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AceReare

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MCCB PRODUCTS CATALOGUE



Since
2015

ARM3系列塑壳断路器

ARM3 SERIES MOULDED CASE CIRCUIT BREAKER

AceReare 瑞睿电气

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Company Profile

Company Profile of AceReare Electric

7,000+

Covering an area of
more than 7000m²

12,000

The standardized workshop
covers an area of 12000m²

300+

With more than 300 employees

HIGH QUALITY OF MCCB MANUFACTURER





RUIRUI Electric (Zhejiang) Co., Ltd
HIGH QUALITY OF MCCB MANUFACTURER

Company Profile

1、Introduction of Acereare

"Acereare" founded in 2015, head quartered in Yueqing Wenzhou, the city of electrical appliances in China. It is a modern manufacturing company which both with trading and factory, researching and development design. The company both has "Kerui" and "Ruirui" two wholly-owned company. It has established strategic cooperation realationships with nearly 100 high-end customer's at home and abroad. Its products are selling around the China and exported to more than 20 countries and reagions around the world.

2、Main products

The company's products cover: ACB, thermomagnetic MCCB, electronic MCCB, Residual Current Circuit breaker, Photovoltaic and wind energy molded case circuit breakers, double-break molded case circuit breakers and vavious parts and components.





Cultural Concept



Mission

Provide safe and reliable electrical switches and parts for users all over the world



Core Values

Customer satisfaction, good quality, integrity and law-abiding, sustainable operation



Vision

Become a domestic first-class and world famous electric products manufacturer



Management Idea

Put customer needs first

Company Profile

Development history

● 2015

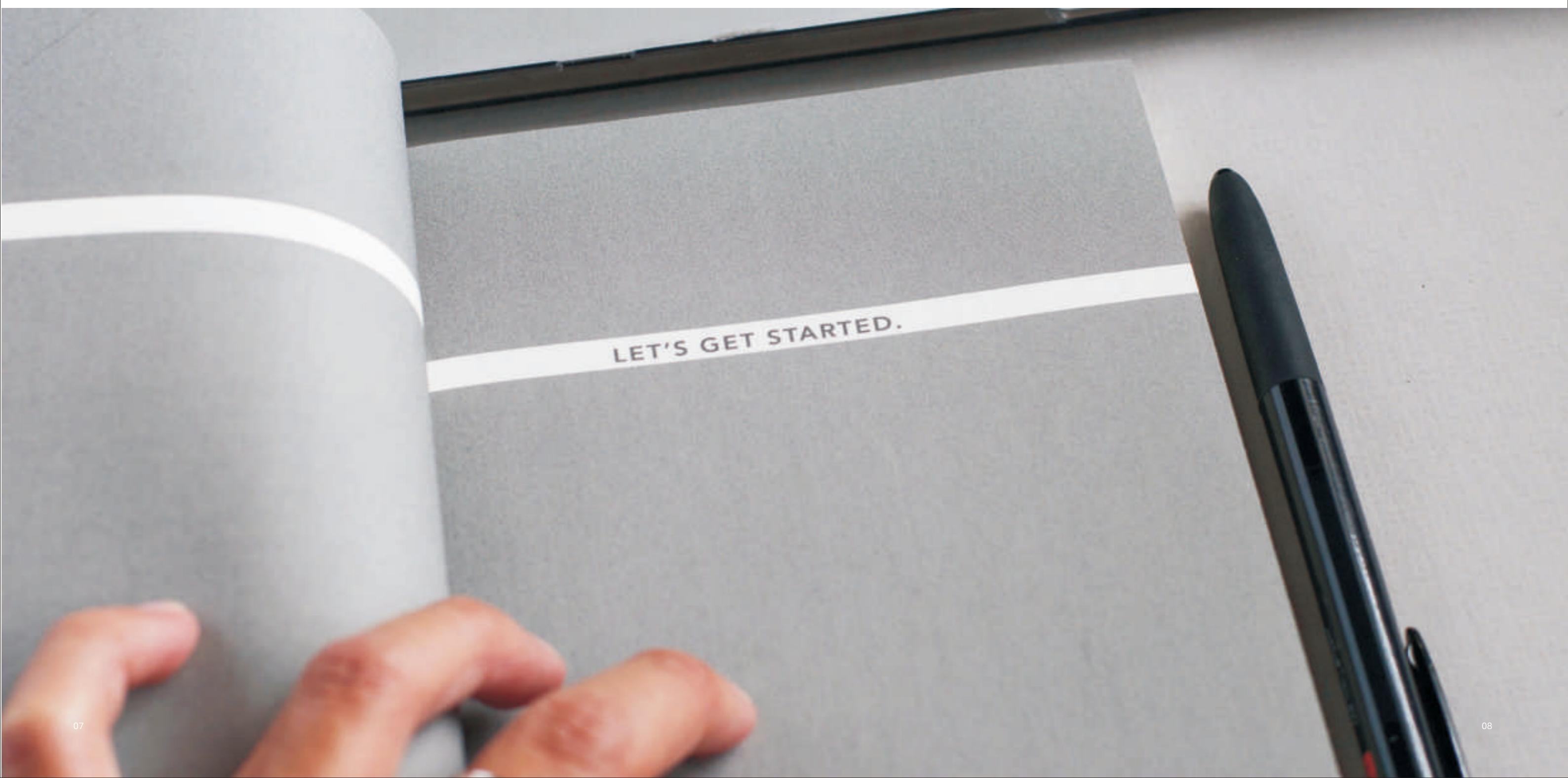
- Company founded
- Established an independent R&D team
- Obtained various certificates of products

● 2016-2018

- Industrialization of mold design and processing
- Set up a comprehensive product laboratory
- Put into automatic production line

● 2019-2022..

- Built an information data center
- Focusing on informatization, promoting automation process
- Focusing on informatization, promoting management process



ARM3 ARXM3 ARM3E ARM3L

Series Molded Case Circuit Breaker



ARM3 Series Molded Case Circuit Breaker	ARXM3 Series Molded Case Circuit Breaker	ARM3E Series Electronic Molded Case Circuit Breaker	ARM3L Series Residual Current Molded Case Circuit Breaker
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Product series overview

Model	Rated Current	Release
ARM3	10A,16A,20A,25A,32A,40A,50A,63A,80A,100A,125A, 160A, 250A, 400A, 500A,630A, 700A,800A,	Thermal-magnetic
ARXM3	10A,16A,20A,25A,32A,40A,50A,63A,80A,100A,125A, 160A, 250A, 400A, 500A,630A, 700A,800A,	Thermal-magnetic
ARM3E	10A,,16A,20A,25A,32A,40A,50A,63A,80A,100A,125A, 160A, 250A, 400A, 500A,630A, 700A,800A,	Microprocessor
ARM3L	10A,,16A,20A,25A,32A,40A,50A,63A,80A,100A,125A, 160A, 250A, 400A, 500A,630A, 700A,800A,	Electronic Earth leakage

Product related information

- According to the rated ultimate short-circuit breaking capacity(Icu), the circuit breakers are classified into five levels: C type (economic), S type (Basic), L type (standard), M type (medium breaking) and H type (high breaking).
- The breaking capacity levels of ARXM3 circuit breaker are C,S, L, M, and the breaking capacity level of ARM3E circuit breaker is M,H which can be reversed when used in AC400V power distribution system.
- The whole series of circuit breakers can be installed horizontally (transversely), vertically (upright) and flat.
- All series of circuit breakers have isolation function, and their corresponding symbols are: ——/—/—
- For the L/M/H type of ARXM3-125 and 250,ARM3-125 and 250, the L/M/H type of ARXM3-400 and 630, ARM-400 and 630, and the M/H type of ARXM3-800 and ARM3-800. When the above specifications are four poles, the circuit breakers with neutral pole types A and B can have a unique function of "overload alarm without tripping" to ensure power supply continuity, and it meets the requirements of clause 6.3.6 of GB50054.

The circuit breaker shall comply with the following standards:

IEC60947-1 and GB/T14048.1 Low-voltage switchgear and controlgear-Part 1: General rules

IEC60947-2 and GB/T14048.2 Low-voltage switchgear and controlgear-Part 2: Circuit breakers

IEC60947-4-1 and GB/T14048.4 Low-voltage switchgear and controlgear-Part 4-1: Contactors and motor-starters-

Correct use and installation conditions

- The ambient air temperature is -5 °C~+40°C;
- The altitude of the installation site shall not exceed 2000m;
- The relative humidity of the air at the installation site shall not exceed 50% when the maximum temperature is+40°C, and there can be a higher relative humidity at a lower temperature, such as 90% at 20°C. Special measures shall be taken for occasional condensation due to temperature change;
- The pollution level is 3;
- The circuit breaker shall pass the GB/T2423.10 test and be able to withstand mechanical vibration with frequency of 2Hz~13.2Hz, displacement of ± 1mm, frequency of 13.2Hz~100Hz and acceleration of ± 0.7g;
- The installation type of the main circuit of the circuit breaker is III, and the installation type of other auxiliary circuits and control circuits is II;
- The circuit breaker is applicable to electromagnetic environment A;
- The humid tropics type (TH type) circuit breaker passes the test requirements of GB/T2423.4 and GB/T2423.18, and can withstand the influence of humid air, salt mist, oil mist and mold;
- The circuit breaker shall be installed in a place where there is no explosion hazard, conductive dust, metal corrosion and insulation damage;
- The circuit breaker shall be installed in a place free from invasion of rain and snow;
- Operating conditions:
The circuit breaker passes the test requirements of GB/T2423.1 and GB/T2423.2, and the ambient air temperature can be as low as -25°C (products with temperature as low as -40°C can be provided, please consult our company), and as high as+70 °C (for derating use when the temperature exceeds+40°C, see the technical data in this sample for details);
The circuit breaker shall pass GB/T2423.4 test Db (temperature+55°C, relative humidity 95%);
The characteristics will not be affected when the altitude reaches 2500m (for derating use when the altitude exceeds 2500m, see the technical data in this catalogue for details);
- Storage conditions: ambient air temperature is -25°C~+70°C

ARXM3



Scope of application

ARXM3 series molded case circuit breakers (hereinafter referred to as circuit breakers) are suitable for infrequent switching and motor starting in AC 50Hz (or 60Hz) circuits with rated insulation voltage of 1000V, rated working voltage of 690V or 400V, and rated working current of 630A ($Inm \leq 630A$ and below).

The circuit breaker has overload, short circuit and undervoltage protection functions, and can protect lines and power equipment from damage. According to its rated ultimate short-circuit breaking capacity, the circuit breakers are classified into four levels: C type (economic), L type (standard), M type (medium breaking) and H type (high breaking). The circuit breaker has the characteristics of small volume, high breaking capacity, short arcing, anti vibration, modular installation of accessories, simple use, etc.

The circuit breaker can be installed vertically (i.e. upright) or horizontally (i.e. transversely).

The circuit breaker has isolation function, and its corresponding symbol is:

The circuit breaker shall comply with IEC60947-2 and GB/T14048.2.

Model and its meaning

AR	X	M	3	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/	3	3	00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7	8	9	10	11	12	13			

- | | | | | | |
|---|---|----|--|----|--|
| 1 | RUIRUI Electric (Zhejiang) Co., Ltd | 6 | Operation mode (note 2) | 11 | The code for the overload alarm non tripping function is 1, and there is no need to use the code for no characteristics. ARM3R-125C ARM3-125C ARM3-250C and other specifications of four stage circuit breakers with neutral pole types of C and D do not have this function |
| 2 | Molded case circuit breaker | 7 | Number of poles | 12 | N-pole type A, B, C, D (note 5) |
| 3 | Design code | 8 | Release mode(note 3) | 13 | Rated current |
| 4 | Rated current of frame size | 9 | accessory code (see internal accessory code table) | | |
| 5 | Rated ultimate short-circuit breaking capacity level (note 1) | 10 | Using code(note 4) | | |

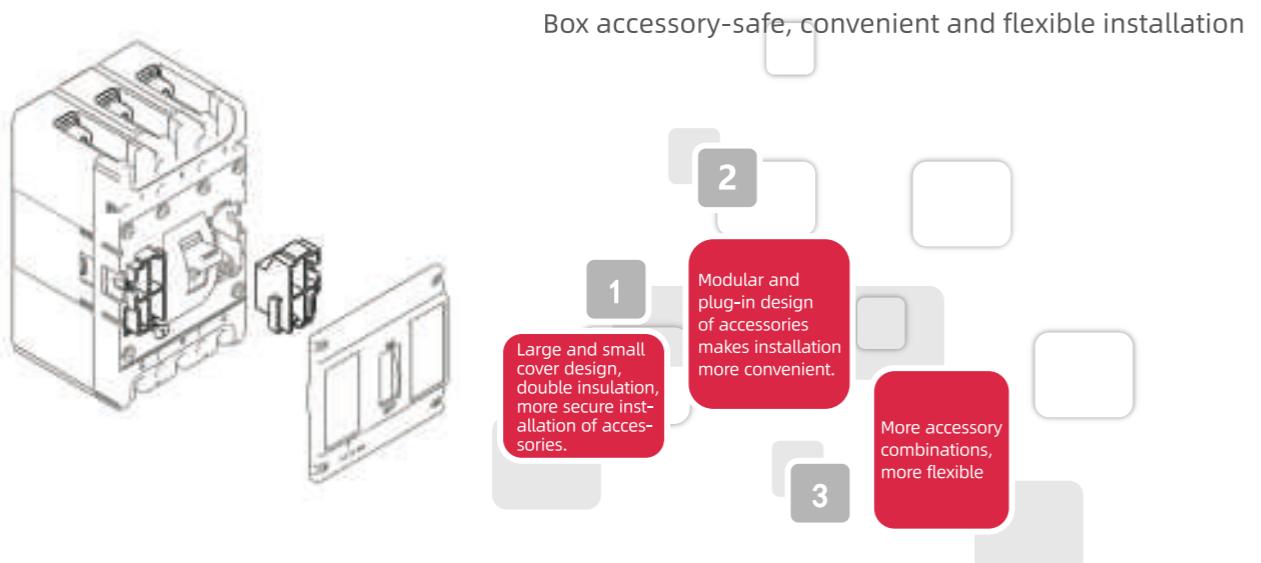
Note:

- According to rated ultimate short-circuit breaking capacity, it is classified into four levels: C type (economic), L type (standard), M type (medium breaking) and H type (high breaking).
- No code for direct operation of handle; Electric operation is represented by P; The rotation handle is represented by Z.
- 200: circuit breaker with only electromagnetic release; 300: circuit breaker with thermal-electromagnetic release; 000: circuit breaker without over-current release.
- The motor protection is represented by 2, and there is no code for distribution.(note 4)
- In the four-pole products:
 - Type A: The N-pole is not equipped with over-current release, and the N-pole is always connected, not closed or opened with other three poles.
 - Type B: N-pole is not equipped with over-current release, and N-pole is closed and opened together with other three poles (N-pole is closed first and then opened).
 - Type C: N-pole is equipped with over-current release, and N-pole is closed and opened together with other three poles (N-pole is closed first and then opened).
 - Type D: N-pole is equipped with over-current release, and the N-pole is always connected, not closed and opened with other three poles.

Normal working environment

- Altitude: $\leq 2000M$
- Ambient temperature: $-5^{\circ}C \sim +40^{\circ}C$
- Be able to withstand the influence of moisture
- The pollution level is 3
- In a place free from rain and snow
- The maximum inclination is 22.5°
- Installation Category III
- In the place where there is no explosive medium, and the medium is free of gas and conductive dust that can corrode metal and damage insulation

ARM3 series circuit breaker product feature



Product structure:

Safety: ARM3, ARXM3, ARM3E series can be directly disassembled to install internal accessories. Installation features: humanized designmakes installation and replacement more convenient for on-site installation.

Material advantages of ARM3 series circuit breaker products

1. Heat shrinkable insulating material
The nylon materials such as the upper cover of ARXM3 are halogen-free VO flame retardant, high and low temperature resistant, aging resistant high-quality plastics. Brand: reinforced flame retardant nylon PA66 makes the product have longer electrical life and strength, better appearance effect and higher breaking capacity. Engineering plastics are resistant to high and low temperatures, ultraviolet rays and aging, with good insulation strength, and the parts have good dimensional stability, which ensures that the product does not degrade performance in complex working environments;
2. Alloy contact with high silver content: the silver content can reach 95% at most, with high conductivity, thermal conductivity, arc resistance and electrical wear resistance. The standard preparation and reliable process guarantee of dynamic and static contact materials can improve the electrical life of the circuit breaker by 50%;
3. Mechanism parts: high quality high carbon steel materials. The iron base materials of the main parts of iron parts (cold rolled steel #10) are all selected A+grade materials, which have undergone QPQ salt bath composite treatment, greatly improving the wear resistance, corrosion resistance and fatigue resistance of the metal surface, and improving the strength, mechanical life and electrical life of the parts by more than 10%;
4. The thermosetting insulating material adopts the unique formula material, which has high strength, arc resistance, strong insulation, high temperature resistance and good flame retardancy;
5. High sensitivity temperature sensing element is made of high-quality bimetallic element materials, and there is no need to reduce the capacity from -5°C to 55°C ambient temperature;
6. Spring materials have longer temperature resistance and fatigue resistance (50% longer than ordinary springs).

Main performance index of ARM3 series circuit breaker

外观



Model	ARM3R-125		ARM3-125						
Rated current In (A)	16A / 20A / 25A / 32A / 40A / 50A 63A / 80A / 100A / 125A								
Rated current of frame size Inm (A)	125A								
Usage category	Category A								
Rated ultimate short-circuit breaking capacity level	C	C	S	L	M	H	3P	4P	
Number of poles (P)	3P	4P	3P	4P	3P	4P	3P	4P	
Rated working voltage Ue (V)	400V		400V		400V				
Rated ultimate short-circuit breaking capacity Icu (kA)	20kA		30kA		35kA		50kA	70kA	100kA
Rated service short-circuit breaking capacity Ics (kA)	15kA		20kA		22kA		35kA	50kA	70kA
Rated working voltage Ue (V)	/		550V		550V				
Rated ultimate short-circuit breaking capacity Icu (kA)	/		/		/		40kA	/	/
Rated service short-circuit breaking capacity Ics (kA)	/		/		/		20kA	/	/
Rated working voltage Ue (V)	/		/		690V				
Rated ultimate short-circuit breaking capacity Icu (kA)	/		/		10kA		/	10kA	/
Rated service short-circuit breaking capacity Ics (kA)	/		/		6kA		/	10kA	/
Rated insulation voltage Ui (V)	1000V		1000V		1000V				
Rated impulse withstand voltage Uimp (V)	8kV		8kV		8kV				
Mechanical life (time)	8500		8500		8500				
Electrical life (time)	1500		1500		1500				
Arcing distance (mm)	≥50		≥50		≥50				
W*L*H (mm)	3P	75*132.5*65	92*150*70	92*150*70	92*150*70	92*150*87	92*150*87		
	4P	100*132.5*65	122*150*70	122*150*70	122*150*70	122*150*87	122*150*87		
	package 3p	110*160*108	108*166*110	108*166*110	108*166*110	108*166*128	108*166*128		
	package 4p	130*170*125	108*166*125	108*166*125	108*166*125	130*173*128	130*173*128		
	weight 3P	950g	1300g	1587g	1587g	1603g	1603g		
	weight 4P	1450g	1983g	2000g	2000g	2000g	2000g		

Main performance index of ARM3 series circuit breaker

Appearance													
Model	ARM3-250												
Rated current In (A)	100A / 125A / 140A / 160A / 180A / 200A / 225A / 250A												
Rated current of frame size Inm (A)	250A												
Usage category	Category A												
Rated ultimate short-circuit breaking capacity level	C	L	M	H									
Number of poles (P)	3P	4P	3P	4P	3P	4P	3P	4P					
Rated working voltage Ue (V)	400V	400V											
Rated ultimate short-circuit breaking capacity Icu (kA)	30kA	35kA		70kA		100kA							
Rated service short-circuit breaking capacity Ics (kA)	20kA	22kA		50kA		70kA							
Rated working voltage Ue (V)	550V	550V											
Rated ultimate short-circuit breaking capacity Icu (kA)	/	/		40kA		/							
Rated service short-circuit breaking capacity Ics (kA)	/	/		40kA		/							
Rated working voltage Ue (V)	690V	690V											
Rated ultimate short-circuit breaking capacity Icu (kA)	/	/		20kA		/							
Rated service short-circuit breaking capacity Ics (kA)	/	/		10kA		/							
Rated insulation voltage Ui (V)	1000V	1000V											
Rated impulse withstand voltage Uimp (V)	12kV	12kV											
Mechanical life (time)	7000	7000											
Electrical life (time)	1000	1000											
Arcing distance (mm)	≥50	≥50											
W*L*H (mm) 3P 4P package 3p package 4p weight 3P weight 4P	107*165*89	107*165*107											
	142*165*89	142*165*107											
	130*174*126	130*174*140											
	180*185*126	180*185*145											
	2005g	2550g											
	3198g	3300g											

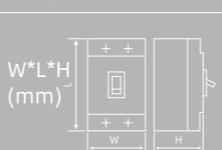
Main performance index of ARM3 series circuit breaker

Appearance													
Model	ARM3-400												
Rated current In (A)	225A / 250A / 315A / 350A /400A												
Rated current of frame size Inm (A)	400A												
Usage category	Category A												
Rated ultimate short-circuit breaking capacity level	C	L	M	H									
Number of poles (P)	3P	3P	3P	4P	3P	4P	3P	4P					
Rated working voltage Ue (V)	400V	400V											
Rated ultimate short-circuit breaking capacity Icu (kA)	50kA	50kA		70kA		100kA							
Rated service short-circuit breaking capacity Ics (kA)	35kA	50kA		70kA		75kA							
Rated working voltage Ue (V)	550V	550V											
Rated ultimate short-circuit breaking capacity Icu (kA)	/	/		50kA		/							
Rated service short-circuit breaking capacity Ics (kA)	/	/		50kA		/							
Rated working voltage Ue (V)	690V	690V											
Rated ultimate short-circuit breaking capacity Icu (kA)	/	/		20kA		/							
Rated service short-circuit breaking capacity Ics (kA)	/	/		15kA		/							
Rated insulation voltage Ui (V)	1000V	1000V											
Rated impulse withstand voltage Uimp (V)	12kV	12kV											
Mechanical life (time)	4000	4000											
Electrical life (time)	1000	1000											
Arcing distance (mm)	≥100	≥100											
W*L*H (mm) 3P 4P package 3p package 4p weight 3P weight 4P	150*258*111	150*258*111											
	/	200*258*111											
	200*280*180	200*285*180											
	250*285*180	250*285*180											
	5400g	5797g		5830g		7109g							
	/	7482g		7109g		7109g							

Main performance index of ARM3 series circuit breaker

Appearance					
Model	ARM3-630				
Rated current In (A)	400A / 500A / 630A				
Rated current of frame size Inm (A)	630A				
Usage category	Category A				
Rated ultimate short-circuit breaking capacity level	L	M	H		
Number of poles (P)	3P	3P	4P	3P	4P
Rated working voltage Ue (V)	400V				
Rated ultimate short-circuit breaking capacity Icu (kA)	50kA	70kA	100kA		
Rated service short-circuit breaking capacity Ics (kA)	50kA	70kA	70kA		
Rated working voltage Ue (V)	550V				
Rated ultimate short-circuit breaking capacity Icu (kA)	/	50kA	/		
Rated service short-circuit breaking capacity Ics (kA)	/	50kA	/		
Rated working voltage Ue (V)	690V				
Rated ultimate short-circuit breaking capacity Icu (kA)	/	20kA	/		
Rated service short-circuit breaking capacity Ics (kA)	/	15kA	/		
Rated insulation voltage Ui (V)	1000V				
Rated impulse withstand voltage Uimp (V)	12kV				
Mechanical life (time)	4000				
Electrical life (time)	1000				
Arcing distance (mm)	≥100				
W*L*H (mm)	3P 4P package 3p package 4p weight 3P weight 4P	182*271*111.8 240*271*111.8 230*295*180 290*295*180 7728g 11200g			

Main performance index of ARM3 series circuit breaker

Appearance					
					
Model	ARM3-800				
Rated current In (A)	630A / 700A / 800A				
Rated current of frame size Inm (A)	800A				
Usage category	Category A				
Rated ultimate short-circuit breaking capacity level	L	M	H		
Number of poles (P)	3P	4P	3P	4P	3P
Rated working voltage Ue (V)	400V				
Rated ultimate short-circuit breaking capacity Icu (kA)	65kA	75kA	100kA		65kA
Rated service short-circuit breaking capacity Ics (kA)	65kA	75kA	75kA		32.5kA
Rated working voltage Ue (V)	550V				
Rated ultimate short-circuit breaking capacity Icu (kA)	/	50kA	/		/
Rated service short-circuit breaking capacity Ics (kA)	/	50kA	/		/
Rated working voltage Ue (V)	690V				
Rated ultimate short-circuit breaking capacity Icu (kA)	/	30kA	/		15kA
Rated service short-circuit breaking capacity Ics (kA)	/	20kA	/		10kA
Rated insulation voltage Ui (V)	1000V				
Rated impulse withstand voltage Uimp (V)	12kV				
Mechanical life (time)	4000				
Electrical life (time)	1000				
Arcing distance (mm)	≥100				
 W*H*L (mm) 3P 4P package 3p package 4p weight 3P weight 4P		3P 210.5*281*116	4P 281*281*116		210.5*450*137
		package 3p 260*305*180	package 4p 325*305*180		235*465*195
		weight 3P 7728g	weight 4P 11200g		18050g

Main performance index of ARXM3 series circuit breaker

Appearance											
	ARXM3-125	ARXM3R-160									
Model	ARXM3-125		ARXM3R-160								
Rated current In (A)	16A / 20A / 25A / 32A / 40A / 50A / 63A / 80A / 100A / 125A		140A / 150A / 160A								
Rated current of frame size Inm (A)	125A		125A								
Usage category	Category A		Category A								
Rated ultimate short-circuit breaking capacity level	C	S	L	M	H	S	L	M	H		
Number of poles (P)	3P	4P	3P	3P	4P	3P	4P	3P	4P	3P	4P
Rated working voltage Ue (V)	400V		400V								
Rated ultimate short-circuit breaking capacity Icu (kA)	35kA	25kA	50kA	70kA	100kA	25kA	50kA	70kA	100kA		
Rated service short-circuit breaking capacity Ics (kA)	22kA	18kA	35kA	50kA	70kA	18kA	35kA	50kA	70kA		
Rated working voltage Ue (V)	690V		690V								
Rated ultimate short-circuit breaking capacity Icu (kA)	10kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA		
Rated service short-circuit breaking capacity Ics (kA)	6kA	10kA	10kA	10kA	10kA	10kA	10kA	10kA	10kA		
Rated insulation voltage Ui (V)	1000V		1000V								
Rated impulse withstand voltage Uimp (V)	8kV		8kV								
Mechanical life (time)	8500		8500								
Electrical life (time)	1500		1500								
Arcing distance (mm)	≥50		≥50								
W*L*H (mm)	3P	75*132.5*65	92*150*70	92*150*87	92*150*70	92*150*87	3P	107*165*89	107*165*107	107*165*89	
	4P	100*132.5*65	/	122*150*87	/	122*150*87		/	142*165*107	/	
package 3p	110*170*110	110*170*110	108*166*128	110*170*110	108*166*128		130*174*126	130*174*140	130*174*126		
package 4p	130*175*130	/	130*173*128	/	130*173*128		/	180*185*145	/		
weight 3P	1024g	1104g	1603g	1300g	1603g		2005g	2550g	2005g		
weight 4P	1334g	/	2000g	/	2000g		/	3300g	/		

Main performance index of ARXM3 series circuit breaker

Appearance											
	ARXM3-250	ARXM3R-320									
Model	ARXM3-250	ARXM3R-320									
Rated current In (A)	100A / 125A / 140A / 160A / 180A / 200A / 225A / 250A	125A / 140A / 160A / 180A / 200A / 225A / 250A / 320A									
Rated current of frame size Inm (A)	250A	320A									
Usage category	Category A	Category A									
Rated ultimate short-circuit breaking capacity level	S	M	L	H	S						
Number of poles (P)	3P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
Rated working voltage Ue (V)	400V		400V								
Rated ultimate short-circuit breaking capacity Icu (kA)	35kA	50kA	70kA	100kA							
Rated service short-circuit breaking capacity Ics (kA)	22kA	35kA	50kA	70kA							
Rated working voltage Ue (V)	690V		690V								
Rated ultimate short-circuit breaking capacity Icu (kA)	/	/	20kA	/							
Rated service short-circuit breaking capacity Ics (kA)	/	/	10kA	/							
Rated insulation voltage Ui (V)	1000V		1000V								
Rated impulse withstand voltage Uimp (V)	8kV		8kV								
Mechanical life (time)	7000		7000								
Electrical life (time)	1000		1000								
Arcing distance (mm)	≥50		≥50								
W*L*H (mm)	3P	107*165*89	107*165*107	107*165*89							
	4P	/	142*165*107	/							
package 3p	130*174*126	130*174*140	130*174*126								
package 4p	/	180*185*145	/								
weight 3P	2005g	2550g	2005g								
weight 4P	/	3300g	/								

