC, 1200 Vp	RGC1A60A15KKE	RGC1A60A25KKE	RGC1A60A30KKE
600 VAC, 1600 Vp, 6600 A <sup>2</sup> s	RGH1A60A15KKE		RGH1A60A31KKE

Instant On (Random) Switching available on request (RGC1B60D...)

# Solid state contactors, 1-phase

Ready for use design - DIN rail mounting, AC Output Switching

Types	RGC1A..15MKE	RGC1A..25MKE	RGC1A..30MKE
Single phase, semiconductor contactors with integrated heatsink, LED indication and IP20 protection, AC operating frequency 45-65 Hz, Rated isolation voltage $\geq$ 4000 Vrms, 100kArms Short Circuit Current Rating, Motor ratings according to UL508			
Dimensions HxWxD (mm)	110 x 17.8 x 114.5	110 x 17.8 x 114.5	110 x 22.5 x 152
Features	17.8 mm wide solid state contactor, integrated varistor for overvoltage protection, DC or AC control voltage range, screw terminals with captivated clamp for power terminals and spring plug for control, E-type layout	17.8 mm wide solid state contactor, integrated varistor for overvoltage protection, DC or AC control voltage range, screw terminals with captivated clamp for power terminals and spring plug for control, E-type layout	22.5 mm wide solid state contactor, integrated varistor for overvoltage protection, DC or AC control voltage range, screw terminals with captivated clamp for power terminals and spring plug for control, E-type layout

## Input specifications

Control input range	3-32 VDC [RG.23D.] / 4-32 VDC [RG.60D.] 20-275 VAC, 24-190 VDC [RG..A.]	3-32 VDC [RG.23D.] / 4-32 VDC [RG.60D.] 20-275 VAC, 24-190 VDC [RG..A.]	3-32 VDC [RG.23D.] / 4-32 VDC [RG.60D.] 20-275 VAC, 24-190 VDC [RG..A.]
Max. input current	11 mADC [RG..D.] 30 mAAC [RG..A.]	11 mADC [RG..D.] 30 mAAC [RG..A.]	11 mADC [RG..D.] 30 mAAC [RG..A.]

## Output specifications

Rated operational current			
AC 51 @ Ta=40°C	20 AAC	25 AAC	30 AAC
AC 53a @ Ta=40°C	5 AAC	5 AAC	8 AAC [RGC..30.] 10 AAC [RGH..31.]
Min. operational current	150 mA [RGC..15.] 400 mA [RGH..15.]	250 mA	250 mA [RGC..30.] 400 mA [RGH..31.]
Non rep. surge current (t=10 ms)	325 Ap [RGC...15.] 1150 Ap [RGH...15.]	600 Ap	600 Ap [RGC..30.] 1150 Ap [RGH..31.]
Off-state leakage current	3 mAAC	3 mAAC	3 mAAC
I <sup>2</sup> t for fusing (t=10 ms)	525 A <sup>2</sup> s [RGC..15.] 6600 A <sup>2</sup> s [RGH..15.]	1800 A <sup>2</sup> s	1800 A <sup>2</sup> s [RGC..30.] 6600 A <sup>2</sup> s [RGH..31.]
Critical dV/dt (@Tj init=40°C)	1000 V/μs	1000 V/μs	1000 V/μs

## General specifications

Operational voltage range	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]
Blocking voltage	800 Vp [RGC.23.] 1200 Vp [RGC.60.] 1600 Vp [RGH.60.]	800 Vp [RGC.23.] 1200 Vp [RGC.60.]	800 Vp [RGC.23.] 1200 Vp [RGC.60.] 1600 Vp [RGH.60.]
Power factor	$\geq$ 0.5 at rated voltage	$\geq$ 0.5 at rated voltage	$\geq$ 0.5 at rated voltage
Operating temperature	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Approvals/Marks	CE - cULus - VDE - GL [RGC..15.]	CE - cULus - VDE - GL	CE - cULus - VDE - GL [RGC..30.]




## References

DC control voltage			
230 VAC, 800 Vp	RGC1A23D15MKE	RGC1A23D25MKE	RGC1A23D30MKE
600 VAC, 1200 Vp	RGC1A60D15MKE	RGC1A60D25MKE	RGC1A60D30MKE
600 VAC, 1600 Vp, 6600 A <sup>2</sup> s	RGH1A60D15MKE		RGH1A60D31MKE
AC/DC control voltage			
230 VAC, 800 Vp	RGC1A23A15MKE	RGC1A23A25MKE	RGC1A23A30MKE
600 VAC, 1200 Vp	RGC1A60A15MKE	RGC1A60A25MKE	RGC1A60A30MKE
600 VAC, 1600 Vp, 6600 A <sup>2</sup> s	RGH1A60A15MKE		RGH1A60A31MKE

Instant On (Random) Switching available on request (RGC1B60D...)

# Solid state contactors, 1-phase

Ready for use design - DIN rail mounting, AC Output Switching

Types	RGC1A..15KGU	RGC1A..25KGU	RGC1A..30KGU
Single phase, semiconductor contactors with integrated heatsink, LED indication and IP20 protection, AC operating frequency 45-65 Hz, Rated isolation voltage $\geq$ 4000 Vrms, 100 kArms Short Circuit Current Rating, Motor ratings according to UL508			
Dimensions HxWxD (mm)	110 x 17.8 x 103.5	110 x 17.8 x 103.5	110 x 22.5 x 141
Features	17.8 mm wide solid state contactor, integrated varistor for overvoltage protection, DC or AC control voltage range, screw terminals with captivated clamp for connection of control terminals and box clamps for power terminals, U-type layout	17.8 mm wide solid state contactor, integrated varistor for overvoltage protection, DC or AC control voltage range, screw terminals with captivated clamp for connection of control terminals and box clamps for power terminals, U-type layout	22.5 mm wide solid state contactor, integrated varistor for overvoltage protection, DC or AC control voltage range, screw terminals with captivated clamp for connection of control terminals and box clamps for power terminals, U-type layout

## Input Specifications

Control input range	3-32 VDC [RG.23D.] 4-32 VDC [RG.60D.] 20-275 VAC, 24-190 VDC [RG..A.]	3-32 VDC [RG.23D.] 4-32 VDC [RG.60D.] 20-275 VAC, 24-190 VDC [RG..A.]	3-32 VDC [RG.23D.] 4-32 VDC [RG.60D.] 20-275 VAC, 24-190 VDC [RG..A.]
Max. input current	11 mADC [RG..D.] 30 mAAC [RG..A.]	11 mADC [RG..D.] 30 mAAC [RG..A.]	11 mADC [RG..D.] 30 mAAC [RG..A.]

## Output Specifications

Rated operational current			
AC 51 @ $T_a=40^\circ\text{C}$	20 AAC	25 AAC	30 AAC
AC 53a @ $T_a=40^\circ\text{C}$	5 AAC	5 AAC	8 AAC
Min. operational current	150 mA	250 mA	250 mA
Non rep. surge current (t=10 ms)	325 Ap	600 Ap	600 Ap
Off-state leakage current	3 mAAC	3 mAAC	3 mAAC
$I^2t$ for fusing (t=10 ms)	525 A <sup>2</sup> s	1800 A <sup>2</sup> s	1800 A <sup>2</sup> s
Critical dV/dt (@ $T_j \text{ init} = 40^\circ\text{C}$ )	1000 V/ $\mu\text{s}$	1000 V/ $\mu\text{s}$	1000 V/ $\mu\text{s}$

## General specifications

Operational voltage range	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]
Blocking voltage	800 Vp [RGC.23.] 1200 Vp [RGC.60.]	800 Vp [RGC.23.] 1200 Vp [RGC.60.]	800 Vp [RGC.23.] 1200 Vp [RGC.60.]
Power factor	$\geq$ 0.5 at rated voltage	$\geq$ 0.5 at rated voltage	$\geq$ 0.5 at rated voltage
Operating temperature	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Approvals/Marks	CE - cULus - VDE - GL	CE - cULus - VDE - GL	CE - cULus - VDE - GL





## References

DC control voltage			
230 VAC, 800 Vp	RGC1A23D15KGU	RGC1A23D25KGU	RGC1A23D30KGU
600 VAC, 1200 Vp	RGC1A60D15KGU	RGC1A60D25KGU	RGC1A60D30KGU
AC/DC control voltage			
230 VAC, 800 Vp	RGC1A23A15KGU	RGC1A23A25KGU	RGC1A23A30KGU
600 VAC, 1200 Vp	RGC1A60A15KGU	RGC1A60A20KGU	RGC1A60A30KGU

Instant On (Random) Switching available on request (RGC1B60D...)

# Solid state contactors, 1-phase




Ready for use design - DIN rail mounting, AC Output Switching

Types	RGC1A..40KGE RGC1A..42KGE	RGC1A..40MGE RGC1A..42MGE	RGC1A..60KGE RGC1A..62KGE	RGC1A..62MGE
Single phase, semiconductor contactors with integrated heatsink, LED indication and IP20 protection, AC operating frequency 45-65 Hz, Rated isolation voltage $\geq 4000$ Vrms, 100 kArms Short Circuit Current Rating, Motor ratings according to UL508				
Dimensions HxWxD (mm)	110 x 35.6 x 141	110 x 35.6 x 152	110 x 69.1 x 141	110 x 69.1 x 152
Features	35 mm wide solid state contactor, integrated varistor, DC or AC control voltage, screw terminals for control, box clamp for power terminals, E-type layout	35 mm wide solid state contactor, integrated varistor, DC or AC control voltage, spring plug for control, box clamp for power terminals, E-type layout	70 mm wide solid state contactor, integrated varistor, DC or AC control voltage, screw terminals for control, box clamp for power terminals, E-type layout	70 mm wide solid state contactor, integrated varistor, DC or AC control voltage, spring plug for control, box clamp for power terminals, E-type layout
<b>Input Specifications</b>				
Control input range	3-32 VDC [RG..23D..] 4-32 VDC [RG..60D..] 20-275 VAC, 24-190 VDC [RG..A..]	3-32 VDC [RG..23D..] 4-32 VDC [RG..60D..] 20-275 VAC, 24-190 VDC [RG..A..]	3-32 VDC [RG..23D..] 4-32 VDC [RG..60D..] 20-275 VAC, 24-190 VDC [RG..A..]	3-32 VDC [RG..23D..] 4-32 VDC [RG..60D..] 20-275 VAC, 24-190 VDC [RG..A..]
Max. input current	11 mADC [RG..D..] 30 mAAC [RG..A..]	11 mADC [RG..D..] 30 mAAC [RG..A..]	11 mADC [RG..D..] 30 mAAC [RG..A..]	11 mADC [RG..D..] 30 mAAC [RG..A..]
<b>Output Specifications</b>				
Rated operational current AC 51 @ $T_a=40^\circ\text{C}$	40 AAC [RGC..40, RGH..40/41] 43 AAC [RGC..42]	40 AAC [RGC..40, RGH..41] 43 AAC [RGC..42]	60 AAC [RGC..60] 65 AAC [RGC..62, RGH..60]	65 AAC [RGC..62]
AC 53a @ $T_a=40^\circ\text{C}$	13 AAC [RGC..40, RGH..41] 16 AAC [RGC..42] 10 AAC [RGH..40]	13 AAC [RGC..40, RGH..41] 16 AAC [RGC..42]	14.8 AAC [RGC..60] 20 AAC [RGC..62] 18 AAC [RGH..60]	20 AAC [RGC..62]
Min. operational current	400 mAAC [RGC..40, RGH..41] 500 mAAC [RGC..42] 250 mAAC [RGH..40]	400 mAAC [RGC..40, RGH..41] 500 mAAC [RGC..42]	400 mAAC [RGC..60, RGH..60] 500 mAAC [RGC..62]	500 mAAC [RGC..62]
Non rep. surge current (t=10 ms)	800 Ap [RGC..40] 1900 Ap [RGC..42] 600 Ap [RGH..40] 1150 Ap [RGH..41]	800 Ap [RGC..40] 1900 Ap [RGC..42] 1150 Ap [RGH..41]	800 Ap [RGC..60] 1900 Ap [RGC..62] 1150 Ap [RGH..60]	1900 Ap [RGC..62]
Off-state leakage current	3 mAAC	3 mAAC	3 mAAC	3 mAAC
I <sup>2</sup> t for fusing (t=10 ms)	3200A <sup>2</sup> s [RGC..40] 18000 A <sup>2</sup> s [RGC..42] 1800 A <sup>2</sup> s [RGH..40] 6600 A <sup>2</sup> s [RGH..41]	3200A <sup>2</sup> s [RGC..40] 18000 A <sup>2</sup> s [RGC..42] 6600 A <sup>2</sup> s [RGH..41]	3200A <sup>2</sup> s [RGC..60] 18000 A <sup>2</sup> s [RGC..62] 6600 A <sup>2</sup> s [RGH..60]	18000 A <sup>2</sup> s [RGC..62]
<b>General specifications</b>				
Operational voltage range	24-240 VAC +10% [RG..23..] 42-600 VAC +10% [RG..60..]	24-240 VAC +10% [RG..23..] 42-600 VAC +10% [RG..60..]	24-240 VAC +10% [RG..23..] 42-600 VAC +10% [RG..60..]	24-240 VAC +10% [RG..23..] 42-600 VAC +10% [RG..60..]
Blocking voltage	800 Vp [RGC..23..] 1200 Vp [RGC..60..] 1600 Vp [RGH..60..]	800 Vp [RGC..23..] 1200 Vp [RGC..60..] 1600 Vp [RGH..60..]	800 Vp [RGC..23..] 1200 Vp [RGC..60..] 1600 Vp [RGH..60..]	800 Vp [RGC..23..] 1200 Vp [RGC..60..]
Power factor	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage
Operating temperature	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Approvals/Marks	CE - cULus - VDE	CE - cULus - VDE	CE - cULus - VDE	CE - cULus - VDE
<b>References</b>				
230 VAC, 800 Vp, 3200 A <sup>2</sup> s	RGC1A23X40KGE	RGC1A23X40MGE	RGC1A23X60KGE	
230 VAC, 800 Vp, 18000 A <sup>2</sup> s	RGC1A23X42KGE	RGC1A23X42MGE	RGC1A23X62KGE	RGC1A23X62MGE
600 VAC, 1200 Vp, 3200 A <sup>2</sup> s	RGC1A60X40KGE	RGC1A60X40MGE	RGC1A60X60KGE	
600 VAC, 1200 Vp, 18000 A <sup>2</sup> s	RGC1A60X42KGE	RGC1A60X42MGE	RGC1A60X62KGE	RGC1A60X62MGE
600 VAC, 1600 Vp, 1800 A <sup>2</sup> s	RGH1A60X40KGE			
600 VAC, 1600 Vp, 6600 A <sup>2</sup> s	RGH1A60X41KGE	RGH1A60X41MGE	RGH1A60X60KGE	

