

Single phase, Heatsink separated type SSR [SR1 Series]

■ Ordering information

NEW



Appearances

Model	Input voltage	Rated load current	Load voltage	Zero cross/Random turn-on
SR1-1215	4-30VDC	15A	24-240VAC	Zero cross turn-on
SR1-4215	90-240VAC			
SR1-1225	4-30VDC	25A		
SR1-4225	90-240VAC			
SR1-1240	4-30VDC	40A		
SR1-4240	90-240VAC			
SR1-1250	4-30VDC	50A		
SR1-4250	90-240VAC			
SR1-1275	4-30VDC	75A		
SR1-4275	90-240VAC			
SR1-1415	4-30VDC		48-480VAC	Zero cross turn-on
SR1-1415R		15A		Random turn-on
SR1-4415	90-240VAC			Zero cross turn-on
SR1-1425	4-30VDC			Zero cross turn-on
SR1-1425R		25A		Random turn-on
SR1-4425	90-240VAC			Zero cross turn-on
SR1-1440	4-30VDC			Zero cross turn-on
SR1-1440R		40A		Random turn-on
SR1-4440	90-240VAC			Zero cross turn-on
SR1-1450	4-30VDC			Zero cross turn-on
SR1-1450R		50A		Random turn-on
SR1-4450	90-240VAC			Zero cross turn-on
SR1-1475	4-30VDC			Zero cross turn-on
SR1-1475R		75A		Random turn-on
SR1-4475	90-240VAC			Zero cross turn-on

■ Specifications

○ Input

	4-30VDC input voltage	90-240VAC input voltage
Input voltage range	4-32VDC	85-264VACrms(50/60Hz)
Max. input current	9mA(Zero cross turn-on), 13mA(Random turn-on)	7mAmps(240VACrms)
Pick-up voltage	4VDC	85VACrms
Drop-out voltage	1VDC	10VACrms
Turn-on time	Zero cross turn-on Random turn-on	Max. 0.5 cycle of load source + 1ms Max. 1ms
Turn-off time	Max. 0.5 cycle of load source + 1ms	Max. 1.5 cycle of load source + 1ms

■ Specifications

○ Output

	24-240VAC load voltage					48-480VAC load voltage				
Load voltage range(50/60Hz)	24-264VACrms(50/60Hz)					48-528VACrms(50/60Hz)				
Rated load current(Ta=25°C)	Resistive load (AC-51) Motor load (AC-53a)	15Arms —	25Arms	40Arms	50Arms	75Arms	15Arms	25Arms	40Arms	50Arms
Min. load current	0.15Arms	0.2Arms	0.5Arms	0.5Arms	0.5Arms	0.5Arms	0.5Arms	0.5Arms	0.5Arms	0.5Arms
Max. 1cycle surge current (60Hz)	190A	270A	330A	1000A	300A	500A	1000A	1000A	1000A	1000A
Max. non-repetitive surgecurrent(t^2t , t=8.3ms)	150A ² S	300A ² S	500A ² S	4000A ² S	350A ² S	1000A ² S	4000A ² S	4000A ² S	4000A ² S	4000A ² S
Peak voltage(non-repetitive)	600V					1200V(zero cross turn-on), 1000V(random turn-on)				
Leakage current(Ta=25°C)	Max. 10mAms									
Output on voltage drop[Vpk] (Max. load current)	Max. 1.6V									
Static off-state dv/dt	500V/μs									

※For controlling motor load, use the product which load voltage range is within 48-480VACrms.

○ General Specifications

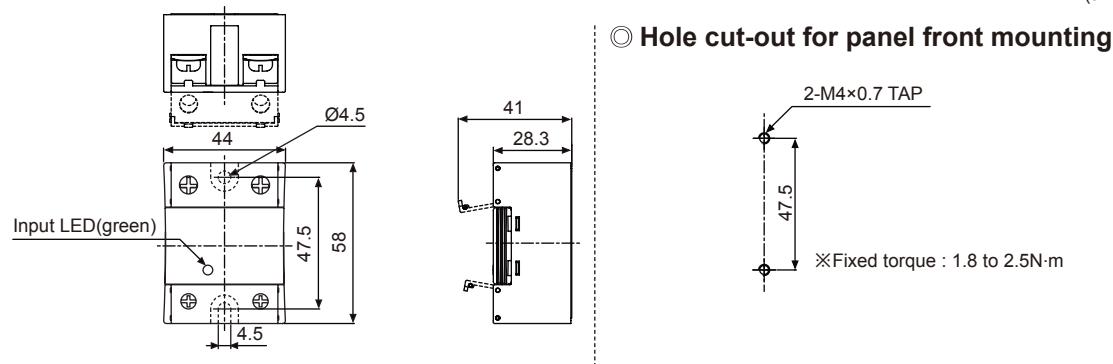
Certification	UL508, CSA22.2 No.14 and IEC/EN 60947-4-3
Dielectric strength(Vrms)	4000VAC 50/60Hz 1min.(input-output, input/output-case)
Insulation resistance	Min. 100MΩ(at 500VDC megger)
Input LED	Green
Environ- ment	Ambient temperature -30 to 80°C, storage: -30 to 100°C (Rated load current capacity is different based on the surrounding temperature.) Ambient humidity 45 to 85%RH, storage: 45 to 85%RH
Input terminal connection	Min. 1×0.5mm ² (1×AWG20) Max. 1×1.5mm ² (1×AWG16) or 2×1.5mm ² (2×AWG16)
Output terminal connection	Min. 1×1.5mm ² (1×AWG16) Max. 1×16mm ² (1×AWG6) or 2×6mm ² (2×AWG10)
Input terminal fixed torque	0.75 to 0.95N·m
Output terminal fixed torque	1.6 to 2.2N·m
Unit weight	Approx. 73g

※For wiring the terminal, an O-ring terminal must be used.

