

ASJ10-GQ Self-resetting over-voltage and under-voltage protector

Installation and Operation Manual V1.1

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The company reserves the right to modify the product specifications described in this manual without notice.

Before placing an order, please consult your local agent for the latest specifications of this product.

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1 General

ASJ10-GQ series Self-resetting over-voltage and under-voltage protector(referred to as ASJ) is suitable for single-phase AC voltage 230V or three-phase voltage 400V, frequency 45-65Hz,Users or loads with rated working current up to and including 63A. When the single-phase or three-phase line over-voltage or under voltage is caused by the neutral line fault, the protective device is opposite to the electrical equipment Protection.

ASJ series products have the functions of over-voltage, under voltage protection and automatic delay reset of line normal voltage. The products are mainly used in the residential box The protection of incoming line or single-phase or three-phase electrical equipment distribution line, with small volume, high precision, compact structure and convenient installation, is the safety in the field of civil construction Full protection device.

2 product features

- auxiliary power supply AC230V (phase voltage).
- cut off the line in case of over-voltage and under voltage, reset the line automatically after the line voltage returns to normal, and connect the line without manual operation.
- voltage measurement range: AC50v-290v, frequency 50Hz ± 5Hz, product power consumption is not more than 3W.
- impulse withstand voltage: 4KV.
- the working state is indicated by the two-color diode of the protector, the green light is normally on - the voltage is normal; the red light is fast flashing - over-voltage; the red light is slow flashing - under voltage; the red light is normally on-Open phase / fault.
- output capacity of relay: it can withstand the over-current of 120% current level of shell frame.
- wiring mode: up in down out.
- electrical life: 10000 times.
- the product is installed on the outgoing side of the main switch of the household box.

3 Model and meaning

The ASJ model description is shown in Figure 1.

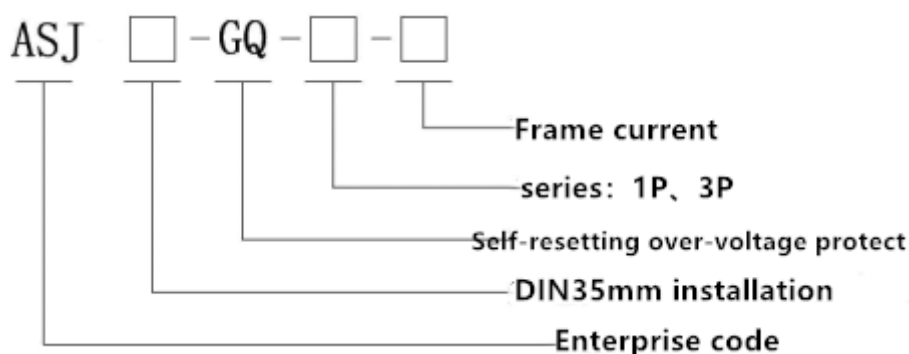
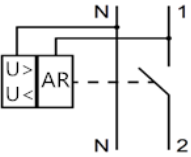


Figure 1 Product model description

Table 1 Product selection instructions

Frame current	series: 1P	series: 3P
		
25A	ASJ10-GQ-1P-25	ASJ10-GQ-3P-25
32A	ASJ10-GQ-1P-32	ASJ10-GQ-3P-32
40A	ASJ10-GQ-1P-40	ASJ10-GQ-3P-40
50A	ASJ10-GQ-1P-50	ASJ10-GQ-3P-50
63A	ASJ10-GQ-1P-63	ASJ10-GQ-3P-63

4 main parameters

Table 2 Technical parameters

technical parameter						
working voltage	1P	AC230V 50Hz				
	3P	AC400V 50Hz				
working frequency	50Hz					
Over voltage trip (L-N)	275VAC±5V					
Over voltage trip time	Over voltage action setting value	250V	275V	300V	350V	400V
	Maximum time	no	15s	3s	0.75s	0.2s
	Default time	actio	5s	2s	0.5s	0.15s
	Minimum non driving time	n	3s	1s	0.25s	0.1s
Over voltage recovery (L-N)	255VAC±5V					
Under voltage trip (L-N)	160VAC±5V					
Under voltage trip time	1s					
Under voltage recovery (L-N)	195VAC±5V					
Self recovery forced delay	30s					
Wiring mode	Up in down out					
Electrical life	10000 times					
Protection level	noumena					IP20
Environment	Working environment temperature					-5°C~+40°C
	Storage ambient temperature					-20°C~+60°C
	humidity					≤95%
	altitude					≤2000m
Pollution level	Level 2					
Installation category	III					

5 external structure

The appearance structure and dimensions of single-phase self-resetting over-voltage and under-voltage protectors are shown in Figure 2.

