

© YUMING ELECTRIC CO.,LTD.

♻️ This album is printed on ecological paper

NATIONAL UNIFIED CUSTOMER SERVICE HOTLINE: 400 826 6611

National unified customer service hotline: 400 826 6611

PRODUCT SELECTION GUIDE

YUMING ELECTRIC CO., LTD.

PRODUCT SELECTION MANUAL

YUMONN
Y U M O N N

🏠 XIANGYANG INDUSTRIAL ZONE, LIUSHI TOWN, YUEQING CITY, ZHEJIANG PROVINCE

*The company reserves the right to make changes for the technical progress and upgrading of products. Any changes are subject to no notice.

*The pictures and technical descriptions in this manual may be different from the actual ones. Please refer to the actual objects and instructions.

*There are many kinds of products, which cannot be recorded one by one. For details, please contact our sales department or local dealers.

*All rights reserved. No unit or individual may reprint or reprint all or part of it without permission.



Browse electronic samples

YUMONN
Y U M O N N



COMPANY PROFILE

Yuming Electric Co., Ltd. founded in 2013, the mother factory is Jialing Electric Co.,Ltd as one of professional manufactures in electrical manufacturing industry over 23 years, total area around 10000m²

We are an integrated industrial & trading enterprise for design, production, sales and customized service. It is specialized in developing and manufacturing each metal parts of Air Circuit Breaker, Earth Leakage Circuit Breaker and Electronic Mould Case Circuit Breaker series, and assembled finished products.

Provide the professional and efficient customized service with our strong R&D capability, technical support capability and mold manufacturing capabilities. To be interdependent, mutual benefit and win-win friendly partners.

Tenet of the company is Better competitive, Better lead time, Better service.

MANUFACTURING



Companies follow the ISO9001 quality system certification, strictly regulate the management processes, the establishment of long-term tracking body Department, continue to understand customer needs, to achieve 100% customer satisfaction with product quality. In the design, process innovation Always pay attention to the trend of product demand in the industry, introduce advanced manufacturing technology, and set up production and testing facilities Preparation, use of innovative processes in key processes, and refinement of components with sophisticated technology and equipment.



MANUFACTURING

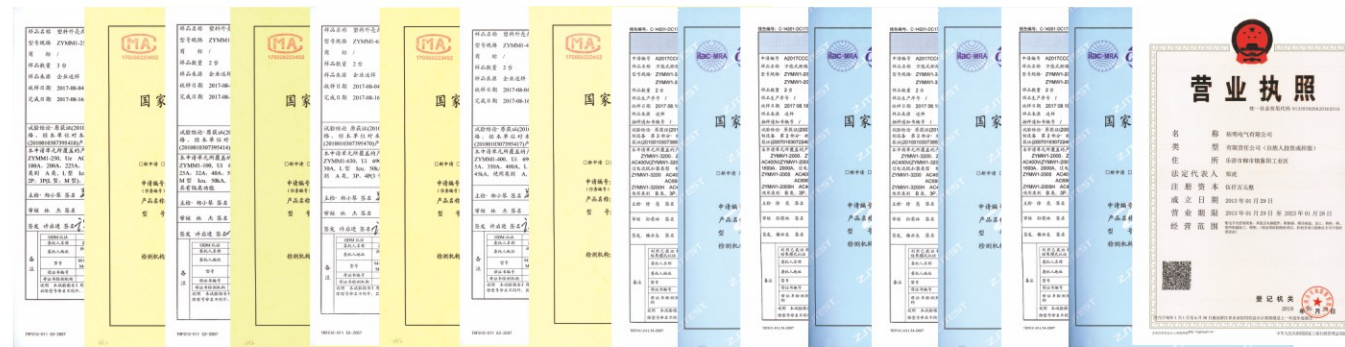


**LEADING TECHNOLOGY
RELIABLE QUALITY**

In order to continuously develop, innovate and expand enterprises, we must go to the country International, and advanced processing equipment is the symbol and perfection of enterprise strength The detection means is to ensure the quality of Yuming electric. We know that first Advanced equipment is a necessary condition for excellent enterprises, and the company has been established since its establishment At the beginning, there has never been any relaxation in the innovation and transformation of production equipment, At the same time, a lot of funds have been invested in the transformation and innovation of equipment Advanced equipment has brought great convenience and high efficiency to high-quality production Benefit, so as to ensure the quality of products and meet the needs of customers.



CERTIFICATIONS



PRODUCT CATALOG

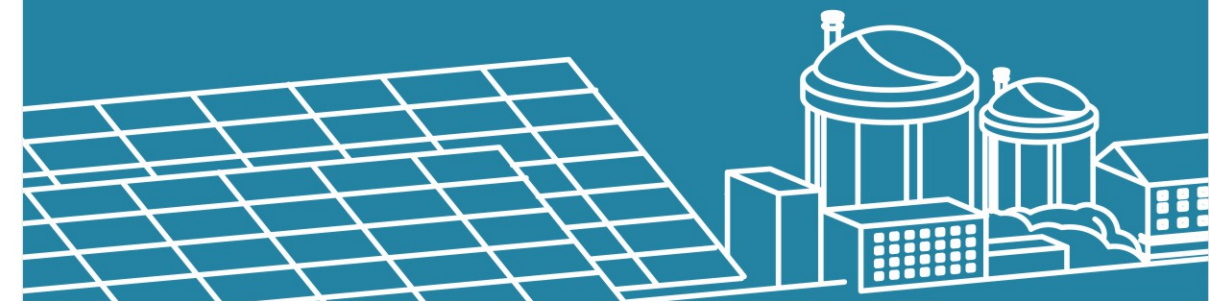
ZYMM1E Electronic Moulded Case Circuit Breaker 01

ZYMM1 Series Plastic Shell Circuit Breaker 11

ZYMM1L Series Leakage Circuit Breaker 15

ZYMM8-PV Photovoltaic DC Circuit Breakers 19

ZYMW1 Universal Circuit Breakers 24



ZYMM1E

Electronic Moulded Case Circuit Breaker

ZYMM1E series electronic plastic case circuit breaker (hereinafter referred to as circuit breaker) is applicable to AC 50Hz (or 60Hz), and its rated insulation voltage is 800V, rated working voltage 690V and below, and rated working current up to 800A are used for infrequent conversion and infrequent motor starting. Circuit breaker It has the functions of overload long delay inverse time limit, short circuit short delay inverse time limit, short circuit short delay definite time limit, short circuit instantaneous and undervoltage protection and residual current protection (optional), phase failure protection function (optional), which can protect the line and power supply equipment from damage. The protection characteristics of the circuit breaker are complete and accurate, and can improve the power supply Reliability to avoid unnecessary power failure.

Circuit breaker is divided into M type (relatively high score breaking type), H type (high score breaking type) according to its rated limit short score breaking ability. The circuit breaker has a volume of the Small, high separation ability, short flying arc, anti-vibration and other characteristics. The circuit breaker can be mounted vertically (i. e. vertically) or horizontally (i. e. horizontally).

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

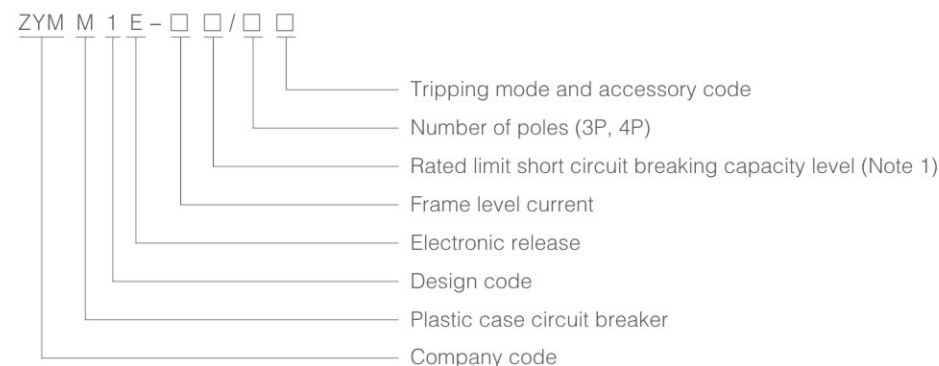
The circuit breaker shall not be reversed, that is, only 1, 3 and 5 power lines and 2, 4 and 6 load lines are allowed.



First-class brand, and create the future



MODEL AND MEANING



Note:

- ◇ according to the rated limit short-circuit breaking capacity, it is divided into S type (high breaking type) and H type (high breaking type);
- ◇ handle direct operation without code: electric operation is represented by p; Handle rotation is represented by Z;
- ◇ the basic type has no code, the intelligent communication type is represented by Z, the programming communication type is represented by B, the fire type is represented by X, and the liquid crystal display is represented by L.

NORMAL OPERATING CONDITIONS

- ◇ altitude: ≤ 2000m;
- ◇ ambient temperature: - 5 °C ~ + 40 °C;
- ◇ be able to withstand the influence of humid air;
- ◇ be able to withstand the influence of salt mist and oil mist;
- ◇ the installation category of the main circuit of the circuit breaker is III, and the installation category of other auxiliary circuits and control circuits is II;
- ◇ when the maximum temperature is + 40 °C, the relative humidity of the air shall not exceed 50%. Higher relative humidity can be allowed under lower humidity. Special measures shall be taken for the occasional condensation due to temperature change;
- ◇ the maximum inclination is 22.5 ° ;
- ◇ in the medium without explosion hazard, and there is no place where the medium has enough gas and conductive dust to corrode metal and damage insulation;
- ◇ where there is no rain or snow.

STRUCTURAL FEATURES

- ◇ it has the characteristics of small volume, high breaking capacity, short arcing and anti vibration;
- ◇ the same overall dimension and installation dimension as zymm1:
- ◇ the circuit breaker has isolation function, and its rated insulation voltage is 800V;
- ◇ according to the rated limit short-circuit breaking capacity, it is divided into two types: S-type (high breaking type) and H-type (high breaking type);
- ◇ it has overload long time delay inverse time limit, short-circuit short time delay fixed time limit, short-circuit instantaneous and undervoltage protection functions, residual current protection (optional) and phase loss protection function (optional), which can protect the power supply of the line The power supply is not damaged:
- ◇ complete and accurate protection characteristics can improve the reliability of power supply.

THE CIRCUIT BREAKER MEETS THE STANDARD

- ◇ IEC 60947-1 and GB / t14048 1 General rules for low voltage switchgear and controlgear
- ◇ IEC 60947-2 and GB / t14048 2 low voltage circuit breakers for low voltage switchgear and control equipment and Appendix F additional requirements for circuit breakers with electronic overcurrent protection
- ◇ IEC 60947-5.1 and GB / t14048 5 low voltage switchgear and controlgear control circuit appliances and switching elements

OPTIONAL FEATURES

- ◇ with temperature monitoring and protection function: when the ambient temperature exceeds the set value (the default setting is 85 °C), the controller will output alarm photoelectric signal or open the circuit breaker;
- ◇ dual passive signal output function: for signal (or alarm), capacity ac230v5a;
- ◇ it has overload thermal memory function: overload thermal memory function, short circuit (short time delay) thermal memory function;
- ◇ it has fire protection shunt excitation function: overload alarm does not trip (a pair of passive contacts are provided) and shunt excitation tripping function is provided;
- ◇ communication function: standard RS232, RS485, MODBUS fieldbus protocol;
- ◇ it can be connected to a hand-held programmer: set various protection parameters of the circuit breaker, conduct nearly 10 fault inquiries and various status displays;
- ◇ it can be connected with intelligent control mode conversion: optical isolation contact signal output, including programmable do output function;
- ◇ high grade with LCD module

MAIN FUNCTIONS AND FEATURES

Intelligent controller is the core component of molded case circuit breaker. It is applied to motor protection or power distribution protection to realize the functions of measurement, protection, control and communication, so as to protect the line and power supply equipment from damage 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 it is connected, when the current is not less than 20% of its rated value, it can ensure the normal protection function Work;

selective coordination has three-stage protection: the circuit breaker of class B and other short-circuit protection devices connected in the same circuit have selective coordination under short-circuit conditions: overload, long delay and reverse time setting of limit, short-circuit delay (inverse time limit, definite time limit), short-circuit instantaneous and other protection function parameters;

it has three protection parameter settings of action current and action time, and can be adjusted in 4–10 gears: the user can set and adjust the controller according to the requirements of load current, or select off according to the user's requirements cut off corresponding functions (customized functions, which need to be noted when ordering);

large current instantaneous tripping function: when the circuit breaker is closed and running, in case of short circuit and large current ($\geq 20In$), the magnetic tripping mechanism of the circuit breaker can trip directly, and the dual protection is more reliable and safe;

With tripping test (test) function: input DC 12V voltage to test the action characteristics of the circuit breaker;

Fault self diagnosis function: protect and detect the working state and operation of the intelligent controller;

With pre alarm indication and overload indication: when the load current reaches or exceeds the over set value, it is equivalent to the light guide column to lead out the light source;

Double air gap technology of magnetic flux exchanger: more reliable and stable operation, no misoperation, reliable tripping and small power;

High protection accuracy: the action time accuracy of overload protection and short-circuit short delay protection is $\pm 10\%$; The accuracy of short-circuit instantaneous protection action value $\pm 15\%$ depends on the action telephone;

The installation has interchangeability, and the overall dimension and installation dimension are the same as those of zymm1 Series Molded Case circuit breakers.

Note: zymm1e-630 is the same as zymm1e-400, which is based on zymm1e intelligent communication type or programmed communication type.

DETAILED EXPLANATION OF FUNCTIONS

Communication function: through the communication protocol conversion card, the number of PROFIBUS-DP protocol networks can be easily accessed for setting, last fault query, function editing, do function output spinning process, etc. according to the user set the function or upgrade other functions according to the customized scheme

Overload thermal memory function: the overload thermal memory function of the controller can be selected by the user. It is turned off by default when leaving the factory. The overload thermal memory energy of the controller is fully released within 30 minutes.

Short circuit thermal memory function: the controller (short time delay) short circuit current protection thermal memory function can be selected by the user. It is off by default when leaving the factory: the controller (short time delay) short circuit current protection thermal memory energy Fully release within 15 minutes.

Fault recording function: the controller can record the fault type, fault tripping time, fault phase and maximum fault current of the last 10 times without loss of power.

Fire protection shunt function: it is used by the fire protection system. When the tripping condition is reached under the set parameters, the circuit breaker does not trip and outputs normally closed contact, and provides shunt function, which can be selected by the user whether to open or not Open the circuit breaker.

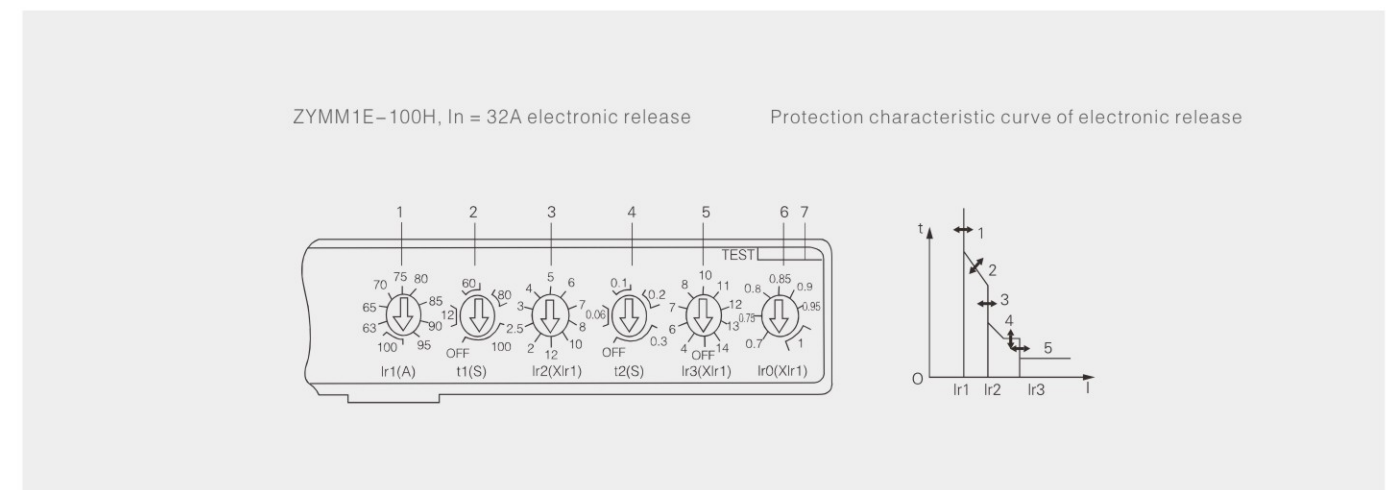
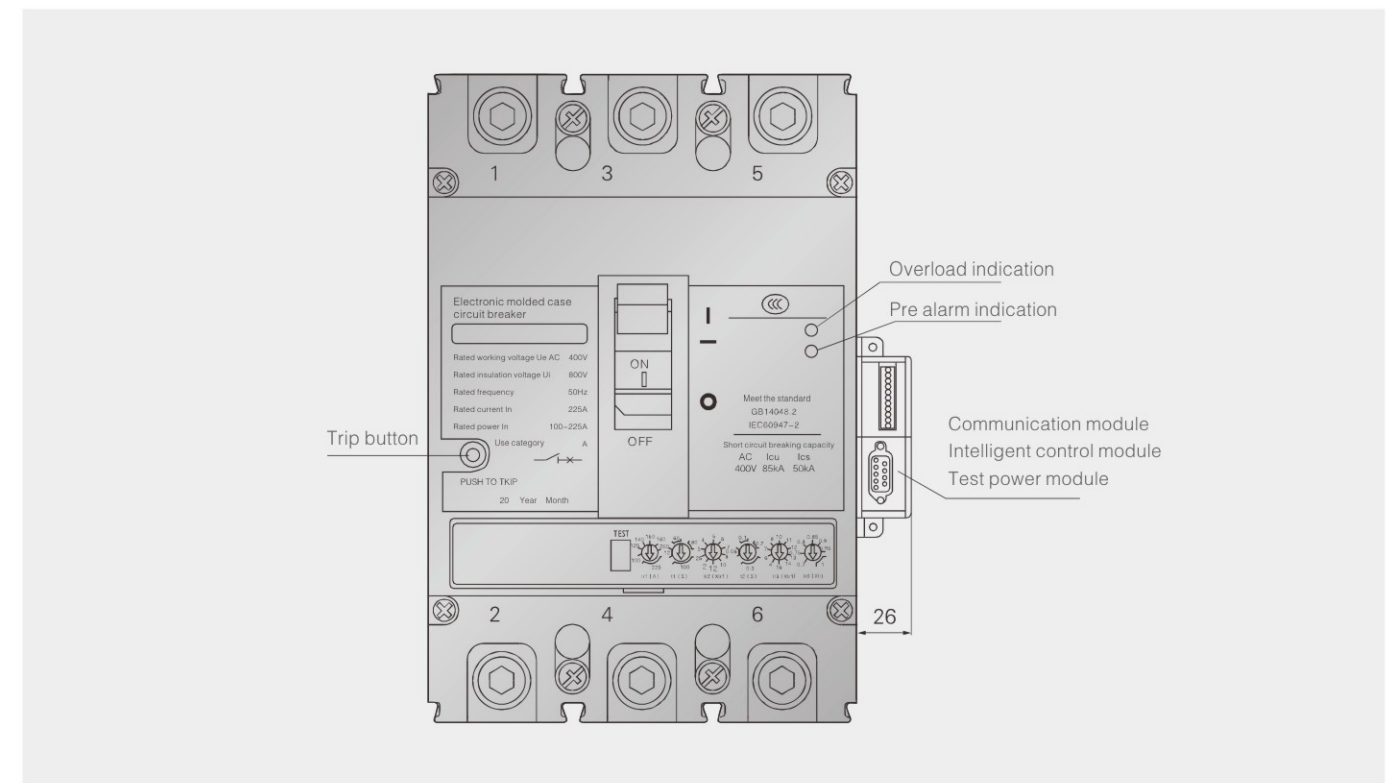
The programmable do output function controller has four photoelectric signal outputs. The photoelectric signals of do1 and D02 can be programmed into the following function outputs, D03 is the opening signal and D04 is the closing signal.