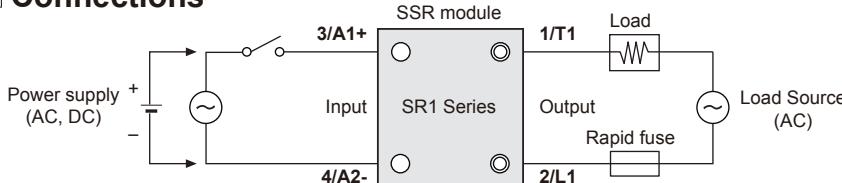
※Environment resistance is rated at no freezing or condensation.

■ Dimensions

(unit: mm)



■ Connections



- Photo electric sensor
- Fiber optic sensor
- Door/Area sensor
- Proximity sensor
- Pressure sensor
- Rotary encoder
- Connector/Socket
- Temp. controller
- SSR/Power controller
- Counter
- Timer
- Panel meter
- Tacho/Speed/ Pulse meter
- Display unit
- Sensor controller
- Switching mode power supply
- Stepper motor&Driver&Controller
- Graphic/Logic panel
- Field network device

Selection Guide

Single phase, Slim heatsink separated type SSR [SRC1 Series]

■ Ordering information

NEW 				
Appearances				
Model	Input voltage	Rated load current	Load voltage	Zero cross turn-on/Random turn-on
SRC1-1215	4-30VDC	15A		
SRC1-4215	90-240VAC			
SRC1-1220	4-30VDC	20A		
SRC1-4220	90-240VAC		24-240VAC	
SRC1-1230	4-30VDC			Zero cross turn-on
SRC1-4230	90-240VAC	30A		
SRC1-1420	4-30VDC			
SRC1-4420	90-240VAC	20A	48-480VAC	
SRC1-1420R	4-30VDC			Random turn-on

■ Specifications

○ Input

	4-30VDC input voltage			90-240VAC input voltage
Input voltage range	4-32VDC			85-264VACrms(50/60Hz)
Max. input current	9mA(Zero cross turn-on), 13mA(Random turn-on)			7mArms(240VACrms)
Pick-up voltage	4VDC			85VACrms
Drop-out voltage	1VDC			10VACrms
Turn-on time	Zero cross turn-on Random turn-on	Max. 0.5 cycle of load source + 1ms Max. 1ms		Max. 1.5 cycle of load source + 1ms —
Turn-off time		Max. 0.5 cycle of load source + 1ms		Max. 1.5 cycle of load source + 1ms

○ Output

	24-240VAC load voltage			48-480VAC load voltage
Load voltage range(50/60Hz)	24-264VACrms			48-528VACrms
Rated load current $T_a=25^\circ C$	Resistive load (AC-51) Motor load (AC-53a)	15Arms —	20Arms	30Arms 5Arms
Min. load current		0.15Arms	0.2Arms	0.2Arms 0.5Arms
Max. 1cycle surge current (60Hz)		190A	270A	330A 300A
Max. non-repetitive surge current(I^2t , $t=8.3ms$)		150A ² s	300A ² s	500A ² s 350A ² s
Peak voltage(Non-repetitive)	600V			1200V(zero cross turn-on), 1000V(random turn-on)
Leakage current (240VAC/60Hz, $T_a=25^\circ C$)	Max. 10mA rms			
Output on voltage drop[Vpk] (Max. load current)	Max. 1.6V			
Static off-state dv/dt	500V/ μ s			

■ Specifications

○ General Specifications

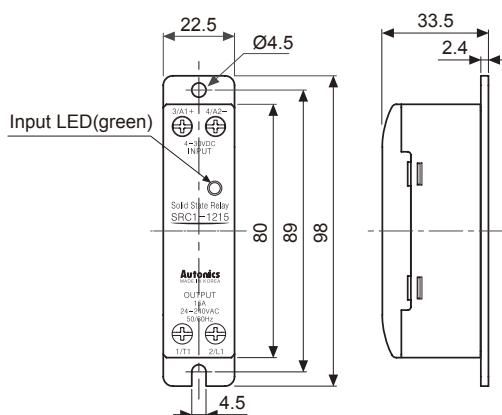
Certification	UL508, CSA22.2 No.14, IEC/EN 60947-4-3
Dielectric strength(Vrms)	4000VAC 50/60Hz 1min.(Input-Output, Input/Output-Case)
Insulation resistance	Min. 100MΩ(at 500VDC Megger)
Vibration	10 to 55Hz double amplitude 0.75mm in each of X, Y, Z directions for 1 hour
Input LED	Green
Environ- -ment	Ambient temperature: -30 to 80°C, storage: -30 to 100°C (Rated load current capacity is different based on the surrounding temperature.) Ambient humidity: 45 to 85%RH
Input terminal connection	Min. 1×0.5mm ² (1×AWG20), Max. 1×1.5mm ² (1×AWG16) or 2×1.5mm ² (2×AWG16)
Output terminal connection	Min. 1×0.75mm ² (1×AWG18), Max. 1×4mm ² (1×AWG12) or 2×2.5mm ² (2×AWG14)
Input terminal fixed torque	0.75 to 0.95N·m
Output terminal fixed torque	1 to 1.35N·m
Unit weight	Approx. 85g

※For wiring the terminal, an O-ring terminal must be used.

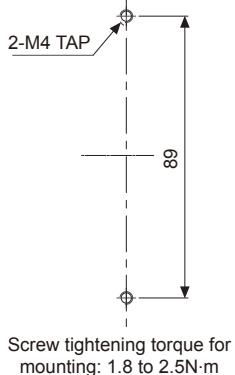
※Environment resistance is rated at no freezing or condensation.