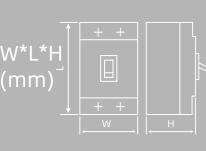
Main performance index of ARXM3 series circuit breaker

Appearance								
Model	ARXM3-400		ARXM3R-630					
Rated current In (A)	160A / 180A / 225A / 250A / 315A / 350A / 400A / 500A / 630A							
Rated current of frame size Inm (A)	400A		630A					
Usage category	Category A							
Rated ultimate short-circuit breaking capacity level	L	M	H					
Number of poles (P)	3P	3P	4P	3P	4P			
Rated working voltage Ue (V)	400V							
Rated ultimate short-circuit breaking capacity Icu (kA)	50kA	70kA	100kA					
Rated service short-circuit breaking capacity Ics (kA)	50kA	70kA	75kA					
Rated working voltage Ue (V)	690V							
Rated ultimate short-circuit breaking capacity Icu (kA)	20kA	20kA	20kA					
Rated service short-circuit breaking capacity Ics (kA)	15kA	15kA	15kA					
Rated insulation voltage Ui (V)	1000V							
Rated impulse withstand voltage Uimp (V)	12kV							
Mechanical life (time)	4000							
Electrical life (time)	1000							
Arcing distance (mm)	≥100							
W*L*H (mm)	3P 4P package 3p package 4p	150*258*111 200*258*111 245*285*175 260*378*298	4P package 3p package 4p	5797g 7109g	6098g 7482g			

Main performance index of ARXM3 series circuit breaker

Appearance								
Model	ARXM3-630							
Rated current In (A)	400A / 500A / 630A							
Rated current of frame size Inm (A)	630A							
Usage category	Category A							
Rated ultimate short-circuit breaking capacity level	L	M	H					
Number of poles (P)	3P	3P	4P	3P	4P			
Rated working voltage Ue (V)	400V							
Rated ultimate short-circuit breaking capacity Icu (kA)	50kA	70kA	100kA					
Rated service short-circuit breaking capacity Ics (kA)	50kA	70kA	75kA					
Rated working voltage Ue (V)	690V							
Rated ultimate short-circuit breaking capacity Icu (kA)	20kA	20kA	20kA					
Rated service short-circuit breaking capacity Ics (kA)	15kA	15kA	15kA					
Rated insulation voltage Ui (V)	1000V							
Rated impulse withstand voltage Uimp (V)	12kV							
Mechanical life (time)	4000							
Electrical life (time)	1000							
Arcing distance (mm)	≥100							
W*L*H (mm)	3P 4P package 3p package 4p	182*271*111.8 240*271*111.8 230*295*180 290*295*180	4P package 3p package 4p	7728g 11200g	weight 3P weight 4P			

Main performance index of ARXM3 series circuit breaker

Appearance		
Model		ARXM3-800
Rated current I_n (A)		630A / 700A / 800A
Rated current of frame size I_{nm} (A)		800A
Usage category		Category A
Rated ultimate short-circuit breaking capacity level		L M H
Number of poles (P)		3P 3P 4P 3P 4P
Rated working voltage U_e (V)		400V 400V
Rated ultimate short-circuit breaking capacity I_{cu} (kA)		50kA 75KA 100KA
Rated service short-circuit breaking capacity I_{cs} (kA)		50kA 75KA 75KA
Rated working voltage U_e (V)		/ 690V
Rated ultimate short-circuit breaking capacity I_{cu} (kA)		/ 30KA /
Rated service short-circuit breaking capacity I_{cs} (kA)		/ 20KA /
Rated insulation voltage U_i (V)		1000V 1000V
Rated impulse withstand voltage U_{imp} (V)		12kV 12KV
Mechanical life (time)		2500 2500
Electrical life (time)		500 500
Arcing distance (mm)		≥100 ≥100
 W*L*H (mm) 3P 4P package 3p package 4p weight 3P weight 4P	3P	210.5*281*116
	4P	281*281*116
	package 3p	260*305*180
	package 4p	325*305*180
	weight 3P	7728g
	weight 4P	11200g

Circuit breaker purpose type (1): power distribution type

Power distribution type ARXM3 circuit breaker can be classified into two release modes:

- The model of thermal+electromagnetic release with code 3 is ARXM3-125M/3300
- The code 2 only has the electromagnetic release, and the model selected by example is ARXM3-1253M/3200; The overload alarm non tripping function (code is I) can also be added, so the model selection example is ARXM3-125M/3200I, and its overload alarm non action feature is consistent with the overload protection.

Release mode code is 3, thermal+electromagnetic release

Protection function	Frame size	Rated current I_n (A)	Action characteristics
Overload protection	Full range	16~1250	Press $I^2 t$ to act 1.05 I_n (cold state), non-action ≥ 1h ($I_n \le 63A$) 1.3 I_n (hot state), action ≤ 1h ($I_n \le 63A$) 1.05 I_n (cold state), non-action ≥ 2h ($I_n > 63A$) 1.3 I_n (hot state), action < 2h ($I_n > 63A$)

	Frame size	Rated current I_n (A)	Setting value of short-circuit protection current I_r (A)	Action time
Short circuit protection	125C/S	16~40	400	Instantaneous action
		50~125	10 I_n	
	125L/M/H	16~125	10 I_n	
		160	10 I_n	
	250	140~160	10 I_n	
		100~140	10 I_n	
	320	160~250	10 I_n	
		250~320	10 I_n	
	400	225~400	10 I_n	
		400~630	10 I_n	
	630	630~800	10 I_n	Note when ordering (I_r can be provided)
	800	800~1250	10 I_n	
	1250	800~1250	7 I_n	

Action tolerance ±20%

Note: The A/B type overload protection current setting value in the neutral pole protection of the circuit breaker (A)/defaults to 50% I_n , and the C/D type neutral pole overload protection current setting value (A)/is 100% I_n ,The current setting value A for neutral pole short circuit protection is 10 I_n , and the operating tolerance is ± 20%. If you have special requirements, please contact our company.

The release mode code is 2, only the electromagnetic release

Protection function	Frame size	Rated current I_n (A)	Setting value of short-circuit protection current I_r (A)	Action time
Short circuit protection	125C/S	16~40	400	Instantaneous action
		50~125	10 I_n	
	125L/M/H	16~125	10 I_n	
	160	140~160	10 I_n	
	250	100~140	10 I_n	
		160~250	10 I_n	
	320	250~320	10 I_n	
	400	225~400	10 I_n	
	630	400~630	10 I_n	
	800	630~800	10 I_n	
	1250	800~1250	7 I_n	

Action tolerance $\pm 20\%$

Note: The default short-circuit protection current setting value (A) for the neutral pole protection of the circuit breaker is $10I_n \pm 20\%$. If you have special requirements, please contact our company.

Circuit breaker purpose type (2): motor protection type

Motor protection type ARM3 circuit breaker can be classified into two release modes:

- The model of thermal+electromagnetic release with code 3 is ARXM3-125M/33002
- The code 2 only has the electromagnetic release, and the model selected by example is ARXM3-125M/32002; The overload alarm non tripping function (code is I) can also be added, so the model selection example is ARXM3-125M/32002I, and its overload alarm non action feature is consistent with the overload protection.

Release mode code is 3, thermal+electromagnetic release

Protection function	Frame size	Rated current I_n (A)	Action characteristics
Overload protection	Full range	16~1250	Press $I^2 t$ to act 1.0 I_n (cold state), non-action within 2h 1.5 I_n (hot state) ($I_n \leq 630A$ for ARXM3-250, 400, 630 and 800) ≤ 2 min(ARXM3-125C) ≤ 4 min(ARXM3-125L/M/H) ≤ 8 min(ARXM3-250, 400, 630 and 800) $I_n \leq 630A$)

Protection function	Frame size	Rated current I_n (A)	Action characteristics
Overload protection	Full range	16~1250	7.2 I_n (cold state) 0.5s $< T_p \leq 5s$ (ARM1-63L/M, ARM1-100C) 4s $< T_p \leq 10s$ (ARM1-100L/M/H) 6s $< T_p \leq 20s$ ($I_n \leq 630A$ for ARM1-250, 400, 630 and 800) Tripping level 5(ARXM3-125C), 10(ARXM3-125L/M/H), 20($I_n \leq 630A$ for ARXM3-250, 400/630 and 800)

	Frame size	Rated current I_n (A)	Setting value of short-circuit protection current I_r (A)	Action time
Short circuit protection	125C/S	16~40	400	Instantaneous action
		50~125	12 I_n	
	125L/M/H	16~125	12 I_n	
	160	140~160	12 I_n	
	250	100~140	12 I_n	
		160~250	12 I_n	
	320	250~320	12 I_n	
	400	225~400	12 I_n	
	630	400~630	12 I_n	
	800	630~800	12 I_n	
	1250	800~1250	7 I_n	
Action tolerance				$\pm 20\%$

Note: The A/B type overload protection current setting value in the neutral pole protection of the circuit breaker (A)/defaults to 50% I_n , and the C/D type neutral pole overload protection current setting value (A)/is 100% I_n , The current setting value A for neutral pole short circuit protection is $12I_n \pm 20\%$. If you have any special requirements, please contact our company.

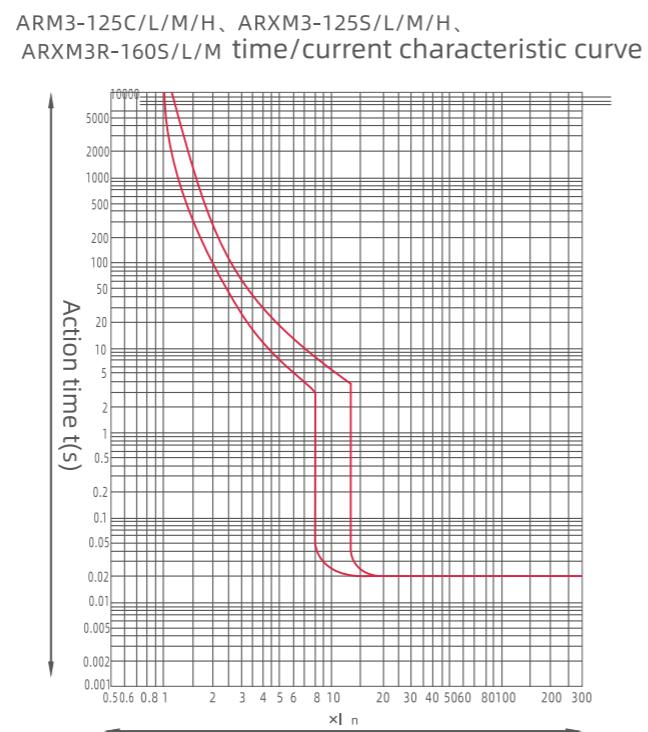
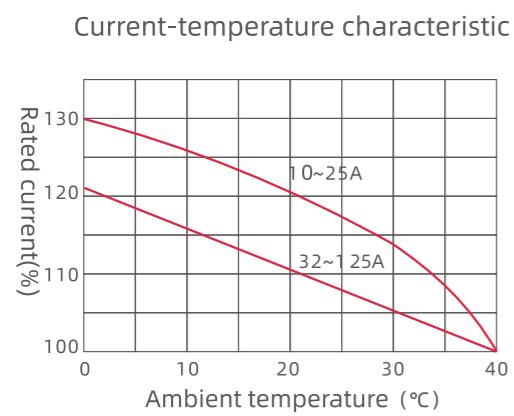
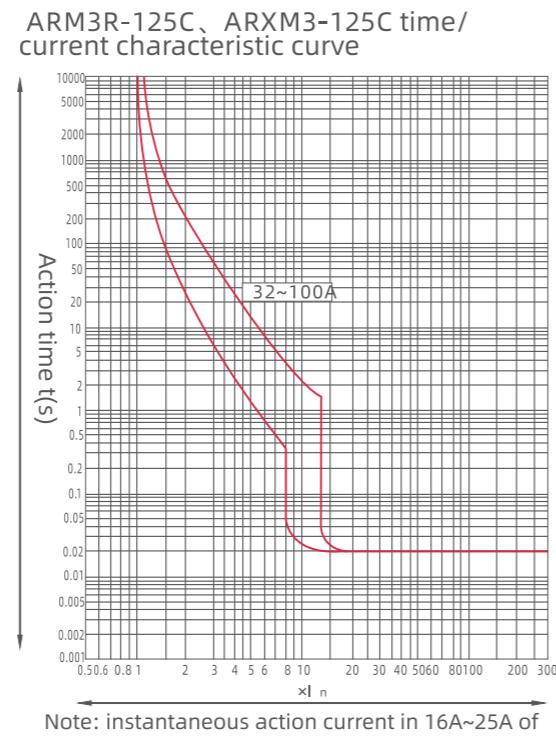
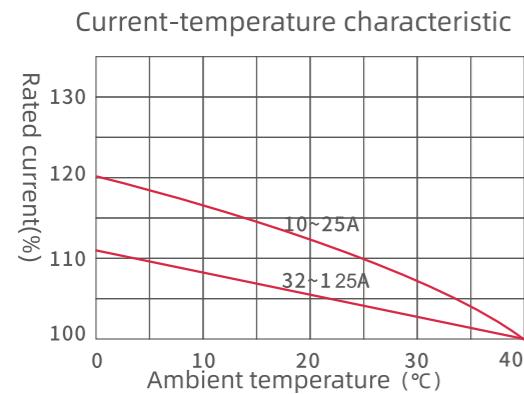
The release mode code is 2, only the electromagnetic release

Protection function	Frame size	Rated current I_n (A)	Setting value of short-circuit protection current I_r (A)	Action time
Short circuit protection	125C/S	16~40	400	Instantaneous action
		50~125	12 I_n	
	125L/M/H	16~125	12 I_n	
	160	140~160	12 I_n	
	250	100~140	12 I_n	
		160~250	12 I_n	
	320	250~320	12 I_n	
	400	225~400	12 I_n	
	630	400~630	12 I_n	
	800	630~800	12 I_n	
	1250	800~1250	7 I_n	
Action tolerance				$\pm 20\%$

Note: The default short-circuit protection current setting value (A) for the neutral pole protection of the circuit breaker is $10I_n \pm 20\%$. If you have special requirements, please contact our company.

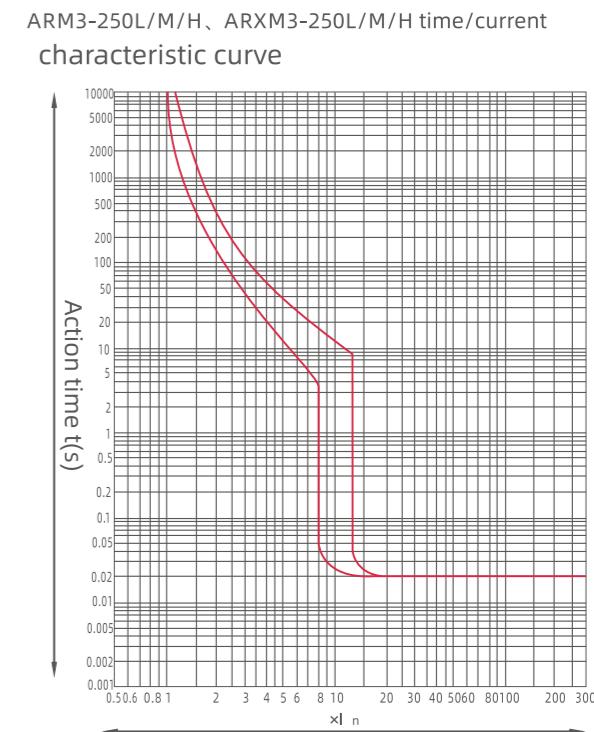
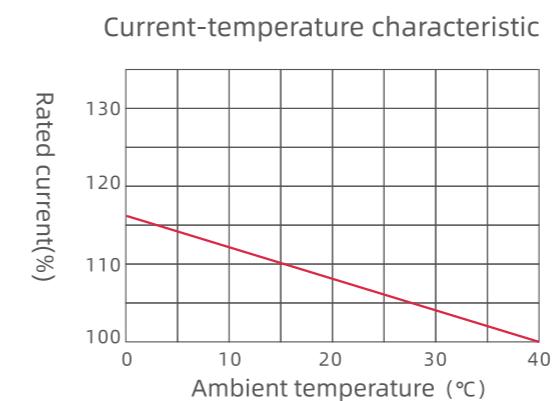
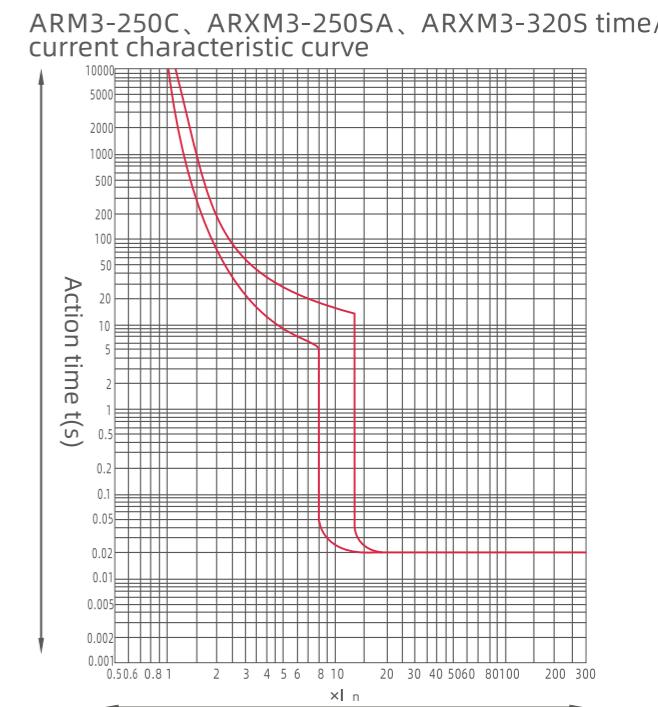
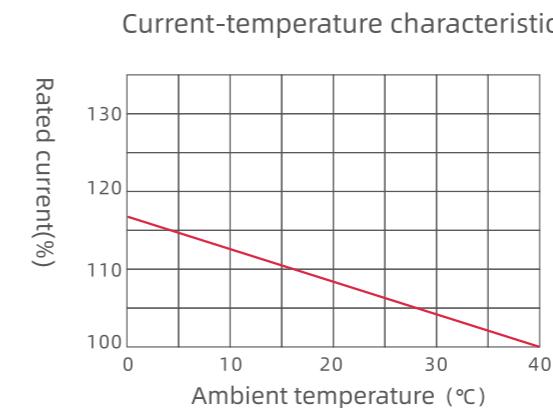
Protection characteristic curve of circuit breaker

Note: The characteristic curve is measured under cold state and three-phase load



Protection characteristic curve of circuit breaker

Note: The characteristic curve is measured under cold state and three-phase load

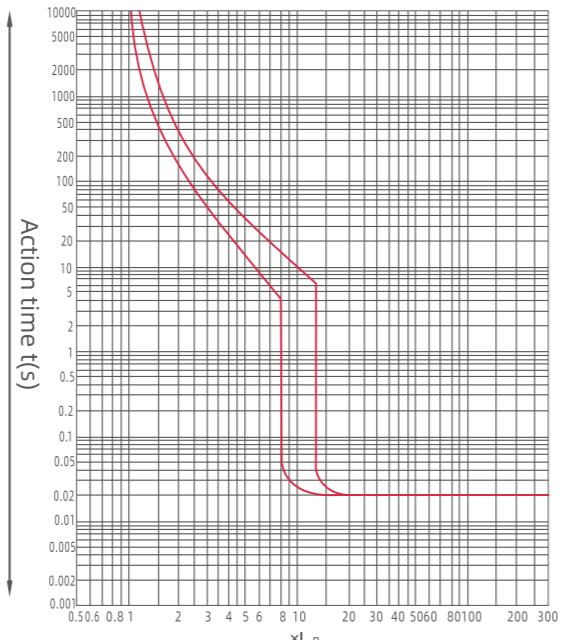
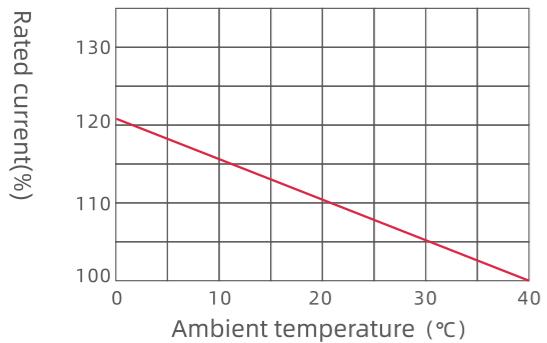


Protection characteristic curve of circuit breaker

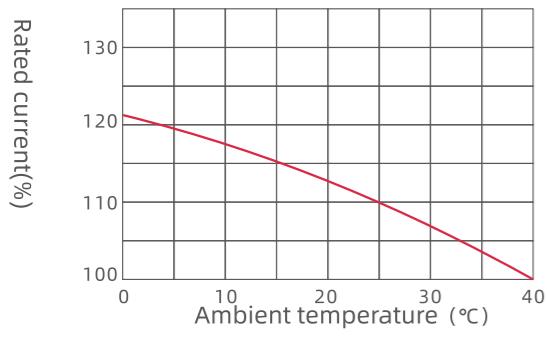
Note: The characteristic curve is measured under cold state and three-phase load

ARM3-400C/L/M/H、ARXM3-400L/M/H、ARM3R-630L/M/H time/current characteristic curve

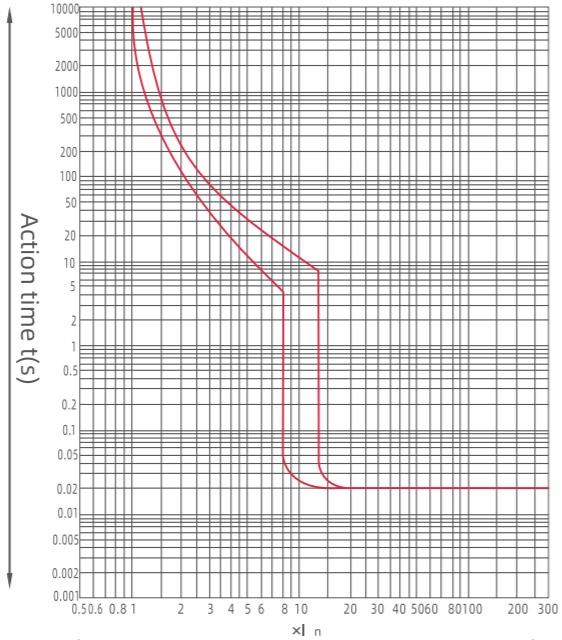
Current-temperature characteristic



Current-temperature characteristic



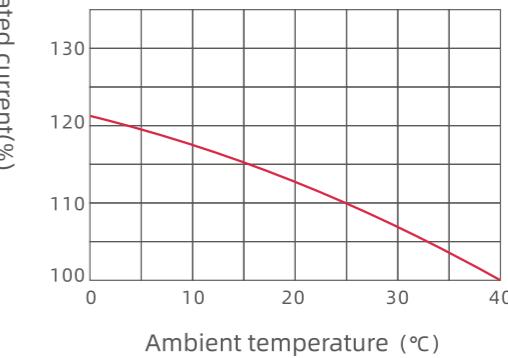
ARM3-630L/M/H、ARXM3-600L/M/H time/current characteristic curve



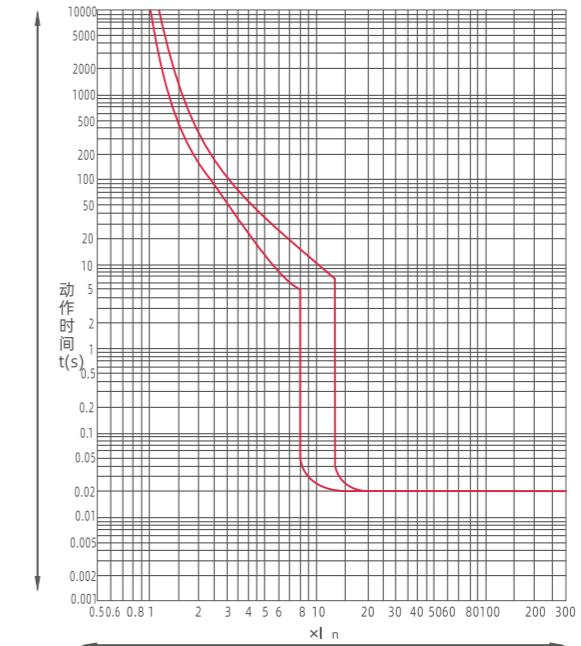
Protection characteristic curve of circuit breaker

Note: The characteristic curve is measured under cold state and three-phase load

Current-temperature characteristic



ARM3-800L/M/H、ARXM3-800L/M/H、ARM3-1250,time/current characteristic curve



ARM3 /ARXM3 internal accessory code



releases mode and internal accessory code	Model	ARM3-125C ARM3R-125C		ARM3-125 (S/L/M/H) ARXM3-125 (S/L/M/H) ARXM3R-160		ARM3-250 ARXM3R-320 ARM3-250			ARM3-400 ARXM3-400 ARM3R-630		ARM3-630 ARXM3-630		ARM3-800 ARXM3-800		ARM3-1250		
		Number of poles	Accessory name	3	4	3	4	3	4	3	4	3	4	3	4	3	4
08	Alarm contact																
10	Shunt release																
20	Auxiliary contac (1NO 1NC)											/		/			
	Auxiliary contac (2NO2NC)																/
02	Auxiliary contac (2NO2NC)															/	
30	Under voltage release															/	
40	Shunt release Auxiliary contac (1NO 1NC)													/			
	Shunt release Auxiliary contac (2NO 2NC)			/	/	/				/		/					
12	Shunt release Auxiliary contac (2NO 2NC)																
50	Shunt release Under voltage release															/	
60	Auxiliary contac (2NO 2NC)													/		/	
	Auxiliary contac (4NO 4NC)			/	/	/				/		/					
22	Auxiliary contac (3NO 3NC)																
23	Auxiliary contac (4NO 4NC)			/	/	/				/		/				/	
70	Auxiliary contac (1NO 1NC) Under voltage release																
32	Auxiliary contac (2NO 2NC) Under voltage release																
18	Shunt release Alarm contact																
28	Auxiliary contac (1NO 1NC) Alarm contact																
38	Under voltage release Alarm contact																
48	Shunt release Alarm contact Auxiliary contac (1NO 1NC)																
68	Alarm contact Auxiliary contac (2NO 2NC)																
78	Under voltage release Alarm contact 2sets Auxiliary contac (1NO 1NC)																
05	Alarm contact 2sets Auxiliary contac (3NO 3NC)			/	/	/				/		/		/		/	

Note: 1))Internal attachment code 2, with 2NO2NC on the left and 1NO1NC on the right.

2)ARM3-400, 630, 800, withdrawable wiring and internal accessories with terminal blocks, The auxiliary switch in the auxiliary alarm switches with codes 28, 48, 68, and 78 is 1NO1NC

3)Additional fees are required for the installation of extension handles (extension handles are optional for sizes ≥ 400);

4)accessory:Leading line type /terminal type

5))Leading line is 50 by default,100 can be made(we should take an extra charge)

6). 200: circuit breaker with only electromagnetic release; 300: circuit breaker with thermal-electromagnetic release; 000: circuit breaker without over-current release (disconnector)

7)"/" in the table indicates not provided.

8)Please contact the company for accessories that are not included in the table attachments.

ARM3E



Scope of application

ARM3E series electronic molded case circuit breakers (hereinafter referred to as circuit breakers) are applicable to AC 50HZ or 60HZ circuit with rated insulation voltage of 1000V, rated working voltage of 400V or 690V, and rated working current of 800A for infrequent switching and infrequent motor starting.

The circuit breaker has the functions of overload long time-delay inverse time limit, short circuit short time-delay inverse time limit, short circuit short time-delay definite time limit, short circuit instantaneous and undervoltage protection, and phase failure protection (optional), which can protect the line and power supply equipment from damage. The circuit breaker has complete and accurate protection characteristics, which can improve the reliability of power supply and avoid unnecessary power failure. The "Z, B" type control has communication interfaces, which can be "four remotes" to meet the requirements of control center and automation system.

The circuit breakers are classified into M type (medium breaking type) and H type (high breaking type) according to their rated ultimate short-circuit breaking capacity. The circuit breaker has the characteristics of small volume, high breaking capacity, short arcing, anti-vibration, etc.

The circuit breaker can be installed vertically (i.e. upright), horizontally (i.e. transversely) and flat.

The circuit breaker has isolation function, and its corresponding symbols are: "— / X"

The circuit breaker shall not reverse the incoming line, that is, only 1, 3, 5 are allowed to be connected to the power line, and 2, 4, 6 are allowed to be connected to the load line.

The circuit breaker has USB interface, which can be connected to the programmer for parameter modification and fault reading.