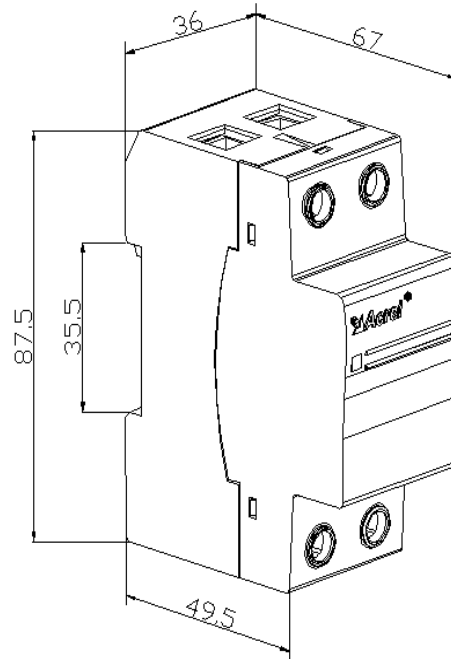


Figure 2

The appearance structure and dimensions of three-phase self-resetting over-voltage and under-voltage protectors are shown in Figure 3.

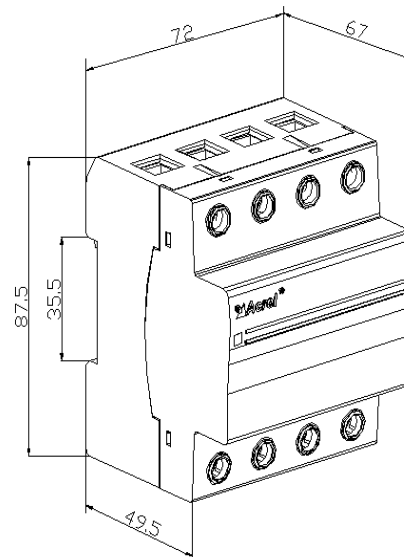


Figure 3

6 Installation wiring

Installation Notes:

ASJ adopts rail installation, directly installed on 35mmDIN rail, the installation and wiring diagram of single-phase self-resetting over-voltage and under-voltage protector products is shown in Figure 4

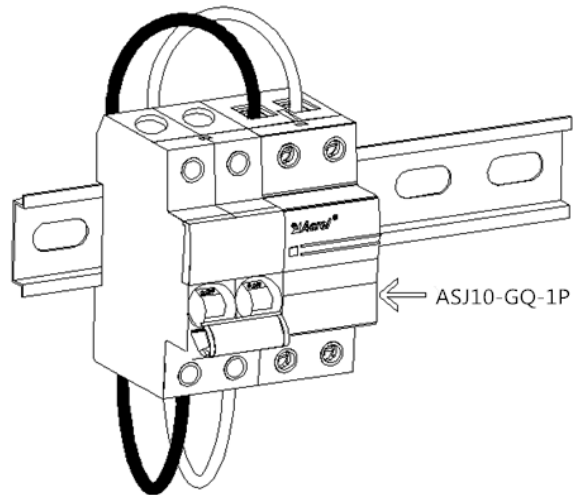


Figure 4

The installation and wiring diagram of the three-phase self-resetting over-voltage and under-voltage protector is shown in Figure 5.

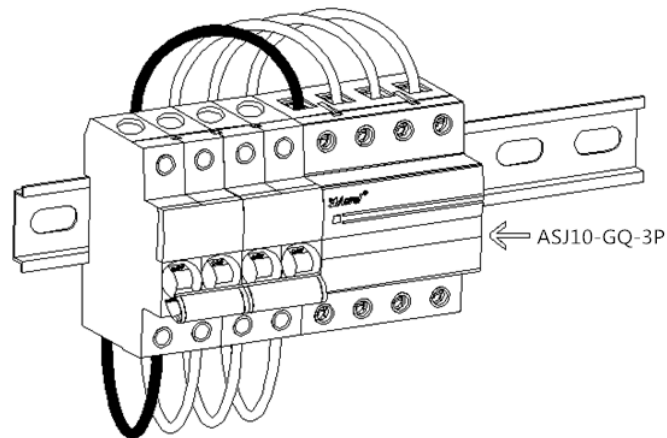


Figure 5

Wiring instructions:

Screw size: M6; Rated torque: 3.5Nm; Ultimate torque: 5.6Nm; Copper wire: 1~30mm² hard wire/1~25mm² soft wire (or hoop terminal).