■ Dimensions & Mounting

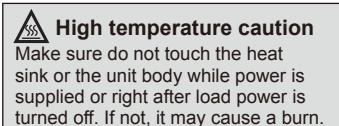
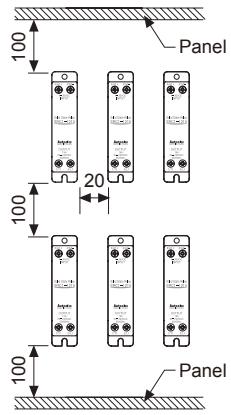
○ Dimensions



○ Hole cut-out for panel front mounting



○ Installation interval



※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 50% of rated load current.

■ Connections

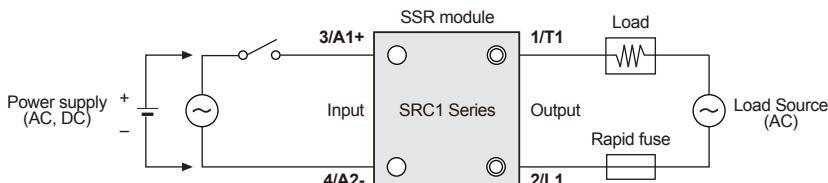


Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/Power controller

Counter

Timer

Panel meter

Tacho/Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply

Stepper motor&Driver&Controller

Graphic/Logic panel

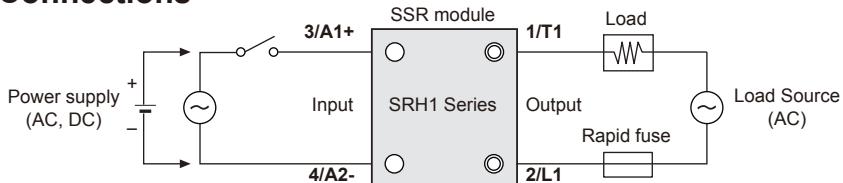
Field network device

Single phase, Intergrated heatsink type SSR [SRH1 Series]

■ Ordering information

NEW	• 15A/20A Rated load current	• 30A/40A Rated load current	• 60A Rated load current
Appearances			
Model	Input voltage	Rated load current	Load voltage
SRH1-1215	4-30VDC		
SRH1-2215	24VAC	15A	
SRH1-4215	90-240VAC		
SRH1-1220	4-30VDC		
SRH1-2220	24VAC	20A	
SRH1-4220	90-240VAC		
SRH1-1230	4-30VDC		
SRH1-2230	24VAC	30A	24-240VAC
SRH1-4230	90-240VAC		Zero cross turn-on
SRH1-1240	4-30VDC		
SRH1-2240	24VAC	40A	
SRH1-4240	90-240VAC		
SRH1-1260	4-30VDC		
SRH1-2260	24VAC	60A	
SRH1-4260	90-240VAC		
SRH1-1420	4-30VDC		Zero cross turn-on
SRH1-1420R	24VAC	20A	Random turn-on
SRH1-2420	24VAC		Zero cross turn-on
SRH1-1430	4-30VDC		Zero cross turn-on
SRH1-1430R	24VAC	30A	Random turn-on
SRH1-2430	24VAC		Zero cross turn-on
SRH1-1460	4-30VDC		Zero cross turn-on
SRH1-1460R	24VAC	60A	Random turn-on
SRH1-2460	24VAC		Zero cross turn-on

■ Connections



█ Specifications

○ Input

4-30VDC input voltage

Input voltage range	4-32VDC
Max. input current	9mA(Zero cross turn-on), 12mA(Random turn-on)
Pick-up voltage	4VDC
Drop-out voltage	1VDC
Turn-on time	Zero cross turn-on Max. 0.5 cycle of load source + 1ms
Random turn-on	Max. 1ms
Turn-off time	Max. 0.5 cycle of load source + 1ms

24VAC input voltage

Input voltage range (50/60Hz)	19-30VACrms
Max. input current	12mA rms(24VACrms)
Pick-up voltage	19VACrms
Drop-out voltage	4VACrms
Turn-on time	Max. 1.5 cycle of load source + 1ms
Turn-off time	Max. 1.5 cycle of load source + 1ms

90-240VAC input voltage

Input voltage range (50/60Hz)	85-264VACrms
Max. input current	7mA rms(240VACrms)
Pick-up voltage	85VACrms
Drop-out voltage	10VACrms
Turn-on time	Max. 1.5 cycle of load source + 1ms
Turn-off time	Max. 1.5 cycle of load source + 1ms

○ Output

24-240VAC load voltage

Load voltage range (50/60Hz)	24-264VACrms
Rated load current Ta=25°C	Resistive load (AC-51) 15Arms 20Arms 30Arms 40Arms 60Arms
Min. load current	0.15Arms 0.2Arms 0.2Arms 0.5Arms 0.5Arms
Max. 1 cycle surge current(60Hz)	190A 270A 330A 500A 1000A
Max. non-repetitive surge current(I^2t , t=8.3ms)	150A ² S 300A ² S 500A ² S 1000A ² S 4000A ² S
Peak voltage(Non-repetitive)	600V
Leakage current (240VAC/60Hz, Ta=25°C)	Max. 10mA rms
Output ON voltage drop[Vpk] (Max. load current)	Max. 1.6V
Static off state dv/dt	500V/μs

48-480VAC load voltage

Load voltage range (50/60Hz)	48-528VACrms
Rated load current Ta=25°C	Resistive load (AC-51) 20Arms 30Arms 60Arms Motor load (AC-53a) 5Arms 8Arms 15Arms
Min. load current	0.5Arms 0.5Arms 0.5Arms
Max. 1 cycle surge current(60Hz)	300A 500A 1000A
Max. non-repetitive surge current(I^2t , t=8.3ms)	350A ² S 1000A ² S 4000A ² S
Peak voltage(Non-repetitive)	1200V(Zero cross turn-on), 1000V(Random turn-on)
Leakage current (480VAC/60Hz, Ta=25°C)	Max. 10mA rms
Output ON voltage drop[Vpk] (Max. load current)	Max. 1.6V
Static off state dv/dt	500V/μs