Model and its meaning

AR	M	3	E	-	□	□	/	3	3	00	□	□	□	□	□
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

- | | | | | | |
|---|-----------------------------|----|---|----|--|
| 1 | AceReare | 6 | Rated ultimate short-circuit breaking capacity level (note 1) | 12 | Product Type: Basic type without code, overload alarm without tripping function (code) Example ARM3E-3300I |
| 2 | Molded case circuit breaker | 7 | Operation mode (note 2) | 13 | No code without grounding fault, G with grounding fault Note: 1250 A frame size without grounding fault |
| 3 | Design code | 8 | Number of poles | 14 | Controller type and communication module type (Note 5) |
| 4 | Electronic type | 9 | Release mode(note 3) | 15 | Rated current |
| 5 | Rated current of frame size | 10 | accessory code (see internal accessory code table) | | |
| | | 11 | Product type (note 4) | | |

Note:

- According to the rated ultimate short-circuit breaking capacity, it can be classified into M type high breaking type and H type high breaking type.
- No code for direct operation of handle: electric operation is represented by P; The rotation handle is represented by Z.
- 200: circuit breaker with only electromagnetic release; 300: circuit breaker with thermal-electromagnetic release; 000: circuit breaker without over-current release (disconnector)
- Communication modules are classified into three types:
T1 (communication shunt module): telemetering+communication control shunt tripping and dry contact control shunt tripping.
T2 (communication status module): telemetering+remote signaling+opening/closing status (transmitted through the communication module)+communication control shunt tripping.
T3 (communication remote control module): telemetering+remote signaling+opening/closing status (transmitted through communication module)+remote control (electric operation is required).
After installing the communication module, the circuit breaker cannot be installed with other accessories in principle. If you need other accessories, please contact our company.
- Controller type and communication module type (refer to P21)

Normal working environment

- Altitude: ≤2000M
- The maximum inclination is 22.5 °
- Ambient temperature: - 5°C~+40°C
- In the place where there is no explosive medium, and the medium is free of gas and conductive dust that can corrode metal and damage insulation
- In a place free from the invasion of rain and snow
- Able to withstand the influence of humid air
- Can withstand the influence of salt mist and oil mist
- The installation category of the main circuit of the circuit breaker is III, and those of the other auxiliary circuits and control circuits are II
- When the maximum temperature is +40°C, the relative humidity of the air shall not exceed 50%. Higher relative humidity is allowed under lower humidity. Special measures shall be taken for occasional condensation caused by temperature changes.

The circuit breaker complies with the standard

- IEC 60947-1 and GB/14048. 1 Low-voltage switchgear and controlgear-Part 1: General rules
- IEC60947-2 and GB/14048.2 Low-voltage switchgear and controlgear-Part 2: Circuit breakers and Appendix F Additional Test on the Circuit Breaker with an Electronic Overcurrent Protection.
- IEC 60947-5.1 and GB/14048.5 Low-voltage switchgear and controlgear-Part 5-1: Low-voltage switchgear and controlgear-Part 5-1: Control circuit devices and switching elements-Electromechanical control circuit devices.

Main functions and features

- The intelligent controller is the core component of the molded case circuit breaker, which is used for motor protection or power distribution protection to achieve the integration of measurement, protection, control and communication functions, so that lines and power equipment are protected from overload, short circuit, grounding and other fault hazards. MCU microprocessor controller is adopted, with stable and reliable performance: the intelligent controller can supply power by itself, as long as one phase is powered on, when the current is not less than 20% of its rated value, the protection function can work normally;
- The selective coordination has three sections of protection: the circuit breaker of category B and other short circuit protection devices connected in the same circuit have selective coordination under short circuit conditions; setting of protection function parameters such as overload long delay, inverse time delay, short circuit delay (inverse time limit, definite time limit), short circuit instantaneous, etc;
- It has three sections of protection parameter settings of action current and action time, which can be adjusted from gear 4 to gear 10: the user can set and adjust the controller according to the load current requirements, or turn off the corresponding functions according to the user's requirements (customized functions, which should be noted when the user orders);
- High current instantaneous tripping function: when the circuit breaker is closed for operation, in case of short circuit high current ($\geq 20Inm$), the magnetic tripping mechanism of the circuit breaker can be directly tripped, making the dual protection more reliable and safe;
- With tripping test (inspection) function: it tests the action characteristics of the circuit breaker by inputting DC 12V voltage;
- Fault self diagnosis function: it protects and detects the working state and operation of the intelligent controller itself;
- With pre alarm indication and overload indication: when the load current reaches or exceeds the set value, the corresponding light guide column will export the light source;
- Double air gap technology of magnetic flux converter: more reliable and stable operation, no maloperation, reliable tripping, and small power;
- High protection accuracy: overload protection, short circuit short delay protection action time accuracy $\pm 10\%$; the accuracy of short-circuit instantaneous protection action value is $\pm 15\%$;
- Installation is interchangeable: the overall dimensions and installation dimensions are the same as those of ARXM3 series molded case circuit breakers (note: ARM3E-630 and ARXM3-800 are the same).
- Equipped with USD data interface to achieve better human-computer interaction;
- It has the function of overload alarm without tripping;
- Zero arcing function can be realized by installing zero arcing hood.

Optional Features

- Dual passive signal output function: for signaling (or alarming), capacity AC230V 5A;
- Overload thermal memory function: overload thermal memory function, short circuit (short time delay) thermal memory function;
- It has fire shunt function: overload alarm non-tripping (a pair of passive contacts is provided) and shunt tripping function is provided;
- Communication function: standard RS232, RS485, Modbus field bus protocol;
- The hand-held programmer can be connected: it can set various protection parameters of the circuit breaker and conduct nearly 10 fault queries and various status displays;
- Intelligent control analog conversion can be connected: it can convert optical isolated contact signal output

Function Details

- Communication function
Through the communication protocol conversion card, it can be easily accessed to the PROFIBUS-DP protocol network, DEVICE-NET protocol and other distribution automation cargo networks. It has the functions of remote control, remote adjustment, remote communication and telemetering, and can realize the remote operation of the circuit breaker to achieve remote power dispatching
- Telemetering: working parameters, load current, fault parameters, etc. of the power grid;
- Remote communication: various parameters, tripping characteristics, rated current, etc. of the circuit breaker;
- Remote adjustment: the computer remotely adjusts various protection parameters, tripping characteristics, rated current, etc. of the circuit breaker;
- Remote control: the computer remotely controls the disconnection of switch, etc
- Hand-held programmer
With LCD display, simple operation and simple interface, it can set various protection parameters of the circuit breaker, such as last fault query, function editing, D0 function output, etc. It can set functions or upgrade other functions according to the user's own solution.
- Overload thermal memory function
The overload thermal memory function of the controller can be selected by the user, and the controller is turned off by default when leaving the factory; overload thermal memory energy is fully released within 30 minutes
- Short circuit thermal memory function
The short circuit current protection thermal memory function of the controller (short time delay) can be selected by the user, and it is off by default when leaving the factory; the controller (short time delay) short-circuit current protection thermal memory energy is fully released within 15 minutes
- Fault recording function
The controller can record the fault type, fault trip time, fault phase and maximum fault current of the last 10 times, without loss in case of power failure
- Fire shunt function
It is used by the fire protection system. When the tripping condition is reached under the set parameters, the circuit breaker will not trip and output the normally closed contact, and the shunt function is provided. The user can choose whether to disconnect the circuit breaker.
- Programmable device D0 output function
The controller has four photoelectric signal outputs, D01 and D02 photoelectric signals can be programmed as the following function outputs, D03 is the opening signal, D04 is the closing signal

Long delay fault	Short delay fault	Ground fault
Leakage fault	Instantaneous fault	Overvoltage fault
Over temperature fault	Fault trip	Undervoltage fault
Long delay fault alarm	Short delay fault alarm	Ground fault alar
Leakage fault alarm	Instantaneous fault alarm	Overvoltage fault alarm
Over temperature fault alarm	Fault trip alarm	Undervoltage fault alarm

■ Circuit breaker opening and closing status monitoring function (optional function)

The controller can detect the current opening and closing state of the circuit breaker, and upload to the upper computer to the computer network in real time

Controller Function Introduction

Protection function	Long delay protection L Short delay protection S Instantaneous protection I G Ground protection G MCR protection HSISC protection
Measurement function	Current Measurement
Auxiliary functions	Pre alarm Self diagnostic function Fault History Test function
display function	LED indicates working status
Communication function	Protocol specification: Modbus-RTU

Products Controller function Technical Indicator

function		Feature project	Knob type controller (Basic type)	Knob type controller (Communication type)	LCD controller (Basic type) meets the requirements of Southern Power Grid	LCD controller(Communication type) meets the requirements of Southern Power Grid
Protection function	current	overload protection	●	●	●	●
		Short circuit short time delay protection	●	●	●	●
		Instantaneous short-circuit protection	●	●	●	●
		Neutral line protection	○	○	○	○
		Earth Fault Protection (independent PCB full rectifier bridge)	○	○	○	○
		Current imbalance protection	—	—	●	●
	voltage (2%)	Overload warning	○	○	○	○
		Zero break protection	—	—	—	●
		Voltage imbalance protection	—	—	—	●
		Oversupply, undervoltage, and phase loss protection	—	—	—	●
Measurement function	current (Historical records can be queried and displayed at all times, but without a timestamp)	Over and under frequency, phase sequence protection	—	—	—	○
		Phase current and medium linear current	●	●	●	●
		Average phase current	—	—	—	●
		Maximum phase current and medium linear current	—	—	—	●
		Maximum grounding current (protection value)	—	—	—	●
	voltage	Unbalanced current value between phases	—	—	—	●
		Line voltage (400V)	—	—	—	—
		Phase voltage (230V)	—	—	—	●
		Average line voltage	—	—	—	—
		Average phase voltage	—	—	—	—
		Unbalanced line voltage, unbalanced phase voltage	—	—	—	●
	Power Error<5%	phase sequence	—	—	—	—
		frequency	—	—	—	—
		Active	—	—	—	●
		Reactive	—	—	—	●
Maintenance function	apparent	apparent	—	—	—	●
		Power factor	—	—	—	●
	quantity of electricity	Active、Reactive、Apparent	—	—	—	—
		Accumulated records (number of times)	Various types of protection tripping times Displacement times, etc	1	1	1
		Daily Extreme Record	Record the maximum and minimum values of current and voltage in each phase	—	—	—
		Event recording (number of times)	Trip records, alarm records, displacement records, etc	1	1	1
		Contact wear	Contact wear record	—	—	—
	human-computer interaction	number of operations	Record of operation times	—	—	○
		RTC function	Real Time Clock	—	—	●
		Auxiliary/Alarm Detection function	Auxiliary, alarm detection and Display circuit breaker status	—	○	—
		Electric operation control function	Remote electric operation control function	○	○	○
		LED indication	●	●	●	●
Accessories function	Communication function (backpack module)	Dot matrix/broken code (digital) display (Choose one from two)	—	—	●	●
		Key settings	—	—	●	●
		Modbus RTU, DL/T 645 (with voltage) (Choose one from two)	—	● (挂模块)	—	● (通讯内置)
	Power outage query	Power outage query	—	—	●	●
		Shunt tripping function	—	○	—	○
		Overload alarm non tripping function	—	○	—	○
		Overload alarm tripping function	—	○	—	○
	Leakage module	Leakage module	—	○	—	○

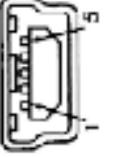
● default configuration; ○ Optional configuration; —No such configuration;

Modbus type selection

Product type Function	T1 Communication shunt module	T2 Communication status module	T3 Communication remote control module
Overload long-delay setting	●	●	●
Short circuit short-delay setting	●	●	●
Short circuit instantaneous setting	●	●	●
Overload and pre-alarm indication	●	●	●
Tripping test function	●	●	●
Fault self diagnosis function	●	●	●
Setting of coding switch	●	●	●
Communication function module	●	●	●
Shunt function	●	—	—
Memory function	●	●	●
Intelligent control module	—	—	●

External terminal interface definition

Mini USB interface definition

illustration	Pin	functional definition	Notes
	1	Power supply+5V	
	2	Data DATA-	
	3	Data DATA+	
	4	empty	
	5	Ground GND	

The Mini USB interface has two functions:

1. Applying 5V voltage can achieve the operation of the controller and read the protection setting and fault record of the controller through dedicated equipment.
2. Applying 12V voltage can achieve controller trial tripping.

EMC

Meet the requirements and test methods of GB/T 14048.2 Appendix I Electromagnetic Compatibility (EMC) - Circuit Breakers;

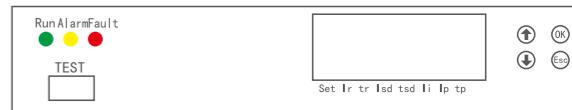
Additional tests for circuit breakers with electronic overcurrent protection in accordance with Appendix F of GB/T 14048.2.

operation panel

1、125/250 Shell Rack Controller Operation Interface



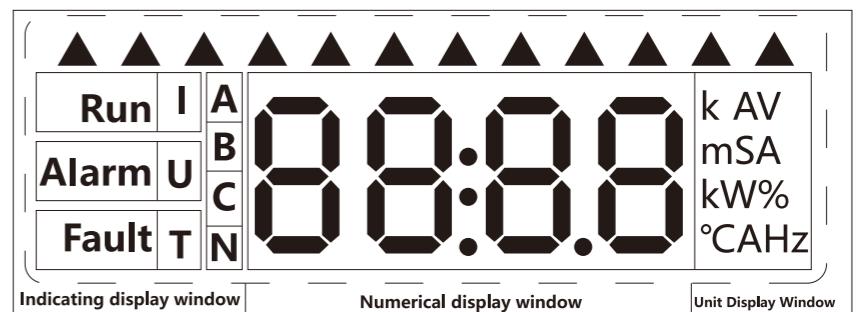
2、400/800 Shell Rack Controller Operation Interface



3、Controller Operation Interface Description

Serial Number	identifying	illustrate
1		Up key
2		Down key
3		Mini USB interface
4		LCD screen
5		OK confirmation key
6		ESC return key
7		Fault indicator light (red)
8		Fault indicator light (red) and Alarm indicator light (yellow)
9		Run indicator light (green)

4、operation panel



Explanation of display parameters corresponding to triangles in LCD screens:

Distribution protection type:

5、Operation and Display

5.1 Operation and Display

The display status can be divided into: reset status (default power on state), parameter setting status, fault display status, fault query status, and alarm status.

The differentiation of different states is achieved through the combination of LCD display windows. The specific states are as follows:

a、Reset state (default power on state): At this time, the controller has no operation and is in a fault free operating state. By default, the LCD screen displays "Run" constantly on+"I" constantly on, At 3P, "A", "B", and "C" take turns showing constant brightness, while at 4P, "A", "B", "C", and "N" take turns showing constant brightness. The numerical window displays current, and the current unit "A" remains constant.

b、Parameter setting status: The controller can modify and query the set value of protection in this state. In the default state, press the "OK" button once, and the LCD screen will display "Run" as always on+"Set" is always on+"I" is always on. At 3P, "A", "B", and "C" take turns being on. At 4P, "A", "B", "C", and "N" take turns being on, and the numerical window is displayedCurrent, current unit "A" is always on. Press the "OK" button again, and the LCD screen will display "Set" continuously lit+"Ir" continuously lit. The numerical window will display, and the relevant units will remain lit. At this time, press the "Up" or "Down" loop through "Ir", "tr", "lsd", "tsd", "Li", "Ip", "lg", "tg" | △n | t△ | unbal | and select. When "Set" is always on and "Ir" is always on, press the "OK" button again to enter the overload long delay current setting. At this time, "Set" flashes and "Ir" is always on, press "Up" or "Down" Adjust and press the "OK" key again to save. At this time, press "Up" or "Down" and select "Ir", "tr", "lsd", "li", "Ip", "lg", "tg", "I△n", and "t△" | Loop selection of "IUnbal" and "TUNBAL". Press ESC twice to return to the default state. If any key is not pressed, it will return to the default state after 30 seconds.

operation panel

c. Fault display status: This status indicates that the controller is in a fault trip state. The fault interface, when equipped with an auxiliary power supply, displays "Fault" constantly on+"Run"On+"I" is always on, and one of the fault current phases "A", "B", "C", or "N" is always on. The numerical window displays the current, and the current unit "A" is always on or "KA" is always on. At this time, pressing the "up" or "down" key can switch to viewing the fault action time or current, viewing the fault action time, displaying the time in the numerical window, and the time unit is "s" or "ms". Always on display. If there is no auxiliary power supply, the switch will trip and not display.

d. Fault query status: The controller can query the parameters of the last fault record in this status. Fault query interface, default state. Press the "OK" button once, and the LCD screen will display the following content: "Run" is always on, "Set" is always on, and "I" is always on. At 3P, "A", "B", and "C" take turns showing a constant light. At 4P, "A", "B", "C", and "N" take turns showing a constant light with numerical values. The window displays the current, and the current unit "A" is always on. Press the "Up" or "Down" button again, and at this time, "Fault" will remain lit, "Run" will remain lit, "Set" will remain lit, and "I" will remain lit. At 3P, "A", "B", and "C" take turns showing a constant light, while at 4P, "A", "B", "C", and "N" take turns showing a constant light. The numerical window displays the current, and the current unit is "A". Bright. Press the OK button again, and the "Fault" will remain on+"I" will remain on, along with the fault light indicating "Ir", "Isd", "Ii", "Ig", and "lunbal". If "Ir" "Isd", "Ii", "Ig" current fault. At this time, one of the fault current phases "A", "B", "C", and "N" is constantly on, and the numerical window displays the current. The current unit "A" is always on. "KA" is always on. At this time, pressing the "up" or "down" key can switch to viewing the fault action time or current, viewing the fault action time, displaying the time and time units in the numerical window "S" or "ms" is always on.

e. Alarm status: This status indicates that the controller has detected a situation where the measured parameters exceed the set value. Generally, it is displayed when the current exceeds the overload warning current set value. On the alarm interface, the LCD screen displays "Alarm" constantly on, "Run" constantly on, and "I" constantly on. One of the fault current phases "A", "B", "C", and "N" is constantly on, and the numerical window displays the current and current. The flow unit "A" is always on or "KA" is always on.

Display indication	project	notes
Set always on+Ir always on	Long delay current	
"Set" always on+tr always on	Long delay time for distribution protection	
"Set" always on+class always on	Motor protection trip level	
"Set" always on+Isd always on	Short delay current for distribution protection	

operation panel

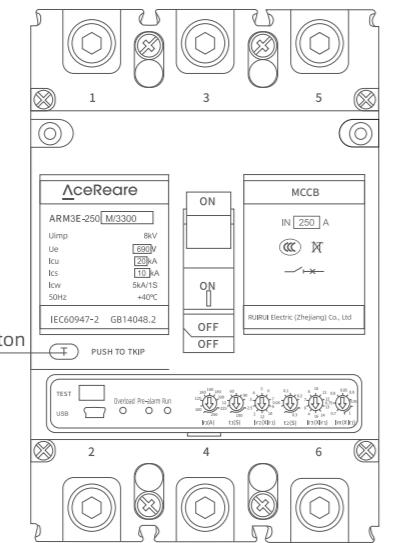
Display and working status

Display indication	project	notes
"Set" always on+jam always on	Motor protection blocking current	
"Set" always on+tsd always on	Short delay time for distribution protection	
"Set" always on+tjam always on	Motor protection blocking time	
"Set" always on+li always on	Instantaneous current	
"Set" always on+lp always on	Overload warning current	
"Set" always on+tp always on	Overload warning time	

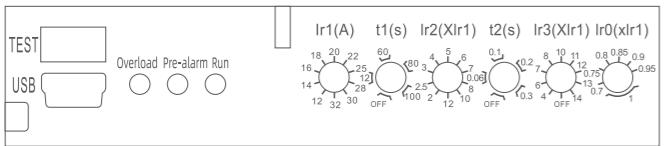
Display indication	project	notes
"Set" always on+lg always on	Grounding current	
"Set" always on+tg always on	Grounding time	
"Set" always on+IAN always on	Leakage current	
"Set" always on+tA always on	Leakage time	
"Set" always on+IUnbal always on	Motor imbalance protection	
"Set" always on+tunnel always on	Motor unbalance protection time	

Introduction to structure and identification

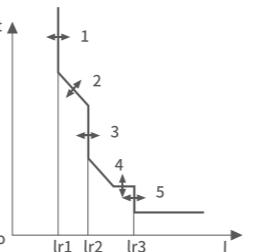
Front indication of circuit breaker



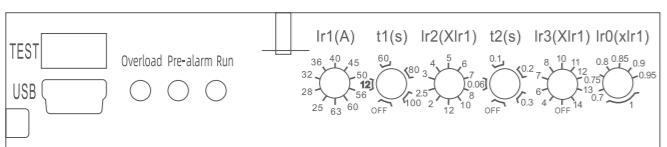
ARM3E-125.In=32A Electronic release



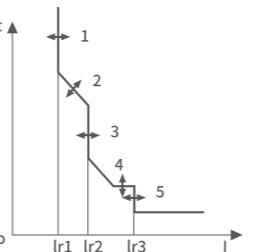
Protection characteristic curve of electronic release



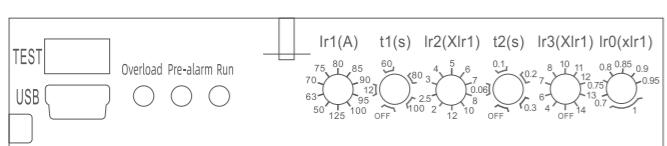
ARM3E-125.In=63A Electronic release



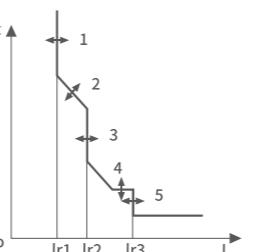
Protection characteristic curve of electronic release



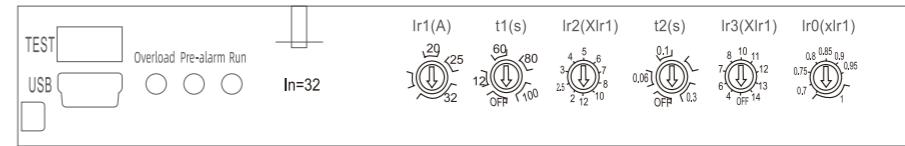
ARM3E-125.In=125A Electronic releas



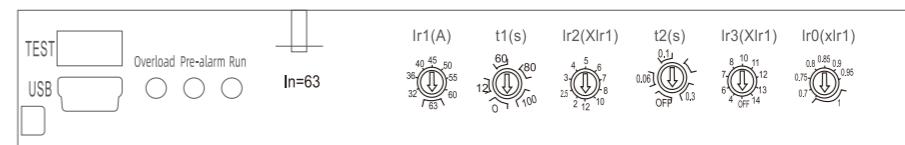
Protection characteristic curve of electronic release



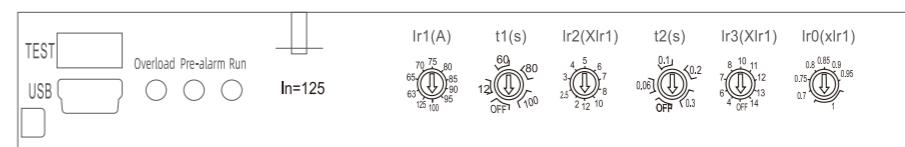
ARM3ER-160.In=32A Electronic releas



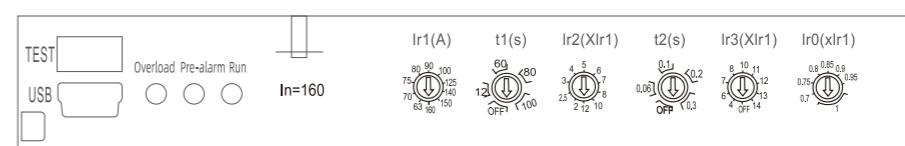
ARM3ER-160.In=63A Electronic releas



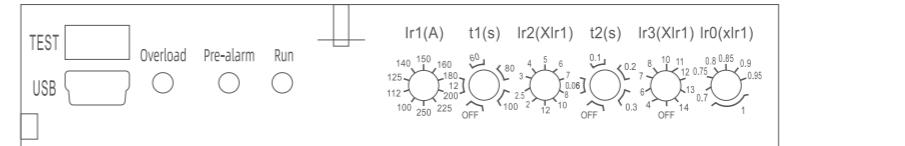
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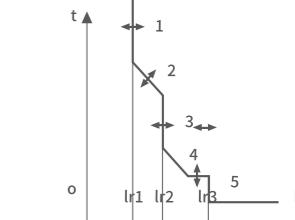
ARM3ER-160.In=160A Electronic releas



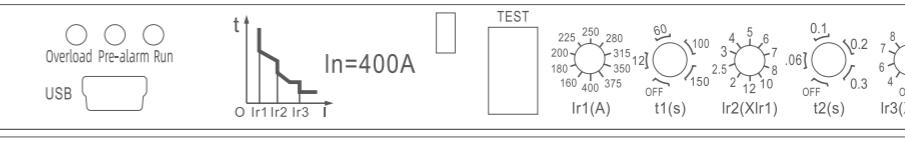
ARM3E-250.In=250AElectronic release



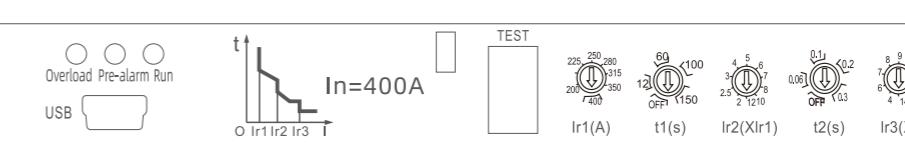
Protection characteristic curve of electronic release



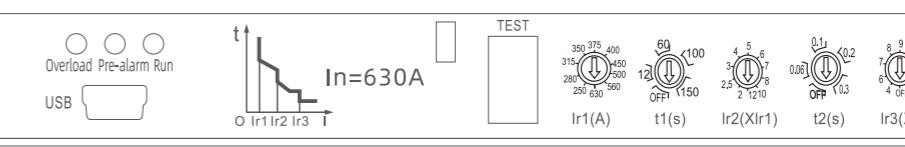
ARM3E-400.In=400A Electronic release



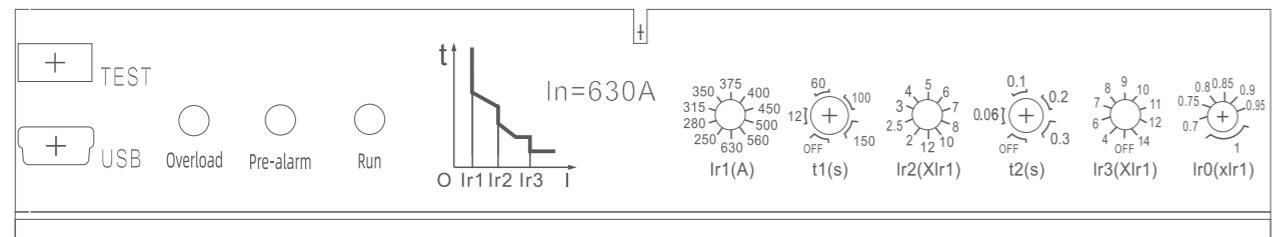
ARM3ER-630.In=400A Electronic release



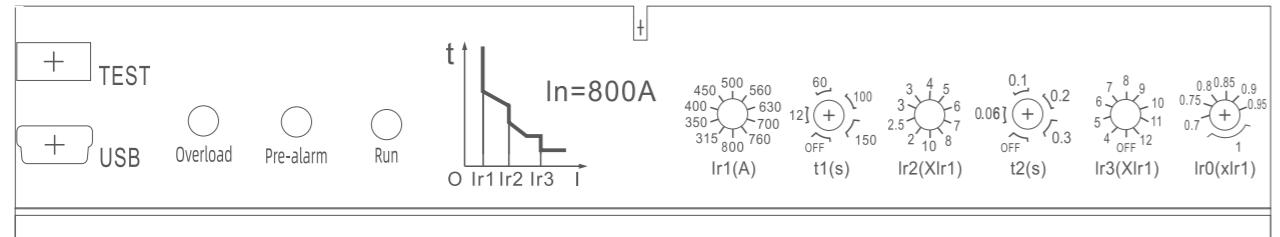
ARM3ER-630.In=630A Electronic release



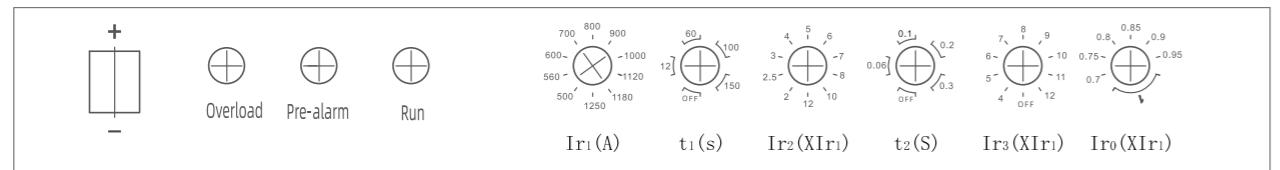
ARM3E-800.In=630A Electronic release



ARM3E-800.In=800A Electronic release



■ ARM3E-1250.In=1250A Electronic release

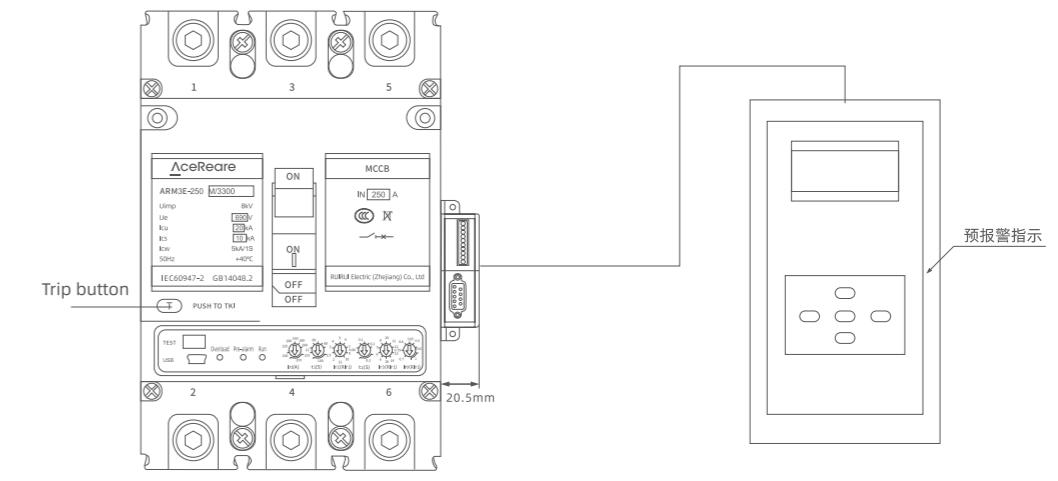


Note:

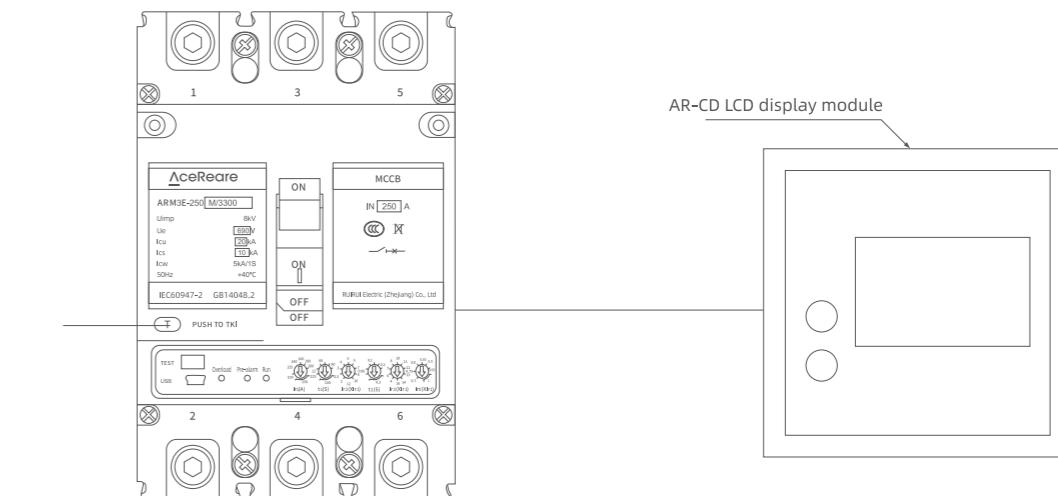
- For overload long time-delay action current Ir_1 adjustment, it can be adjusted from gear 4 to gear 10 according to different rated current of the circuit breaker;
- For long delay action time t_1 , it can be adjusted for 4 gears;
- For short circuit short time-delay action current Ir_2 adjustment, 10 gear adjustments available;
- For short delay action time t_2 , it can be adjusted for 4 gears;
- For short circuit instantaneous action current Ir_3 adjustment, 8, 9 or 10 gears can be adjusted;
- For pre-alarm action current Ir_0 , it can be adjusted for 7 gears.
- Test end, for tripping test (inspection).

