



## SP02 series super capacitor module Installation Instructions



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### Cautions

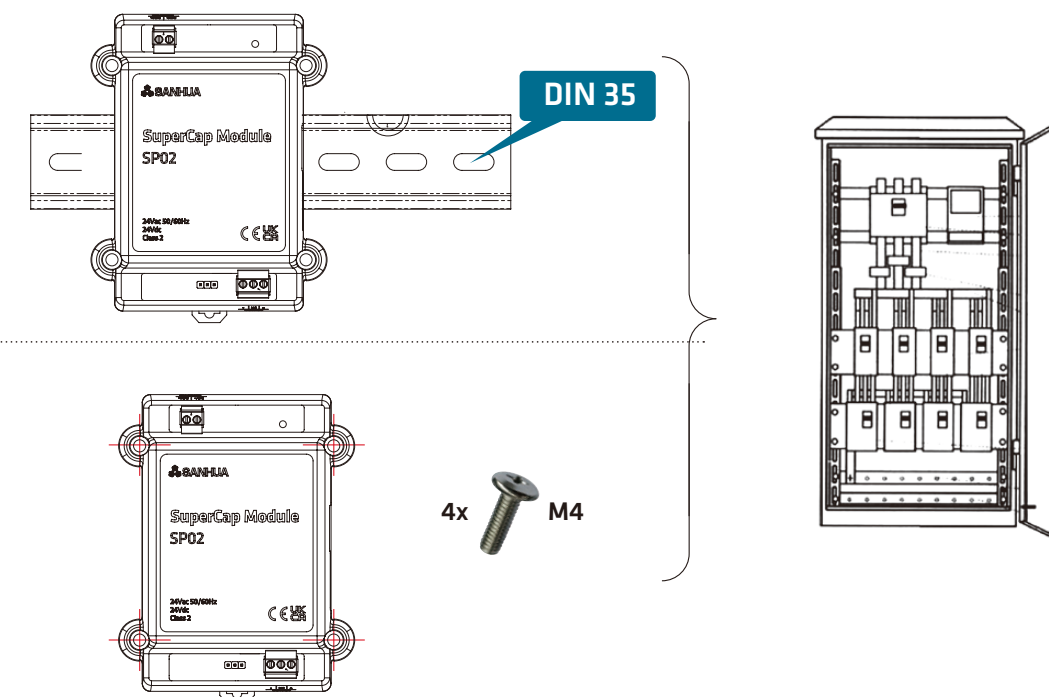
- When the backup power supply is installed in the electrical cabinet with screws or DIN35 rails, it must be installed in place and the screws must be tightened.
- Power on the product only after confirming that the cable connection is correct. Do not plug or unplug the terminal at will during power-on. If the terminal is removed during power-on, abnormal action will be caused and the product cannot work normally.
- This product may cause an electric shock in handling. Please do not attempt to open it with power turned on.
- This product can be used under the following environmental conditions:
  - Indoor
  - Pollution Degree 2
  - At an altitude of 2000m or below
- To prevent inductive noise, make sure to isolate from high voltage.
- To prevent damage to the controller from stray waves, surges, etc., install a stray wave filter circuit and a surge absorption circuit in the power supply circuit. Use in excess of the upper voltage limit may cause damage to the controller.
- In order to prevent it from an inductive noise, please maintain the high-voltage wire and power wire separated.; The sensor wire and signal wire should be away from the power and load wires using conduits separately installed.
- Power input must be within the designated ranges.