Photo
optic
sensorFiber
optic
sensorDoor/Area
sensorProximity
sensorPressure
sensorRotary
encoderConnector/
SocketTemp.
controllerSSR/
Power
controller

Counter

Timer

Panel
meterTacho/
Speed/ Pulse
meterDisplay
unitSensor
controllerSwitching
mode power
supplyStepper
motor&
Driver&ControllerGraphic/
Logic
panelField
network
device

■ Specifications

○ General Specifications

Certification	UL508, CSA22.2 NO. 14 and IEC/EN 60947-4-3				
Dielectric strength(Vrms)	400VAC 50/60Hz for 1 min.(Input-Output, I/O-Case)				
Insulation resistance	Min. 100MΩ(500VDC megger)				
Vibration	10 to 55Hz double amplitude 0.75mm in each X, Y, Z direction for 1 hour				
Input LED	Green				
Environ -ment	<table border="1"> <tr> <td>Ambient temperature</td> <td>-30 to 80°C, storage: -30 to 100°C (Rated load current capacity is different based on the surrounding temperature.)</td> </tr> <tr> <td>Ambient humidity</td> <td>45 to 85%RH, storage: 45 to 85%RH</td> </tr> </table>	Ambient temperature	-30 to 80°C, storage: -30 to 100°C (Rated load current capacity is different based on the surrounding temperature.)	Ambient humidity	45 to 85%RH, storage: 45 to 85%RH
Ambient temperature	-30 to 80°C, storage: -30 to 100°C (Rated load current capacity is different based on the surrounding temperature.)				
Ambient humidity	45 to 85%RH, storage: 45 to 85%RH				
Input terminal connection	Min. 1×0.5mm ² (1XAWG 20) Max. 1×1.5mm ² (1XAWG 16) or 2×1.5mm ² (2XAWG 16)				
Output terminal connection	<ul style="list-style-type: none"> Case width 22.5mm(M4 terminal bolt): Min. 1×0.75mm²(1XAWG18) Max. 1×4mm²(1×AWG12) or 2×2.5mm²(2×AWG14) Case width 45mm(M5 terminal bolt): Min. 1×1.5mm²(1×AWG16) Max. 1×16mm²(1×AWG6) or 2×6mm²(2×AWG10) <p>※ Use wires compliant with load current capacity to connect to the terminal.</p>				
Input terminal fixed torque	0.75 to 0.95N·m				
Output terminal fixed torque	<ul style="list-style-type: none"> Case width 22.5mm(M4 terminal bolt): 15A/20A: 1 to 1.35N·m Case width 45mm(M5 terminal bolt): 30A/40A/60A: 1.6 to 2.2N·m 				
Unit weight	<ul style="list-style-type: none"> Rated load current(Resistive load) 15A/20A : Approx. 225g Rated load current(Resistive load) 30A/40A : Approx. 410g Rated load current(Resistive load) 60A : Approx. 680g 				

※For wiring the terminal, an O-ring terminal must be used.

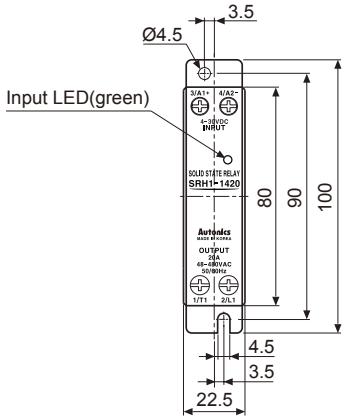
※Environment resistance is rated at no freezing or condensation.

■ Dimensions & Mounting

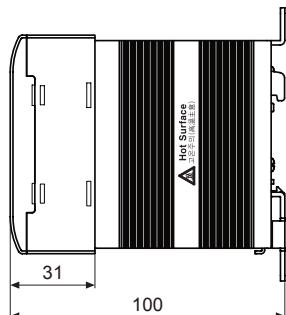
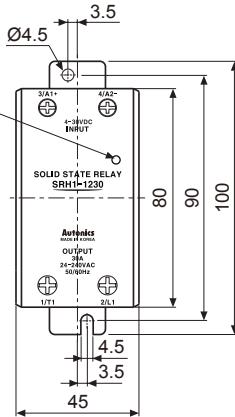
○ Dimensions

(unit: mm)

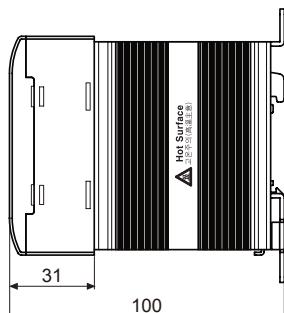
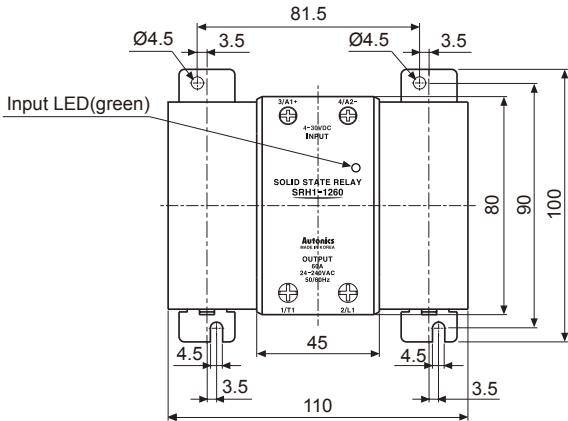
● 15A/20A rated load current



● 30A/40A rated load current

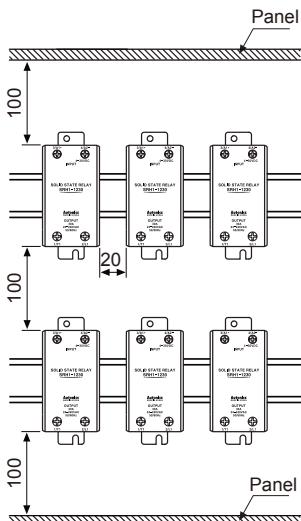


● 60A rated load current



(unit: mm)

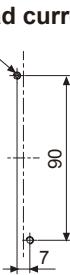
○ Installation interval



○ Hole cut-out for panel front mounting

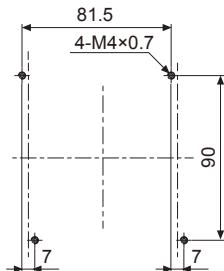
- 15A/20A/30A/40A rated load current

2-M4×0.7



- 60A rated load current

81.5



※ Tightening torque for mounting: 1.8 to 2.5N·m

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.

