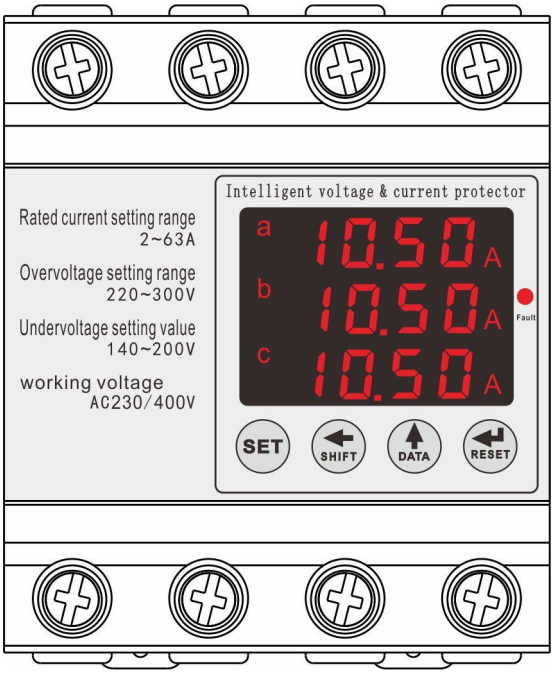
User's Manual



Intelligent three-phase four wire voltage & current protector

一、 Applicable scope

The intelligent three-phase four wire voltage and current protector is mainly used in power systems with AC 50Hz (60Hz), rated working voltage 220/380V, main body rated current ranging from 2A to 63A, intelligent controller adjustable working current ranging from 2A to 63A, and control power ranging from. 5KW to 20KW to connect, carry, and disconnect current or voltage under normal conditions (including specified overload conditions), and can also be connected Carrying current or voltage under abnormal conditions (such as short circuit, undervoltage, etc.) for a certain period of time and breaking regulations.

The intelligent three-phase four wire voltage and current protector adopts a modular product structure, which has the advantages of small size, high reliability, and easy operation. The main functions of the product include: overvoltage, undervoltage, phase loss, zero line loss, overcurrent, instantaneous short circuit, three-phase imbalance, undervoltage, phase sequence, RS485 communication, one key recovery, and other functions. It is widely used in power distribution and motor protection control systems in fields such as telecommunications, metallurgy, coal mines, steel, petrochemical, ports, ships, railways, hospitals, intelligent buildings, etc.

二、 Normal working conditions and protective characteristics

1. Automatic closing with a delay of 5 seconds for the first normal power on; When the product is powered on for the first time and experiences overvoltage, undervoltage, or phase sequence error, it will directly report a fault;
2. Current protection parameters:
a. ≥ 1.05 times the current,<3 minutes for opening.
b. ≥ 1.1 times the current, with a setting range of 1-120 seconds and a default of 10 seconds
c. ≥ 1.5 times current, disconnect within ≤ 6 seconds
d. ≥ 2 times the current and ≤ 0.1 seconds to disconnect (the default short-circuit protection value is 2 times, and for small motor protection, it should be adjusted to 8 times).
3. The ambient temperature shall not exceed+40 ℃, not be lower than -5 ℃, and the average temperature within 24 hours shall not exceed+35 ℃; The ambient air humidity should not exceed 50% at+40 ℃.
4. The sea level of the installation site shall not exceed 2000 meters.
5. Pollution level III.
6. In the installation environment, there is no explosive medium, no corrosive or insulating gas, no conductive dust, and no place invaded by rain or snow.

三、 Key functions

1. Setting key: Press and hold the setting key for 2 seconds to enter the setting state. After entering the setting state, each press will enter the next setting menu, and the protection parameters will be viewed in real-time display;
2. Shift key: Query the current real-time operating parameters of the product during real-time display, with a digital shift function in the set state; During real-time display, press the shift key for 2 seconds to enter the Factory reset function;
3. Data key: Query the last fault information of the product and change the parameters that need

