

# ENERGROWTH

## Product Manual

Product manual introduces the company's main "basic and intelligent circuit breaker" products, including different types and specifications of products such as MCB, MCCB, isolation switches, surge protectors, and intelligent reclosing devices, covering a wide variety of application scenarios and fields. Energrowth attaches great importance to product research and development as well as quality control, and provides you with all-round guarantee services from "procurement to after-sales".

Thank you for taking the time to read this product manual. We hope that this manual can provide you with the corresponding products. Meanwhile, we can offer customized solutions according to your needs.

If you have any needs or questions, welcome to contact us at any time. Our company's email address is as follows: [ENERGROWTH.SG@gmail.com](mailto:ENERGROWTH.SG@gmail.com)



**Simpower**  
Stock Code: 301705

### Smart Low-Voltage Products Cover All Scenarios

- ✓ Full Product Coverage
- ✓ High Quality And Reliable Guarantee
- ✓ Service System Support



**Simpower**

### General Upgrade Intelligent Products

- ✓ Leading IoT Technology
- ✓ Intelligent Remote Control
- ✓ Precision Measurement Capabilities



**Simpower**

### Multi-Field Scenario Applications

- ✓ Multi-Scenario Coverage
- ✓ Professional Solutions
- ✓ Industry-Leading Technology

## Group Introduction

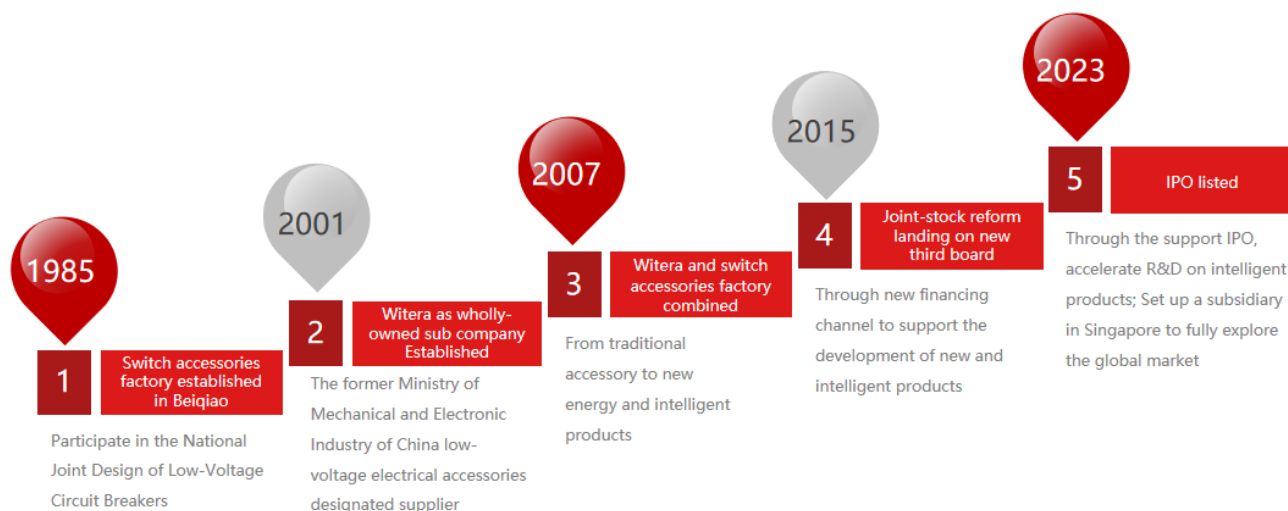


Suzhou Future Electrical Co., Ltd. specializes in the R&D, manufacturing, and sales of low-voltage circuit breaker accessories. It is committed to "becoming a global leader in intelligent switches" and successfully listed on the GEM IPO in March 2023. The company has a national post-doctoral workstation and owns more than 200 patents (including 33 invention patents). It currently has approximately 700 employees, with nearly 80 of them being R & D personnel.

With the R & D concept of "letting the future reach the full potential of circuit breakers", the company is deeply engaged in the development, iteration, and innovation of various circuit breaker products, continuously advancing the intelligent process of circuit breakers. While the business is developing rapidly, it adheres to the implementation of the "green and sustainable development" strategy and has established a complete set of "quality management system, environmental management system, occupational health and safety management system, energy management system, 14064 greenhouse gas management system, and carbon footprint management system". The company continuously builds a green factory through energy management systems, photovoltaic power generation, replacement of fixed-frequency air compressors with variable-frequency ones, and conducts energy-saving and environmental protection training for all employees to jointly practice the green development direction.

## Development History of the Group

Founded in 1985 in Suzhou, China, the Group specializes in the research, development, production and manufacture of low voltage circuit breaker accessories. In order to further expand the field of intelligent low-voltage terminals, Witera was established as a wholly-owned subsidiary in 2001, and in 2007, the company integrated the internal resources of the group and officially launched the Witera brand, which is committed to building a ‘global leader in intelligent electrical accessories’. After years of development, the company will be listed in the GEM IPO in 2023, through the GEM IPO financing will be fully developed overseas business, and established ENERGROWTH TECHNOLOGY PTE. LTD. in Singapore. In the future, the company will start a new journey of global development.



Cooperation Rate with TOP 20 Clients Reached 85%



国家电网  
STATE GRID



CHINA TOWER  
中国铁塔

SUNGROW  
阳光电源



LAZZEN

CHNT  
正泰集团

DELIXI  
ELECTRIC  
德力西电气

大全集团  
DAQO GROUP

宏发股份

## About Us

To build ENERGWORTH into a globally renowned company, ENERGWORTH registered the global operation brand Simpower at the beginning of its establishment. The company is committed to becoming a global leading provider of intelligent power management services. Its product line covers intelligent terminal circuit breakers, frame & molded case circuit breaker accessories, and related low-voltage electrical products, and its application fields cover industries such as infrastructure, industry and commerce, and smart homes. You are welcome to consult and learn more, and we will wholeheartedly provide you with professional services.



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# Simpower

- Simpower: “simple+power” , Slogan “making the application of green energy simpler”.
- SIM meaning : S=safe , I=intelligence , M=master.

# Product Catalogue

## I. Basic Type Circuit Breaker

### 1. AC MCB

- 1.1 Miniature Circuit Breaker Series B3-63
- 1.2 Miniature Circuit Breaker Series B5-63
- 1.3 Miniature Circuit Breaker Series B3-125

### 2. Leakage MCB

- 2.1 Leakage Circuit Breaker Series B3LE-63
- 2.2 Leakage Circuit Breaker Series B3LE-125
- 2.3 Leakage Circuit Breaker Series B5L
- 2.4 Leakage Circuit Breaker Series B5NL

### 3. MCCB

- 3.1 MCCB Electronic Type- M2ESeries
- 3.2 MCCB Thermal - Magnetic Type - M2 Series

### 4. Isolation Switch- G5

### 5. SPD Surge Protective Device - C40

## II. Intelligent Products

### 1. Internet of Things Circuit Breaker B6Z-32DPN

### 2. MCB Miniature Recloser

- 2.1 Circuit Breaker Externally Connected to Electric Energy Meter FAR6-100W
- 2.2 Photovoltaic Grid-Connected Circuit Breaker FAR6-GD100
- 2.3 Remote Control Circuit Breaker FRC6-M100

### 3. MCCB Molded Case Recloser

- 3.1 Photovoltaic Grid-Connected Multifunctional Circuit Breaker M2L
- 3.2 Circuit Breaker Externally Connected to Electric Energy Meter for Molded Case M2L
- 3.3 Molded Case Leakage Circuit Breaker

# Miniature Circuit Breaker Series B3-63

## Product Overview



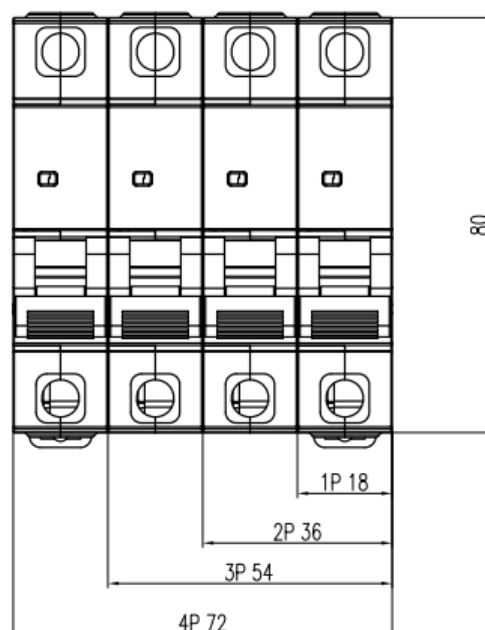
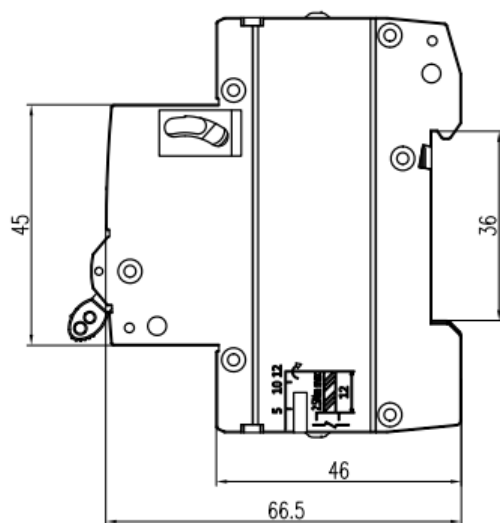
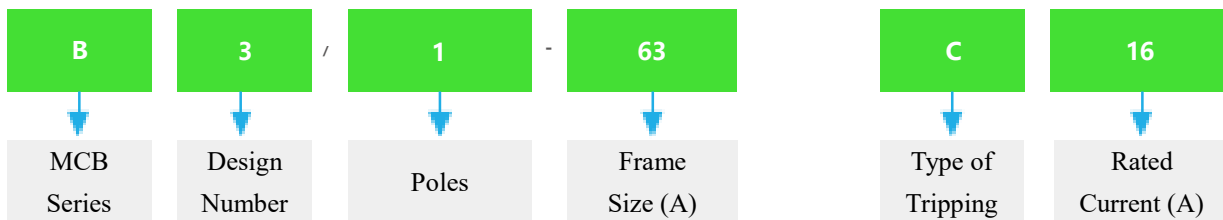
This series of products are widely used in scenarios such as households, commercial and industrial fields. In households, it protects circuits such as lighting and sockets; in commercial places such as offices and stores, it is used for various electrical equipment. In the industrial field, it can provide power protection for small equipment.