※ For mounting multiple SSR, please keep certain installation intervals for heat prevention.

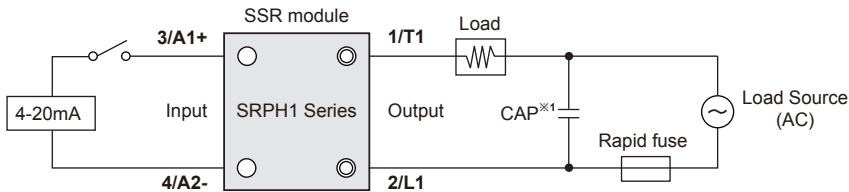
For horizontal installation (when the heights of input part and output part are equal), it is recommended to apply 50% of rated load current.

Single phase, Analog input type SSR [SRPH1 Series]

□ Ordering information

NEW	• 20A/30A Rated load current	• 60A Rated load current																
Appearances																		
Model	Rated load current	Load voltage																
<table border="1"> <tr> <td>SRPH1-A220</td><td>20A</td><td rowspan="3">100-240VAC</td> <td>SRPH1-A420</td><td>20A</td><td rowspan="3">100-240VAC</td> </tr> <tr> <td>SRPH1-A230</td><td>30A</td><td>SRPH1-A430</td><td>30A</td></tr> <tr> <td>SRPH1-A260</td><td>60A</td><td>SRPH1-A460</td><td>60A</td></tr> </table>					SRPH1-A220	20A	100-240VAC	SRPH1-A420	20A	100-240VAC	SRPH1-A230	30A	SRPH1-A430	30A	SRPH1-A260	60A	SRPH1-A460	60A
SRPH1-A220	20A	100-240VAC	SRPH1-A420	20A	100-240VAC													
SRPH1-A230	30A		SRPH1-A430	30A														
SRPH1-A260	60A		SRPH1-A460	60A														

□ Connections



※1: As above connection, connect a capacitor. It is proper to EMC.

CAP: Load voltage 100-240VAC → 1uF/250VAC, Load voltage 200-480VAC → 0.47uF/500VAC

Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/Power controller

Counter

Timer

Panel meter

Tacho/Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply

Stepper motor&Driver/Controller

Graphic/Logic panel

Field network device

■ Specifications

○ Input

4-20mA analog input	
Max. allowable input current	50mA
Pick-up current	4.2mA
Static off current	0.2mA
Power factor	Min. 0.9 (max. 25° of difference between voltage phase and current phase)
Input LED	Green
Start-up time	60Hz: 200ms, 50Hz: 250ms
Operation time	60Hz: 16.6ms, 50Hz: 20ms
Operation mode ^{※1}	Cycle control(fixed cycle, variable cycle) Phase control(phase equality division type, power equality division type)

※1: You can change operation mode by jumper pin. Default is Phase control(Power equality division type).

○ Output

100-240VAC load voltage				
Load voltage range(50/60Hz)	90-264VACrms(50/60Hz)			
Rated load current Ta=25°C	Resistive load (AC-51)	20Arms	30Arms	60Arms
Min. load current	0.5Arms			
Max. 1 cycle surge current (60Hz)	300A	500A	1000A	
Max. non-repetitive surge current(I^2t , t=8.3ms)	350A ² S	1000A ² S	4000A ² S	
Peak voltage(Non-repetitive)	600V			
Leakage current (240VAC/60Hz, Ta=25°C)	Max. 10mAmps			
Output ON voltage drop[Vpk] (max. load current)	Max. 1.6V			
Static off state dv/dt	500V/μs			
200-480VAC load voltage				
Load voltage range(50/60Hz)	200-528VACrms			
Rated load current	Resistive load(AC-51)	20Arms	30Arms	60Arms
Ta=25°C	Motor load(AC-53a)	5Arms	8Arms	15Arms
Min. load current	0.5Arms			
Max. 1 cycle surge current(60Hz)	300A	500A	1000A	
Max. non-repetitive surge current(I^2t , t=8.3ms)	350A ² S	1000A ² S	4000A ² S	
Peak voltage(non-repetitive)	1000V			
Leakage current(480VAC/60Hz, Ta=25°C)	Max. 10mAmps			
Output ON voltage drop[Vpk](Max. load current)	Max. 1.6V			
Static off state dv/dt	500V/μs			

○ General Specifications

Certification	UL508, CSA22.2, No.14, IEC/EN 60947-4-3				
Phase control (phase equality division type)	5 to 99%				
Phase control (power equality division type)	10 to 99%				
Frequency reading function	Yes				
Dielectric strength(Vrms)	4000VAC 50/60Hz for 1min. (Input-Output, Input/Output-Case)				
Insulation resistance	Min. 100MΩ(at 500VDC megger)				
Vibration	10 to 55Hz double amplitude 0.75mm in each of X, Y, Z directions for 1 hour				
Environ- -ment	Ambient temperature	-20 to 70°C, storage : -20 to 100°C (The rated load current capacity is different depending on ambient temperature.)			
	Ambient humidity	45 to 85%RH			
Input terminal connection	Min. 1×0.5mm ² (1×AWG20) Max. 1×1.5mm ² (1×AWG6) or Max. 2×1.5mm ² (2×AWG16)				
Output terminal connection	Min. 1×1.5mm ² (1×AWG16) Max. 1×16mm ² (1×AWG6) or Max. 2×6mm ² (2×AWG10) ※Connect appropriate cable for the load current capacity to output terminal.				
Input terminal fixed torque	0.75 to 0.95N·m				
Output terminal fixed torque	1.6 to 2.2N·m				
Unit weight	• SRPH1-A220, SRPH1-A230, SRPH1-A420, SRPH1-A430 : Approx. 410g • SRPH1-A260, SRPH1-A460 : Approx. 680g				

