

**W9**  
**GROUP**

Heart for the world, electricity for the night



**WE**

Air Circuit Breaker

# ABOUT W9

The "W9" brand was founded in 2024 and is headquartered in Yueqing, Wenzhou, the capital of China's electrical appliances. It is an enterprise that integrates design, research and development, intelligent manufacturing, and industry and trade. The company also has three factory members, including "JIUCE Jiuce Electric (founded in 2016)", which specializes in Minimum Circuit Breakers, "WL Electric (founded in 2016)", and "WE Chengshuo Electric (founded in 2016)", which specializes in air circuit breakers. Three companies have a total sales revenue of 600 million RMB. In 2020, "W9" (formerly known as the "WCED" British brand) was the main export brand with an annual total export value of 50 million RMB. Currently, "JIUCE", "WL", and "WE" are mainly domestic mid to high end brand strategic partners, and their product marketing is spread throughout the country and exported to more than 20 countries and regions around the world, mainly Iran, the Middle East, Russia, Australia, the United Kingdom, and so on.

The "WL" brand independently designs and manufactures products covering: thermal magnetic molded case circuit breakers, thermal magnetic adjustable molded case circuit breakers (single adjustable, double adjustable), electronic molded case circuit breakers (3 knobs and 6 knobs), leakage molded case circuit breakers, photovoltaic/wind energy molded case circuit breakers, double break point molded case circuit breakers (thermal magnetic and electronic), and various types of molded case components, with a current range of 10A-2000A, Various internal and external spare parts of molded case circuit breakers (electric operation, manual operation)

The "WE" brand independently designs and manufactures products including 400V frame circuit breakers (digital and LCD versions), DC molded case circuit breakers, AC800V-1500V frame circuit breakers, and various component accessories.

"JIUCE" brand independently designs and manufactures products covering: MCB, RCD/RCCB, RCBO Switch-disconnector, Distribution box, AC contactor, Surge protection device (SPD), Arc fault detection device (AFDD), Smart MCB, smart RCBO

Our manufacturing strength includes stamping workshop, injection molding workshop, spot welding workshop, assembly workshop, and mold manufacturing workshop

Our R&D strength: We have over 50 engineers for small circuit breakers, 50 engineers for molded case circuit breakers, and 6 engineers for ACB

## Main Businesses



Clean Energy



Low-voltage Apparatus



Power Transmission and Distribution



Instrumentation and Apparatus



Smart Home



Intelligent Building



Intelligent Manufacturing



Industry Automation



Smart Heating



Smart Water



Home Electrical Apparatus



Energy Efficiency Management

# ABOUT W9 Honors

## W9 Honors

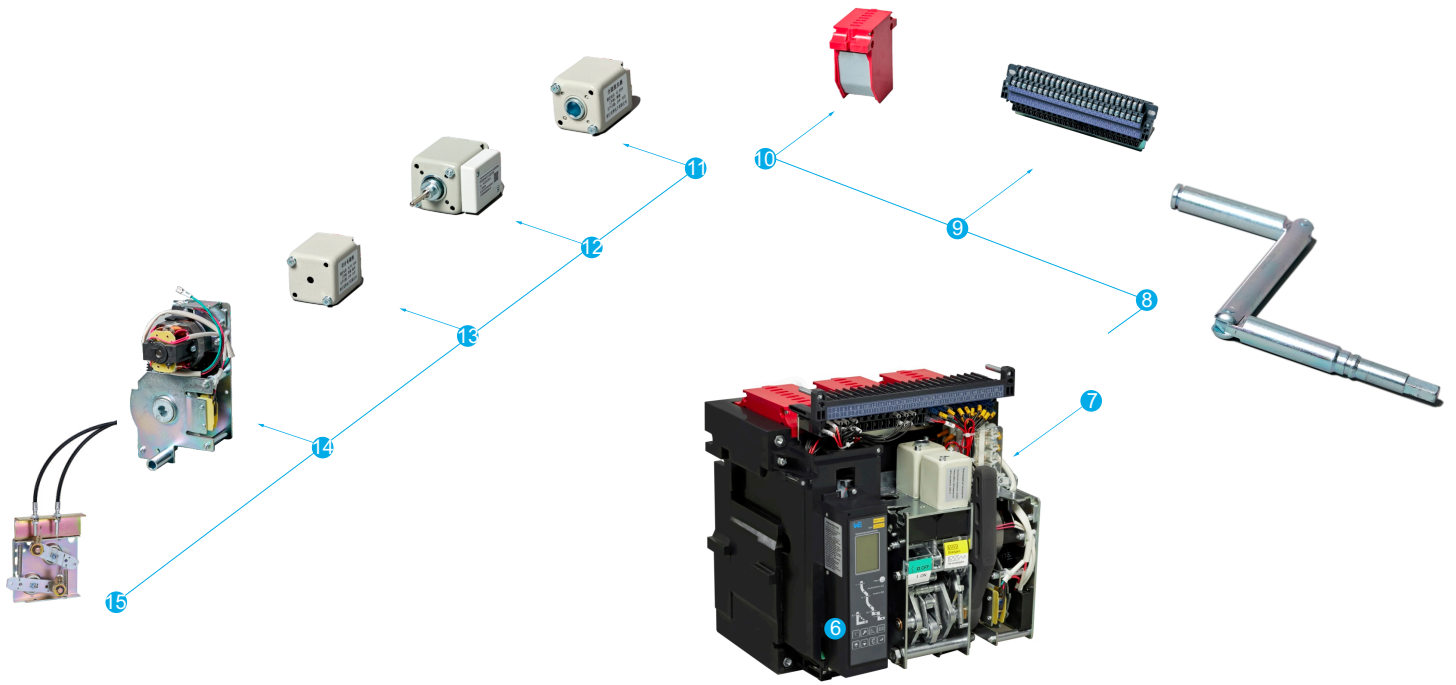
- 2016
  - "WL" "WE" "JIUCE" factory established
- 2020
  - "WCED" England Brand registered
- 2020
  - Certification: IEC, UL, CSA, GB, CE, UKCA, CCC  
Our company passed the ISO9001 quality management system certification  
all products comply with RoHS and REACH
- 2024
  - "W9" England Brand registered, W9 members:  
"WL" "WE" "JIUCE"

## Certification

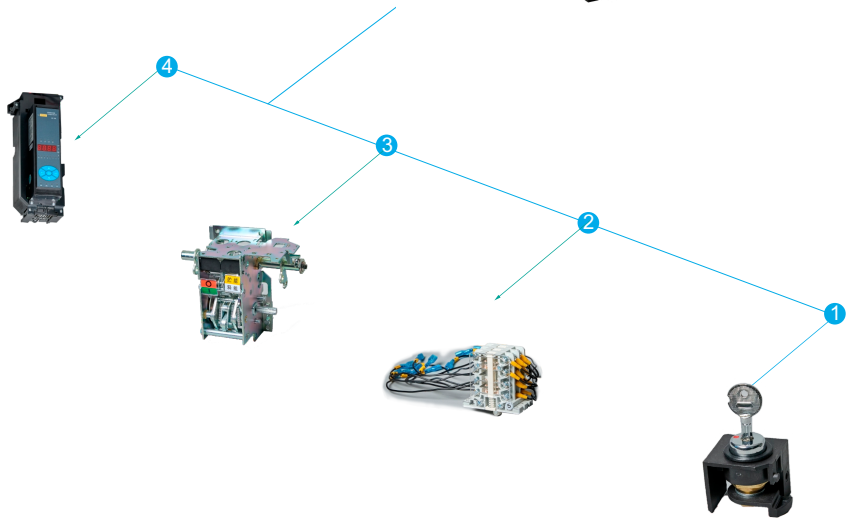
Certification: IEC, UL, CSA, GB, CE, UKCA, CCC Our company passed the ISO9001 ,quality management system certification all products comply with RoHS and REACH



# Moulded Case Circuit Breaker



- ① key lock
- ② AUXILIARY switch
- ③ Operating mechanism
- ④ controller
- ⑤
- ⑥ air circuit breaker
- ⑦ withdrawable seat
- ⑧ Manual handle
- ⑨ Secondary wiring terminal
- ⑩ arc chute
- ⑪ shunt release
- ⑫ Undervoltage release
- ⑬ Closed electromagnet
- ⑭ Energy storage electric motor
- ⑮ Steel cable interlocking



## 5 Structural features and operating principles

### 5.1 WEW1-1600 withdrawable circuit breaker structure



Figure 5.1 WEW1-1600 withdrawable circuit breaker structure

## 5.2 WEW1-2500 withdrawable circuit breaker structure

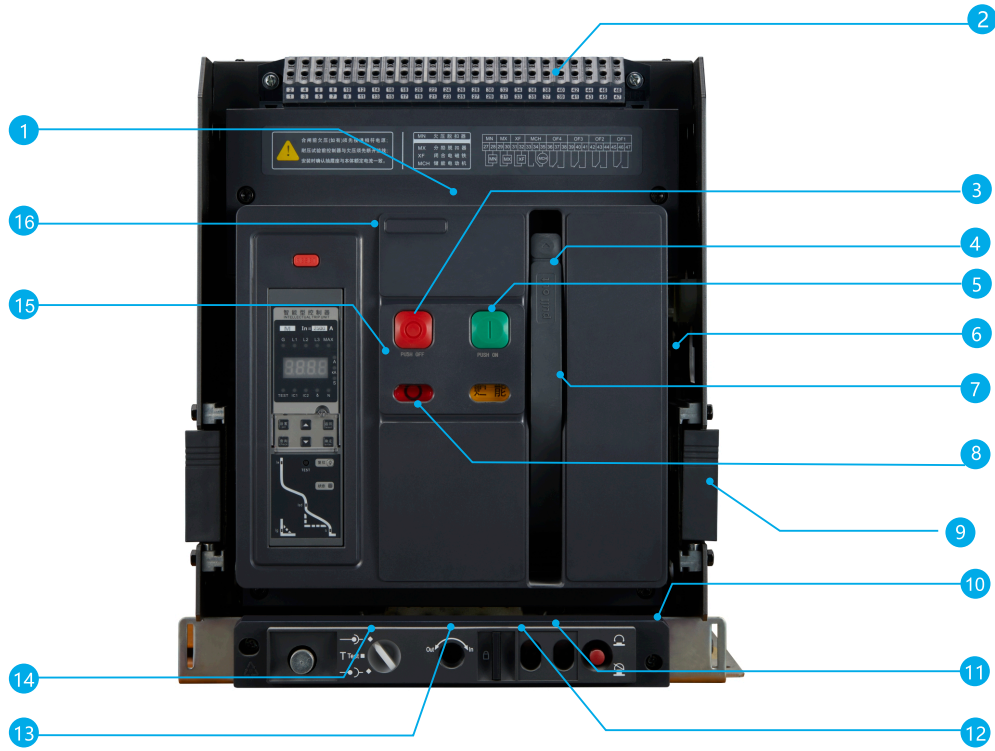


Figure 5.2 WEW1-2500 withdrawable circuit breaker structure

- |                                    |                                          |
|------------------------------------|------------------------------------------|
| 1 Trademark                        | 9 Draw out plate                         |
| 2 Secondary terminal               | 10 Three position locking device         |
| 3 Breaking button                  | 11 Drawer padlock                        |
| 4 Energy storage handle            | 12 Racking-handle entry                  |
| 5 Making button                    | 13 Position indicator                    |
| 6 Name plate                       | 14 Rotate handle storage hole            |
| 7 Energy storage/release indicator | 15 Intelligent controller                |
| 8 Opening/closing indication       | 16 Fault-breaking indicator reset button |

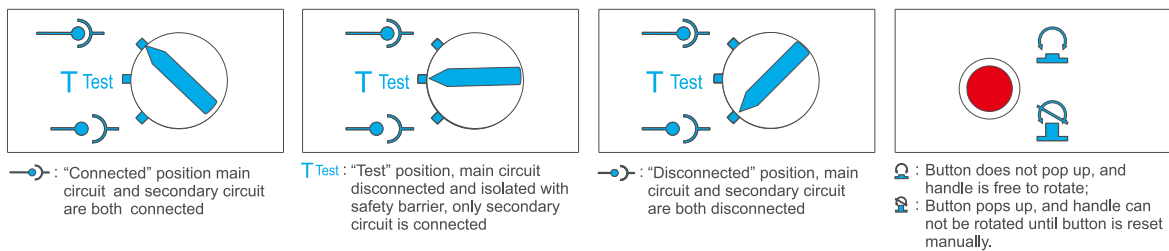


Figure 5.3 WEW1 withdrawable circuit breaker positions

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## 1. General

The WLW1 series air circuit breaker ("circuit breaker" in short), with rated current from 200A to 7500A and rated operating voltage of 380V-415V, 690V AC, is suitable for operation under 50Hz/60Hz AC and is mainly used in distribution network for power distribution, and to protect power line and power equipment from various faults such as overload, short circuit, undervoltage and single-phase ground. The circuit breaker is a combination of aesthetic appearance, high breaking capacity, zero flashover and multiple intelligent protection features. It can provide selective protection with accurate operations, to avoid unnecessary black out and guarantee reliable power supply.

The circuit breaker is widely applied in power plants, factories, mines and modern high rises, especially in power distribution system of intelligent buildings. It is also widely used in green projects such as wind power generation or solar power generation.

The product is available for top or bottom cable entries; bus can be rotated horizontally or vertically; withdrawable type is equipped with isolation function.

