



- » Motor reversing solid state relay, AC.
- » Two input ranges: 10 - 30 VDC and 90 - 115 VAC.
- » Maximum load power: 1 KW and 5 KW.
- » Operational ratings: 24 - 530 VAC.
- » Frequency range: 50- 60 Hz.
- » Maximum non-repetitive peak voltage: 1.200 Vp.
- » LED indicator (green: forward; yellow: reverse).

This relay is used to invert the turn direction of an engine, which will depend on the input circuit. If the system is powered between the terminals F and GND, the triphase network will work in a direct way; if it is powered between R and GND, the direction of the engine will be inverted.	Input control	Output connection
	GND - F	R → U
		S → V
	GND - R	T → W
R → U		
	S → V	
	T → W	

References

Control voltage	Operational voltage	Max. Load Power	Reference	Reference heat sink
10 - 30 VDC	24 - 530 VAC	1 KW	RS1ARP030DC5301K3Z	RSH-38
90 - 115 VAC		5 KW	RS1ARP030DC5305K3Z	RSH-39
			RS1ARP115AC5305K3Z	RSH-39

General specifications

Dielectric insulation (between input & output)	2,500 VAC
Operating temperature	-30°C to 80 °C
Storage temperature	-35°C to 85 °C
Rth junction to case	0,25° C/W 0,22° C/W
Ambient humidity	Operating: up to 85 %
CE marking	Yes

Input specifications

	VDC		VAC	
	10 - 30 VDC	90 - 115 VAC	24 - 530 VAC	90 - 115 VAC
Control voltage range	10 - 30 VDC	90 - 115 VAC	24 - 530 VAC	90 - 115 VAC
Input current (max)	30 mA	35 mA	30 mA	35 mA
Pick-up voltage	8 VDC	85 VAC	8 VDC	85 VAC
Drop-out voltage	4 VDC	30 VAC	4 VDC	30 VAC
Maximum reverse voltage	30 VDC	-	30 VDC	-
Max. response time pick-up	½ cycle	-	½ cycle	-
Max. response time drop-out	½ cycle	-	½ cycle	-

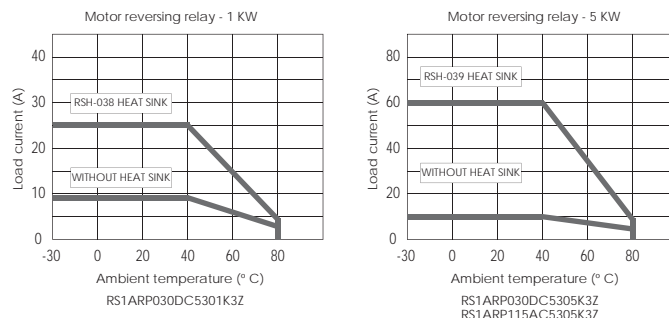
Output specifications

	VDC		VAC	
	1 KW	5 KW	24 - 530 VAC	90 - 115 VAC
Maximum load current	25 A	60 A	24 - 530 VAC	90 - 115 VAC
Load voltage range	24 - 530 VAC		50 - 60 Hz	50 - 60 Hz
Frequency range	50 - 60 Hz		1.200 Vp	1.200 Vp
Max. non-repetitive peak voltage	1.200 Vp		350 Ap / 25 A	350 Ap / 25 A
Max. non-repetitive peak current (t=10ms)	850 Ap / 60 A		8 mArms	8 mArms
Maximum off state leakage current	8 mArms		500 V / µseg	500 V / µseg
Minimum off state dv / dt	500 V / µseg		1,6 VAC	1,8 VAC
Maximum on state voltage	1,6 VAC 1,8 VAC		0,1 A	0,1 A
Minimum load current	0,1 A		625 A ² s (25 A)	625 A ² s (25 A)
I ² t (10 ms) (orientative data)	625 A ² s (25 A)		3.600 A ² s (60A)	3.600 A ² s (60A)

Housing specifications

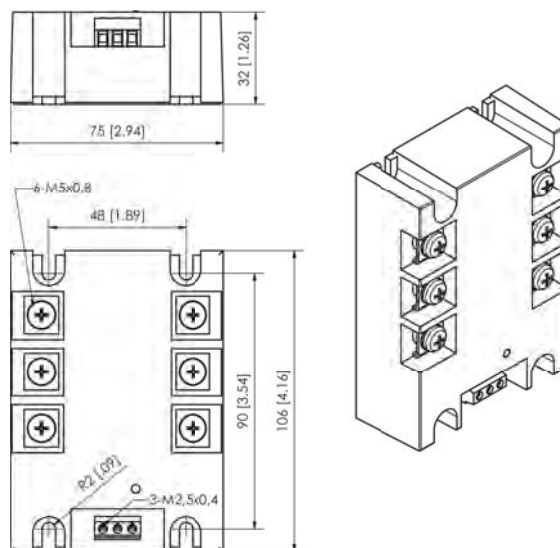
Dimensions (L x W x H mm)	106 x 75 x 32
Weight	430 gr Max.
Baseplate	Aluminum, nickel-plated
Control terminal (M3x6) torque	1,2 Nm
Power terminal (M5x9) torque	2,4 Nm

Load current vs. ambient temperature



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.

Dimensions (mm. inch)



Diagram