Application and networking of communication interface and external modules of intelligent circuit breaker

- ARM3E series communication intelligent molded case circuit breaker is equipped with communication interface according to MODBUS communication interface protocol.
- When the ARM3E series communication intelligent molded case circuit breaker is not used for networking communication, but used alone, the hand-held programmer can conduct protection characteristic setting and other operations on the circuit breaker through the communication interface, or connect the AR-CD LCD display module to the communication interface to monitor the operating current and fault information of the circuit breaker.
- When ARM3E series communication intelligent molded case circuit breaker is used for networking communication, it can be directly connected to the corresponding field bus; for fieldbus with different protocols, AR-DP protocol conversion module can be selected to connect the MODBUS protocol to the corresponding fieldbus after conversion.
- ARM3E series communication intelligent molded case circuit breaker can be used independently. When setting the protection parameters of the circuit breaker, professionals should use the AR hand-held programmer to connect as shown in the figure below, and then operate according to the operating instructions of the hand-held programmer.

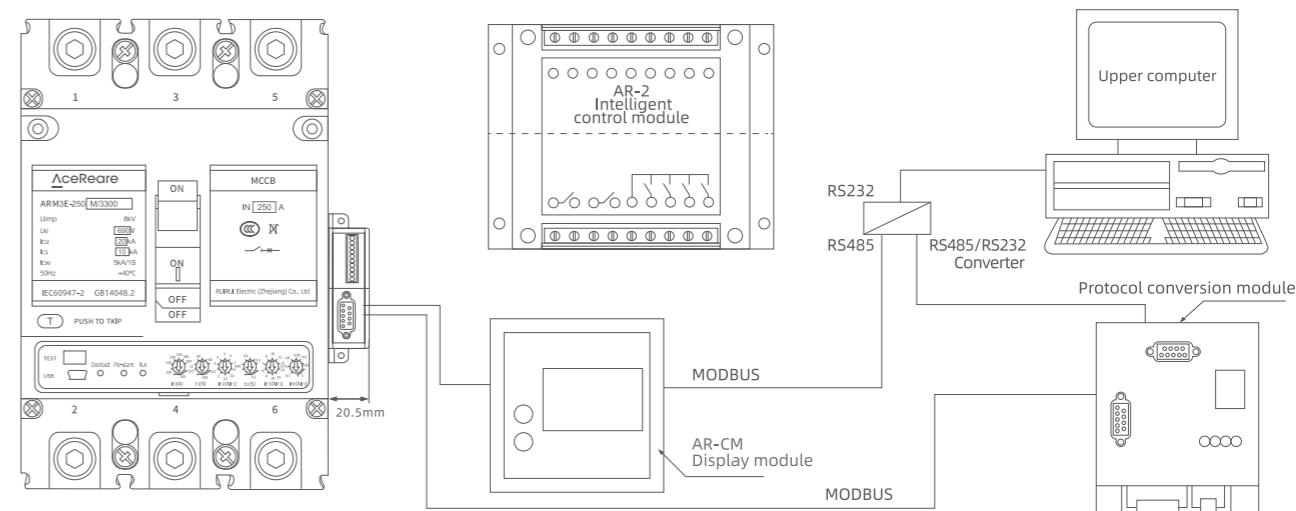


- ARM3E series communication intelligent molded case circuit breaker and AR-CD LCD display module can be used together, during normal operation, the display module can monitor the operating current and fault information of the circuit breaker. When setting the circuit breaker protection parameters, professionals should use HKK hand-held programmer to connect and operate according to the operation instructions of the hand-held programmer.



- Communication networking of ARM3E series communication intelligent molded case circuit breaker

The communication networking can be connected according to the following solution. Different protocol modules can be selected for different protocols, and MODBUS can be converted to PROFIBUS-DP and other protocols.



Main performance indexes of ARM3E series circuit breakers

Appearance						
	ARM3E-125	ARM3ER-160	ARM3E-250			
Rated current In (A)	32A(12A,14A, 16A, 18A, 20A, 22A, 25A, 28A, 30A, 32A adjustable)63A(25A, 28A, 32A, 36A, 40A, 45A, 50A, 56A, 60A, 63A adjustable)125A(50A, 63A, 70A, 75A, 80A, 85A, 90A, 95A, 100A, 125A adjustable), 160A(63A, 70A, 75A, 80A, 90A, 100A, 125A, 140A, 150A, 160A adjustable)	160A(63A,70A, 75A, 80A, 90A, 100A, 125A, 140A, 150A, 160A adjustable ; 250A(100A, 112A, 125A, 140A, 150A, 160A, 180A, 200A, 225A, 250A adjustable)				
Rated current of frame size Inm (A)	125A	250A				
Usage category	Category A		Category A			
Rated ultimate short-circuit breaking capacity level	M	H	M	H		
Number of poles (P)	3P	4P	3P	4P		
Rated working voltage Ue (V)	400V		400V			
Rated ultimate short-circuit breaking capacity Icu (kA)	50KA	85KA	50KA	85KA		
Rated service short-circuit breaking capacity Ics (kA)	35KA	50KA	35KA	50KA		
Rated short-time withstand current Icw (kA/1s)	3kA/1s		3kA/1s			
Rated working voltage Ue (V)	690V		690V			
Rated ultimate short-circuit breaking capacity Icu (kA)	20KA		20KA			
Rated service short-circuit breaking capacity Ics (kA)	10kA		10kA			
Rated insulation voltage Ui (V)	1000V		1000V			
Rated impulse withstand voltage Uimp (V)	8KV		8KV			
Mechanical life (times)	8500		7000			
Electrical life (times)	1500		1000			
Arcing distance (mm)	≥50		≥50			
W*L*H (mm)	3P 4P package 3p package 4p weight 3P weight 4P	92*150*92 122*150*92 110*170*125 130*175*130 2100g 2750g	107*165*92 142*165*92 130*175*130 180*180*145 2219g 2826g	3P 4P package 3p package 4p weight 3P weight 4P	150*258*111 200*258*111 198*277*177 250*280*180 5712g/ / g 7429/7808g	182*271*111 / 230*295*180 / 7728g /

Main performance indexes of ARM3E series circuit breakers

Appearance				
	Model	ARM3E-400		ARM3ER-630
Rated current In (A)		160A, 180A, 200A, 225A, 250A, 280A, 315A, 350A, 375A, 400A, 450A, 500A, 560A, 630A		250A, 280A, 315A, 350A, 375A, 400A, 450A, 500A, 560A, 630A
Rated current of frame size Inm (A)		400A		630A
Usage category	Category B		Category B	
Rated ultimate short-circuit breaking capacity level	L	M	H	M
Number of poles (P)	3P	3P	4P	3P
Rated working voltage Ue (V)	400V		400V	
Rated ultimate short-circuit breaking capacity Icu (kA)	50kA	65kA	100kA	65kA
Rated service short-circuit breaking capacity Ics (kA)	50kA	42kA	65kA	42kA
Rated short-time withstand current Icw (kA/1s)	5kA/1s	8kA/1s		8kA/1s
Rated working voltage Ue (V)	690V		690V	
Rated ultimate short-circuit breaking capacity Icu (kA)	20KA		20KA	
Rated service short-circuit breaking capacity Ics (kA)	15kA		15kA	
Rated insulation voltage Ui (V)	1000V		1000V	
Rated impulse withstand voltage Uimp (V)	8KV		8KV	
Mechanical life (time)	4000		4000	
Electrical life (time)	1000		1000	
Arcing distance (mm)	≥100		≥100	
W*L*H (mm)	3P 4P package 3p package 4p weight 3P weight 4P	150*258*111 200*258*111 198*277*177 250*280*180 5712g/ / g 7429/7808g	182*271*111 / 230*295*180 / 7728g /	

Main performance indexes of ARM3E series circuit breakers

Appearance				
Model	ARM3E-800		ARM3E-1250H (800 ~ 1250A)	
Rated current In (A)	630A (250A、280A、315A、350A、375A、400A、450A、500A、560A、630A Adjustable grading) 800A(315A、350A、400A、450A、500A、560A、630A、700A、760A、800A Adjustable grading)		1250A(I _r :800A/850A/900A/950A 1000A/1050A/1100A/1250A	
Rated current of frame size Inm (A)	800A		1250A	
Usage category	Category B		Category B	
Rated ultimate short-circuit breaking capacity level	M	H	H	
Number of poles (P)	3P	4P	3P	4P
Rated working voltage Ue (V)	400V		400V	
Rated ultimate short-circuit breaking capacity Icu (kA)	75kA	100kA		80kA
Rated service short-circuit breaking capacity Ics (kA)	50kA	65kA		50kA
Rated short-time withstand current Icw (kA/1s)	10kA /1s		15kA/1s	
Rated working voltage Ue (V)	690V		690V	
Rated ultimate short-circuit breaking capacity Icu (kA)	30kA		20kA	
Rated service short-circuit breaking capacity Ics (kA)	20kA		20kA	
Rated insulation voltage Ui (V)	1000V		1000V	
Rated impulse withstand voltage Uimp (V)	8kV		8kV	
Mechanical life (time)	2500		2500	
Electrical life (time)	500		500	
Arcing distance (mm)	≥100		≥100	
W*L*H (mm)	3P 4P package 3P package 4P weight 3P weight 4P	210.5*281*116 281*281*116 260*310*175 325*300*180 10267g 13103g	4P package 3P package 4P weight 3P weight 4P	210*340*153.5 /

Circuit breaker purpose type (1): power distribution type

The release mode code of distribution type ARM3E circuit breaker is 3, which has the function of overload long delay+short circuit short delay+short circuit instantaneous protection.

Model example:ARM3E-125M/3300.

Protection function	Frame size	Rated current In(A)	Current setting value (A)	Action characteristics/time
Overload long delay	125	32	I _n =12-14-16-18-20-22-25-28-30-32	Press I ² to act 1.05I _n (cold station), non-action ≥ 1h (I _n ≤63A) 1.3I _n (hot station), action < 1h (I _n >63A) 1.05I _n (cold station),non-action ≥2h (I _n >63A) 1.3I _n (hot station) non-action , <2h (I _n >63A) 21 _n , t ₁ =(12-60-80-100) s (ARM3E -125/250) t ₂ =(12-60-100-150)s (ARM3E-400/630/800)
		63	I _n =25-28-32-36-40-45-50-56-60-63	
		125	I _n = 50-56-63-70-75-80-90-95-100-125	
	160	32	I _n =100-112-125-140-150-160-180-200-225-250	
		63	I _n = 20-25-32	
		125	I _n = 32-36-40-45-50-55-60-63	
		160	I _n = 63-65-70-75-80-85-90-95-100-125	
	250	250	I _n =100-112-125-140-150-160-180-200-225-250	
		400	I _n =160-180-200-225-250-280-315-350-375-400	
		400	I _n = 200-225-250-280-315-350-400	
	630	630	I _n = 250-280-315-350-375-400-450-500-560-630	
		630	I _n =250-280-315-350-375-400-450-500-560-630	
Short circuit transient	800	630	I _n =250-280-315-350-375-400-450-500-560-630	1.3I _n ~3I _n :±10% >3I _n :±20% When I ₂ ≤I<1.5I _n , inverse time limit action; 1.5I ₂ , t ₂ =(0.06-0.1-0.2-0.3)s When 1.5I ₂ ≤I<I ₃ , definite time limit action ±0.06s, ±0.02s ±0.1s, ±0.03s ±0.2s, ±0.04s; t ₂ =0.3s, ±0.06s
		800	I _n =315-350-400-450-500-560-630-700-760-800	
	1250	1250	I _n = 800-850-900-950-1000-1250	
		125	I _n = 32-125	
Action tolerance	125~630	32~630	I ₂ =(2-2.5-3-4-5-6-7-8-10-12)xI _n	Instantaneous action
		800	I ₂ =(2-2.5-3-3.5-4-5-6-7-8-10)xI _n	
	1250	1250	I ₂ =(2-2.5-3-4-5-6-7-8-10-12)	
		125	±10%	
Neutral pole protection 4P C type	250/400/630	250~630	I ₃ =(4-6-7-8-9-10-11-12-13-14-OFF)xI _n	
		800	I ₃ =(4-5-6-7-8-9-10-11-12-OFF)	
	1250	1250	I ₃ =(4-5-6-7-8-9-10-11-12-OFF)	
		125	±15%	
Overload pre-alarm	125/160	32~160	I ₀ =(0.4-0.5-0.6-0.7-0.8-0.9-1.0-OFF)	
	225/250/400/630/800	225/250/400/630/800	I ₀ =(0.2-0.3-0.4-0.5-0.6-0.7-0.8-0.9-1.0-OFF)	

Note:

1. ARM3E overload long time delay can be provided through negotiation, and short circuit short time delay protection can be closed.
2. The action time is tolerant for error when the electronic release operates normally.

Circuit breaker purpose type (1): power distribution type

Note: The release mode code of distribution type ARM3E circuit breaker is 3, and the grounding fault code is G. It has overload long delay+short circuit short delay+short circuit instantaneous+grounding fault protection functions.

Model example: ARM3E-250M/3300G

Protection function	Frame size	Rated current In(A)	Current setting value (A)	Action characteristics/time
Overload long delay	125	32	$I_{n1}=12-14-16-18-20-22-25-28-30-32$	Press I^2 to act $1.05I_{n1}$, non-action within 2h $1.3I_{n1}$, action within 1h $21I_{n1}$, $t_1=(12-60-80-100)s$ (ARM3E-125/250) $t_1=(12-60-100-150)s$ (ARM3E-400/630/800)
		63	$I_{n1}=25-28-32-36-40-45-50-56-60-63$	
		125	$I_{n1}=40-45-50-56-63-70-75-80-90-95-100-125$	
	160	32	$I_{n1}=100-112-125-140-150-160-180-200-225-250$	
		63	$I_{n1}=20-25-32$	
		125	$I_{n1}=32-36-40-45-50-55-60-63$	
		160	$I_{n1}=63-65-70-75-80-85-90-95-100-125$	
	250	250	$I_{n1}=100-112-125-140-150-160-180-200-225-250$	
	400	400	$I_{n1}=160-180-200-225-250-280-315-350-375-400$	
	ER-630	400	$I_{n1}=200-225-250-280-315-350-400$	
		630	$I_{n1}=250-280-315-350-375-400-450-500-560-630$	
	630	630	$I_{n1}=250-280-315-350-375-400-450-500-560-630$	
	800	630	$I_{n1}=250-280-315-350-375-400-450-500-560-630$	
		800	$I_{n1}=315-350-400-450-500-560-630-700-760-800$	
	1250	1250	$I_{n1}=800-850-900-950-1000-1250$	
Action tolerance				$1.3I_{n1} \sim 3I_{n1} \pm 10\% > 3I_{n1} \pm 20\%$
Short circuit short time delay	125~630	32~630	$I_{n2}=(2-2.5-3-4-5-6-7-8-10-12)xI_{n1}$	$1.3I_{n1} \sim 3I_{n1} \pm 10\% > 3I_{n1} \pm 20\%$ $1.3I_{n2}, \text{action within 1h};$ $1.5I_{n2}, t_2=0.3s$ $\text{When } 1.5I_{n2} \leq I_{n3}, \text{timing limit action}$ $t_2=0.3s \pm 15\%$
	800	800	$I_{n2}=(2-2.5-3-3.5-4-5-6-7-8-10)xI_{n1}$	
	1250	1250	$I_{n2}=(2-2.5-3-4-5-6-7-8-9-10-12)$	
Action tolerance			$\pm 10\%$	$\pm 10\%$ $\pm 15\%$ $t_4=(0.1-0.2-0.3-0.4+OFF)$ $t_4=0.1s, 0.2s \pm 0.03s$ $t_4=0.3s \sim 0.4s \pm 10\%$
Short circuit instantaneous	125	32~125	$I_{n3}=(4-6-7-8-10-11-12-13-14-OFF)xI_{n1}$	
	250/400/630	250~630	$I_{n3}=(4-6-7-8-10-11-12-13-14-OFF)xI_{n1}$	
	800	800	$I_{n3}=(4-5-6-7-8-9-10-11-12)xI_{n1}$	
	1250	1250	$I_{n3}=(4-5-6-7-8-9-10-11-12-14-OFF)$	
Action tolerance			$\pm 15\%$	
Ground fault	125/160	32~160	$I_g=(0.4-0.5-0.6-0.7-0.8-0.9-1.0-OFF)$	$I_g=(0.4-0.5-0.6-0.7-0.8-0.9-1.0-OFF)$ $I_g=(0.2-0.3-0.4-0.5-0.6-0.7-0.8-0.9-1.0-OFF)$
	225/250/400/630/800	225/250/400/630/800	$I_g=(0.2-0.3-0.4-0.5-0.6-0.7-0.8-0.9-1.0-OFF)$	
Action tolerance			$\pm 10\%$	
Neutral pole protection 4P type C	125~1250	32~1250	$I_{n1N}=I_{n1}, I_{n2N}=I_{n2}, I_{n3N}=I_{n3}$	$I_{n1N}=I_{n1}, I_{n2N}=I_{n2}, I_{n3N}=I_{n3}$
Overload pre-alarm	125~1250	32~1250	$I_{o1}=0.9xI_{n1}$	$I_{o1}=(0.7-0.75-0.8-0.85-0.9-0.95-1.0)xI_{n1}$

Note:

1. ARM3E overload long time delay can be provided through negotiation, and short circuit short time delay protection can be closed.
2. The action time is tolerant for error when the electronic release operates normally.

Circuit breaker purpose type (2): motor protection type

The mode code of motor protection type ARM3E circuit breaker release is 3, and the purpose code is 2. It has the function of overload long delay+short circuit short delay+short circuit instantaneous protection.

If ARM3E-125M/33002 is selected.

Protection function	Frame size	Rated current In (A)	Current setting value (A)	Action characteristics/time				
				Press I^2 to act				
Overload long delay	125	32	$I_{n1}=12-14-16-18-20-22-25-28-30-32$	$1.05I_{n1}$	Non-action within 2h			
		63	$I_{n1}=25-28-32-36-40-45-50-56-60-63$	$1.2I_{n1}$	Action within 1h			
		125	$I_{n1}=40-45-50-56-63-70-75-80-90-95-100-125$	$1.5I_{n1}$	$21.3s$	$107s$	$142s$	$178s$
	160	32	$I_{n1}=100-112-125-140-150-160-180-200-225-250$	$2I_{n1}, t_1$	$12s$	$60s$	$80s$	$100s$
		63	$I_{n1}=20-25-32$	$7.2I_{n1}$	$0.93s$	$4.63s$	$6.17s$	$7.72s$
		125	$I_{n1}=32-36-40-45-50-55-60-63$	Tripping level	–	$10A$	10	10
		160	$I_{n1}=63-65-70-75-80-85-90-95-100-125$					
	250	250	$I_{n1}=100-112-125-140-150-160-180-200-225-250$					
	400	400	$I_{n1}=160-180-200-225-250-280-315-350-375-400$					
	ER-630	400	$I_{n1}=200-225-250-280-315-350-400$					
		630	$I_{n1}=250-280-315-350-375-400-450-500-560-630$					
		630	$I_{n1}=250-280-315-350-375-400-450-500-560-630$					
	800	630	$I_{n1}=250-280-315-350-375-400-450-500-560-630$					
		800	$I_{n1}=315-350-400-450-500-560-630-700-760-800$					
		1250	$I_{n1}=800-850-900-950-1000-1250$					
Action tolerance								
Short circuit short time delay	125~630	32~630	$I_{n2}=(2-2.5-3-4-5-6-7-8-10-12)xI_{n1}$					
	800	800	$I_{n2}=(2-2.5-3-3.5-4-5-6-7-8-10)xI_{n1}$					
	1250	1250	$I_{n2}=(2-2.5-3-4-5-6-7-8-9-10-12)$					
Action tolerance			$\pm 10\%$					
Short circuit instantaneous	125	32~125	$I_{n3}=(4-6-7-8-10-11-12-13-14-OFF)xI_{n1}$					
	250/400/630	250~630	$I_{n3}=(4-6-7-8-10-11-12-13-14-OFF)xI_{n1}$					
	800	800	$I_{n3}=(4-5-6-7-8-9-10-11-12)xI_{n1}$					
	1250	1250	$I_{n3}=(4-5-6-7-8-9-10-11-12-14-OFF)$					
Action tolerance			$\pm 15\%$					
Ground fault	125/160	32~160	$I_g=(0.4-0.5-0.6-0.7-0.8-0.9-1.0-OFF)$					
	225/250/400/630/800	225/250/400/630/800	$I_g=(0.2-0.3-0.4-0.5-0.6-0.7-0.8-0.9-1.0-OFF)$					
Action tolerance			$\pm 10\%$					
Neutral pole protection 4P type C	125~1250	32~1250	$I_{n1N}=I_{n1}, I_{n2N}=I_{n2}, I_{n3N}=I_{n3}$					
Overload pre-alarm	125~1250	32~1250	$I_{o1}=0.9xI_{n1}$					

Note:

1. ARM3E overload long time delay can be provided through negotiation, and short circuit short time delay protection can be closed.
2. The action time is tolerant for error when the electronic release operates normally.

Circuit breaker purpose type (2): motor protection type

Motor protection type ARM3E circuit breaker release mode code is 3, purpose code is 2, and grounding fault code is G. It has overload long delay+short circuit short delay+short circuit instantaneous+grounding fault protection functions.

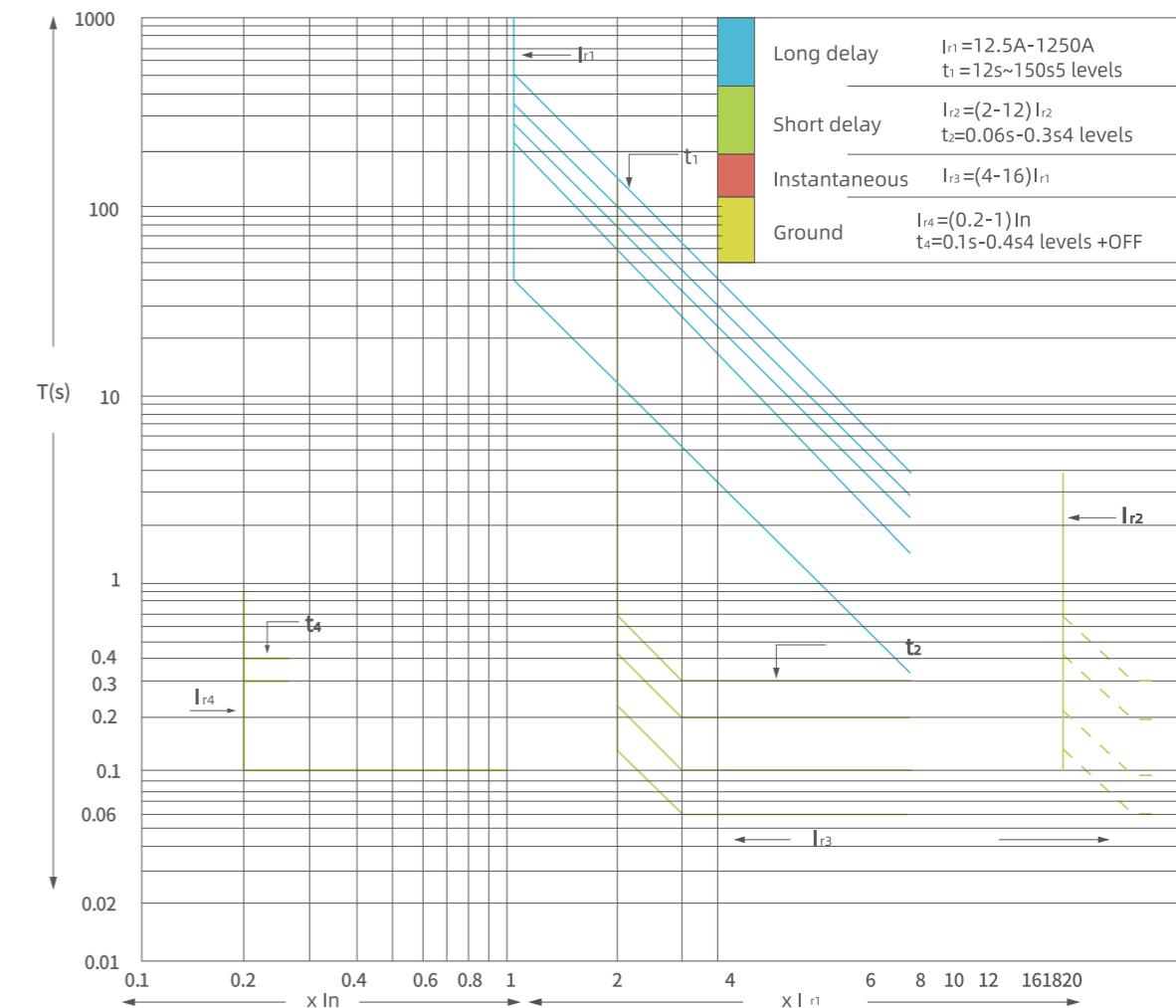
If model ARM3E-250M/33002G is selected.