7 Operation Guide

7.1 Display operating instructions

The ASJ display status description is shown in Table 3.

Table 3

Indicator status	Line status
Steady green	Voltage is normal
Red light flashes quickly (2Hz)	Over pressure
Red light flashes slowly (0.5Hz)	Undervoltage
Red light is always on	Phase failure/fault

7.2 Schematic diagram of voltage action

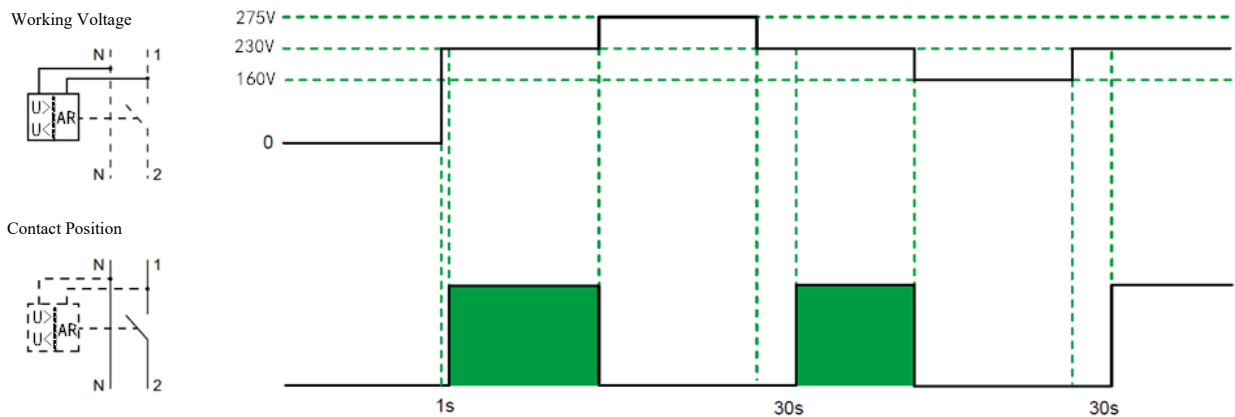


Figure 6

Note: 1. ASJ initialization time: the product is powered on after power-on or power-off, the initialization time is 1s.

2. N is the neutral line, 1 is the live line incoming line, and 2 is the live line outgoing line. It must not be connected wrongly.

3. Before use, please tighten the crimping screw to prevent poor contact from damaging the product.

4. This product has no short-circuit breaking capacity, and the short-circuit breaking is realized by a circuit breaker.

8 Application example

8.1 Application example diagram of single-phase Self-resetting over-voltage and under-voltage protector

1) Example diagram of installation in a power distribution box on a residential level