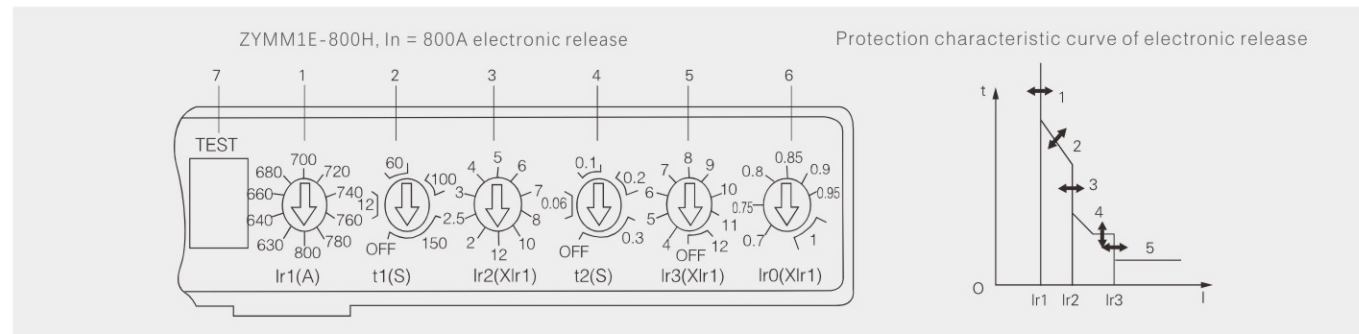
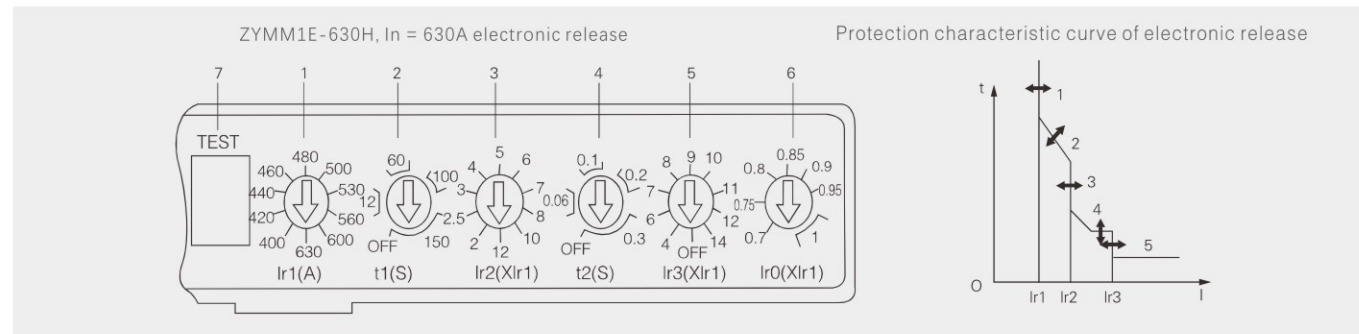
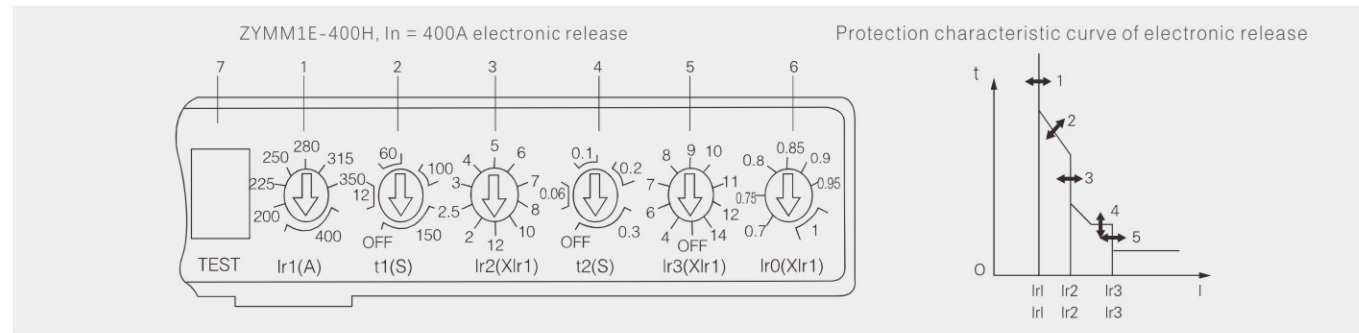
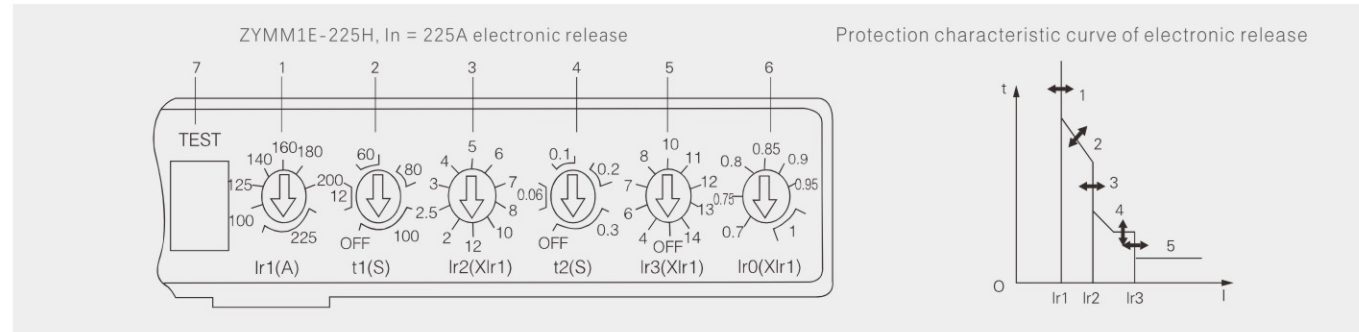
Long delay fault	Short delay fault	Ground fault	Long delay fault	Short delay fault	Ground fault
Leakage fault	Transient fault	Overvoltage fault	Leakage fault alarm	Instantaneous fault alarm	Overvoltage fault alarm
Temperature overtemperature fault	Fault trip	Undervoltage fault	Temperature over temperature fault alarm	Fault trip alarm	Undervoltage fault alarm
Long delay fault alarm	Short delay fault alarm	Earth fault alarm			

Opening and closing state detection function of circuit breaker (optional function); The controller can detect the current opening and closing state of the circuit breaker and upload it to the host computer to the computer network in real time.

INTRODUCTION TO STRUCTURE AND LOGO

Front indication of circuit breaker





- Note:
- 1 – overload long delay action current LR1 adjustment, which can be adjusted from gear 4 to gear 10 according to different rated currents of the circuit breaker;
 - 2 – long delay action time T1 adjustment, 4–gear adjustment can be carried out;
 - 3 – short circuit short delay action current LR 2 adjustment, 10 gear adjustment can be carried out;
 - 4 – short delay action time T2 adjustment, 4–gear adjustment can be carried out;
 - 5 – short circuit instantaneous action current LR3 adjustment, which can be adjusted in gear 8, 9 or 10; The alarm current can be adjusted in r7–gear and l6–gear.
 - 7 – test end, used for sub release test (test).

APPLICATION AND NETWORKING OF COMMUNICATION INTERFACE AND EXTERNAL MODULE OF INTELLIGENT CIRCUIT BREAKER

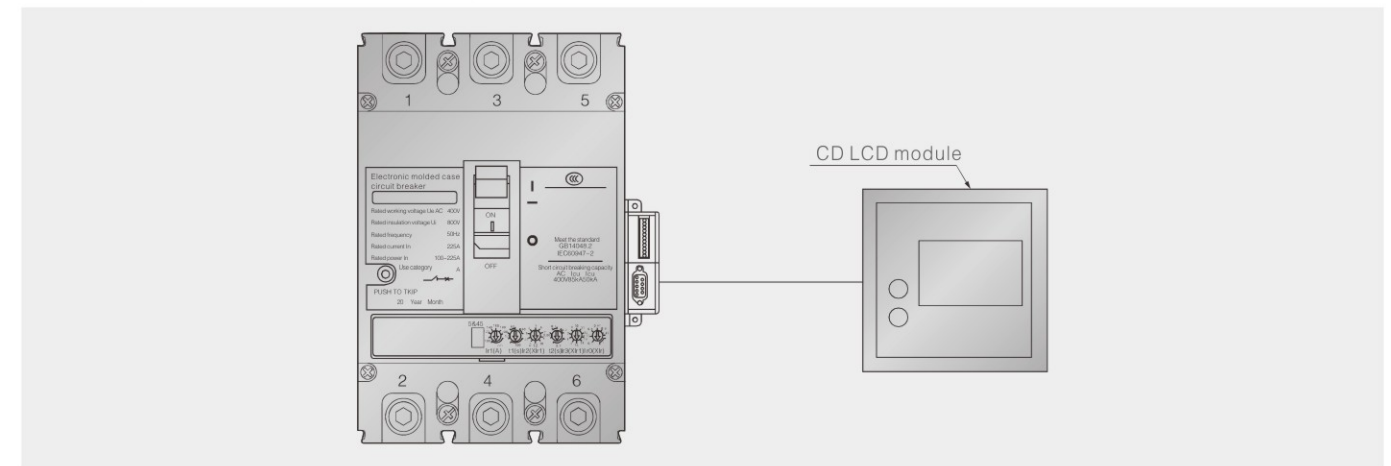
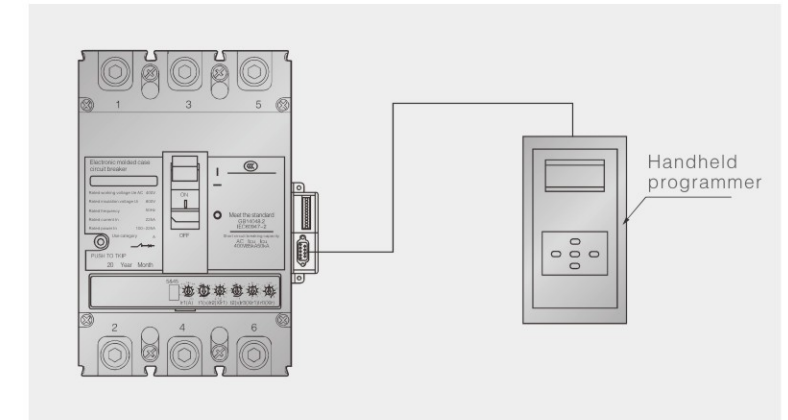
ZYMM1E communication intelligent molded case circuit breaker is equipped with communication interface according to Modbus communication interface protocol.

ZYMM1E communicable intelligent molded case circuit breaker is not used for networking communication, but when used alone, the handheld programmer can set the protection characteristics of the circuit breaker through the communication interface; it can also connect the LCD module to the communication interface to monitor the operating current and fault information of the circuit breaker.

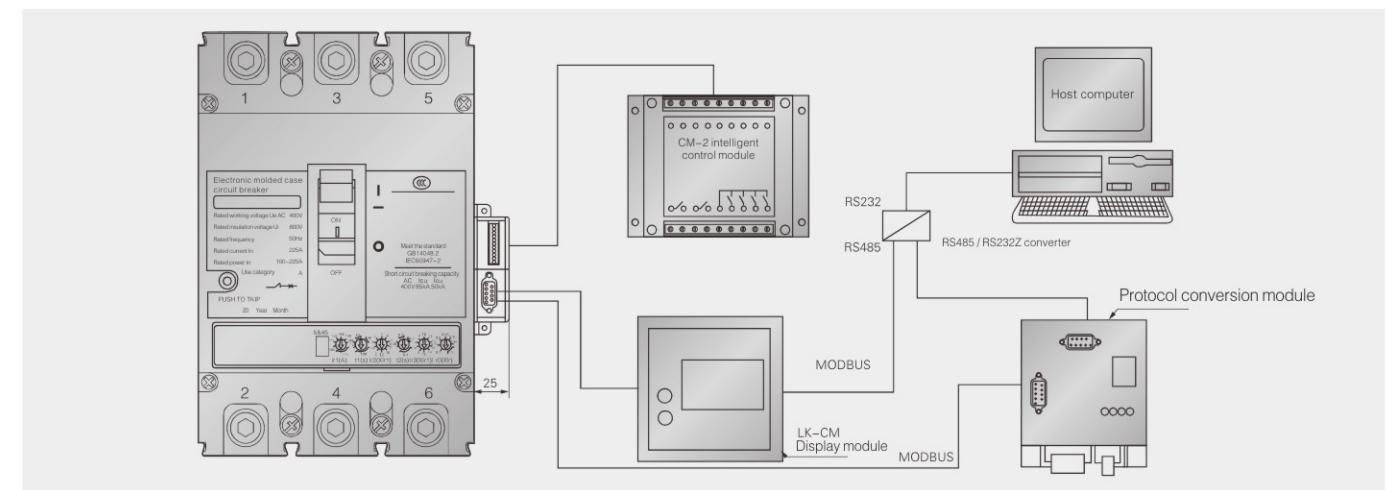
When ZYMM1E intelligent molded case circuit breaker is used for networking communication, it can be directly connected to the corresponding fieldbus; For Fieldbus with different protocols, cm–dp protocol conversion module can be selected to convert Modbus protocol and connect it to corresponding fieldbus.

When the ZYMM1E–type communication intelligent plastic shell circuit breaker sets the protection parameters of the circuit breaker alone, the professionals should connect with the FI handheld programmer according to the figure below, and then follow the operation instructions of the handheld programmer

ZYMM1E communication intelligent molded case circuit breaker is used together with LCD module. During normal operation, the display module can monitor the operating current and fault information of the circuit breaker. When setting the protection parameters of circuit breaker, professionals need to use LK handheld programmer to connect, and then operate according to the operation instructions of handheld programmer.

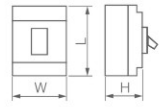


The communication network of ZYMM1E communication intelligent molded case circuit breaker can be connected by referring to the scheme in the figure below. Different protocol modules can be selected for different protocols to convert MODBUS into PROFIBUS–DP and other protocols.

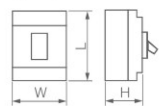


MAIN TECHNICAL PERFORMANCE INDEXES OF ELECTRONIC INTELLIGENT CIRCUIT BREAKER

Model	ZYMM1E-125			ZYMM1E-250			
Frame level current I_{nm} (A)	125			250			
Rated current (adjustable) I_n (A)	16,20,25,32	32,36,40,45,50,55,60,63	63,65,70,75,80,85,90,95,100,125	100,125,140,160,180,200,225,250			
Rated working voltage U_e (V)	AC 400V						
Rated insulation voltage U_i (V)	AC 800V						
Rated impulse withstand voltage U_{imp}	AC 400V			AC 800V			
Number of poles (P)	3		4	3		4	
Rated limit short circuit breaking capacity level	S	H	H	S	H	H	
Rated limit short circuit breaking capacity LCU (kA)	35	70	70	35	70	70	
Rated operating short-circuit breaking capacity LCS (kA)	25	50	50	25	50	50	
Use category	A			A			
Operating performance (Times)	Electrify	3000			3000		
	No electricity	7000			7000		
Overall dimension (mm)	L	150			165		
	M	92	122	107	142		
	H	92			90		
Flying fox distance	≤50			≤50			



Model	ZYMM1E-400		ZYMM1E-630		ZYMM1E-800		
Frame level current I_{nm} (A)	400		630		800		
Rated current (adjustable) I_n (A)	200,225,250,280,315,350,400		400,420,440,460,480,500,530,560,600,630		630,640,660,680,700,720,740,760,780,800		
Rated working voltage U_e (V)	AC 400V						
Rated insulation voltage U_i (V)	AC 800V						
Rated impulse withstand voltage U_{imp}	AC 8000V						
Number of poles (P)	3		4	3		4	
Rated limit short circuit breaking capacity level	S	H	H	S	H	M	
Rated limit short circuit breaking capacity LCU (KA)	50	70	70	70	70	70	
Rated operating short-circuit breaking capacity LCS (KA)	35	50	50	50	50	50	
Use category	B		B		B		
Operating performance (Times)	Electrify	2000		1500		1500	
	No electricity	4000		3000		3000	
Overall dimension (mm)	L	257		257		280	
	M	150	198	150	198	210	280
	H	106.5		115.5		115.5	
Flying fox distance	≤106.5		≤100		≤100		



INVERSE TIME ACTION CHARACTERISTICS OF LONG TIME DELAY OVERCURRENT PROTECTION

Controller type	Basic type	Intelligent communication type, programming communication type, LCD type
2lr1	$I_{nm}=125A、250A$ Setting time t_1 (s)	≤1h action $t_1=(12,60,80,100)s$
	$I_{nm}=400A、630A、800A$ Setting time t_1 (s)	$t_1=(12,60,100,150)s$
Thermal memory	After 30 min, it can be cleared after power failure (this function is optional for intelligent communication type and programmed communication type)	

1. The action time complies with $12t_1 = (2lr1) 2t_1$ ($1.2lr1 \leq I < LR1$); 2. The allowable difference of action time is ± 20%; 3. The returnable time is not less than 70% of the action time.

SHORT TIME DELAY OVERCURRENT PROTECTION CHARACTERISTICS

Current(A)	Action time					
$Lr2 \leq I < 1.51r2$	Inverse time limit					
$1.51r2 \leq I < lr3$	Time limit	Setting time T_2 (s)	0.06	0.1	0.2	0.3
		Tolerance (s)	± 0.02			
		Returnable time (s)			0.14	0.21

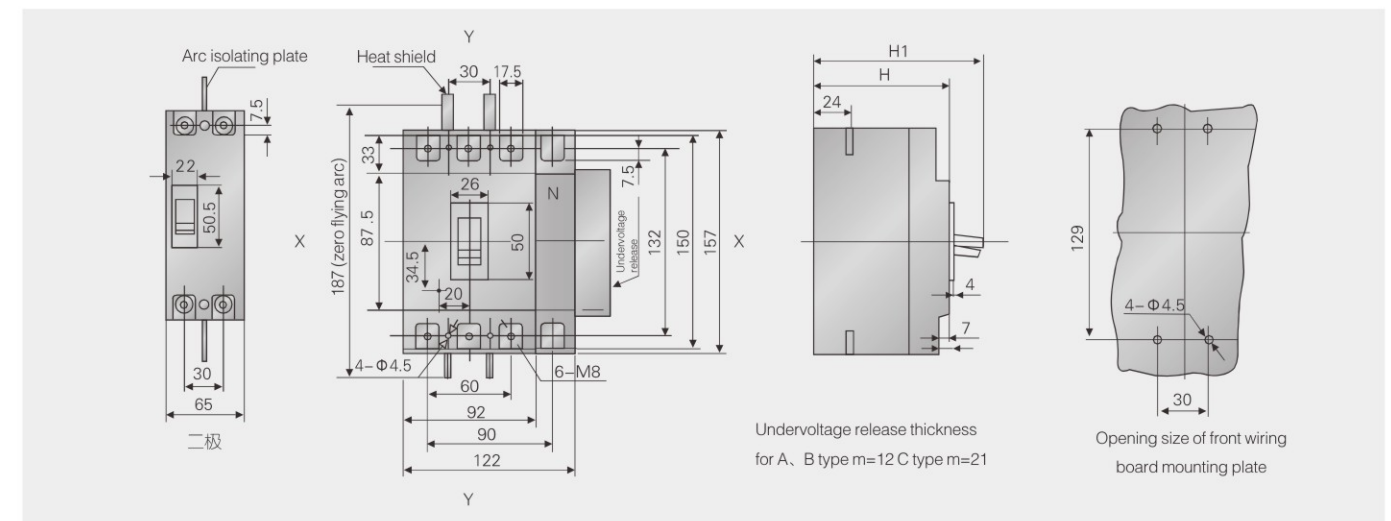
Note: the allowable deviation of inverse time action time is ± 20% a

ACTION CHARACTERISTICS OF SHORT CIRCUIT INSTANTANEOUS PROTECTION

Rated current(A)	Rated current(A)	Action characteristics
100、225	$lr3=4、6、7、10、11、12、13、14、16$	
400、635	$lr3=4、6、7、10、11、12、13、14$	$I \leq 0.85lr$ No action $I \geq 1.15lr3$ action
800	$lr3=4、6、7、8、9、10、11、12$	

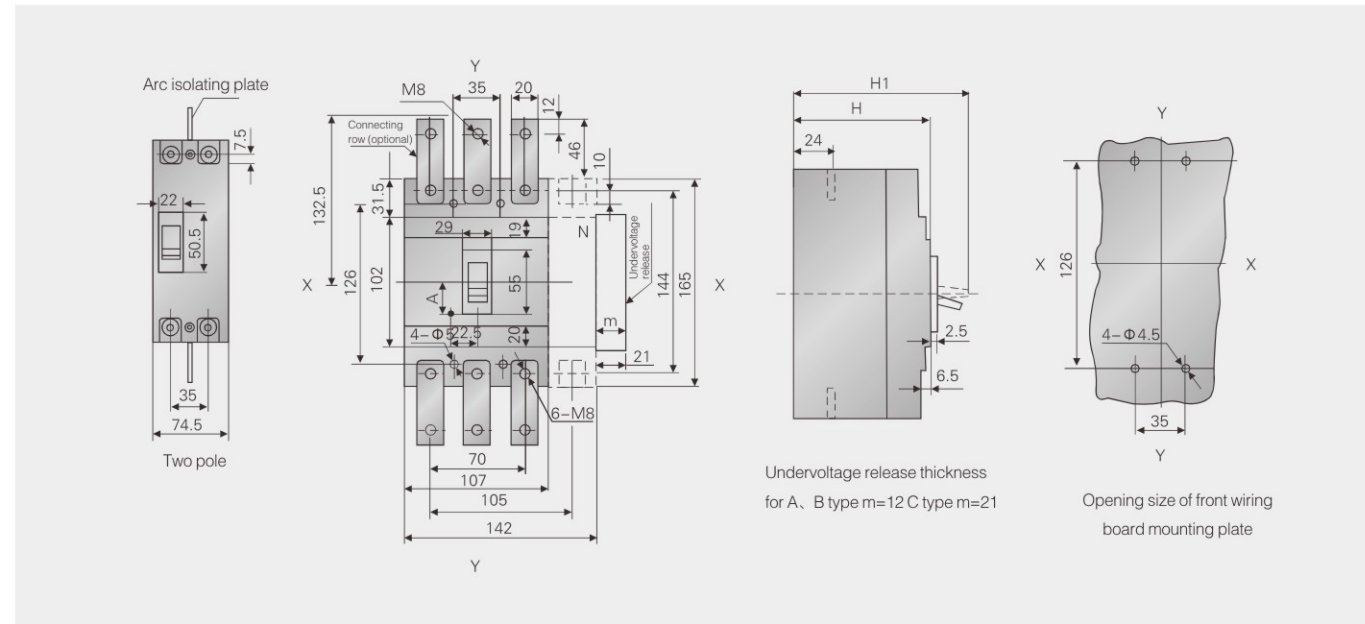
OUTLINE AND INSTALLATION DIMENSION DRAWING

Front wiring of ZYMM1E-125H board (two pole, three pole and four pole) (x-x and Y-Y are the center of three pole circuit breaker)



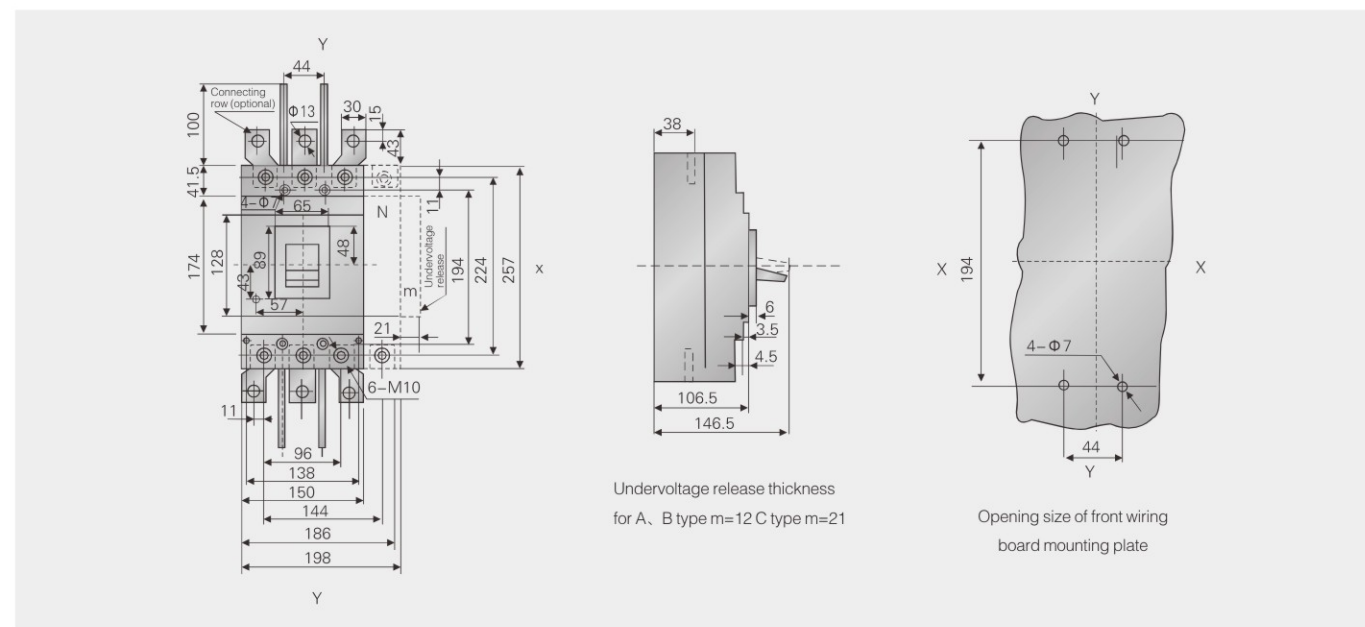
Model	H	H1
ZYMM1E-125H	86	104
ZYMM1E-125H Level 4		