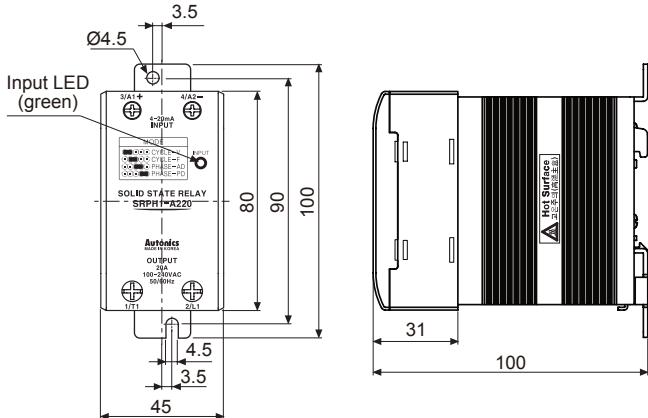
※For wiring the terminal, an O-ring terminal must be used.

※Environment resistance is rated at no freezing or condensation.

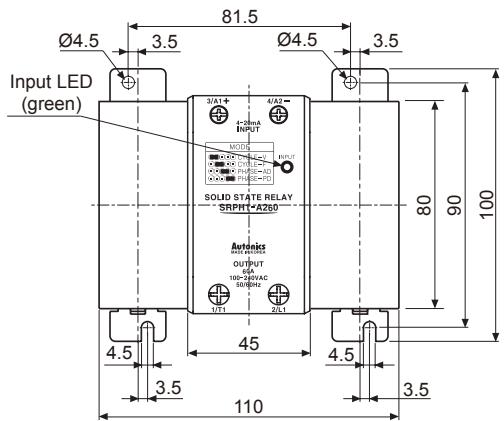
□ Dimensions & Mounting

○ Dimensions

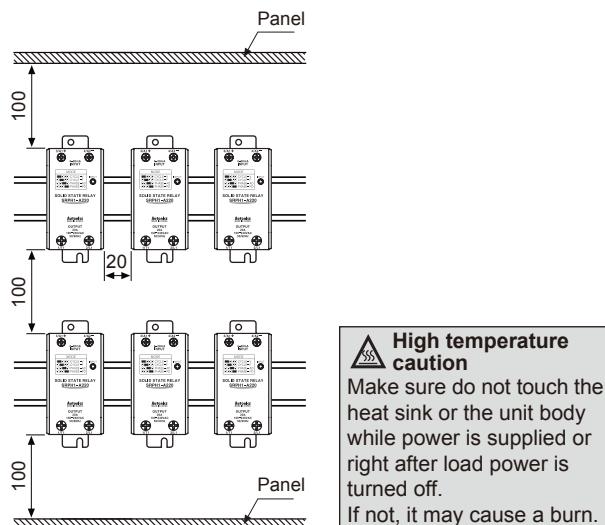
- 20A/30A rated load current



- 60A rated load current

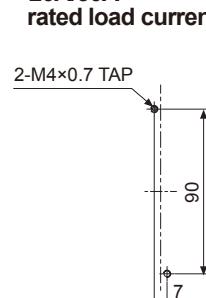


○ Installation interval

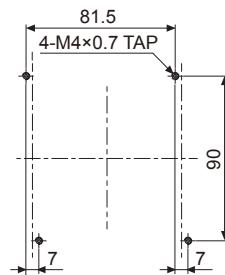


○ Hole cut-out for panel front mounting

- 20A/30A rated load current



- 60A rated load current



※ Tightening torque for mounting: 1.8 to 2.5N·m

Photo electric sensor
Fiber optic sensor
Door/Area sensor
Proximity sensor
Pressure sensor
Rotary encoder
Connector/Socket
Temp. controller
SSR/Power controller
Counter
Timer
Panel meter
Tacho/Speed/Pulse meter
Display unit
Sensor controller
Switching mode power supply
Stepper motor&Driver&Controller
Graphic/Logic panel
Field network device

※ 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 50% of rated load current.

Single phase, Socket heatsink separated type SSR [SRS1 Series]

■ Ordering information

   Appearances		<ul style="list-style-type: none"> • SRS1-A (Autonics socket: SK-G05) • SRS1-B(general socket: LY2)  	
Model	Input voltage	Rated load current	Load voltage
	4-24VDC	2A	24-240VAC
		3A	
		5A	
		1A	5-100VDC
		2A	
		1A	5-200VDC
			5-240VAC/5-200VDC
			—
			—
Model	4-30VDC	2A (consists of 2 circuits)	90-240VAC
		3A	
		5A	
			Zero cross turn-on
			Random turn-on
			Zero cross turn-on

■ Specifications

○ Input

	SRS1-A	SRS1-B
Input voltage range	4-26.4VDC	4-32VDC
Max. input current	15mA	13mA
Pick-up voltage	Min. 4VDC	
Drop-out voltage	Max. 1VDC	

○ Output(AC)

Model	SRS1-A1202(R)	SRS1-A1203(R)	SRS1-A1205(R)	SRS1-B1202(R)-2	SRS1-B1203(R)-2	SRS1-B1205(R)-1				
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($I^2t=8.3ms$)	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 time	Zero cross turn-on	0.5 cycle of load source + 1ms								
	Random turn-on	Max. 1ms								
Turn-off time		0.5 cycle of load source + 1ms								