Protection function	Frame size	Rated current I_{nA}	Current setting value (A)	Action characteristics/time																														
Overload long delay	125	32	$I_{nA} = 12-14-16-18-20-22-25-28-30-32$	<p style="text-align: center;">Press I^2 to act</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">1.05I_{nA}</td> <td colspan="4">Non-action within 2h</td> </tr> <tr> <td>1.2I_{nA}</td> <td colspan="4">Action within 1h</td> </tr> <tr> <td>1.5I_{nA}</td> <td>21.3s</td> <td>107s</td> <td>142s</td> <td>178s</td> </tr> <tr> <td>2I_{nA}, t_1</td> <td>12s</td> <td>60s</td> <td>80s</td> <td>100s</td> </tr> <tr> <td>7.2I_{nA}</td> <td>0.93s</td> <td>4.63s</td> <td>6.17s</td> <td>7.72s</td> </tr> <tr> <td>Tripping level</td> <td>-</td> <td>10A</td> <td>10</td> <td>10</td> </tr> </table>	1.05 I_{nA}	Non-action within 2h				1.2 I_{nA}	Action within 1h				1.5 I_{nA}	21.3s	107s	142s	178s	2 I_{nA} , t_1	12s	60s	80s	100s	7.2 I_{nA}	0.93s	4.63s	6.17s	7.72s	Tripping level	-	10A	10	10
1.05 I_{nA}	Non-action within 2h																																	
1.2 I_{nA}	Action within 1h																																	
1.5 I_{nA}	21.3s	107s	142s	178s																														
2 I_{nA} , t_1	12s	60s	80s	100s																														
7.2 I_{nA}	0.93s	4.63s	6.17s	7.72s																														
Tripping level	-	10A	10	10																														
63	$I_{nA} = 25-28-32-36-40-45-50-56-60-63$																																	
125	$I_{nA} = 40-45-50-56-63-70-75-80-90-95-100-125$																																	
160	32	$I_{nA} = 100-112-125-140-150-160-180-200-225-250$																																
	63	$I_{nA} = 20-25-32$																																
	125	$I_{nA} = 32-36-40-45-50-55-60-63$																																
	160	$I_{nA} = 63-65-70-75-80-85-90-95-100-125$																																
250	250	$I_{nA} = 100-112-125-140-150-160-180-200-225-250$																																
400	400	$I_{nA} = 160-180-200-225-250-280-315-350-375-400$																																
ER-630	400	$I_{nA} = 200-225-250-280-315-350-400$																																
	630	$I_{nA} = 250-280-315-350-375-400-450-500-560-630$																																
630	630	$I_{nA} = 250-280-315-350-375-400-450-500-560-630$																																
800	630	$I_{nA} = 250-280-315-350-375-400-450-500-560-630$																																
	800	$I_{nA} = 315-350-400-450-500-560-630-700-760-800$																																
1250	1250	$I_{nA} = 800-850-900-950-1000-1250$																																
Action tolerance			$\pm 10\%$	$1.3I_{nA}-3I_{nA}:\pm 10\%$ $>3I_{nA}:\pm 20\%$																														
Short circuit short time delay	125~1250	32~1250	$I_{n2} = (2-2.5-3-4-5-6-7-8-10-12) \times I_{nA}$	When $I_{n2} \leq I < 1.5I_{n2}$, inverse time limit action; $1.5I_{n2}, t_2=0.3s$																														
Action tolerance			$\pm 10\%$	When $1.5I_{n2} \leq I \leq I_{n3}$, definite time limit action ; $t_2=0.3s:\pm 15\%$																														
Short circuit instantaneous	125	32~125	$I_{n3} = (4-6-7-8-10-11-12-13-14-OFF) \times I_{nA}$	Instantaneous action																														
	800	800	$I_{n3} = (4-5-6-7-8-10-11-12-OFF) \times I_{nA}$																															
	250/400/630/1250	250~1250	$I_{n3} = (4-6-7-8-10-11-12-13-14-OFF) \times I_{nA}$																															
Action tolerance			$\pm 15\%$																															
Ground fault	125/160	32~160	$I_g = (0.4-0.5-0.6-0.7-0.8-0.9-1.0-OFF)$	$t_4 = (0.1-0.2-0.3-0.4+OFF)$																														
	225/250/400/630/800	225/250/400/630/800	$I_g = (0.2-0.3-0.4-0.5-0.6-0.7-0.8-0.9-1.0-OFF)$																															
Action tolerance			$\pm 10\%$	$t_4 = 0.1s, 0.2s:\pm 0.03s$ $t_4 = 0.3s-0.4s:\pm 10\%$																														
Neutral pole protection 4P type C	125-1250	32-1250	$I_{nN} = I_{n1}, I_{n2} = I_{n2}, I_{n3} = I_{n3}$																															
Overload pre-alarm	125-1250	32-1250	$I_{n0} = 0.9 \times I_{nA}$																															

Note:

1. ARM3E overload long time delay can be provided through negotiation, and short circuit short time delay protection can be closed.
2. The action time is tolerant for error when the electronic release operates normally.

Protection characteristic curve of circuit breaker



ARM3E Circuit breaker internal accessory code

releases mode and internal accessory code	Model Number of poles Accessory name	Handle		Alarm contact		Undervoltage release		Auxiliary contact		Lead wire direction	
08	Alarm contact	Left side installation	Handle	Right side installation							
10	Shunt release										
20	Auxiliary contac (1NO1NC)										
	Auxiliary contac (2NO2NC)										
02	Auxiliary contac (2NO2NC)										
30	Under voltage release										
40	Shunt release Auxiliary contac (1NO1NC)										
	Shunt release Auxiliary contac (2NO2NC)										
12	Shunt release Auxiliary contac (2NO2NC)										
50	Shunt release Under voltage release										
60	Auxiliary contac (2NO 2NC)										
	Auxiliary contac (4NO 4NC)										
22	2 sets Auxiliary contac (3NO3NC)										
23	Auxiliary contac (4NO 4NC)										
70	Auxiliary contac (1NO1NC) Under voltage release										
	Auxiliary contac (2NO2NC) Under voltage release										
18	Shunt release Alarm contact										
28	Auxiliary contac (1NO1NC) Alarm contact										
38	Under voltage release Alarm contact										
48	Shunt release Alarm contact Auxiliary contac (1NO 1NC)										
68	Alarm contact Auxiliary contac (2NO2NC)										
78	Under voltage release Alarm contact Auxiliary contac (1NO 1NC)										
	Under voltage release Alarm contact Auxiliary contac(2NO 2NC)										
05	Alarm contact 2 sets auxiliary contacts (3NO3NC)										

Note:1) The internal accessory codes of ARM3E-100, 250 three pole, and ARM3E-400 three pole and four pole circuit breakers are 40, 12, 50, 18, and 48, and the shunt release adopts the form of a right side external module,

2) The internal accessory code is 22, with 2NO2NC on the left and 1NO1NC on the right

3) Additional fees are required for the installation of extension handles (extension handles are optional for sizes ≥ 400);

4) Accessory split leading line type, terminal type;

5) The default length of the lead wire is 50cm, and it can be made to 100cm (additional charge required).

Please contact the company for other special requirements

6) Please contact the company for combinations that are not included in the table attachments.

ARM3L



Scope of application

switching and motor starting in circuit with frequency of AC 50Hz(or 60Hz),rated insulation voltage of 1000v, rated working voltage of 400V and rated working current of 630A(800A).The circuit breaker has overload,short circuit and undervoltage protection functions,which can protect the circuit and power supply from damage;Meanwhile,it can provide indirect contact protection for people,and it can also provide protection against fire hazard that may be caused by long-term grounding fault that cannot be detected by overcurrent protection.When other protective devices fail,ARM3L residual current circuit breaker with rated residual working current of 100mA can directly provide additional protection.

The circuit breakers are classified into M type (medium breaking type) and H type (high breaking type) according to their rated ultimate short-circuit breaking capacity. The circuit breaker has the characteristics of small volume, high breaking capacity, short arcing, anti-vibration, etc.

The circuit breaker can be installed vertically (i.e. upright), horizontally (i.e. transversely) and flat.

The circuit breaker has isolation function, and its corresponding symbols are: “—/—”

The circuit breaker meets the standard IEC-60947-2 GB/T14048.2 and Appendix B.

The circuit breaker shall not reverse the incoming line, that is, only 1, 3, 5 are allowed to be connected to the power line, and 2, 4, 6 are allowed to be connected to the load line.

Leakage current above 30mA does not have personal protection

Model and its meaning

AR	M	3	L	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	/	3	3	00	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4		5	6	7		8	9	10	11	12		13 14

- | | | |
|---------------------------------------|---|------------------------------------|
| 1 RUIRUI Electric (Zhejiang) Co., Ltd | 6 Rated ultimate short-circuit breaking capacity level (note 1) | 11 N Poles Patter AB(note 4) |
| 2 Molded case circuit breaker | 7 Operation mode (note 2) | 12 RCCB release type(note 5) |
| 3 Design code | 8 Number of poles | 13 Leakage Alarm Unit Type(note 6) |
| 4 Leakage type | 9 Release mode(note 3) | 14 Rated Current |
| 5 Rated current of frame size | 10 accessory code (see internal accessory code table) | |

Note:

- According to the rated ultimate short-circuit breaking capacity, it can be classified into M type high breaking type and H type high breaking type.
- No code for direct operation of handle: electric operation is represented by P; The rotation handle is represented by Z.
- 200: circuit breaker with only electromagnetic release; 300: circuit breaker with thermal-electromagnetic release; 000: circuit breaker without over-current release (disconnector)
- It is classified into three poles and four poles according to the number of poles. There are two types of neutral pole (N pole) in four pole products.
- Type A: The N-pole is not equipped with over-current release, and the N-pole is always connected, not closed or opened with other three poles.
- Type B: N-pole is not equipped with over-current release, and N-pole is closed and opened together with other three poles (N-pole is closed first and then opened).
- Residual current release models are classified into Type I and Type II (see main performance index for details). Type I is standard type, and Type II shall be noted when ordering.
- The module without leakage alarm unit has no code, and the module with leakage alarm unit should be specified when ordering.

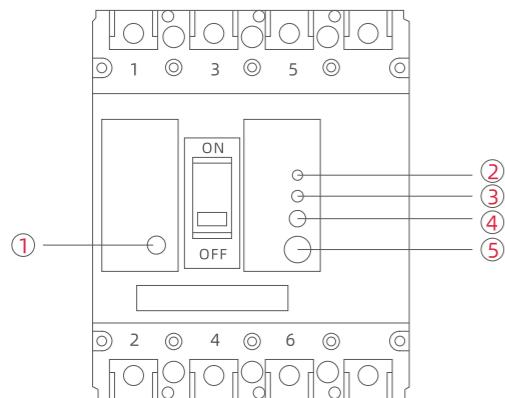
Normal working environment

- Altitude: ≤2000M
- Ambient temperature: -5°C~+40°C
- Be able to withstand the influence of moisture
- The pollution level is 3
- In a place free from rain and snow
- The maximum inclination is 22.5 °
- Installation Category III
- In the place where there is no explosive medium, and the medium is free of gas and conductive dust that can corrode metal and damage insulation

Main feature

Residual current three-phase protection: ARM1L circuit breaker realizes ground fault protection. Two phases are sampled for the working power supply of the leakage protection module of conventional residual current operated circuit breaker, and this series of circuit breakers are three-phase. If any phase is missing, the leakage protection module of the circuit breaker can still work normally;
 Site adjustable: rated residual working current $I_{\Delta n}$ and residual current operation time (non-delay and delay) can be adjusted on site according to the actual situation; low voltage protection: when the phase voltage drops to 50V, the leakage protection module can still work normally;
 With leakage alarm output function: when the residual current of the equipment or line reaches or exceeds the set value, the circuit breaker with leakage alarm unit module outputs a passive contact signal to drive the corresponding alarm device;
 Interchangeable installation: except for 125A and 250A frame size, the overall and installation dimensions of others are the same as those of ARM1 series circuit breakers (ARM1L-630 and ARM1L-800 are the same).

Structure introduction



- ① Tripping button
- ② Rated residual working current adjustment knob
- ③ Non-delay and delay time adjustment knob
- ④ Leakage action indication button
- ⑤ Leakage test button

Derating factor

Model	Derating factor(I_n)				
	+40°C	+45°C	+50°C	+55°C	+60°C
ARM3L-125	1ln	0.95ln	0.89ln	0.84ln	0.76ln
ARM3L-250	1ln	0.96ln	0.91ln	0.87ln	0.82ln
ARM3L-400	1ln	0.94ln	0.87ln	0.81ln	0.73ln
ARM1L-630/800	1ln	0.93ln	0.88ln	0.83ln	0.76ln

Main performance index of ARM1L series circuit breaker

Appearance		
	ARM3L-125	ARM3L-250
Rated current I_n (A)	16A / 20A / 25A / 32A / 40A / 50A 63A / 80A / 100A / 125A	100A / 125A / 140A / 160A / 180A 200A / 225A / 250A
Rated current of frame size I_{nm} (A)	125A	250A
Usage category	Category A	Category A
Rated ultimate short-circuit breaking capacity level	M M H H	M M H H
Number of poles (P)	3P 4P	3P 4P
Rated working voltage U_e (V)	400V	400V
Rated ultimate short-circuit breaking capacity I_{cu} (kA)	50KA	85KA
Rated service short-circuit breaking capacity I_{cs} (kA)	35KA	50KA
Rated residual working current $I_{\Delta n}$ (mA)	Type I 100、300、500 30、100、300 Type II	100、300、500 30、100、300
Rated residual non working current $I_{\Delta n}$ (mA)	$I_{\Delta n} \times 50\%$	$I_{\Delta n} \times 50\%$
Rated residual short-circuit making and breaking capacity $I_{\Delta m}$ (mA)	$I_{cu} \times 25\%$	$I_{cu} \times 25\%$
Rated insulation voltage U_i (V)	1000V	1000V
Rated impulse withstand voltage U_{imp} (V)	8KV	8KV
Mechanical life (time)	8500	7000
Electrical life (time)	1500	1000
Arcing distance (mm)	≥ 50	≥ 50
W*L*H (mm)	3P 92*150*92	107*165*92
	4P 122*150*92	142*165*92
	package 3P 110*170*125	130*175*130
	package 4P 130*175*133	173*183*145
	weight 3P 1900g	2219g
	weight 4P 2000g	2700g

Main performance index of ARM1L series circuit breaker

Apearance		
Model	ARM3L-400	ARM3L-630
Rated current In (A)	225A / 250A / 315A / 350A / 400A	400A / 500A / 630A
Rated current of frame size Inm (A)	400A	630A
Usage category	A类	A类
Rated ultimate short-circuit breaking capacity level	M M H H	M M H H
Number of poles (P)	3P 4P	3P 4P
Rated working voltage Ue (V)	400V	400V
Rated ultimate short-circuit breaking capacity Icu (kA)	65KA 100KA	65KA 100KA
Rated service short-circuit breaking capacity Ics (kA)	42KA 70KA	42KA 70KA
Rated residual working current $I_{\Delta n0}$ (mA)	Type I 100、300、500 Type II 300、500、1000	100、300、500 300、500、1000
Rated residual non working current $I_{\Delta n0}$ (mA)	$I_{\Delta n} \times 50\%$	$I_{\Delta n} \times 50\%$
Rated residual short-circuit making and breaking capacity $I_{\Delta m}$ (mA)	$I_{cu} \times 25\%$	$I_{cu} \times 25\%$
Rated insulation voltage Ui (V)	1000V	1000V
Rated impulse withstand voltage U_{imp} (V)	8KV	8KV
Mechanical life (time)	4000	4000
Electrical life (time)	1000	1000
Arcing distance (mm)	≥ 100	≥ 100
W*L*H (mm)	3P 150*258*111	210.5*281*116
	4P 200*258*111	281*281*116
	package 3p 198*285*246	260*310*175
	package 4p 180*285*246	325*300*180
	weight 3P 7728g	9761g
	weight 4P 8131g	12700g

Main performance index of ARM1L series circuit breaker

Apearance	
Model	ARM3L-800
Rated current In (A)	630A / 700A/800A
Rated current of frame size Inm (A)	630A
Usage category	A类
Rated ultimate short-circuit breaking capacity level	M M H H
Number of poles (P)	3P 4P
Rated working voltage Ue (V)	400V
Rated ultimate short-circuit breaking capacity Icu (kA)	65KA 100KA
Rated service short-circuit breaking capacity Ics (kA)	42KA 70KA
Rated residual working current $I_{\Delta n0}$ (mA)	Type I 100、300、500 Type II 300、500、1000
Rated residual non working current $I_{\Delta n0}$ (mA)	$I_{\Delta n} \times 50\%$
Rated residual short-circuit making and breaking capacity $I_{\Delta m}$ (mA)	$I_{cu} \times 25\%$
Rated insulation voltage Ui (V)	1000V
Rated impulse withstand voltage U_{imp} (V)	8KV
Mechanical life (time)	4000
Electrical life (time)	1000
Arcing distance (mm)	≥ 100
W*L*H (mm)	3P 210.5*281*116
	4P 281*281*116
	package 3p 260*310*175
	package 4p 325*300*180
	weight 3P 9761g
	weight 4P 12700g

ARM3 Series Molded Case Circuit Breaker	ARXM3 Series Molded Case Circuit Breaker	ARM3E Series Electronic Molded Case Circuit Breaker	ARM3L Series Residual Current Molded Case Circuit Breaker
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ARM3 Series Molded Case Circuit Breaker	ARXM3 Series Molded Case Circuit Breaker	ARM3E Series Electronic Molded Case Circuit Breaker	ARM3L Series Residual Current Molded Case Circuit Breaker
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Circuit breaker purpose type (1): power distribution type

Power distribution type ARM3L circuit breaker can be classified into two release modes:

- The model of thermal+electromagnetic release with code 3 is ARM3L-125M/3300
- Code 2 only has electromagnetic release and residual current release, and the model is ARM3L-125M/3200

The release mode code is 3, thermal+electromagnetic release and residual current release

Protection function	Frame size	Rated current I_n (A)		Tripping characteristics	
Overload protection	Full range	16~800		I ² t tripping 1.05 I_n (cold state), non-tripping within 1h ($I_n \leq 63A$) 1.3 I_n (hot state), tripping $\leq 1h$ ($I_n \leq 63A$) 1.05 I_n (cold state), non-tripping within 2h ($I_n > 63A$) 1.3 I_n (hot state), tripping $\leq 2h$ ($I_n > 63A$)	
	Frame size	Rated current I_n (A)		I_r (A)	Tripping time
Short circuit protection	125	16~630	10 I_n		Instantaneous tripping
	250	100~140	10 I_n		
	400	160~250	10 I_n		
	630	225~400	10 I_n		
	800	400~630	10 I_n		
Action tolerance		$\pm 20\%$			
	Frame size	Rated current I_n (A)		I_r (A)	Tripping time
Neutral pole protection type C/D (4P circuit breaker)	125	16~63	10 I_n		(5 I_n can be provided, which shall be noted when ordering)
		80/100	63,630	I_n , I	
	250	100~200	100,1000		
		225/250	125,1250	Neutral pole overload protection current setting value I_n can be provided	
	400	225~315	225,2250	The setting value of short-circuit protection current of neutral pole is I_r	
		350~400	250,2500		
	630	400~630	400,4000	It shall be noted when ordering	
	800	630~800	400,4000		
	16~800		No protection		

Residual current release		$I_{\Delta n}$	$2I_{\Delta n}$	$5I_{\Delta n}$	$10I_{\Delta n}$
Non delay	Max breaking time (S)	0.2	0.1	0.04	0.04
Delay	Max breaking time (S)	0.5 / 1.15 / 2.15	0.35 / 1 / 2	0.25/0.9/1.9	0.25/0.9/1.9
	Limit non-driving time Δt (s)	--	0.1 / 0.5 / 1	--	--

Note: The delay type has the opening and closing function of the non delay type

Model	Delay time Δt (s) (limit non-driving time)
Non delay	≤ 0.35
Delay	0.15/0.55/1.05

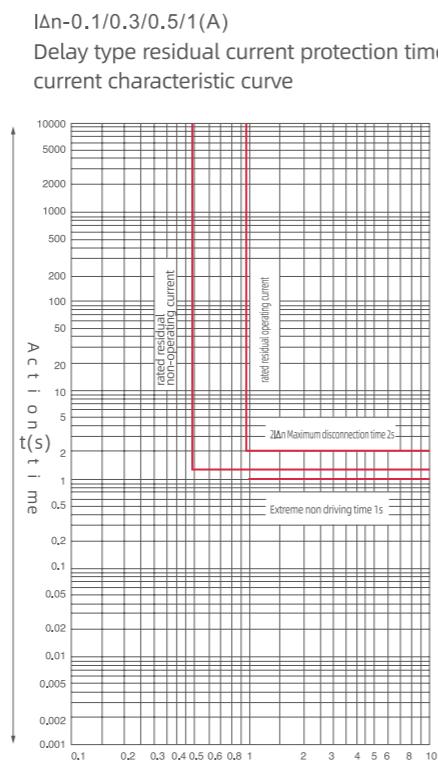
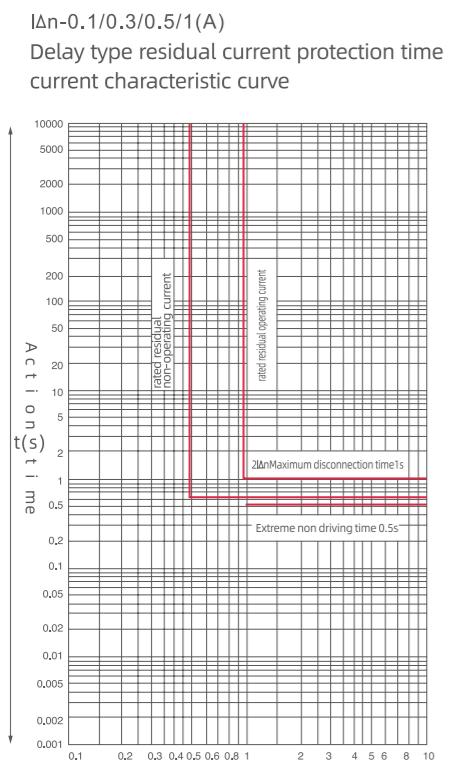
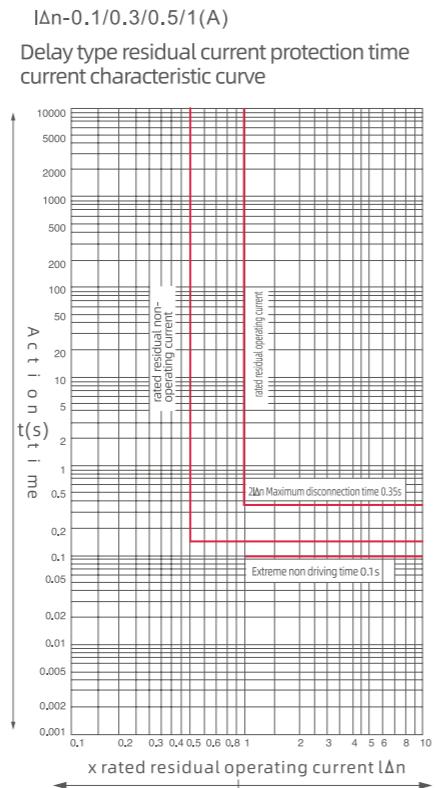
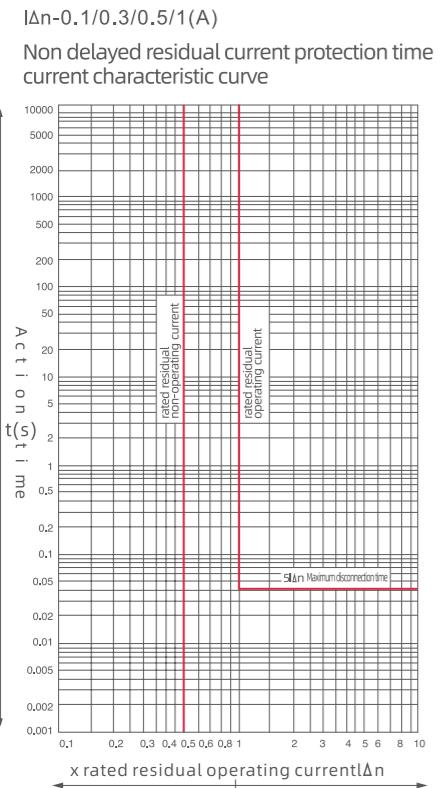
Circuit breaker purpose type (2): motor protection type

The release mode code is 2, only electromagnetic release and residual current release

	Frame size	Rated current I_n (A)		short circuit protection current setting value I_r (A)	Tripping time
Short circuit protection	125	16~630		12 I_n	Instantaneous tripping
	250	100~140		12 I_n	
	400	160~250		12 I_n	
	630	225~400		12 I_n	(5 I_n can be provided, which shall be noted when ordering)
	800	400~630		12 I_n	
Action tolerance		$\pm 20\%$			$\pm 20\%$
Neutral pole protection type C/D (4P circuit breaker)	125	16~63		16~63	12 I_n
		80/100		630	
	250	100~200		1000	
		225/250		1250	
	400	225~315		2250	
		350/400		2500	
Type A/B		Full series		16~800	无保护
	Residual current release		$I_{\Delta n}$	$2I_{\Delta n}$	$5I_{\Delta n}$
Non delay	Max breaking time (S)		0.2	0.1	0.04
Delay	Max breaking time (S)		0.5 / 1.15 / 2.15	0.35 / 1 / 2	0.25/0.9/1.9
	Limit non-driving time Δt (s)	--	0.1 / 0.5 / 1	--	--
Note: Note: The delay type has the opening and closing function of the non delay type					
Model	Delay time Δt (s) (limit non-driving time)				
Non delay	≤ 0.35				
Delay	0.15/0.55/1.05				

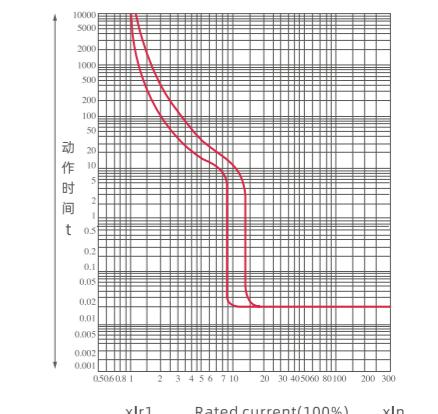
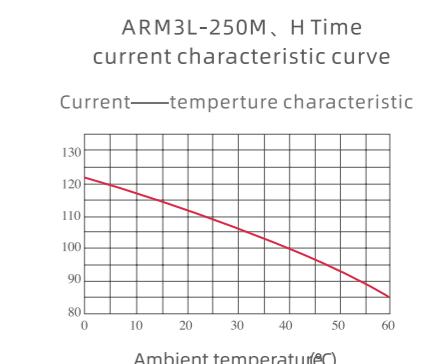
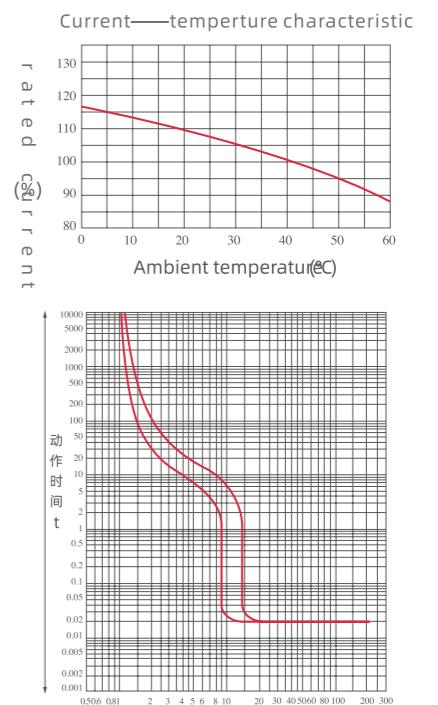
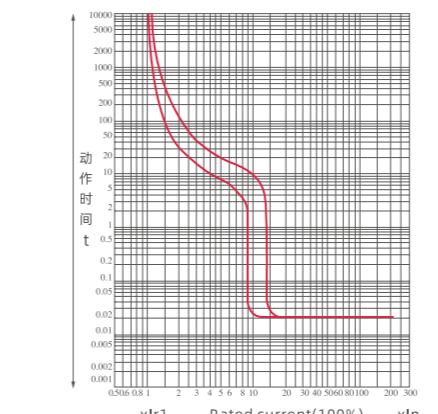
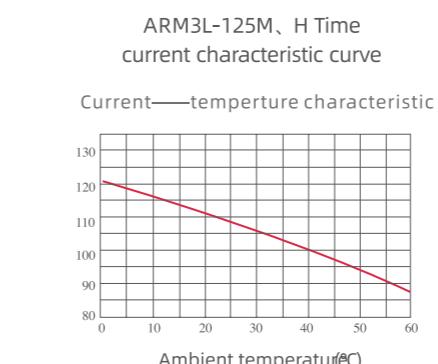
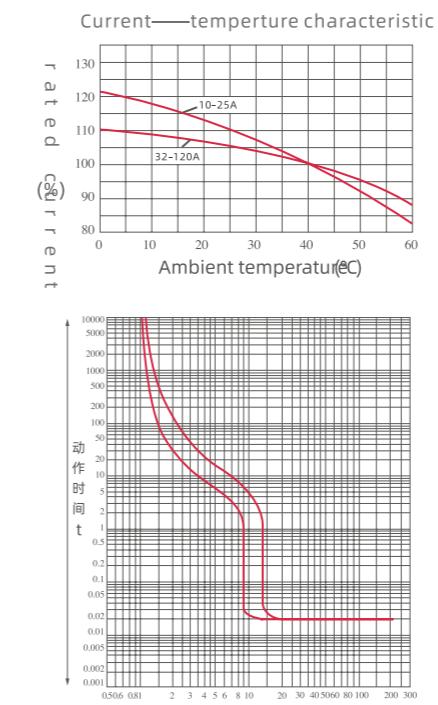
Protection characteristic curve of circuit breaker

The characteristic curve is measured under cold state and three loads



Protection characteristic curve of circuit breaker

The characteristic curve is measured under cold state and three loads



ARM3L Circuit breaker internal accessory code

releas mode and internal accessory code	Model	Handle				
		Left side installation	right side installation	Alarm contact	Undervoltage release	Auxiliary contact
	ARM3L-100/250					Lead wire direction
	Number of poles	3 Poles, 4type A/D type	4type B/Ctype	3 Poles, 4 Poles A/D type	4 Poles B/C type	
08	Accessory name					
10	Shunt release					
20	Auxiliary contac (1NO1NC)			/	/	/
	Auxiliary contac (2NO2NC)	/	/			
02	Auxiliary contac (2NO2NC)			/	/	/
30	Under voltage release					
40	Shunt release Auxiliary contac (1NO1NC)	/		/	/	/
	Shunt release Auxiliary contac (2NO2NC)	/	/	/		
12	Shunt release Auxiliary contac (2NO2NC)	/		/	/	/
50	Shunt release Under voltage release	/		/		
60	Auxiliary contac (2NO2NC)	/		/	/	/
	Auxiliary contac (4NO4NC)	/	/		/	
22	Auxiliary contac (3NO3NC)	/		/	/	/
23	Auxiliary contac (4NO4NC)	/		/	/	/
70	Auxiliary contac Under voltage release (1NO1NC)	/		/	/	/
	Auxiliary contac Under voltage release (2NO2NC)	/		/		
32	Auxiliary contac Under voltage release (2NO2NC)	/		/	/	/
18	Shunt release Alarm contact			/		
28	Auxiliary contac (1NO1NC) Alarm contact			/	/	/
	Auxiliary contac (2NO2NC) Alarm contact	/	/			
38	Under voltage release Alarm contact	/		/		
48	Shunt release Alarm contact(1NO1NC) Auxiliary contact	/		/	/	/
	Shunt release Alarm contact(2NO2NC) Auxiliary contact	/		/		
68	Alarm contact (2NO2NC) Auxiliary contact	/		/	/	/
	Alarm contact (4NO4NC) Auxiliary contact	/	/		/	
05	Alarm contact (3NO3NC) Auxiliary contact	/		/	/	/
78	Under voltage release Alarm contact (1NO1NC) Auxiliary contact	/		/	/	/
	Under voltage release Alarm contact (2NO2NC) Auxiliary contact	/		/		

Note: 1. Internal accessory code 22, with 2NO2NC on the left and 1NO1NC on the right.