Comply with the standards: IEC/EN60947-2

B

## 2. Operating conditions

**3.1** Ambient air temperature from  $-5^{\circ}\text{C}$ ~ $+40^{\circ}\text{C}$ , with average temperature within 24h not exceeding  $+35^{\circ}\text{C}$ .

Note: user shall consult with manufacturer for applications under temperature over  $+40^{\circ}\text{C}$  or below  $-5^{\circ}\text{C}$ .

**3.2** The product shall not be installed at an altitude higher than 2000m.

**3.3** Relative humidity shall not exceed 50% when ambient air temperature is at  $+40^{\circ}\text{C}$ ; higher relative humidity is allowed under lower temperature; if the average minimum relative humidity is 90% in wettest month, and the average minimum temperature in that month is  $+25^{\circ}\text{C}$ , condensation due to temperature changes shall be taken into consideration.

**3.4** The pollution grade is 3.

**3.5** Circuit breakers with rated operating voltage of AC1140V belongs to installation type III; circuit breakers with undervoltage trip coil in auxiliary circuit, primary coil of power transformer and rated operating voltage not higher than AC380V belong to installation type IV, others are type III.

**3.6** Circuit breaker should be installed in set or separately indoor according to this instruction, with vertical inclination not bigger than  $5^{\circ}$ .



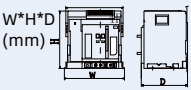


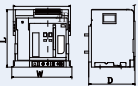
### 3. Type Specification and Definitions

Product code	Frame size current	Breaking capacity code	Rated current	Pole number code	IC5.0(M)	Installation method code	Control circuit voltage code
WEW1	1600	M	1600	3P	IC8.0(3H)	D	230VAC
	1000	M : Standard	200 400 630	3: three poles	IC7.0(3M)	D: withdrawable	230VAC: AC 230V
	1600	H: advanced	800 1000 1250 1600 2000 2500 3200 4000 5000 6300 7500	4: four poles	IC8.0(3H)	F: fixed	400VAC: AC 400V
	2000						110VDC: DC 110V
	3200						220VDC: DC 220V
	4000						
	6300						


- Note :**
- There need to mark M when you choose M type,WE1600M,when you choose H type,the type should be WE1600H
  - Manual operation: not containing any motor operation mechanism, closing electromagnet and shunt release. Motor operation: including all standard accessories for remote operation.
  - Code exam
  - Code example:WE1600M-1600/3 IC8.03H,D230VAC:frame size 1600 with M type breaking capacity,rated current 1600A  
H type intelligent controller,3poles,Motor operation(defaulted),withdrawable type,control voltage AC 230V

## 4. Air Circuit breaker WEW1 Series Technical data

WEW1 Moulded Case Circuit Breaker		1000		1600		2000		
Rated operating current In (A),40°C		200-400-630-800-1000		200-400-630-800-1000-1250-1600		400-630-800-1000-1250-1600-2000		
Rated insulation voltage Ui (V)		1000		1000		1000		
Rated impulse withstand voltage (kV)		12		12		12		
Rated operational voltage Ue(V),AC 50/60Hz		400V/690V		400V/690V		400V/690V		
Use category		B		B		B		
Maximum continuous current of N pole (A)		100%In		100%In		100%In		
Breaking capacity code		M	H	M	H	M	H	
Number of poles	3P	■	■	■	■	■	■	
	4P	■	■	■	■	■	■	
Rated ultimate short-circuit breaking capacity Icu (kA)	AC380V/400V/415V	55	65	55	65	80	100	
	AC690V	25	50	25	50	50	65	
Rated service breaking capacity Ics (kA)	AC380V/400V/415V	42	55	42	55	65	65	
	AC690V	20	42	20	42	40	65	
Rated short-time withstand current Icw (kA/1s)	AC380V/400V/415V	42	55	42	55	65	65	
	AC690V	20	42	20	42	40	65	
Mechanical life (CO recycle)	Maintenance	20000		20000		20000		
Electrical life (CO recycle)	AC415V,In	2000		2000		2000		
	AC690V,In	1000		1000		1000		
Standard configuration		Fixed	Drawer type	Fixed	Drawer type	Fixed	Drawer type	
The body of the circuit breaker		■	■	■	■	■	■	
Drawer base		■	■	■	■	■	■	
Intelligent controller		■	■	■	■	■	■	
Upper and lower horizontal connecting wires		■	■	■	■	■	■	
Indicating contact of opening/closing		■	■	■	■	■	■	
Indicating contact of fault tripping		■	■	■	■	■	■	
Auxiliary contact 4NO+4NC		■	■	■	■	■	■	
Electric motor operating mechanism		■	■	■	■	■	■	
Closing electromagnet		■	■	■	■	■	■	
Shunt release		■	■	■	■	■	■	
Optional accessories								
Phase partition		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Instantaneous undervoltage release		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Time-delay undervoltage release		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Opening and closing button lock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lock for the drawer base		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lock for the separation position of the drawer seat		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Key lock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Door interlock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Auxiliary contact 6NO+6NC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Electric indications of three positions on the drawer base		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Steel cable interlock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Locking interlock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual power controller		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
External neutral line transformer		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Zero-sequence transformer		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ground current transformer and its accessories		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dimension								
Dimension (mm) W×H×D		Width (3P/4P)	36.5/46	46.5/46	36.5/46	46.5/46	46/61	51/61
		Height	43/55	51/55	43/55	51/55	55/58	58/58
		Depth	32.5/42	37/42	32.5/42	37/42	42/53	46/53
Weight(kg)								
Weight(kg)/Fixed	3P	23.7/24.4/25				54/56.1/59.3		
	4P	32.9/33.5/34.2				66.7/69.3/71.3		
Weight(kg)/Drawer	3P	42.82/42.85/43.66				75.8/79.5/85.5		
	4P	53.3/53.3/53.9				93.1/98.8/105.9		

WEW1 Moulded Case Circuit Breaker		3200		4000		6300		
Rated operating current In (A),40°C		2000-2500-2900-3200-4000		3200-3600-3900-4000		4000-5000-6300		
Rated insulation voltage Ui (V)		1000		1000		1000		
Rated impulse withstand voltage (kV)		12		12		12		
Rated operational voltage Ue(V),AC 50/60Hz		400V/690V		400V/690V		400V/690V		
Use category		B		B		B		
Maximum continuous current of N pole (A)		100%In		100%In		100%In		
Breaking capacity code		M	H	M	H	M	H	
Number of poles	3P	■	■	■	■	■	■	
	4P	■	■	■	■	■	■	
Rated ultimate short-circuit breaking capacity Icu (kA)	AC380V/400V/415V	100	100	100	138	120	138	
	AC690V	65	65	65	105	85	105	
Rated service breaking capacity Ics (kA)	AC380V/400V/415V	80	85	80	138	100	138	
	AC690V	65	65	65	105	85	105	
Rated short-time withstand current Icw (kA/1s)	AC380V/400V/415V	80	85	80	138	100	138	
	AC690V	65	65	65	105	85	105	
Mechanical life (CO recycle)	Maintenance	20000		20000		16000		
Electrical life (CO recycle)	AC415V,In	6000		6000		6000		
	AC690V,In	2000		2000		2000		
Standard configuration		Fixed	Drawer-type	Fixed	Drawer-type	Fixed	Drawer-type	
The body of the circuit breaker		■	■	■	■	■	■	
Drawer base		■	■	■	■	■	■	
Intelligent controller		■	■	■	■	■	■	
Upper and lower horizontal connecting wires		■	■	■	■	■	■	
Indicating contact of opening/closing		■	■	■	■	■	■	
Indicating contact of fault tripping		■	■	■	■	■	■	
Auxiliary contact 4N0+4NC		■	■	■	■	■	■	
Electric motor operating mechanism		■	■	■	■	■	■	
Closing electromagnet		■	■	■	■	■	■	
Shunt release		■	■	■	■	■	■	
Optional accessories								
Phase partition		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Instantaneous undervoltage release		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Time-delay undervoltage release		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Opening and closing button lock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lock for the drawer base		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lock for the separation position of the drawer seat		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Key lock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Door interlock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Auxiliary contact 6N0+6NC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Electric indications of three positions on the drawer base		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Steel cable interlock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Locking interlock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual power controller		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
External neutral line transformer		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Zero-sequence transformer		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ground current transformer and its accessories		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dimension								
Dimension (mm) W×H×D		Width (3P/4P)	57/66	61/66	66/105	66/105	105/105	105/105
		Height	55/60	58/60	57/61	60/62	62/62	62/62
		Depth	42/57	53/57	60/62	57/61	61/61	61/61
Weight(kg)								
Weight(kg)/Fixed	3P	66/69		83/83		110/120/130		
	4P	90/92.5		110.2/125.2		140.3/151.2/162.3		
Weight(kg)/Drawer	3P	110/110.5		122/150		175/200/220		
	4P	123/133		155/175		175/200/220		

## 5. Air Circuit breaker WEW3 Series Technical data

WEW3 Moulded Case Circuit Breaker		1600		2500		
Rated operating current $I_n$ (A),40°C		200-400-630-800-1000-1250-1600		400-630-800-1000-1250-1600-2000-2500		
Rated insulation voltage $U_i$ (V)		1000		1140		
Rated impulse withstand voltage (kV)		12		12		
Rated operational voltage $U_e$ (V),AC 50/60Hz		400V/690V/800V/1140V		400V/690V/800V/1140V		
Use category		B		B		
Maximum continuous current of N pole (A)		100% $I_n$		100% $I_n$		
Breaking capacity code		M	H	M	H	
Number of poles	3P	■	■	■	■	
	4P	■	■	■	■	
Rated ultimate short-circuit breaking capacity $I_{cu}$ (kA)	AC380V/400V/415V	55	65	55	100	
	AC690V	25	50	25	65	
	AC800V/1140V	—	—	20	50	
Rated service breaking capacity $I_{cs}$ (kA)	AC380V/400V/415V	42	55	42	100	
	AC690V	20	42	20	65	
	AC800V/1140V	—	—	10	50	
Rated short-time withstand current $I_{cw}$ (kA/1s)	AC380V/400V/415V	42	55	42	100	
	AC690V	20	42	20	65	
	AC800V/1140V	—	—	10	50	
Mechanical life (CO recycle)	Maintenance	20000		20000		
Electrical life (CO recycle)	AC415V, $I_n$	2000		2000		
	AC690V, $I_n$	1000		1000		
Standard configuration	Fixed	Drawer type		Fixed	Drawer type	
The body of the circuit breaker	■	■	■	■	■	
Drawer base	■	■	■	■	■	
Intelligent controller	■	■	■	■	■	
Upper and lower horizontal connecting wires	■	■	■	■	■	
Indicating contact of opening/closing	■	■	■	■	■	
Indicating contact of fault tripping	■	■	■	■	■	
Auxiliary contact 4NO+4NC	■	■	■	■	■	
Electric motor operating mechanism	■	■	■	■	■	
Closing electromagnet	■	■	■	■	■	
Shunt release	■	■	■	■	■	
Optional accessories						
Phase partition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Instantaneous undervoltage release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Time-delay undervoltage release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Opening and closing button lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lock for the drawer base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lock for the separation position of the drawer seat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Key lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Door interlock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Auxiliary contact 6NO+6NC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Electric indications of three positions on the drawer base	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Steel cable interlock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Locking interlock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual power controller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
External neutral line transformer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Zero-sequence transformer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ground current transformer and its accessories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Dimension</b>						
Dimension (mm) W×H×D		Width (3P/4P)	36.5/46	46.5/46	46/61	51/61
		Height	43/55	51/55	55/58	58/60
		Depth	32.5/42	37/42	53/57	53/57
<b>Weight(kg)</b>						
Weight(kg)/Fixed	3P					
	4P					
Weight(kg)/Drawer	3P			87.5		
	4P			124.5		



WEW3 Moulded Case Circuit Breaker		4000		7500		
Rated operating current $I_n$ (A),40°C		2000-2500-2900-3200-3600-3900-4000		4000-5000-6300-7500		
Rated insulation voltage $U_i$ (V)		1140		1140		
Rated impulse withstand voltage (kV)		12		12		
Rated operational voltage $U_e$ (V),AC 50/60Hz		400V/690V/800V/1140V		400V/690V/800V/1140V		
Use category		B		B		
Maximum continuous current of N pole (A)		100% $I_n$		100% $I_n$		
Breaking capacity code		M	H	M	H	
Number of poles	3P	■	■	■	■	
	4P	■	■	■	■	
Rated ultimate short-circuit breaking capacity $I_{cu}$ (kA)	AC380V/400V/415V	55	100	55	150	
	AC690V	25	80	25	100	
	AC800V/1140V	15	50	15	65	
Rated service breaking capacity $I_{cs}$ (kA)	AC380V/400V/415V	42	100	42	150	
	AC690V	20	80	20	100	
	AC800V/1140V	10	50	10	65	
Rated short-time withstand current $I_{sw}$ (kA/1s)	AC380V/400V/415V	42	100	42	150	
	AC690V	20	80	20	100	
	AC800V/1140V	10	50	10	65	
Mechanical life (CO recycle)	Maintenance	20000		20000		
Electrical life (CO recycle)	AC415V, $I_n$	2000		2000		
	AC690V, $I_n$	1000		1000		
Standard configuration		Fixed	Drawer-type	Fixed	Drawer-type	
The body of the circuit breaker		■	■	■	■	
Drawer base		■	■	■	■	
Intelligent controller		■	■	■	■	
Upper and lower horizontal connecting wires		■	■	■	■	
Indicating contact of opening/closing		■	■	■	■	
Indicating contact of fault tripping		■	■	■	■	
Auxiliary contact 4N0+4NC		■	■	■	■	
Electric motor operating mechanism		■	■	■	■	
Closing electromagnet		■	■	■	■	
Shunt release		■	■	■	■	
Optional accessories						
Phase partition		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Instantaneous undervoltage release		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Time-delay undervoltage release		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Opening and closing button lock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lock for the drawer base		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Lock for the separation position of the drawer seat		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Key lock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Door interlock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Auxiliary contact 6N0+6NC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Electric indications of three positions on the drawer base		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Steel cable interlock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Locking interlock		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dual power controller		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
External neutral line transformer		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Zero-sequence transformer		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ground current transformer and its accessories		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dimension						
Dimension (mm) W×H×D		Width (3P/4P)	61/66	61/66	105/105	105/105
		Height	58/60	58/60	62/62	62/62
		Depth	53/57	53/57	61/61	61/61
Weight(kg)						
Weight(kg)/Fixed	3P				145	
	4P				232	
Weight(kg)/Drawer	3P				227.5	
	4P					

## 6. Installation technical requirements

### 6.1 Pre-installation check

6.1.1 Check with your order to see whether it is consistent with the parameters on the nameplate of the circuit breaker, check for the following items:

- a. Circuit breaker type, rated current, rated operating voltage;
- b. Installation method, operating method;
- c. Intelligent controller voltage, shunt release voltage, closing electromagnet voltage, energy storage motor voltage, undervoltage release voltage and delay time;
- d. Other special ordering requirements;

6.1.2 Check the packing contents according to the configuration described in this manual;

6.1.3 Before installing, operating, maintaining and repairing the product, read this manual carefully to avoid artificial damage to the circuit breaker and cause unnecessary problems.