**Main functions:** overload protection, short-circuit protection, isolation.

**Standards:** GB/T 10963.1.

**Certifications:** CCC, CE.

### Model Name :



## Technical Specifications

Product Model		B3-63
Rated current $I_n$ (A)		1、 2、 3、 4、 5、 6、 10、 16、 20、 25、 32、 40、 50、 63
Rated voltage $U_e$ (V)		230V~(1P) , 400V~(2P、 3P、 4P)
Rated frequency (Hz)		50/60Hz
Number of Poles		1P, 2P, 3P, 4P
Mechanical life (times)		20000
Electrical life (times)		10000
Rated short-circuit breaking capacity $I_{cn}$ (A)		4.5kA、 6kA
Operating short-circuit breaking capacity $I_{cs}$ (A)		4.5kA、 6kA
Rated insulation voltage $U_i$ (V)		500V
Rated impulse withstand voltage $U_{imp}$ (kV)		6kV
Dielectric test voltage (V)		2000(50Hz、 1 minute )
Vibration resistance (IEC/EN 60068-2-6)		No significant vibrations and shocks
Reference temperature (°C )		30
Operating ambient temperature (°C)		-35~+70
Storage ambient temperature (°C )		-35~+85
Applicable altitude (m)		≤ 2000
Type of disconnection		Electromagnetic release
Instantaneous type	B (3 $I_n$ ~5 $I_n$ )	
	C (5 $I_n$ ~10 $I_n$ )	
	D (10 $I_n$ ~16 $I_n$ )	
Pollution Rating		2
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# Miniature Circuit Breaker Series B5-63

## Product Overview



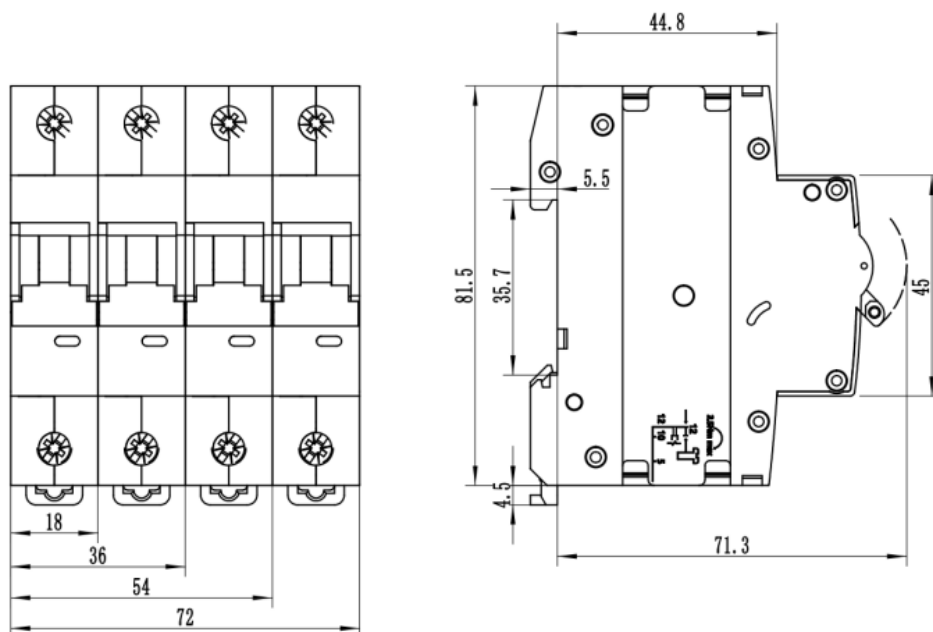
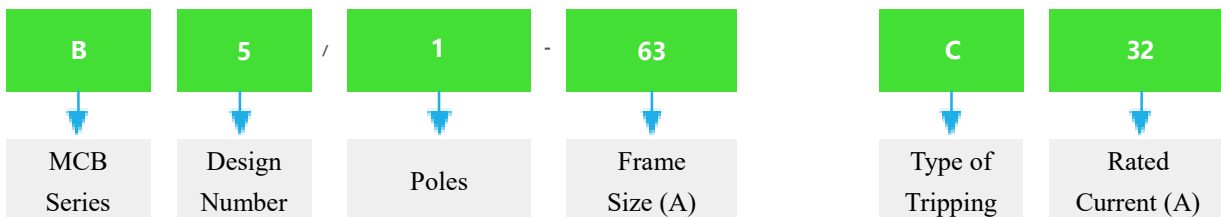
This series of products can play an important role in various scenarios. In residences, it provides reliable protection for household appliances. In commercial areas such as office areas and stores, it can prevent equipment overload and short circuits. In industry, it is used for small equipment and control circuits. In schools, hospitals, and other places, it ensures the safety of lighting and equipment power supply, and is a powerful power guardian in various scenarios.

**Main functions:** overload protection, short-circuit protection, isolation.

**Standards:** GB/T 10963.1.

**Certifications:** CCC, CE.

### Model Name .



## Technical Specifications、

Product Model		B5-63
Rated current $I_n$ (A)		1、 2、 3、 4、 5、 6、 10、 16、 20、 25、 32、 40、 50、 63
Rated voltage $U_e$ (V)		230V~(1P) , 400V~(2P、 3P、 4P)
Rated frequency (Hz)		50/60Hz
Number of Poles		1P, 2P, 3P, 4P
Mechanical life (times)		20000
Electrical life (times)		10000
Rated short-circuit breaking capacity $I_{cn}$ (A)		6kA
Operating short-circuit breaking capacity $I_{cs}$ (A)		6kA
Rated insulation voltage $U_i$ (V)		500V
Rated impulse withstand voltage $U_{imp}$ (kV)		6kV
Dielectric test voltage (V)		2000(50Hz、 1 minute )
Vibration resistance (IEC/EN 60068-2-6)		No significant vibrations and shocks
Reference temperature (°C )		30
Operating ambient temperature (°C)		-35~+70
Storage ambient temperature (°C )		-35~+85
Applicable altitude (m)		≤ 2000
Type of release		Electromagnetic release
Instantaneous type	B (3 $I_n$ ~5 $I_n$ )	
	C (5 $I_n$ ~10 $I_n$ )	
	D (10 $I_n$ ~16 $I_n$ )	
Pollution Rating		2
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# Miniature Circuit Breaker Series B3-125

## Product Overview



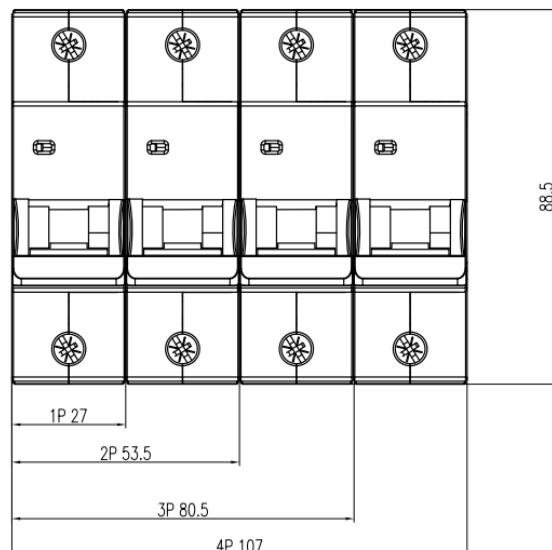
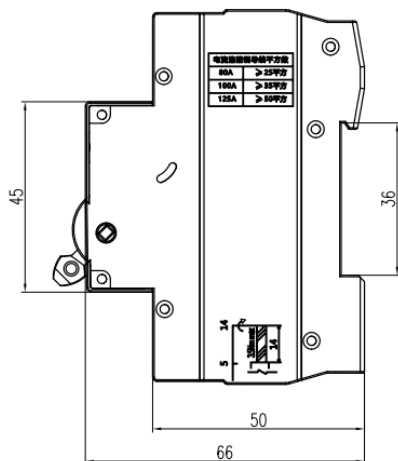
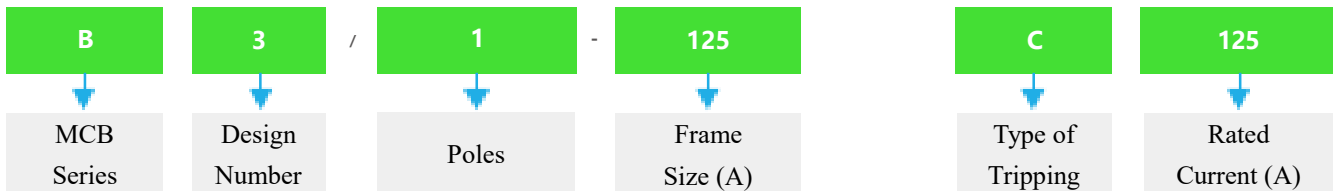
Suitable for lighting and socket circuits in residential premises to protect the safety of electricity in the home. In commercial places such as offices and shops, to provide circuit protection for all kinds of electrical equipment. Industrial areas can be used for small production equipment and control circuits. It is also widely used in schools, hospitals, data centers, etc., to ensure the stability and safety of electricity in various scenes.

**Main functions:** overload protection, short-circuit protection, isolation.

**Standards** GB/T14048.2, IEC60947-2

**Certifications:** CCC, CE.

### Model Name :



## Technical Specifications

Product Model		<b>B3-125</b>
Rated current $I_n$ (A)		63、 80、 100、 125
Rated voltage $U_e$ (V)		AC230V/400V(1P); AC400V(2P、 3P、 4P)
Rated frequency (Hz)		50/60Hz
Number of Poles		1P, 2P, 3P, 4P
Mechanical life (times)		20000
Electrical life (times)		10000
Rated short-circuit breaking capacity $I_{cn}$ (A)		4.5kA、 6kA
Operating short-circuit breaking capacity $I_{cs}$ (A)		4.5kA、 6kA
Rated insulation voltage $U_i$ (V)		500V
Rated impulse withstand voltage $U_{imp}$ (kV)		4kV
Dielectric test voltage (V)		2000(50Hz、 1 minute )
Vibration resistance (IEC/EN 60068-2-6)		No significant vibrations and shocks
Reference temperature (°C )		30
Operating ambient temperature (°C)		-35~+70
Storage ambient temperature (°C )		-35~+85
Applicable altitude (m)		≤ 2000
Type of disconnection		Electromagnetic release
Instantaneous type		
	C (5 $I_n$ ~10 $I_n$ )	
	D (10 $I_n$ ~16 $I_n$ )	
Pollution Rating		2
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# Leakage Circuit Breaker Series B3LE-63

## Product Overview



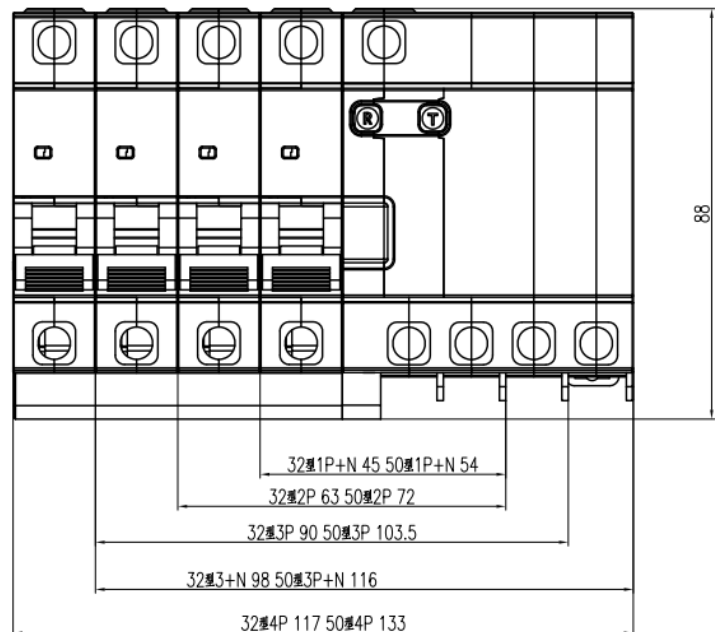
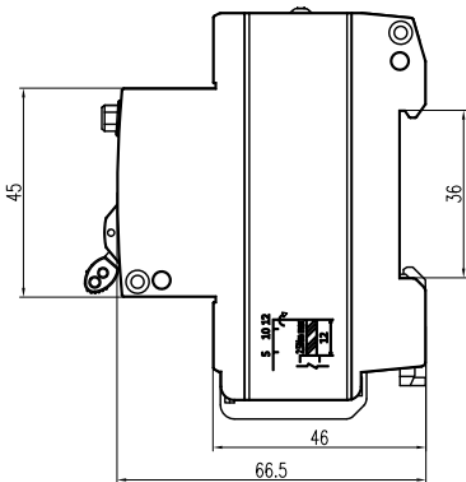
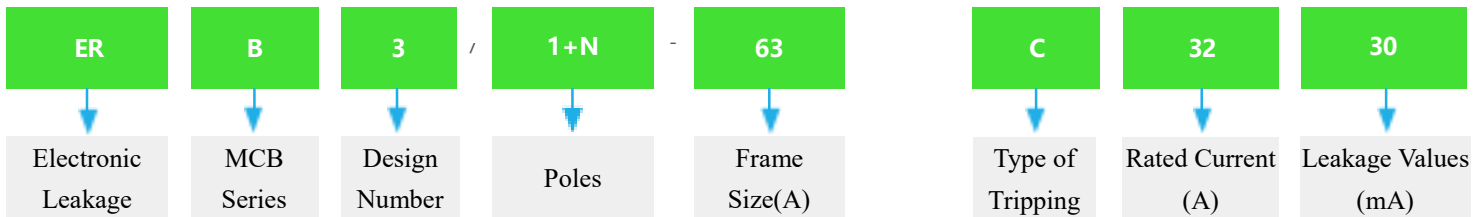
Suitable for AC 50/60Hz, rated 230/400V, rated current from 6 to 63A line, overload, short circuit and residual current protection, can also be used as the line of infrequent on and off under normal conditions.

**Main functions:** overload protection, short-circuit protection, leakage protection, isolation.

**Standards:** GB/T16917.1, IEC61009-1

**Certifications:** CCC, CE.

### Model Name :



## Technical Specifications

Product Model		B3LE-63
Rated current $I_n$ (A)		6A、10A、16A、20A、32A、40A、50A、63A
Rated voltage $U_e$ (V)		AC1P+N、2P:230V~ ; 3P、3P+N、4P:400V~
Rated frequency (Hz)		50/60Hz
Number of Poles		1P, 2P, 3P, 4P
Mechanical life (times)		20000
Electrical life (times)		10000
Rated short-circuit breaking capacity $I_{cn}$ (A)		4.5kA、6kA
Operating short-circuit breaking capacity $I_{cs}$ (A)		4.5kA、6kA
Rated insulation voltage $U_i$ (V)		500V
Rated impulse withstand voltage $U_{imp}$ (kV)		4kV
Rated residual action current $I_{\Delta n}$ (mA)		30mA、50mA、100mA、300mA
Rated residual action current Residual action type		AC Type, Electronic
Dielectric test voltage (V)		2000 (50Hz, 1 minute)
Vibration resistance (IEC/EN 60068-2-6)		No significant vibration and shock
Reference temperature (°C )		30
Operating ambient temperature (°C)		-35~+70
Storage ambient temperature (°C )		-35~+85
Applicable altitude (m)		≤ 2000
Type of disconnection		Electronic release
Instantaneous type		
	C (5 $I_n$ ~10 $I_n$ )	
	D (10 $I_n$ ~16 $I_n$ )	
Pollution Rating		2
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# Leakage Circuit Breaker Series B3LE-125



## Product Overview

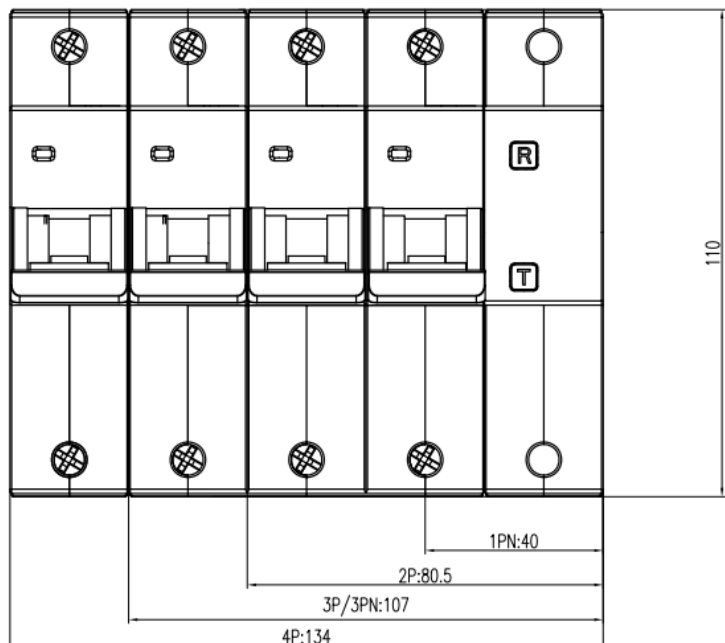
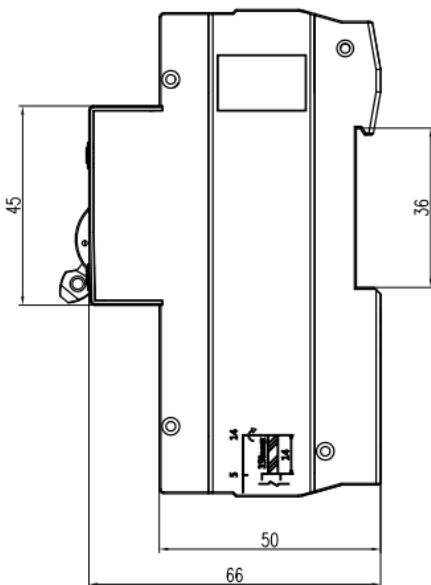
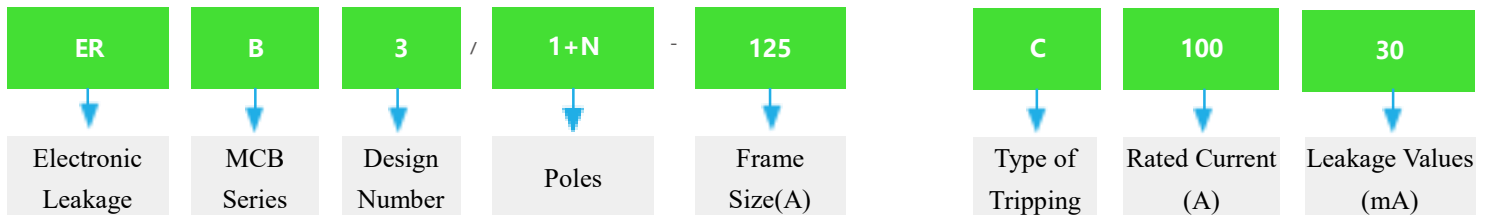
Suitable for AC 50/60Hz, rated 230/400V, rated current from 63 to 125A line, overload, short-circuit and residual current protection, can also be used as an infrequent line under normal conditions.

**Main functions:** overload protection, short-circuit protection, leakage protection, isolation.

**Standards:** GB/T14048.2, IEC60947-2

**Certifications:** CCC, CE.

### Model Name :



## Technical Specifications

Product Model		B3LE-125
Rated current $I_n$ (A)		63、80、100、125
Rated voltage $U_e$ (V)		AC1P+N、2P:230V~ ; 3P、3P+N、4P:400V~
Rated frequency (Hz)		50/60Hz
Number of Poles		1P, 2P, 3P, 4P
Mechanical life (times)		20000
Electrical life (times)		10000
Rated short-circuit breaking capacity $I_{cn}$ (A)		6kA、10kA
Operating short-circuit breaking capacity $I_{cs}$ (A)		6kA、10kA
Rated insulation voltage $U_i$ (V)		500V
Rated impulse withstand voltage $U_{imp}$ (kV)		4kV
Rated residual action current $I_{\Delta n}$ (mA)		30mA、50mA、100mA、300mA
Rated residual action current Residual action type		AC Type, Electronic
Dielectric test voltage (V)		2000 (50Hz, 1 minute)
Vibration resistance (IEC/EN 60068-2-6)		No significant vibration and shock
Reference temperature (°C )		30
Operating ambient temperature (°C)		-35~+70
Storage ambient temperature (°C )		-35~+85
Applicable altitude (m)		≤ 2000
Type of disconnection		Electronic release
Instantaneous type		
	C (5 $I_n$ ~10 $I_n$ )	
	D (10 $I_n$ ~16 $I_n$ )	
Pollution Rating		2
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# Leakage Circuit Breaker Series B5L

## Product Overview

Suitable for AC 50/60Hz, rated 230/400V, rated current from 1 to 63A line, overload, short-circuit and residual current protection, can also be used as the infrequent on-off of the line under normal conditions.

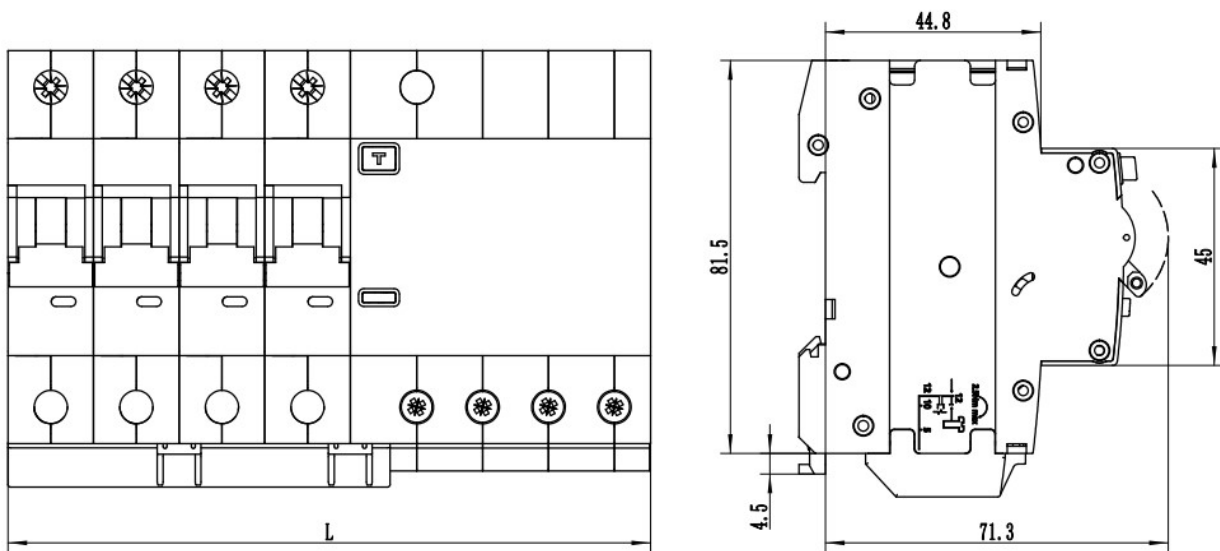
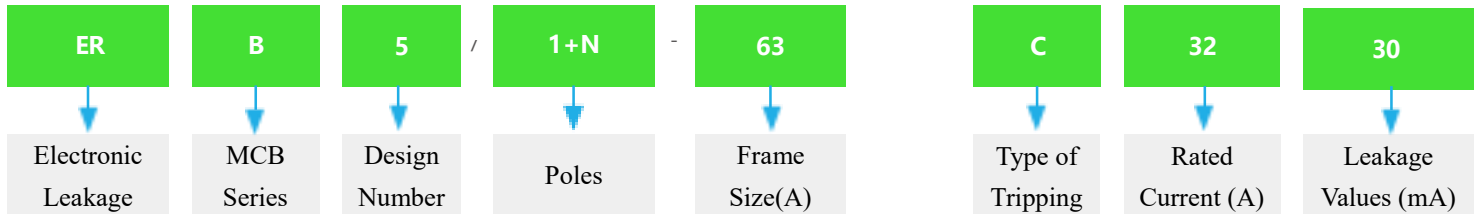


**Main functions:** overload protection, short-circuit protection, leakage protection, isolation.

**Standards:** GB/T 16917.1 and GB/T 22794 (B type)

**Certifications:** CCC, CE.

### Model Name :



## Technical Specifications

Product Model		B5L
Rated current $I_n$ (A)		1、 2、 3、 4、 5、 6、 10、 16、 20、 25、 32、 40、 50、 63
Rated voltage $U_e$ (V)		AC1P+N、 2P:230V~ ; 3P、 3P+N、 4P:400V~
Rated frequency (Hz)		50/60Hz
Number of Poles		1P, 2P, 3P, 4P
Mechanical life (times)		20000
Electrical life (times)		10000
Rated short-circuit breaking capacity $I_{cn}$ (A)		6kA
Operating short-circuit breaking capacity $I_{cs}$ (A)		6kA
Rated insulation voltage $U_i$ (V)		500V
Rated impulse withstand voltage $U_{imp}$ (kV)		6kV
Rated residual action current $I_{\Delta n}$ (mA)		30mA、 50mA、 100mA、 300mA
Rated residual action current Residual action type		AC Type / A Type / B Type, Electronic
Dielectric test voltage (V)		2000 (50Hz, 1 minute )
Vibration resistance (IEC/EN 60068-2-6)		No significant vibration and shock
Reference temperature (°C )		30
Operating ambient temperature (°C)		-35~+70
Storage ambient temperature (°C )		-35~+85
Altitude (m)		≤ 2000
Type of disconnection		Electronic release
Instantaneous type	B (3 $I_n$ ~5 $I_n$ )	
	C (5 $I_n$ ~10 $I_n$ )	
	D (10 $I_n$ ~16 $I_n$ )	
Pollution Rating		2
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# Leakage Circuit Breaker Series B5NL

## Product Overview



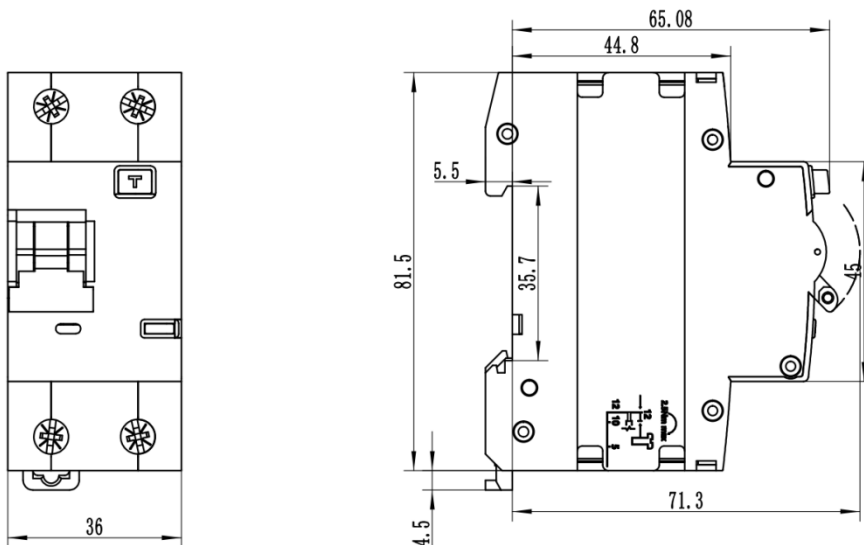
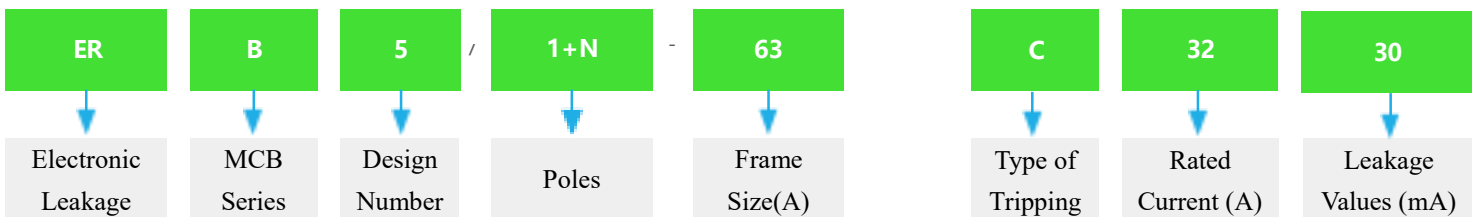
In the residence, it adds a safety defense for the daily use of electricity and prevents the danger caused by leakage of electricity from electrical appliances. In the office, to protect office equipment and personnel, to avoid leakage accidents. In small factories, to provide leakage protection for small machines to ensure safe production.

**Main functions:** overload protection, short-circuit protection, leakage protection, isolation.

**Standards:** GB/T 16917.1

**Certifications:** CCC, CE.

### Model Name :



## Technical Specifications

Product Model		B5NL
Rated current $I_n$ (A)		2、4、6、10、16、20、25、32、40、50、63
Rated voltage $U_e$ (V)		AC230V
Rated frequency (Hz)		50/60Hz
Number of Poles		1P+N、2P、3P、3P+N、4P
Mechanical life (times)		20000
Electrical life (times)		10000
Rated short-circuit breaking capacity $I_{cn}$ (A)		6kA
Operating short-circuit breaking capacity $I_{cs}$ (A)		6kA
Rated insulation voltage $U_i$ (V)		500V
Rated impulse withstand voltage $U_{imp}$ (kV)		6kV
Rated residual action current $I_{\Delta n}$ (mA)		30mA、50mA、100mA、300mA
Rated residual action current Residual action type		AC Type/A Type, Electronic
Dielectric test voltage (V)		2000 (50Hz, 1 minute )
Vibration resistance (IEC/EN 60068-2-6)		No significant vibration and shock
Reference temperature (°C )		30
Operating ambient temperature (°C)		-35~+70
Storage ambient temperature (°C )		-35~+85
Altitude (m)		≤ 2000
Type of disconnection		Electronic release
Instantaneous type	B (3 $I_n$ ~5 $I_n$ )	
	C (5 $I_n$ ~10 $I_n$ )	
	D (10 $I_n$ ~16 $I_n$ )	
Pollution Rating		2
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# MCCB Electronic Type - M2ESeries



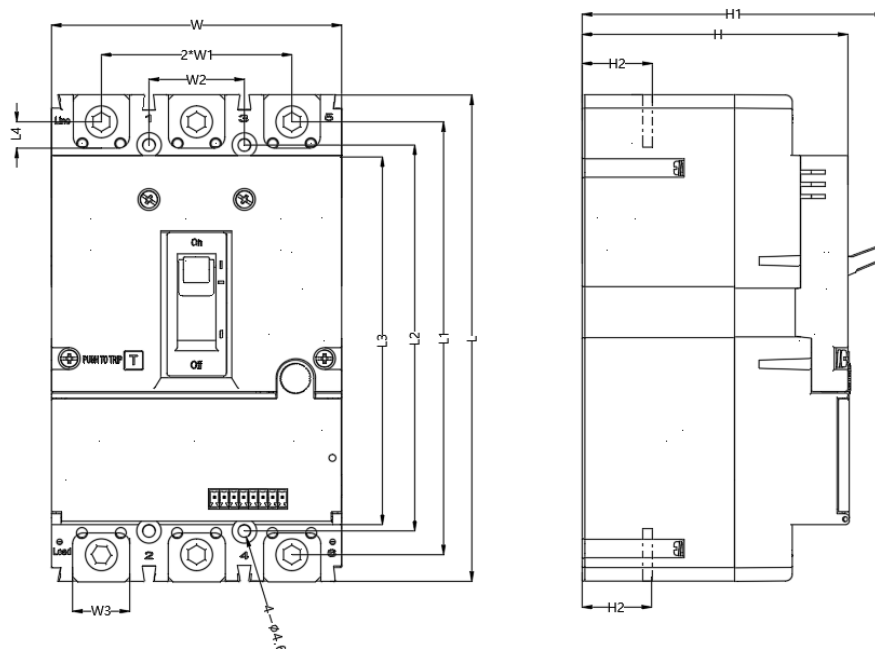
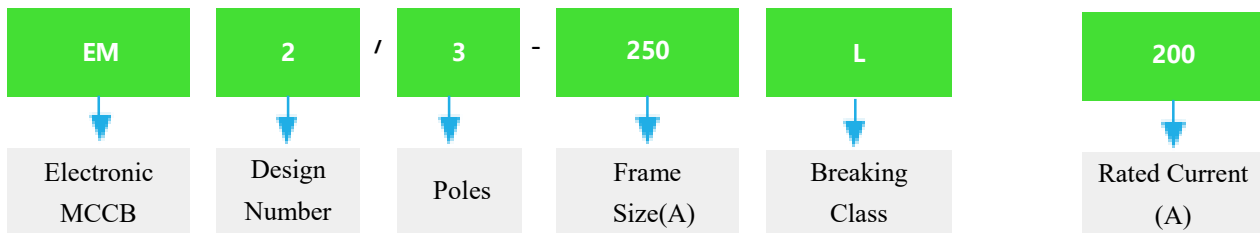
## Product Overview

Applicable to three-phase four-wire, neutral point directly grounded distribution network with AC 50Hz, shell current 250A (rated current 125A, 160A, 200A, 250A), rated insulation voltage 1000V, rated working voltage 400V.

**Main functions:** overload protection, short-circuit protection, over-voltage protection, under-voltage protection, etc.

**Certifications:** CE.

### Model Name :



## Technical Specifications

Product Model		M2E
Rated current (A)		125、160、200、250
Rated voltage Ue (V)		400V
Rated frequency (Hz)		50
Number of Poles		3P
Mechanical life (times)		8000
Electrical life (times)		2000
Rated ultimate short-circuit breaking capacity Icu(kA)		25
Rated operating short-circuit breaking capacity Ics(kA)		36
Rated insulation voltage Ui(V)		1000
Rated current of shell and frame Inm(A)		250
Vibration resistance		No significant vibration and shock
Base temperature (°C )		30
Operating ambient temperature (°C )		-35~+70
Storage ambient temperature (°C )		-35~+85
Applicable altitude (m)		≤ 2000
Disconnect Form		Electronic release
Inlet Mode		Up and down
Installation		Vertical mounting
Pollution level		3
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40
Composable accessories		Alarm Contacts Separate excitation disconnections Auxiliary contact Under voltage detent

# MCCB Thermal - Magnetic Type - M2 Series



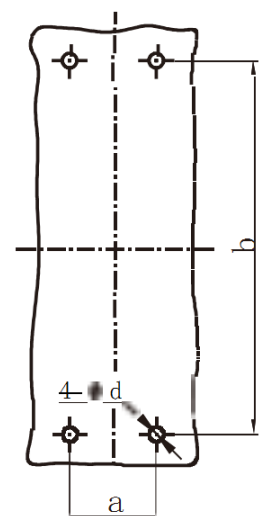
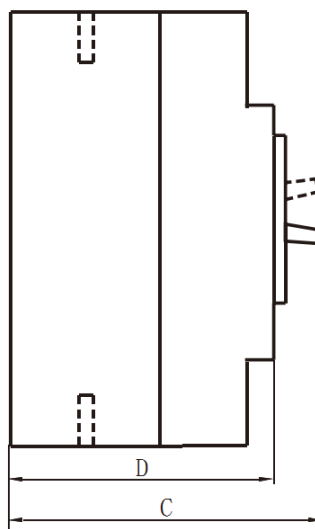
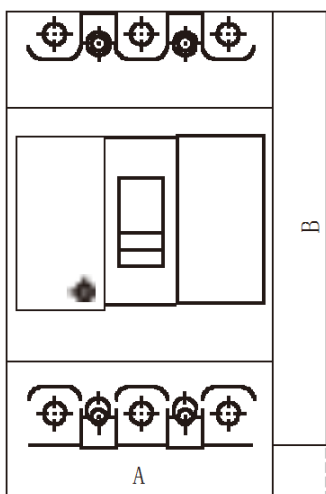
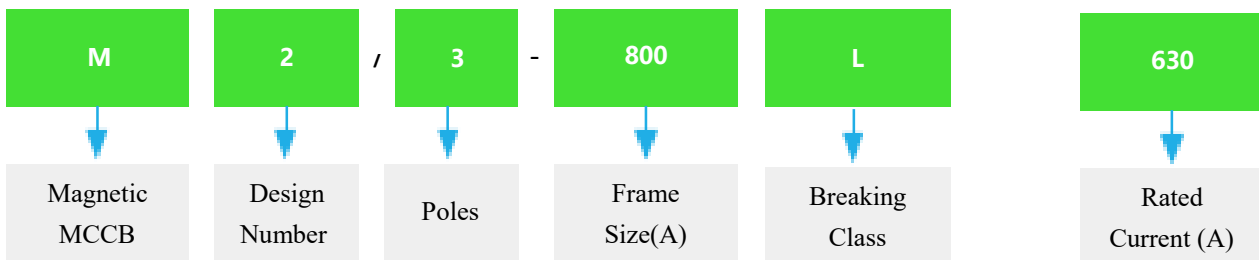
## Product Overview

Suitable for AC 50Hz, rated working voltage 400V, rated insulation voltage 800V, rated working current up to 800A for infrequent switching and infrequent starting of motor. The circuit breaker has overload, short-circuit and under-voltage protection functions, which can protect the line and power supply equipment from damage.

**Main functions:** short circuit, overload, over-under voltage and other protection functions.

**Certifications:** CE.

### Model Name :



## Technical Specifications

Product Model	M2
Rated current (A)	63、125、250、400、630、800
Rated voltage Ue (V)	400V
Rated frequency (Hz)	50
Number of Poles	3P
Mechanical life (times)	8000
Electrical life (times)	2000
Rated ultimate short-circuit breaking capacity Icu(kA)	36
Rated operating short-circuit breaking capacity Ics(kA)	25
Rated insulation voltage Ui(V)	1000
Dimension(mm)(L×W×H)	180×107×123
Vibration resistance	No significant vibration and shock
Base temperature (°C )	30
Operating ambient temperature (°C)	-35~+70
Storage ambient temperature (°C )	-35~+85
Applicable altitude (m)	≤ 2000
Tripping form	Thermal magnetic stripping
Wiring	Three Phase Four Wire
Installation	Vertical mounting
Pollution level	3
Protection grade	IP20
Composable accessories	Alarm Contacts Separate excitation disconnections Auxiliary contact Under voltage detent

# Isolation Switch - G5



## Product Overview

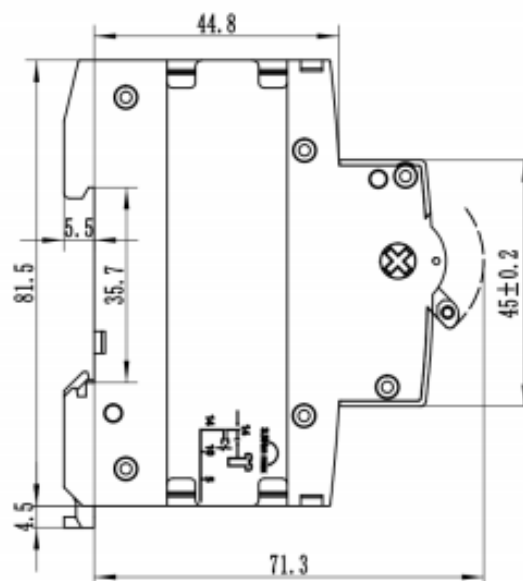
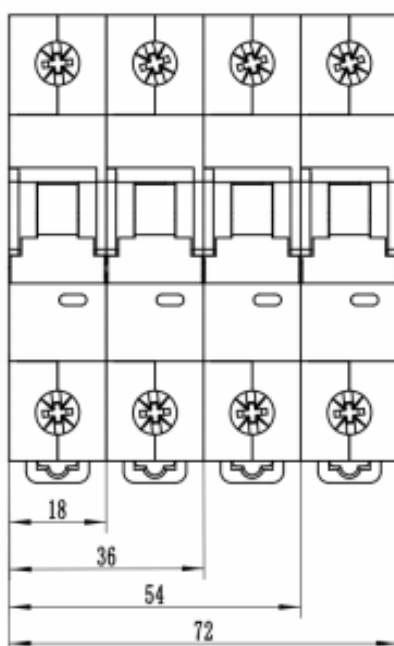
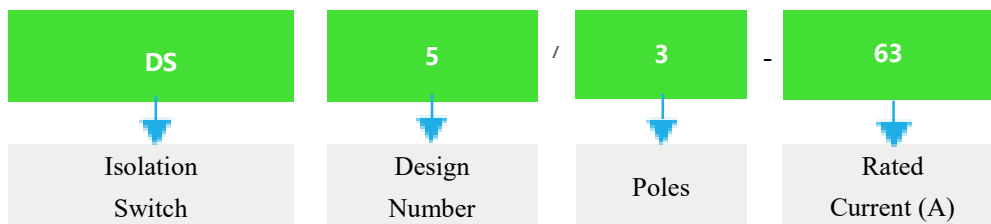
Suitable for AC 50/60Hz, rated voltage 230V/400V, rated current 16-125A in the line, for the voltage without the load in the case of connecting and disconnecting the circuit, for the line and the power supply connection or isolation. Widely used in industrial, commercial, high-rise and civil housing and other places.

**Main functions:** Isolation function

**Standards:** GB/T 14048.3

**Certifications:** CE.

**Model Name :**



## Technical Specifications

Product Model	G5
Rated current $I_n$ (A)	16、20、32、40、50、63、80、100、125
Rated voltage $U_e$ (V)	[AC 230V]-(1P、2P); [AC 400V]-(2P、3P、4P)
Rated frequency (Hz)	50/60
Number of poles	1P、2P、3P、4P
Operation cycle times without current (times)	15000
Number of operation cycles with current (times)	6000
Rated short-circuit connecting capacity $I_{cm}$ (A)	$20I_e/0.1s$
Rated short-time withstand current $I_{cw}$ (A)	$20I_e/1s$
Rated insulation voltage $U_e$ (V)	1000
Rated impulse withstand voltage $U_{imp}$ (kV)	6
Vibration resistance	No significant vibration and shock
Use category	AC-23A
Reference temperature (°C)	30
Operating ambient temperature (°C)	-35~+70
Storage ambient temperature (°C)	-35~+85
Applicable altitude (m)	$\leq 2000$
Wiring capacity (mm <sup>2</sup> )	$\leq 50$
Pollution Grade	2
Protection Grade	IP20

# SPD Surge Protective Device - C40



## Product Overview

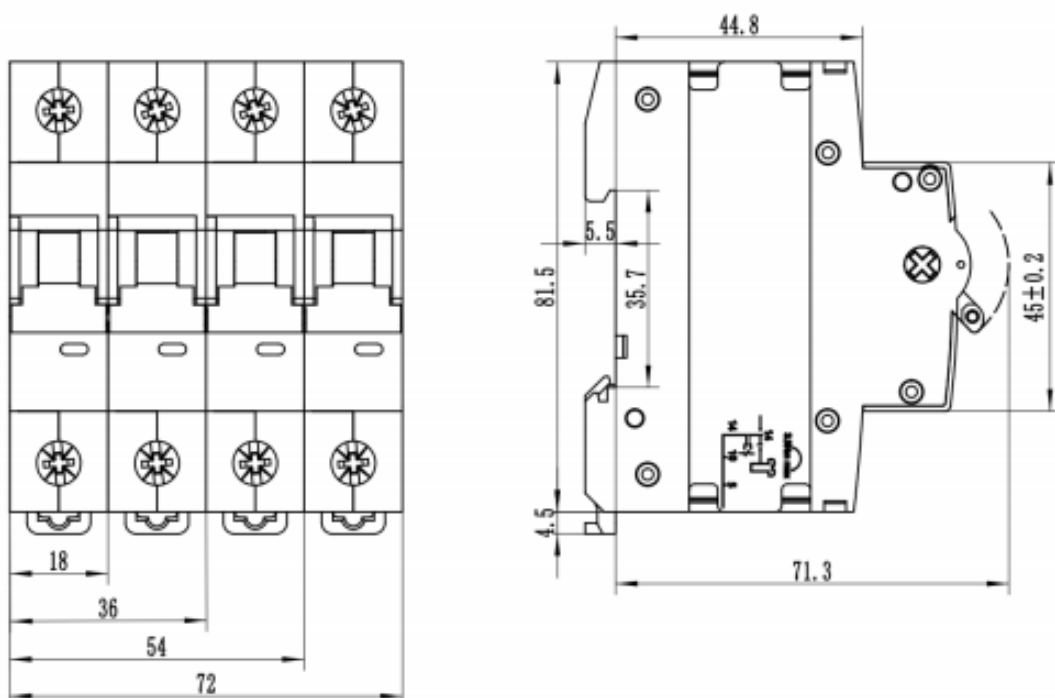
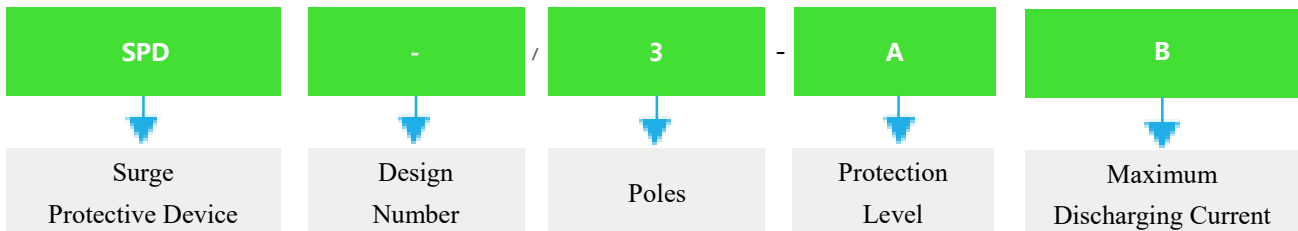
Suitable for AC 50/60HZ, rated voltage 230/400V three-phase power distribution system, to meet the SPD II test, the maximum discharge current of the II level protector to 40kA. inhibit direct lightning, induced lightning or other transient over-voltage, discharge surge energy, so as to protect the system circuit and load equipment. It has the advantages of class I and II protection, large discharge capacity, low residual

**Main functions:** lightning protection and power surge protection of the feeder cabinet

**Standards:** GB/T18802.1, IEC61643-11

**Certifications:** CCC, CE

### Model Name :



## Technical Specifications

Product Model	C40
Inrush current (10/350 $\mu$ s) $I_{imp}$ (kA)	12.5
Maximum discharge current (8/20 $\mu$ s) $I_{max}$ (kA)	40
Nominal discharge current (8/20 $\mu$ s) $I_n$ (kA)	20
Rated working voltage $U_n$ (V)	230/400
Voltage protection level $U_p$ (kV)	1.8
Maximum continuous operating voltage $U_c$ (V)	250/275 320/385 420/440
Operating ambient temperature ( $^{\circ}$ C)	-40~+85
Connection wire range (mm <sup>2</sup> )	2.5 ~ 25
Recommended connection wire (mm <sup>2</sup> )	Input wire : $\geq 6$ , Ground wire : $\geq 10$
Tightening torque (N-m)	2~3
Pluggable	No
Telecommunication function	Optional
Response time ns	<25

# Internet of Things Circuit Breaker B6Z-32DPN

## Product Overview



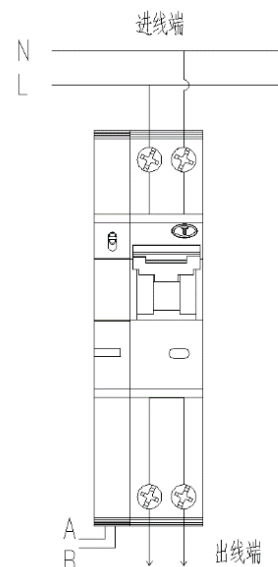
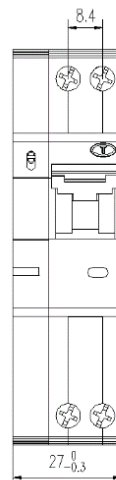
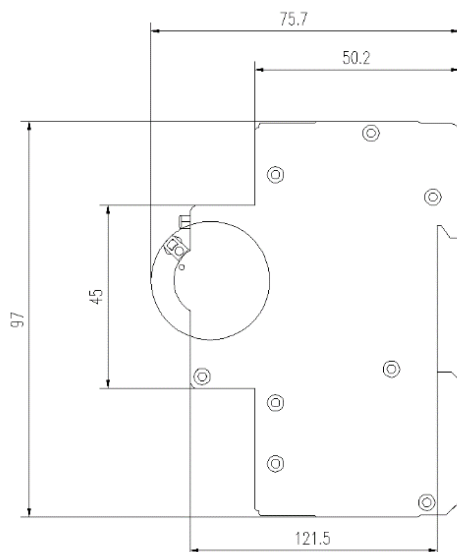
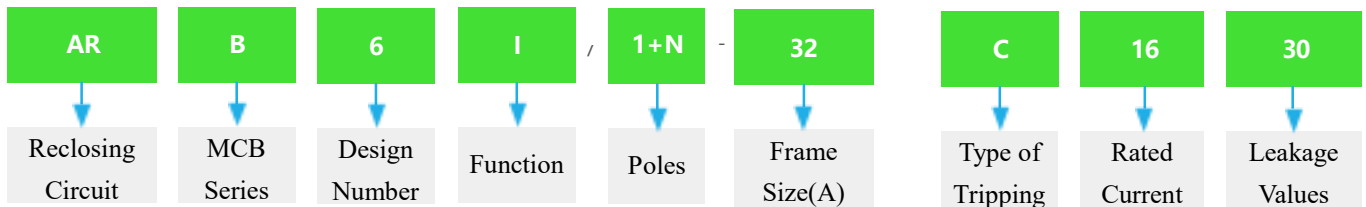
Used for AC 50Hz, rated voltage 230V, rated current up to 32A, the product has leakage, overload and short-circuit protection, as well as leakage current value, temperature, voltage, current, power and other monitoring functions. The circuit breaker is suitable for various places such as commercial, high-rise and civil housing, smart home, smart city, power energy efficiency management, and the need to remotely monitor the power quality and power consumption of terminal power distribution.

**Main functions:** overload protection, short circuit protection, leakage protection, isolation

**Standards:** GB/T 10963.1

**Certifications:** CCC, CE

### Model Name :



## Technical Specifications

Product Model		B6Z-32DPN
Rated current $I_n$ (A)		6~32
Rated voltage $U_e$ (V)		230V~(1P)
Rated frequency (Hz)		50Hz
Number of Poles		1P+N
Mechanical life (times)		10000
Rated impulse withstand voltage $U_{imp}$ (kV)		6kV
Dielectric test voltage (V)		2500(50Hz、 1 minute )
Vibration resistance (IEC/EN 60068-2-6)		No significant vibration and shock
Reference temperature (°C)		25
Operating ambient temperature (°C)		-25~+60
Storage ambient temperature (°C )		-35~+85
Altitude (m)		≤ 2000
Type of disconnection		Thermal magnetic detachment
Leakage current monitoring function		Leakage current measurement range of 1mA ~ 1000mA, measurement accuracy of not less than 3mA (range 1 ~ 200mA) and 2% (200mA ~ 1A)
Current monitoring function		Real-time detection No significant vibration and shock current in the line, accuracy of 0.1A
Voltage monitoring function		Real-time monitoring of the line voltage, the measurement range is 132V ~ 320V, the error is not more than 1%.
Temperature monitoring function		Internal temperature of MCU on the line board, with a measurement error of no more than 5 degrees. Measurement range of -20 ~ 120 degrees
Frequency monitoring function		Real-time monitoring of line frequency, range 20Hz~80Hz.
Active power monitoring function		Real-time monitoring of line active power
Total power monitoring function		Real-time monitoring of total line power (single-phase)
Pollution level		2
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# Circuit Breaker Externally Electric Energy Meter FAR6-100W

## Product Overview



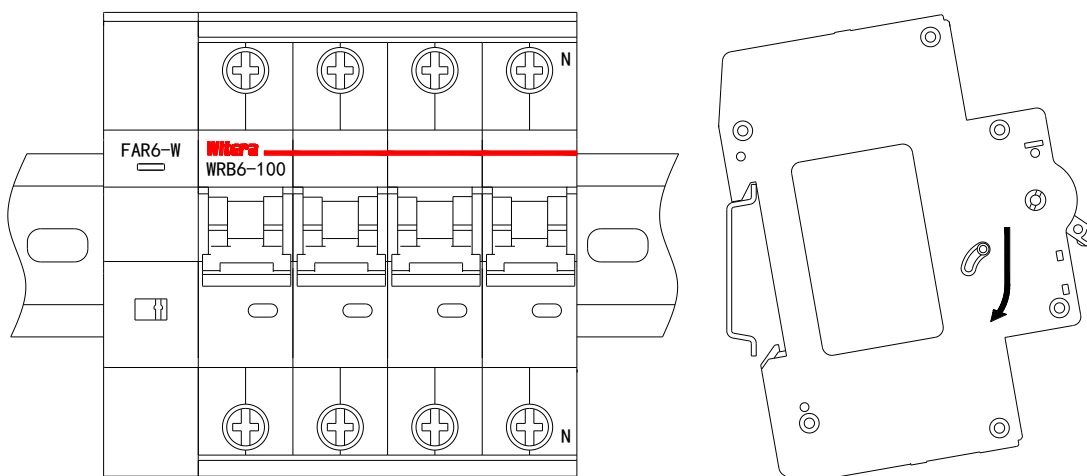
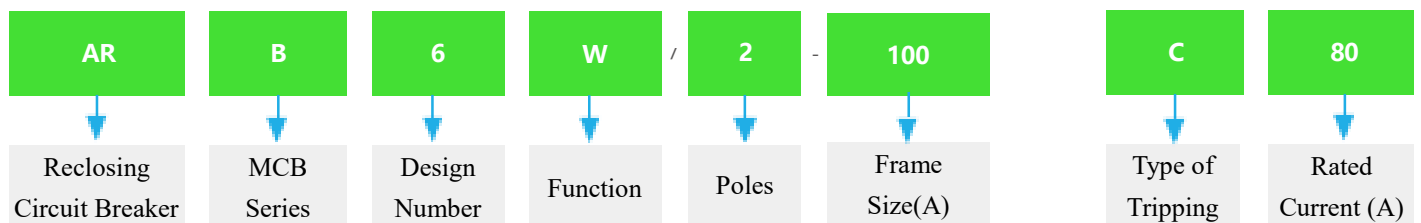
Automatic control of connecting or disconnecting the load through the detection of the meter control signal, realizing the automatic control of underpayment breaking and paid closing. It meets the standard requirements of Q/GDW11421-2015 Technical Specification for External Circuit Breakers for Electricity Meters of the State Grid, Technical Specification for External Circuit Breakers for Fee-Controlled Electricity Meters of the Southern Grid, and GB/T10963.1 Standard Requirements for Overcurrent Protection Circuit Breakers for Households and Similar Places.

**Main functions:** overload protection, short circuit protection, to ensure accurate power measurement, to prevent the impact of power supply due to faults

**Standards:** Q/GDW11421-2015, GB/T10963.1

**Certifications:** CCC, CE

### Model Name :



## Technical Specifications

Product Model		AR6-100W
Rated current $I_n$ (A)		20、25、32、40、50、63、80、100
Rated voltage $U_e$ (V)		1P/1P+N/2P 230V ; 3P/3P+N/4P 400V
Rated frequency (Hz)		50Hz
Number of Poles		1P/1P+N/2P; 3P/3P+N/4P
Mechanical life (times)		10000
Electrical life (times)		6000
Rated short-circuit breaking capacity $I_{cn}$ (A)		6kA
Operating short-circuit breaking capacity $I_{cs}$ (A)		6kA
Rated insulation voltage $U_i$ (V)		500V
Rated impulse withstand voltage $U_{imp}$ (kV)		6kV
Dielectric test voltage (V)		2000(50Hz、1 minute )
Vibration resistance (IEC/EN 60068-2-6)		No significant vibration and shock
Reference temperature (°C )		30
Operating ambient temperature (°C)		-25~+60
Storage ambient temperature (°C )		-35~+85
Altitude (m)		≤ 2000
Type of release		C (5 $I_n$ ~10 $I_n$ )
Basic action process		In the automatic state, a fee-controlled signal of 220V is detected, driving the switch to close. When 0V is detected for the charge control signal, the switch is driven to open.
Manual/Automatic operation		Dial [Manual/Auto] to auto mode, the switch will be closed automatically after resuming the payment of charges after tripping the gate in arrears, and it will not be closed automatically after tripping other faults.
		Dial [Manual/Auto] to manual mode, restoration of payment after delinquent tripping, will not close the gate automatically, and will not close the gate automatically after other fault trips.
Pollution level		2
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# Photovoltaic Grid-Connected Circuit Breaker FAR6-GD100

## Product Overview



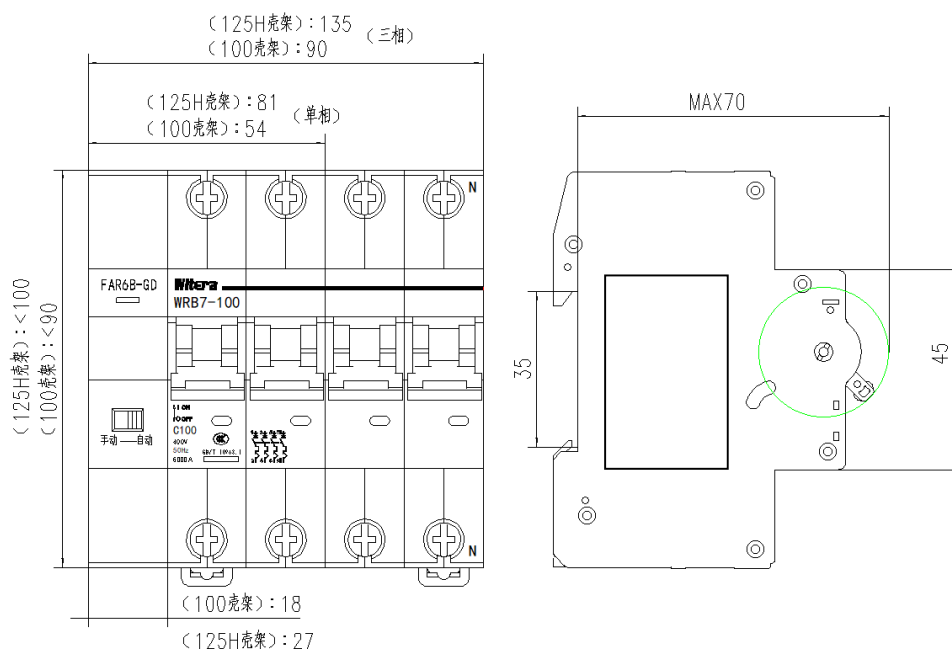
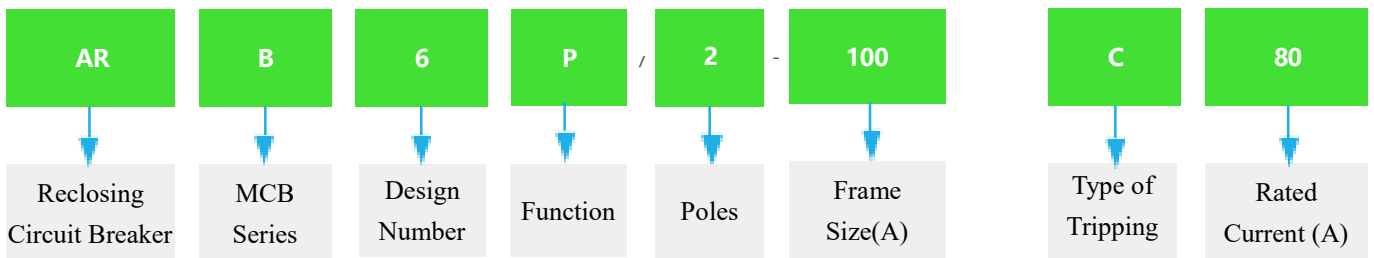
This series of products has a small size, high breaking, reliable action, stable performance and good human-machine interface, with simple installation, with the over-voltage and loss of voltage protection to achieve islanding protection, when the main power grid recovery automatically grid-connected.

**Main functions:** overload protection, short circuit protection, over-voltage, under-voltage and islanding protection

**Standards:** GB/T 14048.2-2020; Q/GDW 1972 -2013

**Certifications:** CCC, CE

### Model Name :



## Technical Specifications

Product Model		FAR6-GD100
Rated current $I_n$ (A)		20、25、32、40、50、63、80、100
Rated voltage $U_e$ (V)		1P+N/2P 230V; 3P+N/4P 400V
Rated frequency (Hz)		50Hz
Number of Poles		1P/1P+N/2P; 3P/3P+N/4P
Mechanical life (times)		10000
Rated short circuit breaking capacity $I_{cn}$ (A)		6kA
Rated insulation voltage $U_i$ (V)		500V
Rated impulse withstand voltage $U_{imp}$ (kV)		4kV
Dielectric test voltage (V)		2500(50Hz、1 分钟 )
Vibration resistance (IEC/EN 60068-2-6)		No significant vibration and shock
Reference temperature (°C )		30
Operating ambient temperature (°C)		-25~+60
Storage ambient temperature (°C )		-35~+85
Altitude (m)		≤ 2000
Type of release		C (5 $I_n$ ~10 $I_n$ )
Overvoltage action value (A-phase voltage)		> 300V±10V
Overvoltage delay time:		0-10s (internally settable default 3s)
Overvoltage recovery value:		<280V±10V
Under voltage action value (A-phase voltage):		< 160V±10V
Loss of voltage, undervoltage delay time:		0-10s (internally settable default 5s)
Under voltage recovery value:		0-10s (internally settable default 3s)
Closing delay time:		10s
Pollution level		2
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# Remote Control Circuit Breaker FRC6-M100

## Product Overview

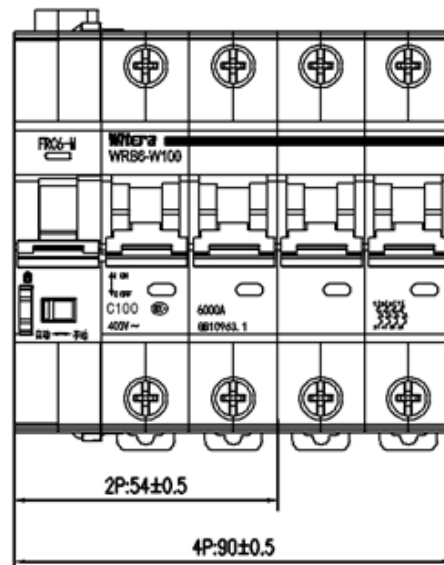
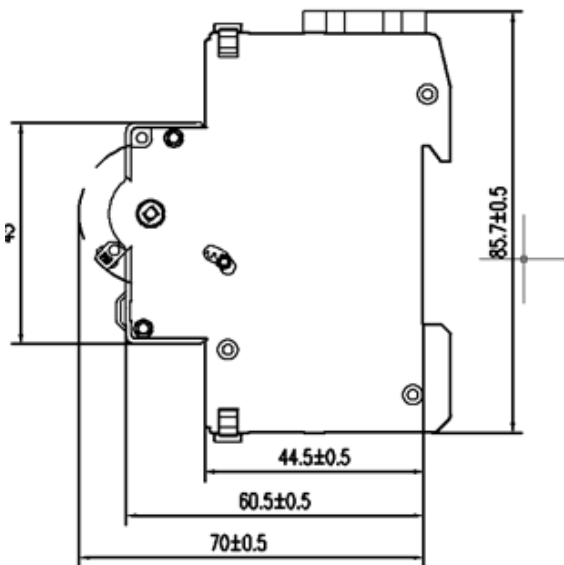
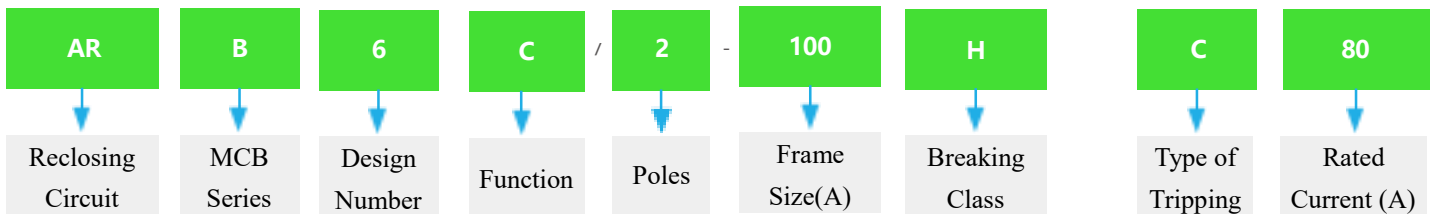


With small size, fast closing speed, reliable action, internal shaft drive, good synchronization between switching and closing, reliable service life and working characteristics; with reliable time delay and false action protection function.

**Main functions:** overload protection, short circuit protection, over-voltage, under-voltage and islanding protection

**Certifications:** CCC, CE

### Model Name :



## Technical Specifications

Product Model	FRC6-M100
Rated operating voltage (Uc):	230V: AC230/DC220
	110V: AC/DC110
	DC48V
	DC24V
	DC12V
Dielectric strength.	2500VAC 1minute
Withstanding pressure level (Uimp).	4KV
Mechanical life:	10000 times, 3 times/minute
Motion time:	Breaking $\leq 0.2s$ , closing $\leq 0.5s$ (excluding delay)
Protection level:	IP20
Operating Temperature:	-25°C~60°C
Air relative humidity:	$\leq 95\%$ (55°C)
Action process	Remote control, able to open and close the gate from a distance
Manual/automatic operation:	Dial [manual/automatic] to automatic mode, can be remote control
	Dial [manual/automatic] to manual mode, can manually open or close the gate, will not be automatic action
Safety padlock:	The product can be padlocked in the state of opening the gate, the locking diameter $\Phi 4mm$ , the product will not be able to close the gate after padlocking.
Communication (if this function is available):	Standard RS485 communication interface, remote control can be achieved, can be carried out from a distance to open and close the gate and query the operation status and other intelligent management (such as this function)
Indicator light:	Indicator light on: normal operation
	Indicator light is off: no power or [manual/automatic] switch is in manual state.

# Photovoltaic Grid-Connected Multifunctional Circuit Breaker M2L

## Product Overview



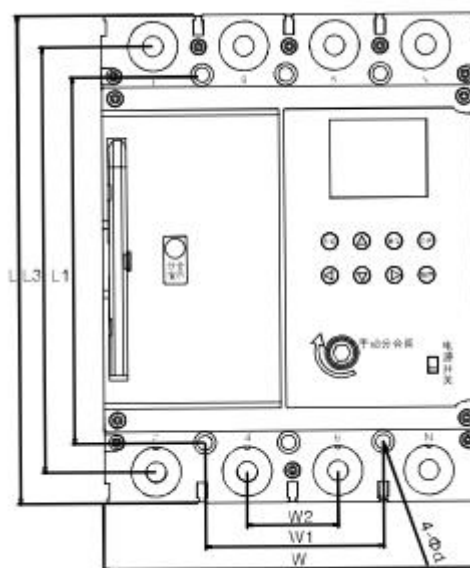
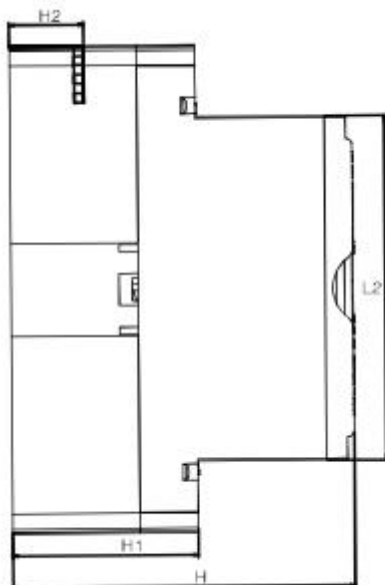
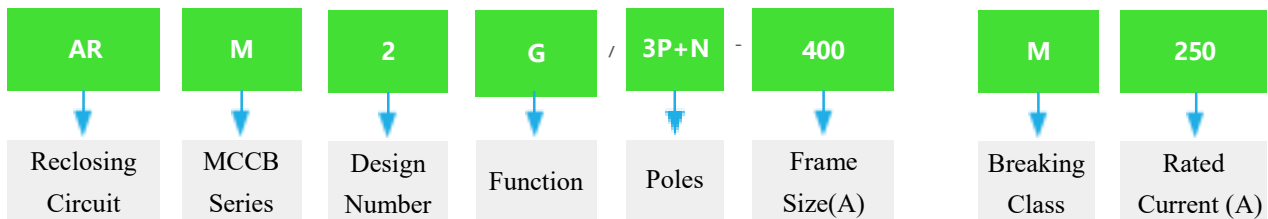
Apply to AC 50Hz, rated current to 800A line, mainly with the photovoltaic system supporting the use of the solution to the incoming voltage automatic closing, blackout loss of voltage automatic breaking function, self-test and self-test and can be overload and short circuit protection of power supply lines.

**Main functions:** over-voltage, under-voltage, phase loss protection; electronic overload, short-circuit short delay and instantaneous and other protective functions

**Standards:** GB/T 14048.2-2020; Q/GDW 1972-2013

**Certifications:** CCC, CE

### Model Name :



## Technical Specifications

Product Model		M2L
Rated current $I_n$ (A)		0.4-1.01mm(A) continuously adjustable
Rated voltage $U_e$ (V)		1P+N/2P 230V; 3P+N/4P 400V
Rated frequency (Hz)		50Hz
Delayed reclosing time (S)		20-60
Number of poles		3P+N
Over-voltage operating value(V)		Default 275±5% (user adjustable)
Under voltage value(V)		Default 165±6% (user adjustable)
Phase failure value(V)		Default 120+5% (user adjustable)
Action Classification Characteristics		AC
Product use category		B 类
Reference temperature (°C)		30
Working Ambient Temperature (°C)		-25~+60
Storage ambient temperature (°C)		-35~+85
Applicable altitude (m)		≤ 2000
Pollution level		3
Protection Class	Direct Installation	IP20
	Installation in Distribution Box	IP40

# Circuit Breaker Externally Electric Energy Meter for Molded Case M2L

## Product Overview

Applicable to the State Grid, South Grid power consumption information collection management, according to the balance of the user's electricity account, the prepaid energy meter to implement the control of opening and closing circuit breakers.

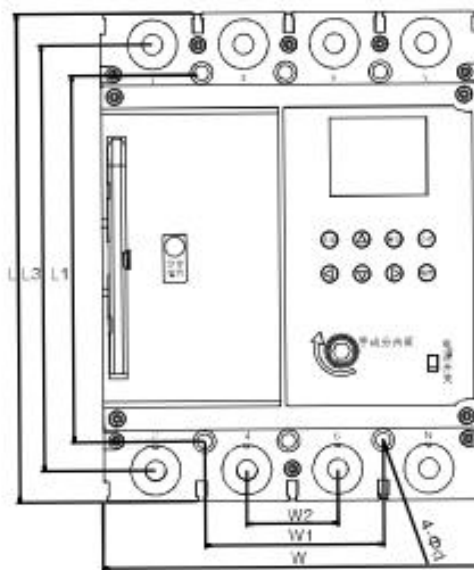
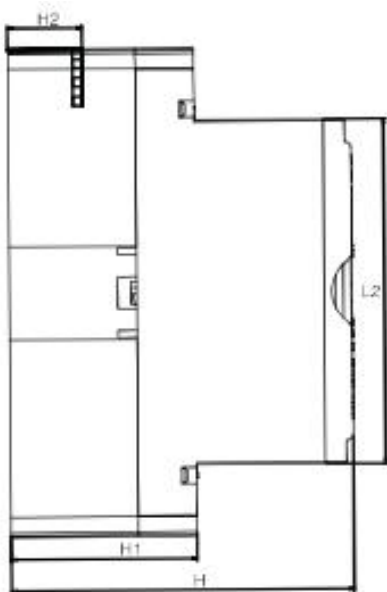
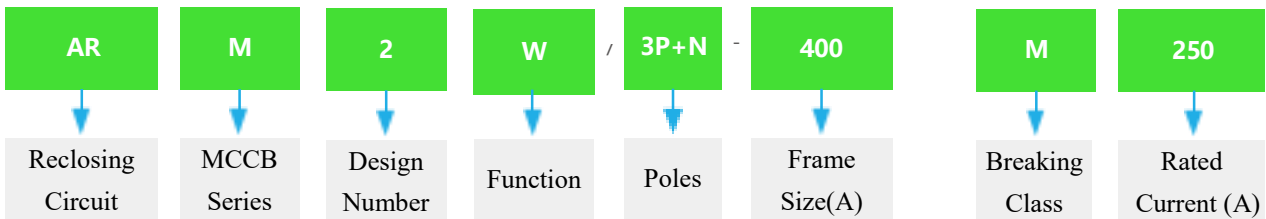
**Main functions:** over-voltage, under-voltage, phase loss protection, electronic overload, short-circuit short delay and instantaneous and other protection functions

**Standards:** GB14048.1-2012, GB14048.2-2008

**Certifications:** CCC, CE



### Model Name :



## Technical Specifications

Product Model	M2L
Rated current $I_n$ (A)	0.4-1.01mm(A) continuously adjustable
Rated current of shell and frame $I_{nm}$ (A)	250, 400, 630
Delay reclosing time(S)	20-60
Number of poles	3P+N
Over-voltage action value(V)	Default 275±5% (user adjustable)
Under voltage action value(V)	Default 165±6% (user adjustable)
Phase failure value(V)	Default 120+5%(user adjustable)
Product use category	Class B
Ambient temperature	-5°C~+55°C
Altitude	Not more than 2000 metres
Pollution level	Class 3
Installation category	III
Classification of action characteristics	AC

# Electromagnetic Molded Case Leakage Circuit Breaker M2L



## Product Overview

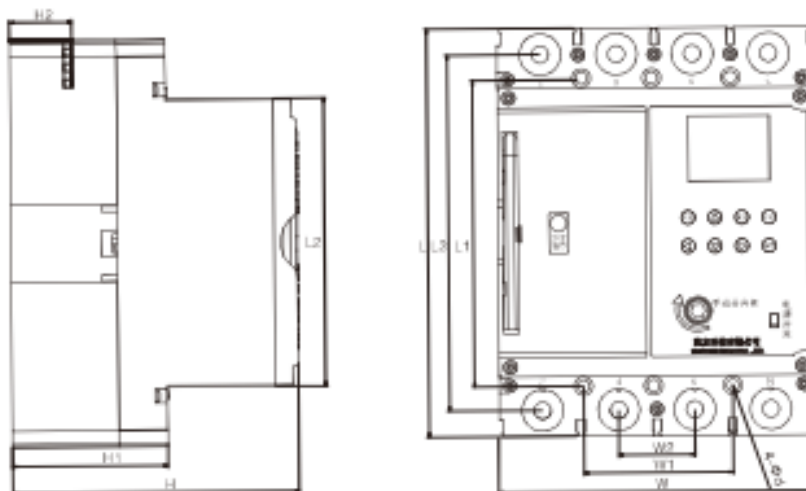
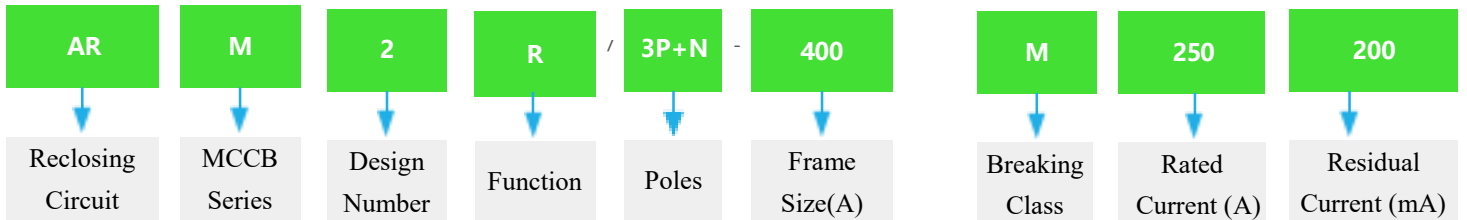
Suitable for three-phase four-wire neutral point directly grounded (TT) of the low-voltage grid system, used for the line or electrical equipment ground fault, overcurrent, short-circuit, over-voltage, under-voltage, power outage automatic tripping and phase failure, etc. for protection, but also to provide indirect contact protection for the risk of personal electric shock.

**Main functions:** overload, protection, over-voltage, under-voltage, power failure automatic trip and phase failure and other protection

**Standards:** GB14048.2

**Certifications:** CCC, CE

### Model Name :



## Technical Specifications

Product Model	M2L
Shell frame class Rated current $I_{nm}(A)$	Can be customized on request
Rated current $I_n(A)$	0.4-1.01mm(A) continuously adjustable
Rated voltage $U_e(V)$	400V
Rated frequency (Hz)	50/60Hz
Number of Poles	3P+N
Auxiliary supply voltage $U_e(AC V)$	400
Rated residual operating current $I_{\Delta n}(mA)$	50-800mA
Rated residual inoperative current (mA)	$I_{\Delta n}(mA)=50\%I_{\Delta n}$
Rated residual short-circuit switching (breaking) capacity	25% $I_{cu}$
Delayed reclosing time (s)	20-60
Classification of action characteristics	AC Type
Product use category	Type B

# Electronic Molded Case Leakage Circuit Breaker M2EL

## Product Overview



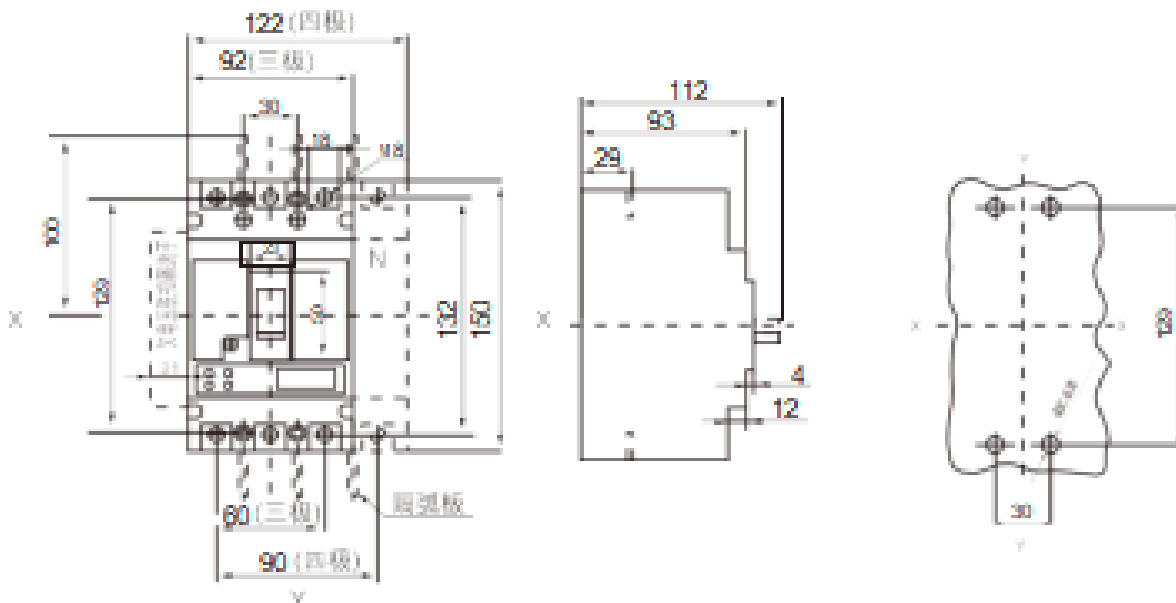
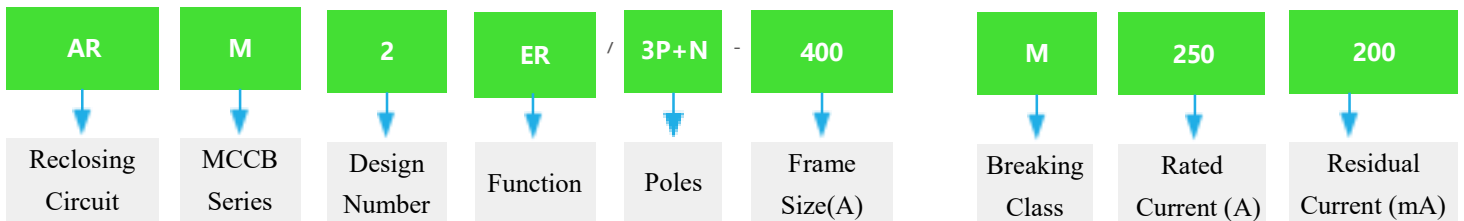
Suitable for three-phase four-wire neutral point direct grounding (TT) of the low-voltage power grid system, used for the line or power equipment ground fault, overcurrent, short-circuit, over-voltage, under-voltage, power outage automatic tripping and phase failure, etc., and can also be used to provide indirect contact protection of the risk of electric shock to the person.

**Main functions:** overload, short circuit, over-voltage, under-voltage, phase failure, leakage and other multiple protection

**Standards:** GB14048.2

**Certifications:** CCC, CE

### Model Name :



## Technical Specification

Product Model	M2EL
Rated current $I_n$ (A)	32, 63, 100, 225, 400, 630, 800
Rated voltage $U_e$ (V)	400V
Rated frequency (Hz)	50/60Hz
Number of Poles	3P+N
Auxiliary supply voltage $U_e$ (AC V)	400
Rated residual operating current $I_{\Delta n}$ (mA)	50-800mA
Rated residual inoperative current (mA)	$I_{\Delta n}$ (mA)=50% $I_{\Delta n}$
Rated residual short-circuit switching (breaking) capacity	25% $I_{cu}$
Delayed reclosing time (s)	20-60
Classification of action characteristics	AC Type
Product use category	Type B
Rated current $I_n$ (A)	0.4-1.01mm(A) continuously adjustable
Rated voltage $U_e$ (V)	400V