2. When ARM3L-400, 630 withdrawable wiring and internal accessories are equipped with terminal blocks, the auxiliary switch in the auxiliary switch codes 28, 48, 68, and 78 is 1NO1NC.

Internal and external accessories of circuit breaker

Auxiliary contact

Table 6 Auxiliary contact and its combination

The circuit breaker is in the "off" or "free trip" position	F14	F24	F22	F11	F21	Circuit breaker with rated current of 400A or above (one group is four pairs of contacts)
	F14		F12		F11	Frame size current 250A and below (one group is two pairs of contacts)

"Normally closed" contacts (F11~F12) change from "closed" to "open"
"Normally closed" contacts (F11~F12) change from "open" to "closed"

Note: For circuit breakers of 400A and above, two or four pairs of contacts can be installed in one group according to user needs

Technical parameters of auxiliary contact

Table 7 Current parameters of auxiliary contacts

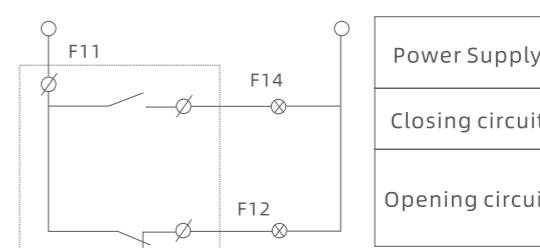
Rated current of frame size	Agreed heating current Ith			Rated working current at AC 400V		
	I _{th} ≤250	3A	0.30A	I _{th} ≥400	3A	0.40A

Usage category	ON			OFF			Time	Operation frequency (time/hour)	Power-on time t
	I/le	U/Ue	COS φ	I/le	U/Ue	COS φ			
AC-15	16	1	0.3	1	1	0.3	6050	360	≥0.05S
DC-13	1	1	6Pe	1	1	6Pe	10	120	≥T0.95

Table 9 Making and breaking capacity of auxiliary contact

Usage category	ON			OFF			Time	Operation frequency (time/hour)	Power-on time t
	I/le	U/Ue	COS φ	I/le	U/Ue	COS φ			
AC-15	10	1.1	0.3	10	1.1	0.3	10	120	≥0.05S
DC-13	1.1	1.1	6Pe	1.1	1.1	6Pe	10	120	≥T0.95

Auxiliary contact wiring diagram



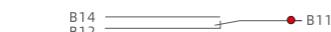
Auxiliary contact wiring diagram

Alarm contact

Table 10 Alarm contact and its combination

Alarm contact Ue=230V, lth=3A

Circuit breaker in the position of "opening" and "closing"



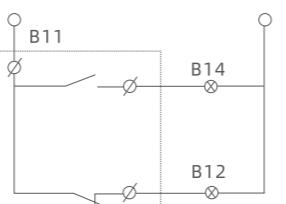
Circuit breaker in the position of "free tripping"



The agreed heating current of alarm contact is 3A. When the rated working voltage is AC400V, the rated working current is 0.3A.

Wiring diagram of alarm contact

When the circuit breaker is normally closed and opened, the contact does not act. Only after free tripping (or fault tripping), the contact changes its original state, that is, normally open contact changes to closed contact, and normally closed contact changes to open contact. After the circuit breaker is reclose again, the contact returns to its original position.



Wiring diagram of alarm contact

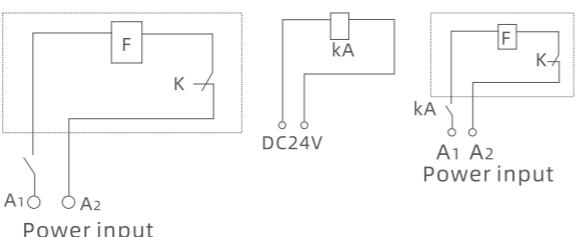
Shunt release

It is generally installed in the C phase of the circuit breaker. When the rated control supply voltage is 70%~110%, the shunt release shall make the circuit breaker trip reliably under all operating conditions. Control voltage: AC 50Hz, 230V 400V DC 24V 220V.

Note: When the power supply of the control circuit is DC24V, it is recommended to adopt the following design of the shunt control circuit.

KA: DC24V intermediate relay, contact current capacity 1A

K: The microswitch in series with the coil inside the shunt release is a normally closed contact. When the circuit breaker is opened, the contact will automatically open and close when it is closed.

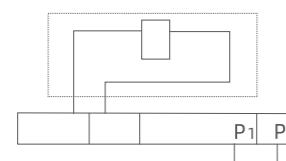


Wiring diagram of shunt release

Undervoltage release

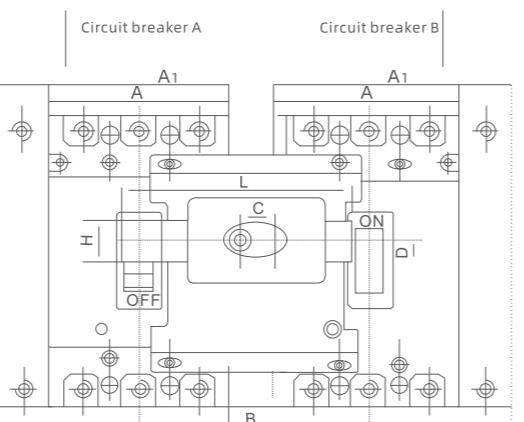
When the rated control supply voltage is 35%~70%, the undervoltage release shall operate reliably and disconnect the circuit breaker. When the voltage is less than 35% of the rated voltage, the circuit breaker shall be reliably prevented from closing. When the supply voltage is equal to or greater than 85% of the rated voltage, ensure that the circuit breaker can be closed.

Control voltage: AC 50Hz 230V 400V DC 110V 220V
DC 110V 220V



Undervoltage release wiring diagram

Interlocking mechanism and relevant dimensions



Warning: The undervoltage release must select the energized circuit breaker before it can be tripped and closed again, otherwise the interlocking mechanism and relevant dimensions of the circuit breaker will be damaged.

Interlocking mechanism and relevant dimensions(ARM3 size=ARXM3 size)

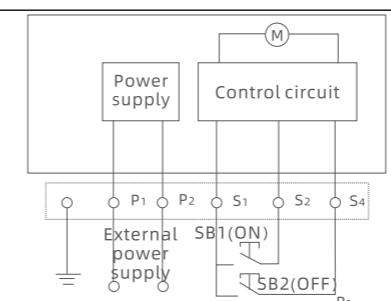
Product model	A	A1	B	C	L	H
ARXM3-125 (C, S) , ARM3R-125C	78	/	102	38	130	22
ARXM3-125/3P(L, M, H), ARXM3-160/3P(S, L, M, H) ARM3-125/3P (M, H) , ARM3ER-160/3P (M, H) ARM3L-125/3P (M, H)	92	/	120	38	120	22
ARXM3-250/3P(S, L, M, H), ARXM3R-320/3P(S) ARM3E-250/3P(M, H) , ARM3L-250/3P(M, H)	107	/	135	48	138	22
ARXM3-400/3P(L, M, H), ARXM3R-630/3P(L, M, H) ARM3E-400/3P(L, M, H) , ARM3ER-630/3P(L, M, H) ARM3E-630/3P(M, H) , ARM3L-400/3P(L, M, H) ARM3L-630/3P(M, H)	150	/	190	58	190.5	28
ARXM3-630/3P(L, M, H)	182	/	230	58	241	28
ARXM3-800/3P(M, H) , ARM3E-800/3P(M, H) ARM3L-800/3P(M, H)	210	/	252	58	251	28
ARXM3-125C/4P, ARM3R-125C/4P	/	103	132	38	140	22
ARXM3-125/4P(L, M, H), ARXM3-160/4P(S, L, M, H) ARM3E-125/4P (M, H) , ARM3L-125/4P (M, H)	/	122	152	38	140	22
ARXM3-250/4P(S, L, M, H), ARXM3E-250/4P(M, H) ARM3L-250/4P(M, H)	/	142	173	48	174	22
ARXM3-400/4P(L, M, H), ARXM3R-630/4P(L, M, H) ARM3E-400/4P(L, M, H) , ARM3ER-630/4P(L, M, H) ARM3E-630/4P(M, H) , ARM3L-400/4P(L, M, H) ARM3L-630/4P(M, H)	/	200	181	58	235.5	28
ARXM3-630/4P (L, M, H)	/	242	230	58	293	28
ARXM3-800/4P(M, H) , ARM3E-800/4P(M, H) ARM3L-800/4P(M, H)	/	280	280	58	324	28

The wiring diagram of CD2 motor operating mechanism (equipped with ARXM3,ARM3E series) is shown in the following figure (wiring diagram of components outside the circuit breaker is shown in the dotted frame)

The wiring diagram of CDM electromagnet operating mechanism (equipped with ARXM3-100 and 250 series) is shown in the following figure (wiring diagram of components outside the circuit breaker is shown in the dotted frame)

The wiring diagram of CD motor operating mechanism (equipped with ARXM3, ARM3E-400, 630, 800 series) is shown in the following figure (wiring diagram of components outside the circuit breaker is shown in the dotted frame)

Note: The wiring diagram of the CD2 motor operating mechanism (equipped with ARXM3 ARM3E series) is shown in the following figure (the wiring diagram of the external components of the circuit breaker is shown in the dashed box)



Symbol description: SB1 and SB2 operation buttons (provided by the user) X terminal block P1 and P2 are external power supplies

Voltage specification:AC 50Hz 110V,230V,DC24V,110V,220V

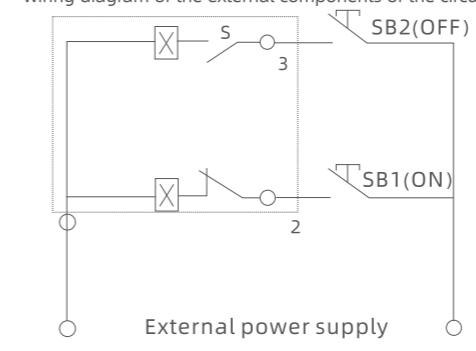
CD motor operating mechanism (with ARXM3-400, 600, 800)

See the right figure for the wiring diagram (wiring of components outside the circuit breaker is shown in the dotted frame)

Symbol description: Sb1 and Sb2 operation buttons (provided by the user) X terminal block

Voltage specification: AC 50Hz 400V

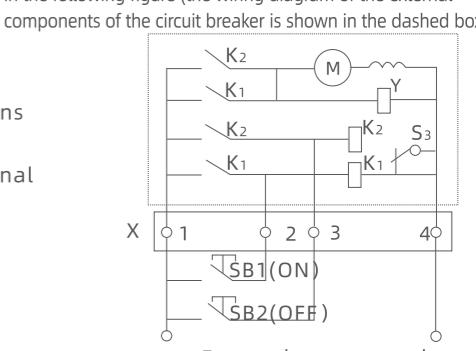
CDM electromagnetic operating mechanism (equipped with ARM3-100, 250 series)
The wiring diagram is shown in the following figure (the dashed box represents the wiring diagram of the external components of the circuit breaker)



Symbol description: SB1 and SB2 operation buttons (provided by the user) Numbers 1, 2 and 3 are terminal numbers

Voltage specification: AC 50Hz 400V

The wiring diagram of the CD motor operating mechanism (equipped with ARXM3, ARM3E-400, 630, 800 series) is shown in the following figure (the wiring diagram of the external components of the circuit breaker is shown in the dashed box)



Symbol description: SB1(ON) and SB2(OFF) External power supply

Parameters of electric operating mechanism(ARM3 Size=ARXM3 Size)

Equipped circuit breaker	Starting current A			Motor power W			Life/tim		
	CD2 motor type	CDM electromagnet type	CD motor type	CD2 motor type	CDM electromagnet type	CD motor type	CD2 motor type	CDM electromagnet type	CD motor type
ARXM3-125(C, S, L, M, H) ARM3R-125C	≤0.5	/	/	180	/	/	10000	/	/
ARXM3-160(S, L, M, H)									
ARXM3-250(S, L, M, H) ARXM3R-320S	≤0.5	/	/	180	/	/	10000	/	/
ARXM3-400(L, M, H) ARM3R-630(L, M, H)	≤2	/	/	350	/	/	5000	/	/
ARXM3-630(LM, H)	≤2	/	/	350	/	/	5000	/	/
ARXM3-800(M, H)	≤2	/	/	350	/	/	5000	/	/
ARM3E-125(M, H) ARM3L-125(M, H) ARM3ER-160(M, H)	≤0.5	/	/	180	/	/	10000	/	/
ARM3E-250(M, H) ARM3L-250(M, H)	≤0.5	/	/	180	/	/	5000	/	/
ARM3E-400(L, M, H) ARM3L-400(L, M, H) ARM3ER-630(L, M, H)	≤2	/	/	350	/	/	5000	/	/
ARM3E-630(M, H) ARM3L-630(M, H)	≤2	/	/	350	/	/	5000	/	/
ARM3E-800(M, H) ARM3L-800(M, H)	≤2	/	/	350	/	/	5000	/	/

Height of electric operating mechanism

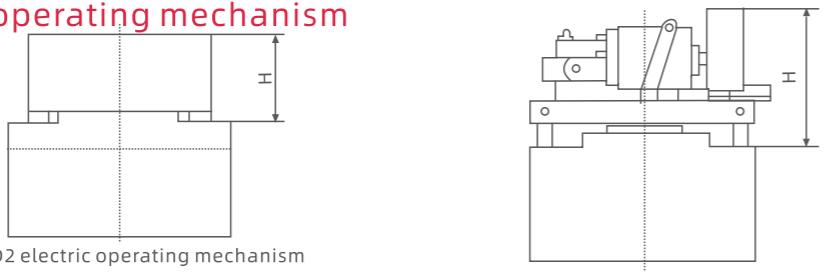


Table 13 Height H of Electric Operating Mechanism (mm)

Model of circuit breaker for operating mechanism	Cd2 motor type	CDM electromagnet type	CD motor type
ARXM3-125(C, S), ARM3R-125C	93	91	/
ARXM3-125(L, M, H), ARXM3-160(S, L, M, H)	90	91	/
ARXM3-250(S, L, M, H), ARXM3R-320(S)	93	101	/
ARXM3-400(L, M, H)ARM3R-630(L, M, H)	144	/	141
ARXM3-630(L, M, H)	153	/	141
ARXM3-800(M, H)	146	/	150
ARM3E-125(M, H), ARM3ER-160(M, H) ARM3L-125(M, H)	98	/	/
ARM3E-250(M, H), ARM3L-250(M, H)	89	/	/
ARM3E-400(L, M, H), ARM3ER-630(L, M, H), ARM3L-400(L, M, H)	144	/	/
ARM3E-630(M, H), ARM3L-630(M, H)	145	/	/
ARM3E-800(M, H), ARM3L-800(M, H)	145	/	/

Thermal overload alarm non-tripping

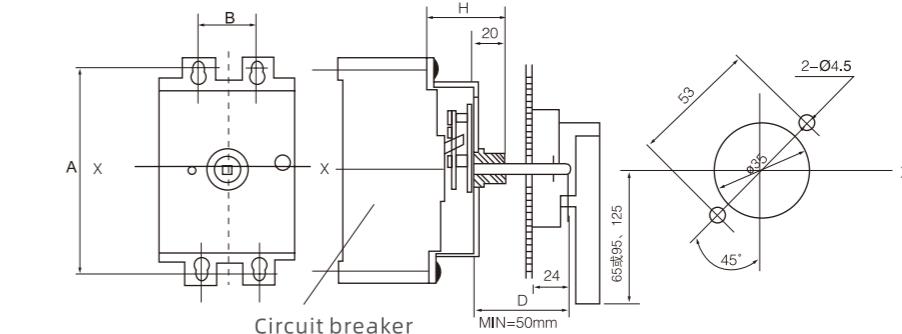
ARM3E circuit breaker can provide overload alarm without tripping function, and its alarm switch wiring diagram is as follows:

When the circuit breaker is not overloaded	RB14 --- RB12 --- RB11
When the circuit breaker is in overload alarm	Rb11 and RB12 switch from ON to OFF, and RB11 and RB14 switch from OFF to ON.

Note:1) In case of overload alarm, the circuit breaker will not trip and the main circuit will not open.

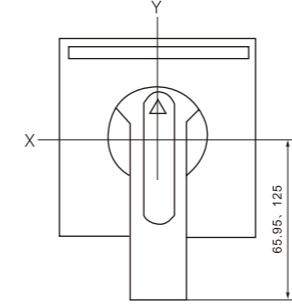
2) ARM3-125M/4P and other four-pole circuit breakers with neutral pole type of C and D have no overload alarm and no alarm and tripping function.

Manual operation installation drawing and overall dimensions



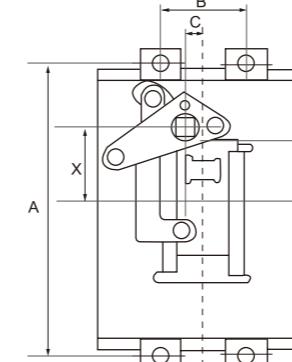
Note: Type A is round handle

CS1-A handle installation and holingschematic diagram

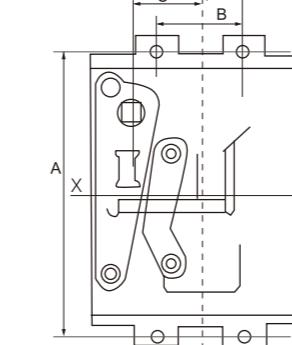


Note: Type F is square handle

CS1-F handle installation and holingschematic diagram

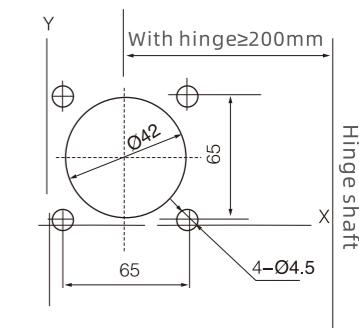


CS2-A handle installation and holingschematic diagram



Note: Type F is square handle

CS2-F handle installation and holingschematic diagram



Hinge shaft

Warning: the manual operating mechanism must be ordered from our company to ensure the quality. If the user purchases it himself, our company will not be responsible for any adverse consequences after assembly.

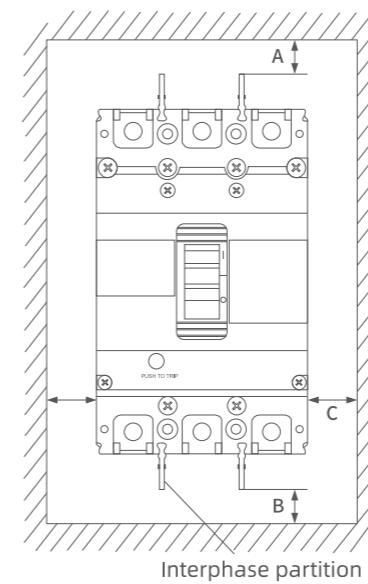
Table 15 Handle installation and dimensions table

External accessory model	Turning handle	Equipped circuit breaker	Handle installation size							
			H		A		B		C	
			3P	4P	3P	4P	3P	4P	3P	4P
CS1-125	A/F	ARXM3-125C ARM3R-125C	57	57	111	111	25	25	15	15
CS1-125	A/F	ARXM3-125 (S, L, M, H) ARM3E-125 (M, H) ARXM3-160(S, L, M, H) ARM3ER-160(M, H) ARM3L-125 (M, H)	57	57	129	129	30	30	15	15
CS1-250	A/F	ARXM3-250 (S, L, M, H) ARXM3R-320/(S) ARM3E-250 (M, H) ARM3L-250 (M, H)	57	57	142	142	35	35	15	15
CS1-400	A	ARXM3-400 (L, M, H) ARM3E-400 (L, M, H) ARM3ER-630(L, M, H) ARM3R-630(L, M, H) ARM3L-400 (L, M, H)	88	87	194	194	137	185	22	22
	F		88	87	194	194	137	185	22	22
CS1-630	A	ARXM3-630 (L, M, H)	88	90	200	200	170	226	22	22
	F		88	90	200	200	170	226	22	22
CS1-800	A	ARXM3-800 (M, H) ARM3E-800 (M, H)	88	90	243	243	198	70	22	24
	F	ARM3L-800 (M, H)	88	90	243	243	198	70	22	24
CS1-630	A	ARM3E-630 (M, H)	88	87	194	194	137	185	22	22
	F	ARM3L-630 (M, H)	88	87	194	194	137	185	22	22
CS2-125	A	ARXM3-125C	/	/	/	/	/	/	5	5
	F	ARM3R-125C		/	/	/	/	/	5	5
CS2-125	A	ARXM3-125 (L, M, H)	/	/	/	/	/	/	11.5	11.5
	F	ARXM3-160(S, L, M, H)		/	/	/	/	/	11.5	11.5
CS2-250	A	ARXM3-250 (S, L, M, H)	/	/	/	/	/	/	11.5	11.5
	F	ARXM3R-320/(S)		/	/	/	/	/	11.5	11.5
CS2-400	A	ARXM3-400 (L, M, H) ARM3E-400 (L, M, H) ARM3ER-630(L, M, H) ARM3R-630(L, M, H) ARM3L-400 (L, M, H)	59	/	194	/	137	/	68	68
	F		59	/	194	/	137		68	68
CS2-630	A	ARXM3-630 (L, M, H)	/	/	/	/	/	/	68	68
	F		/	/	/	/	/	/	68	68
CS2-800	A	ARXM3-800 (M, H) ARM3E-800 (M, H)	59	/	243	/	198	/	78	78
	F	ARM3L-800 (M, H)	59	/	243		198		78	78
CS2-125	A	ARM3E-125 (M, H) ARM3ER-160 (M, H) ARM3L-125 (M, H)	/	/	/	/	/	/	11.5	11.5
	F		/	/	/	/	/	/	11.5	11.5
CS2-250	A	ARM3E-250 (M, H) ARM3ER-320 (M, H)	/	/	/	/	/	/	11.5	11.5
	F	ARM3L-250 (M, H)		/	/	/	/	/	11.5	11.5
CS2-630	A	ARM3E-630 (M, H)	/	/	/	/	/	/	68	68
	F		/	/	/	/	/	/	68	68

Type A hand operated 63-400 with a default square rod length of 150mm; 630-800 models have a default length of 200mm and customer lengths can be customized!

