



# Zero crossing AC SSR



- » Single phase 2 input ranges: 3-32VDC and 90-250VAC.
- » Maximum load current (AC1 at 25°C): 25, 60, 80, 100A.
- » Operational ratings: 40 - 440 VAC.
- » Frequency range: 50- 60 Hz.
- » Maximum non-repetitive peak voltage: 930 Vp.
- » LED indicator.
- » Clip on protective cover for greater safety (IP 20).

## References

Control voltage	Operational voltage	Operational current	Reference	Reference heat sink	
3 - 32 VDC	40 - 440 VAC	25 A	RS1AOP032DC440025Z	RSH-061	
		60 A	RS1AOP032DC440060Z	RSH-038	
		80 A	RS1AOP032DC440080Z	RSH-038	
		100 A	RS1AOP032DC440100Z	RSH-039	
90 - 250 VAC		25 A	RS1AOP250AC440025Z	RSH-061	
		60 A	RS1AOP250AC440060Z	RSH-038	
		80 A	RS1AOP250AC440080Z	RSH-038	
		100 A	RS1AOP250AC440100Z	RSH-039	

Over 10 A load a heat sink must be used. The use of a heat sink will make the lifetime of the relay up to four times longer, even when using it with load currents lower than 10 A.

## General specifications

Dielectric insulation (between input & output)	2,500 VAC
Operating temperature	-25 °C to 70 °C
Storage temperature	-35 °C to 85 °C
Rth junction to case	2,5°C/W (25 A) 0,65°C/W (60 A) 0,5°C/W (80 A) 0,3°C/W (100 A)
Ambient humidity	Operating: up to 85 %
CE marking	Yes

## Input specifications

	VDC input	VAC input
Control voltage range	3 - 32 VDC	90 - 250 VAC
Input current (max)	10/16 mA @= 5 V/24 V	29 mA @= 220 VAC
Pick-up voltage	1,9 VDC	70 VAC
Drop-out voltage	1,9 VDC	70 VAC
Maximum reverse voltage	32 VDC	-
Max. response time pick-up	½ cycle	1 cycle
Max. response time drop-out	½ cycle	2 cycles

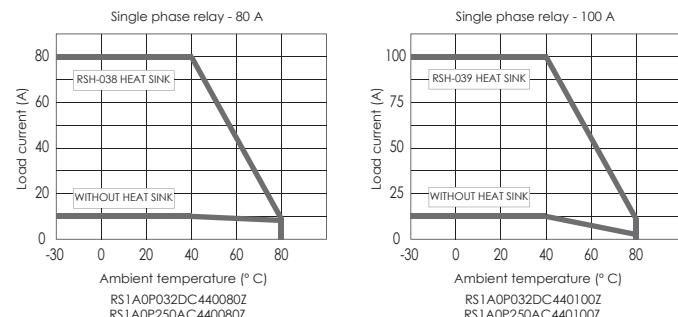
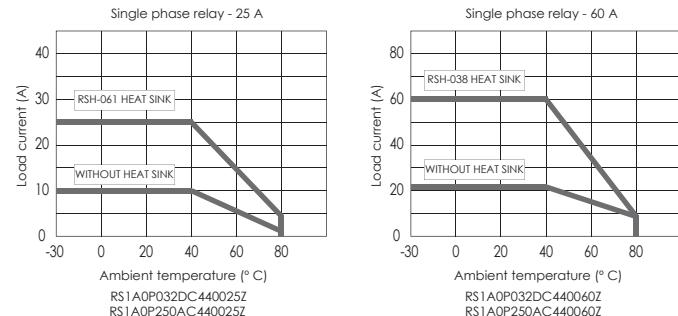
## Output specifications