Front wiring of ZYMM1E-250H board (three pole and four pole) (x-x and Y-Y are the center of three pole circuit breaker)

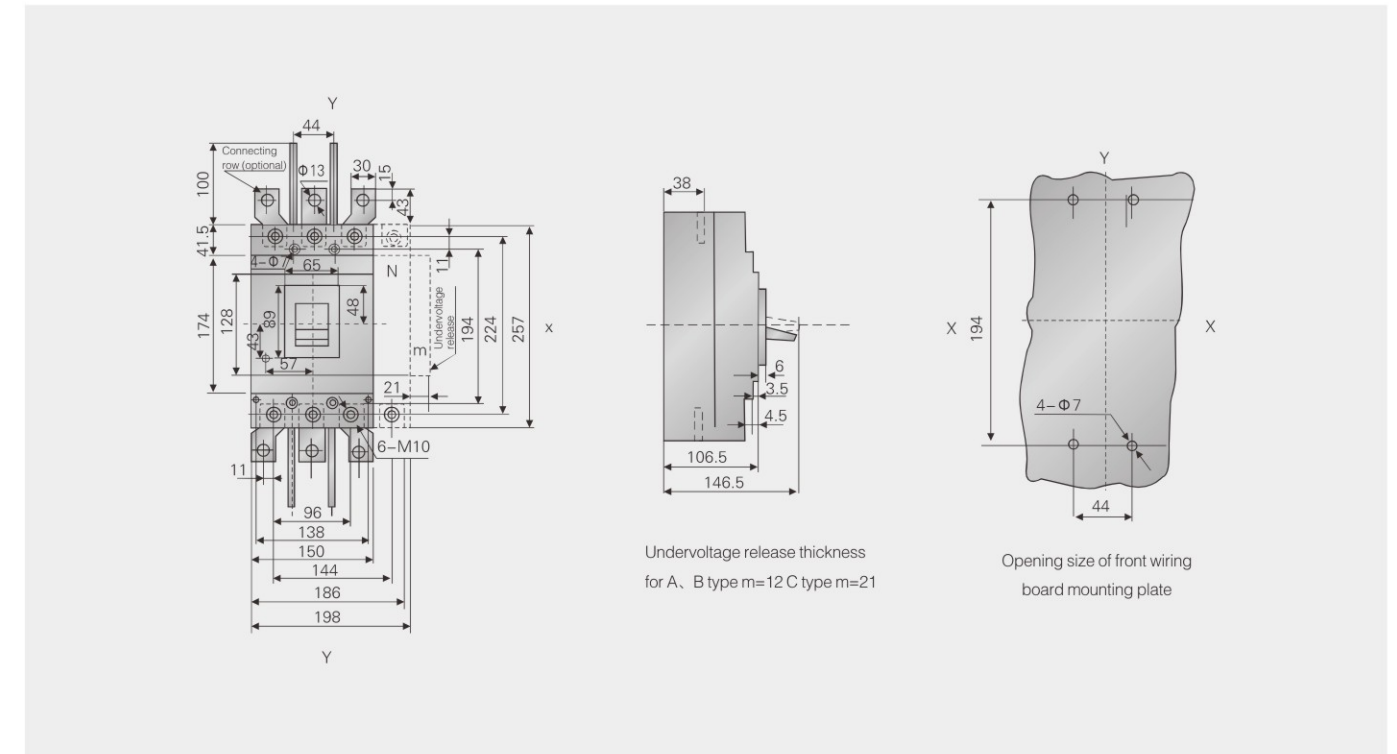


Model	H	H1
ZYMM1E-125H	105	127

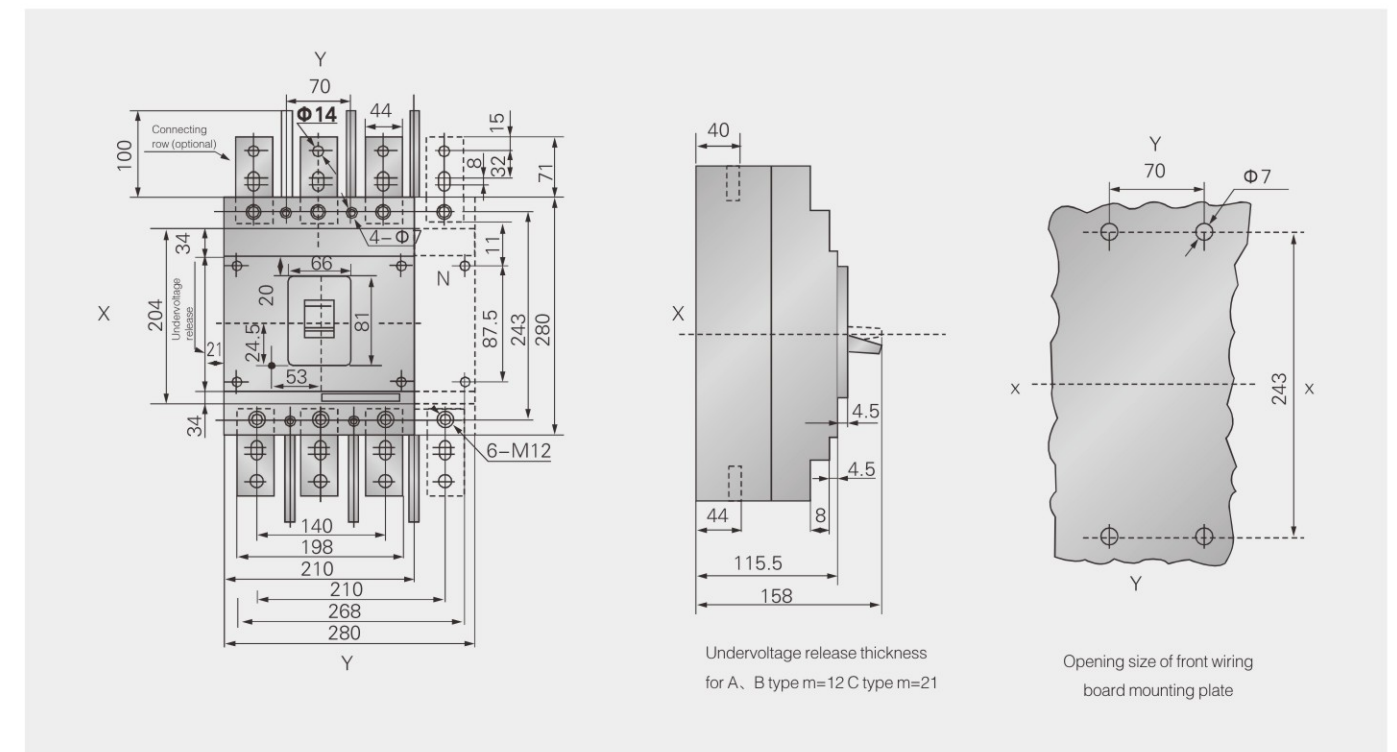
Front wiring of ZYMM1E-400H board (three pole and four pole) (x-x and Y-Y are the center of three pole circuit breaker)



Front wiring of ZYMM1E-630H board (three pole and four pole) (x-x and Y-Y are the center of three pole circuit breaker)



Front wiring of ZYMM1E-800H board (three pole and four pole) (x-x and Y-Y are the center of three pole circuit breaker)



ZYMM1

Series Plastic Shell Circuit Breaker

ZYMM1 series plastic shell circuit breakers are mainly used for AC 50Hz (or 60Hz), rated insulation voltage 800V, rated working voltage 690V and above 400A as overload, undervoltage and short circuit protection for distributing electric energy and protecting lines and power supply equipment in distribution network with rated current of 1600A and below. The circuit breaker below the shell level can also be used as overload, undervoltage and short circuit protection of the motor. Under normal conditions, it can be used as infrequent conversion and infrequent starting of motor.

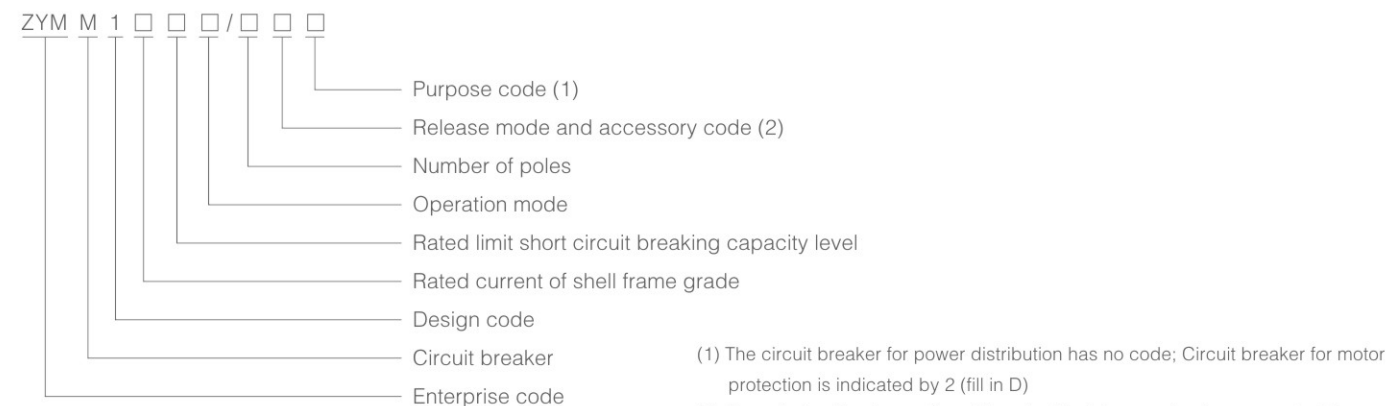
Standard: GB/T14048.2



First-class brand, and create the future



MODEL AND MEANING



Tripping mode and accessory code of circuit breaker

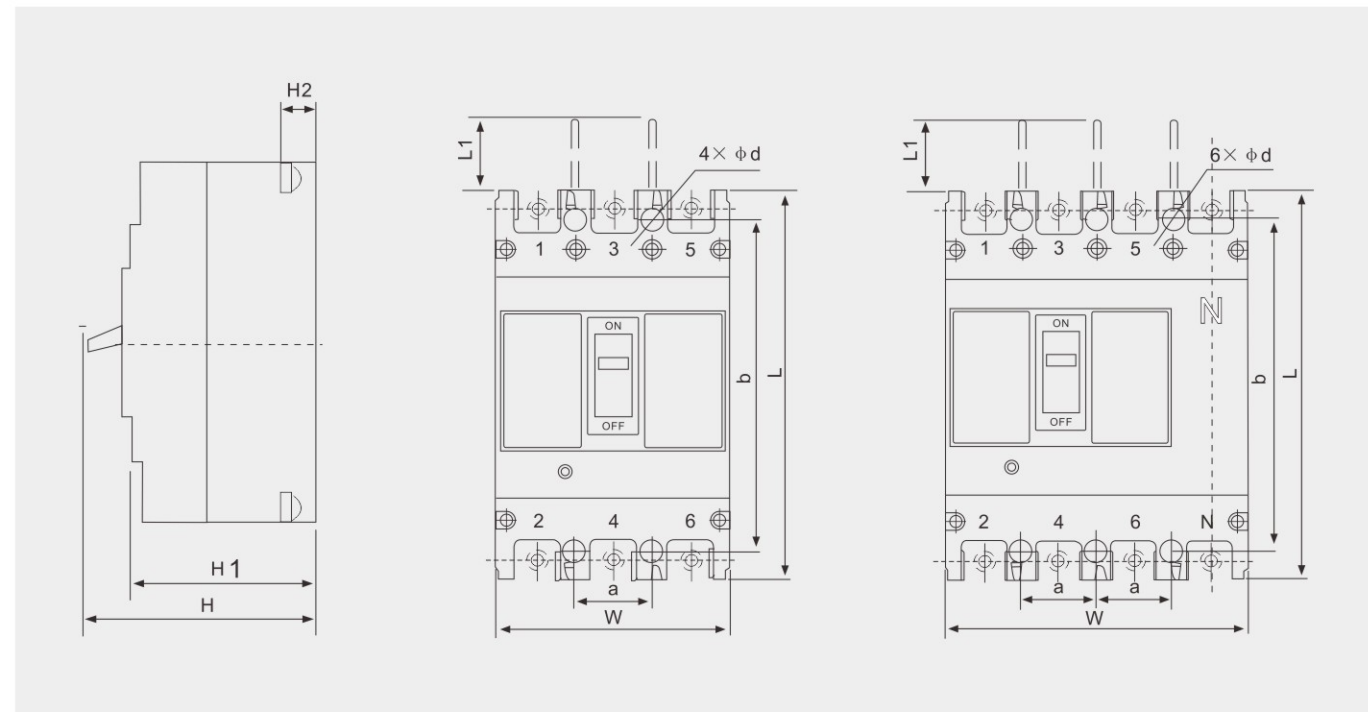
Attachment name Code Exit mode	No accessories	Alarm contact	Shunt release	Auxiliary contact	Undervoltage release	Shunt release and auxiliary contact	Shunt release and undervoltage release	Two sets of auxiliary contacts	Auxiliary contact and undervoltage release	Shunt release and alarm contact	Auxiliary contact and alarm contact	Undervoltage release and alarm contact	Auxiliary contact alarm contact of shunt release	Alarm contact of shunt release and undervoltage release	Two sets of auxiliary contact alarm contact shunt release auxiliary	Undervoltage auxiliary contact release Alarm contact
Electromagnetic instantaneous release	200	208	210	220	230	240	250	260	270	218	228	238	248	258	268	278
Compound release	300	308	310	320	330	340	350	360	370	318	328	338	348	358	368	378

MAIN TECHNICAL PARAMETERS

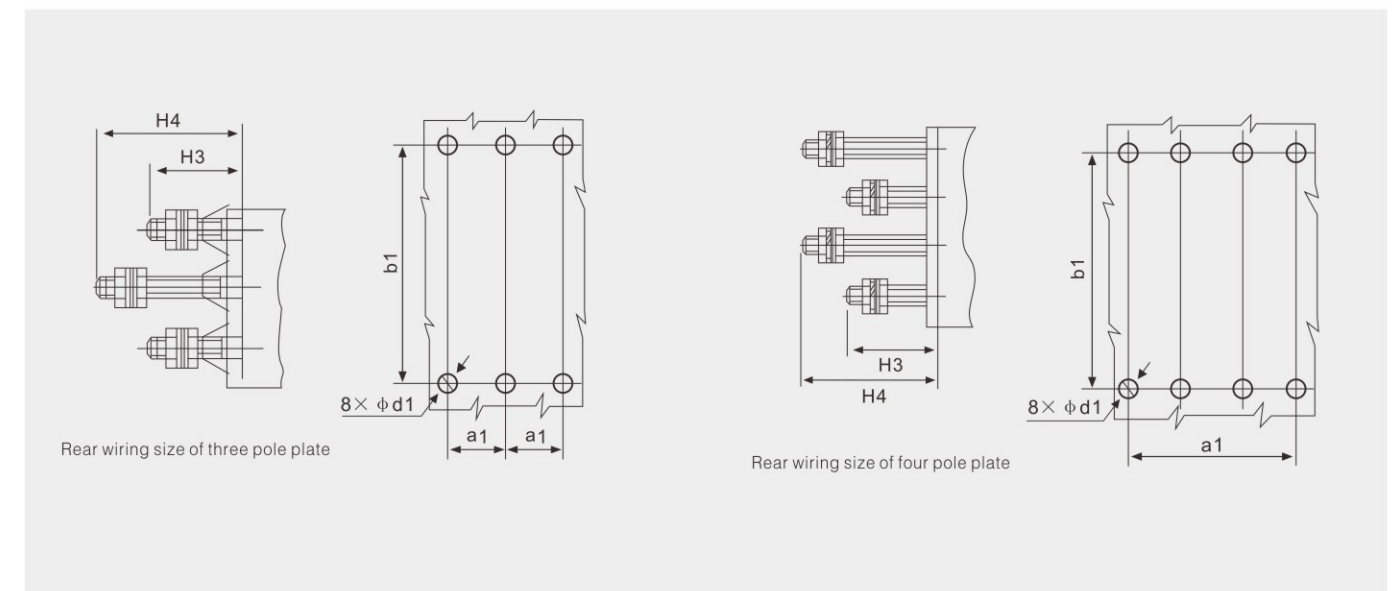
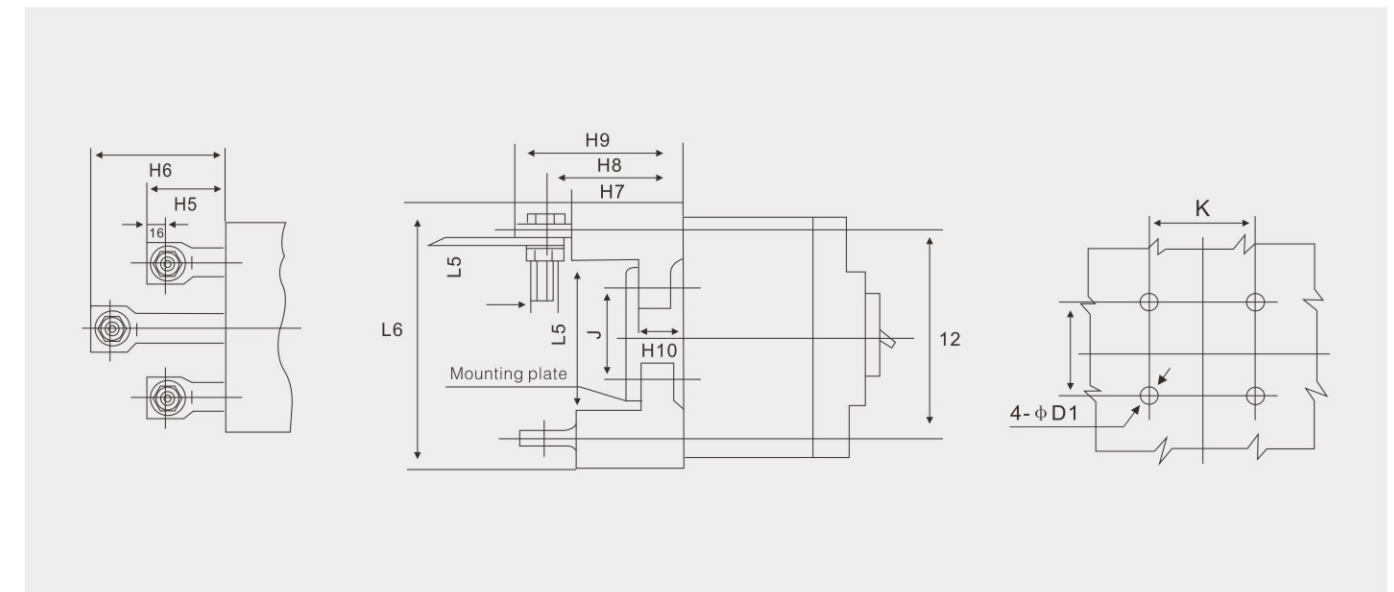
Circuit breaker model	ZYMM1-63		ZYMM1-100(125)			ZYMM1-225(250)			ZYMM1-400		ZYMM1-630			ZYMM1-800			ZYMM1-1250(1600)										
Number of poles	3	4	3	2	4	3	2	4	3	4	3	4	3	4	3	4	3	4	3								
Rated current I _n	6,10,16,20,32,40,50,63		10,16,20,32,40,50,63,80,100,125			100,125,160,180,200,225,250			200,225,250,315,350,400		400,500,630			630,700,800			800,1000,1250,1600										
Rated insulation voltage U _{IV}	690		800																								
Rated impulse withstand voltage U _{imp}	6000		8000																								
Rated working voltage U _e	AC400/690																										
Breaking capacity level	L	M	L	M	H	L	L	M	H	L	L	M	H	L	M	H	C	L	M	H							
Ultimate short circuit breaking capacity I _{cu} kA	400V	25	50	35	50	85	35	35	50	85	35	50	65	100	50	50	65	100	65	50	85	100	85	85			
	690V					20				20				20						20							
Operating short-circuit breaking capacity I _{cs} kA	400V	18	30	22	35	50	22	22	35	50	22	35	45	50	35	35	45	65	45	35	50	50	50	50			
	690V					10				10				10						10							
Arcing distance mm	50																	100									
Number of operation cycles / time	Per hour	120																	60			60			20		
	Current on	4000		3000			1500			1000		1000			500												
	No electricity	6000		7000			6500			4000		4000			2500												
Power loss w	Fixed type	20	25	33	35	40	40	26	63	55	60	60	40	80	80	40	120	130	150	150	200	125	135	180	240		
	Plug in	25	30		40	50	50			65	75	75			100	110		180	200	200		170	190		300		

INSTALLATION AND OVERALL DIMENSION DRAWING

Circuit breaker model		ZYMM1-63			ZYMM1-100(125)			ZYMM1-225(250)			ZYMM1-400		ZYMM1-630		ZYMM1-800		ZYMM1-1250(1600)
Number of poles		3	4		3	2	4	3	2	4	3	4	3	4	3	4	3
Overall dimension mm	Long l	135			150			165			257		270		280		406
	Width W	76	103		92	65	122	107	75	142	140	184	182	240	210	280	210
	High H	74	82	82	68		87	87		104	100		108		103		140.5
Installation dimension mm	a	25	50		30		60	35		70	44	88	58	118	70	14	70
	b	117	117		129	129	129	126	126	126	194	215	200	200	243	243	375
Wiring size behind the board	ϕd	3.5	3.5		4.5	4.5	4.5	5.5	5.5	5.5	6.5	6.5	7	7	7	7	10
	a1	25			30			35			44			58		70	—
	b1	117			132			144			225			234		243	—
	d1	18			22			24			32			40		48	—
	H3	52			65			70			70			70		75	—
	H4	75			100			110			120			120		125	—
	H5	44			68			66			60			65		—	—
	H6	66			108			110			120			125		—	—
	H7	—			50			50			60			60		—	—
	H8	—			62			69.5			83.5			92		—	—
	H9	—			74			84.5			106.5			110		—	—
	H10	—			17.5			17.5			21			21		—	—
	L5	—			92			94			160			169		—	—
	L6	—			168			163			279			299		—	—
K	—			6.5			6.5			8.5			8.5		—	—	
J	—			56			54			129			123		—	—	



INSTALLATION AND OVERALL DIMENSION DRAWING



ZYMM1L

Series Leakage Circuit Breaker

ZYMM1L series residual current circuit breaker is mainly applicable to the distribution network with AC50Hz, rated voltage of 400V and rated current of 800A. Indirect contact protection can also be used to prevent fire hazard caused by equipment insulation damage and ground fault current, and can be used to distribute electric energy. It can also be used for infrequent line switching and infrequent motor starting. Conventional with residual current. The working power sampling of the leakage protection module of the protective circuit breaker is two-phase, and the circuit breaker of this series is three-phase. If one phase is missing, the leakage protection module of the circuit breaker will still work normally. The rated residual operating current and maximum breaking time can be adjusted on site according to the actual situation; When the phase voltage is reduced to 50V, the leakage protection module can still operate normally; With leakage alarm output function.