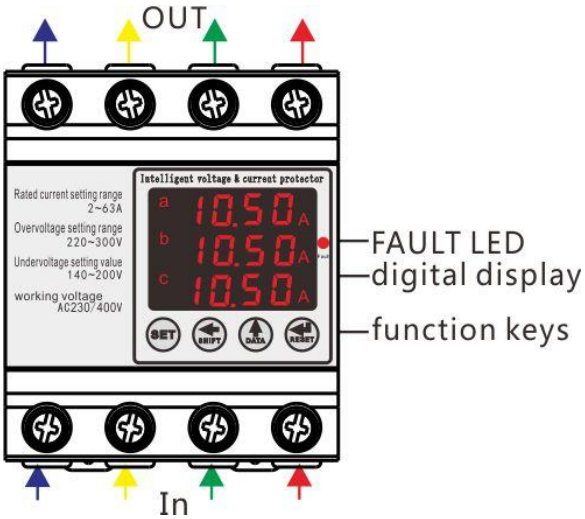
to be set when setting the status;

4. Reset key: When the first overcurrent or short circuit occurs, the product automatically closes after delaying the specified reset time. When the second overcurrent short circuit occurs, it must be confirmed that there is no fault in the circuit. Press the reset key manually to close the product, and press the reset key for 2 seconds to save and exit the set state.

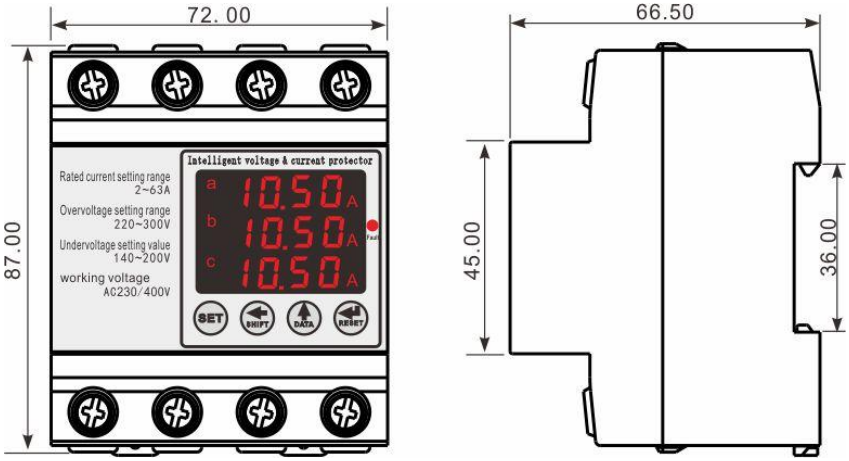
四. Main technical parameters

1. Voltage detection range: AC80~450V, accuracy level: 1.0.
2. Current detection range: 1-63A, accuracy level: 1.0.
3. Product's own power consumption: ≤ 2W.
4. Withstand short-circuit current: 2000A.
5. Mechanical life ≥ 100000 times, electrical life 5000 times.
6. Product wiring method: lower incoming and outgoing lines, upper incoming and lower outgoing lines. The default wiring method is for incoming and outgoing lines.
7. The wiring capacity is 16 square meters.