### 6.2 Preparation before installation

6.2.1 Unpack according to the order described on the bottom of the package, do not use brutal force;

6.2.2 Remove the circuit breaker from the base plate of the package. If the circuit breaker is of withdrawable type, you can find fixing bolts inside the drawer seat, rotate the body out and clean up the drawer seat;

6.2.3 Use 500V megameter to test the insulation resistance of the circuit breaker. It shall not be lower than 20 megohm under ambient temperature of 25°C±5°C and relative humidity of 50-70%. Position for testing insulation resistance: between phases and between phase and frame when the circuit breaker is closed; between inlet and outlet cable of each phase when the circuit breaker is open.

### 6.3 Recommended busbar, power consumption and derated application of circuit breaker

#### 6.3.1 Recommendation busbar

Maximum allowable temperature of busbar: 100°C

Busbar is made of bare copper, with width and thickness in mm.

**Table 3 Recommended busbar for circuit breaker**

Frame size current	Rated current (A)	Ambient temperature (-5 ~40) °C				Ambient temperature 50°C				Ambient temperature 60 °C			
		Recommended busbar specifications				Recommended busbar specifications				Recommended busbar specifications			
		Width	Thickness	Pieces	Specification	Width	Thickness	Pieces	Specification	Width	Thickness	Pieces	Specification
1000A	200	30	5	1	30*5*1	30	5	1	30*5*1	40	5	1	40*5*1
	400	30	5	2	30*5*2	30	5	2	30*5*2	30	10	1	30*10*1
	630	40	5	2	40*5*2	40	5	2	40*5*2	50	5	2	50*5*2
	800,1000	40	5	2	40*5*2	40	5	2	40*5*2	50	5	2	50*5*2
1600A	200	30	5	1	30*5*1	30	5	1	30*5*1	40	5	1	40*5*1
	400	30	5	2	30*5*2	30	5	2	30*5*2	30	10	1	30*10*1
	630	40	5	2	40*5*2	40	5	2	40*5*2	50	5	2	50*5*2
	800	50	5	2	50*5*2	50	5	2	50*5*2	50	6	2	50*6*2
	1000	50	5	3	50*5*3	50	5	3	50*5*3	50	6	3	50*6*3
	1250	60	8	2	60*8*2	60	8	2	60*8*2	60	10	2	60*10*2
2500A	1600	60	10	2	60*10*2	60	10	2	60*10*2	60	10	3	60*10*3
	630	40	5	2	40*5*2	50	5	2	50*5*2	50	5	2	50*5*2
	800	50	5	2	50*5*2	50	5	2	50*5*2	60	5	2	60*5*2
	1000	60	5	3	60*5*3	60	5	3	60*5*3	60	5	3	60*5*3
	1250	80	5	3	80*5*3	80	5	3	80*5*3	80	5	3	80*5*3
	1600	100	5	2	100*5*2	100	5	2	100*5*2	100	5	2	100*5*2
	2000	100	5	3	100*5*3	100	5	3	100*5*3	100	5	3	100*5*3
3200A 4000A	2500	100	10	2	100*10*2	100	10	2	100*10*2	100	10	2	100*10*2
	2000	100	5	3	100*5*3	100	5	3	100*5*3	100	5	3	100*5*3
	2500	100	5	4	100*5*4	100	5	4	100*5*4	100	5	4	100*5*4
	2900	100	10	3	100*10*3	100	10	3	100*10*4	100	10	3	100*10*3
	3200	100	10	3	100*10*3	100	10	4	100*10*4	100	10	4	100*10*4
	3600,4000	100	10	4	100*10*4	100	10	4	100*10*5	120	10	4	120*10*4
6300A	4000	100	10	4	100*10*4	100	10	4	100*10*4	100	10	4	100*10*4
	5000	100	10	6	100*10*6	100	10	6	100*10*6	100	10	6	100*10*6
	6300	100	10	8	100*10*8	100	10	8	100*10*8	100	10	8	100*10*8

Table 3 (continue)

Frame size current	Rated current (A)	Ambient temperature (-5 ~40) °C				Ambient temperature 50°C				Ambient temperature 60 °C			
		Recommended busbar specifications				Recommended busbar specifications				Recommended busbar specifications			
		Width	Thickness	Pieces	Specification	Width	Thickness	Pieces	Specification	Width	Thickness	Pieces	Specification
7500A	4000	100	10	5	100*10*5	100	10	5	100*10*5	100	10	6	100*10*5
	5000	100	10	7	100*10*7	100	10	7	100*10*7	120	10	7	120*10*7
	6300	120	10	7	120*10*7	120	10	7	120*10*7	120	10	8	120*10*8
	7500	120	10	9	120*10*9	120	10	9	120*10*9	120	10	10	120*10*10

- Notes: a. If the busbar selected by user does not match with the terminals of circuit breaker, an extended busbar is needed for adaption. The extended busbar should be provided by user itself, with cross section area not smaller than the requirement in the table above. The clearance of extended busbar should not be smaller than that of circuit breaker terminals.
- b. After installing the busbar according to the table above, make sure the electric clearance between each phase is not less than 18mm.
- c. If silicon controlled electrical elements (such as high frequency induction heating furnace (medium frequency furnace for steelmaking), solid state high frequency welder (such as submerged arc welder), vacuum heating melting equipment (such as single crystal silicon growth furnace)) are used for three-phase rectification and high-frequency inversion in loading equipment, impact from ambient temperature and altitude as well as higher harmonic generated by silicon controlled electrical elements should all be considered when selecting circuit breaker. In such cases, the circuit breaker must be derated, the recommend derating factor is 0.5-0.8.
- d. After the busbar is installed, the electrical clearance between the upper and lower fixing bolts of the busbar should not be smaller than 20mm.
- e. After the circuit breaker is installed, the safety clearance between live parts of different electrical potentials and the safety clearance between live parts and earth should not be smaller than 18mm.

### 6.3.2 Power consumption and input/output resistance

Power consumption is measured under  $I_n$ , 50/60Hz for each pole.

Table 4 Power consumption of circuit breaker

Frame size	Rated current (A)	Power consumption of withdrawable type (W)	Power consumption of fixed type (W)
1000A	400	161	100
	630	140	80
	1000	<b>171</b>	<b>145</b>
1600A	200	115	45
	400	140	80
	630	161	100
	800	215	110
	1000	230	120
	1250	250	130
	1600	460	220
2500A	630	58.6	26.4
	800	73.7	36.6
	1000	172	78
	1250	268	122
	1600	440	200
	2000	<b>360</b>	<b>240</b>
	2500	600	312
3200A 4000A	2000	470	250
	2500	550	280
	3200	670	420
	4000	<b>560</b>	<b>420</b>
6300A	4000	1047	656
	5000	<b>1220</b>	<b>920</b>
	6300	<b>1220</b>	<b>920</b>
7500A	4000	550	-
	5000	590	-
	6300	950	-
	7500	1500	-

6.3.3 Circuit breaker derating

a) Circuit breaker derating under different temperature

**Table 5 Temperature derating table for WEM1-1600**

Ambient temperature	200A		400A		630A		800A		1000A		1250A		1600A	
Connection method	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
40°	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45°	-	-	-	-	-	-	-	-	-	-	-	-	1550	-
50°	-	-	-	-	-	-	-	-	-	-	-	-	1500	1550
55°	-	-	-	-	-	-	-	-	950	950	1150	1200	1450	1500
60°	-	-	-	-	550	580	700	700	900	900	1050	1100	1350	1450

**Table 6 Temperature derating table for WEM1-2500**

Ambient temperature	630A		800A		1000A		1250A		1600A		2000A		2500A	
Connection method	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
40°	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45°	-	-	-	-	-	-	-	-	-	-	1900	-	2400	2400
50°	-	-	-	-	-	-	-	-	1500	1550	1850	1900	2300	2300
55°	-	-	-	-	-	-	-	-	1400	1450	1800	1800	2200	2200
60°	-	-	-	-	-	-	-	-	1300	1350	1700	1700	2100	2100

**Table 7 Temperature derating table for WEM1-4000**

Ambient temperature	1600A		2000A		2500A		3200A		4000A	
Connection method	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
40°	-	-	-	-	-	-	-	-	-	-
45°	-	-	-	-	-	-	-	-	3800	3850
50°	-	-	-	-	-	-	3100	-	3600	3650
55°	-	-	-	-	2450	-	3000	3050	3400	3450
60°	-	-	1900	1950	2350	2400	2900	2950	3200	3250

**Table 8 Temperature derating table for WEM1-7500**

Ambient temperature	4000A		5000A		6300A		7500A	
Connection method	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
40°	-	-	4600	-	/	-	/	-
45°	-	-	-	-	/	6100	/	7000
50°	-	-	-	4800	/	6000	/	6550
55°	3900	3900	4700	4650	/	5500	/	6050
60°	3800	3800	4400	4500	/	5200	/	5650

Note: "-" means no derating; "/" means no horizontal connection.



## b) Circuit breaker derating under different altitudes

Table 9 Voltage correction table under different altitudes

Altitude (m)		2000	3000	4000	5000
Rate impulse withstand voltage (kV)	Uimp	12	10	8.5	7.5
Insulation class (V)	Ui	1000	800	700	600
Power frequency withstand voltage (V)		2200	1955	1760	1600
Maximum operating voltage (V)	Ue	690	580	500	400

Table 10 Current correction table under different altitudes

Altitude (m)	Rated operating current (Ie)
2000	1.0Ie
2500	0.93Ie
3000	0.88Ie
3500	0.83Ie
4000	0.78Ie
4500	0.73Ie
5000	Must confirm with manufacturer

Note: If ambient temperature is lower than 40 °C,  $I_e = I_n$ ; if ambient temperature is higher than 40 °C,  $I_e \neq I_n$ ,  $I_e$  and  $I_n$  should be referred to according to temperature derating table.

## 6.4 Circuit breaker installation

## a. Fixed type circuit breaker installation

Place the circuit breaker in the cabinet, use 4 M6 ( $I_{nm}=1600A$ ) or M10 ( $I_{nm}=2500A$  and above) bolts and washers to fix the circuit breaker.

The circuit breaker should be secured properly, without additional mechanical force, to avoid damage of circuit breaker or poor contact of main bus.

## b. Withdrawable type circuit breaker installation

Draw the circuit breaker body out of the drawer seat, install the drawer seat in the cabinet, use 4 M6 ( $I_{nm}=1600A$ ) or M10 ( $I_{nm}=2500A$  and above) bolts and washers to fix the circuit breaker.

The circuit breaker should be secured properly, without additional mechanical force, to avoid damage of circuit breaker or poor contact of main bus and secondary circuit. Then, install the body back into the drawer seat.

## 6.5 Interval

Leave sufficient space for ventilation in the cabinet, the spacer for upper and lower connectors of circuit breaker must be made of non-magnetic material.

### 6.6 Busbar fixation

The busbar must be fixed with proper torque by using bolts and nuts, too big or too small torque is not allowed. Too big torque may cause bolts to slip which makes it difficult to tighten the bolts; too small torque may cause misalignment of bolts and nuts which leads to poor fastening and may cause excessive temperature rise. For circuit breaker connections, the data of torque tightening is applicable to copper busbar and steel bolts and nuts, with grade $\geq$ 8.8, it is also applicable aluminum busbar.

1. Circuit breaker terminal
2. Busbar
3. Bolt
4. Washer
5. Nut
6. Elastic washer

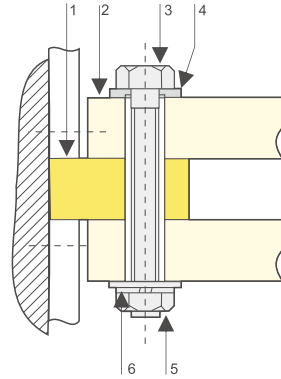


Figure 6.6-1 Diagram of busbar fixing

#### Recommended installation method

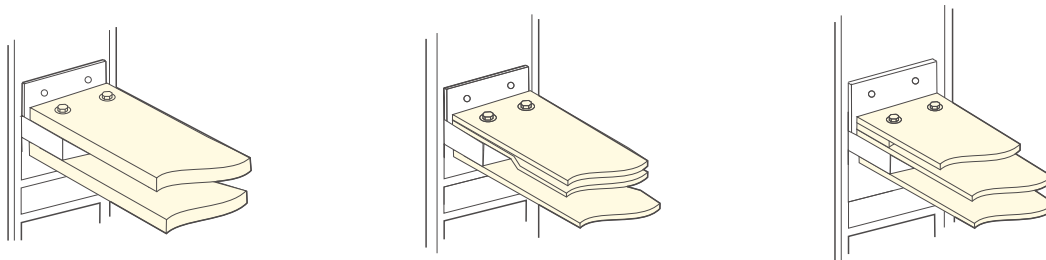


Figure 6.6-2 Recommended installation diagram of busbar

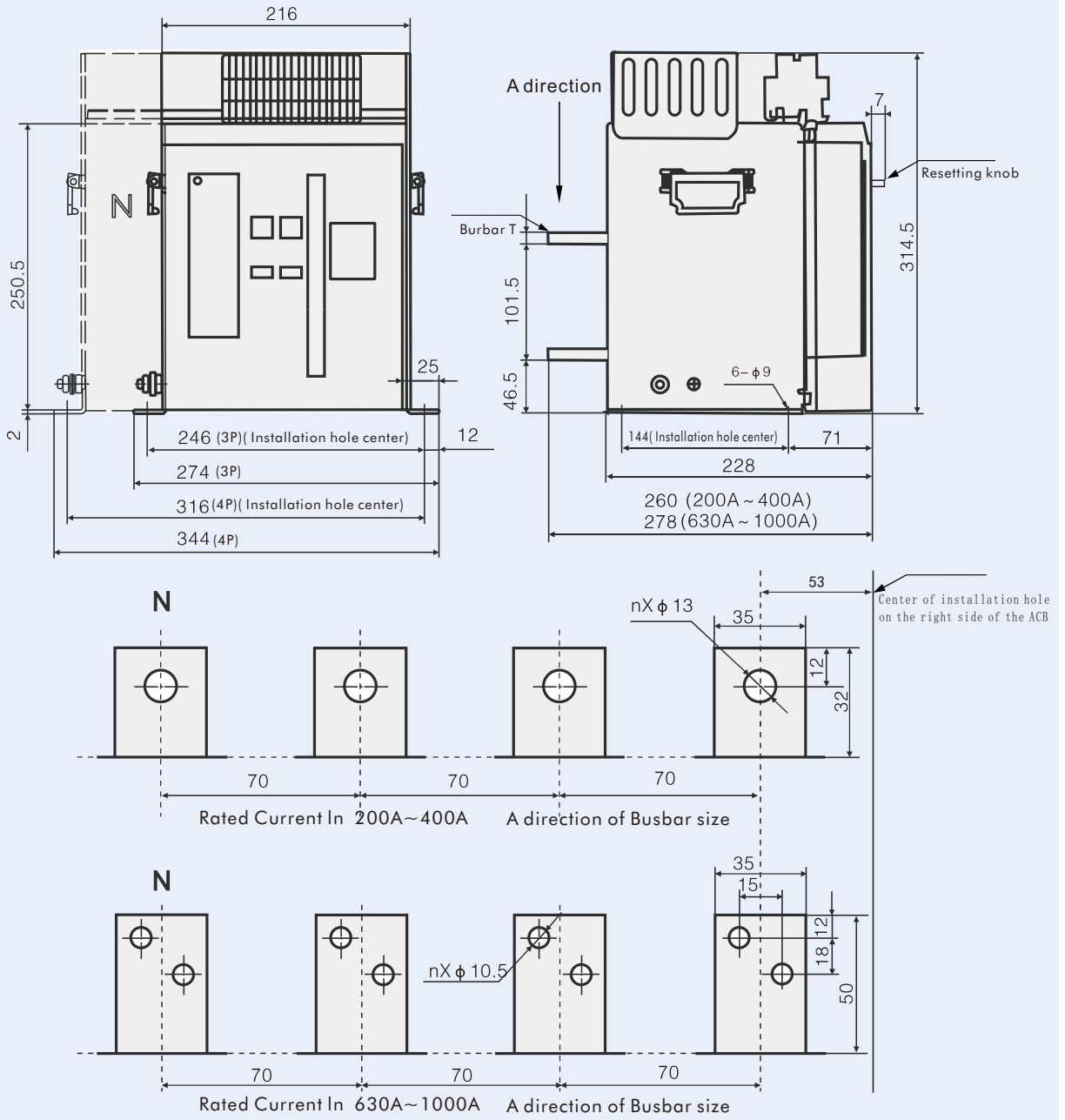
Table 11 Tightening torque for circuit breaker

Bolt type	Application	Preferred tightening torque
M3	Secure secondary connection cable	(0.5~0.7) N·m
M8 (only with flat washer)	Secure the product to cabinet (1600A frame size)	(18~25) N·m
M10 (only with flat washer)	Secure the product to cabinet (2500A frame size and above)	(25~40) N·m
M10	Secure busbar	(36~52) N·m

## 7. Installation dimensions of air circuit breakers

WEW1-1000 Fixed type of ACB 3P/4P(200A-1000A)

Unit (mm)



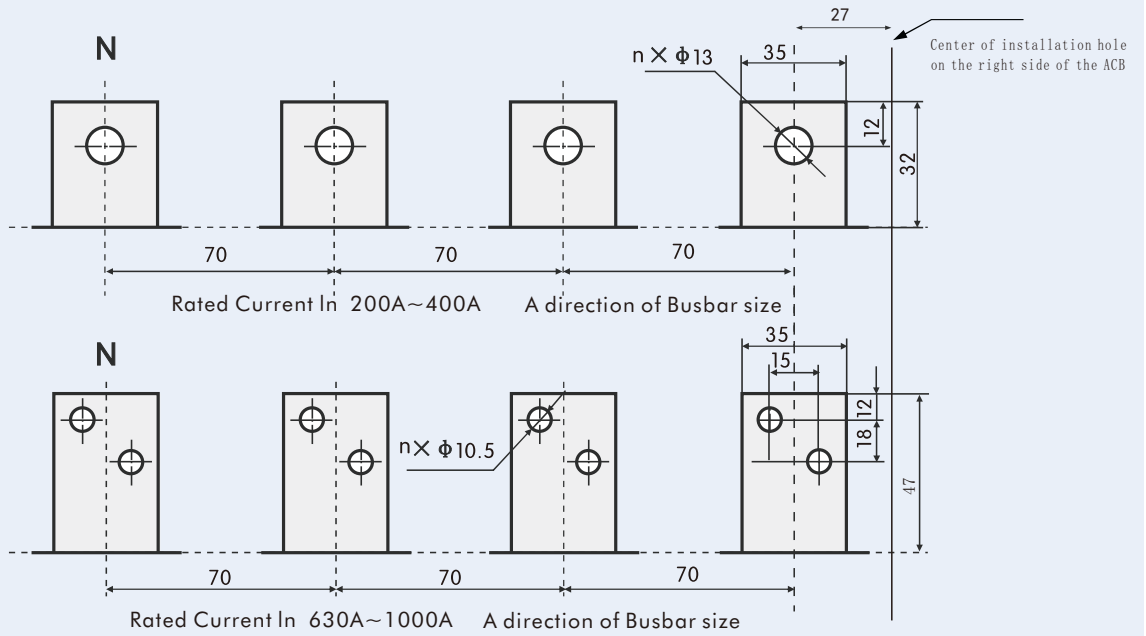
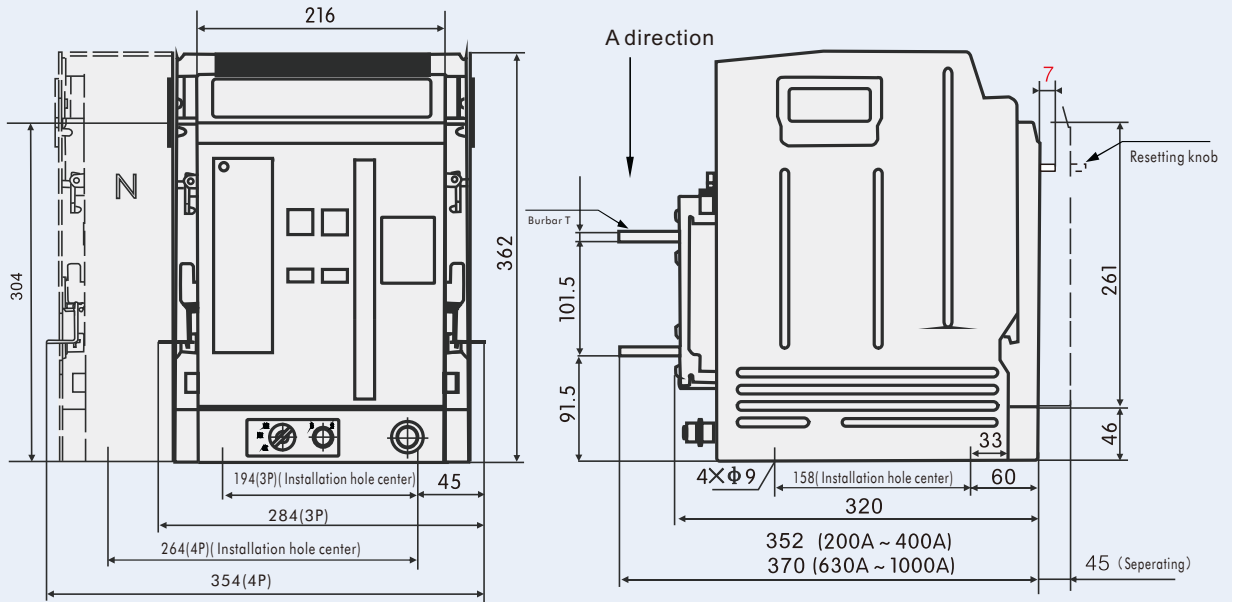
Rated Current In A	200、400	630	800、1000	Note
Busbar T(mm)	6	8	10	—
n (total pcs of the hole)	6	12	12	3P
	8	16	16	4P

CSDW1-1000型 200A~1000A固定式断路器



WEW1-1000 withdrawable type of ACB 3P/4P(200A-1000A)

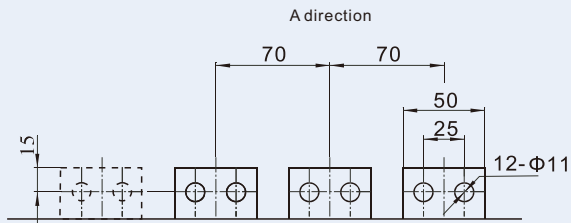
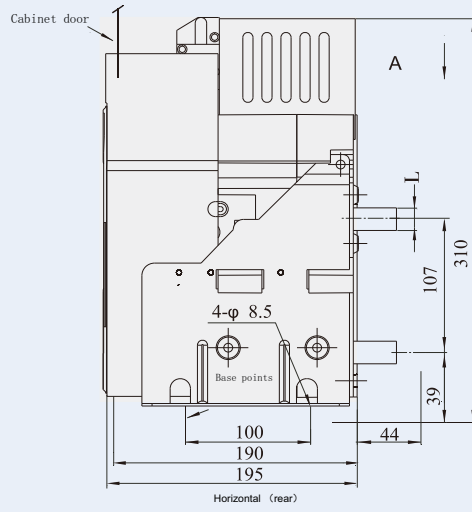
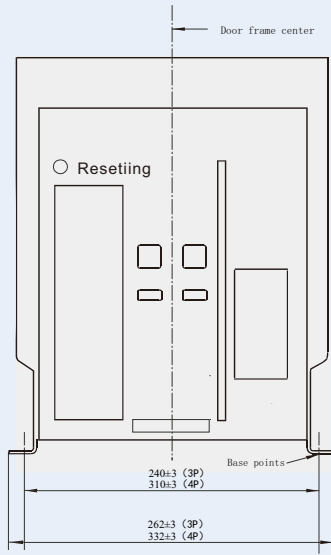
Unit (mm)



Rated Current In A	200、400	630	800、1000	Note
Burbar T(mm)	6	8	10	—
n (total pcs of the hole)	6	12	12	3P
	8	16	16	4P

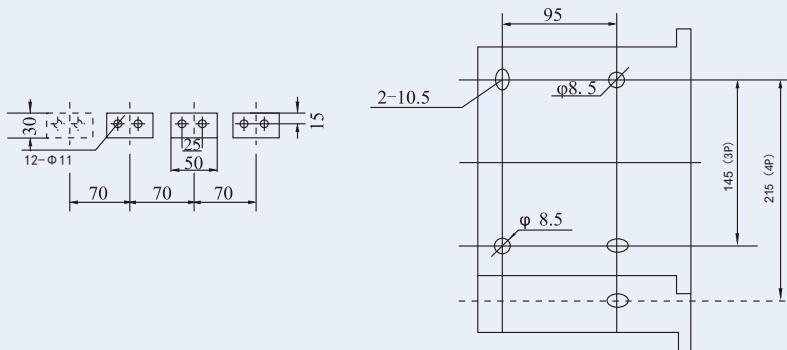
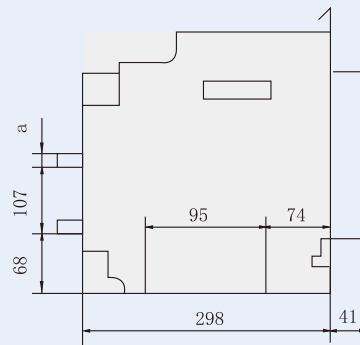
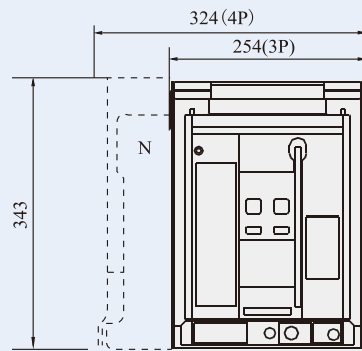
WEW1-1600 Fixed type of ACB 3P/4P (200A-1600A)