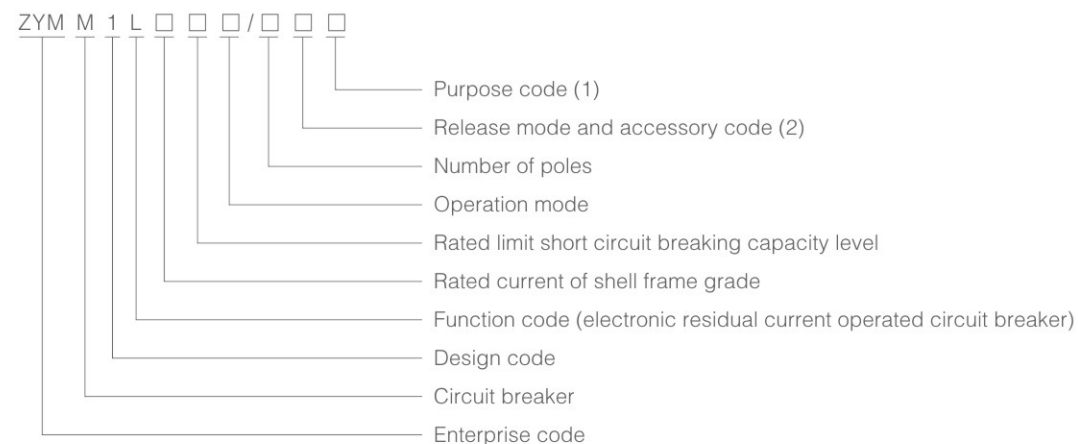
Compliance with standards:GB/T14048.2



First-class brand, and create the future



MODEL AND MEANING



- (1) The circuit breaker for power distribution has no code; Circuit breaker for motor protection is indicated by 2 (fill in D)
 (2) No code for direct operation of handle; Electric operation is represented by p; Manual operation is represented by Z.

FUNCTIONAL FEATURES

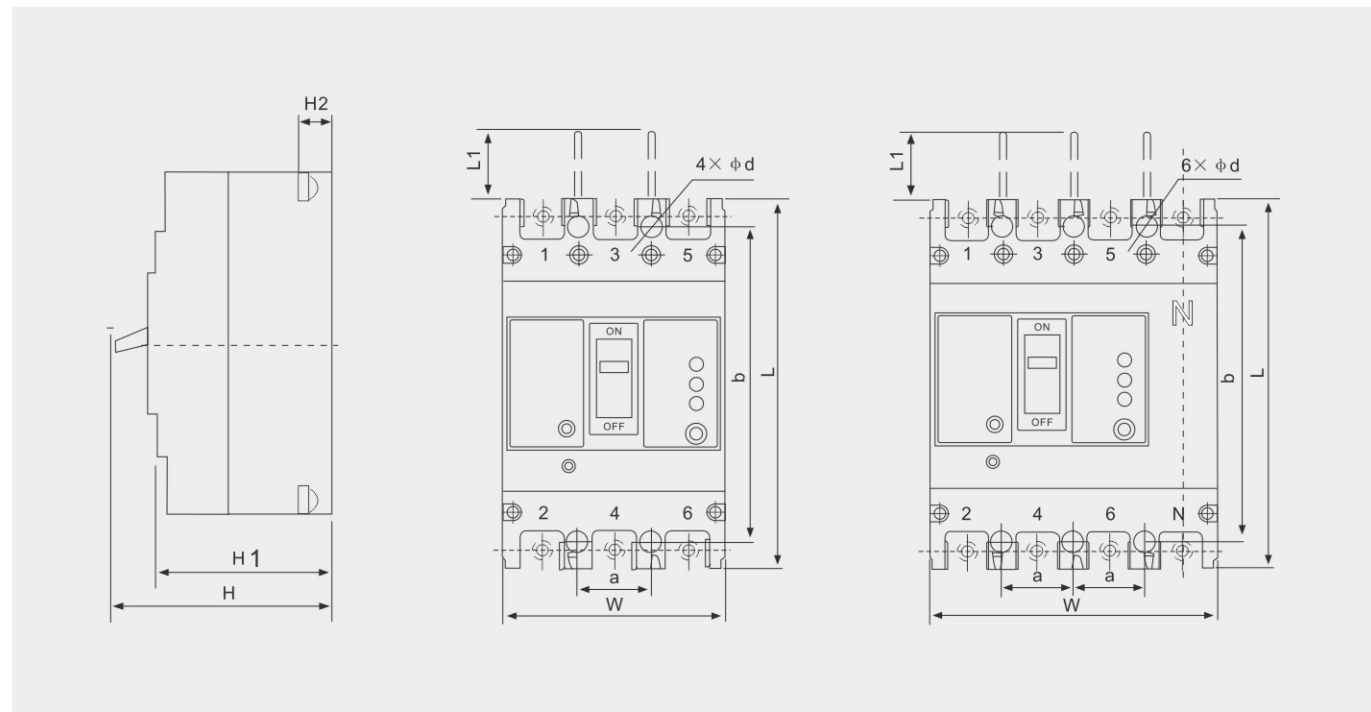
The electric circuit breaker is a new electronic leakage circuit breaker imported and absorbed from abroad. The working current of the leakage protection module is sampled in three phases, and the leakage module can still work normally in case of power shortage in any phase. The installation size is the same as that of molded case circuit breaker zymm1l, Mitsubishi NF and other products. Therefore, the installation is in good condition. Small size, high segmentation ability, short arc, strong anti-interference, etc. With leakage action indication, the remaining The residual leakage electric action current (MA) is adjustable in three gears and the time is adjustable in three gears. Can be installed for customers, shunt, auxiliary, alarm, undervoltage and other accessories.

MAIN TECHNICAL PARAMETERS

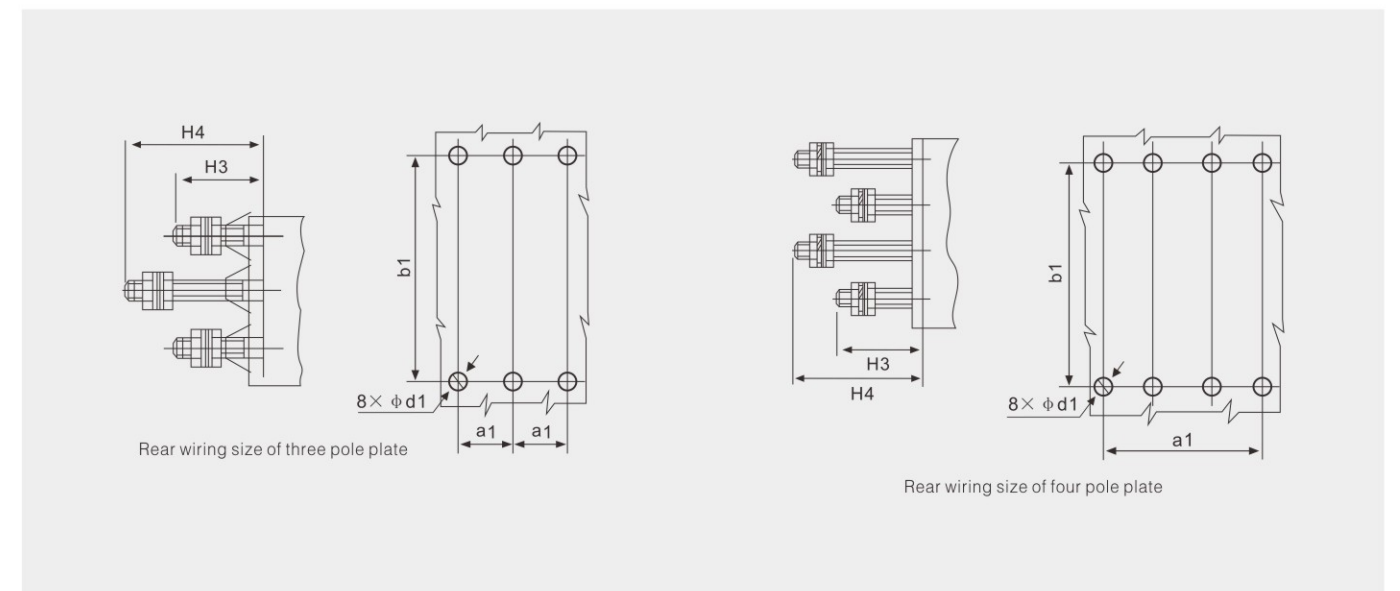
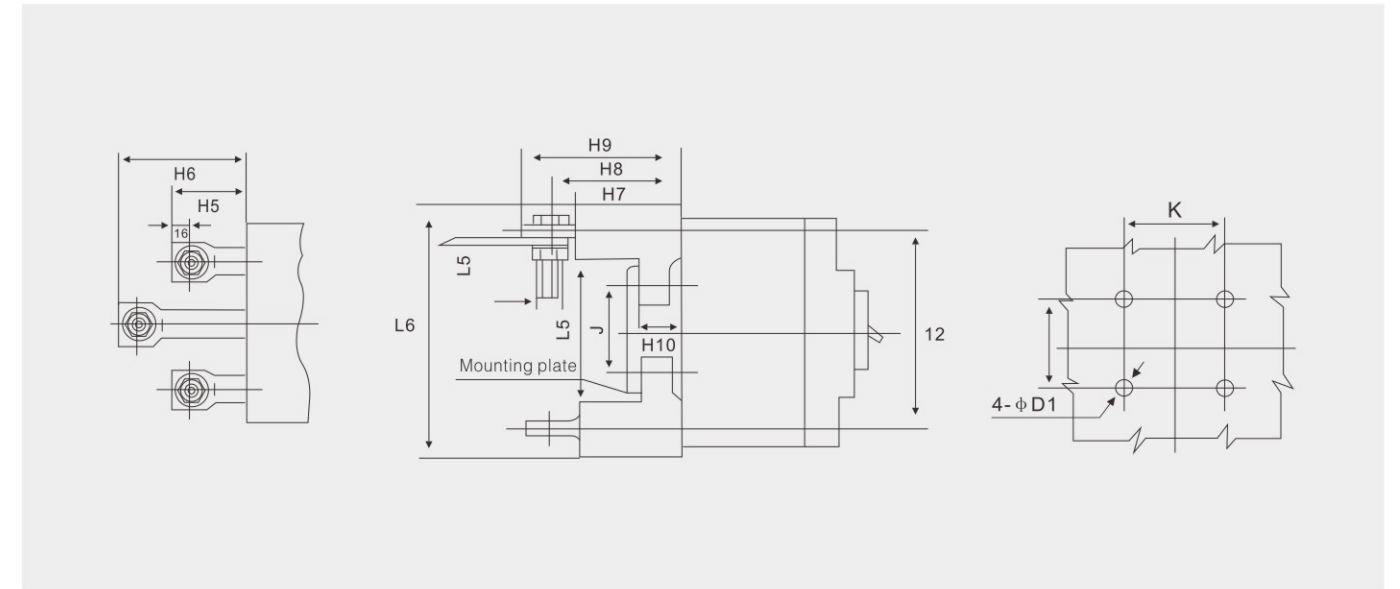
Model	ZYMM1L-125			ZYMM1L-250			ZYMM1L-400		ZYMM1L-630、800								
Maximum rated current of shell frame level Inm (A)	125			250			400		800								
Rated current in (A)	10	16	20	25	32	100	125	140	160	225	250	315	400	500	630	700	800
Number of poles	3			4			3		4		3		4				
Rated insulation voltage UI (V)	AC800																
Rated working voltage Ue (V)	AC400																
Rated impulse withstand voltage Uimp (V)	8000			8000			8000		8000								
Arcing distance (mm)	50			50			100		100								
Breaking capacity level	L	M	H	L	M	H	M	H	M	H							
Limit short circuit breaking capacity LCU (KA)	AC400V		35	70	85	35	70	85	70	100	70	100					
Operating short-circuit breaking capacity ICs (KA)	AC400V		25	50	65	25	50	65	50	65	50	65					
Rated residual short-circuit making (breaking) capacity IΔm (KA)	8.75	12.5	21	8.75	12.5	21	17.5	25	17.5	25							
Rated residual operating current IΔn (MA)	Non delay type		30/100/500			100/300/500			30/100/500		100/300/500		300/500/1000				
	Slo-Blo		100/300/500			100/300/500			100/300/500		300/500/1000						
Rated residual non operating current IΔno (MA)	1/2 IΔn			1/2 IΔn			1/2 IΔn		1/2 IΔn								
Operating performance times	Electrify		1500			1000			1000		1000						
	No electricity		8500			7000			4000		4000						
	Total times		10000			8000			5000		5000						
Residual current protection action time	1 Δn			2 I Δn			5 I Δn		10 I Δn								
Maximum breaking time s	Non delay type		0.2			0.1			0.04		0.04						
	Slo-Blo		0.5/1.15/2.15			0.35/1/2			0.25/0.9/1.9		0.25/0.9/1.9						

INSTALLATION AND OVERALL DIMENSION DRAWING

Circuit breaker model	ZYMM1L-63	ZYMM1L-100(125)	ZYMM1L-225(250)	ZYMM1L-400	ZYMM1L-630	ZYMM1L-800	ZYMM1L-1250(1600)
Number of poles	3 4	3 2 4	3 2 4	3 4	3 4	3 4	3
Overall dimension mm	Long l	135	150	165	257	270	280
	Width W	76 103	92 65 122	107 75 142	140 184	182 240	210 280
	High H	74 82 82 68	87	87 104	100	108	103
Installation dimension mm	a	25 50	30 60	35 70	44 88	58 118	70 14
	b	117 117	129 129	126 126	215 215	200 200	243 243
Wiring size behind the board	ϕd	3.5 3.5	4.5 4.5 4.5	5.5 5.5 5.5	6.5 6.5	7 7	7 7
	a1	25	30	35	44	58	70
	b1	117	132	144	225	234	243
	d1	18	22	24	32	40	48
	H3	52	65	70	70	70	75
	H4	75	100	110	120	120	125
	H5	44	68	66	60	65	-
	H6	66	108	110	120	125	-
	H7	-	50	50	60	60	-
	H8	-	62	69.5	83.5	92	-
	H9	-	74	84.5	106.5	110	-
	H10	-	17.5	17.5	21	21	-
	L5	-	92	94	160	169	-
	L6	-	168	163	279	299	-
K	-	6.5	6.5	8.5	8.5	-	
J	-	56	54	129	123	-	



INSTALLATION AND OVERALL DIMENSION DRAWING



ZYMM8-PV

Photovoltaic DC Circuit Breakers

ZYMM8-PV series photovoltaic DC circuit breakers are applicable to DC power grid circuits with rated voltage up to DC 1000V and rated current up to 1250A. DC circuit breaker has the functions of overload long-time delay protection and short-circuit instantaneous protection, which is used to distribute electric energy and protect lines and power supply equipment from overload and short circuit and other faults.

The operating mechanism of DC circuit breaker has the functions of fast closing and fast breaking, with compact structure, small volume and convenient use.

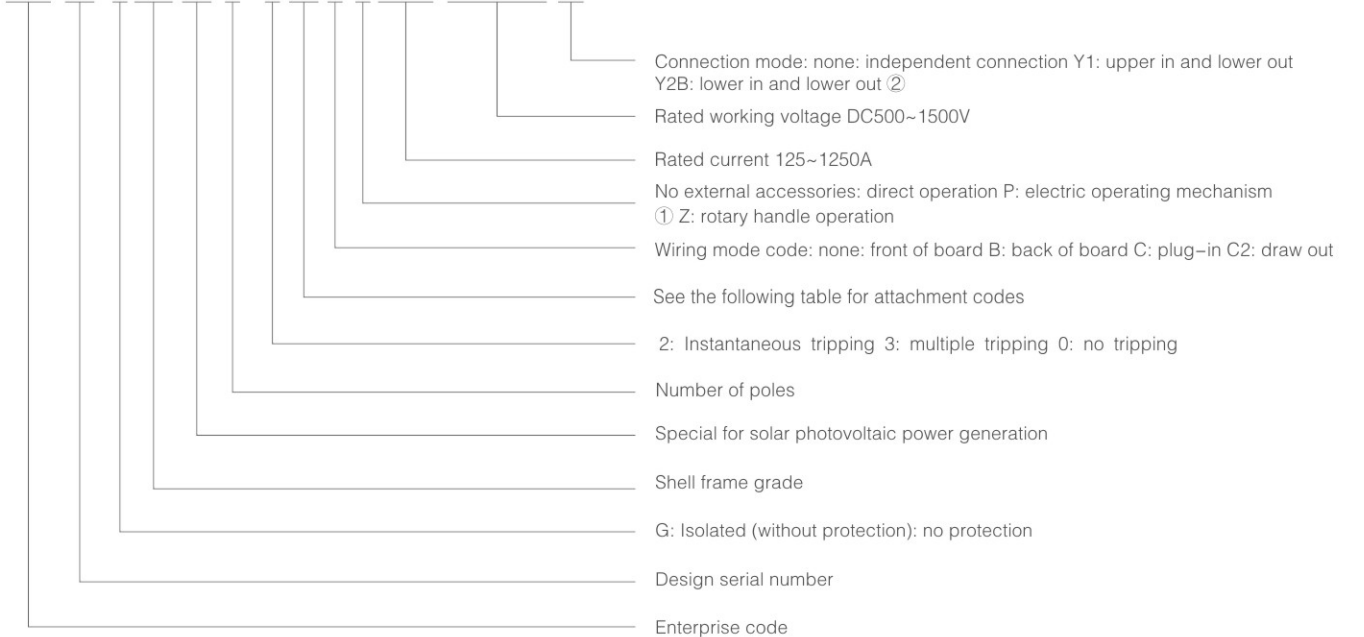


First-class brand, and create the future



MODEL AND MEANING

ZYM M8-G 250 PV/ 4 + 3 00 B+P 225A DC1000V Y1



① Note: operating voltage of electric operating mechanism: AC110V、AC220V、DC24V、DC110V、DC220V。

② Note: the shell frame grade of Y2 and Y2B ≥ 400A is not applicable to internal links.

ACCESSORIES CODE

Attachment name	No enclosure	No call the police contact	Shunt de excitation Buckle	Shunt de auxiliary contact	Under-voltage release	Auxiliary contact of shunt release	Under-voltage release shunt release	Two sets of auxiliary contacts	Auxiliary contact of under-voltage release	Auxiliary contact alarm	Alarm contact of undervoltage release	Auxiliary contact alarm contact of shunt release	Two sets of auxiliary contacts and alarm contacts	Auxiliary contact under-voltage release alarm contact	
代号	00	08	10	20	30	40	50	60	70	18	28	38	48	68	78

NORMAL OPERATING CONDITIONS

- ◇ if the altitude is 2000m or below, it needs to be reduced for use if it is higher than 2000m. Please contact the manufacturer for other special requirements;
- ◇ be able to withstand the influence of humid air (three prevention type) ①;
- ◇ be able to withstand the influence of salt mist and oil mist (three prevention type);
- ◇ be able to withstand the influence of mold (three prevention type);
- ◇ in the medium without explosion hazard, and the medium is not enough to corrode metal and damage insulation
- ◇ where gas and conductive dust are.

Note: ① for three prevention products, please indicate th.

USE AND MAINTENANCE

Various characteristics and accessories of the circuit breaker are set by the manufacturer and cannot be adjusted at will in use. Under the condition that the user abides by the storage and use conditions, no more than 18 months from the date of delivery by the manufacturer. The seal of the road device is intact. If the product is damaged or cannot be used normally due to manufacturing quality problems, the manufacturer is responsible for replacing and repairing it free of charge.

ELECTRICAL TECHNICAL PARAMETERS

Model	ZYMM8-125PV	ZYMM8-250 PV	ZYMM8-400 PV	ZYMM8-630 PV	ZYMM8-800 PV	ZYMM8-1250 PV
Rated continuous current I_{nrm}	125	250	400	630	800	1250
Rated current $I_n(A)$	20、25、32 40、50、63 80、100、125	125、140 160、180 200、225、250	250、315 350、400	400、500、630	630、700、800	800、1000、 1250
Rated working voltage $U_e(V)_{DC}$	250V、500V、 750V、1000V	500V、750V、 1000V	500V、750V、 1000V	500V、750V、 1000V	500V、750V、 1000V	500V、750V、 1000V
Rated insulation voltage $U_i(V)$	1000V	1000V	1500V	1500V	1500V	1500V
Rated impulse withstand voltage $U_{imp}(kV)$	8kV	8kV	8kV	8kV	8kV	8kV
Test pressure for one minute(V)	3550	3550	3550	3550	3550	3550
Ultimate short circuit breaking capacity(kA) I_{cu} ($I_{cs}=75\%I_{cu}$)	250V	20	20	35	35	50
	500V	20	20	35	35	50
	750V	20	20	35	35	50
	1000V	20	20	35	35	50
Mechanical life	Total times	7000	7000	4000	4000	2500
Electrical life	Total times	2000	2000	1000	1000	800
Total breaking time (MS)	20	20	20	20	20	20
Installation position	Anywhere					
Whether it has isolation characteristics	Yes					
standard	IEC60947-2、IEC60947-1、GB14048.1、GB14048.2					
Allowable ambient temperature (°C)	-25°C~+50°C					
Degree of protection	IP20					
With accessories	Auxiliary, alarm, shunt, manual operation, electric operation, machine interlocking					
Arcing distance (mm)	≥50					
Instantaneous action value	12I _n					
Installation mode	Fixed, plug-in					

CLASSIFICATION

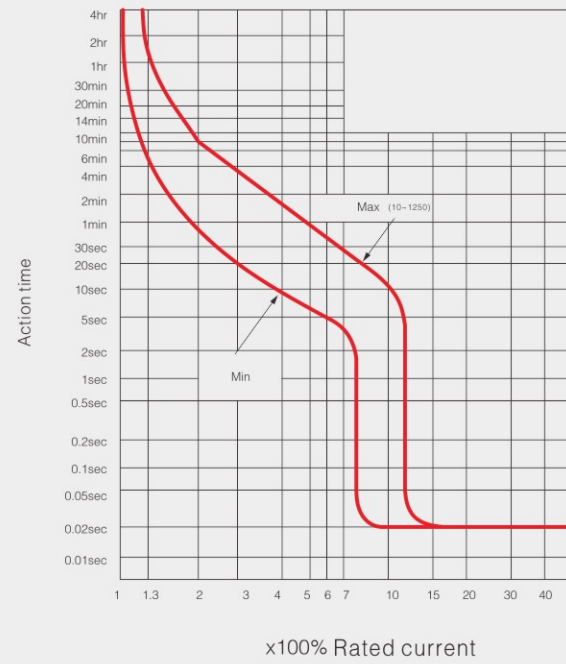
- ◇ According to the operation mode:
 - ① Body direct operation;
 - ② Operation of electric operating mechanism;
 - ③ Rotate the handle for operation.
- ◇ according to the form of protection:
 - ① Line protection;
 - ② Line isolation
- ◇ According to the wiring form:
 - ① Front panel wiring;
 - ② Wiring behind the board;
 - ③ Plug in wiring;
 - ④ Draw out wiring (shell rack level current ≥ 400A).

WIRING METHOD

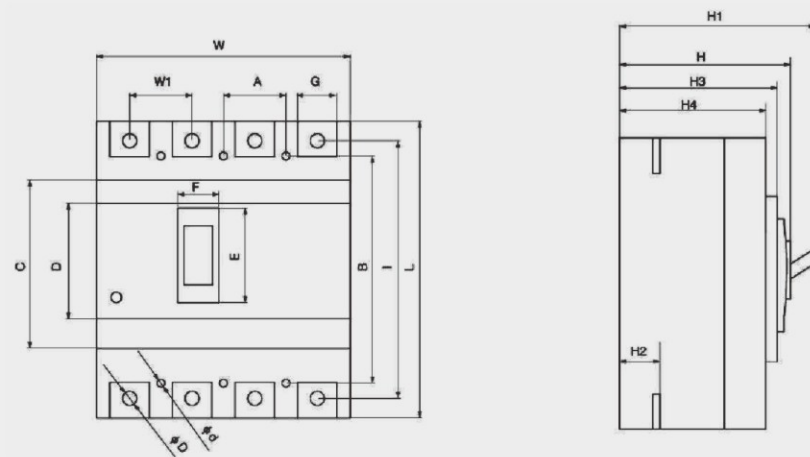
Grounding type	Single pole grounding system	Ungrounded system												
Circuit diagram														
Fault effect	<table border="1"> <tr> <td>Fault A</td> <td>Maximum short circuit current I_{sc}</td> </tr> <tr> <td>Fault B</td> <td>Maximum short circuit current I_{sc}</td> </tr> <tr> <td>Fault C</td> <td>No effect</td> </tr> </table>	Fault A	Maximum short circuit current I_{sc}	Fault B	Maximum short circuit current I_{sc}	Fault C	No effect	<table border="1"> <tr> <td>Fault A</td> <td>No effect</td> </tr> <tr> <td>Fault B</td> <td>Maximum short circuit current I_{sc}</td> </tr> <tr> <td>Fault C</td> <td>No effect</td> </tr> </table>	Fault A	No effect	Fault B	Maximum short circuit current I_{sc}	Fault C	No effect
Fault A	Maximum short circuit current I_{sc}													
Fault B	Maximum short circuit current I_{sc}													
Fault C	No effect													
Fault A	No effect													
Fault B	Maximum short circuit current I_{sc}													
Fault C	No effect													
≤ DC500V	<p>Note: 1. Both upper and lower incoming lines can be used. Here, the following incoming lines are taken as an example</p>	<p>Note: 1. Both upper and lower incoming lines can be used. Here, the following incoming lines are taken as an example to ensure that there will be no secondary grounding fault in the installation mode</p>												
DC500~750V	<p>Note: 1. Both upper and lower incoming lines can be used. Here, the following incoming lines are taken as an example</p>	<p>Note: 1. Both upper and lower incoming lines can be used. Here, the following incoming lines are taken as an example to ensure that there will be no secondary grounding fault in the installation mode</p>												
DC750~1000V~1200V	<p>Note: 1. Both upper and lower incoming lines can be used. Here, the following incoming lines are taken as an example</p>	<p>Note: 1. Both upper and lower incoming lines can be used. Here, the following incoming lines are taken as an example to ensure that there will be no secondary grounding fault in the installation mode</p>												

Inter pole series technology: it can bear higher voltage, and series accessories can reduce the temperature rise caused by inter pole series.
 Inter pole parallel technology: balance the current flowing through each pole and can bear 2, 3 and 4 times the rated current.

ACTION CHARACTERISTIC CURVE



OUTLINE AND INSTALLATION DIMENSION DRAWING



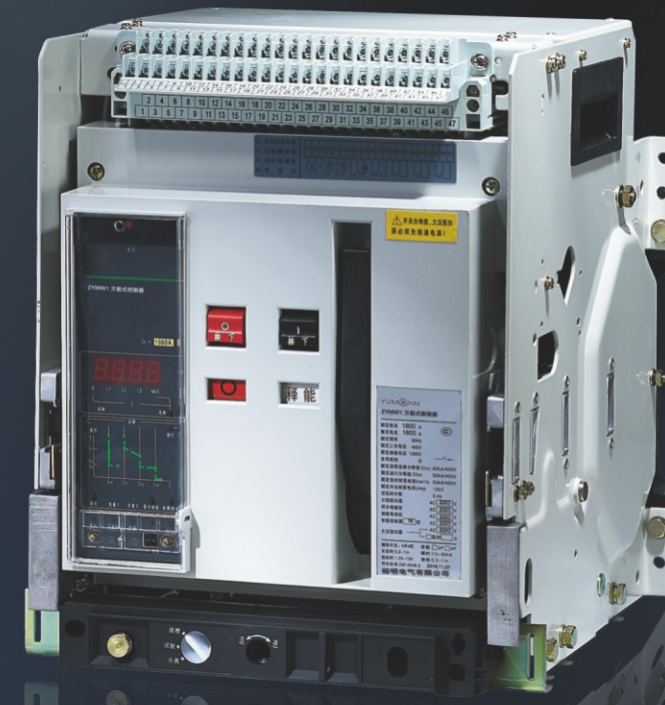
Model	A	B	ΦC	L	W	C	D	G	I	W1	E	F	ΦD	H	H1	H2	H3	H4
ZYMM8-125PV	30	129	4.5	150	122	91	64	18	131	30	57	24	8	97	107	28	89.5	83
ZYMM8-250PV	35	127	4.5	166	142	95	96	23	146	35	57	24	8	97	107	28	89.5	83
ZYMM8-400PV	44	195	7	259	199	173	128	30	228	44	89	65	10	108	153	36	103	99
ZYMM8-630PV	58	236	7	270	243	184	134	43	235	58	89	65	12	112	158	40	109	104
ZYMM8-800PV	70	243	7	280	272	205	155	46	243	70	105	66	12	108	158	32	103	99

ZYMW1

Universal Circuit Breakers

ZYMW1 series intelligent universal circuit breaker (hereinafter referred to as circuit breaker) is applicable to AC 50Hz and rated working voltage up to 690V and below. In the distribution network with rated current of 400a-6300a, it is used to distribute electric energy and protect lines and power equipment from overload, undervoltage, short circuit and single-phase grounding. The circuit breaker has intelligent protection function and high-precision selective protection, which improves the reliability of power supply. With standard RS485 communication interface, which can carry out four remote functions of "telemetry", "remote communication", "remote control" and "remote adjustment", so as to meet the requirements of cluster control center and automation system Requirements. This series of circuit breakers have the characteristics of compact structure, high breaking capacity and no arcing distance. The circuit breaker can be used without intelligent release and sensor For disconnectors, marked as \swarrow \searrow .

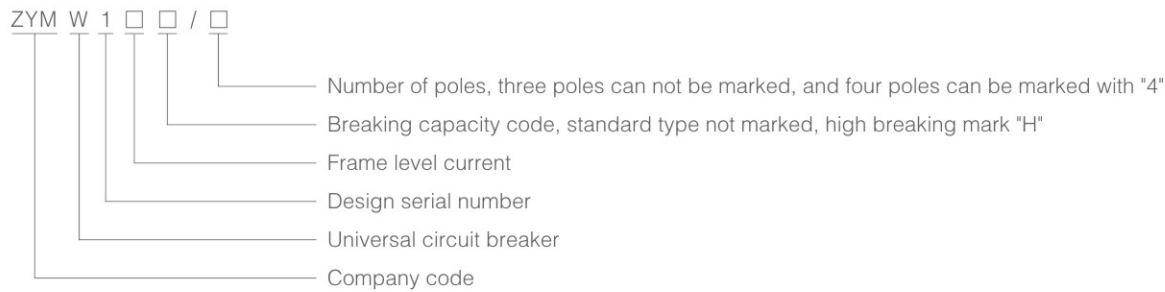
Circuit breaker meets GB14048.2 《Low voltage switchgear and controlgear low voltage circuit breakers》 and IEC60947-2 《Low voltage switchgear and controlgear circuit breakers》 Other standards.



First-class brand, and create the future



MODEL AND MEANING



NORMAL OPERATING CONDITIONS

- ◇ ambient air temperature: the upper limit shall not exceed + 40 °C, the lower limit shall not be lower than – 5 °C, and the average value within 24h shall not exceed + 35 °C;
- ◇ atmospheric conditions: the relative humidity of the atmosphere shall not exceed 50% when the ambient air temperature is + 4 °C, and there can be higher relative humidity at lower temperature. The average maximum relative humidity of the wet month is 90%, and the average minimum temperature of the month is + 25 °C, taking into account the condensation on the product surface due to temperature change;
- ◇ installation location: the altitude shall not exceed 2000m, and the vertical inclination of the circuit breaker shall not exceed 5.;
- ◇ pollution level: Level III;
- ◇ installation category: circuit breaker with rated working voltage of 690V and below, undervoltage release and primary coil of power transformer are used for installation category m, and the installation category of auxiliary circuit and control circuit is III.

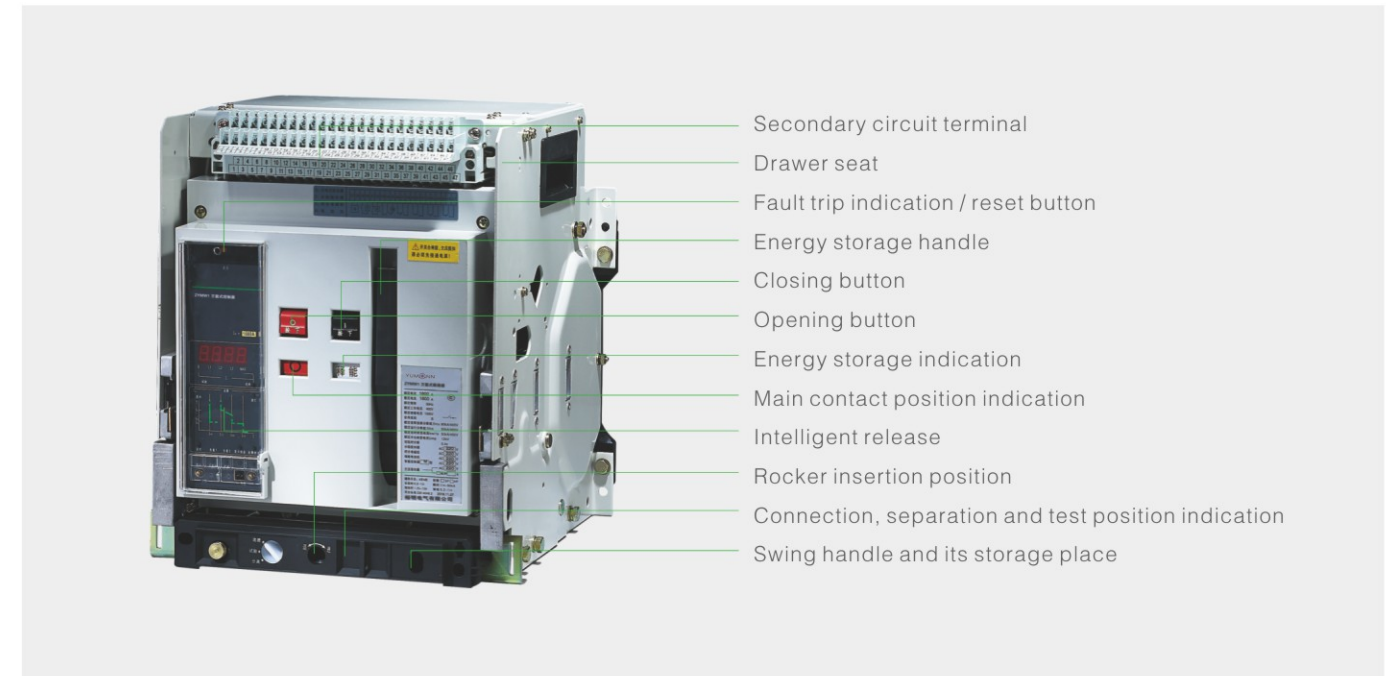
INTRODUCTION TO CIRCUIT BREAKER STRUCTURE

- ◇ fixed circuit breaker is mainly composed of contact system, intelligent controller, manual operating mechanism, electric operating mechanism and mounting plate;
- ◇ drawer type circuit breaker is mainly composed of contact system, intelligent controller, manual operating mechanism, electric operating mechanism and drawer base;
- ◇ the circuit breaker is in three-dimensional layout, with the characteristics of compact structure and small volume. The contact system is enclosed in the insulating base plate, and each phase contact forms a small chamber. The intelligent controller, manual operating mechanism and electric operating mechanism are arranged in front of them to form their own independent units, which is convenient for maintenance and repair;
- ◇ the drawer type circuit breaker is composed of a plug-in circuit breaker and a drawer base. The plug-in circuit breaker is placed on the guide rail in the drawer base. The drawer type circuit breaker has three working positions: "connection", "test" and "separation". The position change is realized by the rotation of the handle, and the indication of the three positions is displayed by the pointer on the cross beam of the drawer base;
- ◇ when in the "connection" position, both the main circuit and the secondary circuit are connected: when in the "test" position, the main circuit is disconnected and separated by an insulating partition. Only the secondary circuit is connected, and some necessary action tests can be carried out: when in the "separation" position, all the main circuit and the secondary circuit are disconnected;
- ◇ the drawer type circuit breaker is equipped with mechanical interlocking device. The circuit breaker can be closed only at the connection position and on position, while the circuit breaker cannot be closed at the middle position between connection and test.

PERFORMANCE OF INTELLIGENT RELEASE

- ◇ intelligent release is divided into L type (economic type), M type (standard type) and H type (communication type);
- ◇ it has four protection features, including overload long delay inverse time limit, short-circuit short delay inverse time limit L and fixed time limit), short-circuit instantaneous protection, asymmetric grounding I (zero) fault protection and so on;
- ◇ L-type short-circuit short-time delay fixed-time protection and asymmetric grounding I (zero connection) fault protection are optional functions;
- ◇ setting function: II type) or digital display and key setting (m, H type) mode is set by coding switch and code pulling switch. Users can set various protection parameters according to needs to form the required protection characteristics;
- ◇ display function: display the working current of the circuit breaker and various protection states;
- ◇ self inspection function: self diagnosis of overheating of ambient temperature, self inspection of CPU, ROM, ram and 12C communication in microcontroller;
- ◇ fault memory function: memory the fault current, delay action time and fault category when tripping is caused by line fault;
- ◇ thermal memory function: memory the heating degree of line or equipment caused by overload and short circuit (reset after power failure);
- ◇ test function: simulate the on-site fault state to conduct the tripping or non tripping test of the circuit breaker;
- ◇ optional functions: voltmeter function, load monitoring function, various overload alarm signal output functions, MCR on / off and analog tripping protection functions;
- ◇ in addition to all the functions of M-type, H-type intelligent release also has serial communication interface. The LAN system with master-slave structure can be formed through the communication interface. 1-2 computers are used as the master station and several intelligent circuit breakers or other communication interface elements are used as the slave station. For the circuit breaker unit, the system can realize the "four remote" function of long distance.

SCHEMATIC DIAGRAM OF CIRCUIT BREAKER STRUCTURE



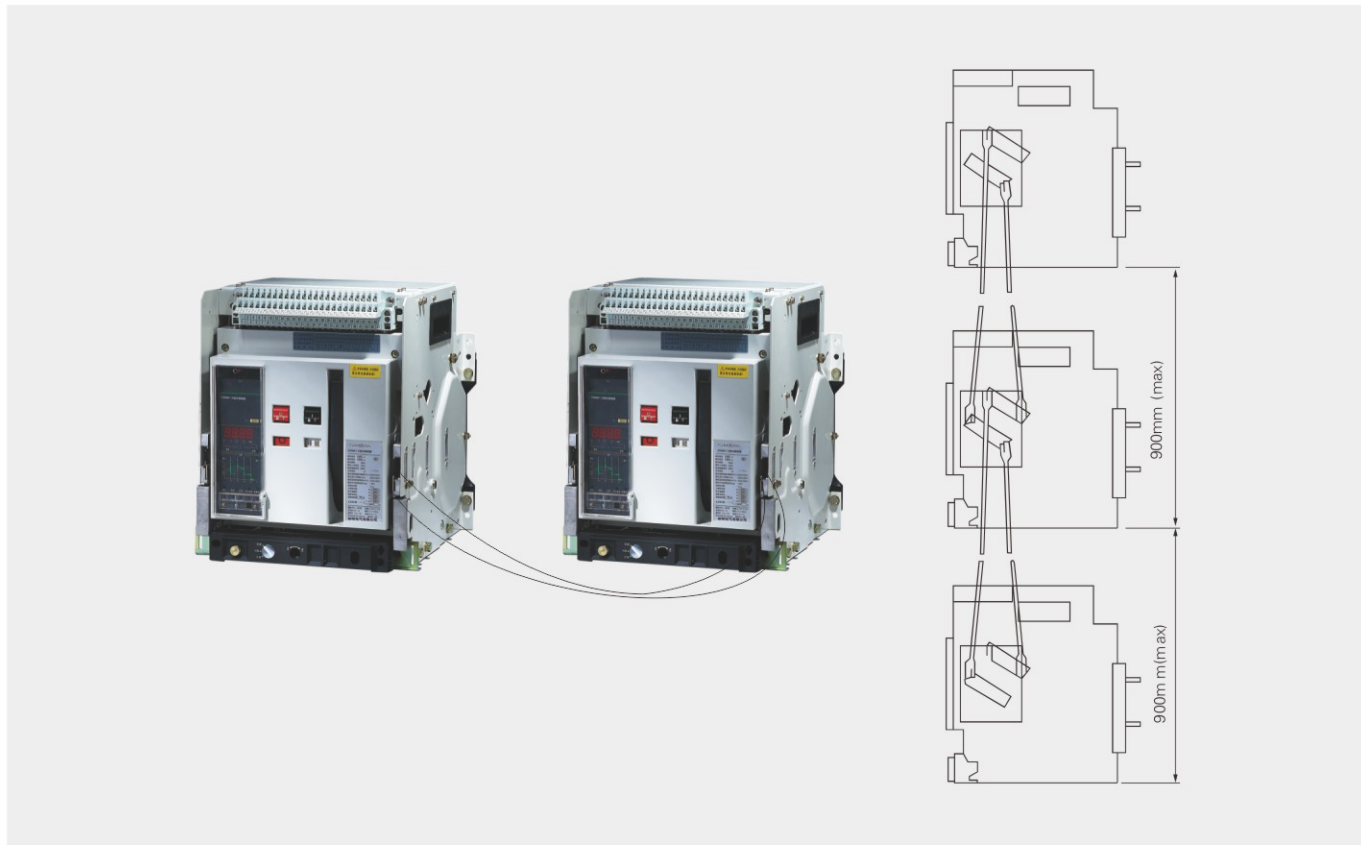
VARIATION OF RATED CONTINUOUS CURRENT OF CIRCUIT BREAKER UNDER DIFFERENT AMBIENT TEMPERATURE

In(A) Ambient temperature (°C)	2000/400		2000/630		2000/800		2000/1000		2000/1250		2000/1600		2000/2000		3200/2000	
	+40°C	400	630	800	1000	1250	1600	2000	2000	2000	1250	1600	2000	2000	2000	2000
+50°C	400	630	800	1000	1250	1550	1900	2000	2000	1250	1550	1900	2000	2000	2000	2000
+60°C	700	630	800	1000	1250	1550	1800	2000	2000	1250	1550	1800	2000	2000	2000	2000

In(A) Ambient temperature (°C)	3200/2500		3200/2900		3200/3200		4000/3200		4000/3600		4000/4000		6300/4000		6300/5000		6300/6300	
	+40°C	2500	2900	3200	3200	3600	4000	4000	4000	4000	4000	4000	4000	4000	5000	6300	6300	6300
+50°C	2300	2600	2900	3000	3200	3600	3600	3600	3600	3600	3600	3600	3600	3800	4500	5300	5300	5300
+60°C	2100	2300	2500	2700	2900	3100	3100	3100	3100	3100	3100	3100	3100	3500	4000	4800	4800	4800

MECHANICAL INTERLOCKING DEVICE OF CIRCUIT BREAKER

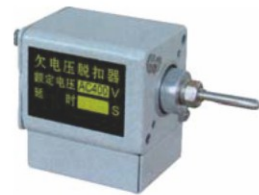
- ◆ cable type mechanical interlocking
 - ◇ suitable for drawer type and fixed circuit breaker; Cable type mechanical interlocking between two circuit breakers; The maximum distance between interlocked circuit breakers is 2000mm; The mechanical interlocking device shall be installed by the user according to the instructions provided by the manufacturer.
- ◆ lever type mechanical interlocking
 - ◇ applicable to drawer type circuit breaker; For mechanical interlocking between three vertically installed circuit breakers: for interlocking between two circuit breakers, only the uppermost circuit breaker needs to be removed; The maximum distance between interlocked circuit breakers is 900mm; The mechanical interlocking device shall be installed by the user according to the instructions provided by the manufacturer.



INTERNAL ACCESSORIES AND FUNCTIONS

- ◆ undervoltage release
 - ◇ it is used to disconnect the circuit breaker instantaneously when the power supply voltage drops to 35% – 70% of the rated value: the circuit breaker cannot be closed when the coil is not excited. It can be closed reliably only when the voltage returns to 85% UE.

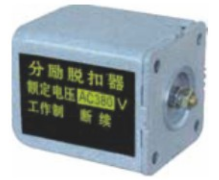
Rated working voltage (ue)	AC400V	AC230V	AC220V
Power required	36VA	24VA	24VA
Breaking time	Instantaneous, time delay 1、3、5s ± 10%		



SHUNT RELEASE

- ◇ used for remote opening of circuit breaker; Reliable action range 70%-110%Us

Rated working voltage(Ue)	AC380V	AC230V	AC220V
Power required	24VA	24VA	24VA
Instantaneous current	0.7A	1.3A	1.3A
Breaking time	Not greater than 30ms		



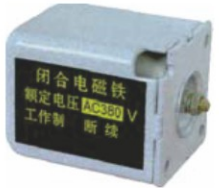
- ◆ auxiliary contact
 - ◇ there are four normally open and four normally closed contacts in total; For special specifications, contact the manufacturer.