■ Specifications

○ Output(DC, AC/DC)

Model	SRS1-A1D101	SRS1-A1D102	SRS1-A1D201	SRS1-A1X201
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	
Leakage current	Max. 100uA			Max. 2mAmps
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
Turn-off time	1ms			

○ General Specifications

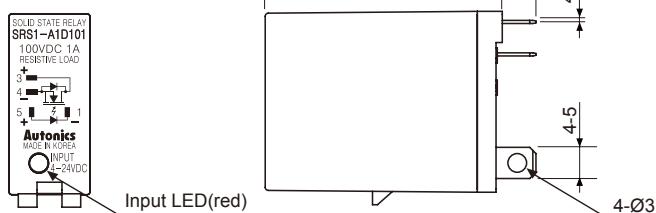
	SRS1-A	SRS1-B
Dielectric strength(Vrms)	2,500VAC 50/60Hz 1min.(Input-Output, Input/Output-Case)	
Insulation resistance	Min. 100MΩ(at 500VDC Megger)	
Input LED	Red	
Protection	According to protection of socket (SK-G05: IP10)	
Environ-ment	Ambient temperature -20 to 70°C, storage: -30 to 100°C (The rated load current capacity is different depending on ambient temperature.)	-20 to 80°C, storage: -30 to 100°C
Ambient humidity	45 to 85%RH, storage: 45 to 85%RH	
Unit weight	3A and below: Approx. 17g(approx. 270g), 5A: Approx. 28g (approx. 380g)	Approx. 30g (approx. 710g)

※1: The weight is per 1 unit and the weight in parentheses is with packaging .
(packaging unit- SRS1-A: 10EA, SRS1-B: 20EA)

※Environment resistance is rated at no freezing or condensation.

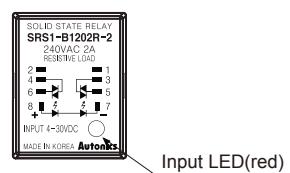
■ Dimensions

○ SRS1-A



(unit: mm)

○ SRS1-B

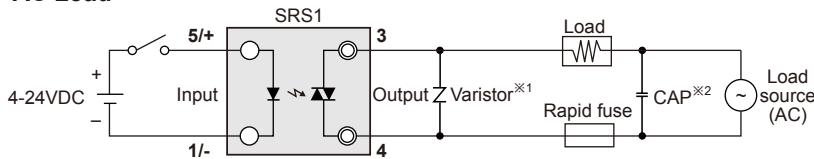


- Photo electric sensor
- Fiber optic sensor
- Door/Area sensor
- Proximity sensor
- Pressure sensor
- Rotary encoder
- Connector/Socket
- Temp. controller
- SSR/Power controller
- Counter
- Timer
- Panel meter
- Tacho/Speed/ Pulse meter
- Display unit
- Sensor controller
- Switching mode power supply
- Stepper motor&Driver&Controller
- Graphic/Logic panel
- Field network device

□ Example of connection

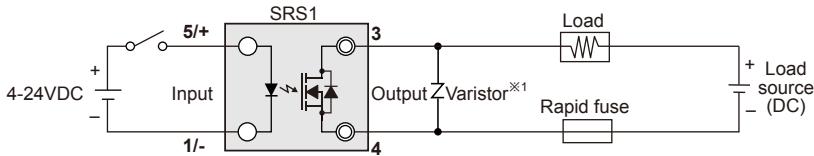
○ SRS1-A

•AC Load



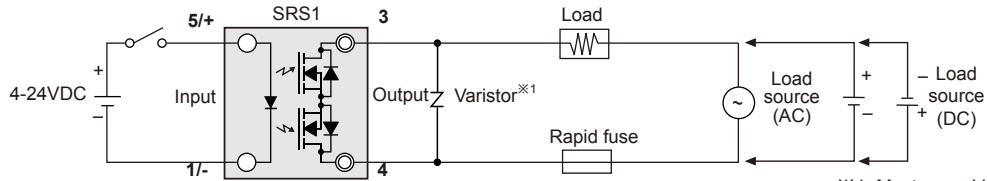
※1: Must use a Varistor(470V, 0.6W)
 ※2: When connecting capacitor as above, it is appropriate for EMC.
 CAP: 1uF/250VAC

•DC Load(SRS1-A1D101/A1D102/A1D201)



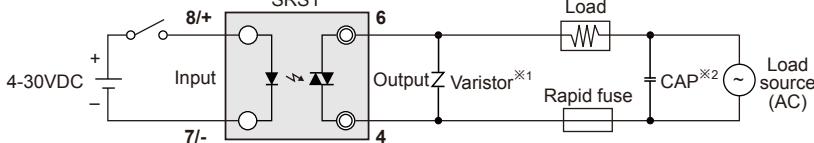
※1: Must use a Varistor(270V, 0.6W)

•AC/DC Load(SRS1-A1X201)



※1: Must use a Varistor(470V, 0.6W)

○ SRS1-B



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

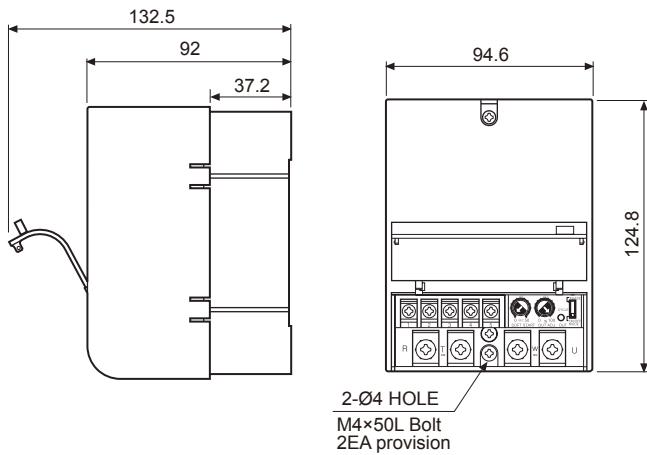
Single phase, Power Controller [SPC1 Series]