X must be replaced with D for DC control 3-32 VDC, 4-32 VDC (for 600 VAC versions)  
X must be replaced with A for AC control 20-275 VAC, 24-190 VDC  
RGC1B.. models for Instant On (Random) switching are available on request

# Solid state contactors, 1-phase

Ready for use design - DIN rail mounting

	AC Output Switching		DC Output Switching
Types	RGC1A..40KGU RGC1A..42KGU	RGC1A..60KGU RGC1A..62KGU	RGC1D1000D15KKE
Single phase, semiconductor contactors with integrated heatsink, LED indication and IP20 protection, Rated isolation voltage $\geq 4000$ Vrms, 100 kArms short circuit current rating and Motor ratings according to UL508 for AC Output Switching			
Dimensions HxWxD (mm)	110 x 35.6 x 141	110 x 69.1 x 141	110 x 17.8 x 141
Features	35 mm wide solid state contactor, integrated varistor, DC or AC control voltage, screw terminals for control, box clamp for power terminals, U-type layout	70 mm wide solid state contactor, integrated varistor, DC or AC control voltage, screw terminals for control, box clamp for power terminals, U-type layout	17.8 mm wide solid state contactor for DC switching with integrated free wheeling diode, DC control, screw terminals for power and control, E-type layout

## Input Specifications

Control input range	3-32 VDC [RG..23D..] 4-32 VDC [RG..60D..] 20-275 VAC, 24-190 VDC [RG..A..]	3-32 VDC [RG..23D..] 4-32 VDC [RG..60D..] 20-275 VAC, 24-190 VDC [RG..A..]	4.5-32 VDC
Max. input current	11 mADC [RG..D..] 30 mAAC [RG..A..]	11 mADC [RG..D..] 30 mAAC [RG..A..]	13.7 mADC

## Output Specifications

Rated operational current			
AC-51 @ Ta = 40°C	40 AAC [RGC..40, RGH..41] 43 AAC [RGC..42]	60 AAC [RGC..60] 65 AAC [RGC..62, RGH..60]	
AC-53a @ Ta = 40°C	13 AAC [RGC..40, RGH..41] 16 AAC [RGC..42]	14.8 AAC [RGC..60] 20 AAC [RGC..62] 18 AAC [RGH..60]	
DC I @ 60°C			8 ADC
Min. operational current	400 mAAC [RGC..40, RGH..41] 500 mAAC [RGC..42]	400 mAAC [RGC..60, RGH..60] 500 mAAC [RGC..62]	20 mADC
Non rep. surge current (t=10 ms)	800 Ap [RGC..40] 1900 Ap [RGC..42] 1150 Ap [RGH..41]	800 Ap [RGC..60] 1900 Ap [RGC..62] 1150 Ap [RGH..60]	200 ADC (10us)
Off-state leakage current	3 mAAC	3 mAAC	3 mAAC
I <sup>2</sup> t for fusing (t=10 ms)	3200A <sup>2</sup> s [RGC..40] 18000 A <sup>2</sup> s [RGC..42] 6600 A <sup>2</sup> s [RGH..41]	3200A <sup>2</sup> s [RGC..60] 18000 A <sup>2</sup> s [RGC..62] 6600 A <sup>2</sup> s [RGH..60]	1.5 mADC
Critical dV/dt (@ Tj init= 40°C)	1000 V/μs	1000 V/μs	1000 V/μs

## General specifications

Operational voltage range	24-240 VAC +10% [RG..23..] 42-600 VAC +10% [RG..60..]	24-240 VAC +10% [RG..23..] 42-600 VAC +10% [RG..60..]	24-1000 VDC [CE] 24-600 VDC [UL508]
Blocking voltage	800 Vp [RGC..23..] 1200 Vp [RGC..60..] 1600 Vp [RGH..60..]	800 Vp [RGC..23..] 1200 Vp [RGC..60..] 1600 Vp [RGH..60..]	1200 Vp
Power factor	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage	
Operating temperature	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Approvals/Marks	CE - cULus - VDE	CE - cULus - VDE	CE - cULus

## References

230 VAC, 800 Vp, 3200 A <sup>2</sup> s	RGC1A23X40KGU	RGC1A23X60KGU	
230 VAC, 800 Vp, 18000 A <sup>2</sup> s	RGC1A23X42KGU	RGC1A23X62KGU	
600 VAC, 1200 Vp, 3200 A <sup>2</sup> s	RGC1A60X40KGU	RGC1A60X60KGU	
600 VAC, 1200 Vp, 18000 A <sup>2</sup> s	RGC1A60X42KGU	RGC1A60X62KGU	
600 VAC, 1600 Vp, 6600 A <sup>2</sup> s	RGH1A60X41KGU	RGH1A60X60KGU	
1000 VDC			RGC1D1000D15KKE

X must be replaced with D for DC control 3-32 VDC, 4-32 VDC (for 600 VAC versions). X must be replaced with A for AC control 20-275 VAC, 24-190 VDC  
RGC1B.. models for Instant On (Random) switching are available on request

# Solid state contactors, 1-phase

Ready for use design - DIN rail mounting  
AC Output Switching with Integrated Over Temperature Protection

Types	RGC1A..25GKEP	RGC1A..30GKEP	RGC1A..40GG.P RGC1A..42GG.P
Single phase, semiconductor contactors with integrated heatsink, LED indication and IP20 protection, AC operating frequency 45-65 Hz, Rated isolation voltage $\geq 4000$ Vrms, 100 kArms Short Circuit Current Rating, Motor ratings according to UL508			

Dimensions HxWxD (mm)	110 x 22.5 x 130	110 x 22.5 x 168	110x 35.6 x 168
Features	22.5 mm wide solid state contactor, integrated varistor for overvoltage protection and integrated over temperature for protection against over heating, screw terminals with captivated clamp for connection of power terminals and box clamps for control terminals	22.5 mm wide solid state contactor, integrated varistor for overvoltage protection and integrated over temperature for protection against over heating, screw terminals with captivated clamp for connection of power terminals and box clamps for control terminals	35 mm wide solid state contactor, integrated varistor for overvoltage protection and integrated over temperature for protection against over heating, box clamps for connection of power and control terminals

## Input specifications

Control input range	5-32 VDC [RG.D.] 20-275 VAC, 24-190 VDC [RG..A.]	5-32 VDC [RG.D.] 20-275 VAC, 24-190 VDC [RG..A.]	5-32 VDC [RG.D.] 20-275 VAC, 24-190 VDC [RG..A.]
Max. input current	24 mADC [RG..D.] 35 mAAC [RG..A.]	24 mADC [RG..D.] 35 mAAC [RG..A.]	24 mADC [RG..D.] 35 mAAC [RG..A.]

## Supply voltage

Rated supply voltage	24 VDC -15%, +20%	24 VDC -15%, +20%	24 VDC -15%, +20%
Max. current rating	50 mADC	50 mADC	50 mADC

## Over temperature alarm

Alarm output	PNP open collector normally closed, max. 24 VDC / 50 mA [RGC.D.P] Potential free normally closed, max. 24 VDC / 50 mA [RGC.A.P]	PNP open collector normally closed, max. 24 VDC / 50 mA [RGC.D.P] Potential free normally closed, max. 24 VDC / 50 mA [RGC.A.P]	PNP open collector normally closed, max. 24 VDC / 50 mA [RGC.D.P] Potential free normally closed, max. 24 VDC / 50 mA [RGC.A.P]
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## Output specifications

Rated operational current			
AC 51 @ Ta=40°C	25 AAC	30 AAC	40 AAC [RGC..40], 43 AAC [RGC..42]
AC 53a @ Ta=40°C	5 AAC	8 AAC	13 AAC [RGC..40], 16 AAC [RGC..42]
Min. operational current	250 mA	250 mA	400 mAAC [RGC..40], 500 mAAC [RGC..42]
Non rep. surge current (t=10 ms)	600 Ap	600 Ap	800 Ap [RGC..40] 1900 Ap [RGC..42]
Off-state leakage current	3 mAAC	3 mAAC	3 mAAC
I <sup>2</sup> t for fusing (t=10 ms)	1800 A <sup>2</sup> s	1800 A <sup>2</sup> s	3200 A <sup>2</sup> s [RGC..40], 18000 A <sup>2</sup> s [RGC..42]
Critical dV/dt off-state (@ Tj init = 40°C)	1000 V/μs	1000 V/μs	1000 V/μs

## General specifications

Operational voltage range	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]
Blocking voltage	800 Vp [RGC.23.] 1200 Vp [RGC.60.]	800 Vp [RGC.23.] 1200 Vp [RGC.60.]	1200 Vp
Power factor	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage
Operating temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Approvals/Marks	CE - cULus - VDE	CE - cULus - VDE	CE - cULus - VDE

## References

DC control voltage 230 VAC, 800 Vp		RGC1A23D30GKEP	
600 VAC, 1200 Vp	RGC1A60D25GKEP	RGC1A60D30GKEP	3200 A <sup>2</sup> s: RGC1A60D40GGXP 18000 A <sup>2</sup> s: RGC1A60D42GGXP
AC/DC control voltage 600 VAC, 1200 Vp	RGC1A60A25GKEP	RGC1A60A30GKEP	3200 A <sup>2</sup> s: RGC1A60A40GGXP 18000 A <sup>2</sup> s: RGC1A60A42GGXP




X must be replaced with the following depending on the connection configuration required  
Configuration X: E = E-type U = U-type

# Solid state contactors, 1-phase

Ready for use design - DIN rail mounting, AC Output Switching

Integrated Over Temperature Protection

Integrated Fuse

Types	RGC1A..60GG.P RGC1A..62GG.P	RGC1A..90GG.P RGC1A..92GG.P	RGC1F..D..GGE
Single phase, semiconductor contactors with integrated heatsink, LED indication and IP20 protection, AC operating frequency 45-65Hz, Rated isolation voltage $\geq 4000V_{rms}$ , 100kArms Short Circuit Current Rating, Motor ratings according to UL508			
Dimensions HxWxD (mm)	110 x 69.1 x 168	126 x 69.1 x 168 (with fan)	110 x 35.6 x 168
Features	70 mm wide solid state contactor, integrated varistor for overvoltage protection and integrated over temperature for protection against over heating, box clamps for connection of power & control terminals	70 mm wide solid state contactor with attached fan, integrated varistor for overvoltage protection and integrated over temperature for protection against over heating, box clamps for connection of power & control terminals	35 mm wide solid state contactor with integrated fuse, additional monitoring features available with RGC1FS.. for SSR, load & fuse failure detection, integrated varistor for overvoltage protection, DC control voltage range, box clamps for connection of power & control terminals