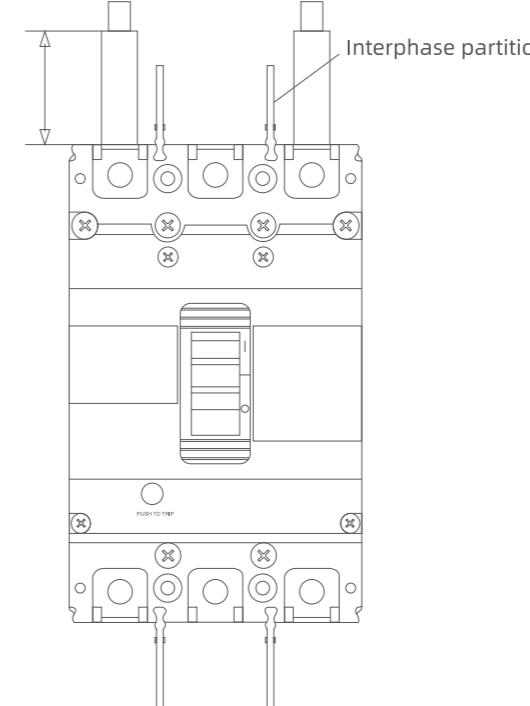
Safety clearance for installation of circuit breaker

Safety clearance for installation of ARXM3/ARM3E circuit breaker



Model	A		B	C
	Without zero arcing hood	With zero arcing hood		
ARM3-125	10	0	0	25
ARM3-250 ARXM3R-320	10	0	0	25
ARM3-400 ARM3R-630	10	0	0	25
ARM3-630	10	0	0	25
ARM3-800	10	0	0	25
ARM3E-125	10	0	0	25
ARM3E-250 ARM3ER-320	10	0	0	25
ARM3E-400 ARM3ER-630	10	0	0	25
ARM3E-800	10	0	0	25

The shortest insulation length of the terminal block when it's connected in front of the panel and the distribution system voltage is AC690V



Model	F		Distribution system voltage=690V
	Distribution system voltage=690V		
ARM3-125C	150		
ARM3-125	150		
ARM3-250 ARXM3R-320	150		
ARM3-400 ARM3R-630	200		
ARM3-630	200		
ARM3-800	200		
ARM3E-125	150		
ARM3E-250 ARM3ER-320	150		
ARM3E-400 ARM3ER-630	200		
ARM3E-800	200		

Technical data of circuit breaker

Derating factor of ambient temperature change

Current-temperature characteristics of thermomagnetic circuit breaker when the ambient temperature exceeds +40°C

Model	40°C	45°C	50°C	55°C	60°C	65°C	70°C
ARM3-125C ARM3R-125C	1I _n	0.977I _n	0.957I _n	0.936I _n	0.915I _n	0.894I _n	0.873I _n
ARXM3-125(C, S, L, M, H) ARXM3-160(S, L, M, H) ARM3-125(S, L, M, H)	1I _n	0.959I _n	0.918I _n	0.877I _n	0.835I _n	0.794I _n	0.752I _n
ARM3-250C	1I _n	0.985I _n	0.968I _n	0.952I _n	0.935I _n	0.919I _n	0.887I _n
ARXM3-250(S, L, M, H) ARXM3R-320/3P(S) ARM3-250(S, L, M, H)	1I _n	0.985I _n	0.968I _n	0.952I _n	0.935I _n	0.919I _n	0.887I _n
ARM3-400 ARXM3-400(L, M, H) ARM3R-630(L, M, H)	1I _n	0.978I _n	0.957I _n	0.936I _n	0.915I _n	0.894I _n	0.873I _n
ARM3-630, ARXM3-630	1I _n	0.978I _n	0.957I _n	0.936I _n	0.915I _n	0.894I _n	0.873I _n
ARM3-800, ARXM3-800	1I _n	0.978I _n	0.957I _n	0.936I _n	0.915I _n	0.894I _n	0.873I _n
ARM3L-125	1I _n	0.97I _n	0.94I _n	0.91I _n	0.88I _n	0.85I _n	0.82I _n
ARM3L-250	1I _n	0.985I _n	0.968I _n	0.952I _n	0.935I _n	0.919I _n	0.887I _n
ARM3L-400	1I _n	0.976I _n	0.952I _n	0.928I _n	0.904I _n	0.88I _n	0.856I _n
ARM3L-630	1I _n	0.976I _n	0.952I _n	0.928I _n	0.904I _n	0.88I _n	0.856I _n

Temperature derating required due to heating when the ambient temperature of the electronic circuit breaker exceeds +40°C

Model	40°C	45°C	50°C	55°C	60°C	65°C	70°C
ARM3E-125 ARM3ER-160(M, H)	1I _n	1I _n	1I _n	0.97I _n	0.95I _n	0.92I _n	0.9I _n
ARM3E-250	1I _n	1I _n	1I _n	0.96I _n	0.93I _n	0.89I _n	0.86I _n
ARM3E-400 ARM3ER-630(L, M, H)	1I _n	1I _n	1I _n	0.97I _n	0.95I _n	0.92I _n	0.9I _n
ARM3E-630	1I _n	1I _n	1I _n	0.97I _n	0.95I _n	0.92I _n	0.9I _n
ARM3E-800	1I _n	1I _n	1I _n	0.96I _n	0.93I _n	0.89I _n	0.86I _n
ARM3E-1250	1I _n	1I _n	1I _n	0.96I _n	0.93I _n	0.89I _n	0.86I _n

High altitude derating

If the altitude exceeds 2000m of the applicable working environment, the electrical performance of the circuit breaker shall be corrected as follows:

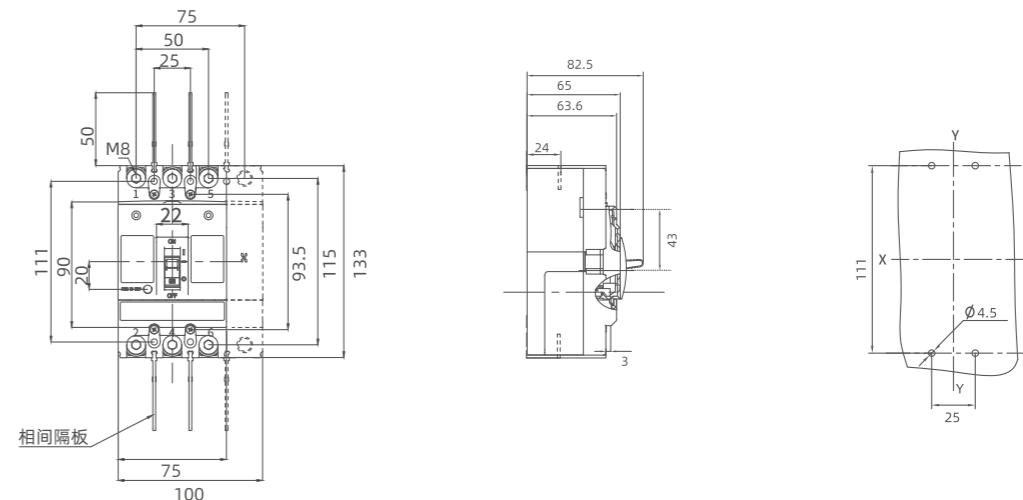
ARXM3, ARM3E circuit breaker

Altitude (m)	Power frequency withstand voltage (V)	Insulation voltage (V)	Maximum operating voltage (V)	Correction factor of working current
2000	3000	800	690	1
2500	3000	800	690	1
3000	2500	720	620	0.98
4000	2200	630	540	0.95
4500	2100	580	500	0.94
5000	2000	530	460	0.93

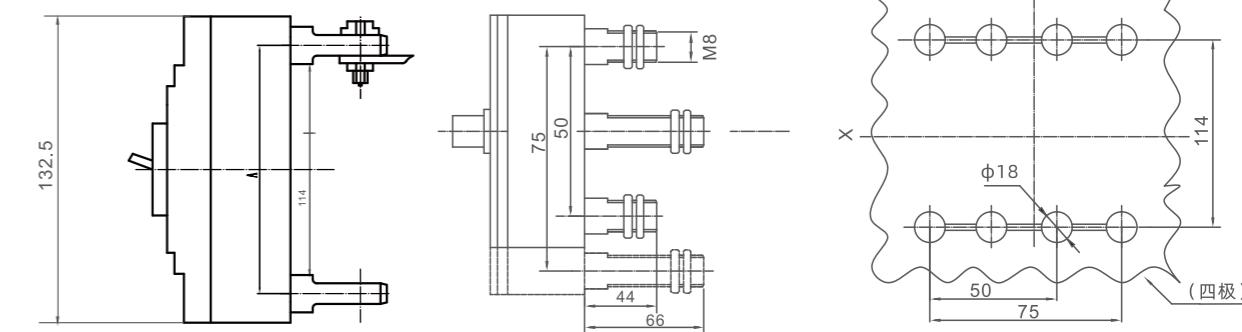
Note: The maximum working voltage of ARXM3 circuit breaker is 400V.

Overall and installation dimensions of circuit breaker

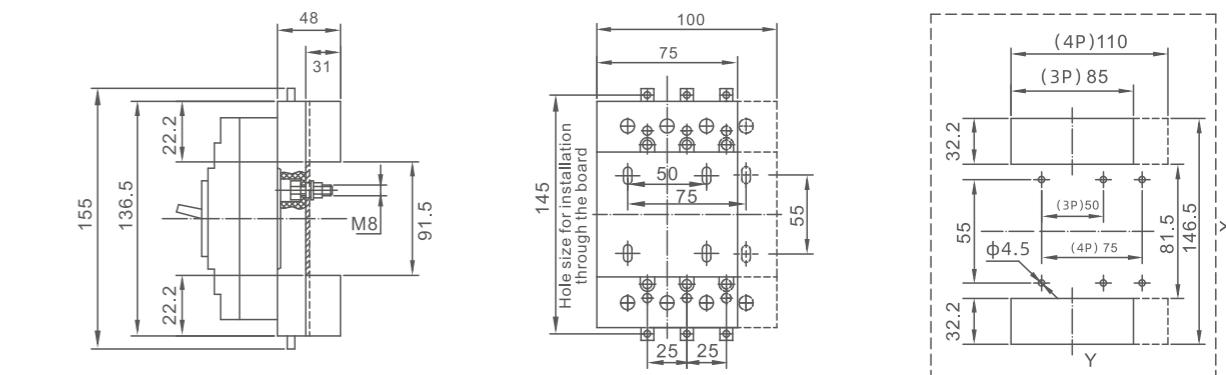
- ARXM3-125C, ARM3R-125C, front panel wiring (3P, 4P)
X-X, Y-Y are the center of three-pole circuit breaker



- rear panel wiring (3P, 4P)
X-X, Y-Y are the center of three-pole circuit breaker



- Plug-in rear panel wiring(3P, 4P)
X-X, Y-Y are the centers of three-pole circuit breaker



Overall and installation dimensions of circuit breaker

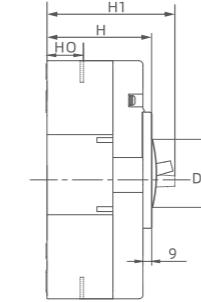
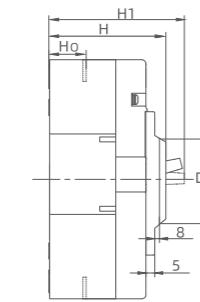
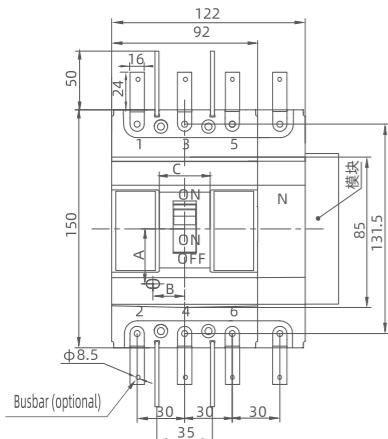
circuit breaker 125 frame size installation safety interval

■ front panel wiring (3P, 4P)

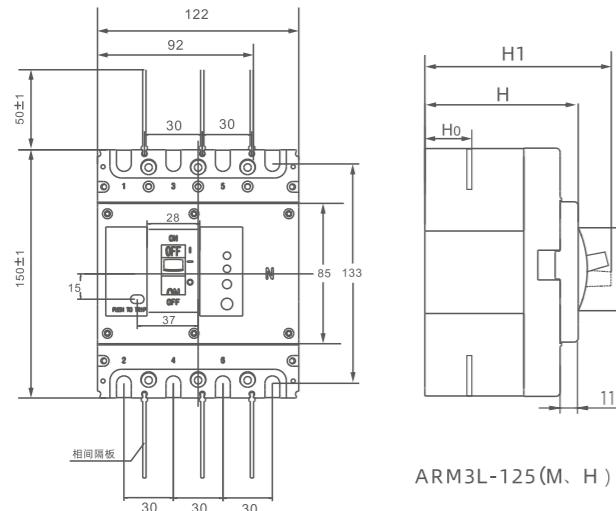
X-X, Y-Y are the center of three-pole circuit breaker

Model	H0	H	H1	A	B	C	D
ARM3-125(C/S/L)	22.5	70	86	35	20	32.5	57
ARM3-125(M/H)	22.5	87	110	35	20	32.5	57
ARXM3-125S	22.5	70	110	35	20	32.5	57
ARXM3-125(L/M/H)	22.5	87	110	35	20	32.5	57

Model	H0	H	H1	A	B	C	D
ARM3E-125(M/H)	28.5	92	110	16	22	28	42
ARM3ER-160(M/H)	28.5	92	110	16	22	26.5	42
ARM3L-125(M/H)	28.5	93	110	16	22	28	50
ARXM3R-160(S/L/M/H)	22.5	70	110	35	20	32.5	57



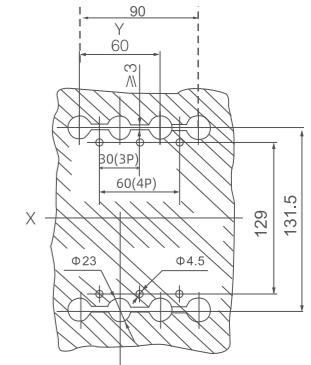
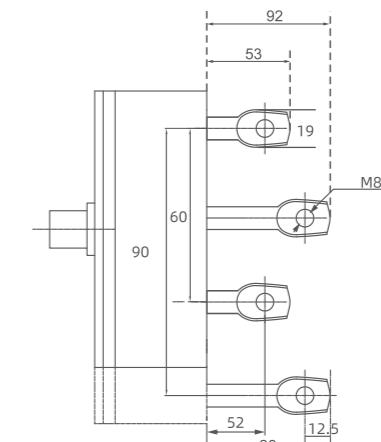
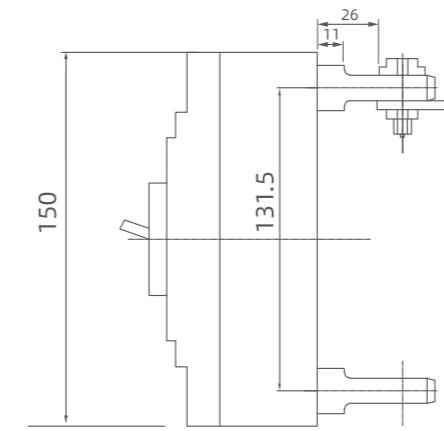
ARM3-125(C/S/L)
ARM3-125(M/H)
ARXM3-125S
ARXM3-125(L/M/H)
ARXM3R-160(S/L/M/H)



Holing size of mounting plate for front panel wiring

■ rear panel wiring (3P, 4P)

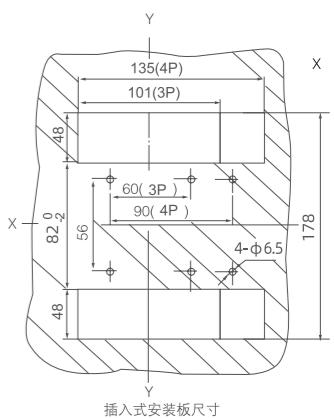
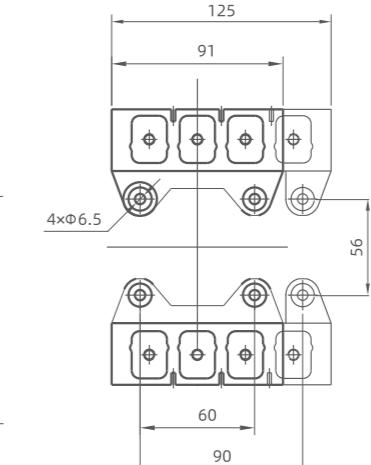
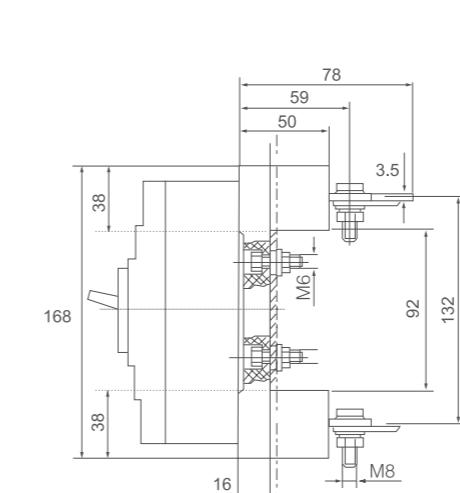
■ X-X, Y-Y are the center of three-pole circuit breaker



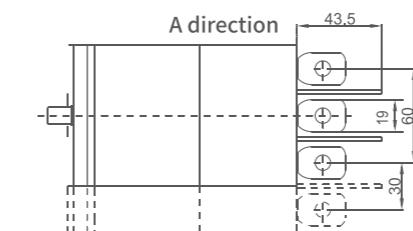
Holing size of mounting plate for rear panel wiring

■ plug-in rear panel wiring (3P, 4P)

X-X, Y-Y are the centers of three-pole circuit breaker



插入式安装板尺寸

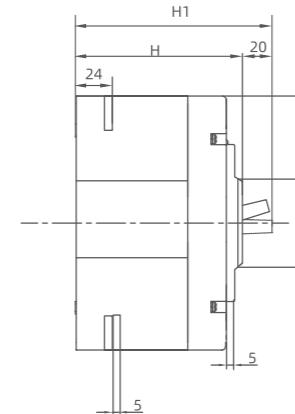
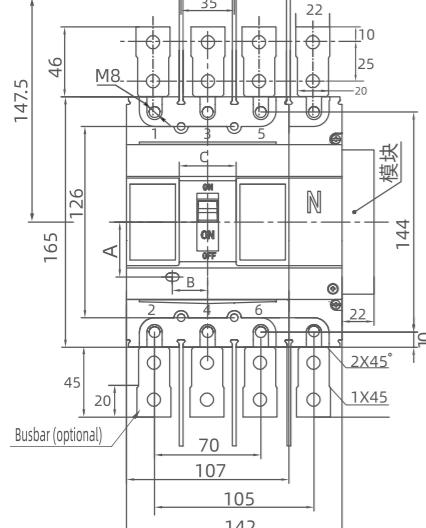


circuit breaker250 frame size installation safety interval

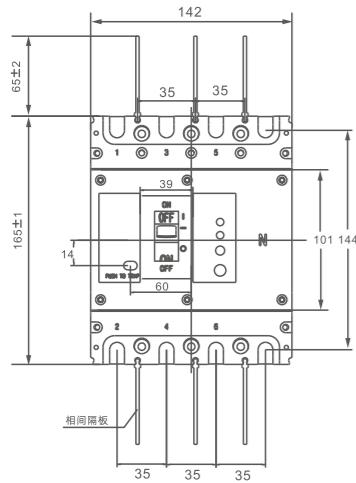
- front panel wiring (3P, 4P)
X-X, Y-Y are the center of three-pole circuit breaker

Model	H	H1	A	B	C	D
ARM3-250C / L	89	110	36.2	23.3	40	59
ARXM3-250S	89	109	36.2	23.3	40	59
ARXM3-250L/M/H	107	126	36.2	23.3	40	59
ARXM3R-320S	89	109	36.2	23.3	40	59

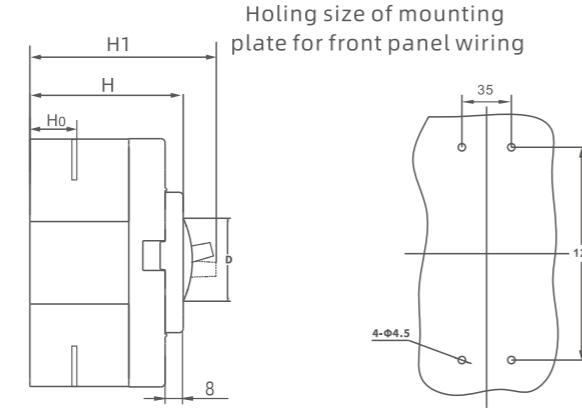
Model	H	H1	A	B	C	D
ARM3-250M	107	127	36.2	23.3	40	59
ARM3E-250M/H	92	112	17.5	43.1	26	49
ARM3L-250M/H	92.5	112	17.5	43.1	26	49



ARM3E-250(M/H)



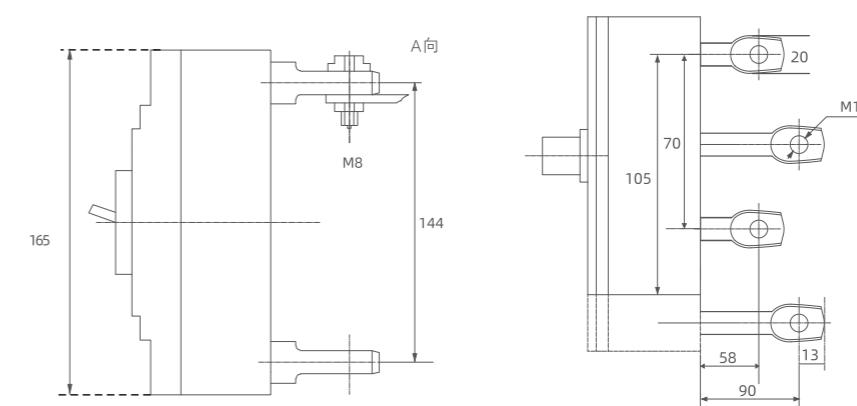
ARM3L-250(M、H)



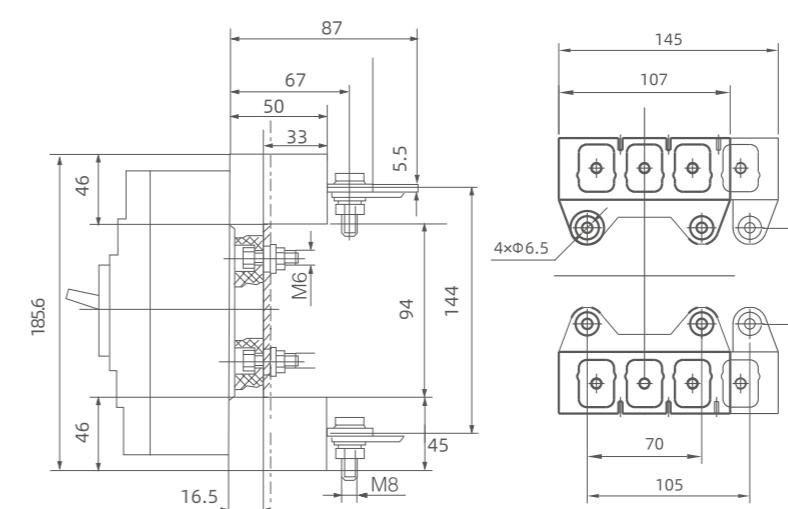
Holing size of mounting
plate for front panel wiring

- ARM3-250(C/L)
ARM3-250(M)
ARXM3-250(L/M/H)
ARXM3-250S
ARXM3R-320S

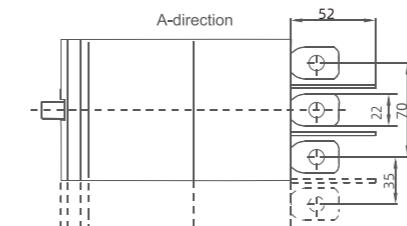
- rear panel wiring (3P, 4P)
 - X-X, Y-Y are the center of three-pole circuit breaker



Holing size of rear panel wiring mounting plate



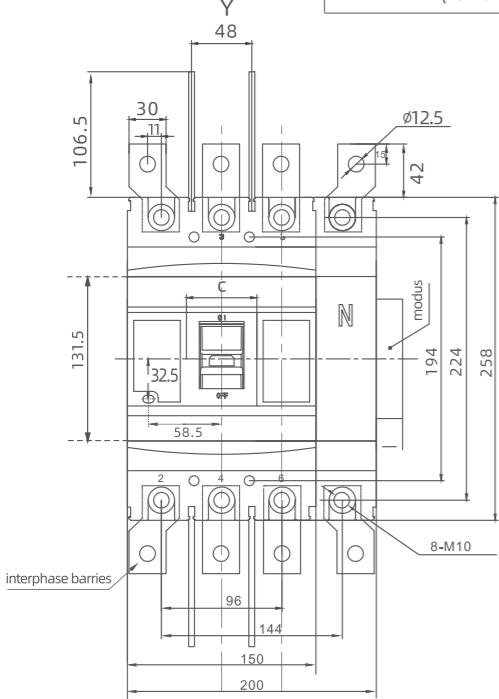
Plug-in type mounting plate size



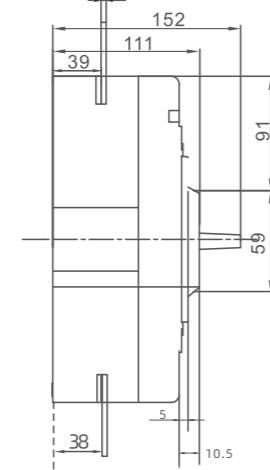
circuit breaker 400 frame size installation safety interval

- front panel wiring (3P, 4P)
X-X, Y-Y are the center of three-pole circuit breaker

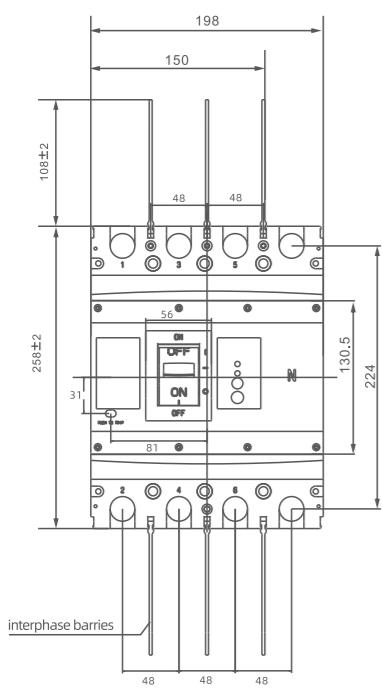
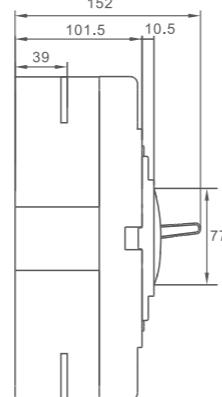
model			C
ARM3R-630 (L/M/H)	ARM3-400(C/L/M/H)	ARXM3-400L/M/H	40
ARM3L-400(L/M/H)	ARM3ER-630 (L/M/H)	ARM3E-400L/M/H	26



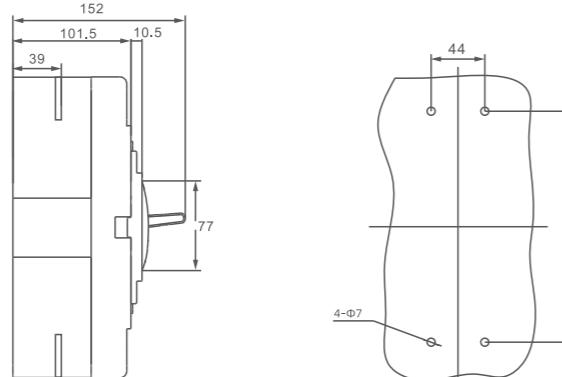
ARM3-400(L, M,
ARM3R-630 (L, M
ARXM3-400(L, M



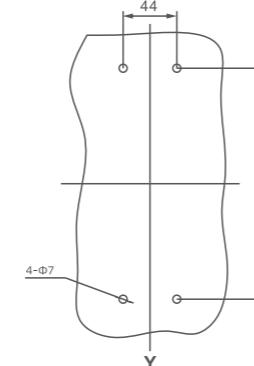
ARM3E-400(L, M, H)
ARM3RE-630 (L, M, H)
ARM3L-400(L, M, H)



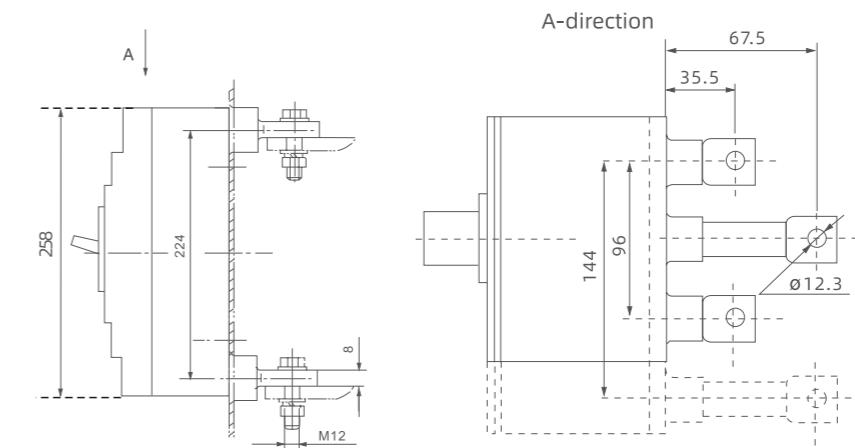
ARM3L-400 (M、H)



Holing size of front panel wiring installation



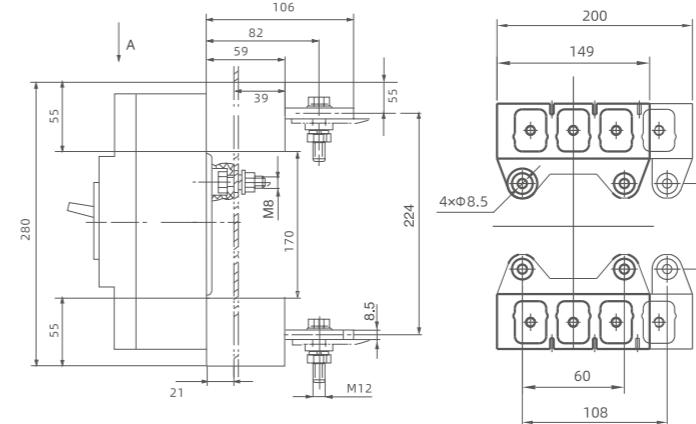
- rear panel wiring (3P, 4P)
 - X-X, Y-Y are the centers of three pole circuit breaker



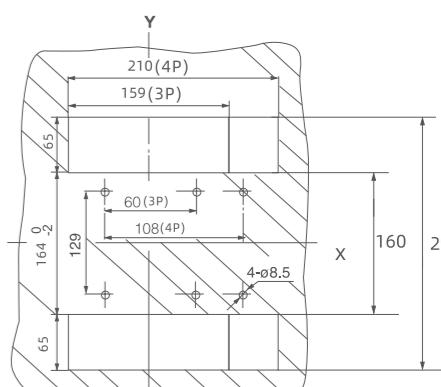
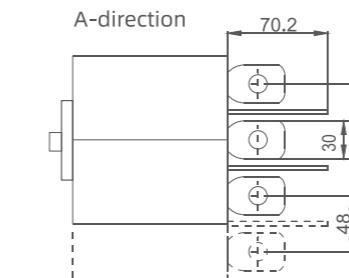
Holing size of rear panel
wiring mounting plate

plug-in rear panel wiring(3P, 4P)

