MAXGE
Intelligence beyond vision

MGB

Intelligent Circuit Breaker

Committed to becoming a world-class manufacturer of intelligent electric

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MGB Series
Intelligent circuit breaker series

Technical data

Connection mode	2p single phase / 4p three phase four wire
Rated voltage (Ue)	2P 230V AC / 4P 400V AC
Rated current (In)	10A、16A、20A、25A、32A 、40A 、50A 、63A 、80A 、100A、125A
Rated frequency	50Hz
Mechanical life	10000
Electrical life	6000
Overload & short-circuit protection	C
Breaking capacity (Icu=Ics)	6KA
Rated impluse withstand voltage (Uimp)	4KV
Protecting degree	IP20
Operation temperature	- 5°C~+40°C
Dielectric strength	AC2500V 60s
Over-voltage action value	285V ±5V
Over-voltage recovery value	253V ±5V
Under-voltage action value	150V±5V
Under-voltage recovery value	195V±5V
Over voltage & under voltage recovery time	20--40S

1. Intelligent circuit breaker

Intelligent cloud control (GPRS, Ethernet, WIFI) circuit breaker is developed by our company on the basis of the Technical Specification for External Circuit Breaker (State Grid Corporation of China Q/ GDW11421-2005), Technical specification for External Low-Voltage Circuit Breaker (China Southern Power Grid), and Technical Specification for External Circuit Breaker (CQC1121-2016). The product consists of one miniature circuit breaker with short-circuit overload protection and one small intelligent electric operating mechanism which is equipped with one microprocessor and two modules (GPRS, Internet , WIFI). The command would be sent and the data will be received by phones, computers and other terminals. GPRS, Ethernet and WIFI would receive the remote controlled command, control the tripping or closing of the circuit breaker and feed back the status of the circuit breaker.

2. Feature

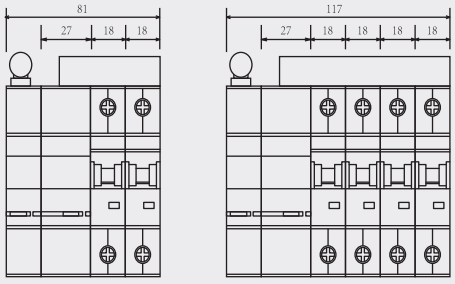
- Modular structure with 35mm standard rail installation.
- With manual/automatic switch.
- The action of switch on/off is fast and reliable, breaking capacity is 6KA.
- 2P product can be used for single-phase control.
- 4P product can be used for three-phase control.
- Current specifications are available in 20A, 25A, 32A, 40A, 50A, 63A, 80A, 100A and 125A.
- Basic functions:

  ⓐ The product is equipped with GPRS, WIFI , Ethernet interface, connected with the cloud platform. The phones and computers could be connected with circuit breaker by cloud platform to send and receive commands.
  ⓑ Overload and short-circuit protection.
  ⓒ Status indication.
  ⓓ Trip retention.
  ⓔ Status feedback.

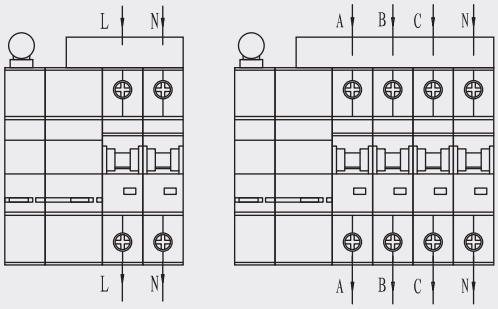
3. Installation and testing

- Please confirm that the status of electric operation [manual / automatic switch] are in the [automatic] position before installation. Switch the product on/off with the switch handle twice to confirm that the handle works normally. Finally place the closing handle in the opening position and switch the GPRS [remote/local switch] in the [remote] position.
- Install the product on the 35mm rail, and connect the product according to the wiring diagram,power supply when finished.
- The product would be automatically closed if two indicator lights are constantly on after the product being energized.
- The product could be put into operation if there is no failure after it being switched off several times under remote control.

