Single Phase, Socket Separated Heatsink Type SSR

Features

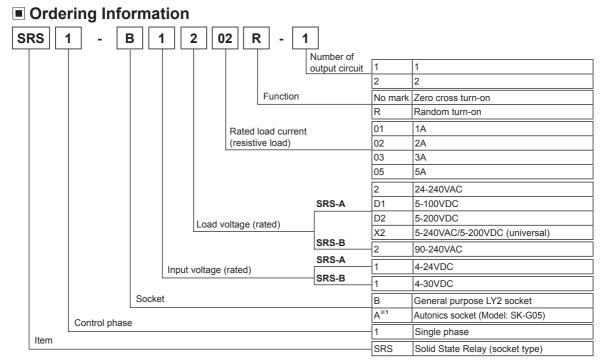
- Dielectric strength 2,500 VAC
- SRS1-A: AC, DC, AC/DC control SRS1-B: AC control
- Socket type (Autonics SRS1-A: socket SK-G05, SRS1-B: general purpose LY2) saves working time and improves ease of maintenance
- Supports Zero cross turn-on/Random turn-on type
- Checks input status by Input LED (red)





SRS1-B

Please read "Caution for your safety" in operation manual before using.



(€ c¶us

Model		Input voltage	Rated load current	Load voltage	Zero cross turn-on/Random turn-on	
SRS1-A	SRS1-A1202		2A	24-240VAC	Zero cross turn-on	
	SRS1-A1202R	-4-24VDC			Random turn-on	
	SRS1-A1203		ЗА		Zero cross turn-on	
	SRS1-A1203R				Random turn-on	
	SRS1-A1205		5A		Zero cross turn-on	
	SRS1-A1205R				Random turn-on	
	SRS1-A1D101		1A	5-100VDC		
	SRS1-A1D102		2A		_	
	SRS1-A1D201		1A	5-200VDC]	
	SRS1-A1X201]		5-240VAC/5-200VDC	_	
	SRS1-B1202-2	-4-30VDC	2A (consists of 2 circuits)		Zero cross turn-on	
	SRS1-B1202R-2				Random turn-on	
SRS1-B	SRS1-B1203-1		ЗА	90-240VAC	Zero cross turn-on	
	SRS1-B1203R-1				Random turn-on	
	SRS1-B1205-1		5A		Zero cross turn-on	
	SRS1-B1205R-1				Random turn-on	

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Single Phase, Socket Type SSR

Specifications

O Input

•			
	SRS1-A	SRS1-B	(
Rated input voltage range	4-24VDC	4-30VDC	
Allowable input voltage range	4-26.4VDC	4-32VDC	1
Max. input current	15mA (Random turn-on)	13mA	1
Pick-up voltage	Min. 4VDC		L
Drop-out voltage	Max. 1VDC		(E

Output (AC)

Model		SRS1-A1202 (R)	SRS1-A1203 (R)	SRS1-A1205 (R)	SRS1-B1202 (R)-2	SRS1-B1203 (R)-2	SRS1-B1205 (R)-1	
Rated load voltage range		24-240VACrms (50/60Hz)			90-240VACrms (50/60Hz)			
Allowable load voltage range		24-264VACrms (50/60Hz)			90-240VACrms (50/60Hz)			
Rated load current resistive load		2Arms	3Arms	5Arms	2Arms	3Arms	5Arms	
Min. load current		0.15Arms	0.2Arms		0.15Arms			
Max. 1cycle surge current (60Hz)		126A	250A		126A		250A	
Max. non-repetitive surge current (I²t, t=8.3ms)		65A ² S	400A ² S		65A ² S		220A ² S	
Peak voltage (Non-repetitive)		600V						
Leakage current (Ta=25°C)		Max. 2mArms						
Output on voltage drop[Vpk] (Max. load current)		Max. 1.6V						
Static off-state dv/dt		500V/μs						
Turn-on	Zero cross turn-on	0.5 cycle of load source + 1ms						
time	Random turn-on	Max. 1ms						
Turn-off time		0.5 cycle of load source + 1ms						

Output (DC. AC/DC)