Maximum load current (AC51 @ Ta = 25°C) (AC53a @ Ta = 25°C)	25, 60, 80, 100 A 5, 15, 18, 20 A
Load voltage range	40 - 440 VAC
Frequency range	50 - 60 Hz
Max. non-repetitive peak voltage	930 Vp
Max. non-repetitive peak current (t=10ms)	350 Ap / 25 A    910 Ap / 80 A 630 Ap / 60 A    1100 Ap / 100 A
Maximum off state leakage current	10 mArms
Minimum off state dv / dt	200 V / useg
Maximum on state voltage	<1,6 VAC
Minimum load current	0,1 Arms
I <sup>2</sup> t (10 ms) (orientative data)	625 A <sup>2</sup> s (25 A)    4.225 A <sup>2</sup> s (80 A) 2.025 A <sup>2</sup> s (60A)    6.050 A <sup>2</sup> s (100A)

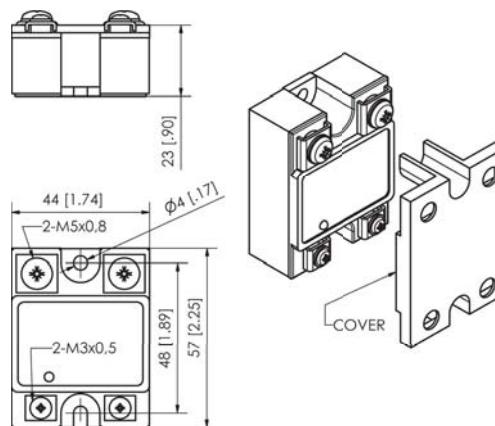
## Housing specifications

Dimensions (L x W x H mm)	57 x 44 x 23
Weight	150 gr max.
Baseplate	Aluminum, nickel-plated
Control terminal (M3x6) torque	1,2 Nm
Power terminal (M5x9) torque	2,4 Nm

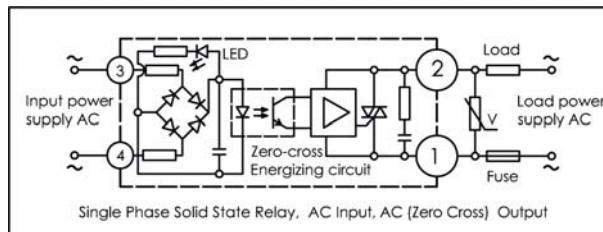
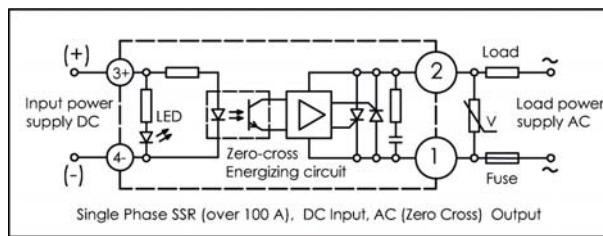
## Load current vs. ambient temperature



## Dimensions (mm-inch)



## Diagrams





- » Two input ranges: 3-32 VDC and 90-280 VAC.
- » Maximum load current (AC1 at 25°C): 25, 60, 80, 100A.
- » Operational ratings: 40 - 480 VAC.
- » Frequency range: 50- 60 Hz.
- » Maximum non-repetitive peak voltage: 930 Vp.
- » LED indicator.
- » Clip on protective cover for greater safety (IP 20).

## References

Control voltage	Operational voltage	Operational current	Reference	Reference heat sink
3 - 32 VDC	40 - 480VAC	25 A	RS1AOP032DC480025R	RSH-061
		60 A	RS1AOP032DC480060R	RSH-038
		80 A	RS1AOP032DC480080R	RSH-038
		100 A	RS1AOP032DC480100R	RSH-039
90 - 280 VAC		25 A	RS1AOP280AC480025R	RSH-061
		60 A	RS1AOP280AC480060R	RSH-038
		80 A	RS1AOP280AC480080R	RSH-038
		100 A	RS1AOP280AC480100R	RSH-039