■ Specifications

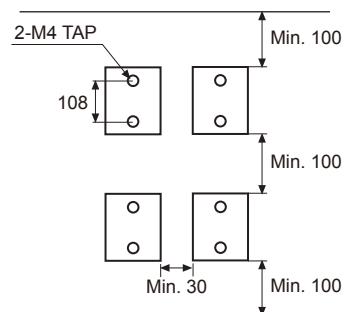


Appearances					
Model	SPC1-35				
Power supply	220VAC 50/60Hz				
Allowable voltage range	90 to 110% of rated voltage				
Maximum rated current	35A(single phase)				
Control power	220VAC				
Control range	Phase control: 0 to 98%, Cycle control: 0 to 100%				
Application load	Resistance load(min. load : over 5% of rated current)				
Cooling method	Natural cooling				
Control circuit	Micom control type				
Control input	<ul style="list-style-type: none"> • 1-5VDC • DC4-20mA(250Ω) • External VR(1kΩ) • Output limit input(front OUT ADJ. VR) 				
Control type	<ul style="list-style-type: none"> • Phase control^{※1} • Cycle control(zero cross)-Period 0.5sec., 2.0sec., 10sec. ^{※1} • ON/OFF control(zero cross) 				
Starting type	Soft start(0 to 50 sec. variable)				
Display function	Output indication(LED)				
Insulation resistance	100MΩ(at 500VDC megger)				
Dielectric strength	2000VAC 50/60Hz for 1minute				
Noise strength	±2kV the square wave noise (pulse width: 1us) by the noise simulator				
Vibration	<table border="1"> <tr> <td>Mechanical</td><td>0.75mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each of X, Y, Z directions for 1 hour</td></tr> <tr> <td>Malfunction</td><td>0.5mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each of X, Y, Z directions for 10 min.</td></tr> </table>	Mechanical	0.75mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each of X, Y, Z directions for 1 hour	Malfunction	0.5mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each of X, Y, Z directions for 10 min.
Mechanical	0.75mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each of X, Y, Z directions for 1 hour				
Malfunction	0.5mm amplitude at frequency of 10 to 55Hz (for 1 min.) in each of X, Y, Z directions for 10 min.				
Shock	<table border="1"> <tr> <td>Mechanical</td><td>300m/s² (approx. 30G) in each of X, Y, Z directions for 3 times</td></tr> <tr> <td>Malfunction</td><td>100m/s² (approx. 10G) in each of X, Y, Z directions for 3 times</td></tr> </table>	Mechanical	300m/s ² (approx. 30G) in each of X, Y, Z directions for 3 times	Malfunction	100m/s ² (approx. 10G) in each of X, Y, Z directions for 3 times
Mechanical	300m/s ² (approx. 30G) in each of X, Y, Z directions for 3 times				
Malfunction	100m/s ² (approx. 10G) in each of X, Y, Z directions for 3 times				
Environment	<table border="1"> <tr> <td>Ambient temperature</td><td>0 to 50°C, storage: -25 to 65°C</td></tr> <tr> <td>Ambient humidity</td><td>35 to 85%RH</td></tr> </table>	Ambient temperature	0 to 50°C, storage: -25 to 65°C	Ambient humidity	35 to 85%RH
Ambient temperature	0 to 50°C, storage: -25 to 65°C				
Ambient humidity	35 to 85%RH				
Unit weight	Approx. 1kg				

■ Dimensions



● Panel lay-out



※ It should have enough space between units for proper cooling.

Photo electric sensor

Fiber optic sensor

Door/Area sensor

Proximity sensor

Pressure sensor

Rotary encoder

Connector/Socket

Temp. controller

SSR/Power controller

Counter

Timer

Panel meter

Tacho/Speed/ Pulse meter

Display unit

Sensor controller

Switching mode power supply

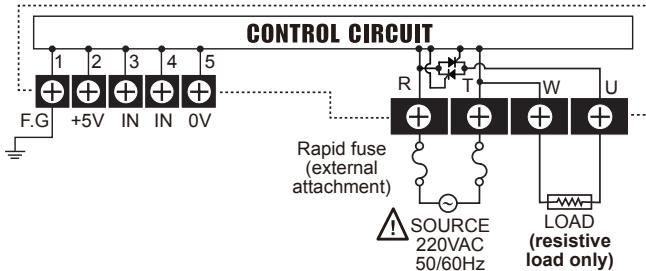
Stepper motor&Driver&Controller

Graphic/Logic panel

Field network device

□ Connections

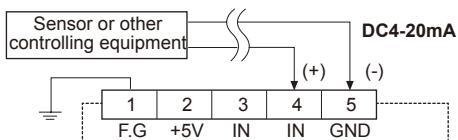
1. External connection



2. Connection of control input terminals

1) DC4-20mA control input

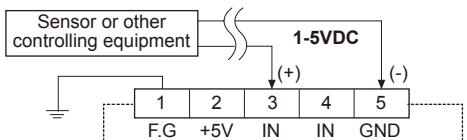
It controls 0 to 100% when you apply DC4-20mA on ④, ⑤ terminals when power is applied.



※ It is not available in ON/OFF control mode.

2) 1-5VDC control input

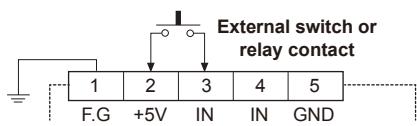
It controls 0 to 100% when you apply 1-5VDC on ③, ⑤ terminals when power is applied.



※ It is not available in ON/OFF control mode.

3) ON/OFF External contact control input

It controls 100% if you connect external switch or relay contact to ②, ③ terminal when it is ON, it controls 0% when it is OFF.



※ It is available in all control modes.
OUT ADJ. and SOFT START function are not available in ON/OFF control mode.