## Input specifications

Control input range	5-32 VDC [RG.D.] 20-275 VAC, 24-190 VDC [RG..A.]	5-32 VDC [RG.D.] 20-275 VAC, 24-190 VDC [RG..A.]	3-32 VDC [RGC1F..23.] 4.5-32 VDC [RGC1F..60.]
Max. input current	23 mA DC [RG..D.]/35 mA AC [RG..A.]	23 mA DC [RG..D.]/ 35 mA AC [RG..A.]	12 mA DC

## Supply voltage

Rated supply voltage	24 VDC -15%, +20%	24 VDC -15%, +20%	24 VDC -15%, +20%
Max. current rating	50 mA DC	50 mA DC (fan rating 24 VDC / 50 mA)	80 mA DC

## Over temperature alarm

Alarm output	PNP open collector normally closed, max. 24 VDC / 50 mA [RGC.D.P] Potential free normally closed, max. 24 VDC / 50 mA [RGC.A.P]	PNP open collector normally closed, max. 24 VDC / 50 mA [RGC.D.P] Potential free normally closed, max. 24 VDC / 50 mA [RGC.A.P]	PNP open collector normally closed, max. 24 VDC / 50 mA [RGC1F..]
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## Output specifications

Rated operational current			
AC 51 @ Ta=40°C	60 AAC [RGC..60] 65 AAC [RGC..62]	85 AAC	20 AAC [RGC1F..20.]/30 AAC [RGC1F..30.]/40 AAC [RGC1F..40.]
AC 53a @ Ta=40°C	14,8 AAC [RGC..60] 20 AAC [RGC..62]	14,8 AAC [RGC..90] 20 AAC [RGC..92]	4.7 AAC [RGC1F..20.]/6 AAC [RGC1F..30.] / 8 AAC [RGC1F..40.]
Min. operational current	400 mA [RGC..60] 500 mA [RGC..62]	400 mA [RGC..90] 500 mA [RGC..92]	200 mA
Non rep. surge current (I <sub>tsm</sub> ) (t=10 ms)	800 A <sub>p</sub> [RGC..60] 1900 A <sub>p</sub> [RGC..62]	800 A <sub>p</sub> [RGC..90] 1900 A <sub>p</sub> [RGC..92]	Integrated fuse
Off-state leakage current	3 mA AC	3 mA AC	
I <sup>2</sup> t for fusing (t=10 ms)	3200 A <sup>2</sup> s [RGC..60] 18000 A <sup>2</sup> s [RGC..62]	6600 A <sup>2</sup> s [RGC..90] 18000 A <sup>2</sup> s [RGC..92]	Fuse - 740A <sup>2</sup> s [RGC1F..20.] Fuse - 1400A <sup>2</sup> s [RGC1F..30.] Fuse - 3100A <sup>2</sup> s [RGC1F..40.]
Critical dV/dt off-state (@ T <sub>j</sub> init = 40°C)	1000 V/μs	1000 V/μs	

## General specifications

Operational voltage range	42-600 VAC +10% [RG.60..]	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]	24-240 VAC +10% [RG.23..] 42-600 VAC +10% [RG.60..]
Blocking voltage	1200 V <sub>p</sub>	800 V <sub>p</sub> [RGC.23.]/1200 V <sub>p</sub> [RGC.60.]	1200 V <sub>p</sub>
Power factor	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage
Operating temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Approvals/Marks	CE - cULus - VDE	CE - cULus - VDE	CE - cULus (to 30AAC)

## References

DC control voltage		RGC1A23D90GGXP	20 AAC RGC1FY23D20GGE 30 AAC RGC1FY23D20GGE 40 AAC RGC1FY23D20GGE
230 VAC, 800 V <sub>p</sub>			
	RGC1A60D60GGXP RGC1A60D62GGXP	RGC1A60D90GGXP RGC1A60D92GGXP	20 AAC RGC1FY60D20GGE 30 AAC RGC1FY60D20GGE 40 AAC RGC1FY60D20GGE
600 VAC, 1200 V <sub>p</sub>			
AC/DC control voltage			
600 VAC, 1200 V <sub>p</sub>	RGC1A60A60GGXP RGC1A60A62GGXP	RGC1A60A90GGXP RGC1A60A92GGXP	




X and Y must be replaced with the following depending on the version required  
 Configuration X: E = E-type U = U-type  
 Version Y: A = fuse only S = fuse + monitoring

CARLO GAVAZZI Automation Components. Specifications are subject to change without notice. Illustrations are for example only.



# Solid state contactors, 1-phase

Ready for use design - AC Output Switching, Integrated Current Measurement

Types	RGC1S..GKEP	RGC1S..25GKEP	RGC1S..26GGEP
Single phase, semiconductor contactors with integrated current measurement, E-type configuration, LED indication and IP20 protection, AC operating frequency 45-65 Hz, Rated isolation voltage $\geq 4000$ Vrms, 100 kArms Short Circuit Current Rating			
Dimensions HxWxD (mm)	110 x 22.5 x 163	110 x 22.5 x 126	110 x 22.5 x 126
Features	22.5 mm wide solid state contactor, integrated varistor, DC control, local or remote TEACH, detection of partial load failure (1/6), SSR and load malfunction, SSR overheat protection	22.5 mm wide solid state contactor, integrated varistor, DC control, local or remote TEACH, detection of partial load failure (1/6), SSR and load malfunction, SSR overheat protection	22.5 mm wide solid state contactor, integrated varistor, DC control, local or remote TEACH, detection of partial load failure (1/6), SSR and load malfunction, SSR overheat protection

## Input specifications

Control input range	4-32 VDC	4-32 VDC	4-32 VDC
Max. input current	10 mADC at 24 VDC	10 mADC at 24 VDC	10 mADC at 24 VDC

## Supply voltage

Rated supply voltage	24 VDC -15%, +20%	24 VDC -15%, +20%	24 VDC -15%, +20%
Max. current rating	50 mADC	50 mADC	50 mADC

## Alarm specifications

Output type	NC PNP open collector max. 35 VDC/50 mA	NC PNP open collector max. 35 VDC/50 mA	NC PNP open collector max. 35 VDC/50 mA
Alarm Indication	Red LED (flash rate)	Red LED (flash rate)	Red LED (flash rate)

## Output specifications

Rated operational current			
AC 51 @ Ta=40°C	23 AAC [RGC1S..20] 30 AAC [RGC1S..30] 30 AAC [RGC1S..31]	25 AAC	25 AAC
Minimum TEACH / operational current	1.2 AAC	1.2 AAC	1.2 AAC
Minimum partial load current	0.2 AAC	0.2 AAC	0.2 AAC
Detectable partial load failure	>16.67% from current setpoint	>16.67% from current setpoint	>16.67% from current setpoint
Non. rep. surge current I <sub>tsm</sub> (t=10ms)	325 Ap [RGC1S..20] 600 Ap [RGC1S..30] 1150 Ap [RGC1S..31]	600 Ap	1900 Ap
Max. off state leakage current	3 mAAC	3 mAAC	3 mAAC
I <sup>2</sup> t for fusing (t=10ms)	525 A <sup>2</sup> s [RGC1S..20] 1800 A <sup>2</sup> s [RGC1S..30] 6600 A <sup>2</sup> s [RGC1S..31]	1800 A <sup>2</sup> s	18000 A <sup>2</sup> s
Critical dV/dt (@ T <sub>j</sub> init = 40°C)	1000 V/μs	1000 V/μs	1000 V/μs

## General specifications

Operational voltage range	42-600 VAC +10%	42-600 VAC +10%	42-600 VAC +10%
Blocking voltage	1200 Vp	1200 Vp	1200 Vp
Power factor	$\geq 0.9$ at rated voltage	$\geq 0.9$ at rated voltage	$\geq 0.9$ at rated voltage
Operating temperature	-25°C to +70°C	-25°C to +70°C	-25°C to +70°C
Approvals/Marks	CE - cULus	CE - cULus	CE - cULus




## References

600 VAC, 1200 Vp, 525A <sup>2</sup> s	23 AAC: <b>RGC1S60D20GKEP</b>		
600 VAC, 1200 Vp, 1800A <sup>2</sup> s	30 AAC: <b>RGC1S60D30GKEP</b>	25 AAC: <b>RGC1S60D25GKEP</b>	
600 VAC, 1200 Vp, 6600A <sup>2</sup> s	30 AAC: <b>RGC1S60D31GKEP</b>		
600 VAC, 1200 Vp, 18000A <sup>2</sup> s			25 AAC: <b>RGC1S60D26GGEP</b>

GK = screws for control terminals, box clamps for power terminals  
GG = box clamps for control terminals, box clamps for power terminals

# Solid state contactors, 1-phase

Ready for use design - AC Output Switching, Integrated Current Measurement

Types	RGC1S..41GG.P	RGC1S..61GG.P	RGC1S..90GGEP
Single phase, semiconductor contactors with integrated heatsink, LED indication and IP20 protection, AC operating frequency 45-65Hz, Rated isolation voltage $\geq 4000V_{rms}$ , 100kArms Short Circuit Current Rating, Motor ratings according to UL508			
Dimensions HxWxD (mm)	110 x 35.6x 163	110 x 69.1 x 163	126 x 69.1 x 163 (with fan)
Features	35mm wide solid-state contactor, integrated varistor, DC control, local or remote TEACH, detection of partial load failure (1/6), SSR and load malfunction, SSR overheat protection	70mm wide solid-state contactor, integrated varistor, DC control, local or remote TEACH, detection of partial load failure (1/6), SSR and load malfunction, SSR overheat protection	70mm wide solid-state contactor with, integrated varistor, DC control, local or remote TEACH, detection of partial load failure (1/6), SSR and load malfunction, SSR overheat protection
<b>Input specifications</b>			
Control input range	4-32 VDC	4-32 VDC	4-32 VDC
Max. input current	10 mADC at 24 VDC	10 mADC at 24 VDC	10 mADC at 24 VDC
<b>Supply voltage</b>			
Supply Voltage	24 VDC -15%, +20%	24 VDC -15%, +20%	24 VDC -15%, +20%
Max. current rating	50 mADC	50 mADC	50 mADC (fan rating 24 VDC / 50 mA)
<b>Alarm specifications</b>			
Output type	NC PNP open collector max. 35 VDC / 50 mA	NC PNP open collector max. 35 VDC / 50 mA	NC PNP open collector max. 35 VDC / 50 mA
Alarm Indication	Red LED (flash rate)	Red LED (flash rate)	Red LED (flash rate)
<b>Output specifications</b>			
Rated operational current			
AC 51 @ $T_a=40^\circ C$	43 AAC	65 AAC	85 AAC
Minimum TEACH / operational current	1.2 AAC	5 AAC	5 AAC
Minimum partial load current	0.2 AAC	0.83 AAC	0.83 AAC
Detectable partial load failure	>16.67% from current setpoint	>16.67% from current setpoint	>16.67% from current setpoint
Non. rep. surge current $I_{tsm}$ (t=10ms)	1900 Ap	1900 Ap	1900 Ap
Max. off state leakage current	3 mAAC	3 mAAC	3 mAAC
$I^2t$ for fusing (t=10 ms)	18000 A <sup>2</sup> s	18000 A <sup>2</sup> s	18000 A <sup>2</sup> s
Critical dV/dt (@ $T_j$ init = 40°C)	1000 V/ $\mu$ s	1000 V/ $\mu$ s	1000 V/ $\mu$ s
<b>General specifications</b>			
Operational voltage range	42-600 VAC +10%	42-600 VAC +10%	42-600 VAC +10%
Blocking voltage	1200 Vp	1200 Vp	1200 Vp
Power factor	$\geq 0.9$ at rated voltage	$\geq 0.9$ at rated voltage	$\geq 0.9$ at rated voltage
Operating temperature	-25°C to +70°C	-25°C to +70°C	-25°C to +70°C
Approvals/Marks	CE - cULus	CE - cULus	CE - cULus
<b>References</b>			
600 VAC, 1200 Vp, E-type	43 AAC: RGC1S60D41GGEP	65 AAC: RGC1S60D61GGEP	85 AAC: RGC1S60D90GGEP
600 VAC, 1200 Vp, U-type	43 AAC: RGC1S60D41GGUP	65 AAC: RGC1S60D61GGUP	

GG = box clamps for control terminals, box clamps for power terminals

# Solid state contactors, 1-phase

Ready for use design - DIN rail mounting

## Types

### RJ1P MB

### RJ1P

Semiconductor contactors with integrated heatsink.  
AC operating frequency range 45-65 Hz.  
Rated isolation voltage  $\geq 4000$  Vrms



Dimensions HxWxD (mm)

103 x 45 x 122

103 x 45 x 103

Features

SSR with fieldbus communication interface

Multifunction Phase-angle, Distributed full cycle and Burst control (1s, 3s and 10s)

## Control specifications

Control input range

2-wire Modbus RTU

4-20 mA [RJ1P...I...]  
0-10 VDC [RJ1P...V...]