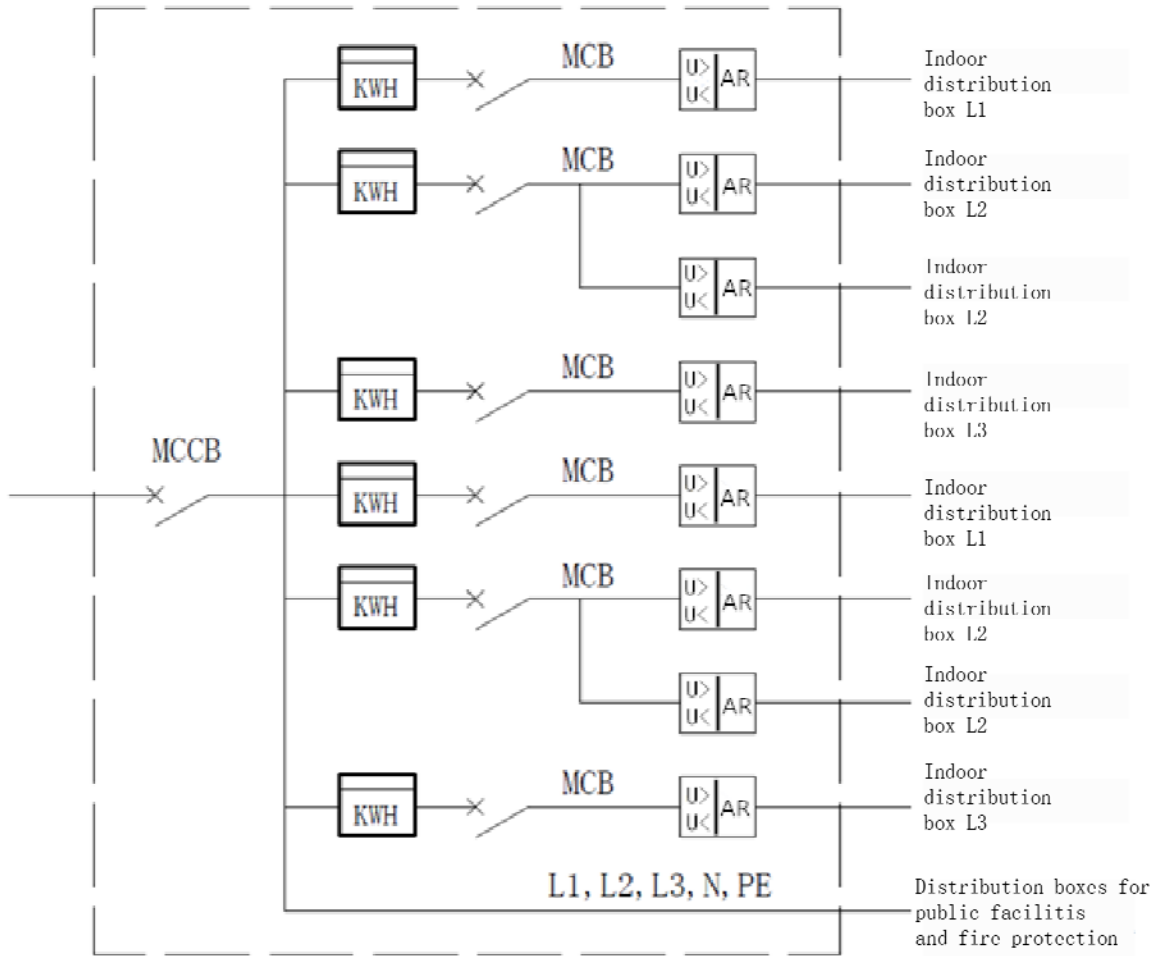


Figure 7

Note: $\begin{matrix} U> \\ U< \end{matrix} \text{AR}$ in the figure above is Self-resetting over-voltage and under-voltage protector. The device shall not be installed in the household distribution box.

2) Example diagram of installation in a residential sub-compartment

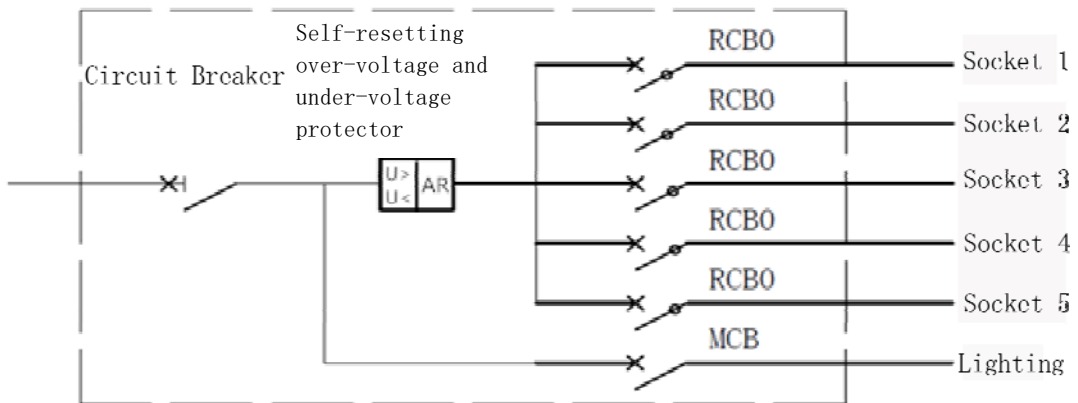


Figure 8

Note: in the figure above, the lighting loop can also be designed at the rear end of the Self-resetting over-voltage and under-voltage protector.