五、Panel Description



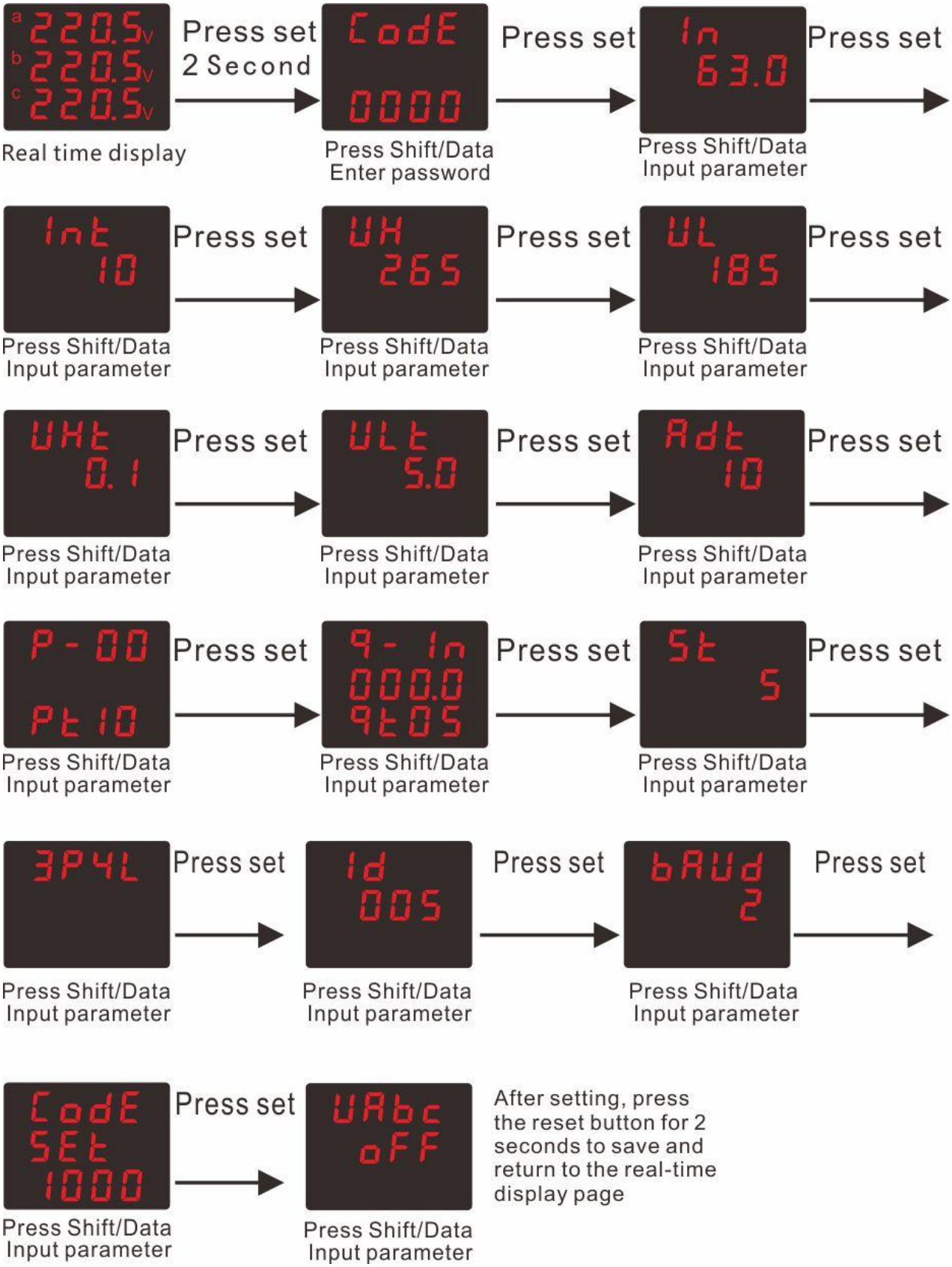
六、 Product size



七、Menu Description & Default Values

Menu Name	Code	Default Value	Setting Range
Rated current	In	63A	2~63A
1.2 times current disconnection time	Int	10	1~120 Second
Overvoltage protection value	UH	265V	220~300V
Undervoltage protection value	UL	185V	140~200V
Overvoltage disconnection time	UHt	0.1	0.1~10Second
Undervoltage disconnection time	ULt	5	0.1~5Second
Reset time after fault	Rdt	10	1~120Second
Three phase imbalance protection value	P-	00	1~99
Triphase unbalanced disconnection time	Pt-	10	1~99Second
Undercurrent protection value	9- In	0	小于电流保护值
Undercurrent disconnection time	9t	20	1~99Second
Start Delay Time	St	5	0~120Second
Display Method	3P4L	3P4L	3P3, 3P4
485 Address	Id	1	1~254
485 Communication Rate	bAUd	4	0:1200 ; 1:2400 2:4800 ; 3:9600 5:19200 ; 6:57600 7:115200
Password settings	CodE SEt	0000	0000~9999
Phase-Sequence Protection	UAbc	oFF	oN,oFF
Restore Factory Settings	HF	0	1restore,0 Notrestore

八、Product Menu Settings



九、 **Fault codes**

A-phase overvoltage

A-phase undervoltage

A-phase overcurrent

short circuit

A-phase missing phase

imbalance

undercurrent

Phase sequence error