Rated working voltage(Ue)	AC380V	AC220V	AC220V
Rated heating current Ith	6A	6A	6A
Use category	AC-15	300VA	300VA
	DC-13	-	60W



- ◆ close the electromagnet
 - ◇ it is used to release the energy storage spring force of the operating mechanism instantly after the energy storage of the circuit breaker is completed, and the circuit breaker is closed quickly: the reliable action range is 85% – 110% us.

Rated working voltage(Ue)	AC380V	AC220V	AC220V
Power required	24VA	24VA	24VA
Instantaneous current	0.7A	1.3A	1.3A
Breaking time	Not greater than 70ms		

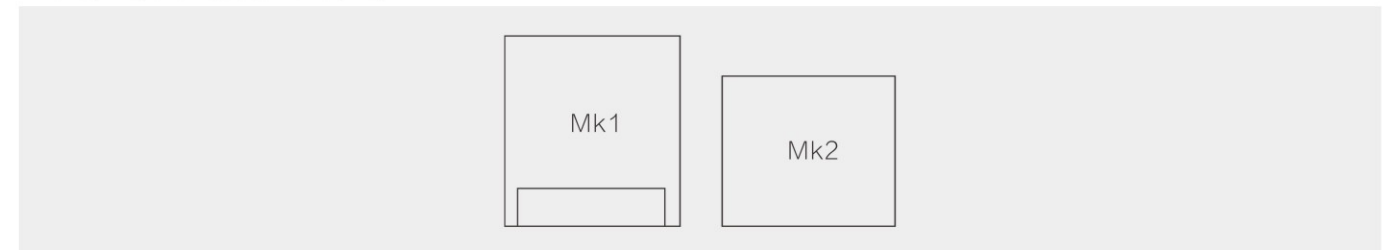


- ◆ electric operating mechanism
 - ◇ used for electric energy storage and automatic re energy storage of circuit breaker: the circuit breaker also has manual energy storage function: reliable action range 85% – 110% us.

Rated working voltage(Ue)	AC380V	AC220V	AC220V
Power required	ZYMW1-2000	85VA	85VA
	ZYMW1-3200	110VA	110VA
	ZYMW1-6300	150VA	150VA
Energy storage time	Not greater than 5ms		

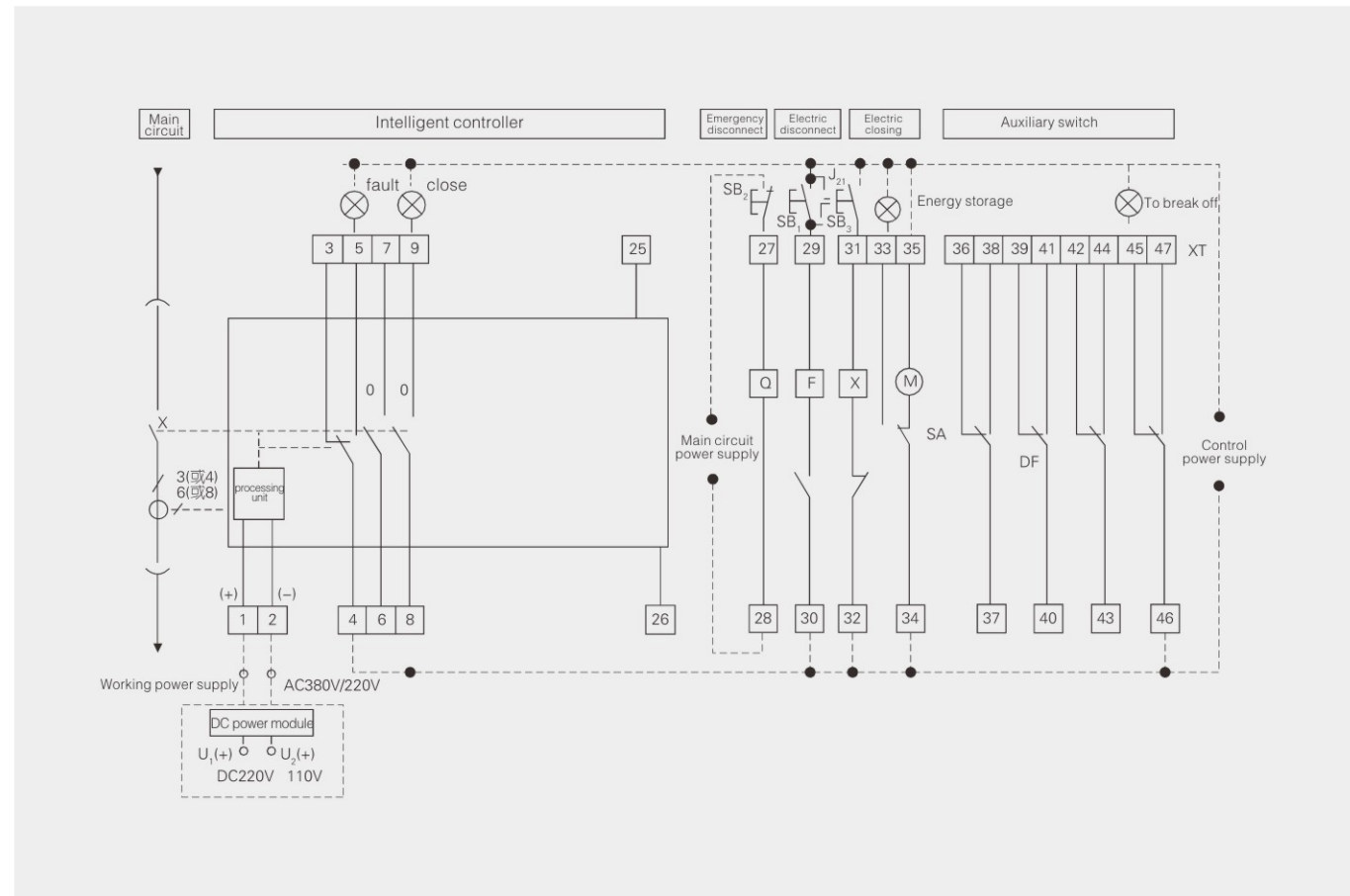


- ◆ door frame
 - ◇ it is fixed on the cabinet door, beautiful and practical, plays a sealing role, and the protection grade reaches ip405: it is divided into drawer door frame (MK1) and fixed door frame (Mk2).



SECONDARY WIRING DIAGRAM

- ◇ there are 47 overall wiring terminals of the circuit breaker. The wiring is simple and convenient for users. The wiring diagram is shown in figure a, B and C (the controller is M-type or L-type basic function four groups of conversion secondary circuit wiring rings)
- ◇ other wiring of intelligent controller
- ◇ #1, #2 AC working power input (input from DC power modules U1 and U2 in case of DC)
- ◇ #25, #26 external neutral or ground current transformer input



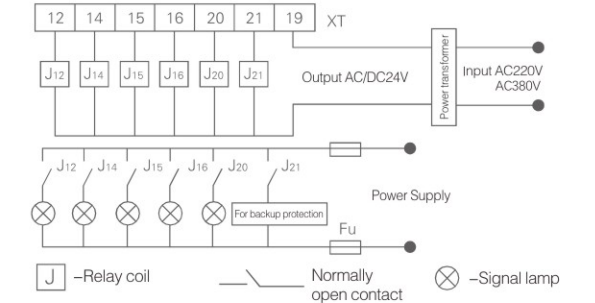
- Note:
- ◇ if the control power supply voltages of F, X and N are different, different power supplies shall be connected respectively;
 - ◇ the terminal #35 can be directly connected to the power supply (automatic pre stored energy), or connected to the normally open button in series and then connected to the power supply (manual pre stored energy);
 - ◇ if the user proposes, the terminal #6-#7 can output normally closed contact;
 - ◇ additional accessories are provided by the user;
 - ◇ when the working power supply of the intelligent controller is DC power supply, the DC power supply module must be added (at this time #1, #2 terminals cannot be directly connected to AC power supply).
 - ◇ the secondary wiring is as shown in the figure (DC power supply dc110v or 220V is input from U1 (+) and U2 (-), and the two output terminals of the power module are respectively connected with terminals 1 (+) and 2 (-) of the secondary wiring base).

SB1 shunt button (user's own J x closing electromagnet DF auxiliary contact Q undervoltage release or undervoltage delay release;
 SB2 undervoltage button (provided by the user) m energy storage motor f shunt release o normally open contact (3a / AC380V);
 SB3 closing button (provided by the user) XT terminal SA motor microswitch signal lamp (provided by the user).

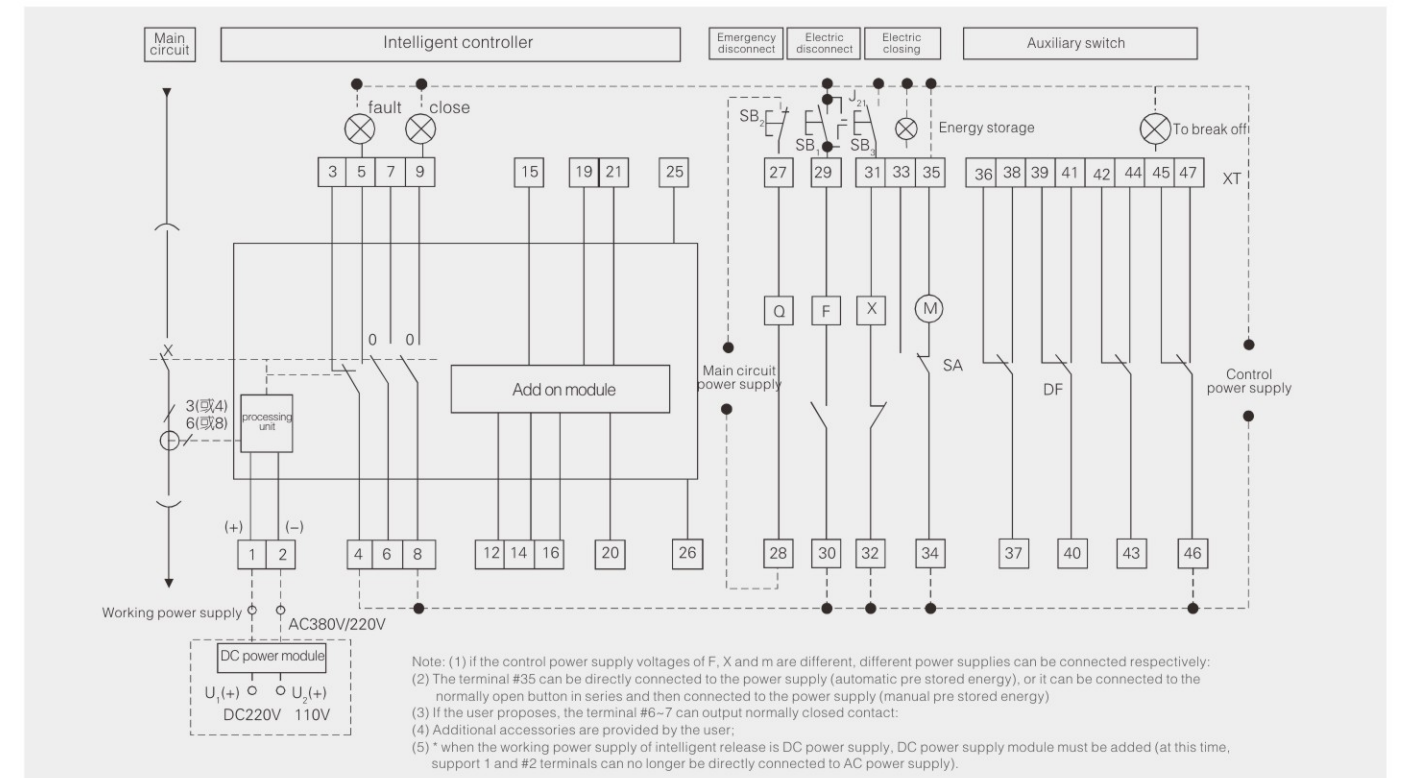
SECONDARY WIRING DIAGRAM

- ◆ controller (L-type with additional functions)
- ◇ other wiring of intelligent controller:
- #1、#2 AC working power input (input from DC power modules U1 and U2 in case of DC);
- #12 overload warning signal output;
- #14 instantaneous short delay tripping signal output;
- #15 long delay tripping signal output;
- #16 Ground (or neutral) fault tripping signal output;
- #19 signal output common line;
- #20 self diagnosis signal output;
- #21 tripping signal (or for shunt or undervoltage actuator);
- #25, #26 external neutral or ground current transformer input;
- #1、#2 AC working power input (input from DC power modules UL and U2 in case of DC);
- #25、#26 external neutral or ground current transformer input.

- ◇ the controller signal output drives the external relay J to output the contact action signal through terminals 12, 14-16, 20 and 21;
- ◇ the power transformer (the user shall specify the input voltage value in the order specification) is provided by the manufacturer. The power transformer can be inserted into the standard guide rail together with the relay base and installed at the appropriate position of the switch cabinet by the user;
- ◇ relay model: HH62p, AC / DC24V, user provided;
- ◇ output conditions of self diagnosis signal: a. the internal temperature of the controller is > 80 °C; B. the chip is not working normally; c. Power failure of controller;
- ◇ users can choose J12,J14-J16, J20 and J21 according to their actual needs.



Relay wiring diagram for additional functions of relay



- Note: (1) if the control power supply voltages of F, X and m are different, different power supplies can be connected respectively;
 (2) The terminal #35 can be directly connected to the power supply (automatic pre stored energy), or it can be connected to the normally open button in series and then connected to the power supply (manual pre stored energy)
 (3) If the user proposes, the terminal #6-7 can output normally closed contact;
 (4) Additional accessories are provided by the user;
 (5) * when the working power supply of intelligent release is DC power supply, DC power supply module must be added (at this time, support 1 and #2 terminals can no longer be directly connected to AC power supply).

- ◇ the secondary wiring is as shown in the figure (the DC power supply dc110v or 220V is input from U1 (+) and U2 (-), and the two output terminals of the power module are respectively connected with the terminals 1 (+) and 2 (-) of the secondary wiring base).
- SB1 shunt button (provided by the user) x closing electromagnet DF auxiliary contact Q undervoltage release or undervoltage delay release;
- SB2 undervoltage button (provided by the user) m energy storage motor f shunt release o normally open contact (3a / AC380V);
- SB3 closing button (provided by the user) XT terminal SA motor microswitch signal lamp (provided by the user).

SECONDARY WIRING DIAGRAM

◆ controller (M-type with additional functions or H-type)

◇ other wiring of intelligent controller:

#1, 2. AC working power input (input from DC power modules U1 and U2 in case of DC);

#10 RS485 communication p terminal (simplex) remote adjustment and remote communication;

#11 RS485 communication n terminal (simplex), remote control and telemetry, etc.;

#12 overload warning signal output;

#13 communication remote control shunt trip output;

#14 instantaneous short delay tripping signal output or communication remote control closing output;

#15 long delay tripping signal output or communication remote control energy storage output;

#16 ground (or neutral) fault tripping signal output;

#17 unloading 1 signal output;

#18 unloading 2 signal output;

#19 signal output common line;

#20 self diagnosis signal output;

#21 tripping signal (available for shunt or undervoltage actuator);

#22 voltage signal phase A;

#23 voltage signal phase B is directly input from the main circuit;

#24 voltage signal phase C;

#25 and 26 are externally connected with neutral or ground

current transformer input.

◇ the controller signal output drives the external relay J to output the contact action signal through terminals 12–18 and 20–21;

◇ RS485 / 232 converter / power transformer (the user needs to specify the input voltage value in the order specification) is provided by the manufacturer. The power transformer can be inserted into the standard guide rail together with the relay base and installed at the appropriate position of the switch cabinet by the user;

◇ relay model: hh62p, AC / DC24V, provided by the user;

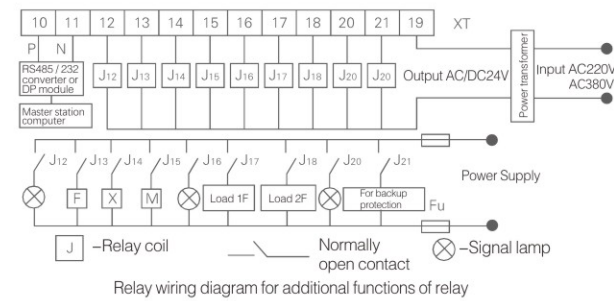
◇ the main station computer is provided by the user;

◇ the output of terminals 13–15 can be used for communication remote opening, closing and energy storage. The tripping signal of corresponding terminals 14 and 15 will not be output at this time. The normally open contact of corresponding relay can be connected in parallel with the corresponding button for manual control, which can realize manual control and remote control.

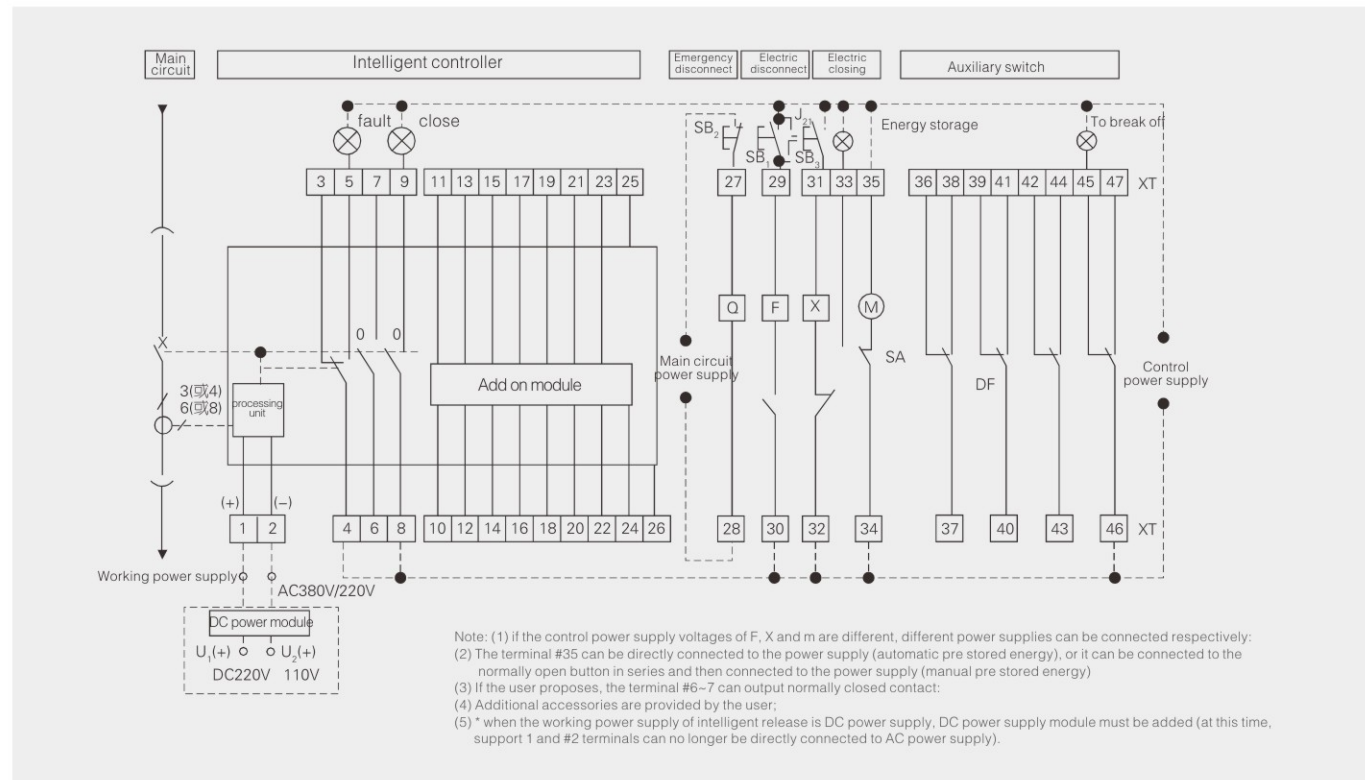
◇ if the remote control function is not required, terminals 14 and 15 can press two signal lamps in series through the normally open contacts of relays J14 and J15 to remotely output the corresponding signals. The user is requested to indicate whether the remote control function is required in the order specification, and the manufacturer determines the corresponding functions output by terminals 14 and 15 based on this. Terminal 21 can be used as backup protection after outputting push relay J21;

◇ output conditions of self diagnosis signal: A. Internal controller > 80 °C; b. The chip is not working properly; c. Power failure of controller;

◇ users can select J12–J21 according to their actual needs.



Relay wiring diagram for additional functions of relay



◇ the secondary wiring is as shown in the figure (the DC power supply d110v or 220V is input from U1 (+) and U2 (-), and the two output terminals of the power module are respectively connected with the terminals 1 (+) and 2 (-) of the secondary wiring base).

SB1 shunt button (provided by the user) x closing electromagnet DF auxiliary contact Q undervoltage release or undervoltage delay release:

SB2 undervoltage button (provided by the user) m energy storage motor f shunt release o normally open contact (3a / AC380V):

SB3 closing button (provided by the user) XT terminal SA motor microswitch signal lamp (provided by the user).