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## General specifications

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Operating temperature	-30 °C to 80 °C
Storage temperature	-35 °C to 85 °C
R <sub>th</sub> junction to case	2,5° C/W (25 A) 0,65° C/W (60 A) 0,5° C/W (80 A) 0,3° C/W (100 A)
Ambient humidity	Operating: up to 85 %
CE marking	Yes

## Input specifications

	VDC input	VAC input
Control voltage range	3 - 32 VDC	90 - 280 VAC
Input current (max)	13/16 mA @= 5 V/24 V	29 mA @= 220 VAC
Pick-up voltage	1,9 VDC	70 VAC
Drop-out voltage	1,9 VDC	70 VAC
Maximum reverse voltage	32 VDC	-
Max. response time pick-up	1 ms	-
Max. response time drop-out	½ cycle	-

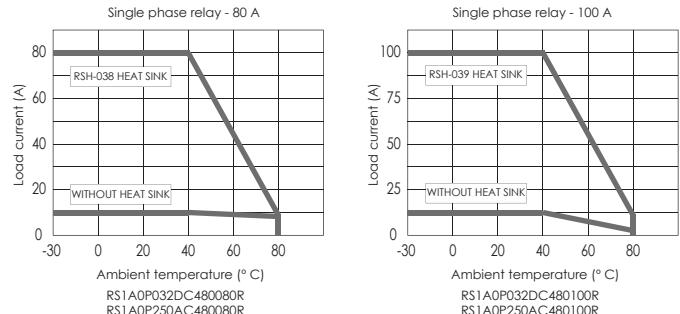
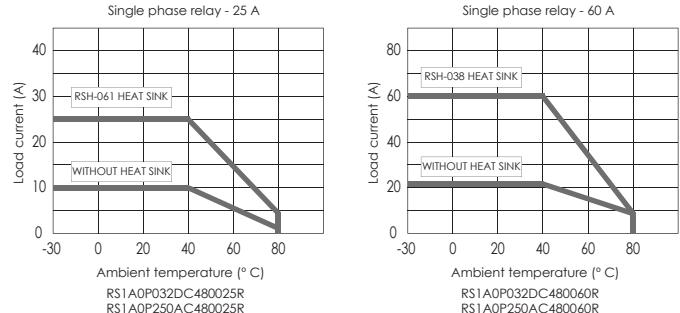
## Output specifications

Maximum load current (AC51 @ Ta = 25°C)	25, 60, 80, 100 A
	5, 15, 18, 20 A
Load voltage range	40 - 480 VAC
Frequency range	50 - 60 Hz
Max. non-repetitive peak voltage	930 Vp
Max. non-repetitive peak current (t=10ms)	350 Ap / 25 A    910 Ap / 80 A 630 Ap / 60 A    1100 Ap / 100 A
Maximum off state leakage current	8 mArms
Minimum off state dv / dt	200 V / µseg
Maximum on state voltage	1,6 VAC
Minimum load current	0,05 Arms
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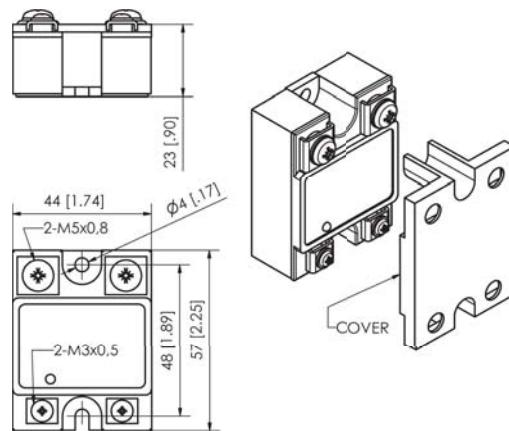
## Housing specifications

Dimensions (L x W x H mm)	57 x 44 x 23
Weight	150 gr max.
Baseplate	Aluminum, nickel-plated
Control terminal (M3x6) torque	1,2 Nm
Power terminal (M5x9) torque	2,4 Nm

## Load current vs. ambient temperature



## Dimensions (mm-inch)



## Diagrams