Max. input current

50 mA [RJ1P...I...]  
0-1 mA [RJ1P...V...]

Control supply

24 VAC/DC [RJ1P...V...]

Max. input current

23 mA [RJ1P...V...]

## Output specifications

Rated operational current

50 AACrms

50 AACrms

AC 51 @ Ta=25°C

AC 53a @ Ta=25°C

Min. TEACH / operational current

500 mAACrms

150 mArms/ 500 mArms

Non-repet. surge current (t=10 ms)

1900 Ap

325/1900 Ap

Off-state leakage current

< 3 mArms

< 3 mArms

I<sup>2</sup>t for fusing (t=10 ms)

18000 A<sup>2</sup>s

525 A<sup>2</sup>s / 18000 A<sup>2</sup>s

On state voltage drop

1.6 Vrms

1.6 Vrms

Critical dV/dt off-state

1000 V/μs

1000 V/μs

## General specifications

Operational voltage range

90-265 Vrms

90-265 Vrms [RJ1P23..]  
200-550 Vrms [RJ1P48..]  
410-660 Vrms [RJ1P60..]

Blocking voltage

650 Vp [RJ1P23..]  
1200 Vp [RJ1P48..]  
1200 Vp [RJ1P60..]

Power factor

$\geq 0.9$

$\geq 0.9$

Operating temperature

-30° to +70°C

-20° to +60°C

Terminals

Box clamp

Box clamp

Approvals/Marks

CE - UR - cUR

CE - UR - cUR

## References

1-phase, zero switching

50 A

30 / 50 A

230 V

RJ1P23MBT50EBC  
RJ1P23MBT50ECS  
RJ1P23MBT50ECV

RJ1P23V30E  
RJ1P23I30E  
RJ1P23V50E  
RJ1P23I50E

480 V

RJ1P48MBT50EBC  
RJ1P48MBT50ECS  
RJ1P48MBT50ECV

RJ1P48V30E  
RJ1P48I30E  
RJ1P48V50E  
RJ1P48I50E



600 V

RJ1P60MBT50EBC  
RJ1P60MBT50ECS  
RJ1P60MBT50ECV

RJ1P60V30E  
RJ1P60I30E  
RJ1P60V50E  
RJ1P60I50E

# Solid state contactors, 1-phase, 2-phase





Ready to use design - DIN rail mounting

Types	Solitron RN Full Cycle 1 pole 30/50 A	Solitron RN Sense* 1 pole 30/50 A
Semiconductor contactors with integrated heatsink. AC operating frequency range 45-65 Hz. Rated isolation voltage $\geq 4000$ Vrms		
Dimensions (mm)	120 x 45 x 110 (30A) 120 x 90 x 110 (50/63 A)	120 x 45 x 110 (30A) 120 x 90 x 110 (50A)
Features	High precision temperature control	High precision economy switching
<b>Control specifications</b>		
Control input range	4-20 mA [RN.F.I.], 0-10 VDC [RN.F.V.]	7-32 VDC
Max. input current	50 mA [RN.F.I.], 0.1 mA [RN.F.V.]	4 mA
Control supply	12-32 VDC / 24 VAC [RN.V.]	20-32 VDC ( $\leq 40$ mA)
Alarm output		PNP : VCC - 2 VDC ( $\leq 100$ mA) / NPN: 2 VDC @ ( $\leq 100$ mA)
<b>Output specifications</b>		
Rated operational current		
AC 51 @ $T_a=30^\circ\text{C}$	30 Arms [RN.F.30] 50 Arms [RN.F.50]	30 Arms [RN1S...30..] 50 Arms [RN1S...50..]
AC 53a @ $T_a=40^\circ\text{C}$		6 Arms [RN1S...30..] 12 Arms [RN1S...50..]
Min. operational current	500 mArms	200 mArms
Non rep. surge current (I <sub>tsm</sub> ) (t=10 ms)	325 AP [RN..F30] 600 AP [RN..F50]	325 AP [RN.F.30..] 600 AP [RN.F.50..]
Off-state leakage current	< 6 mAAC	< 6 mAAC
I <sup>2</sup> t for fusing (t=10 ms)	525 A <sup>2</sup> s [RN.F.30] 1800 A <sup>2</sup> s [RN.F.50]	525 A <sup>2</sup> s [RN.F.30..] 1800 A <sup>2</sup> s [RN.F.50..]
<b>General specifications</b>		
Operational voltage range	85-140 Arms [RN..F12..], 85-265 Arms [RN..F23..] 190-530 Arms [RN..F48..]	120-265 Arms [RN1S23..], 150-440 Arms [RN1S40..] 180-530 Arms [RN1S48..]
Blocking voltage	800 V <sub>P</sub> [RN..F12..], 800 V <sub>P</sub> [RN..F23..] 1000 V <sub>P</sub> [RN..F48..]	800 VP [RN1S23..], 1000 VP [RN1S40..] 1200 VP [RN1S48..]
Power factor	$\geq 0.9$	$\geq 0.5$
Operating temperature	-20°C to +70°C	-20°C to +70°C
Terminals	Screw captive wire clamp	Screw captive wire clamp
Approvals/Marks	CE - UR - CSA	CE - UR - CSA
<b>References</b>		
30 A	RN1F12I30 RN1F12V30 RN1F23I30 RN1F23V30 RN1F48I30 RN1F48V30	RN1S23H30NO RN1S23H30PO RN1S40H30NO RN1S40H30PO RN1S48H30NO RN1S48H30PO
50 A	RN1F12I50 RN1F12V50 RN1F23I50 RN1F23V50 RN1F48I50 RN1F48V50	RN1S23H50NO RN1S23H50PO RN1S40H50NO RN1S40H50PO RN1S48H50NO RN1S48H50PO

\* Other options available on request: Active low control input and normally closed alarm output.




# Solid state contactors, 3-phase

Ready for use design - DIN rail mounting AC Output Switching

Types	RGCM2A..20.. 2 + 1 poles	RGC2A..25.. 2 + 1 poles	RGC2A..40.. 2 + 1 poles	RGC2A..75..F 2 + 1 poles
Semiconductor contactors with integrated heatsink, AC operating frequency range 45-65 Hz. Rated isolation voltage 4000 Vrms				
Dimensions HxWxD (mm)	105 x 45 x 105	110 x 54 x 103	110 x 72 x 126	141 x 72 x 141 (with fan)
Features	45 mm solid state contactor, enclosed heatsink, integrated varistors for over-voltage protection, 5 kArms SCCR, screw with clamp for power connection	54 mm solid state contactor, integrated varistors for over-voltage protection, 100 kArms SCCR, screw with clamp for power connection	72 mm solid state contactor, integrated varistors for over-voltage protection, 100 kArms SCCR, box clamp for power connection	72 mm solid state contactor, integrated overheat protection with EMR alarm output, 100 kArms SCCR, box clamp for power connection
<b>Input Specifications</b>				
Control input range	5-32 VDC [RGC..D.] 20-275 VAC, 24-190 VDC [RGC..A.]	5-32 VDC [RGC..D.] 20-275 VAC, 24-190 VDC [RGC..A.]	5-32 VDC [RGC..D.] 20-275 VAC, 24-190 VDC [RGC..A.]	5-32 VDC [RG..D..DF] 5-32 VDC [RG..D..AF] 20-275 VAC [RG..A..AF]
Input current @ max. control voltage	31.5 mADC [RG..D.] 19 mAAC [RG..A.]	31.5 mADC [RG..D.] 19 mAAC [RG..A.]	31.5 mADC [RG..D.] 19 mAAC [RG..A.]	12.5 mADC [RG..D..DF] 5.5 mADC [RG..D..AF] 4.3 mAAC [RG..A..AF]
External supply voltage				24 VDC [RG..D..DF] 90-250 VAC [RG..D..AF] 90-250 VAC [RG..A..AF]
Max. supply current				150 mADC [RG..D..DF] 80 mADC [RG..D..AF] 80 mAAC [RG..A..AF]
<b>Alarm Specifications</b>				
Alarm output				EMR: 2A 230VAC/30VDC
Alarm condition				Over Temperature
<b>Output Specifications</b>				
Rated operational current AC-51 @ Ta = 40°C	20 AAC	27 AAC	40 AAC	75 AAC
AC-53a @ Ta = 40°C	7.6 AAC	11.5 AAC	16.5 AAC	28 AAC
Motor rating	3 kW @ 400 VAC 5 HP @ 600 VAC	5.5 kW @ 400 VAC 10 HP @ 600 VAC	7.5 kW @ 400 VAC 15 HP @ 600 VAC	11 kW @ 400 VAC 25 HP @ 600 VAC
Minimum operational current	250 mAAC	250 mAAC	400 mAAC	500 mAAC
Non. rep. surge current I <sub>tsm</sub> (t=10ms)	600 Ap	600 Ap	1150 Ap	1750 Ap
I <sup>2</sup> t for fusing (t=10ms)	1800 A <sup>2</sup> s	1800 A <sup>2</sup> s	6600 A <sup>2</sup> s	15000 A <sup>2</sup> s
<b>General specifications</b>				
Operational voltage range	42-600 VAC +10%	42-220 VAC +10% [RG..22.] 42-600 VAC +10% [RG..60.]	42-600 VAC +10%	42-600 VAC +10%
Blocking voltage	1200 Vp	800 Vp [RG..22.] 1200 Vp [RG..60.]	1200 Vp	1200 Vp
Power factor	≥ 0.5 at rated voltage	≥ 0.5 at rated voltage	≥ 0.5 at rated voltage	≥ 0.5 at rated voltage
Operating temperature	-40°C to +70°C	-40°C to +80°C	-40°C to +80°C	-40°C to +70°C [RG...DF] -40°C to +60°C [RG...AF]
Approvals / Marks	CE - cULus	CE - cULus	CE - cULus	CE - cULus
<b>References</b>				
DC control voltage				
220 VAC, 800 Vp		RGC2A22D25KKE		
600 VAC, 1200 Vp	RGCM2A60D20GKE	RGC2A60D25KKE	RGC2A60D40KGE	
AC/DC control voltage				
220 VAC, 800 Vp		RGC2A22A25KKE		
600 VAC, 1200 Vp	RGCM2A60A20GKE	RGC2A60A25KKE	RGC2A60A40KGE	
DC control voltage, DC external supply				RGC2A60D75GGEDF
DC control voltage, AC external supply				RGC2A60D75GGEAF
AC control voltage, AC external supply				RGC2A60A75GGEAF

# Solid state contactors, 3-phase

Ready for use design - DIN rail mounting -  
AC Output Switching with System Monitoring

Types	RGC2A..25..M 2 + 1 poles	RGC2A..40..M 2 + 1 poles	RGC2A..75..FM 2 + 1 poles
Semiconductor contactors with integrated heatsink, AC operating frequency 45-65 Hz. Rated isolation voltage output to heatsink of 4000 Vrms, 100 kArms Short Circuit Current Rating			
Dimensions HxWxD (mm)	110 x 54 x 118	110 x 72 x 141	141 x 72 x 141 (with fan)
Features	54 mm solid state contactor, EMR alarm output and electronic auxiliary output, screw with clamp for power connection	72 mm solid state contactor, EMR alarm output and electronic auxiliary output, box clamp for power connection	72 mm solid state contactor, EMR alarm output and electronic auxiliary output, box clamp for power connection

## Input specifications

Control input range	5-32 VDC [RG..D..DM] 5-32 VDC [RG..D..AM] 20-275 VAC [RG..A..AM]	5-32 VDC [RG..D..DM] 5-32 VDC [RG..D..AM] 20-275 VAC [RG..A..AM]	5-32 VDC [RG..D..DFM] 5-32 VDC [RG..D..AFM] 20-275 VAC [RG..A..AFM]
Control current @ max. control voltage	12.5 mADC [RG..D..DM] 5.5 mADC [RG..D..AM] 4.3 mAAC [RG..A..AM]	12.5 mADC [RG..D..DM] 5.5 mADC [RG..D..AM] 4.3 mAAC [RG..A..AM]	12.5 mADC [RG..D..DFM] 5.5 mADC [RG..D..AFM] 4.3 mAAC [RG..A..AFM]
External supply voltage	24 VDC [RG..D..DM] 90-250 VAC [RG..D..AM] 90-250 VAC [RG..A..AM]	24 VDC [RG..D..DM] 90-250 VAC [RG..D..AM] 90-250 VAC [RG..A..AM]	24 VDC [RG..D..DFM] 90-250 VAC [RG..D..AFM] 90-250 VAC [RG..A..AFM]
Max. supply current	60 mADC [RG..D..DM] 60 mAAC [RG..D..AM] 60 mAAC [RG..A..AM]	60 mADC [RG..D..DM] 60 mAAC [RG..D..AM] 60 mAAC [RG..A..AM]	150 mADC [RG..D..DFM] 80 mAAC [RG..D..AFM] 80 mAAC [RG..A..AFM]