4. Outline dimension & Wiring diagram



dimension



diagram

5. Common problems and solutions

IF IT DOESN'T WORK PROPERLY

- Please check whether the [manual/automatic switch] is in the [automatic] status.
- Please check whether the input power line is properly connected as specified.
- Please check whether there are any faults. The switch cannot be switched on if there is overload or short circuit fault. The switch would be automatically closed after the product being debugged and charged with electricity.

6. Daily use and maintenance

- Switch the [manual/automatic switch] to the [manual] position and manually switch it off when the load is being overhauled.
- Switch the [manual/automatic switch] to the [automatic] position after the overhaul.
- Restore the power after the circuit breaker is being closed manually.

7. Warranty

- The product warranty is 24 months. We are responsible for free repair or replacement if the product can’ t be used due to quality issues within the warranty period.
- The repair or replacement shall be paid within the warranty period if the product is damaged due to improper usage, self-modification, usage out of the standard specification requirements, falling down or damage during installation.

MGB Series
Solar photovoltaic circuit breaker series

Technical data

Connection mode	2p single phase / 4p three phase four wire
Rated voltage(Ue)	2P 230V AC / 4P 400V AC
Rated current(In)	10A、16A、20A、25A、32A 、40A 、50A 、63A 、80A 、100A、125A
Rated frequency	50Hz
Mechanical life	10000
Electrical life	6000
Overload & short-circuit protection	C
Breaking capacity(Icu=Ics)	6KA
Rated impluse withstand voltage(Uimp)	4KV
Protection degree	IP20
Operation temperature	- 5°C~+40°C
Dielectric strength	AC2500V 60s
Over-voltage action value	285V ±5V
Over-voltage recovery value	253V ±5V
Under-voltage action value	150V±5V
Under-voltage recovery value	195V±5V
Over voltage & under voltage recovery time	20--40S

MGB42-80L

MGB52-125L

1. Solar photovoltaic circuit breaker

The solar photovoltaic circuit breaker with reclosing function could be automatically opened in the case of over-voltage and under-voltage, and it could be automatically closed when the normal voltage is restored. At present, there are several main scenarios: one is a distributed grid-connected system, and another is a system with large grid-connected scale.

2. Feature

- Modular structure with 35mm standard rail installation.
- With manual/automatic switch.

Under manual gear, the product has only overload and short-circuit protection.
Under automatic gear, the product has over and under voltage protection besides overload and short-circuit protection, and it also has reclosing function when some conditions are satisfied.

- The action of switch on/off is fast and reliable.

- Introduction to automatic gear function:

ⓐ Over-voltage and under-voltage protection at the power supply terminal

The circuit breaker will be switched off when the power supply terminal is over or under voltage. The circuit brekaer will be switched on when the normal voltage is restored under non-locking state.
Noted: locking ---means that the device will no longer activate the automatic closing function.The device will be switched off for once if the voltage is abnormal. When the voltage returns to normal, the device will be switched on after 20s, switched off within the subsequent 5s, switched on within the subsequent 50s, switched off within the subsequent 5s, then it would be locked.

ⓑ Working status indication of power supply and the device

Four status indications:

1 If the indicator single flashes (once in 3s), which indicates that the circuit has the problem of over-voltage.
2 If the indicator double flashes (twice in 3s), which indicates that the circuit has the problem of under-voltage.
3 If the indicator is constantly on, which indicates that the circuit and equipment work properly.
4 If the indicator is off, which indicates that the circuit is in power failure.