SECONDARY WIRING DIAGRAM

◆ secondary circuit wiring diagram of circuit breaker equipped with L or M-type intelligent controller, with DC power module

AX circuit breaker auxiliary switch:

SB1 shunt button:

SB2 closing button:

Q – terminals 27 and 28 of undervoltage release shall be connected in the main circuit;

F–shunt release:

X–closing electromagnet:

M–energy storage motor:

SA – motor travel switch:

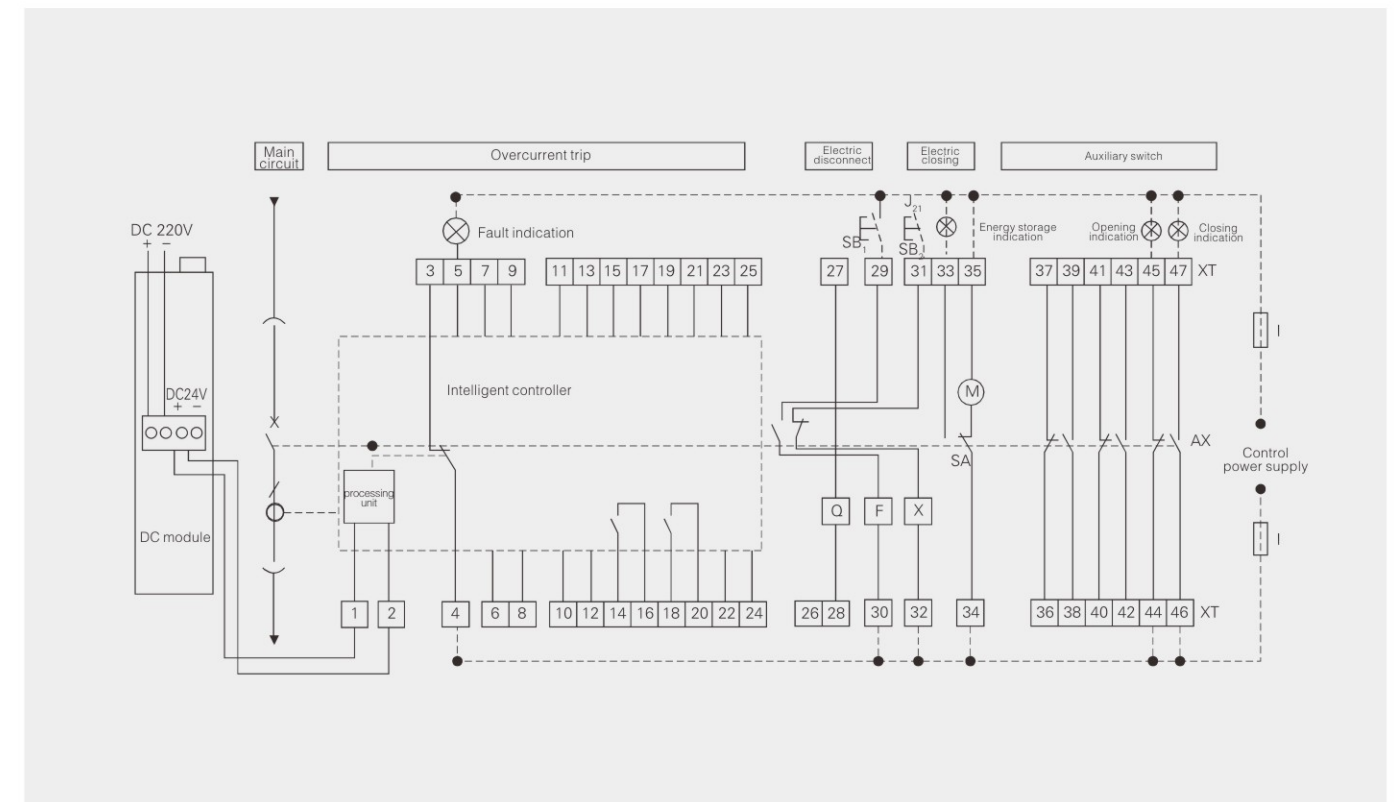
XT – secondary circuit terminal of circuit breaker:

FU fuse:

33 and 34 can be directly connected to the power supply (automatic pre storage of energy), or can be connected to the normally open button in series and

then connected to the power supply (manual pre storage of energy):

◇ power supply – if the rated voltage of processing unit, Q, F, X, etc. is different, different power supplies shall be connected respectively.



Note:

(1) The dotted line is connected by the user:

(2) 6 and 7 terminals: when external neutral line current transformer is selected, terminals 6 and 7 shall be connected;

(3) 14 and 16 terminals: load monitoring signal (1) output 18 and 20 terminals: load monitoring signal (2) output;

(4) Terminals 21, 23 and 25: when the voltage display function is selected, terminals 21, 23 and 25 are connected to the main circuit voltage of phase a, phase B and phase C respectively.

SECONDARY WIRING DIAGRAM

◆ secondary circuit wiring diagram of circuit breaker equipped with L or M-type intelligent controller. The auxiliary switch is four normally open and four normally closed contacts

AX circuit breaker auxiliary switch:

SB1 shunt button:

SB2 closing button:

Q – terminals 23 and 24 of undervoltage release shall be connected in the main circuit;

F–shunt release:

X–closing electromagnet:

M–energy storage motor:

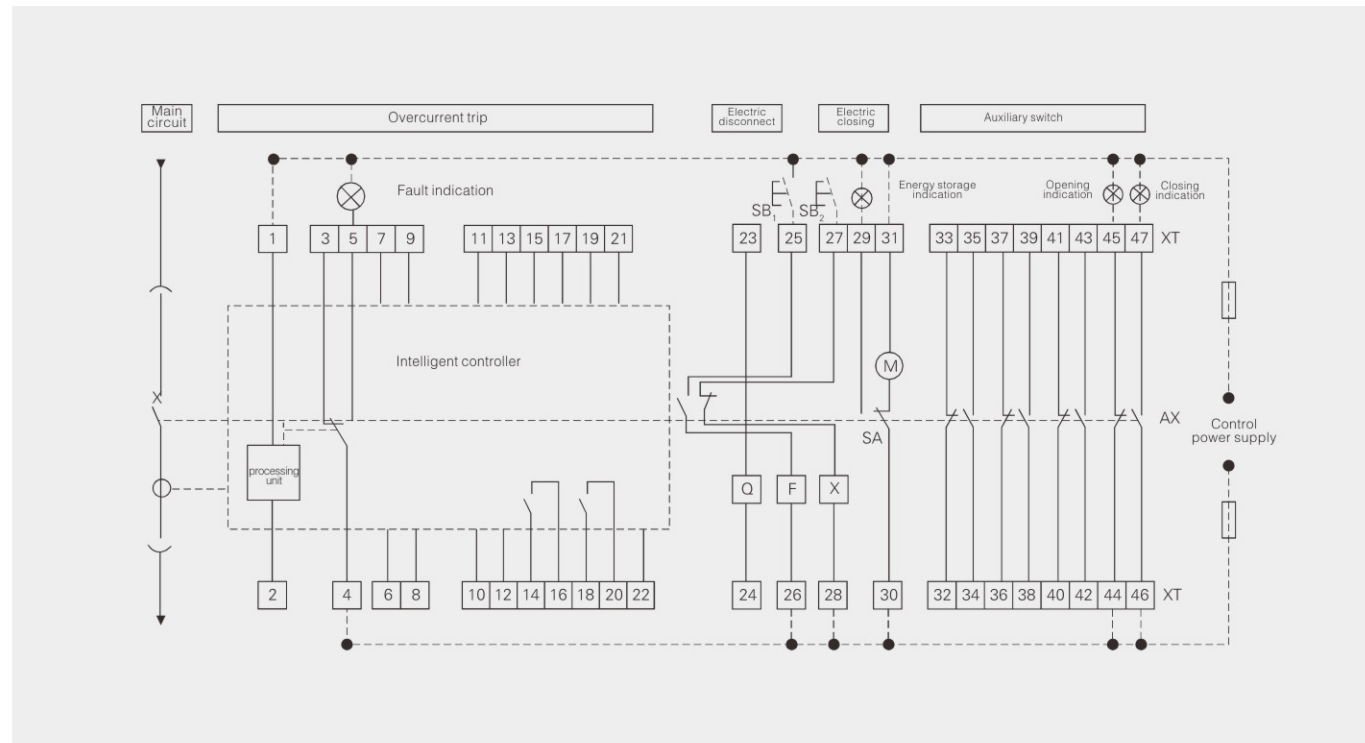
SA – motor travel switch:

XT – secondary circuit terminal of circuit breaker:

Fu fuse:

29, 30 – can be directly connected to the power supply (automatic pre stored energy), or can be connected to the normally open button in series and then connected to the power supply (manual pre stored energy):

◇ power supply – if the rated voltage of processing unit, Q, F, X, etc. is different, different power supplies shall be connected respectively.



Note:

(1) The dotted line is connected by the user:

(2) 6 and 7 terminals: when the external neutral line current transformer is selected, it is necessary to connect 6 and 7 terminals:

(3) 14 and 16 terminals: load monitoring signal (1) output 18 and 20 terminals: load monitoring signal (2) output:

(4) Terminals 17, 19 and 21: when the voltage display function is selected, terminals 17, 19 and 21 are connected to the main circuit voltage of phase a, phase B and phase C respectively;

(5) When the shunt release and closing electromagnet operate the power supply at dc220v, the auxiliary contact type can only be 3 normally open and 3 normally closed.

SECONDARY WIRING DIAGRAM

◆ secondary circuit wiring diagram of circuit breaker equipped with L or M-type intelligent controller. The auxiliary switch is two normally open and six normally closed contacts

AX circuit breaker auxiliary switch:

SB1 shunt button:

SB2 closing button:

Q – terminals 23 and 24 of undervoltage release shall be connected in the main circuit;

F–shunt release:

X–closing electromagnet:

M–energy storage motor:

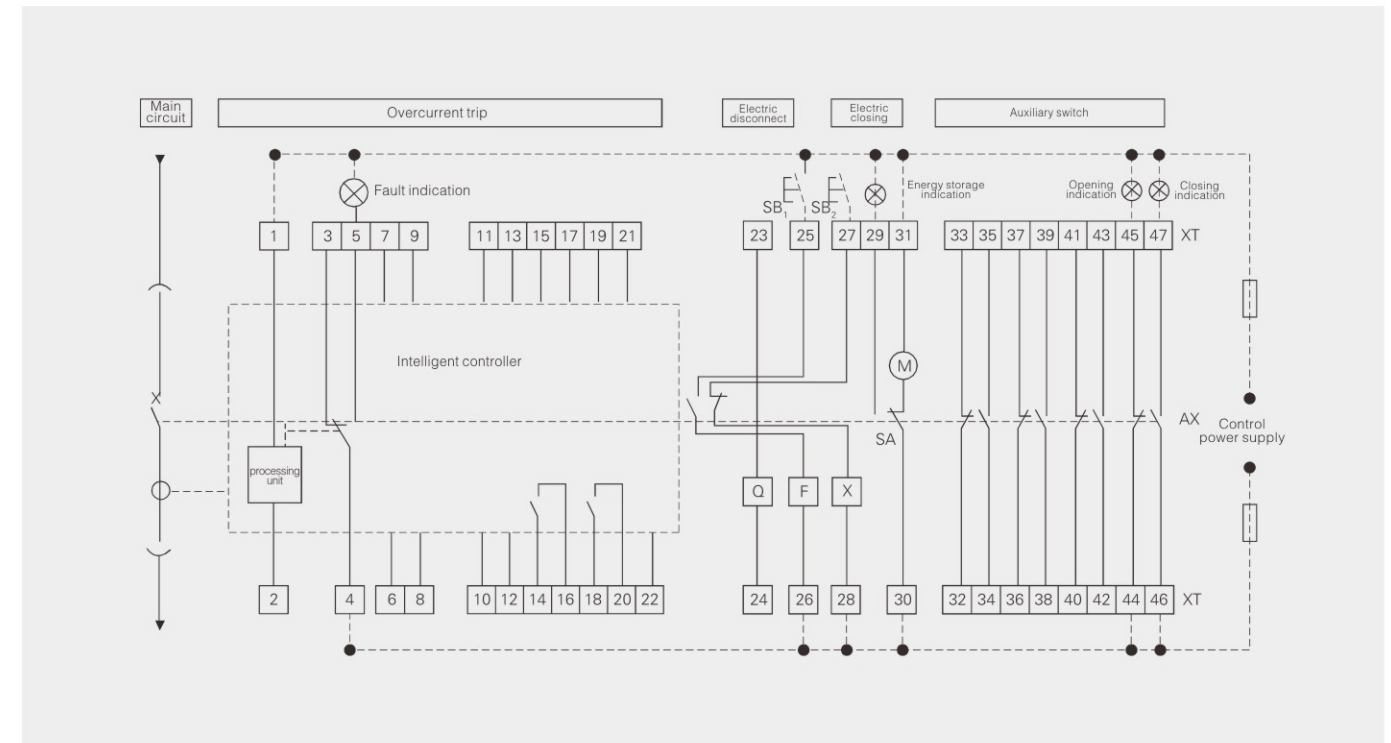
SA – motor travel switch:

XT – secondary circuit terminal of circuit breaker:

Fu fuse:

29, 30 – can be directly connected to the power supply (automatic pre stored energy), or can be connected to the normally open button in series and then connected to the power supply (manual pre stored energy):

◇ power supply – if the rated voltage of processing unit, Q, F, X, etc. is different, different power supplies shall be connected respectively.



Note:

(1) The dotted line is connected by the user:

(2) 6 and 7 terminals: when the external neutral line current transformer is selected, it is necessary to connect 6 and 7 terminals:

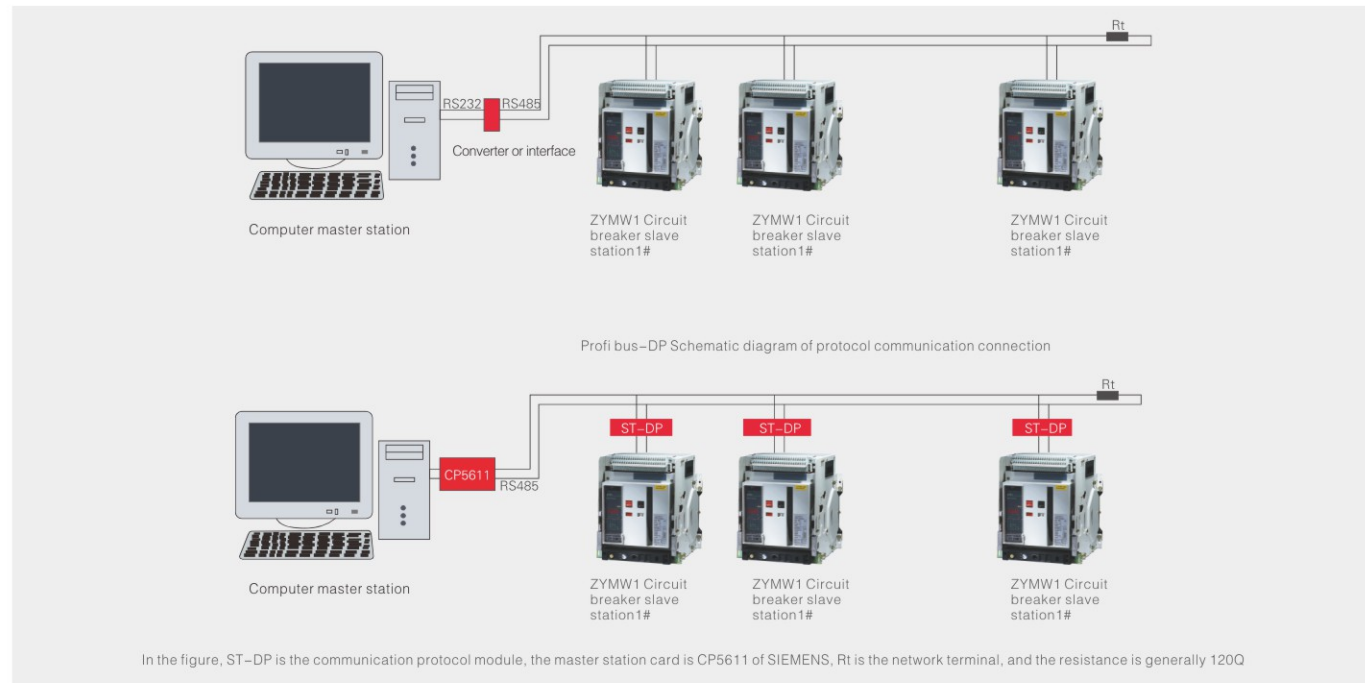
(3) 14 and 16 terminals: load monitoring signal (1) output 18 and 20 terminals: load monitoring signal (2) output:

(4) Terminals 17, 19 and 21: when the voltage display function is selected, terminals 17, 19 and 21 are connected to the main circuit voltage of phase a, phase B and phase C respectively;

(5) When the shunt release and closing electromagnet operate the power supply at dc220v, the auxiliary contact type can only be 3 normally open and 3 normally closed.

SCHEMATIC DIAGRAM OF COMMUNICATION NETWORKING

◇ Mod bus Schematic diagram of protocol communication connection



WIRING INSTRUCTIONS

- 1 #, 2# auxiliary power input end;
 - 3 #, 4 #, 5# fault trip contact output terminal;
 - 6#, 7# circuit breaker status, output terminal of the first group of auxiliary contacts;
 - 8#, 9# circuit breaker status, output terminal of the second group of auxiliary contacts;
 - 10 # r5485 communication p terminal (simplex) remote adjustment and remote communication (only available for H type);
 - 11 # r5485 communication n terminal I simplex J remote control and telemetry L (only available for H type);
 - 12 #, 13# controller output of the first group of signal contacts;
 - 14 #, 15# controller second group signal contact output;
 - 16#, 17# controller output of the third group of signal contacts;
 - 18#, 19# controller output of the fourth group of signal contacts;
 - 20# protective ground wire;
 - 21 #, 22 #, 23 #, 24 # voltage display input terminals;
 - 25#, 26# external transformer input end;
- If the control power supply voltages of F, X and m are different, different power supplies shall be connected respectively;
- In order to avoid unnecessary damage to the shunt release and closing electromagnet, please connect a group of normally open (shunt) and normally closed (closing) I contacts in series before them, which are not connected at the factory;
- The terminal 35# can be directly connected to the power supply (automatic energy pre storage), or connected to the normally open button in series and then connected to the power supply (manual energy pre storage);
- If the user proposes, the terminals 6#, 7# can output normally closed contacts;
- When the working power supply of the intelligent controller is DC power supply, a DC power supply module must be added, and the two output terminals of the power supply module are respectively connected with the secondary wiring terminals 1# (+) and 2# (-).
- The controller outputs four groups of independent signal contacts, and its functions can be set by programmer or special methods. There are 10 signal output functions provided, and their functions and numbers are as follows:
1. Short circuit instantaneous fault trip alarm; 2. Grounding or leakage fault trip alarm; 3. Current unbalance fault trip alarm; 4. Short circuit short delay fault trip alarm; 5. Overload long delay fault Trip alarm; 6. Fault trip alarm; 7. Load monitoring 1 unloading output; 8. Load monitoring 2 unloading output; 9. System self diagnosis fault alarm; 10. Power grid fault status alarm; When the user has no special requirements, the four groups of contact functions of the controller are set to the default state at the factory.

CONTROLLER SETTING

Long time delay current setting of the controller: press the "clear" key, and then press the "set" key until the long time delay status indicator is on to display the factory current setting value of long time delay, which is generally 1N and the current setting range The range is (0.4 ~ 10) LN, press the "+" and "-" keys as needed, and increase or decrease every < 20h interval until the closest required current. Then press the "storage" key once to the storage indicator On once and off again indicates that the long delay current setting value has been stored.

Long delay time setting: when the long delay current setting is completed, press the "set" key again, the long delay time status indicator will be on, and the factory setting value of long delay time will be displayed. Press the "+" key every time Press once to double the time. If the time is too long, press the "one" key again. Each time you press it, the time will be doubled until it is closest to the required time. Then press the "store" key once to store The indicator light turns on and off again, indicating the end of long delay time setting. Load monitoring, short time delay, instantaneous, grounding and other protection action value setting and action time. The setting method is the same as above, but it does not correspond Same status indication. The setting of grounding time at "off" position indicates the fault state, and the grounding only alarms without tripping: the instantaneous setting at "off" position indicates that the protection is cancelled and the controller is in setting In the process, once there is a fault signal, it will automatically block the function and enter the fault processing state. Various parameters of the controller shall not be cross set. The protection priority of the controller is as follows: long delay < short delay < instantaneous. For those used for reclosing, the set value of ilc2 is less than ilc1. After all the parameters of the controller are set, press the "light clear" key once, or power off and reset once to make the controller in operation.

CONTROLLER TEST

After the parameters of the controller are set and before the operation of the circuit breaker, the user can check various protection functions of the controller as required. The controller test has the option of tripping / non tripping, and press "tripping" During key test, the circuit breaker is disconnected. Press the "no tripping" key for test, then the tripping signal will not be sent and the circuit breaker will not be disconnected. (Note: L-type products only have tripping test. Press the "test" key once to the controller Send out the instantaneous signal and the circuit breaker is disconnected). For overload test, press the "set" key to the long delay state, check the overload setting value, and then to other current states, press the "+" and "one" keys to adjust the current When the current flows to > 1.31rl, press the test key once to enter the overload test state. The controller delays the action according to the inverse time limit law and indicates the fault category and test state. Other characteristic tests are similar, After the test, press the "clear light" key to enter the normal operation state. At the same time, press the mechanical "reset" button to close the circuit breaker.

CONTROLLER OTHER TRIAL RULES

- ◆ when the controller is in the setting and inspection state, if no key is pressed in Imin, the key will be cleared automatically to enter the operation state. At the same time, once there is a fault, the key function will be blocked automatically to enter the fault treatment state.
- ◇ setting check: after the controller "clears the light", press the "setting" key continuously without fault to display various states and corresponding set current and time values in a cyclic manner. After checking, please press the "clear light" button (if you don't press the button within 1min, it will automatically enter the normal operation state).
- ◇ power grid operation current and voltage inspection: after the controller "clears the light", continuously select the "select 1" ("select") key under the condition of no fault, cycle to indicate the operation current value and grounding current value of each phase, normally display the maximum phase current, continuously press the "select 2" key, cycle to indicate the voltage of each phase, and normally display the maximum phase voltage.
- ◇ after the controller "clears the light", press the "fault check" key once to display the last fault status and fault current. After the test or fault trip, press the "select 1" ("select") key to cycle the current or time value of the test or fault. The test state is not memorized.
- ◇ reset: before closing the circuit breaker, first press the "clear light" button of the controller to make the controller enter the normal operation state, and then press the mechanical "reset" button to close the circuit breaker.