## Alarm specifications

Alarm output	EMR; 2 A 250 VAC / 30 VDC	EMR; 2 A 250 VAC / 30 VDC	EMR; 2 A 250 VAC / 30 VDC
Alarm condition	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature

## Output specifications

Rated operational current AC-51 @ Ta = 40°C	27 AAC	40 AAC	75 AAC
Minimum operational current	250 mAAC	400 mAAC	500 mAAC
Non. rep. surge current I <sub>tsm</sub> (t=10ms)	600 Ap	1150 Ap	1750 Ap
I <sup>2</sup> t for fusing (t=10ms)	1800 A <sup>2</sup> s	6600 A <sup>2</sup> s	15000 A <sup>2</sup> s
Off-state leakage current	3 mAAC	3 mAAC	3 mAAC

## General specifications




Operational voltage range	90-600 VAC +10%	90-600 VAC +10%	90-600 VAC +10%
Blocking voltage	1200 Vp	1200 Vp	1200 Vp
Operating temperature	-40°C to +80°C [RG...DM] -40°C to +60°C [RG...AM]	-40°C to +80°C [RG...DM] -40°C to +60°C [RG...AM]	-40°C to +70°C [RG...DFM] -40°C to +60°C [RG...AFM]
Approvals / Marks	CE - cULus	CE - cULus	CE - cULus

## References

600 VAC, 1200 Vp			
DC control voltage, DC external supply	RGC2A60D25GKEDM	RGC2A60D40GGEDM	RGC2A60D75GGEDFM
DC control voltage, AC external supply	RGC2A60D25GKEAM	RGC2A60D40GGEAM	RGC2A60D75GGEAFM
AC control voltage, AC external supply	RGC2A60A25GKEAM	RGC2A60A40GGEAM	RGC2A60A75GGEAFM



# Solid state contactors, 3-phase

Ready for use design - DIN rail mounting, AC Output Switching

Types	RGCM3A..15.. 3 poles	RGC3A..20.. 3 poles	RGC3A..25.. / 30.. 3 poles
Semiconductor contactors with integrated heatsink, AC operating frequency 45-65 Hz. Rated isolation voltage output to heatsink of 4000 Vrms			
Dimensions HxWxD (mm)	105 x 45 x 105	110 x 54 x 103	110 x 72 x 126
Features	45 mm solid state contactor, enclosed heatsink, integrated varistors for over-voltage protection, 5 kArms SCCR, screw with clamp for power connection	54 mm solid state contactor, integrated varistors for over-voltage protection, 100 kArms SCCR, screw with clamp for power connection	72 mm solid state contactor, integrated varistors for over-voltage protection, 100 kArms SCCR, screw with clamp or box clamp for power connection
<b>Input specifications</b>			
Control input range	5-32 VDC [RGC..D.] 20-275VAC, 24-190 VDC [RGC..A.]	5-32 VDC [RGC..D.] 20-275VAC, 24-190 VDC [RGC..A.]	5-32 VDC [RGC..D.] 20-275VAC, 24-190 VDC [RGC..A.]
Input current @ max. control voltage	31.5 mADC [RG..D.] 19 mAAC [RG..A.]	31.5 mADC [RG..D.] 19 mAAC [RG..A.]	31.5 mADC [RG..D.] 19 mAAC [RG..A.]
<b>Output specifications</b>			
Rated operational current AC-51 @ Ta = 40°C	15.5 AAC	20 AAC	28 AAC [RGC3..25] 30 AAC [RGC3..30]
AC-53a @ Ta = 40°C	5.8 AAC	10 AAC	11 AAC [RGC3..25] 14 AAC [RGC3..30]
Motor rating	2.2 kW @ 400 VAC 3 HP @ 600 VAC	4 kW @ 400 VAC 10 HP @ 600 VAC	4 kW @ 400 VAC [RGC3..25] 5.5 kW @ 400 VAC [RGC3..30] 10 HP @ 600 VAC [RGC3..25] 15 HP @ 600 VAC [RGC3..30]
Minimum operational current	250 mAAC	250 mAAC	250 mAAC [RGC3..25] 400 mAAC [RGC3..30]
Non. rep. surge current I <sub>tsm</sub> (t=10ms)	600 Ap	600 Ap	600 Ap [RGC3..25] 1150 Ap [RGC3..30]
I <sup>2</sup> t for fusing (t=10ms)	1800 A <sup>2</sup> s	1800 A <sup>2</sup> s	1800 A <sup>2</sup> s [RGC3..25] 6600 A <sup>2</sup> s [RGC3..30]
Off-state leakage current	3 mAAC	3 mAAC	3 mAAC
Critical dV/dt (@ T <sub>j</sub> init=40°C)	1000 V/us	1000 V/us	1000 V/us
<b>General specifications</b>			
Operational voltage range	42-220 VAC + 10% [RG..22.] 42-600 VAC +10% [RG..60.]	42-220 VAC + 10% [RG..22.] 42-600 VAC +10% [RG..60.]	42-600 VAC +10%
Blocking voltage	800 Vp [RG..22.] 1200 Vp [RG..60.]	800 Vp [RG..22.] 1200 Vp [RG..60.]	1200 Vp
Power factor	≥ 0.5 at rated voltage	≥ 0.5 at rated voltage	≥ 0.5 at rated voltage
Operating temperature	-40°C to +70°C	-40°C to +80°C	-40°C to +80°C
Approvals/Marks	CE - cULus	CE - cULus	CE - cULus
<b>References</b>			
DC control voltage			
220 VAC, 800 Vp	RGCM3A22D15GKE	RGC3A22D20KKE	
600 VAC, 1200 Vp	RGCM3A60D15GKE	RGC3A60D20KKE	28 AAC: RGC3A60D25KKE 30 AAC: RGC3A60D30KGE
AC/DC control voltage			
220 VAC, 800 Vp	RGCM3A22A15GKE	RGC3A22A20KKE	
600 VAC, 1200 Vp	RGCM3A60A15GKE	RGC3A60A20KKE	28 AAC: RGC3A60A25KKE 30 AAC: RGC3A60A30KGE

# Solid state contactors, 3-phase




Ready for use design - DIN rail mounting, AC Output Switching

Types	<b>RGC3A..40..F</b> 3 poles	<b>RGC3A..65..F</b> 3 poles
Semiconductor contactors with integrated heatsink, AC operating frequency 45-65 Hz. Rated isolation voltage output to heatsink of 4000 Vrms, 100 kArms Short Circuit Current Rating		
Dimensions HxWxD (mm)	135 x 54 x 118 (with fan)	141 x 72 x 141 (with fan)
Features	54 mm solid state contactor + fan, integrated overheat protection with EMR alarm output, box clamp for power connection	72 mm solid state contactor + fan, integrated overheat protection with EMR alarm output, box clamp for power connection
<b>Input specifications</b>		
Control input range	5-32 VDC [RG..D..DF] 20-275 VAC [RG..A..AF]	5-32 VDC [RG..D..DF] 5-32 VDC [RG..D..AF] 20-275 VAC [RG..A..AF]
Input current @ max. control voltage	12.5 mADC [RG..D..DF] 4.3 mAAC [RG..A..AF]	12.5 mADC [RG..D..DF] 5.5 mADC [RG..D..AF] 4.3 mAAC [RG..A..AF]
External supply voltage	24 VDC [RG..D..DF] 90-250 VAC [RG..A..AF]	24 VDC [RG..D..DF] 90-250 VAC [RG..D..AF] 90-250 VAC [RG..A..AF]
Max. supply current	150 mADC [RG..D..DF] 80 mAAC [RG..A..AF]	150 mADC [RG..D..DF] 80 mAAC [RG..D..AF] 80 mAAC [RG..A..AF]
<b>Alarm specifications</b>		
Alarm output	EMR; 2 A 250 VAC / 30 VDC	EMR; 2 A 250 VAC / 30 VDC
Alarm condition	Over Temperature	Over Temperature
<b>Output specifications</b>		
Rated operational current AC-51 @ Ta = 40°C	42 AAC	66 AAC
AC-53a @ Ta = 40°C	17 AAC	25 AAC
Motor rating	7.5 kW @ 400 VAC 15 HP @ 600 VAC	11 kW @ 400 VAC 25 HP @ 600 VAC
Minimum operational current	400 mAAC	500 mAAC
Non. rep. surge current I <sub>tsm</sub> (t=10ms)	1150 Ap	1750 Ap
I <sup>2</sup> t for fusing (t=10ms)	6600 A <sup>2</sup> s	15000 A <sup>2</sup> s
Off-state leakage current	3 mAAC	3 mAAC
Critical dV/dt (@ T <sub>j</sub> init=40°C)	1000 V/us	1000 V/us
<b>General specifications</b>		
Operational voltage range	42-600 VAC +10%	42-600 VAC +10%
Blocking voltage	1200 Vp	1200 Vp
Power factor	≥ 0.5 at rated voltage	≥ 0.5 at rated voltage
Operating temperature	-40°C to +70°C [RGC..D..DF] -40°C to +60°C [RGC..A..AF]	-40°C to +70°C [RGC..DF] -40°C to +60°C [RGC..AF]
Approvals / Marks	CE - cULus	CE - cULus
<b>References</b>		
600 VAC, 1200 Vp		
DC control voltage, DC external supply	<b>RGC3A60D40GGEDF</b>	<b>RGC3A60D65GGEDF</b>
DC control voltage, AC external supply		<b>RGC3A60D65GGEAF</b>
AC control voltage, AC external supply	<b>RGC3A60A40GGEAF</b>	<b>RGC3A60A65GGEAF</b>



# Solid state contactors, 2/3-phase

Ready for use design - DIN rail mounting - AC Output Switching with System Monitoring

Types	RGC3A..20..M 3 poles	RGC3A..25..M RGC3A..30..M 3 poles	RGC3A..65..FM 3 poles
Semiconductor contactors with integrated heatsink, AC operating frequency 45-65 Hz. Rated isolation voltage output to heatsink of 4000 Vrms, 100 kArms SCCR			
Dimensions HxWxD (mm)	110 x 54 x 118	110 x 72 x 141	141 x 72 x 141 (with fan)
Features	54 mm solid state contactor, EMR alarm output and electronic auxiliary output, screw with clamp for power connection	72 mm solid state contactor, EMR alarm output and electronic auxiliary output, screw with clamp or box clamp for power connection	72 mm solid state contactor + fan, EMR alarm output and electronic auxiliary output, box clamp for power connection

## Input specifications

Control input range	5-32 VDC [RG..D..DM] 5-32 VDC [RG..D..AM] 20-275 VAC [RG..A..AM]	5-32 VDC [RG..D..DM] 5-32 VDC [RG..D..AM] 20-275 VAC [RG..A..AM]	5-32 VDC [RG..D..DFM] 5-32 VDC [RG..D..AFM] 20-275 VAC [RG..A..AFM]
Control current @ max. control voltage	12.5 mADC [RG..D..DM] 5.5 mADC [RG..D..AM] 4.3 mAAC [RG..A..AM]	12.5 mADC [RG..D..DM] 5.5 mADC [RG..D..AM] 4.3 mAAC [RG..A..AM]	12.5 mADC [RG..D..DFM] 5.5 mADC [RG..D..AFM] 4.3 mAAC [RG..A..AFM]
External supply voltage	24 VDC [RG..D..DM] 90-250 VAC [RG..D..AM] 90-250 VAC [RG..A..AM]	24 VDC [RG..D..DM] 90-250 VAC [RG..D..AM] 90-250 VAC [RG..A..AM]	24 VDC [RG..D..DFM] 90-250 VAC [RG..D..AFM] 90-250 VAC [RG..A..AFM]
Max. supply current	60 mADC [RG..D..DM] 60 mAAC [RG..D..AM] 60 mAAC [RG..A..AM]	60 mADC [RG..D..DM] 60 mAAC [RG..D..AM] 60 mAAC [RG..A..AM]	150 mADC [RG..D..DFM] 80 mAAC [RG..D..AFM] 80 mAAC [RG..A..AFM]

## Alarm specifications

Alarm output	EMR; 2 A 250 VAC / 30 VDC	EMR; 2 A 250 VAC / 30 VDC	EMR; 2 A 250 VAC / 30 VDC
Alarm condition	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature

## Output specifications

Rated operational current AC-51 @ Ta = 40°C	20 AAC	28 AAC [RGC3..25] 30 AAC [RGC3..30]	66 AAC
Minimum operational current	250 mAAC	250 mAAC [RGC3..25] 400 mAAC [RGC3..30]	500 mAAC
Non. rep. surge current I <sub>ism</sub> (t=10ms)	600 Ap	600 Ap [RGC3..25] 1150 Ap [RGC3..30]	1750 Ap
Off-state leakage current	3 mAAC	3 mAAC	3 mAAC
I <sup>2</sup> t for fusing (t=10ms)	1800 A <sup>2</sup> s	1800 A <sup>2</sup> s [RGC3..25] 6600A <sup>2</sup> s [RGC3..30]	15000 A <sup>2</sup> s
Critical dV/dt (@ T <sub>j</sub> init=40°C)	1000 V/us	1000 V/us	1000 V/us

## General specifications




Operational voltage range	90-600 VAC +10%	90-600 VAC +10%	90-600 VAC +10%
Blocking voltage	1200 Vp	1200 Vp	1200 Vp
Operating temperature	-40°C to +80°C [RG..DM] -40°C to +60°C [RG...AM]	-40°C to +80°C [RG..DM] -40°C to +60°C [RG...AM]	-40°C to +70°C [RG...DFM] -40°C to +60°C [RG...AFM]
Approvals / Marks	CE - cULus	CE - cULus	CE - cULus

## References

DC control voltage, DC external supply	RGC3A60D20GKEDM	28AAC: RGC3A60D25GKEDM 30AAC: RGC3A60D30GGEDM	RGC3A60D65GGEDFM
DC control voltage, AC external supply	RGC3A60D20GKEAM	28AAC: RGC3A60D25GKEAM 30AAC: RGC3A60D30GGEAM	RGC3A60D65GGEAFM
AC control voltage, AC external supply	RGC3A60A20GKEAM	28AAC: RGC3A60A25GKEAM 30AAC: RGC3A60A30GGEAM	RGC3A60A65GGEAFM




# Solid state contactors, 3-phase

Ready for use design - DIN rail mounting,  
4-20mA Proportional Controllers

Types	<b>RGC2P60AA15C1</b> 2 + 1 poles	<b>RGC2P60AA25C1</b> 2 + 1 poles	<b>RGC2P60AA40C1</b> 2 + 1 poles
3-phase semiconductor proportional controllers with integrated heatsink, AC operating frequency range 45-65 Hz. Rated isolation voltage 4000 Vrms, 100 kArms short circuit current rating			
Dimensions HxWxD (mm)	110 x 54 x 103	110 x 54 x 103	110 x 72 x 126
Features	54 mm solid state contactor with integrated varistors for over-voltage protection, screw with clamp for power connection	54 mm solid state contactor with integrated varistors for over-voltage protection, screw with clamp for power connection	72 mm solid state contactor, integrated varistors for over-voltage protection, box clamp for power connection
<b>Input specifications</b>			
Control input	4-20 mADC	4-20 mADC	4-20 mADC
Voltage drop	<10 VDC @ 20 mADC	<10 VDC @ 20 mADC	<10 VDC @ 20 mADC
<b>Types</b>			
Switching mode	1 Full Cycle [RGC..C1..]	1 Full Cycle [RGC..C1..]	1 Full Cycle [RGC..C1..]
<b>Output specifications</b>			
Rated operational current AC-51 @ Ta = 40°C	15 AAC	25 AAC	40 AAC
Minimum operational current	500 mAAC	500 mAAC	500 mAAC
Non. rep. surge current I <sub>tsm</sub> (t=10ms)	600 Ap	600 Ap	1150 Ap
I <sup>2</sup> t for fusing (t=10ms)	1800 A <sup>2</sup> s	1800 A <sup>2</sup> s	6600 A <sup>2</sup> s
Off-state leakage current	5 mAAC	5 mAAC	5 mAAC
Critical dV/dt (@ T <sub>j</sub> init=40°C)	1000 V/us	1000 V/us	1000 V/us
<b>General specifications</b>			
Operational voltage range	180-600 VAC +10%	180-600 VAC +10%	180-600 VAC +10%
Blocking voltage	1200 Vp	1200 Vp	1200 Vp
Power factor	≥ 0.7 at rated voltage	≥ 0.7 at rated voltage	≥ 0.7 at rated voltage
Operating temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Approvals / Marks	CE - cULus	CE - cULus	CE - cULus
<b>References</b>			
Control Input:	<b>4-20 mADC</b>	<b>4-20 mADC</b>	<b>4-20 mADC</b>
1 Full Cycle	<b>RGC2P60AA15C1</b>	<b>RGC2P60AA25C1</b>	<b>RGC2P60AA40C1</b>



# Solid state contactors, 3-phase

Ready for use design - DIN rail mounting -  
Proportional Controllers with System Monitoring

Types	RGC2P..25..M 2 + 1 poles	RGC2P..40..M 2 + 1 poles	RGC2P..75..FM 2 + 1 poles
Semiconductor contactors with integrated heatsink, AC operating frequency 45-65 Hz. Rated isolation voltage output to heatsink of 4000 Vrms, 100 kArms short circuit current rating			
Dimensions HxWxD (mm)	110 x 54 x 118	110 x 72 x 141	141 x 72 x 141 (with fan)
Features	54 mm solid state contactor with integrated varistors for over-voltage protection, system monitoring, screw with clamp for power connection	72 mm solid state contactor with integrated varistors for over-voltage protection, system monitoring, box clamp for power connection	72 mm solid state contactor with fan and system monitoring, integrated varistors for over-voltage protection, box clamp for power connection
<b>Input specifications</b>			
Control input	0-20, 4-20, 12-20 mADC [RGC..I..] 0-10, 0-5, 1-5 VDC [RGC..V..] External potentiometer [RGC..V..]	0-20, 4-20, 12-20 mADC [RGC..I..] 0-10, 0-5, 1-5 VDC [RGC..V..] External potentiometer [RGC..V..]	0-20, 4-20, 12-20 mADC [RGC..I..] 0-10, 0-5, 1-5 VDC [RGC..V..] External potentiometer [RGC..V..]
Input impedance	<250 ohms [RGC..I..] 100k ohms [RGC..V..]	<250 ohms [RGC..I..] 100k ohms [RGC..V..]	<250 ohms [RGC..I..] 100k ohms [RGC..V..]
External supply voltage	24 VDC/AC	24 VDC/AC	24 VDC/AC [RGC..DFM] 90-250 VAC [RGC..AFM]
Max. supply current	90 mADC/AC	90 mADC/AC	175 mADC/AC [RGC..DFM] 60 mAAC [RGC..AFM]
<b>Alarm specifications</b>			
Alarm output	EMR; 2A 250VAC/30VDC	EMR; 2A 250VAC/30VDC	EMR; 2A 250VAC/30VDC
Alarm condition	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature
<b>Types</b>			
Switching mode	1 Full Cycle [RGC..C1..] 4 Full Cycles [RGC..C4..]	1 Full Cycle [RGC..C1..] 4 Full Cycles [RGC..C4..]	1 Full Cycle [RGC..C1..] 4 Full Cycles [RGC..C4..]
<b>Output specifications</b>			
Rated operational current AC-51 @ Ta = 40°C	27 AAC	40 AAC	75 AAC
Minimum operational current	500 mAAC	500 mAAC	500 mAAC
Non. rep. surge current I <sub>tsm</sub> (t=10ms)	600 Ap	1150 Ap	1750 Ap
I <sup>2</sup> t for fusing (t=10ms)	1800 A <sup>2</sup> s	6600 A <sup>2</sup> s	15000 A <sup>2</sup> s
Off-state leakage current	5 mAAC	5 mAAC	5 mAAC
Critical dV/dt (@ T <sub>j</sub> init=40°C)	1000 V/us	1000 V/us	1000 V/us
<b>General specifications</b>			
Operational voltage range	180-600 VAC +10%	180-600 VAC +10%	180-600 VAC +10%
Blocking voltage	1200 Vp	1200 Vp	1200 Vp
Power factor	≥ 0.7 at rated voltage	≥ 0.7 at rated voltage	≥ 0.7 at rated voltage
Operating temperature	-40°C to +70°C max. +60°C for 24 VAC supply	-40°C to +70°C max. +60°C for 24 VAC supply	-40°C to +70°C max. +60°C for 24 VAC supply
Approvals / Marks	CE - cULus	CE - cULus	CE - cULus
<b>References</b>			
Control Input: 0-20, 4-20, 12-20 mADC	0-20, 4-20, 12-20 mADC	0-20, 4-20, 12-20 mADC	0-20, 4-20, 12-20 mADC
1 Full Cycle, DC external supply	RGC2P60I25C1DM	RGC2P60I40C1DM	RGC2P60I75C1DFM
1 Full Cycle, AC external supply			RGC2P60I75C1AFM
4 Full Cycles, DC external supply	RGC2P60I25C4DM	RGC2P60I40C4DM	RGC2P60I75C4DFM
4 Full Cycles, AC external supply			RGC2P60I75C4AFM
Control Input: 0-10, 0-5, 1-5 VDC, Pot	0-10, 0-5, 1-5 VDC, Pot	0-10, 0-5, 1-5 VDC, Pot	0-10, 0-5, 1-5 VDC, Pot
1 Full Cycle, DC external supply	RGC2P60V25C1DM	RGC2P60V40C1DM	RGC2P60V75C1DFM
1 Full Cycle, AC external supply			RGC2P60V75C1AFM




## Solid state contactors, 3-phase

Ready for use design - DIN rail mounting,  
4-20mA Proportional Controllers

Types	RGC3P60AA20.. 3 poles	RGC3P60AA30.. 3 poles
3-phase semiconductor proportional controllers with integrated heatsink, AC operating frequency range 45-65 Hz. Rated isolation voltage 4000 Vrms, 100 kArms short circuit current rating		
Dimensions HxWxD (mm)	110 x 54 x 103	110 x 72 x 126
Features	54 mm solid state contactor with integrated varistors for over-voltage protection, screw with clamp for power connection	72 mm solid state contactor, integrated varistors for over-voltage protection, box clamp for power connection
<b>Input specifications</b>		
Control input	4-20 mADC	4-20 mADC
Voltage drop	<10 VDC @ 20 mADC	<10 VDC @ 20 mADC
<b>Types</b>		
Switching mode	Phase Angle [RGC..E] 1 Full Cycle [RGC..C1]	Phase Angle [RGC..E] 1 Full Cycle [RGC..C1]
<b>Output specifications</b>		
Rated operational current AC-51 @ Ta = 40°C	20 AAC	30 AAC
Minimum operational current	500 mAAC	500 mAAC
Non. rep. surge current I <sub>tsm</sub> (t=10ms)	600 Ap	1150 Ap
I <sup>2</sup> t for fusing (t=10ms)	1800 A <sup>2</sup> s	6600 A <sup>2</sup> s
Off-state leakage current	5 mAAC	5 mAAC
Critical dV/dt (@ T <sub>j</sub> init=40°C)	1000 V/us	1000 V/us
<b>General specifications</b>		
Operational voltage range	180-600 VAC +10%	180-600 VAC +10%
Blocking voltage	1200 Vp	1200 Vp
Power factor	≥ 0.7 at rated voltage	≥ 0.7 at rated voltage
Operating temperature	-40°C to +70°C	-40°C to +70°C
Approvals / Marks	CE - cULus	CE - cULus
<b>References</b>		
Control Input:	4-20 mADC	4-20 mADC
Phase Angle	RGC3P60AA20E	RGC3P60AA30E
1 Full Cycle	RGC3P60AA20C1	RGC3P60AA30C1

# Solid state contactors, 3-phase

Ready for use design - DIN rail mounting,  
Proportional Controllers with System Monitoring

Types	RGC3P..20..EP RGC3P..20..M 3 poles	RGC3P..30..EP RGC3P..30..M 3 poles	RGC3P..65..EPF RGC3P..65..FM 3 poles
Semiconductor contactors with integrated heatsink, AC operating frequency 45-65 Hz. Rated isolation voltage output to heatsink of 4000 Vrms, 100 kArms short circuit current rating			
Dimensions HxWxD (mm)	110 x 54 x 118	110 x 72 x 141	141 x 72 x 141 (with fan)
Features	54 mm solid state contactor with integrated varistors for over-voltage protection, system monitoring, screw with clamp for power connection	72 mm solid state contactor with integrated varistors for over-voltage protection, system monitoring, box clamp for power connection	72 mm solid state contactor with fan and system monitoring, integrated varistors for over-voltage protection, box clamp for power connection