Unit (mm)



ln	a mm
200-1000A	10
1250-1600A	18

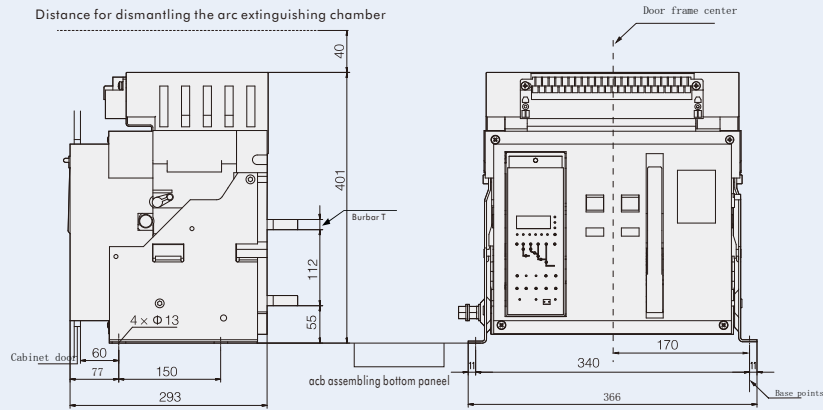
WEW1-1600 withdrawable type of ACB 3P/4P (200A-1600A)



ln	a mm
200-1000A	10
1250-1600A	18

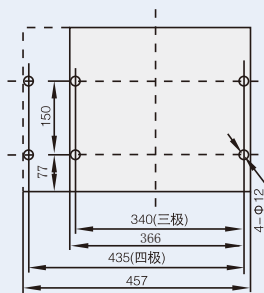
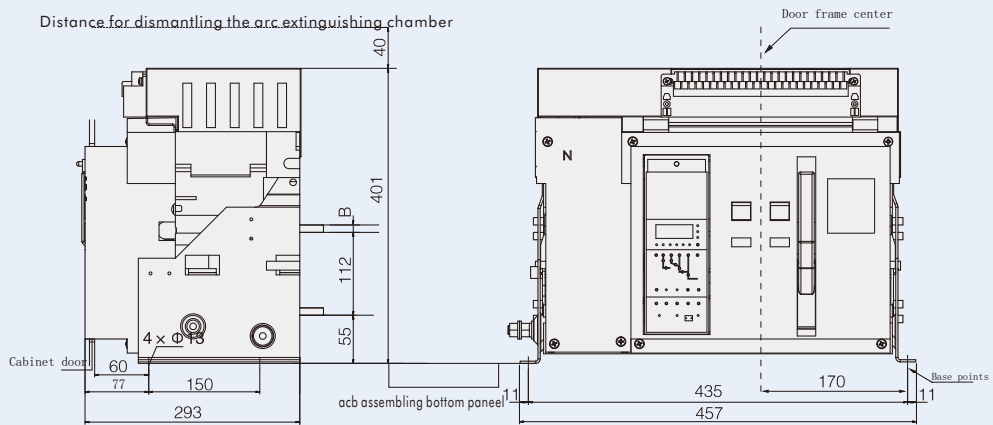
WEW1-2000 Fixed type of ACB 3P (630A-2000A)

Unit (mm)



WEW1-2000 Fixed type of ACB 4P (200A-1600A)

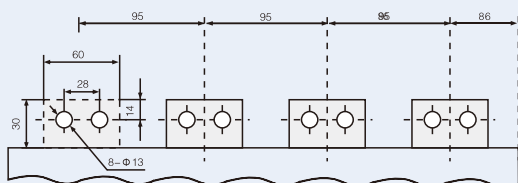
Unit (mm)



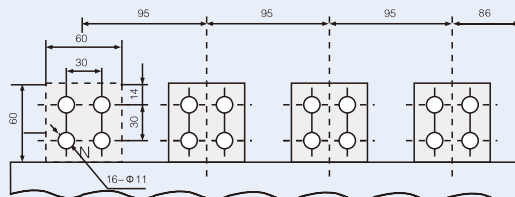
Rated Current In A	Burbar T(mm)
630~800	10
1000~1600	15
2000	20

Rated Current In A	Forward direction type assembling wire C(mm)	
	Standard	Extended
630~800	45	75
1000~1600	55	85
2000	65	95

Standard type of Horizontal wiring

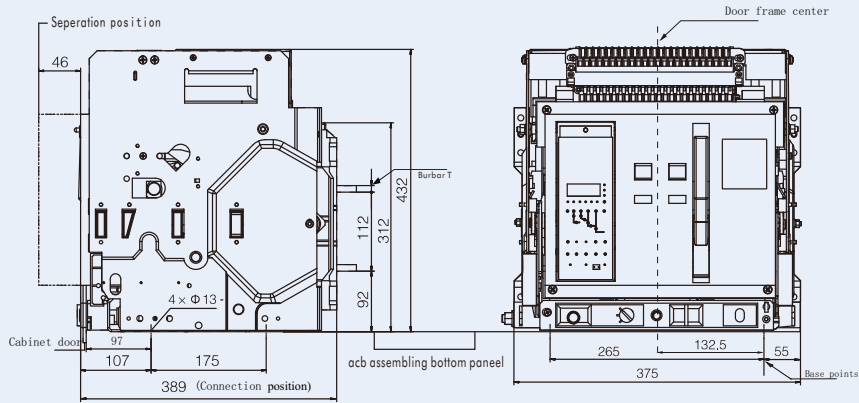


Extended type of Horizontal wiring



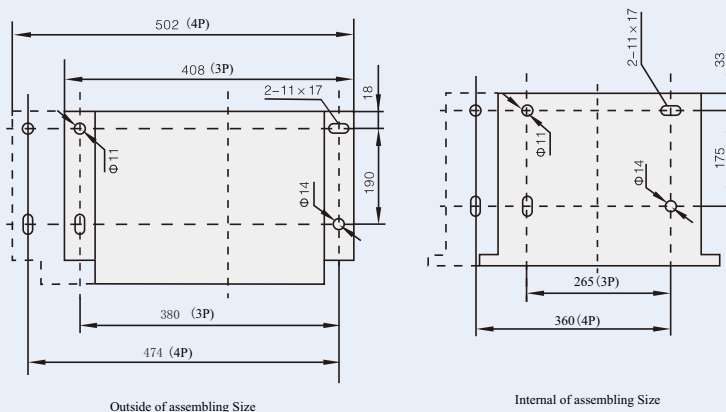
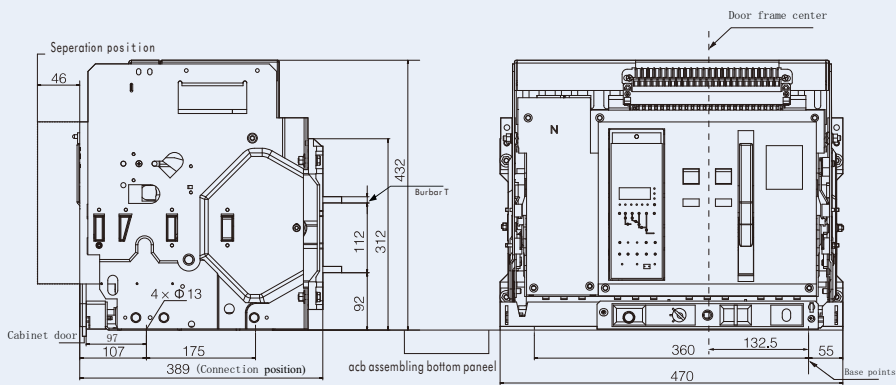
WEW1-2000 withdrawable type of ACB 3P(630A-2000A)

Unit (mm)



WEW1-2000 withdrawable type of ACB 4P(200A-1600A)

Unit (mm)

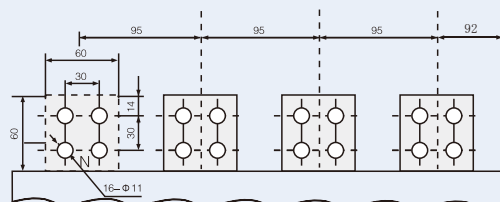
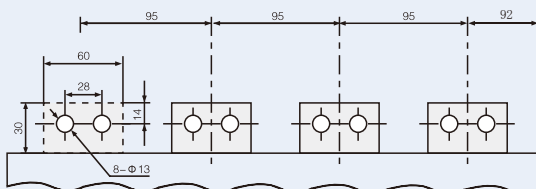


Rated Current In A	Forward direction type assembling wire C(mm)	
	Standard	Extended
630~800	45	75
1000~1600	55	85
2000	65	95

Rated Current In A	Burbar T(mm)
630~800	10
1000~1600	15
2000	20

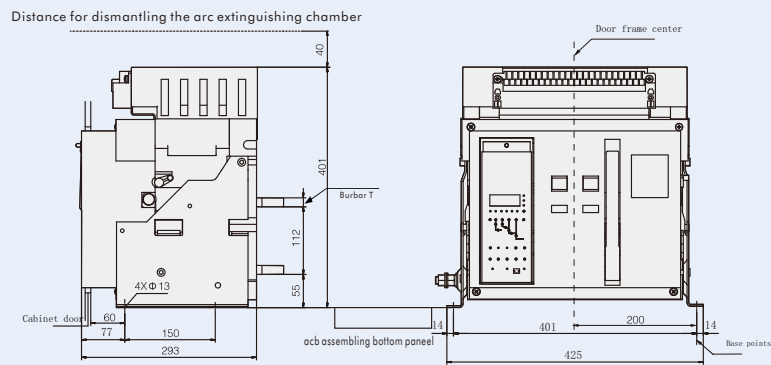
Standard type of Horizontal wiring

Extended type of Horizontal wiring



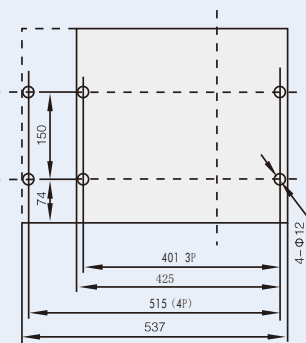
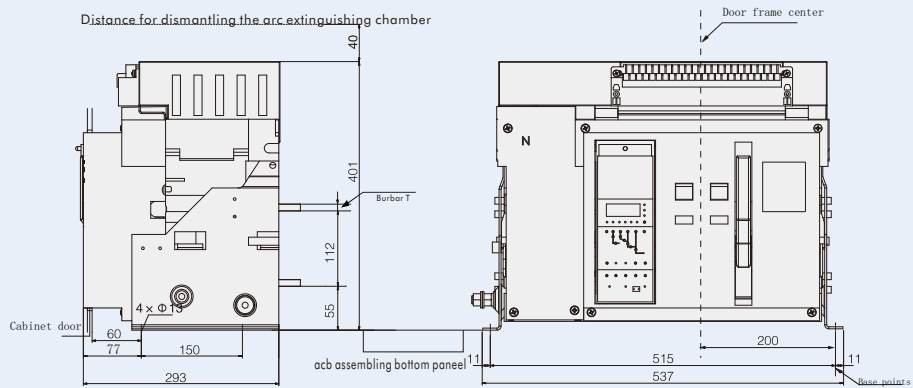
WEW1-3200 fixed type of ACB 3P(2000A-4000A)

Unit (mm)



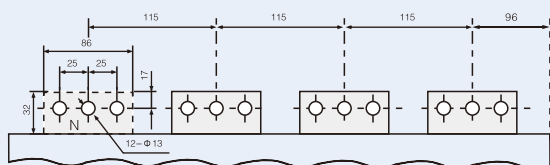
WEW1-3200 fixed type of ACB 4P(2000A-4000A)

Unit (mm)