8.2 Example diagram of three-phase self-resetting over-voltage and under-voltage protector over-voltage and under-voltage protector

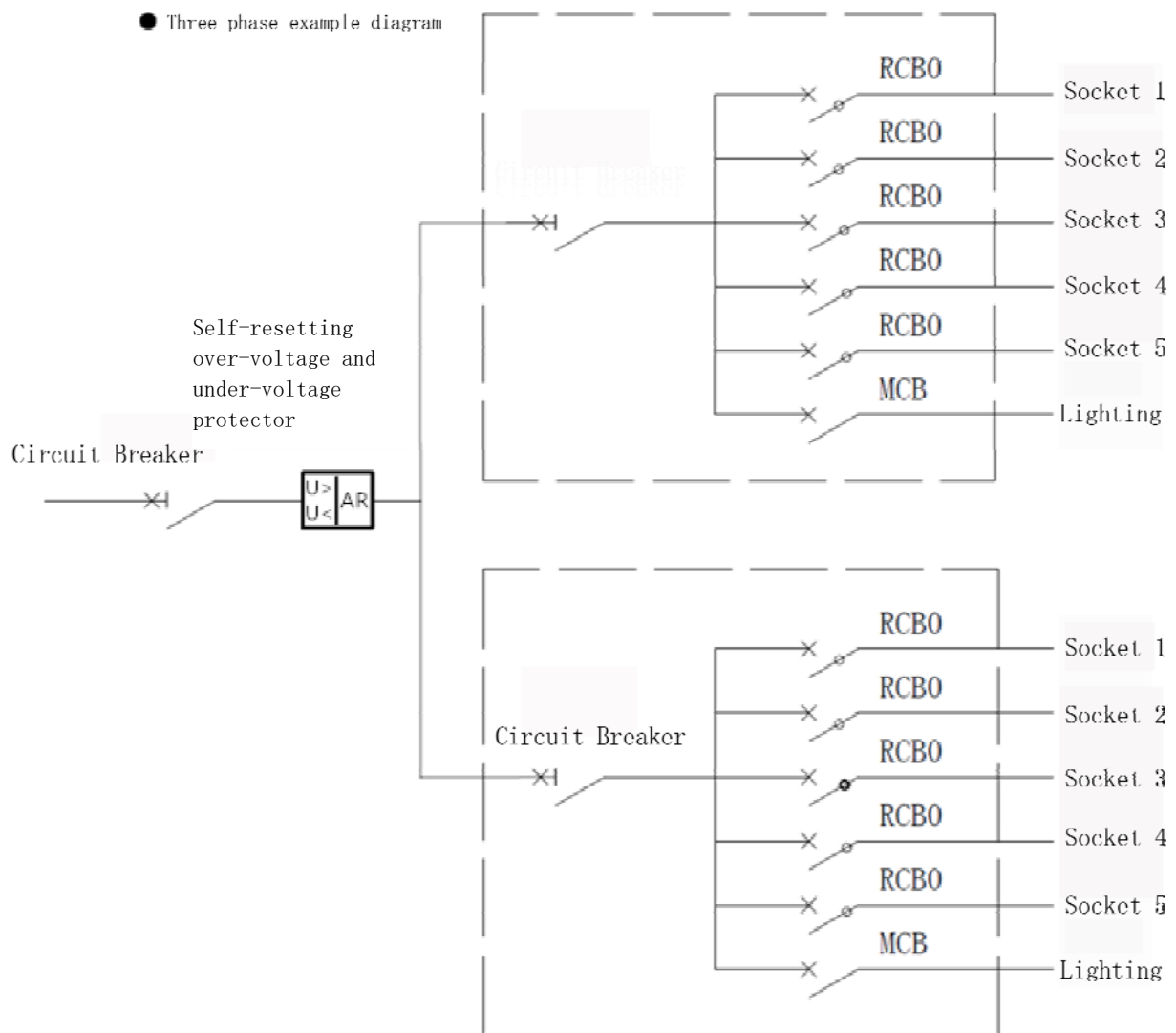


Figure 9

9 Order example

When ordering, indicate: product model, number of poles, rated current, and quantity.

Example: Application: Single-phase line; Rated current: 63A; Quantity: 100 units

Ordering model: ASJ10-GQ-1P-63 Ordering quantity: 100 units

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