

# SSR-2C

## INSTRUCTION MANUAL

Thank you for purchasing Hanyoung Nux products. Please read the instruction manual carefully before using this product, and use the product correctly. Also, please keep this instruction manual where you can view it any time.

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MC1102KE230522

## Safety information

Please read the safety information carefully before the use, and use the product correctly. The alerts declared in the manual are classified into **Danger**, **Warning** and **Caution** according to their importance

	<b>DANGER</b>	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury
	<b>WARNING</b>	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury
	<b>CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor injury or property damage

### DANGER

- The input/output terminals are subject to electric shock risk. Never let the input/output terminals come in contact with your body or conductive substances.

### WARNING

- Please read the safety information carefully before the use, and use the product correctly.
- If there is a possibility that a malfunction or abnormality of this product may lead to a serious accident, install an appropriate protection circuit on the outside and plan to prevent accidents.
- Please supply the rated power voltage, in order to prevent product breakdowns or malfunctions.
- To prevent electric shocks and malfunctions, do not supply power until the wiring is completed.
- Please disassemble the product after turning OFF the power.
- Any use of the product other than those specified by the manufacturer may result in personal injury or property damage.
- Please use this product after installing it to a panel, because there is a risk of electric shock.

### CAUTION

- Please make sure that the product specifications are the same as you ordered.
- Please use the product in places where corrosive gases (especially harmful gases, ammonia, etc.) and flammable gases are not generated.
- Please use the product in places without liquids, oils, chemicals, steam, dust, salt, iron, etc. (pollution degree 1 or 2).
- Please avoid places where large inductive interference, static electricity, magnetic noise are generated.
- Please avoid places with heat accumulation caused by direct sunlight, radiant heat, etc.
- When water enters, short circuit or fire may occur, so please inspect the product carefully.
- Do not connect anything to the unused terminals.
- For DC types, please wire correctly, after checking the polarity of the terminals.
- When disposing of the product, treat it as industrial waste.
- Pay attention to the edge of the heat sink, which may be sharp.
- The temperature of the main body and the heat sink may become extremely high when electric power is applied, which may cause burns.
- In case of product malfunction, remove only the main body.
- Because the SSR heats up when power is on, the lower the heat sink and ambient temperatures, the longer the life.

## Suffix code

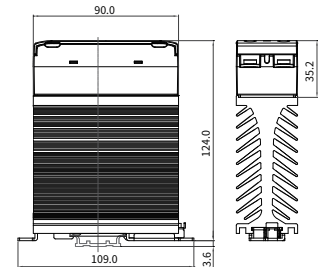
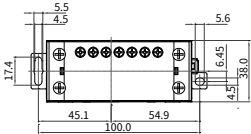
Model	Code	Content
SSR-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Solid State Relay
Phase	2	Single-Phase
Contact	C	2 contacts
Rated load current	25	25 A
	40	40 A
Operating load voltage	2	90 - 240 V a.c.
	4	90 - 480 V a.c.
Operation method	Z	Zero-cross switching

## Specifications

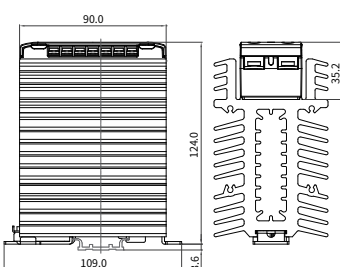
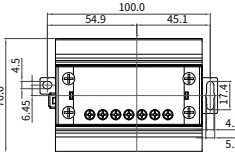
Model	SSR-2C25Z	SSR-2C40Z	SSR-2C254Z	SSR-2C404Z
Load	Operating load voltage		90 - 240 V a.c.	
	Peak voltage (non-repetition)		1,200 V	
	Rated load current		25 A	40 A
	Frequency		50/60 Hz (dual usage)	
	Surge current (8.3 ms non-repetition)		420 A	
Input	Leakage current		Max. 10 mA	
	Output ON voltage drop		Max. 1.8 V (RMS)	
	Operating voltage range		4 - 32 V d.c.	
	Impedance		Max. 4 kΩ	
	Operating voltage		Min. 3 V d.c.	
Response speed	Reset voltage		Max. 1.5 V d.c.	
	Response speed		Max. 1/2 Cycle + 1 ms	
	Insulation resistance		500 V d.c. 100 MΩ (input/output and among cases)	
	Dielectric strength		2,500 V a.c. (60 Hz for one minute)	
	Vibration resistance		10 - 55 Hz, double amplitude: 1.5 mm, each X-Y-Z axis for 2 hours	
Shock resistance	Shock resistance		1,000 %, each X-Y-Z axis for 3 times	
	Storage temperature		-30 ~ 90 °C	
	Ambient temperature		-20 ~ 80 °C (without condensation)	
	Ambient humidity		45 ~ 85 % R.H.	
	Certification		CE	
Load Category	Load Category		LC A	
	IP Degree		IP20	
	Pollution degree		2 Rating	
	Weight (g)		Approx. 670 g	Approx. 900 g