## Input specifications

Control input	0-20, 4-20, 12-20 mADC [RGC..I..] 0-10, 0-5, 1-5 VDC [RGC..V..] External potentiometer [RGC..V..]	0-20, 4-20, 12-20 mADC [RGC..I..] 0-10, 0-5, 1-5 VDC [RGC..V..] External potentiometer [RGC..V..]	0-20, 4-20, 12-20 mADC [RGC..I..] 0-10, 0-5, 1-5 VDC [RGC..V..] External potentiometer [RGC..V..]
Input impedance	<250 ohms [RGC..I..] 100k ohms [RGC..V..]	<250 ohms [RGC..I..] 100k ohms [RGC..V..]	<250 ohms [RGC..I..] 100k ohms [RGC..V..]
External supply voltage	24 VDC/AC [RGC..DM] 90-250 VAC [RGC..AM]	24 VDC/AC [RGC..DM] 90-250 VAC [RGC..AM]	24 VDC/AC [RGC..DFM] 90-250 VAC [RGC..AFM]
Max. supply current	90 mADC/AC [RGC..DM] 30 mAAC [RGC..AM]	90 mADC/AC [RGC..DM] 30 mAAC [RGC..AM]	175 mADC/AC [RGC..DFM] 60 mAAC [RGC..AFM]

## Alarm specifications

Alarm output	EMR; 2A 250 VAC / 30 VDC	EMR; 2A 250 VAC / 30 VDC	EMR; 2A 250 VAC / 30 VDC
Alarm condition	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature	Mains loss, Load loss, SSR open cct., SSR short cct., SSR over temperature

## Types

Switching mode	Phase Angle [RGC..E..] 1 Full Cycle [RGC..C1..] 4 Full Cycles [RGC..C4..] 16 Full Cycles [RGC..C16..] Softstart [RGC..S..]	Phase Angle [RGC..E..] 1 Full Cycle [RGC..C1..] 4 Full Cycles [RGC..C4..] 16 Full Cycles [RGC..C16..] Softstart [RGC..S..]	Phase Angle [RGC..E..] 1 Full Cycle [RGC..C1..] 4 Full Cycles [RGC..C4..] 16 Full Cycles [RGC..C16..] Softstart [RGC..S..]
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## Output specifications

Rated operational current AC-51 @ Ta = 40°C	20 AAC	30 AAC	66 AAC
Minimum operational current	500 mAAC	500 mAAC	500 mAAC
Non. rep. surge current I <sub>ism</sub> (t=10ms)	600 Ap	1150 Ap	1750 Ap
I <sup>2</sup> t for fusing (t=10ms)	1800 A <sup>2</sup> s	6600 A <sup>2</sup> s	15000 A <sup>2</sup> s
Off-state leakage current	5 mAAC	5 mAAC	5 mAAC
Critical dV/dt (@ Tj init = 40°C)	1000 V/us	1000 V/us	1000 V/us

## General specifications

Operational voltage range	180-600 VAC +10%	180-600 VAC +10%	180-600 VAC +10%
Blocking voltage	1200 Vp	1200 Vp	1200 Vp
Power factor	≥ 0.7 at rated voltage	≥ 0.7 at rated voltage	≥ 0.7 at rated voltage
Operating temperature	-40°C to +70°C max. +60°C for 24 VAC supply	-40°C to +70°C max. +60°C for 24 VAC supply	-40°C to +70°C max. +60°C for 24 VAC supply
Approvals / Marks	CE - cULus	CE - cULus	CE - cULus

## References

Phase Angle, DC external supply	RGC3P60Y20EDP	RGC3P60Y30EDP	RGC3P60Y65EDFP
Phase Angle, AC external supply	RGC3P60Y20EAP	RGC3P60Y30EAP	RGC3P60Y65EAFP
X Full Cycle, DC external supply	RGC3P60Y20CXDM	RGC3P60Y30CXDM	RGC3P60Y65CXDFM
X Full Cycle, AC external supply	RGC3P60Y20CXAM	RGC3P60Y30CXAM	RGC3P60Y65CXAFM
Softstart + 16 Full Cycles, DC external supply	RGC3P60V20S16DM	RGC3P60V30S16DM	RGC3P60V65S16DFM
Digital Control Input:	5-10VDC	5-10VDC	5-10VDC
Softstart + ON/OFF, DC external supply	RGC3P60V20SDM	RGC3P60V30SDM	RGC3P60V65SDFM




X = '1', '4' or '16' full cycles

Y = '1' for 0-20mA, 4-20mA or 12-20mA or 'V' for 0-10V, 0-5V, 1-5V or pot

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# Solid state contactors for motor switching, 3-phase

Ready for use design - DIN rail mounting

Types	REC2B	REC3B	REC2R
Semiconductor contactors with integrated heatsink. AC operating frequency range 45-65 Hz. Rated isolation voltage $\geq 4000$ Vrms			
Dimensions HxWxD (mm)	105 x 45 x 99.4	105 x 45 x 99.4	105 x 45 x 99.4
Features	2ph switching Electronic motor contactor	3ph switching Electronic motor contactor	2ph switching Electronic motor contactor for reversing
<b>Control specifications</b>			
Control input range	15-32 VDC [REC..D] 90-253 VAC [REC..A]	15-32 VDC [REC..D] 90-253 VAC [REC..A]	15-32 VDC [REC..D] 90-253 VAC [REC..A]
Max. input current	10 mADC [REC..D] 15 mAAC [REC..A]	10 mADC [REC..D] 15 mAAC [REC..A]	10 mADC [REC..D] 15 mAAC [REC..A]
<b>Output specifications</b>			
Rated operational current AC53a @ Ta= 40°C, 400 VAC	6.2 AAC [REC2B..20] 7.6 AAC [REC2B..30] 9.2 AAC [REC2B..40]	5.8 AAC [REC3B..20] 5.8 AAC [REC3B..21] 7.6 AAC [REC3B..30]	6.2 AAC [REC2R..20] 7.6 AAC [REC2R..30]
Motor Rating @ 400 VAC UL508/IEC60947-4-2 @40°C	3HP / 2.2 kW [REC2B..20] 3HP / 3.0 kW [REC2B..30] 3HP / 4.0 kW [REC2B..40]	2HP / 2.2 kW [REC3B..20] 2HP / 2.2 kW [REC3B..21] 3HP / 3.0 kW [REC3B..30]	3HP / 2.2 kW [REC2R..20] 3HP / 3.0 kW [REC2R..30]
Min. operational current	150 mA [RECB..20]	150 mA [REC3B..20]	150 mA [REC2R..20]
Non repet. surge current (I <sub>sm</sub> ) (t=10 ms)	325 Ap [REC2B..20] 600 Ap [REC2B..30] 800 Ap [REC2B..40]	325 Ap [REC3B48..20] 600 Ap [REC3B60..20] 600 Ap [REC3..21] 800 Ap [REC3..30]	600 Ap
Max. Off-state leak current	< 3 mAAC	< 3 mAAC	< 3 mAAC
I <sup>2</sup> t for fusing (t=10 ms)	525 A <sup>2</sup> s [REC2..20] 525 A <sup>2</sup> s [REC2..48..30] 1800 A <sup>2</sup> s [REC2..60..30] 3200 A <sup>2</sup> s [REC2..40]	525 A <sup>2</sup> s [REC3B48..20] 1800 A <sup>2</sup> s [REC3B60..20] 1800 A <sup>2</sup> s [REC3..21] 3200 A <sup>2</sup> s [REC3..40]	1800 A <sup>2</sup> s
Critical dV/dt (@ T <sub>j</sub> init=40°C)	1000 V/μs	1000 V/μs	1000 V/μs
<b>General specifications</b>			
Operational voltage range	48 - 530 VAC [REC..48..] 48 - 600 VAC [REC..60..]	48 - 530 VAC [REC..48..] 48 - 600 VAC [REC..60..]	48 - 530 VAC [REC..48..] 48 - 600 VAC [REC..60..]
Blocking voltage	1200 V <sub>P</sub> [REC..48..] 1600 V <sub>P</sub> [REC..60..]	1200 V <sub>P</sub> [REC..48..] 1600 V <sub>P</sub> [REC..60..]	1200 V <sub>P</sub> [REC..48..] 1600 V <sub>P</sub> [REC..60..]
Power factor	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage	$\geq 0.5$ at rated voltage
Operating temperature	-25°C to +60°C	-25°C to +60°C	-25°C to +60°C
Terminals	input screw/spring, output screw	input screw/spring, output screw	input screw/spring, output screw
Approvals/Marks	CE - cULus	CE - cULus	CE - cULus
<b>References</b>			
	2.2 kW	2.2 kW	2.2 kW
	<b>REC2B48D20GKE</b>	<b>REC3B48D20GKE</b>	<b>REC2R48D20GKE</b>
	<b>REC2B48A20GKE</b>	<b>REC3B48A20GKE</b>	<b>REC2R48A20GKE</b>
	3.0 kW	<b>REC3B60D20GKE</b>	3.0 kW
	<b>REC2B48D30GKE</b>	<b>REC3B60A20GKE</b>	<b>REC2R48D30GKE</b>
	<b>REC2B48A30GKE</b>	2.2 kW (high I <sub>sm</sub> )	<b>REC2R48A30GKE</b>
	<b>REC2B60D30GKE</b>	<b>REC3B48D21GKE</b>	<b>REC2R60D30GKE</b>
	<b>REC2B60A30GKE</b>	3.0 kW	<b>REC2R60A30GKE</b>
	4.0 kW	<b>REC3B48D30GKE</b>	
	<b>REC2B48D40GKE</b>	<b>REC3B48A30GKE</b>	
	<b>REC2B48A40GKE</b>		




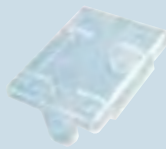
## Solid state relays accessories

### General accessories

Types	RPM1	RPM1P	RPM1V	RPM2
				
Dimensions HxWxD (mm)	84 x 12.5 x 42	84 x 12.5 x 42	84 x 12.5 x 42	82 x 25 x 39
Description	Din-rail adaptor for PCB relays. (Relay excluded)	Din-rail adaptor with sockets for plug-in PCB relays. (Relay excluded)	DIN-rail adaptor for PCB relays with LED and varistor across output terminals. (Relay excluded)	Din-rail adaptor for PCB relays with an operational voltage $\geq$ 230 V. (Relay excluded)
Pack Quantity	1	1	1	2
<b>References</b>	<b>RPM1</b>	<b>RPM1P (no LED) RPM1PD (with LED)</b>	<b>RPM1V</b>	<b>RPM2</b>


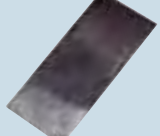


### Selection guide for SSR assemblies\*

<b>RP...M1</b>	<b>RP...M1P (no LED) RP...M1PD (with LED)</b>	<b>RP...M1V</b>	<b>RP...M2</b>
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Types	DIN Adaptor	DIN Adaptor RG	Protection cover RM	Protection cover RA
				
Dimensions HxWxD (mm)	81 x 44 x 13.5	106 x 17.8 x 14	58 x 45 x 9	59 x 45 x 25.5
Description	DIN-rail adaptor for 1-phase SSR & heatsink assemblies. Integrated in heatsink kits.	DIN-rail adaptor for RGS relays.	Clip-on IP20 protection Cover for RAM, RM, RS	Protection cover for RA and RD series
Pack Quantity	1	1	20	25
<b>References</b>	<b>RHS00</b>	<b>RGS1DIN</b>	<b>RMIP20</b>	<b>BBR BBR-S (for RA..S series)</b>

### Selection guide for SSR assemblies\*





<b>R...H8</b>	<b>RGS...DIN</b>
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Types	Thermal paste	Thermal pad RG	Thermal Pad RM, RA	Thermal pad RZ3
				
Dimensions HxWxD (mm)		34.6 x 14 x 0.13	42 x 35 x 0.25	70 x 77 x 0.25
Description	2 ml syringe silicon based thermal compound	Graphite thermal pad for RG series	Graphite thermal pad for RA, RD, RM, RAM, RS series	Graphite thermal pad for RZ3 series
Pack Quantity	1	10	50	10
<b>References</b>	<b>HTS02S</b>	<b>RGHT</b>	<b>KK071CUT</b>	<b>RZHT</b>


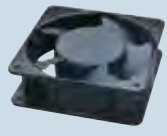


\* Conditions may apply. Please ask your Sales representative for further details.