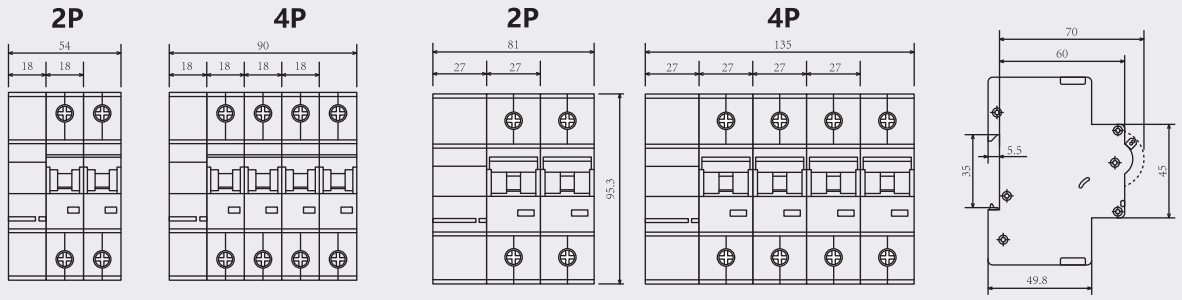
ⓒ locking and manual unlocking when under-voltage & over-voltage is frequently exceeded

When the voltage of load is normal, closing by manual (automatic gear), can be removed;
The electricity powered off for half an hour, the voltage of load is normal when the power is on, can be removed; If the voltage of load is abnormal, even manual intervention, the product will be locked after closing .

3.Installation and testing

- Please confirm that the device is in "automatic" and "tripping" status before installation.
- Energize the device after installation. Close the circuit breaker, and manually close and trip the circuit breaker again to check whether the circuit breaker works normally.
- Adjust the input power of the device to over-voltage or under-voltage status to check whether the product is normal or not if possible.

4. Outline dimension & Wiring diagram



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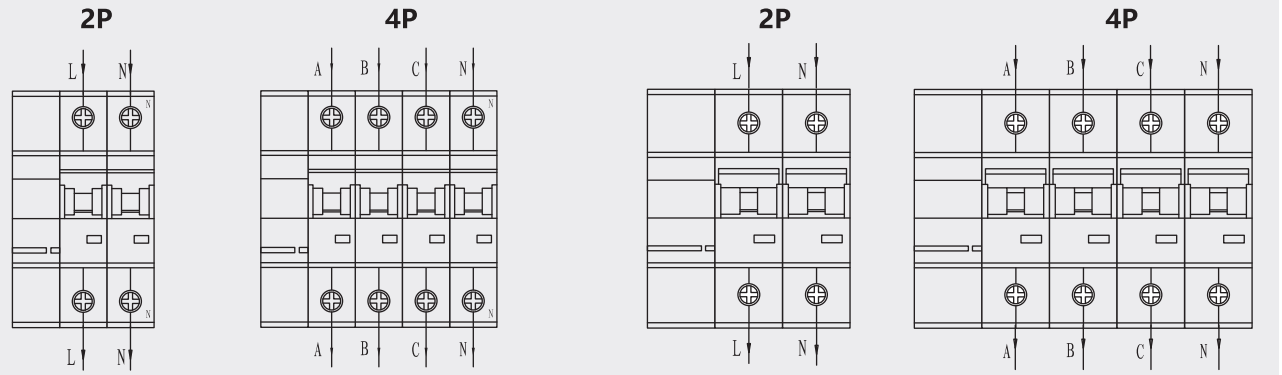
5. Connection diagram



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6. Common problems and solutions

IF IT DOESN'T WORK PROPERLY

- Please check whether the [manual/automatic switch] is in the [automatic] status.
- Please check whether the input power line is connected correctly as specified.
- Please check whether there are any faults. If the circuit breaker can' t be closed due to overload or short circuit fault, the device would be automatically closed after debugging and the device being charged with electricity.

7. Daily use and maintenance

- Switch the [manual/automatic switch] to the [manual] position and manually switch the circuit breaker off when the load end is being maintained.
- Switch the [manual/automatic switch] to the [automatic] position after the overhaul.
- Recover the power after closing the circuit breaker manually.

8. Warranty

- The product warranty is 24 months. We are responsible for free repair or replacement if the product can' t be used due to quality issues within the warranty period.
- The repair or replacement shall be paid within the warranty period if the product is damaged due to improper usage, self-modification, usage out of the standard specification requirements, falling down or damage during installation.

⚠ Reserve the right to change the parameters without prior notice.

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