Note: there is no specification requirement for the user's order. The controller is M-type and factory set at

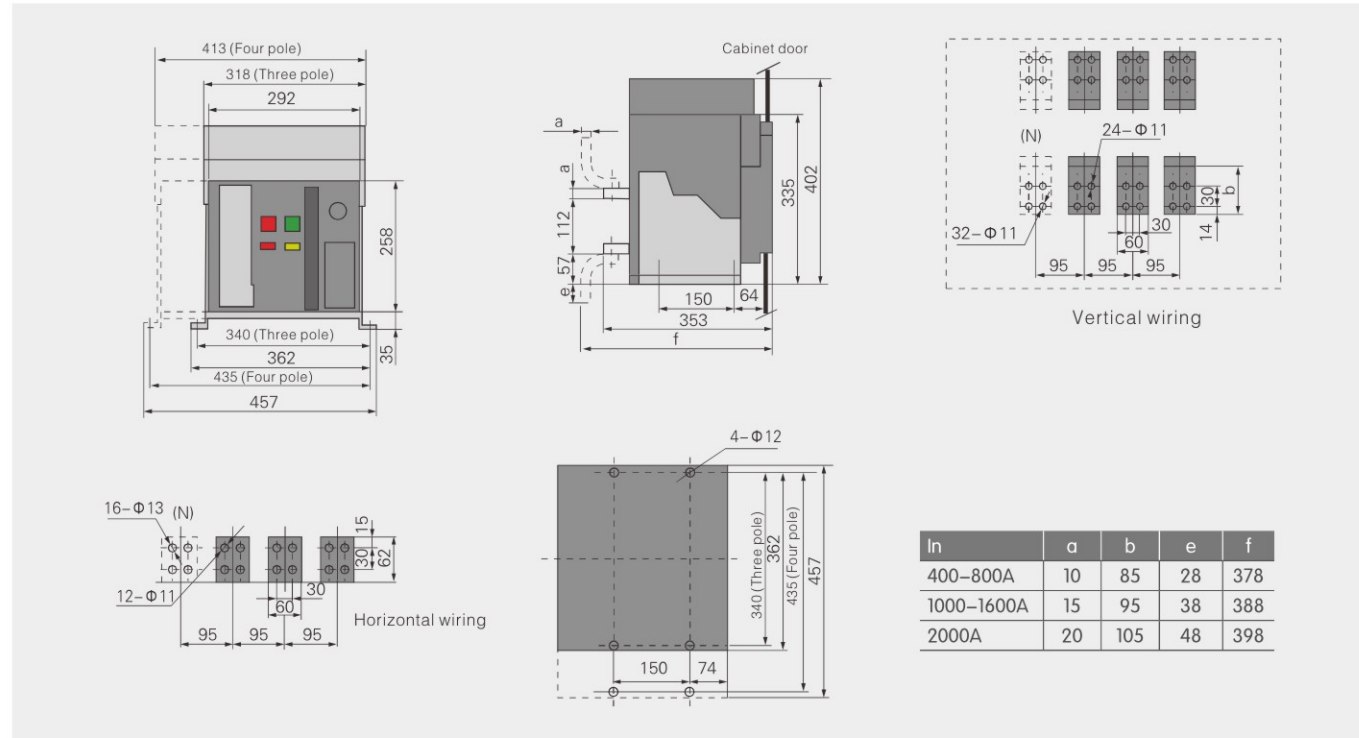
Long delay LRL is set at 1.0ln 1.51rl action time is set to 15s.

The short delay LR2 is set to be slightly greater than 81rl. The timing limit is 0.4s

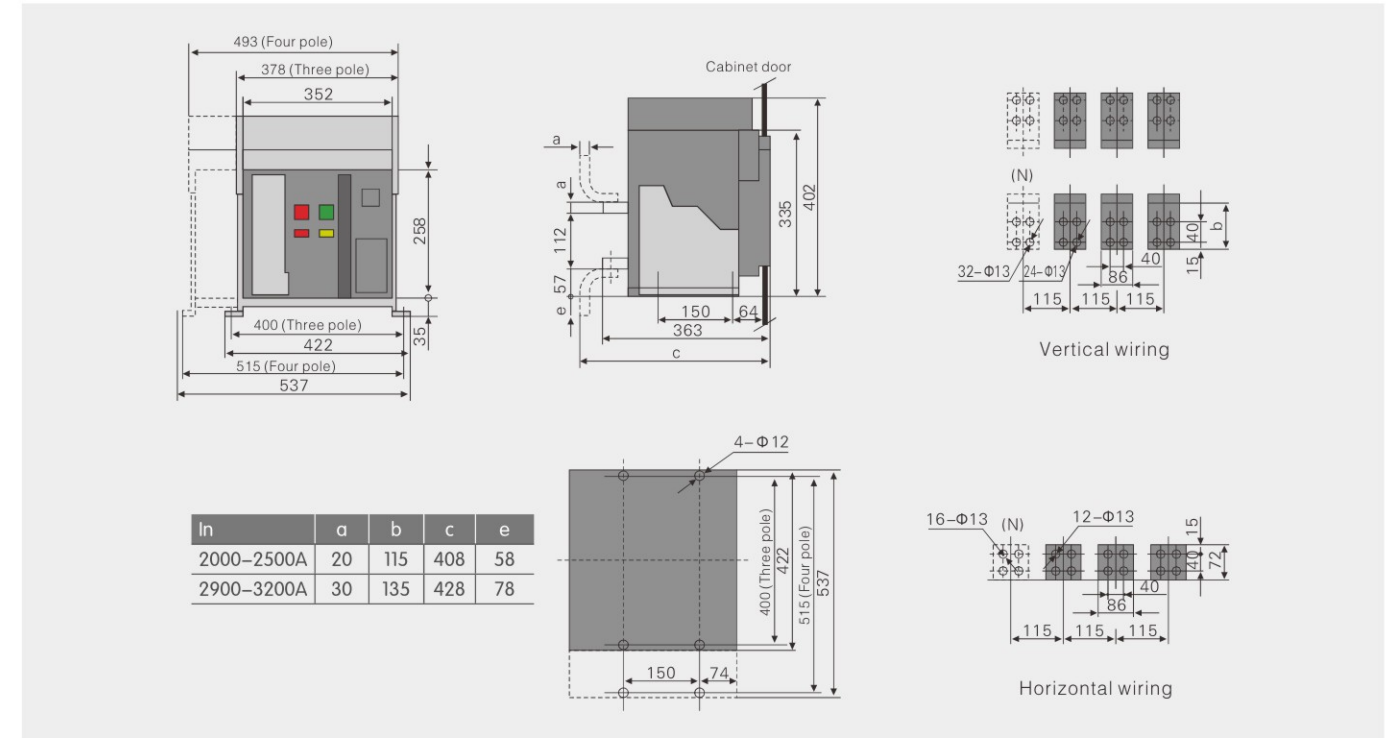
The instantaneous LR3 setting is 121n.

Set the ground fault LR4 at 0.41n When the action time is set to "off", only the display is displayed and the circuit breaker is continuously opened.

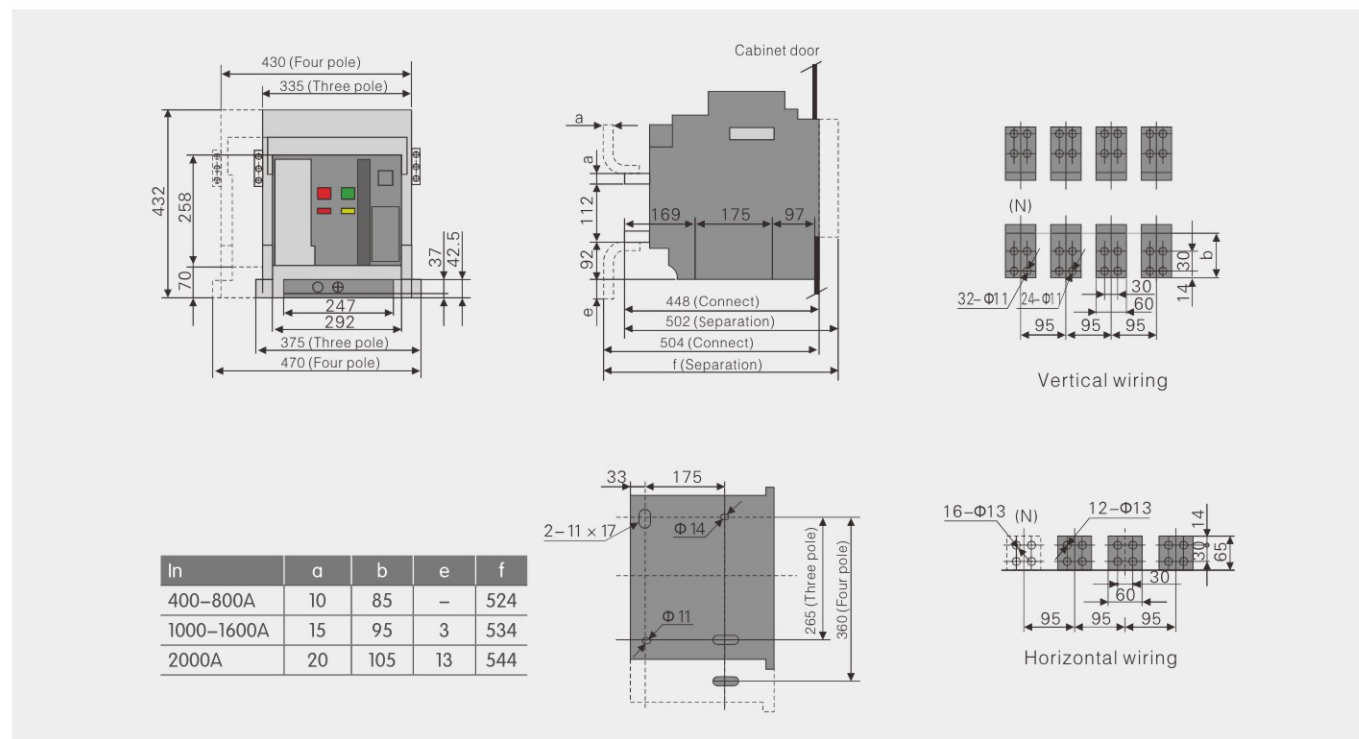
ZYMW1-2000、2000/4INSTALLATION DIMENSION AND OVERALL DIMENSION OF FIXED CIRCUIT BREAKER



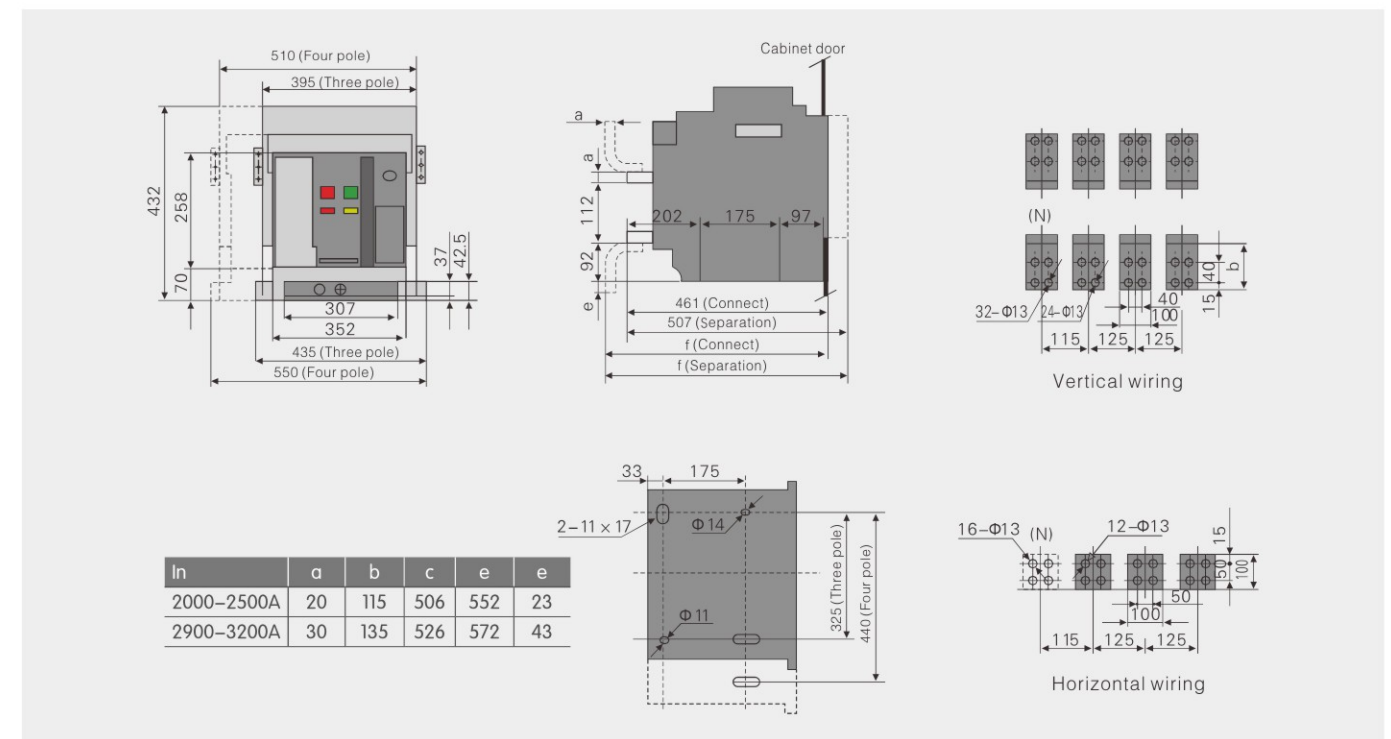
ZYMW1-3200、3200/4INSTALLATION DIMENSION AND OVERALL DIMENSION OF FIXED CIRCUIT BREAKER



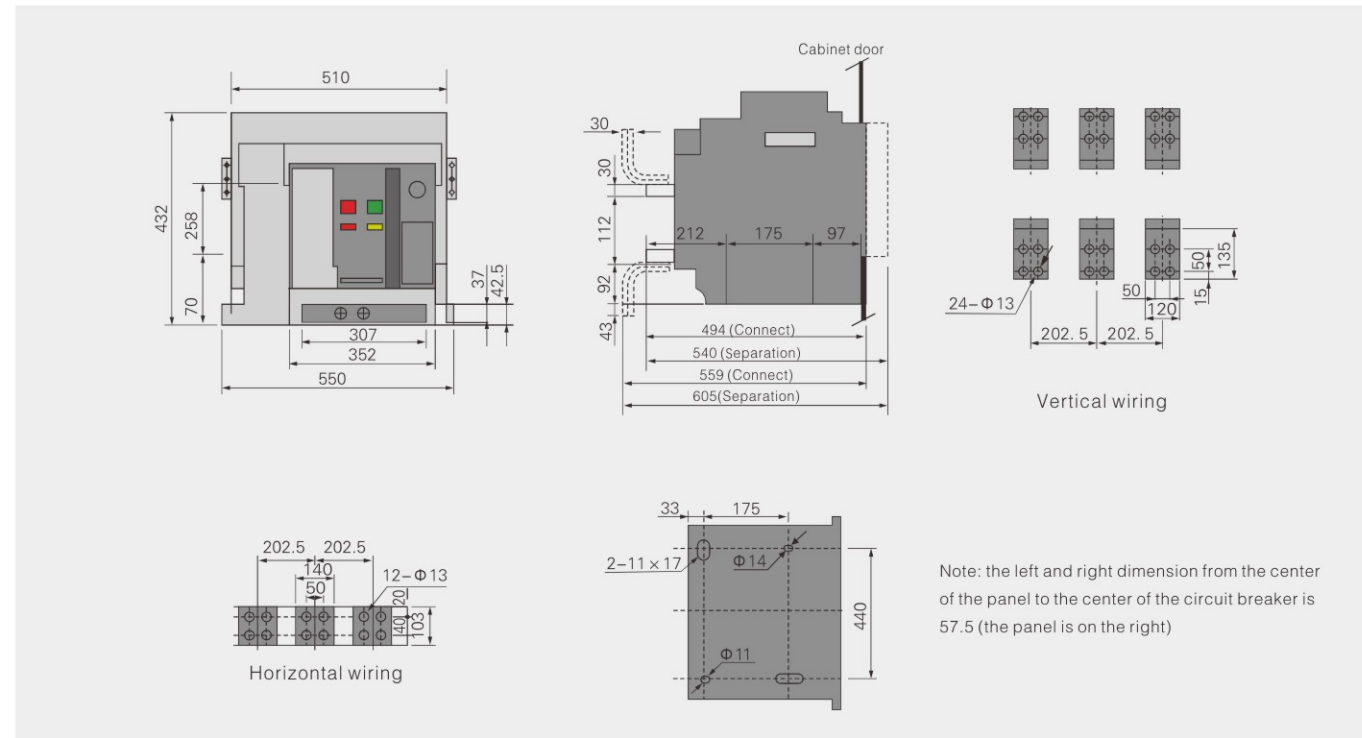
ZYMW1-2000、2000/4INSTALLATION DIMENSION AND OVERALL DIMENSION OF DRAWER TYPE CIRCUIT BREAKER



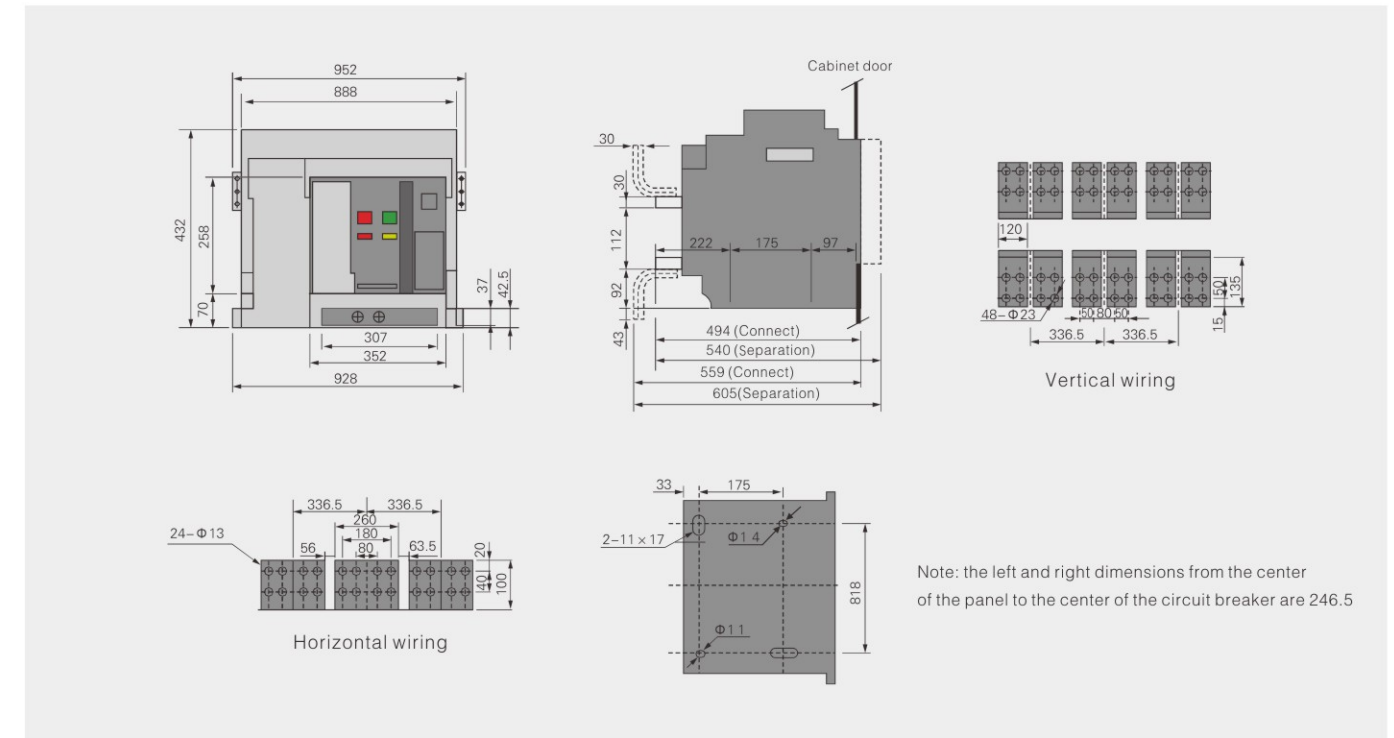
ZYMW1-3200、3200/4INSTALLATION DIMENSION AND OVERALL DIMENSION OF DRAWER TYPE CIRCUIT BREAKER



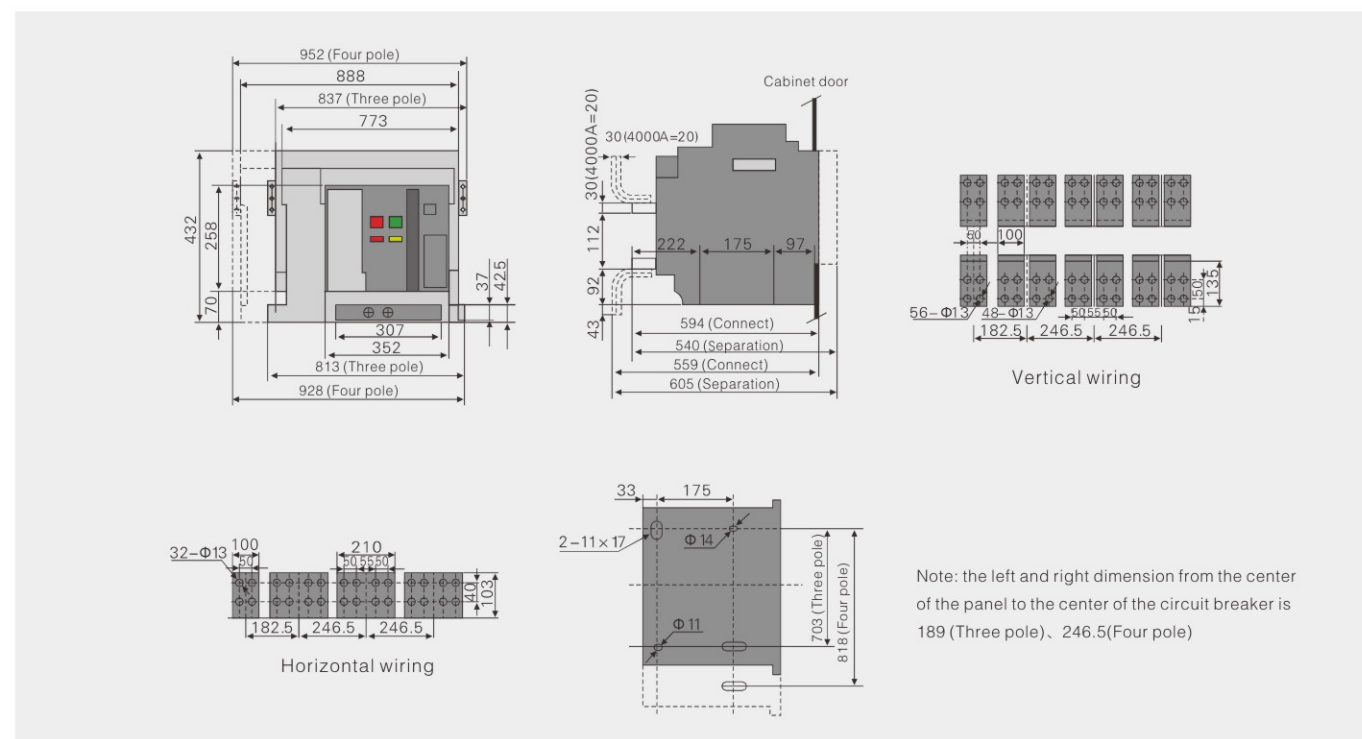
ZYMW1-4000 INSTALLATION DIMENSION AND OVERALL DIMENSION OF DRAWER TYPE CIRCUIT BREAKER



ZYMW1-6300, In=6300A INSTALLATION DIMENSION AND OVERALL DIMENSION OF DRAWER TYPE CIRCUIT BREAKER



ZYMW1-6300, 6300/4, In-4000, 5000 INSTALLATION DIMENSION AND OVERALL DIMENSION OF DRAWER TYPE CIRCUIT BREAKER



DOOR FRAME SIZE AND INSTALLATION HOLE SPACING