# Solid state relays accessories

## Terminal Adaptors

Types	RM fork terminal	RM fork terminal IP20	RM FASTON terminals	RM spacers
				
Dimensions HxWxD (mm)	35 x 16.5 x 25	35 x 16.5 x 29	4.8 / 6.3	M3 x 12
Description	RM, RS, RAM terminal adaptor for 16mm <sup>2</sup> and 35mm <sup>2</sup> cable	RM, RS, RAM terminal adaptor for 35mm <sup>2</sup> cable, IP20	Screw FASTON terminals, flat or 45° angled for output (6.3mm) and input (4.8mm) RM, RS, RAM terminals	Standoff spacer for RM, RS, RAM series M3 control terminals
Pack Quantity	10	10	20	20
<b>References</b>	<b>RM625FK</b> (16mm <sup>2</sup> ) <b>RM635FK</b> (35mm <sup>2</sup> )	<b>RM635FKP</b>	<b>RM48F0</b> (4.8mm, flat) <b>RM48F4</b> (4.8mm, 45°) <b>RM63F0</b> (6.3mm, flat) <b>RM63F4</b> (6.3mm, 45°)	<b>RMSP03</b>


Types	RG plug terminals	RG plug terminals	Overload Relay Adaptor	Varistors
				
Description	2 pole spring loaded plug terminal, 2,5mm <sup>2</sup> for RG series	3 way, 2 pole box clamp plug terminal, 2,5mm <sup>2</sup> for RGCM3 series	Overload Relay Adaptor for REC and RGCM3 series	Surge / transient voltage protection for SSRs
Pack Quantity	10	10	5	10
<b>References</b>	<b>RGM25</b>	<b>RG3G25</b>	<b>REC3ADAPTOR</b>	275V: <b>RV02</b> 420V: <b>RV04</b> 510V: <b>RV05</b> 625V: <b>RV06</b> 680V: <b>RV07</b>

Types	Cables	Fans	Screw Kits	Temperature limit switches
				
Dimensions HxWxD (mm)		40 x 40 x 20 (RHSF40) 60 x 60 x 20 (RHSF60) 120 x 120 x 38 (RHS301F)		6.5 x 5.5 x 3
Description	Cable for RM1E...V, RA2A...C and RA...S models with one-end terminated with a female plug for mounting on the SSR	RHSF40-24 to be mounted with RHS45C, RHS45B, RHS540, RHS542 RHSF60-24/240 to be mounted with RHS90A, RHS112A, RHS703 RHS301F115/230 to be mounted with RHS301 incl. bracket	Screw kits for assembling SSRs to heatsinks. M5x10mm to be used with RA, RD, RM, RAM, RS and RZ3 series. M4x15mm used for RHS38AD heatsink. M5x23/30mm to be used with RG series.	Temperature limit switches that may be fitted in the RZ3 housing between SSR and heatsink
	1	1	20	1
<b>References</b>	<b>RCS3-100-1 [RM1E..V]</b> <b>RCS4-100-1 [RA2A..C]</b> <b>RCS4-400-1 [RA2A..C]</b> <b>RCS5-200-1 [RA..S]</b>	<b>RHSF40-24</b> (24VDC) <b>RHSF60-24</b> (24VDC) <b>RHSF60-230</b> (240VAC) <b>RHS301F115</b> (115VAC) <b>RHS301F230</b> (230VAC)	<b>SRWKITM5X10MM</b> <b>SRWKITM4X15MM</b> <b>SRWKITM5X23MM</b> <b>SRWKITM5X30MM</b>	<b>UP62-70</b> <b>UP62-80</b> <b>UP62-90</b>



# Solid state relays accessories


## DIN mount heatsinks for solid state relays

Types	RHS300	RHS37A	RHS10015
			
Dimensions HxWxD (mm) (SSR not included)	105 x 82 x 20	18 x 110 x 52	100 x 82 x 29
Description	Heatsink for 1x 3-phase RZ3 series	Heatsink for 1x 1-phase RG series	Heatsink for max. 2x 1-phase RA, RD, RM, RAM, RS series
<b>Thermal resistance**</b>			
Without fan	5.40 °C/W (>30W)	4.00 °C/W (>20W)	4.00 °C/W (>30W)
With fan	Not available	Not available	Not available
<b>Selection guide for heatsink assemblies*</b>			
Without fan	R...H1	R...H51	R...H47
With fan	Not available	Not available	Not available

Types	RHS100	RHS45C	RHS52A
			
Dimensions HxWxD (mm) (SSR not included)	44 x 82 x 48	45 x 103 x 55	22.5 x 110 x 90
Description	Heatsink for 1x 1-phase RA, RD, RM, RAM, RS series	Heatsink for 1x 1-phase RA, RD, RM, RAM, RS series	Heatsink for 1x 1-phase RG series
<b>Thermal resistance**</b>			
Without fan	3.10 °C/W (>25W)	2.20 °C/W (>45W)	2.00 °C/W (>45W)
With fan	Not available	Not Available	Not Available
<b>Selection guide for heatsink assemblies*</b>			
Without fan	R...H0	R...H15	R...H61
With fan	Not available	Not available	Not available

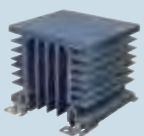

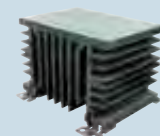
Types	RHS45B	RHS54..	RHS703..
			
Dimensions HxWxD (mm) (SSR not included)	45 x 103 x 80	54 x 110 x 51 54 x 135 x 51 (with fan)	72 x 110 x 75 72 x 141 x 75 (with fan)
Description	Heatsink for 1x 1-phase RA, RD, RM, RAM, RS series	Heatsink for max. 3x 1-phase RG series, 1x 1-phase RA, RD, RM, RAM, RS series: RHS540 (no fan) RHS540F40-24 (24VDC fan) Heatsink for max. 2x 1-phase RG series: RHS542 (no fan) RHS542F40-24 (24VDC fan)	Heatsink for max. 3x 1-phase RG series, 1x 1-phase RA, RD, RM, RAM, RS series: RHS703 (no fan) RHS703F60-24 (24VDC fan) RHS703F60-230 (240VAC fan)
<b>Thermal resistance**</b>			
Without fan	1.85 °C/W (>50W)	1.85 °C/W (>60W)	1.10 °C/W (>60W)
With fan	Not Available	0.65 °C/W	0.37 °C/W
<b>Selection guide for heatsink assemblies*</b>			
Without fan	R...H5	R...H65 [RHS540] R...H66 [RHS542]	R...H75 [RHS703]
With fan	Not available	R...H67 [RHS540F40-24] R...H68 [RHS542F40-24]	R...H76 [RHS703F60-24] R...H77 [RHS703F60-230]


\* Conditions may apply. Please ask your Sales representative for further details.

\*\* Refer to specific heatsink datasheet for further details on heatsink characteristics and assemblies.

# Solid state relays accessories

## DIN mount heatsinks for solid state relays

Types	RHS90A	RHS301..	RHS112A..
			
Dimensions HxWxD (mm) (SSR not included)	90 x 103 x 80	119 x 82 x 94 124 x 146 x 122 (with fan)	112 x 103 x 80 112 x 120 x 80 (with fan)
Description	Heatsink for 1x 1-phase RA, RD, RM, RAM, RS series	Heatsink for 1x 3-phase RZ3, 2x 1-phase RA, RD, RM, RAM, RS series: RHS301 [no fan] RHS301F115C [115VAC fan] RHS301F230C [230VAC fan]	Heatsink for 1x 3-phase RZ3, 2x 1-phase RA, RD, RM, RAM, RS series: RHS112A [no fan] RHS112AF60-24 [24VDC fan] RHS112AF60-230 [230VAC fan]
<b>Thermal resistance**</b>			
Without fan	0.97 °C/W (>60W)	0.82 °C/W (>80W)	0.76 °C/W (>100W)
With fan	Not Available	0.28 °C/W	0.35 °C/W
<b>Selection guide for heatsink assemblies*</b>			
Without fan	R...H16	R...H2 [RHS301]	R...H17
With fan	Not available	R...H10 [RHS301F115C] R...H12 [RHS301F230C]	R...H18 [RHS112AF60-24] R...H52 [RHS112AF60-230]

Types	RHS11267DIND	RHS28009F80-24P	RHS28011F80-24P
			
Dimensions HxWxD (mm) (SSR not included)	119 x 125 x 94	280 x 87 x 122	280 x 87 x 122
Description	Heatsink for 1x 3-phase RZ3 series, max 3x 1-phase RG series, 2x 1-phase RA, RD, RM, RAM, RS series	Heatsink for max. 9x 1-phase RG series or 4x 1-phase RA, RD, RM, RAM, RS series with integrated fan and overtemperature protection	Heatsink for max. 11x 1-phase RG series or 3x 1-phase RA, RD, RM, RAM, RS series with integrated fan and overtemperature protection
<b>Thermal resistance**</b>			
Without fan	0.54 °C/W (>150W)	Not available	Not available
With fan	Not available	0.12 °C/W (24V DC)	0.12 °C/W (24 VDC)
<b>Selection guide for heatsink assemblies*</b>			
Without fan	R...H78D	Not available	Not available
With fan	Not available	R...H41	R...H44

## Thru wall mount heatsinks for solid state relays

Types	RHS10025D	RHS16225D	RHS16225LD
			
Dimensions HxWxD (mm) (SSR not included)	100 x 100 x 25	162 x 100 x 25	162 x 250 x 25
Description	Heatsink for max. 3x 1-phase RG series, 1x 1-phase RA, RD, RM, RAM, RS series	Heatsink for 1x 3-phase RZ3 series, max. 3x 1-phase RA, RD, RM, RAM, RS and RG series	Heatsink for 1x 3-phase RZ3 series, max. 3x 1-phase RA, RD, RM, RAM, RS and RG series
<b>Thermal resistance**</b>			
Without fan	1.85 °C/W (>60W)	1.30 °C/W (>90W)	0.84 °C/W (>120W)
With fan	Not Available	Not Available	Not Available
<b>Selection guide for heatsink assemblies*</b>			
Without fan	R...H49	R...H55	R...H55L
With fan	Not Available	Not Available	Not Available

\* Conditions may apply. Please ask your Sales representative for further details.

\*\* Refer to specific heatsink datasheet for further details on heatsink characteristics and assemblies.

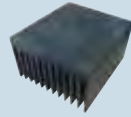
# Solid state relays accessories

## Thru wall mount heatsinks for solid state relays

### Types

**RHS11267D**

**RHS30040D**



Dimensions HxWxD (mm)  
(SSR not included)

112 x 125 x 67

300 x 200 x 40

Description

Heatsink for max. 3x 1-phase RG series or 1x 1-phase RA, RD, RM, RAM, RS series

Heatsink for max. 12x 1-phase RG series or 8x 1-phase RA, RD, RM, RAM, RS series

### Thermal resistance\*\*

Without fan

0.54 °C/W (>150W)

0.40 °C/W (>180W)

With fan

Not Available

Not Available

### Selection guide for heatsink assemblies\*

Without fan

**R...H78**

**R...H57**

With fan

Not Available

Not Available

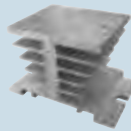
## Panel mount heatsinks for solid state relays

### Types

**RHS5050D**

**RHS38AD**

**RHS5840D**



Dimensions WxHxD (mm)  
(SSR not included)

80 x 50 x 51

46 x 76 x 33

81 x 100 x 40

Description

Heatsink for 1x 1-phase RA, RD, RM, RAM, RS series

Heatsink for 1x 1-phase RA, RD, RM, RAM, RS series

Heatsink for max. 3x 1-phase RG series, 1x 1-phase RA, RD, RM, RAM, RS series

### Thermal resistance\*\*

Without fan

3.50 °C/W (>25W)

2.85 °C/W (>40W)

1.80 °C/W (>60W)

With fan

Not available

Not available

Not available

### Selection guide for heatsink assemblies\*

Without fan

**R...H60**

**R...H53**

**R...H48**

With fan

Not available

Not available

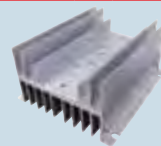
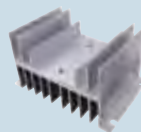
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### Types

**RHS10067D**

**RHS10067LD**

**RHS320**



Dimensions WxHxD (mm)  
(SSR not included)

121 x 76 x 67

121 x 140 x 67

240 x 100 x 93

Description

Heatsink for 1x 1-phase RA, RD, RM, RAM, RS series

Heatsink for 2x 1-phase RA, RD, RM, RAM, RS and RG series

Heatsink for 1x 3-phase RZ3 series, max. 3x 1-phase RA, RD, RM, RAM, RS and RG series

### Thermal resistance\*\*

Without fan

1.70 °C/W (>20W)

0.88 °C/W (>80W)

0.40 °C/W (>120W)

With fan

Not available

Not available

Not available

### Selection guide for heatsink assemblies\*

Without fan

**R...H58**

**R...H58L**

**R...H13**

With fan

Not available

Not available

Not available

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\*\* Refer to specific heatsink datasheet for further details on heatsink characteristics and assemblies.