## 1. Product specifications

Items	Description
Model	SP02
Dimension	87 (W)mm x114.3 (H)mm x 34(D)mm
Voltage input	24Vac, +10%/-15%, 50/60HZ 24Vdc, +10%/-15%
Voltage output	When charging: (input 24Vdc, output voltage 22V) (Input 24Vac, output voltage 34V) When discharging: (14~15.5)V
charging time	3min
Discharging time	≥14s
Maximum current output	0.45A
Valve closing times	1 time
Valve type	DBF valve, DPF valve, LPF valve
Rated power	Max.7w (24Vdc) or 14VA (24Vac)
Operation	(-30~+55)°C, ≤95%RH(Non-condensing)
Storage	(-30~+55)°C, ≤95%RH(Non-condensing)
Wire	AWG16~AWG24(0.2~1.5mm <sup>2</sup> )

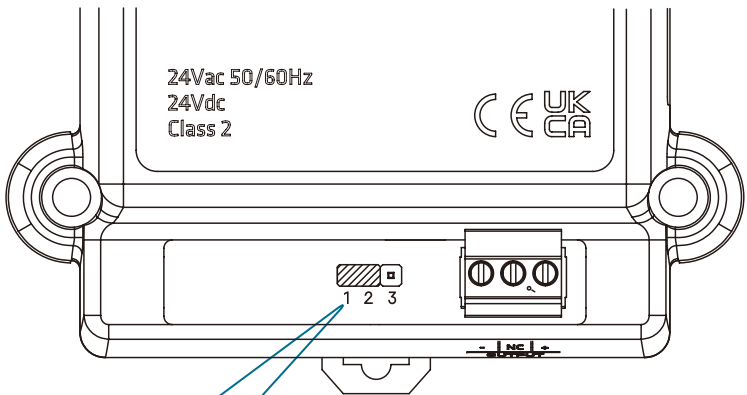
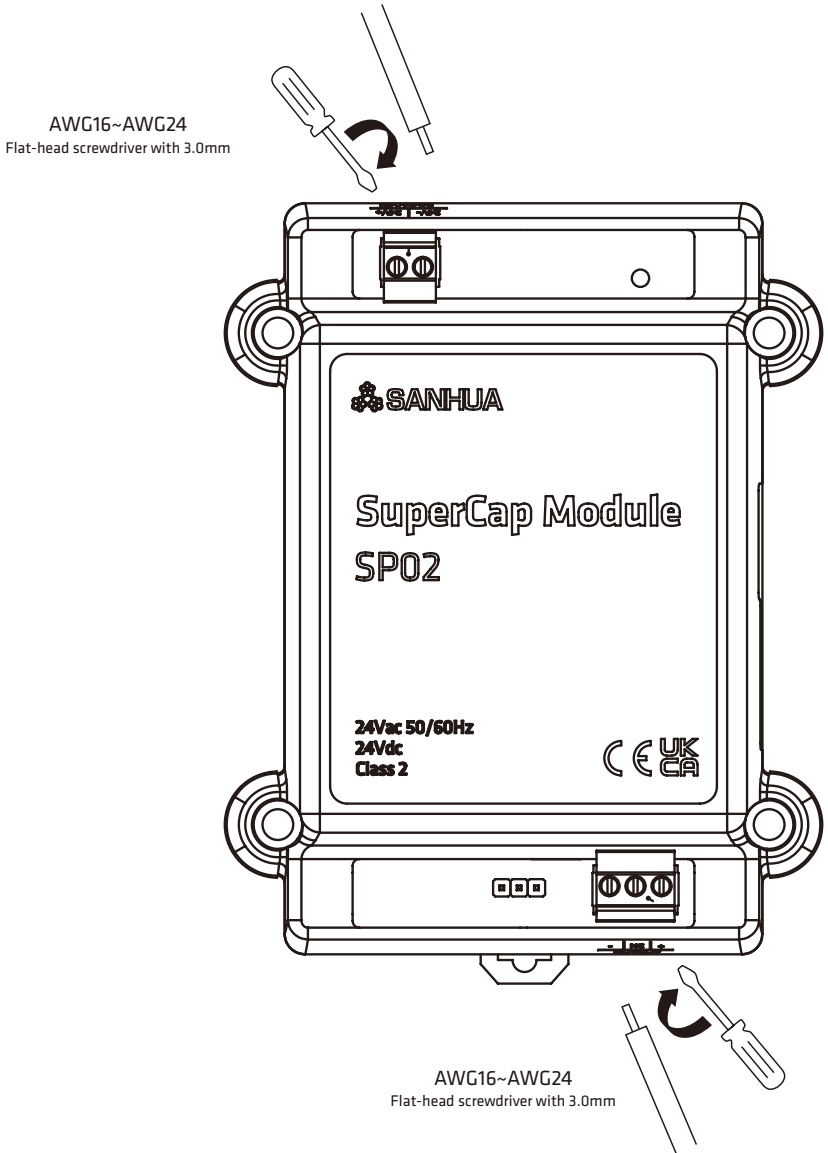


## 2.Manual Guide



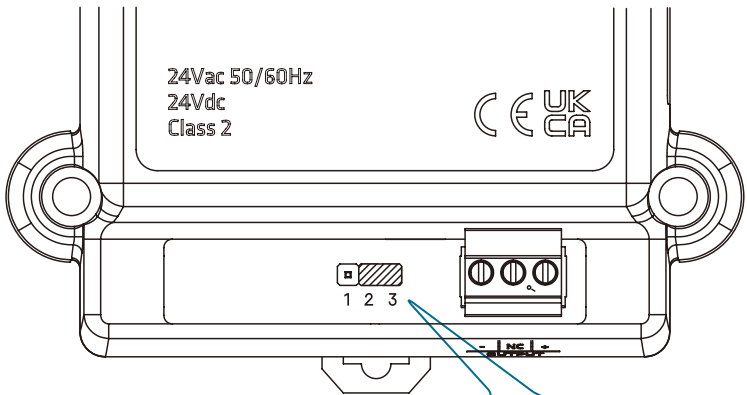
### 3.Wire connection

Type	Function	Label		Description
Pluggable terminal	Power input	24Vac/Vdc	24V+	Input AC24V or DC24V+
			24V-	Input AC24V or DC24V-
Pluggable terminal	Power output	OUTPUT	+	Backup power output +
			NC	Space, no wiring
			-	Backup power output-



**Mode 1: Jumper cap connected to pins 1 and 2**

1. charging: when the input voltage is 24Vac, the output voltage is 0V;
2. charging: when the input voltage is 24Vdc, the output voltage is 0V;
3. discharging: output voltage is (14~15.5) V;



**Mode 2: Jumper cap connected to pins 2 and 3**

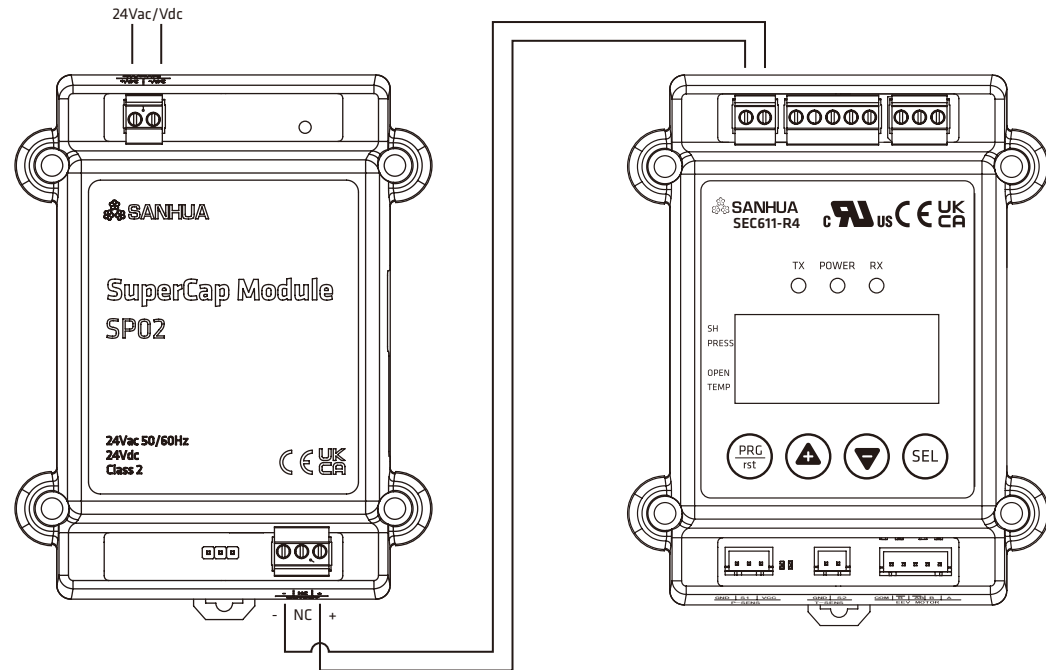
1. charging: input voltage is 24Vac, output voltage 34V;
2. charging: input voltage is 24Vdc, output voltage 22V;
3. discharging: output voltage is (14~15.5) V;

**Safety Tips:**

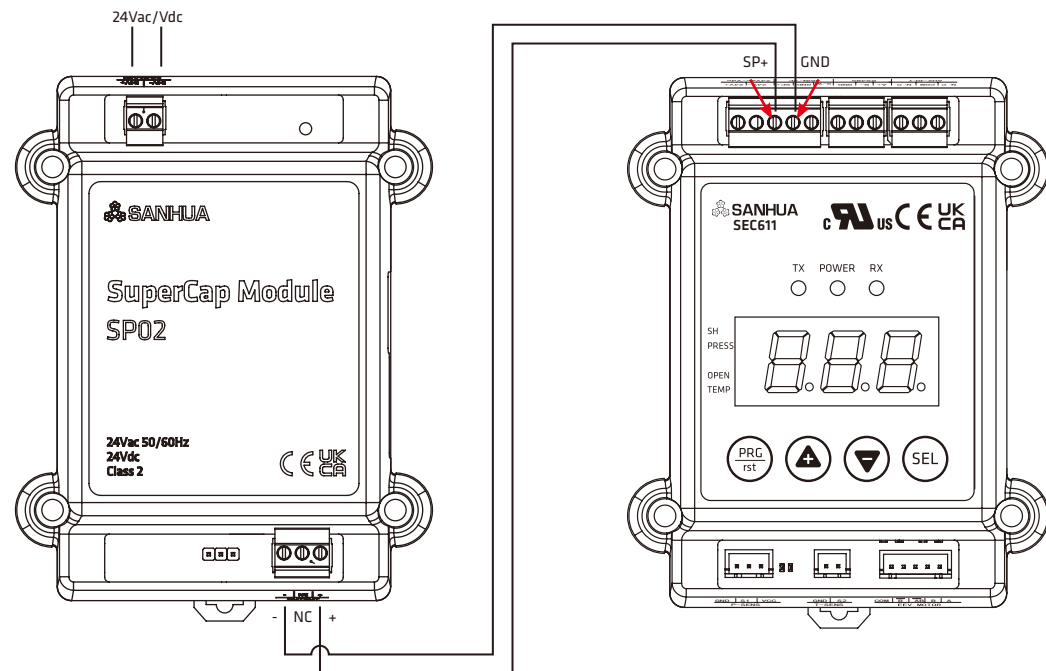
1. Do not turn on the power before completing the wiring, cut off the power before changing the wiring.
2. Note to distinguish the positive and negative terminals of the backup power output port, such as reverse connection may cause damage to the backup power circuit;
3. Output voltage: the factory default state of the backup power supply is mode2:
  - 1) Charging: when the input voltage is 24Vac, the output voltage is 34V;
  - 2) Charging: when the input voltage is 24Vdc, the output voltage is 22V;
  - 3) Discharging: output voltage is (14~15.5)V;
4. Minimum/maximum wire diameter for plug-in terminals: 0.2mm<sup>2</sup>~1.5mm<sup>2</sup>;

#### 4.Instructions for use

Connecting SEC61x-R4 Series Controllers with SP Series Backup Power Modules:



Connecting SEC61x-R6 Series Controllers with SP Series Backup Power Modules:



Connecting SECR03 Series Controllers with SP Series Backup Power Modules:

