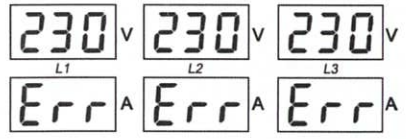
Main menu setting

- 230 V L1 • Voltage display
- 63 A • Current display
- P1 V • Power-on delay time S
  - 10 A 1→500
- U1 V • Over-voltage protection value V
  - 270 A 230→300
- U2 V • Over-voltage recovery value V
  - 265 A 225→295
- U3 V • Over-voltage recovery delay time S
  - 30 A 1→500
- U4 V • Over-voltage protection action time S
  - 1.0 A 0.1→30
- U5 V • Under-voltage protection value V
  - 170 A 140→210
- U6 V • Under-voltage recovery value V
  - 175 A 145→215
- U7 V • Under-voltage recovery delay time S
  - 30 A 1→500
- U8 V • Under-voltage protection action time S
  - 1.0 A 0.1→30
- U9 V • Three phase voltage error value
  - 0 A -9.5→9.5%
- U10 V • Three phase voltage unbalance value V
  - 30 A 20→99
- U11 V • Three phase voltage unbalance recovery value V
  - 25 A 15→94
- U12 V • Phase sequence protection switch
  - on A oFF/on
- C1 V • Over-current protection value A
  - 30/60 A 3→63/100→oFF
- C2 V • Over-current recovery delay time S
  - 30 A 1→500
- C3 V • Over-current protection action time S
  - 1.0 A 0.1→30
- C4 V • Three phase current error value
  - 0 A -9.5→9.5%
- C5 V • Continuous over current faults times setting
  - oFF A oFF→1→20
- rEL V • Work mode
  - SYn A SYn/ASY
- End V • Save & Exit Setting
- A

• Long press ▲▼ can increase or decrease repidly.
• Only L1 display when setting.L2 and L3 don't display.

Indication of continuous over current faults

Display for continuous over current faults after reset/start delay is over. Over current faults times is more than preset times.

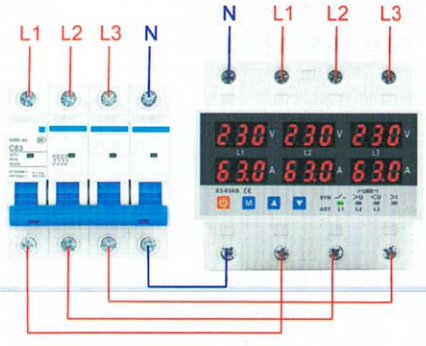


- Disconnect the overload device
- Start the relay after reset manually

OPERATING INSTRUCTIONS

- If a voltage fault was detected when the reset/start delay of relay is counting, the output relay opens and faults indication LED lights up.
- The operating voltage and current values will be displayed on screen when the relay is operating normally.If a voltage or current fault was detected,the output relay opens and fault indication LEDs light up
- Voltage faults: If input voltage was detected to have returned to Hys after tripped for voltage faults,the relay will reset automatically. During the counting of reset/start delay faults indication LEDs go out and the operating Voltage and current values flash on screen.
- Current faults:After the relay tripped for current faults,it will reset automatically.During the counting of reset/start delay,fault indication LED goes out,the operating voltage and current values flash on screen.

WIRING DIAGRAM



Three Phase Voltage and Current Protector With SYN & ASY Mode

Instruction Manual



SAFETY PRECAUTIONS

1.The device must be installed by a qualified person.
2.Disconnect all power before working on the device.Don't touch any terminal when the power is ON.
3.Verify correct terminal connection when wiring.
4.Don't dismantle or repair the device whether it operates normally, otherwise no responsibility is assumed by producer and seller.
5.Never use the device at the site which can be invaded by corrode gas,strong sunshine light and rain.
6.Clean the device with a dry cloth.
7.Fail to follow these instructions will result in serious injury or death.

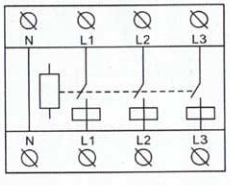
FEATURES

- Microcontroller based
- Digit display for operating voltage and current value
- Protect electrical device against over/under voltage,over current,three phase asymmetry and incorrect phase sequence
- Voltage measurement accuracy ≤1%
- Parameters setting by keys
- LEDs indication for over/under voltage and over current faults
- 5 Module,DIN Rail mounting

TECHNICAL DATA

Rated supply voltage	AC220V
Operation voltage range	AC140V-300V
Rated frequency	50/60Hz
Hysteresis	Over voltage and asymmetry:5V
	Under voltage:3V
Asymmetry trip delay	10s
Voltage measurement accuracy	≤1%(over the whole range)
Rated insulation voltage	450V
Output contact	1NO
Electrical life	10^5
Mechanical life	10^5
Protection degree	IP20
Pollution degree	3
Altitude	≤2000m
Operating temperature	-5℃-40℃
Humidity	≤50% at 40℃(without condensation)
Storage temperature	-25℃-55℃

SYMBOL



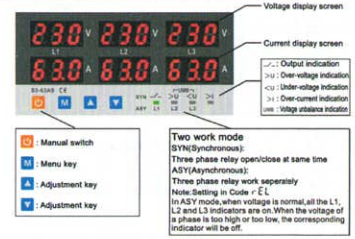
OPERATING RANGE

Technical parameter	Setting range	Factory setting	Step	Function description
Power-on delay time	1s-500s	10s	1s	After external power cut,the time needed for power-on when power recovery.
Over-voltage protection value	230V-300V	270V	1V	When the voltage is higher than the set value, the protector will cut off the line.
Over-voltage recovery value	225V-295V	265V	1V	When the voltage is lower than the set value, the protector will automatically reset, and the set value must be less than the over-voltage protection value by more than 5V.
Over-voltage recovery delay time	1s-500s	30s	1s	After voltage recovery,the time needed for automatic reset.
Over-voltage protection action time	0.1s-30s	1.0s	0.1s	When the voltage is higher than the set value,the time needed for protection action.
Under-voltage protection value	140V-210V	170V	1V	When the voltage is lower the set value, the protector will cut off the line.
Under-voltage recovery value	145V-215V	175V	1V	When the voltage is higher than the set value, the protector will automatically reset, and the set value must be more than the under-voltage protection value by more than 5V.
Under-voltage recovery delay time	1s-500s	30s	1s	After voltage recovery,the time needed for automatic reset.
Under-voltage protection action time	0.1s-30s	1.0s	0.1s	When the voltage is lower than the set value,the time needed for protection action.
Three phase voltage error value	-9.5%-9.5%	0		Correct the three phase voltage error.
Three phase voltage unbalance value	20V-99V	30V	1V	When the error among the three phase voltage is bigger than the set value,the protector will cut off the line.
Three phase voltage unbalance recovery value	15V-94V	25V	1V	When three phase voltage unbalance value is lower than the set value,the protector will automatically reset.
Phase sequence protection switch	OFF/ON	ON		Switch on or on the phase sequence protection function.
Over-current protection value	3A-63A-OFF 3A-100A-OFF	30A/60A	1A	When the current is higher than the set value, the protector will cut off the line.
Over-current recovery delay time	1s-500s	30s	1s	After current recovery,the time needed for automatic reset.
Over-current protection action time	0.1s-30s	1.0s	0.1s	When the current is higher than the set value,the time needed for protection action.
Three phase current error value	-9.5%-9.5%	0		Correct the three phase current error.
Times of continuous over current protection	OFF-1-20	OFF	1	When the times of continuous over-current protection exceeds the set value,the protector will cut off the line,then it needs to be opened manually.
Phase-loss protection	ON			One of the three-phase voltages is losing,the protector will cut off the line.

THREE PHASE VOLTAGE AND CURRENT PROTECTOR WITH SYN & ASY MODE

Please read complete instructions prior to installation and operation of the device.

FRONT-FACE PANEL

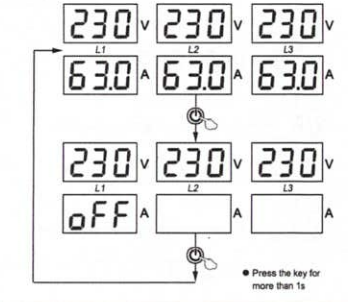


Reset/start delay display



- Voltage operating values display on L1-L2-L3 and current value display on L2 during the counting of start delay;they will be normally ON after the delay is over and the output relay closes.

Switch on/off manually



Indication for incorrect phase sequence



- Display L1-L3-L2 when phase failure fault occurs.User can change the position of L2 and L3 after disconnected supply.