Model	SRS1-A1D101	SRS1-A1D102	SRS1-A1D201	SRS1-A1X201	
Rated load voltage range	range 5-100VDC		5-200VDC	5-240VAC 50/60Hz /5-200VDC	
Allowable load voltage range	3-120VDC		3-220VDC	3-264VAC 50/60Hz /3-220VDC	
Rated load current resistive load	1Adc	2Adc	1Adc	1Arms/1Adc	
Min. load current	10mA				
Max. surge current (t=10ms)	5A	10A	4A		
_eakage current	Max. 100uA			Max. 2mArms	
Output on voltage drop[Vpk] (Max. load current)	Max. 1.1V			Max. 2.2V	
Static off-state dv/dt	500V/µs				
Turn-on time	1ms	2ms	1ms	2ms	
Furn-off time	1ms				

General Specifications

		SRS1-A	SRS1-B		
Dielectric strength (Vrms)		2,500VAC 50/60Hz 1min. (Input-Output, Input/Output-Case)			
Insulation resistance		Min. 100MΩ (at 500VDC Megger)			
Input LED		Red			
Protection		According to protection of socket (SK-G05: IP10)			
-ment	Ambient temperature	-20 to 70°C, storage: -30 to 100°C	-20 to 80°C, storage: -30 to 100°C		
		(The rated load current capacity is different depending on ambient temperature.Refer to 's SSR Derating curve'.)			
	Ambient humidity	45 to 85%RH, storage: 45 to 85%RH			
Protection		IP10 (Protection structure of socket, SK-G05)	According to protection of the general LY2 socket		
Approval		(€ :\$41,000			
Unit weight		3A and below: Approx. 17g (approx. 270g), 5A: Approx. 28g (approx. 380g)	Approx. 30g (approx. 400g)		

^{×1:} This weight is for 1EA except the packing box. The weight of parenthesis is for 10EA as packing unit. ×Environment resistance is rated at no freezing or condensation.

(A) Photoelectric Sensors

(B) Fiber Optic Sensors

(C) Door/Area Sensors

(D) Proximity Sensors

(E) Pressure Sensors

(F) Rotary Encoders

Connectors/ Sockets

(H) Temperature Controllers

(I) SSRs / Power Controllers

J) Counters

imers

L) Panel Neters

(M) Tacho / Speed / Pulse Meters

> l) isplay nits

O) ensor ontrollers

(P) Switching Mode Power Supplies

(Q) Stepper Motors & Drivers & Controllers

(R) Graphic/ Logic Panels

(S) Field Network Devices

(T) Software

Autonics I-25

SRS1 Series

Connections

O SRS1-A1202 (R)/A1203 (R)/A1205 (R)

O SRS1-A1X201



OSRS1-A1D101/A1D102/A1D201



240VAC 2A 4

Resistive

Load

OSRS1-B1202 (R)-2

6

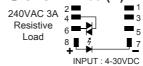
**SRS1-A1D101: 100VDC 1A Resistive Load SRS1-A1D102: 100VDC 2A Resistive Load SRS1-A1D201: 100VDC 1A Resistive Load

3 240VAC 2A

Resistive

Load

© SRS1-B1203 (R)-1





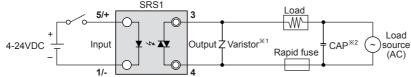
INPUT: 4-30VDC

**Using the general LY2 type power relay socket.

Example Of Connection

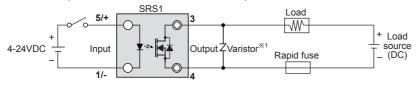
OSRS1-A

AC Load



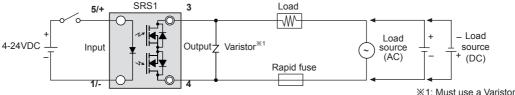
- X1: Must use a Varistor (470V, 0.6W)
- ※2: When connecting capacitor as above, it is appropriate for EMC. CAP: 1uF/250VAC

•DC Load (SRS1-A1D101/A1D102/A1D201)

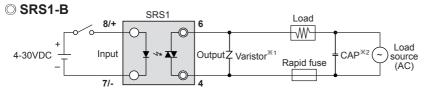


X1: Must use a Varistor (270V, 0.6W)

•AC/DC Load (SRS1-A1X201)



X1: Must use a Varistor (470V, 0.6W)



- X1: Must use a Varistor (470V, 0.6W)
- ※2: When connecting capacitor as above, it is appropriate for EMC. CAP: 1uF/250VAC

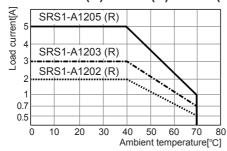
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Single Phase, Socket Type SSR

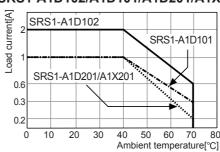
■ SSR Characteristic Curve

◎ SRS1-A

•SRS1-A1202 (R)/A1203 (R)/A1205 (R)



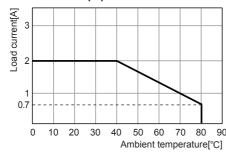
•SRS1-A1D102/A1D101/A1D201/A1X201



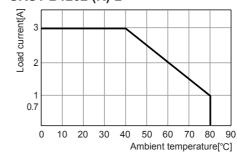
⚠ Please supply less than 50% of the rated load current when installing several SSRs closely due to decreasing effectiveness of protection against heat.

O SRS1-B

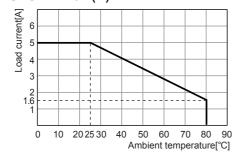
•SRS1-B1202 (R)-2



•SRS1-B1202 (R)-2



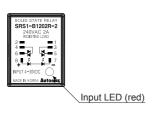
•SRS1-B1202 (R)-2

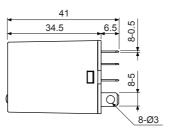


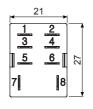
A Please supply less than 50% of the rated load current when installing several SSRs closely due to decreasing effectiveness of protection against heat.

Dimensions

OSRS1-B







(A) Photoelectric Sensors

(B) Fiber Optic

> (C) Door/Area Sensors

(D) Proximity Sensors

(E) Pressure Sensors

> (F) Rotary Encoders

(G)

(H) Temperature

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(N) Display Units

> O) Sensor

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(Q) Stepper Motors & Drivers

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> (S) Field Network Devices

(T)

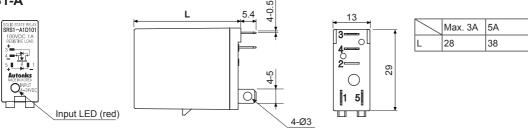
(unit: mm)

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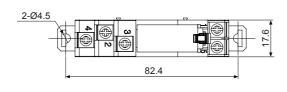
Dimensions

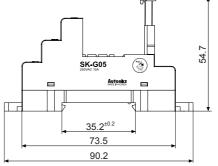
OSRS1-A

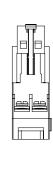
(unit: mm)



•Dedicated socket for SRS1-A: SK-G05 (sold separately)







Proper Usage

A High temperature caution

Make sure do not touch the heat sink or the unit body while power is supplied or right after load power is turned off. If not, it may cause a burn.

- 1. Please attach a heatsink and ventilate for smooth convection current. If not, congested heat transfer may cause product failure or malfunction.
- 2. For mounting multiple SSR, please keep certain installation intervals for heat prevention. For horizontal installation (when the heights of input part and output part are equal), it is recommended to apply less than 50% of the rated load current.
- 3. Make sure do not touch the heatsink or the unit body while power is supplied or right after load power is turned OFF. If not, it may cause a burn.
- 4. Connect the proper cable for the rated load current with output terminal.
- 5. Use rapid fuse of which I2t is under 1/2 of SSR I2t in order to protect the unit from load's short-circuit current.
- 6. In case that load's current is lower than SSR min. load current, connect dummy resistance to the load in parallel so as to make load's current higher than SSR min. load current.
- 7. When selecting phase control with random turn-on model, install the noise filter between load and load's source.
- 8. Make sure that the screw on output terminal is tightly fastened. Using the unit with loose bolt may cause product failure or malfunction.
- 9. Before or during installation this unit, turn OFF the power of this unit.
- 10. Do not touch the load's terminal even if output is OFF. It may cause electric shock.
- 11. Proper application environment (Avoid following environments to install)
- ① Where temperature/humidity is beyond the specification
- ② Where dew condensation occurs due to temperature change
- 3 Where inflammable or corrosive gas exists
- Where direct rays of light exist
- (5) Where severe shock, vibration or dust exists
- 6 Where near facilities generating strong magnetic forces or electric noise
- 12. This unit may be used in the following environments.
- ② Altitude: Under 2,000m
- 3 Pollution degree 2 4 Installation category II

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