

# Instruction Manual

## Three-phase four-wire overvoltage protector

### 1. Application

Three-phase four-wire multi-function self-replicating multi-display protector is a comprehensive intelligent protector that integrates overvoltage protection, undervoltage protection, overcurrent protection and one. When there is an overvoltage, undervoltage and overcurrent faults in any one of the three-phase four-wire lines, this product can instantly cut off the circuit to avoid unnecessary damage to electrical equipment. When the circuit returns to normal, the protector can automatically restore the circuit to make the electrical equipment work normally. The overvoltage value, undervoltage value, overcurrent value, circuit recovery time value and overcurrent protection reset time value of this product can be set by themselves and adjust the parameters according to the actual local conditions and electrical using conditions.

### 2. Product Features

2.1 The product fully conforms to the three-phase four-wire self-reclosing recloser produced by the enterprise standard.

2.2 When overvoltage, undervoltage and overcurrent faults occur in the line, the product will automatically cut off the line. When the line voltage or current returns to normal, the product will automatically resume normal power supply after the delay time set by the user, without manual operation.

2.3 The protector will not malfunction when there is instantaneous or transient overvoltage on the line.

2.4 When the voltage of the line is unstable due to some factors or when the power is suddenly cut off and then power on again, the product will not be connected to the power immediately. This delay time is set by the user according to the local conditions.

2.5 The voltage between the phase line of each pole and the N line should not be higher than 330VAC at the highest level to prevent the product itself from being damaged due to excessive power supply voltage. If a high power supply is required in specific occasions, please contact the manufacturer.

### 3. Normal use conditions

3.1 The ambient temperature should not exceed +50 degrees and not lower than -10 degrees.

3.2 The altitude of the installation site shall not exceed 2000 meters

3.3 Humidity: not more than 60%

3.4 Pollution degree 3

### 4. Installation conditions

4.1 The protector can be installed vertically or horizontally in the cabinet, special occasions need to be specially ordered.

4.2 It should be installed in a non-explosive medium, and there is no gas or conductive dust in the medium that can corrode metals and destroy insulation.

4.3 It should be installed in a place where there is no rain or snow.

## **5. Main technical parameters**

5.1 Rated voltage: 220VAC between each pole phase line and N phase, 50HZ/60HZ

5.2 Rated current: 1A-63A adjustable

5.3 Overvoltage action cut-off value between each pole phase line and N phase: 240V-300VAC adjustable (default 270VAC)

5.4 Undervoltage action cut-off value between each pole phase line and N phase: 140V-200VAC adjustable (default 270VAC)

5.5 Overcurrent action cut-off value: 1A-63A adjustable (default 63A)

5.6 Power-on delay time after power-on and power-off: 5-300S adjustable (default 5S)

5.7 Boot delay time: 1-300S adjustable (default 5S)

5.8 Reset delay time after overcurrent protection: 30-300S adjustable (default 30S)

5.9 Product overcurrent delay time: 6S (overcurrent time greater than this time will be confirmed as overcurrent and protected)

5.10 Self power consumption:  $\leq 2W$

5.11 Electrical and mechanical life:  $\geq 100,000$  times

## **6. Use**

After the protector is installed, the user can connect it, and select the wire cross-section that meets the standard according to the size of the current set by the protector. Note that the inlet and outlet wires of the protector cannot be connected incorrectly to avoid product damage or failure to power on.

## **7. Precautions**

7.1 When performing various operations or tests, the user should follow the relevant regulations and pay attention to the following items to ensure the correct and safe use of this product.

7.2 Make correct wiring according to the input and output terminals identified by the product (the load current should be less than the protection current value of the product)

7.3 The neutral wire N must not be wrongly connected and must be connected reliably, otherwise the protector will not work normally.

7.4 Before turning on the power, carefully check whether the wiring is correct, whether the load size matches the current protection value of the product, and whether the wiring screws are tightened, otherwise the product will be damaged.

7.5 After the product is powered on, do not touch live parts to avoid electric shock.

7.6 This product needs to cooperate with the micro-breaker to play a short-circuit protection function, otherwise it will not be able to protect the product when there is a short-circuit phenomenon in the load.

7.7 Because the product has an automatic reset function, after the product is protected and activated, the load (electrical appliance) should be removed immediately, and the circuit should

be checked, otherwise the product will frequently turn on and off the load and will eventually be overloaded due to frequent overloading for a long time. damage to the product or electrical appliance due to operation.

7.8 When the product is not used for a long time, it should be protected from moisture and dust. Before use, the product should be tested as described above, and it can be put into use after it is normal.

7.9 This product has no isolation function, please disconnect the front circuit breaker switch when repairing the line.

7.10 The zero line (N line) of this product is directly connected and has no disconnection function.

7.11 This product has no short-circuit breaking capacity for excessive current. Please install small circuit breakers such as DZ-47 and C65 at the front end of the line as overcurrent protection.

7.12 If the actual setting is different from this manual due to product upgrade, please contact our company, and the product upgrade will not be notified.

### 8. Product setting process (for production test only)



### 9. Product size (for production test only)



### 10. Product wiring diagram (for production test only)