X-X, Y-Y are the centers of three pole circuit breaker



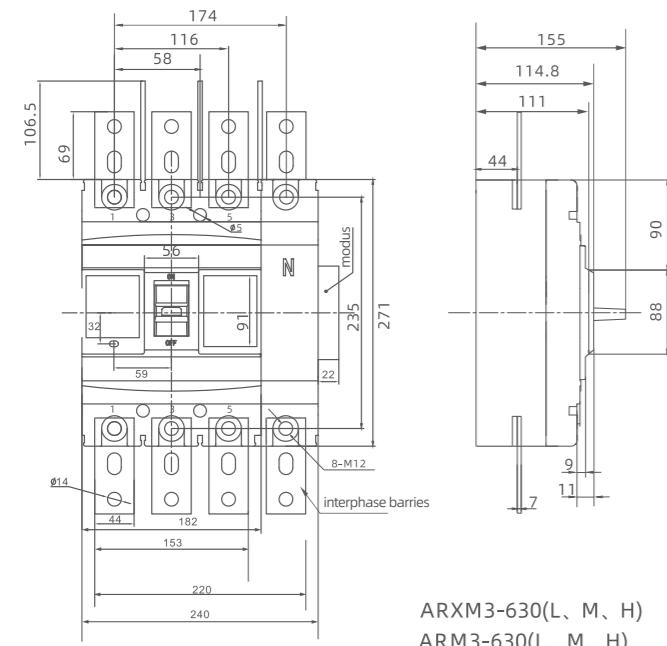
Plug-in mounting plate size



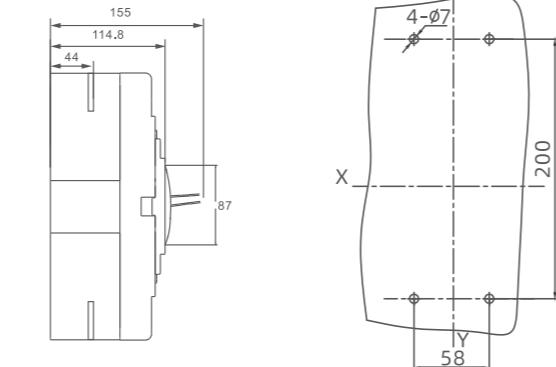
circuit breaker 630 frame size installation safety interval

■ front panel wiring (3P, 4P)

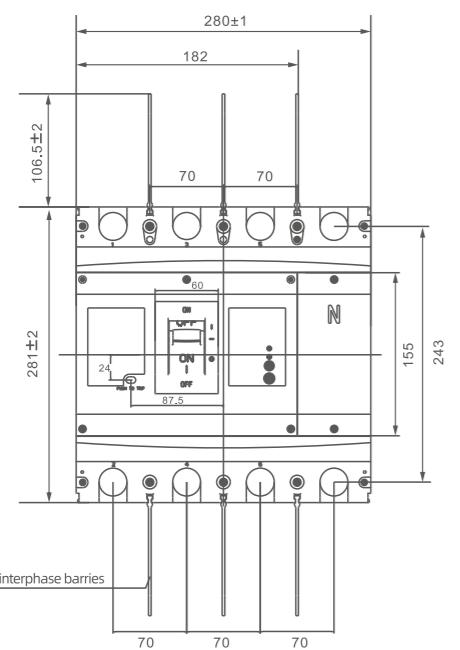
X-X, Y-Y are the center of three-pole circuit breaker



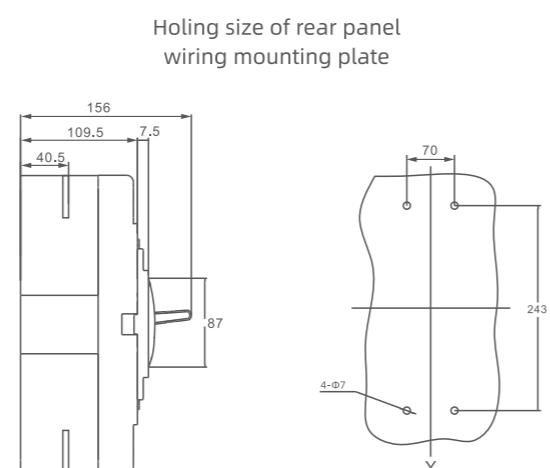
ARXM3-630(L、M、H)
ARM3-630(L、M、H)



ARM3E-630(L、M、H)



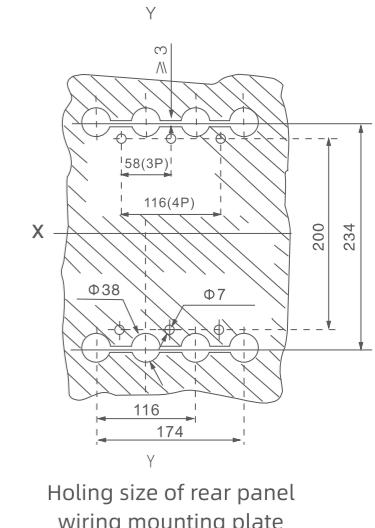
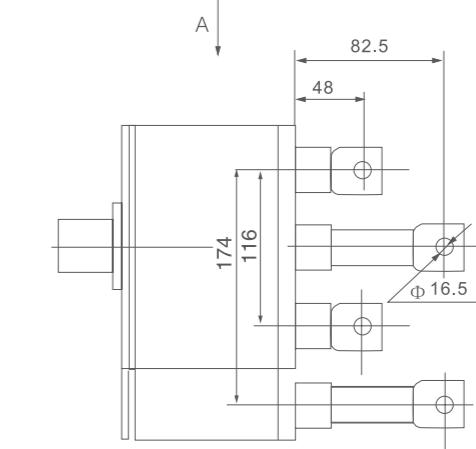
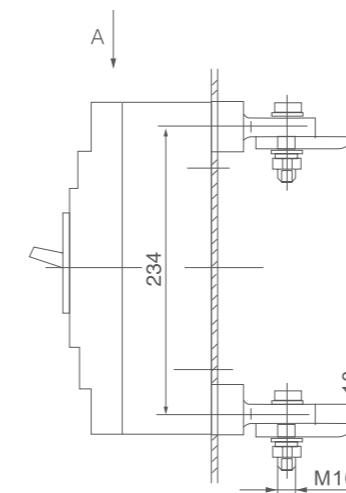
ARM3L-630 (M, H)



Holing size of rear panel
wiring mounting plate

■ rear panel wiring (3P, 4P)

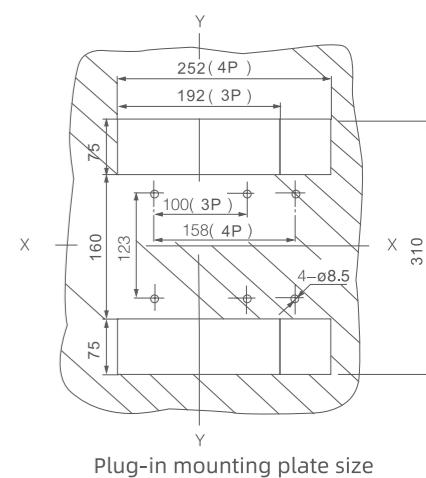
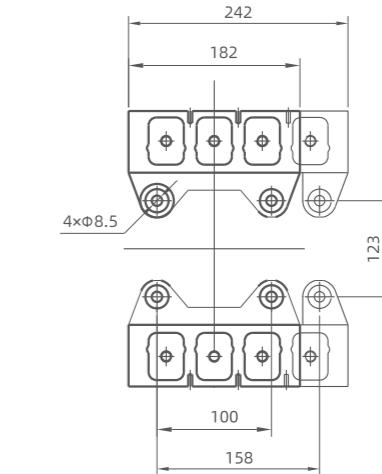
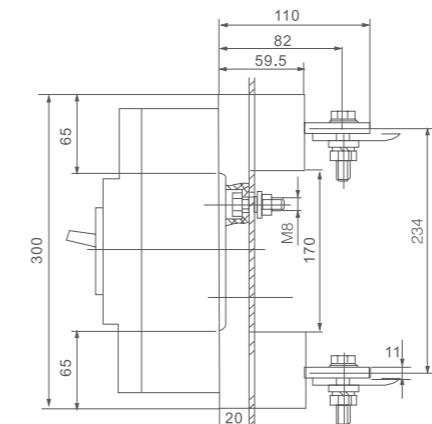
- X-X, Y-Y are the centers of three pole circuit breaker



Holing size of rear panel
wiring mounting plate

- plug-in rear panel wiring(3P, 4P)

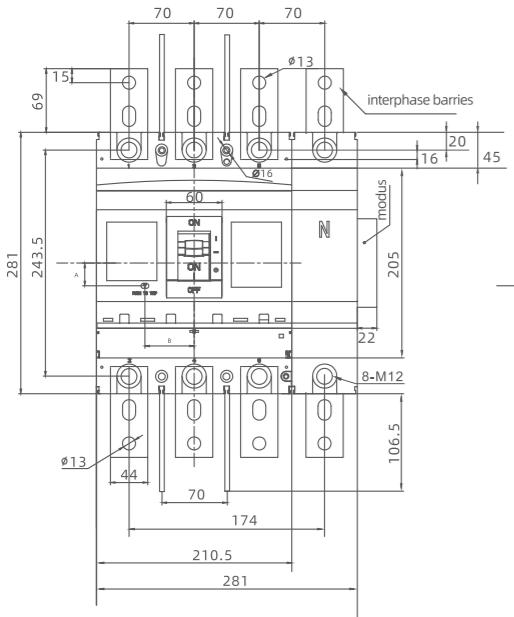
- X-X, Y-Y are the centers of three pole circuit breaker



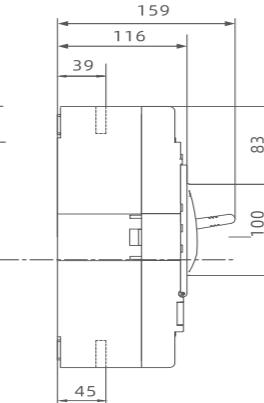
Plug-in mounting plate size

circuit breaker 800 frame size installation safety interval

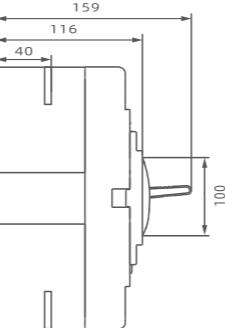
- front panel wiring (3P, 4P)
- X-X, Y-Y are the center of three-pole circuit breaker



ARXM3-800(L, M, H)
ARM3-800(L, M, H)



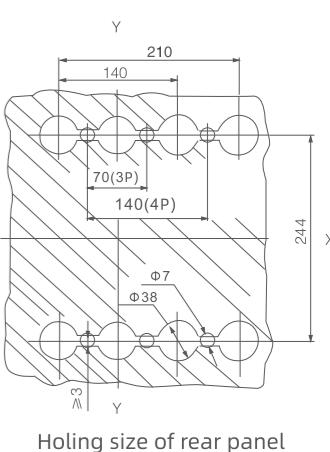
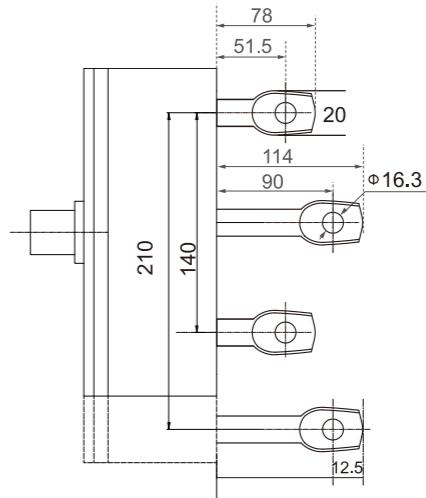
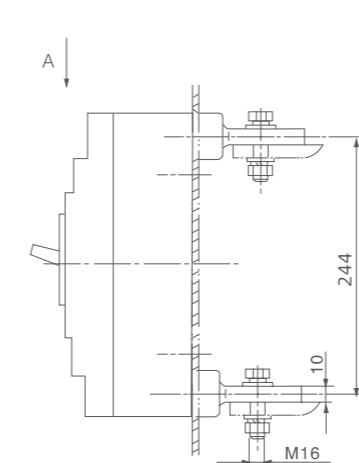
ARM3E-800(M, H)



ARM3L-800 (M, H)

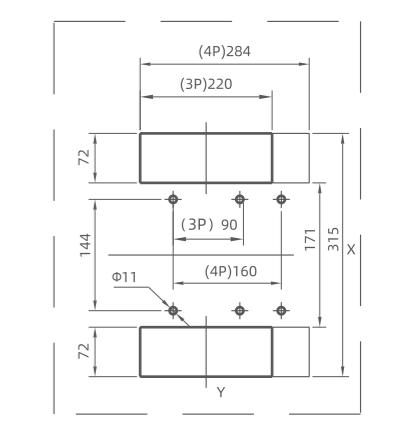
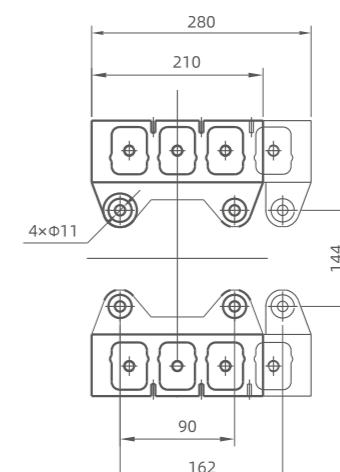
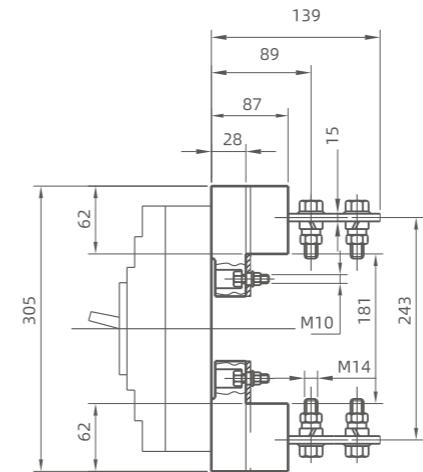
3P

- rear panel wiring (3P, 4P)
- X-X, Y-Y are the centers of three pole circuit breaker



Holing size of rear panel wiring mounting plate

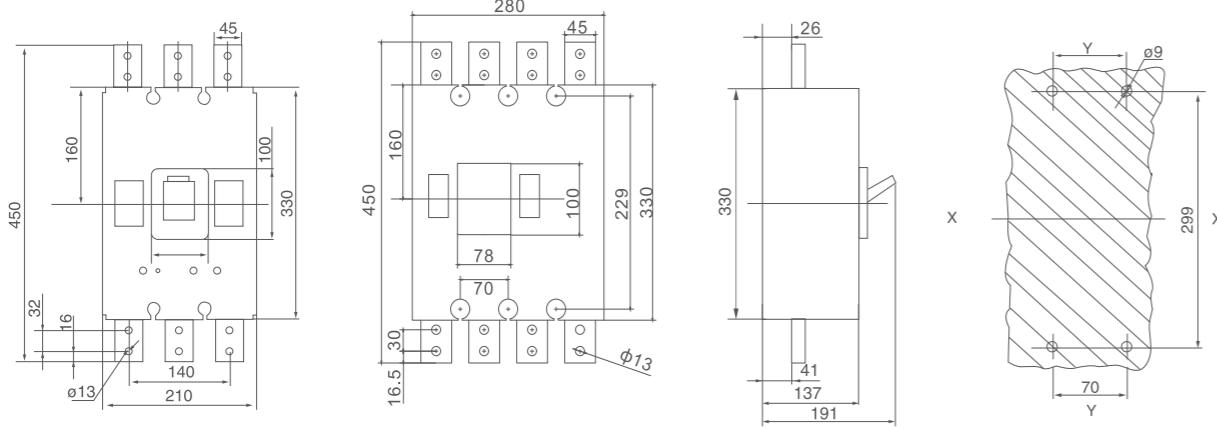
- plug-in rear panel wiring(3P, 4P)
- X-X, Y-Y are the centers of three pole circuit breaker



Holing size of mounting plate(Unit: mm)

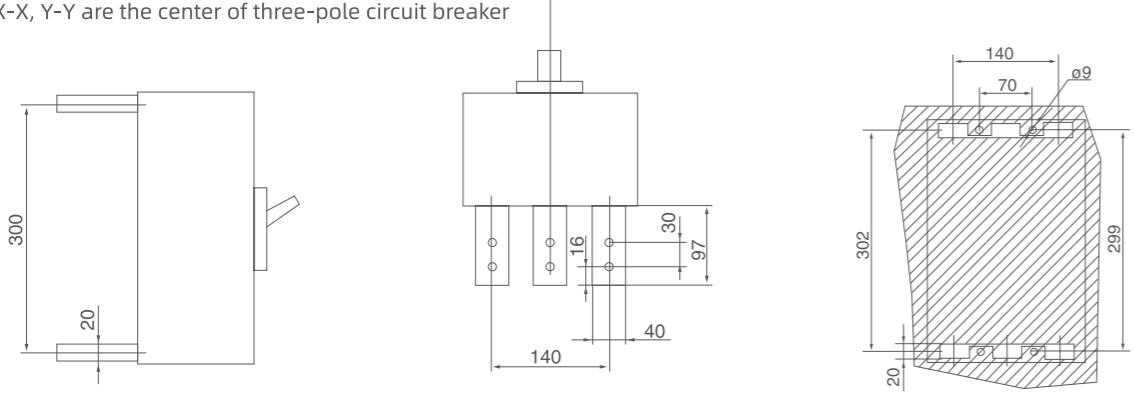
circuit breaker 1250 frame size installation safety interval

- ARM3-1250 front panel wiring (3P/4P)
 - X-X, Y-Y are the center of three-pole circuit breaker



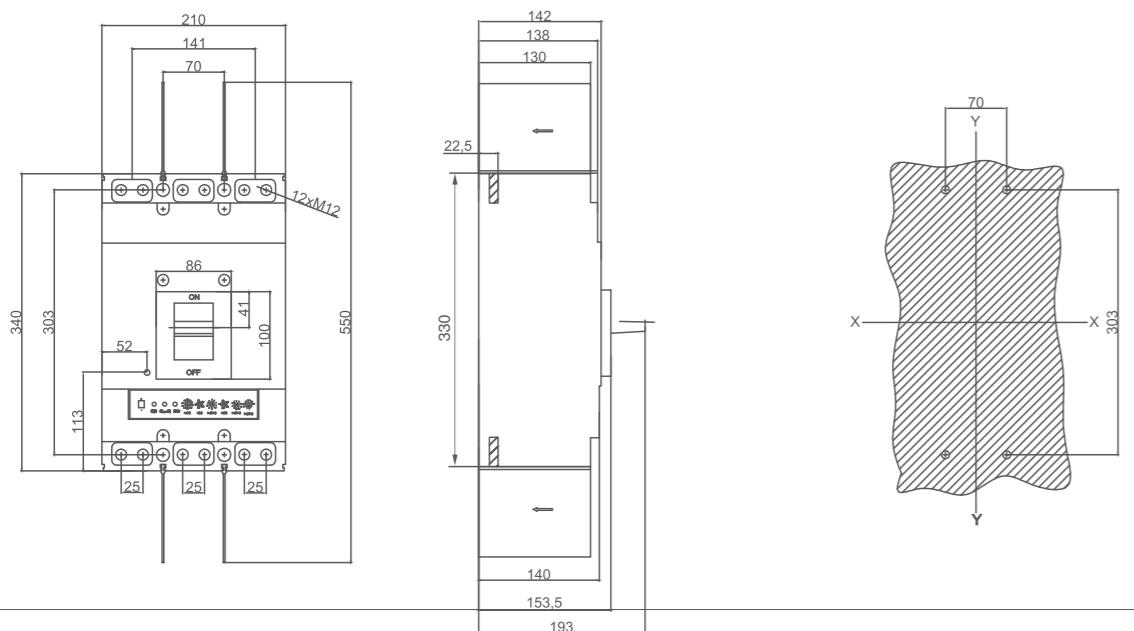
■ ARM3-1250 rear panel wiring (3P/4P)

- X-X, Y-Y are the center of three-pole circuit breaker

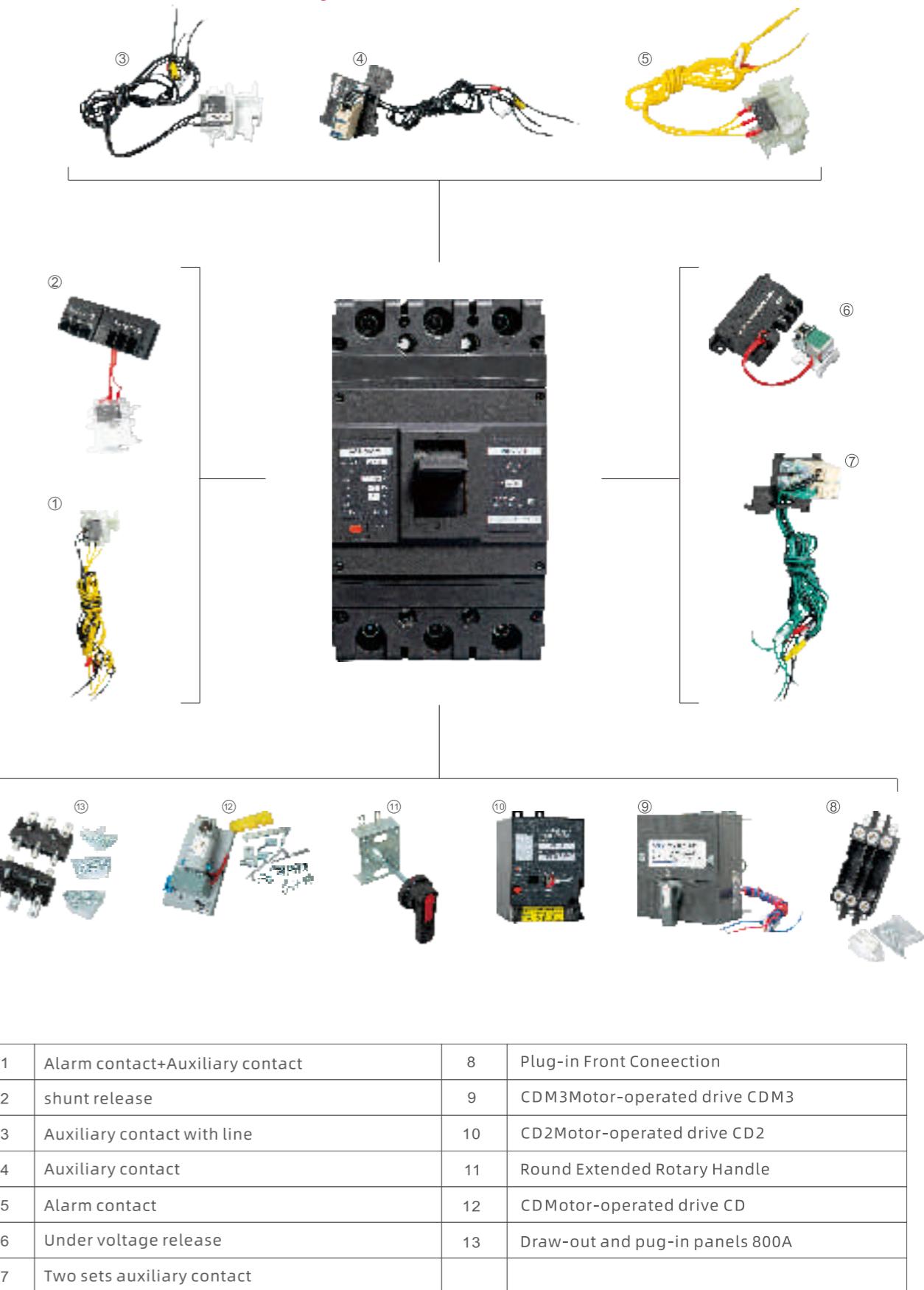


■ ARM 3E-1250front panel wiring (3P)

- X-X, Y-Y are the center of three-pole circuit breaker



Circuit breaker internal accessories showing



ARM3 Series Molded Case Circuit Breaker	ARXM3 Series Molded Case Circuit Breaker	ARM3E Series Electronic Molded Case Circuit Breaker	ARM3L Series Residual Current Molded Case Circuit Breaker
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ARM3 Series Molded Case Circuit Breaker	ARXM3 Series Molded Case Circuit Breaker	ARM3E Series Electronic Molded Case Circuit Breaker	ARM3L Series Residual Current Molded Case Circuit Breaker
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MCCB Model List

(pls Tick Or Fill in _____)

Company	Quantity	Order Date
Model List	<input type="checkbox"/> ARM1 <input type="checkbox"/> Magnetic <input type="checkbox"/> E <input type="checkbox"/> L <input type="checkbox"/> ARM3 <input type="checkbox"/> Magnetic <input type="checkbox"/> X <input type="checkbox"/> E <input type="checkbox"/> L <input type="checkbox"/> ARM5 <input type="checkbox"/> M <input type="checkbox"/> ARM6 <input type="checkbox"/> DC <input type="checkbox"/> HU <input type="checkbox"/> Z	<input type="checkbox"/> S <input type="checkbox"/> C <input type="checkbox"/> L <input type="checkbox"/> M <input type="checkbox"/> H <input type="checkbox"/> 2P <input type="checkbox"/> 3P <input type="checkbox"/> 4P <input type="checkbox"/> Rated current _____ A
Type	Explanation	
Type of N-pole	Type B: N-pole always ON, which is connected with other three poles before opening [default]; Type A: N-pole always ON, which is not connected with other three poles <input type="checkbox"/> Type C: N-pole with over-current protection, closing and opening together with other three poles <input type="checkbox"/> Type D: N-pole with over-current protection, and it's always ON, does not close or open with other three poles <input type="checkbox"/>	
Products user	For power distribution[no code] (default value); for motor protection [code 2]; 200: circuit breaker with electromagnetic release only; 300: circuit breaker with thermal electromagnetic release; 000: circuit breaker without over-current release (disconnector)	
Tripping type	Electromagnetic+thermomagnetic compound tripping[code 300](default value); only electromagnetic tripping <input type="checkbox"/> Without over-current release [used as disconnector] [code 000]; Leakage alarm non-tripping function <input type="checkbox"/> Leakage alarm tripping function <input type="checkbox"/> Electronic overload alarm non-tripping function [code I] Electronic overload alarm tripping function <input type="checkbox"/> Thermomagnetic overload alarm non-tripping function [code I] <input type="checkbox"/>	
Wiring mode	Front panel (default); rear panel H <input type="checkbox"/> ; plug-in front panel CRQ <input type="checkbox"/> ; plug-in type rear panel CRH <input type="checkbox"/> Draw-out type (125 frame without draw-out type);	
Operate ways	9. Operation mode:direct operation (default); Electric operating mechanism P voltage level: AC230V <input type="checkbox"/> ; AC400V <input type="checkbox"/> ; DC24V <input type="checkbox"/> Electric operation type: CD2 [default]; CDM [for frame size of 250 and below]; CD [for frame size above 250] <input type="checkbox"/> Note: AC or DC power supply can be used for CD2 electric operation power supply, while only AC power supply can be used for CDM and CD electric operation power supply; Manual operating mechanism Z: operating mechanism Cs1 <input type="checkbox"/> Cs2 <input type="checkbox"/> rotating handle F <input type="checkbox"/> A <input type="checkbox"/> Connection terminal: none [default]; JBC <input type="checkbox"/> JGC <input type="checkbox"/> Terminal block: none [default]; added <input type="checkbox"/> Mechanical interlocking mechanism: none [default]; added <input type="checkbox"/> Mounting base of front panel wiring guide: none [default]; added <input type="checkbox"/>	
Shunt release	AC230V <input type="checkbox"/> ; AC380V/400V <input type="checkbox"/> ; DC220V <input type="checkbox"/> ; DC24V <input type="checkbox"/> ;	
Undervoltage release	AC230V <input type="checkbox"/> ; AC380V/400V <input type="checkbox"/> ; DC220V <input type="checkbox"/> ; DC24V <input type="checkbox"/> ;	
Auxiliary switch	1 set <input type="checkbox"/> ; 2 sets <input type="checkbox"/>	
Wiring method of internal accessories	lead wire [default]; terminal block <input type="checkbox"/>	
Length of accessory wire	50cm (default); 100cm [chargeable] <input type="checkbox"/> ; customized length [chargeable] <input type="checkbox"/>	
Operating handle	none [default]; added <input type="checkbox"/>	

ARM3L Model	Leakage type product selection
Rated residual operating current IΔn (mA)	Type I: leakage current gear 100/300/500 125/250: 100 <input type="checkbox"/> ; 300 <input type="checkbox"/> ; 500 <input type="checkbox"/> Type II: leakage current gear 125/250; frame size: 30/100/300/400/630frame size: 300/500/1000 125/250: 30 <input type="checkbox"/> ; 100 <input type="checkbox"/> ; 300 <input type="checkbox"/> 400/630: 300 <input type="checkbox"/> ; 500 <input type="checkbox"/> ; 1000 <input type="checkbox"/>
Delay time Δt(s)	non-delay <input type="checkbox"/> ; 0.1 <input type="checkbox"/> ; 0.5 <input type="checkbox"/> ; 1 <input type="checkbox"/>

Supplementary notes

1. Label:
2. Package:
3. Others: