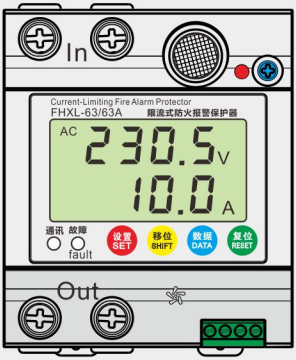
Current-Limiting Fire Alarm Protector



FHXL-63

Products Instructions

I.Functions of panel Brief introduction to product

FHXL-63 series is the current-limiting fire alarm protector, and it is a comprehensive protector with multiple protection functions for overvoltage, undervoltage, overcurrent, leakage, temperature and smoke detection. The product has the advantages of modularization, intelligence, visualization and so on. At the same time, it supports the standard Modbus(RS485) communication protocol. All protection parameters such as overvoltage, undervoltage and overcurrent protection can be set according to the power demand, so as to ensure that the protector can instantly cut off the power supply when overvoltage, undervoltage, overcurrent and other faults occur in the line, and the electrical equipment can be protected from damage.

The product has compact structure, beautiful appearance, and there is standard guide rail for installation.

II.Working conditions and current protection parameters

1. In case of the first normal power-on, the device automatically closes after 1s delay; and when powered on for the first time, under the conditions of overvoltage, undervoltage, overcurrent and leakage, the device will automatically open within 3 seconds;

2. When powered on for the first time, the smoke sensor needs to be heated for 180 seconds, and then the product enters the protection state. After smoke alarm occurs and the fault is removed, it is necessary to manually press the Reset key for 2 seconds, then the smoke alarm can be released.

3. Current protection parameters:

a. ≥ 1.02 times current, < 3 minutes opening.
b. ≥ 1.1 times current, setting range 1 to 120 seconds, 10 seconds by default
c. ≥ 2 times current, ≤0.2 second opening.

4. The ambient temperature shall not exceed + 40° C, it shall not be lower than-5° C; and the average temperature within 24 hours shall not exceed + 35° C; at + 40° C, the ambient air humidity shall not exceed 50%.

5. The altitude of the installation site shall not exceed 2000 meters.

6. Pollution level: III.

7. In the installation environment, there shall be no explosive dangerous medium, no corrosive and destructive gas and conductive dust, and no invasion of rain and snow.

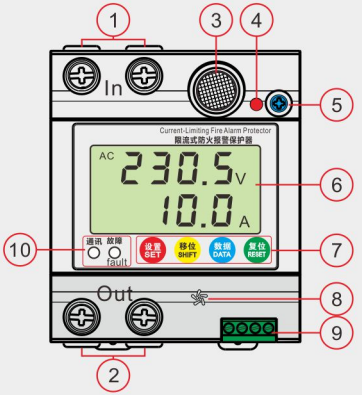
III. Functions of the keys

1. Setting key: Press and hold the Setting key for 2 seconds, it enters the setting state. After entering the setting state, every time you press the key, the system will enter the next setting menu;

2. Shift key: query the current real-time operation parameters of the product. In the setting state, it has the digit shift function;

3. Data key: query the last fault information of the product and change the parameters to be set under the setting state;

4. Reset key: When the first overcurrent or leakage occurs, the product will automatically switch on after delaying the specified reset time. When the second overcurrent, leakage or fire alarm occurs, it must be confirmed that there is no fault in the circuit, then you need to manually press the Reset key to make the product switch on, and press the Reset key for 2 seconds to save and exit the setting state.



① Incoming terminal (it can be customized as outgoing terminal)

② Outgoing terminal (it can be customized into incoming terminal)

③ Smoke detector

④ Smoke alarm indication

⑤ Smoke detector sensitivity adjustment (The sensitivity has been fixed when at the factory, users do not need to adjust it)

⑥ Man-machine interaction display screen

⑦ Man-machine interaction key

⑧ Smoke alarm voice control output

⑨Temperature sensor and 485 communication interface

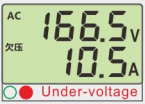
V. Real-time display, fault information and function menu

Real-time voltage, current

Real-time voltage, leakage

Real-time voltage, temperature

Overvoltage



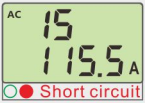
Under-voltage

overcurrent

Smoke alarm

current leakage

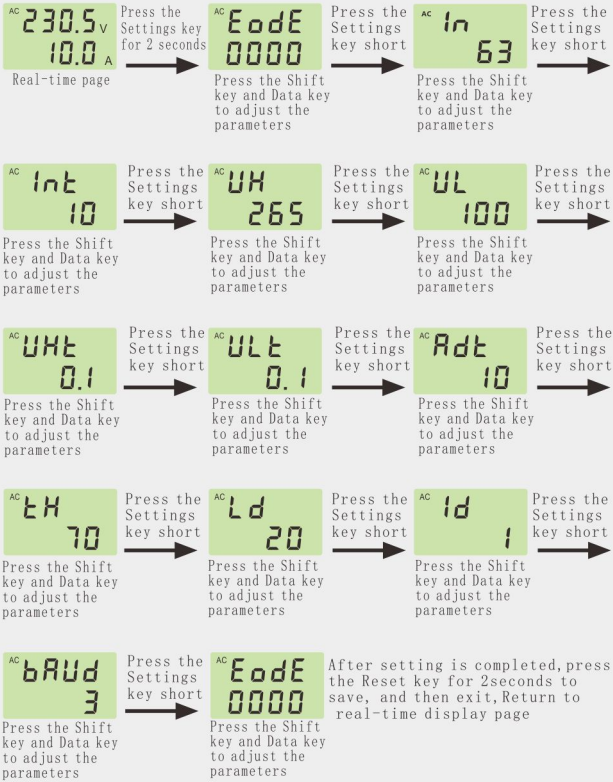
Overtemperature



Short circuit

Menu	Code	Default value	Set range
Rated current	In	63A	2~63A
1.1times action time	Int	10S	1~120 seconds
Overvoltage protection value	UH	265V	220~300V
Undervoltage protection value	UL	170V	140~200V
Overvoltage action time	UHt	0.1S	0.1~10 seconds
Undervoltage action time	ULt	0.2S	0.1~10 seconds
Recovery time after failure	Rdt	10S	1~120 seconds
Overtemperature protection value	tH	70°C	1~150°C
Leakage protection value	Ld	20mA	5~300mA
Modbus(RS485) communication address	Id	1	1~254
Modbus(RS485) communication rate	bAUd	3	0:1200 ; 1:2400 2:4800 ; 3:9600 5:19200 ; 6:57600 7:115200
Password setting	CodE	0000	0000~9999
Ex-factory recovery settings	HF	0	1Restore, 0 Not Restore

VI. Product settings



VII. Main technical parameters

1. Voltage detection range: AC 80 to 450V, accuracy level: 1.0.

2. Current detection range: 1 to 63A, accuracy level: 1.0.

3. Leakage current detection range: 5 to 300mA, accuracy level: 2.5.

4. Temperature detection range: -50 to 160 ° C, accuracy level: 2.0.

3. Power consumption of the product: ≤ 2W.

4. Short circuit withstand: 2000A.

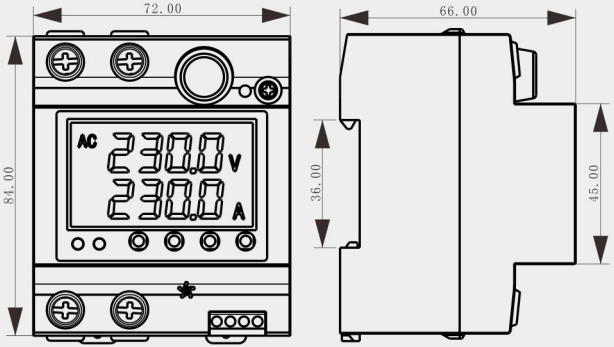
5. Mechanical life is ≥ 100,000 times and electrical life is 2,000 times.

6. Product wiring mode: incoming from the lower and outgoing from the upper; incoming from the upper and outgoing from the lower. The default wiring mode is: incoming from the lower and outgoing from the upper.

7. The wiring capacity is 16 square meters.

8. For details of RS485 communication protocol, please see RS485 Communication Manual for Power Instruments and Protectors V2.0.

VIII. Exterior dimensions



IX. Common faults and troubleshooting

Fault phenomenon	Fault problems	Troubleshooting
Modbus(RS485) has no transmission	1. Whether the ID number of the product is correct; 2. Whether the baud rate of the product is correct; 3. Whether the transmission distance is too far; 4. Whether there are too many products connected to the bus: 5. Whether the communication connection is correct.	a. Check whether the ID number and baud rate of the product match the communication device; b. The signal lines of RS485 shall be connected in the form: A to A and B to B; c. The number of products on the same bus shall not exceed 247, and it shall be ensured that the distance between products and communication device does not exceed 1200 meters.
Temperature is not displayed	1. Is the temperature sensor connected correctly 2. Whether the temperature sensor model matches the product.	a. Connect the temperature sensor to the product correctly b. The temperature sensor that supplied by the Company must be used.
The alarm does not work when there is smoke	Is the smoke sensor blocked	Remove the obstruction and dust on the smoke sensor

X. Matters needing attention

1. When the protector is powered on for the first time, it should supply power normally to the load after delaying for 1 second. When using the protector, the smoke sensor should not be blocked, to avoid the failure of the smoke alarm;

2. The N wire of the protector is the neutral wire, and L wire is the live line, they shall not be wrongly connected;

3. Please tighten the tension screws before use, to prevent poor contact and damage to the products;

4. If the product will not be used for a long time, the protective measures such as moisture prevention and dust prevention shall be taken;

5. This product has no isolation function. Please disconnect the preceding-stage circuit breaker switch before circuit maintenance.

XI. Points for attention for users' ordering

1. It is necessary for users to describe the product model, specification and quantity. If there are special requirements, it should be indicated separately.

Example: FHXL-63/63A, 60 PCS

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RECYCLABLE