## Dimensions

■ 25 A

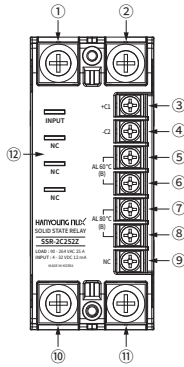


■ 40 A



[Unit : mm]

## Part names



### Part names

No.	Content
1	Load power input terminal
2	
3	Temperature control signal (4 - 32 V d.c.)
4	Alarm 1 (at a heat sink temperature of 60 °C) "B contact" internal bimetallic contact
5	
6	Alarm 2 (at a heat sink temperature of 80 °C) "B contact" internal bimetallic contact
7	
8	
9	NC (not used)
10	
11	LOAD terminal
12	Status indicator LED

### Status indicator LED description

Name	LED Color	Content
INPUT	Green	Lights up when temperature control voltage is applied

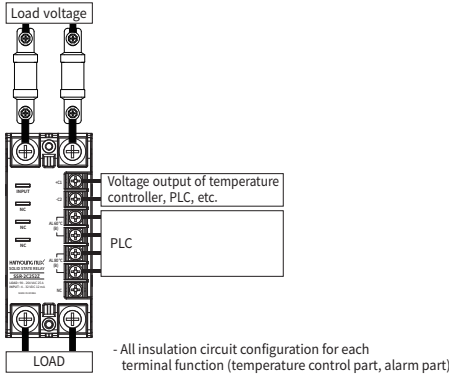
### Alarm output

Status		Alarm output
Max. 60°C	Normal operation	AL60°C, AL80 °C contact close
Min. 60°C	Alarm output	AL60 °C contact open
Min. 80°C	Alarm output	AL80 °C contact open

- If the heat sink temperature is lower than the set temperature the alarm is automatically released.

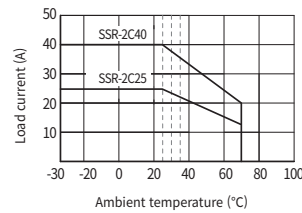
## Connection example

- ※ This product is not equipped with an internal fuse. It is recommended to use a fast fuse separately outside, as shown in the picture.

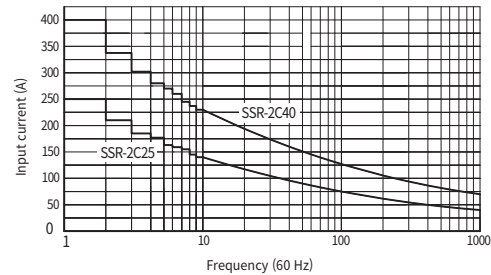


## Load / Input current characteristics

### Load Current Characteristics

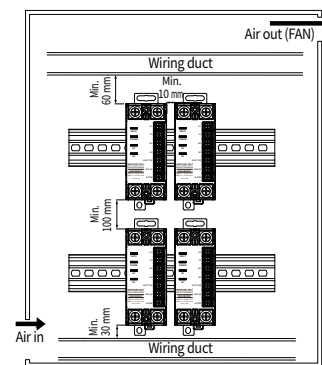


### Input Current Characteristics



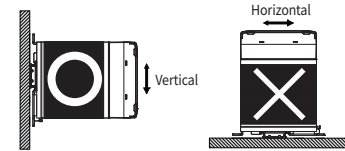
## Installation interval

- As shown in the figure, set the installation interval to a distance greater than the corresponding part size.
- Install the wiring duct at less than half the height of the heat sink, so that it does not obstruct the flow of air.
- Since the SSR is satisfied under the ambient temperature of 25 °C or less, always use it in ambient temperatures lower than the standard temperature.
- When using 40A maximum load, use 10SQ wiring and use clamping unit or lug when tightening.



## Installation method

- Be sure to install the SSR vertically.
- Inevitably, if installed horizontally, the performance of the product will drop below 50 %.



- When installing the DIN rail, install it firmly because it is heavy.
- Since the load output terminal width is 13 mm and the input terminal width is 7 mm, tightly tighten using a terminal that is less than that. (Load side bolt: M5, control terminal: M3)