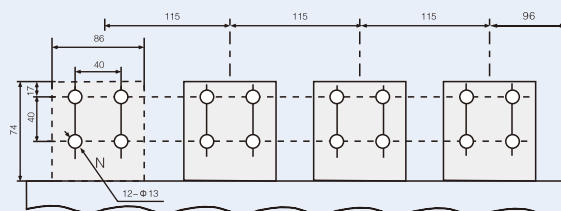


Rated Current In A	Burbar T(mm)
2000 2500	20
2900 3200	30

Standard type of Horizontal wiring



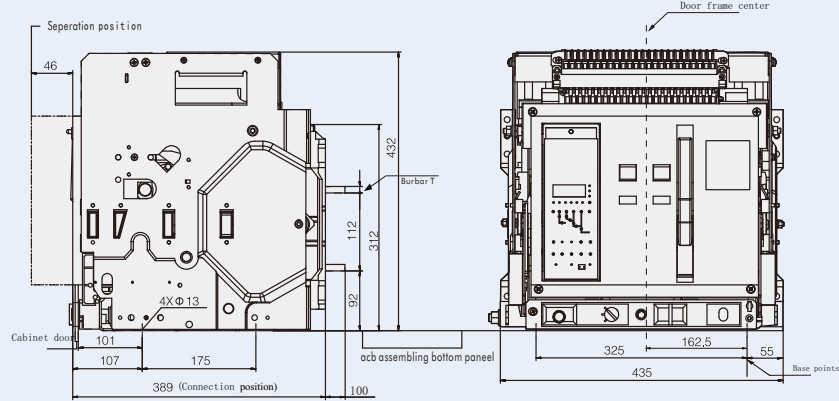
Extended type of Horizontal wiring





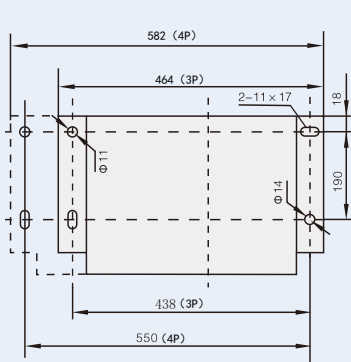
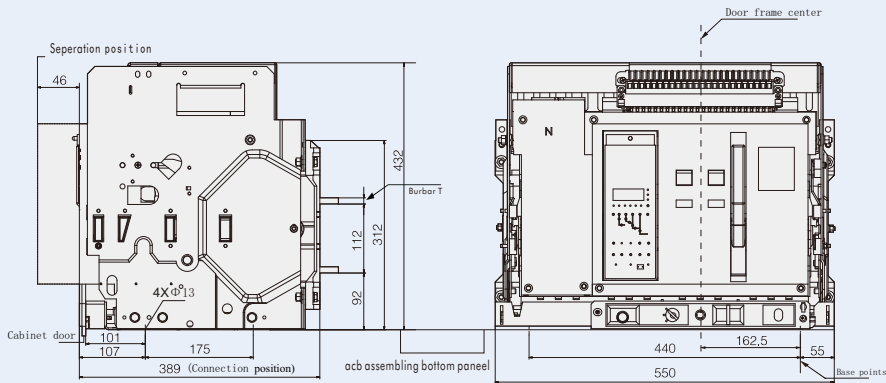
WEW1-3200 withdrawable type of ACB 3P(2000A-4000A)

Unit (mm)

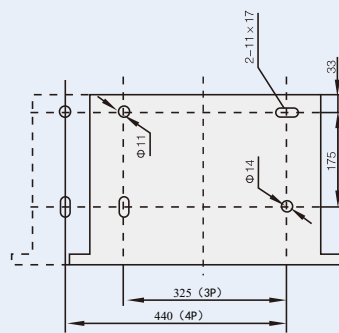


WEW1-3200 withdrawable type of ACB 4P(2000A-4000A)

Unit (mm)



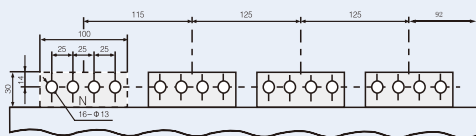
Outside of assembling Size



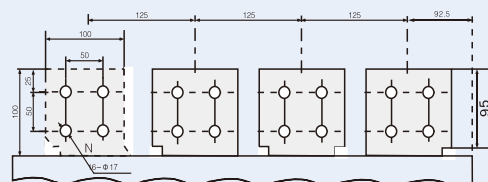
Internal of assembling Size

Rated Current In A	Burbar T(mm)
2000 2500	20
2900 3200	30

Standard type of Horizontal wiring

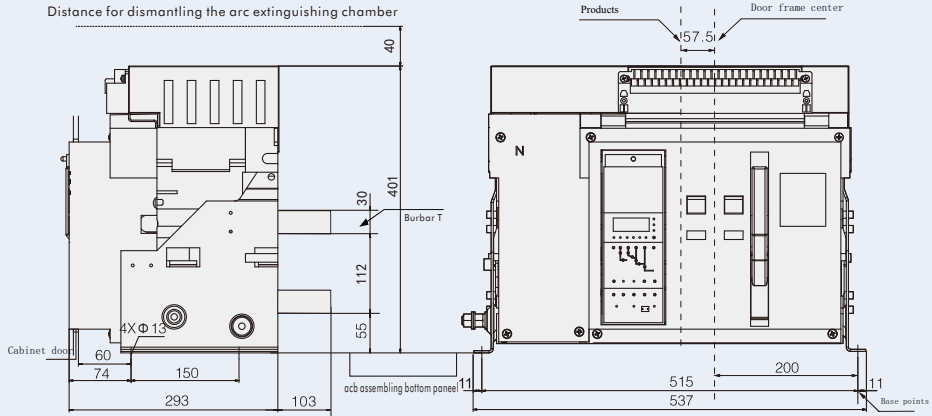


Extended type of Horizontal wiring



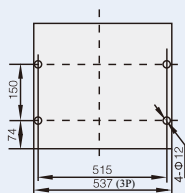
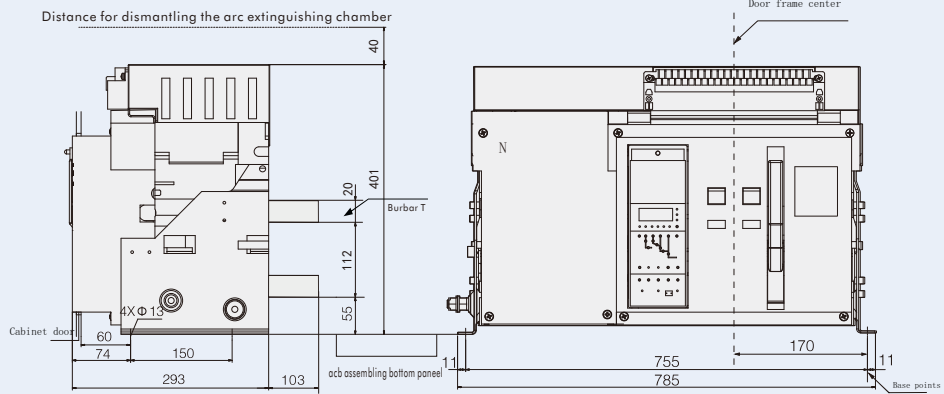
center  
WEW1-4000 fixed type of ACB 3P (3200A-4000A)

Unit (mm)

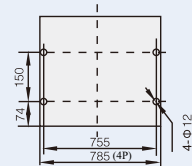


WEW1-4000 fixed type of ACB 4P (3200A-4000A)

Unit (mm)



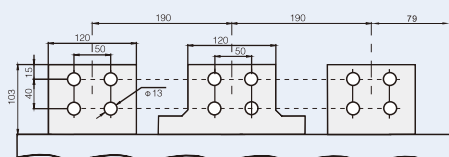
internal of assembling Size



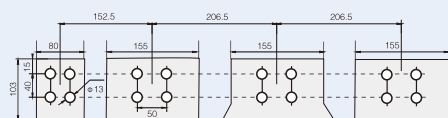
internal of assembling Size

Rated Current In A	Burbar T(mm)
3200, 3600	30
3900, 4000	

Standard type of Horizontal wiring 3P

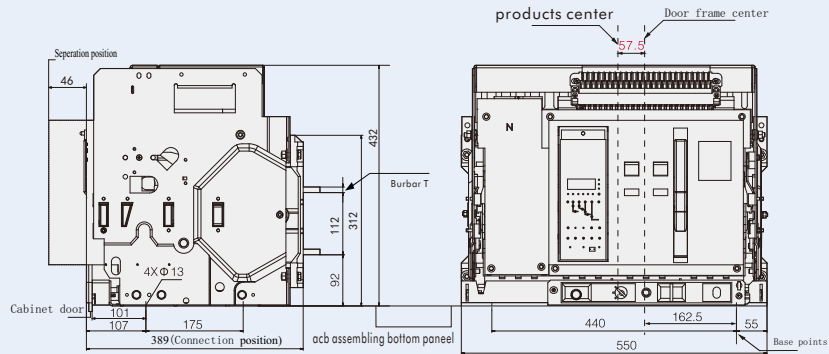


Standard type of Horizontal wiring 4P



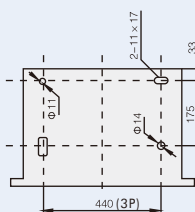
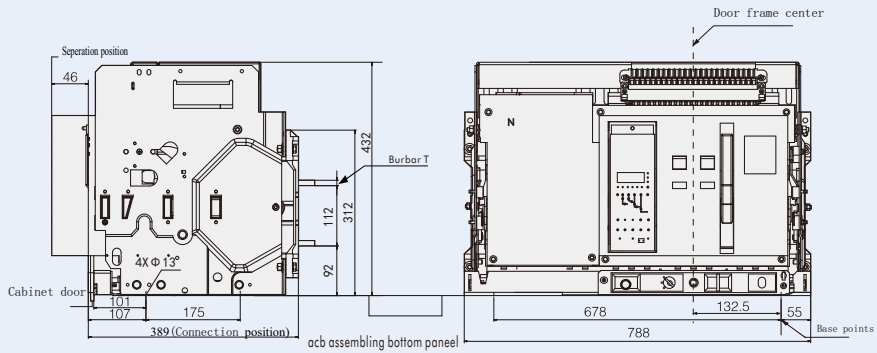
WEW1-4000 withdrawable type of ACB 3P(3200A-4000A)

Unit (mm)

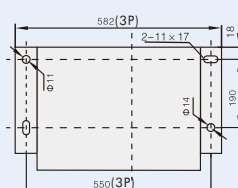


WEW1-4000 withdrawable type of ACB 4P(3200A-4000A)

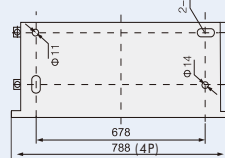
Unit (mm)



internal of assembling Size



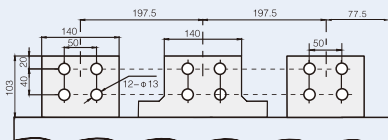
Outside of assembling Size



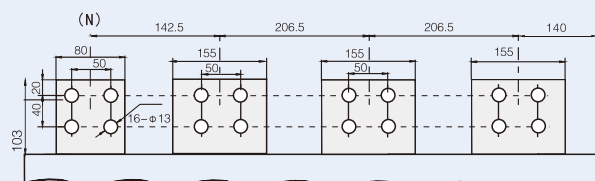
Outside of assembling Size

Rated Current In A	Burbar T(mm)
3200、3600	30
3900、4000	

Standard type of Horizontal wiring 3P

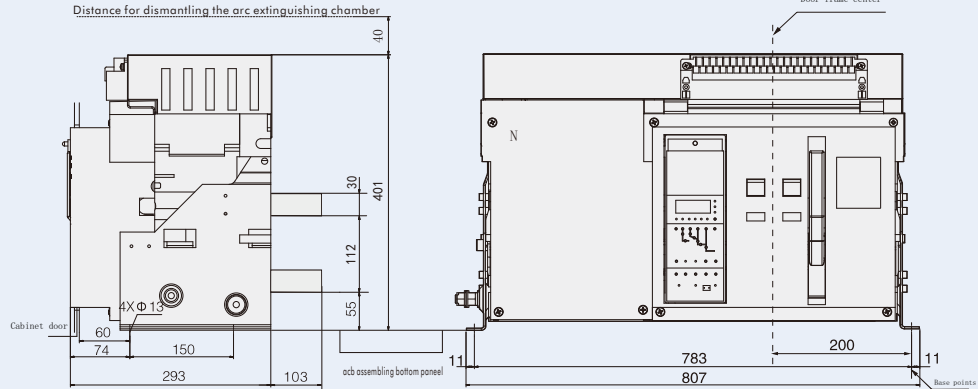


Standard type of Horizontal wiring 4P



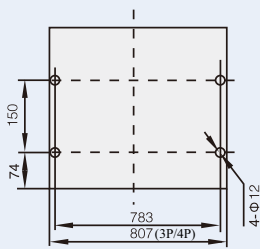
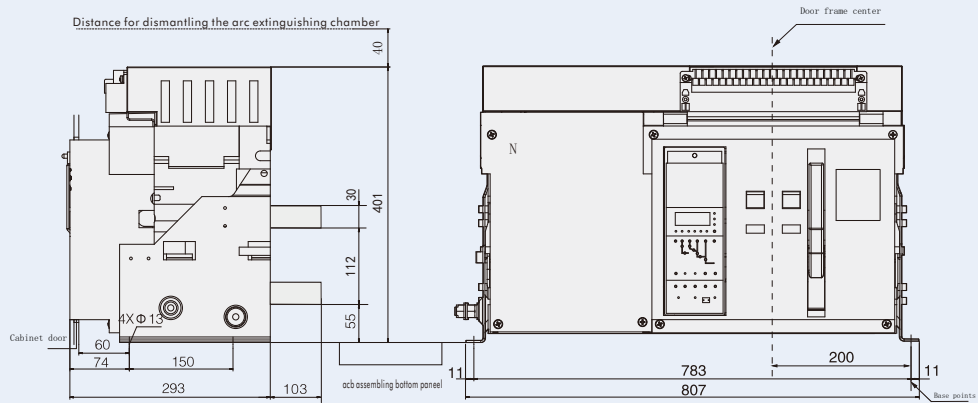
WEW1-5000 fixed type of ACB 3P(4000A-5000A)

Unit (mm)



WEW1-5000 fixed type of ACB 4P(4000A-5000A)

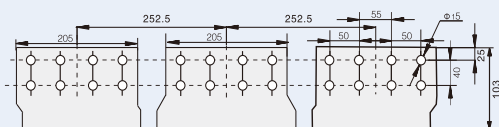
Unit (mm)



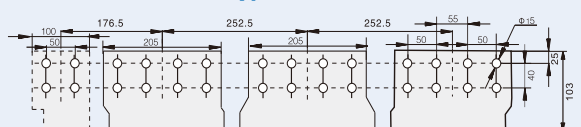
internal of assembling Size

Rated Current In A	Burbar T(mm)
4000	20
5000	30

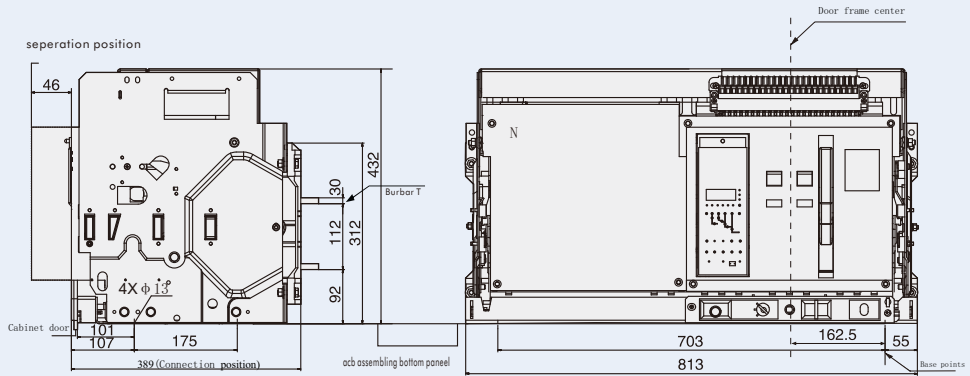
Standard type of Horizontal wiring 3P



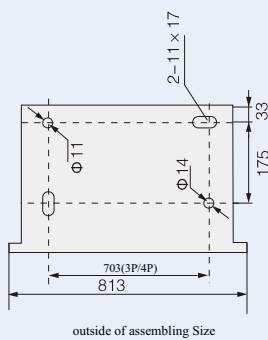
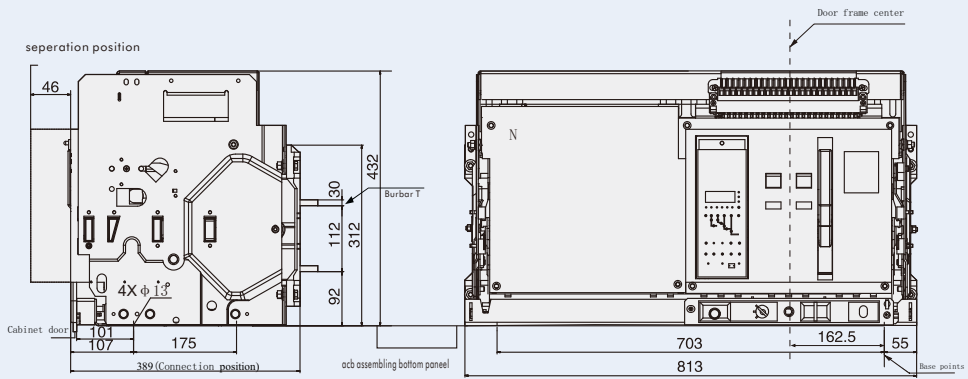
Standard type of Horizontal wiring 4P



WEW1-5000 withdrawable type of ACB 3P(4000A-5000A)

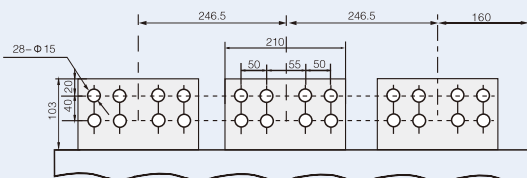


WEW1-5000 withdrawable type of ACB 4P(4000A-5000A)

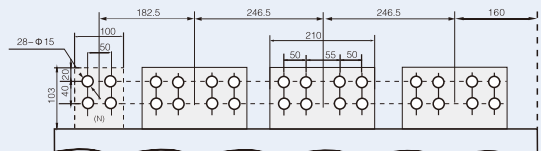


Rated Current In A	Burbar T(mm)
4000	20
5000	30

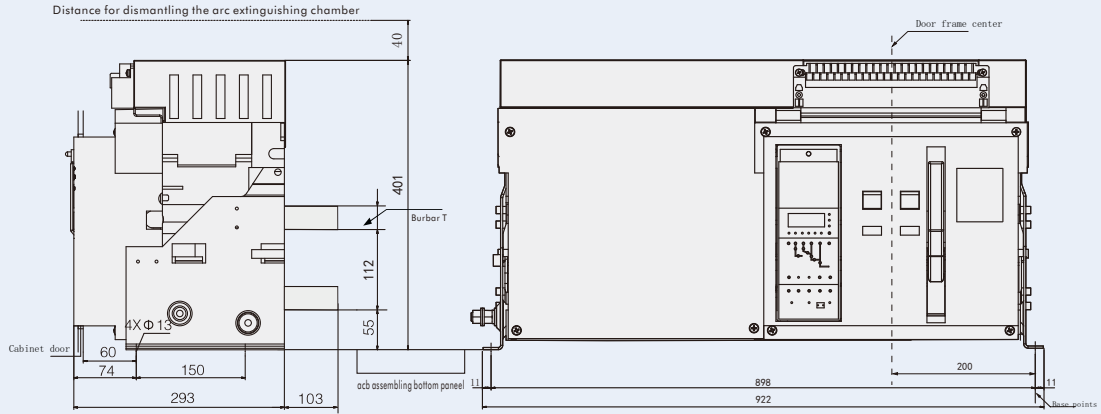
Standard type of Horizontal wiring 3P



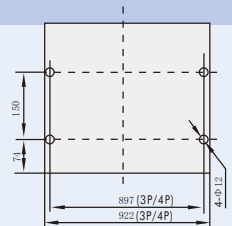
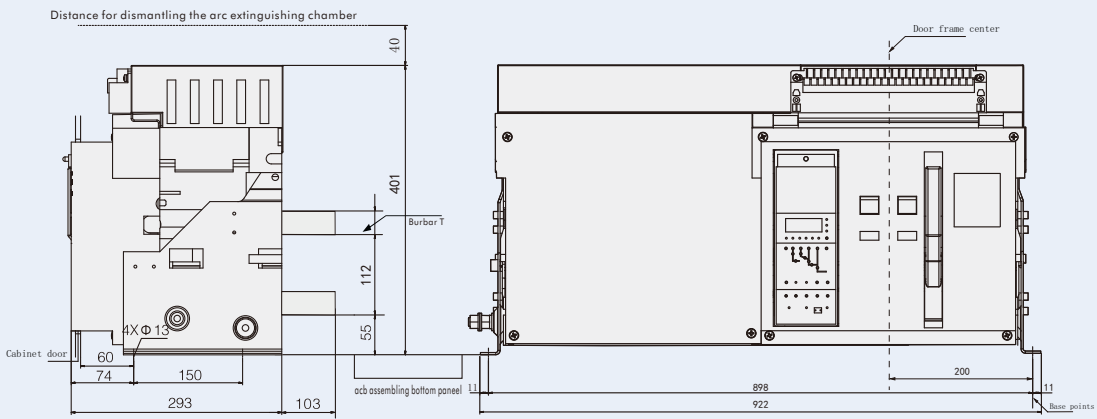
Standard type of Horizontal wiring 4P



WEW1-6300 fixed type of ACB 3P(4000A-6300A)

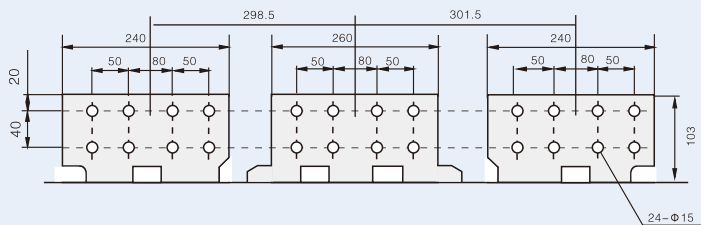


WEW1-6300 fixed type of ACB 4P(4000A-6300A)

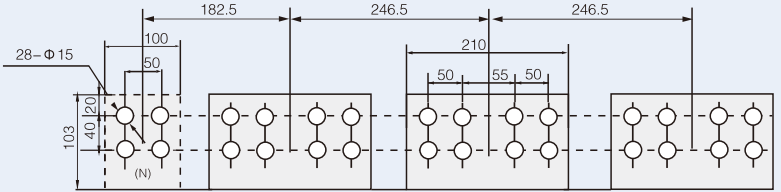


Rated Current In A	Burbar T(mm)
4000	20
5000、6300	30

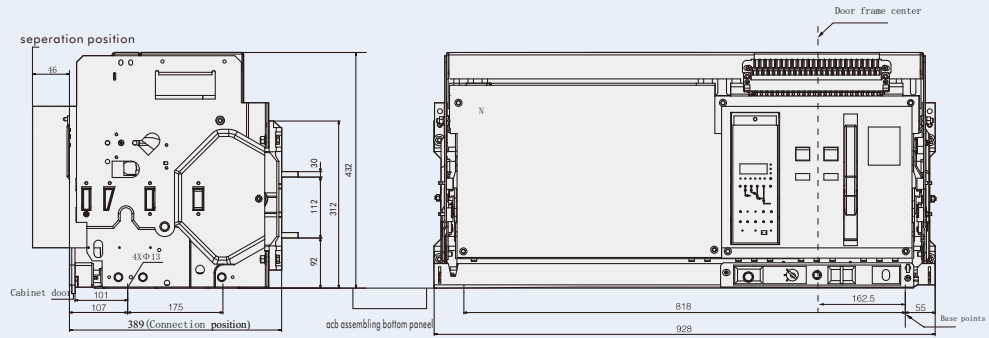
Standard type of Horizontal wiring 3P



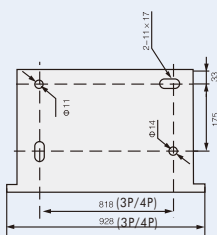
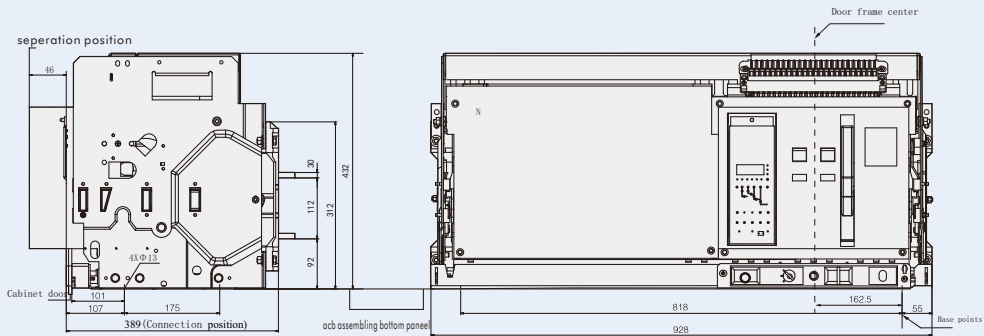
Standard type of Horizontal wiring 4P



WEW1-6300 withdrawable type of ACB 3P(4000A-6300A)

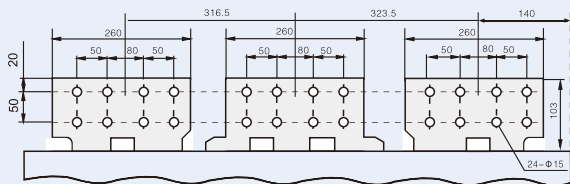


WEW1-6300 withdrawable type of ACB 4P(4000A-6300A)

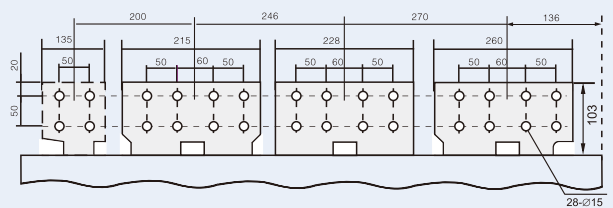


Rated Current In A	Burbar T(mm)
4000	20
5000、6300	30

Standard type of Horizontal wiring 3P

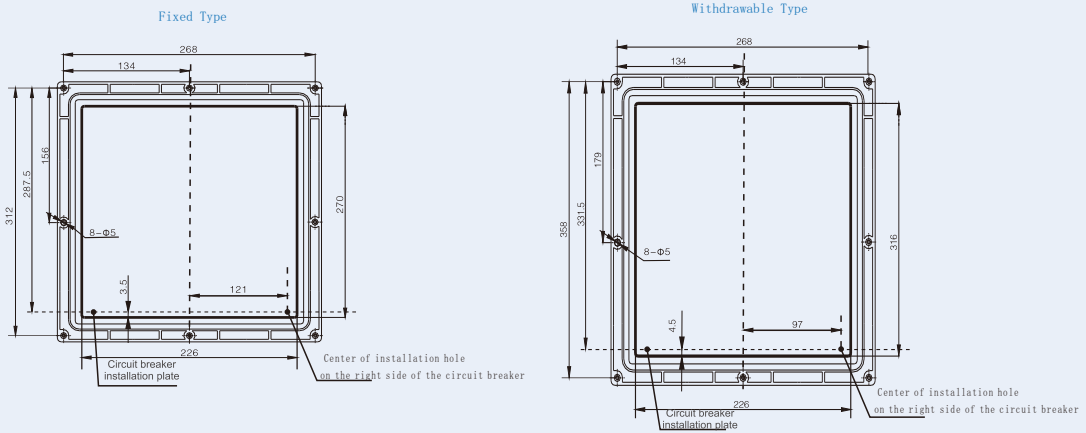


Standard type of Horizontal wiring 4P

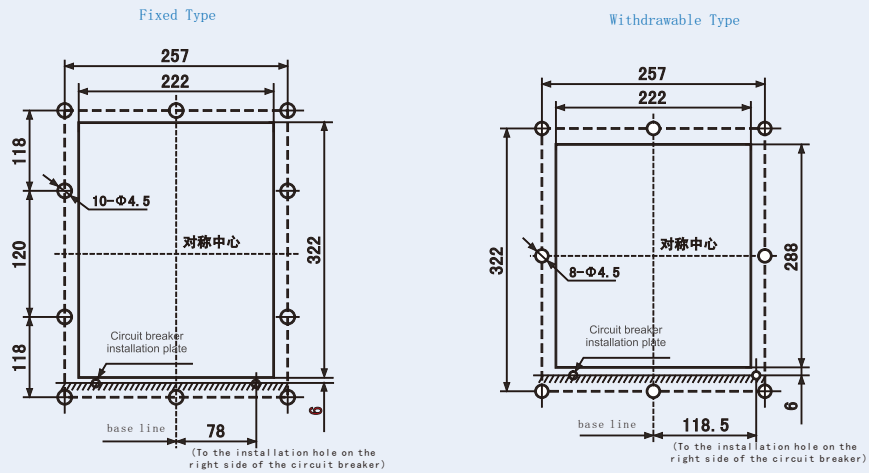


## 8. Door frame size and installation hole spacing

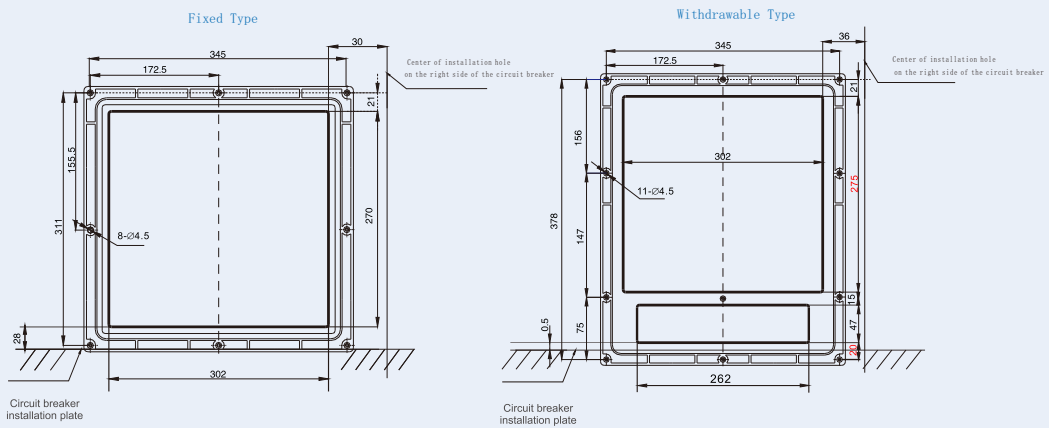
WEW1-1000 (200-1000A) 3P/4P Hole size of the panel



WEW1-1600 (200-1600A) 3P/4P Hole size of the panel

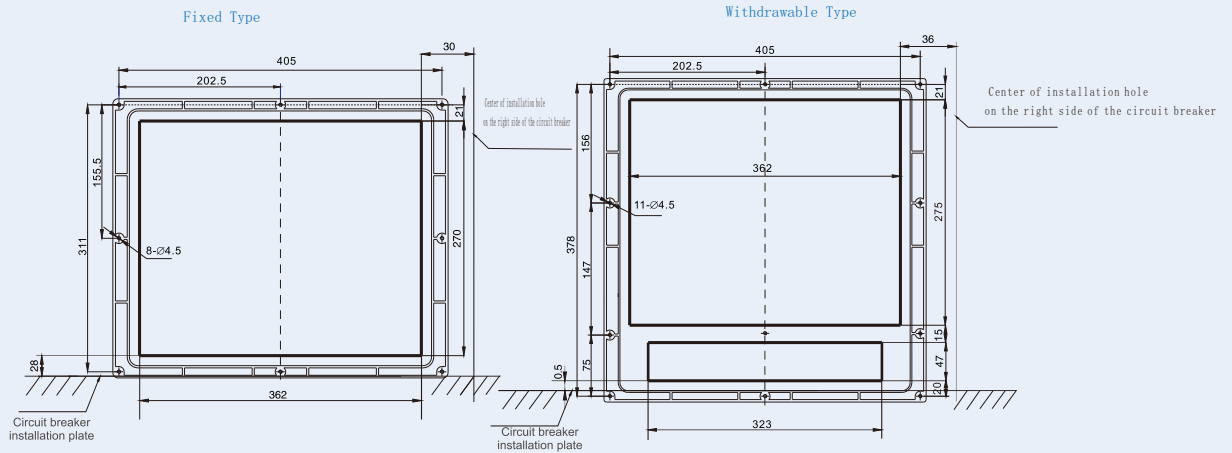


WEW1-2000 (630-2000A) 3P/4P Hole size of the panel

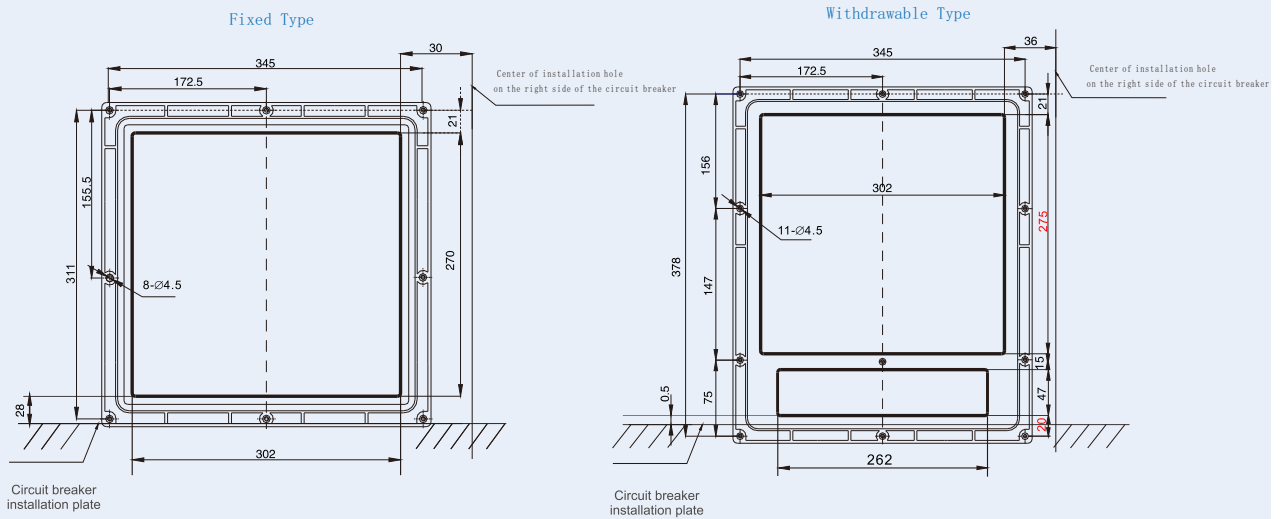




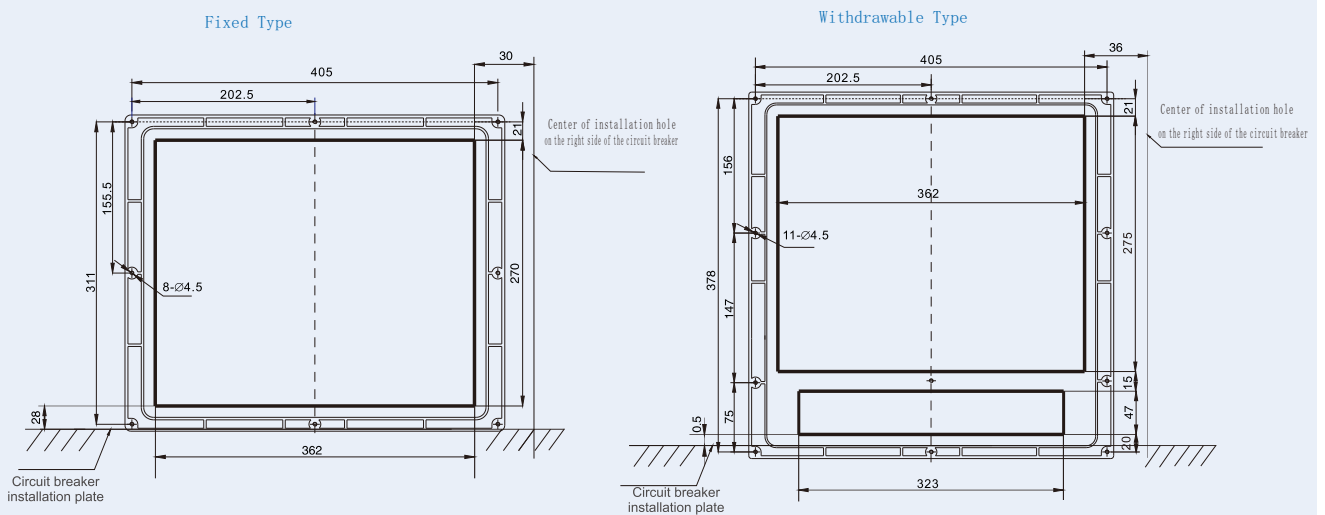
WEW1-3200 (2000-3200A) 3P/4P Hole size of the panel



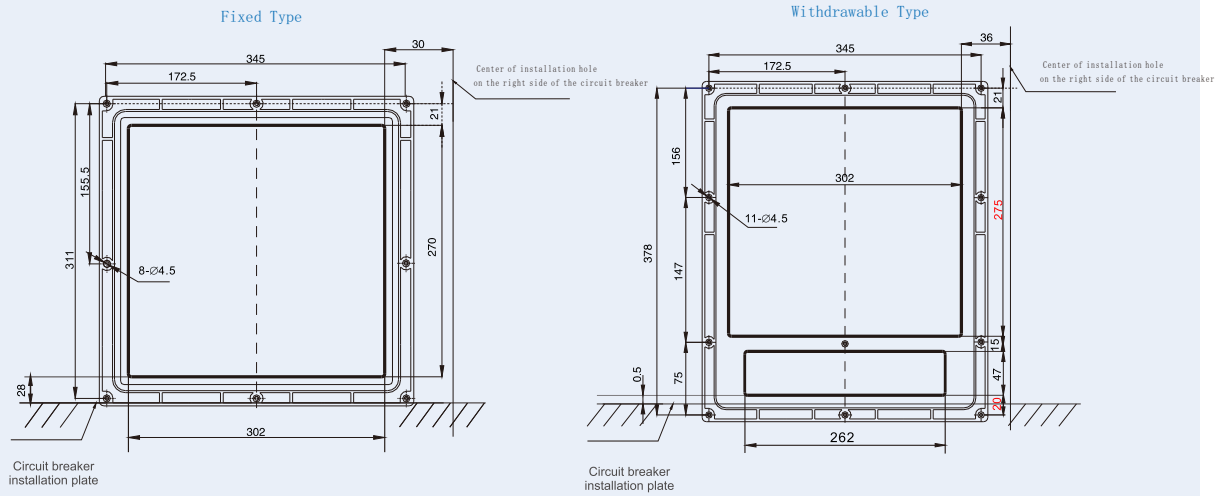
WEW1-4000 (3200-4000A) 3P/4P Hole size of the panel



WEW1-5000 (4000-5000A) 3P/4P Hole size of the panel



WEW1-6300 (4000-6300A) 3P/4P Hole size of the panel



### 9. Overall dimensions of earth current transformer

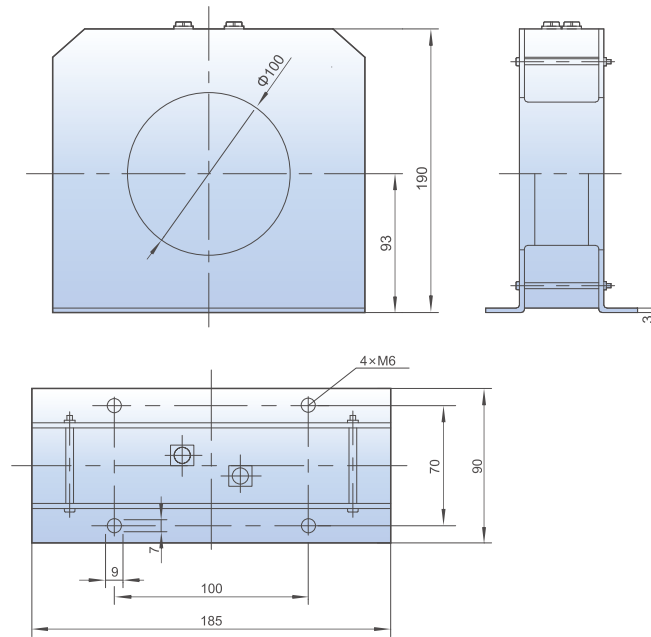
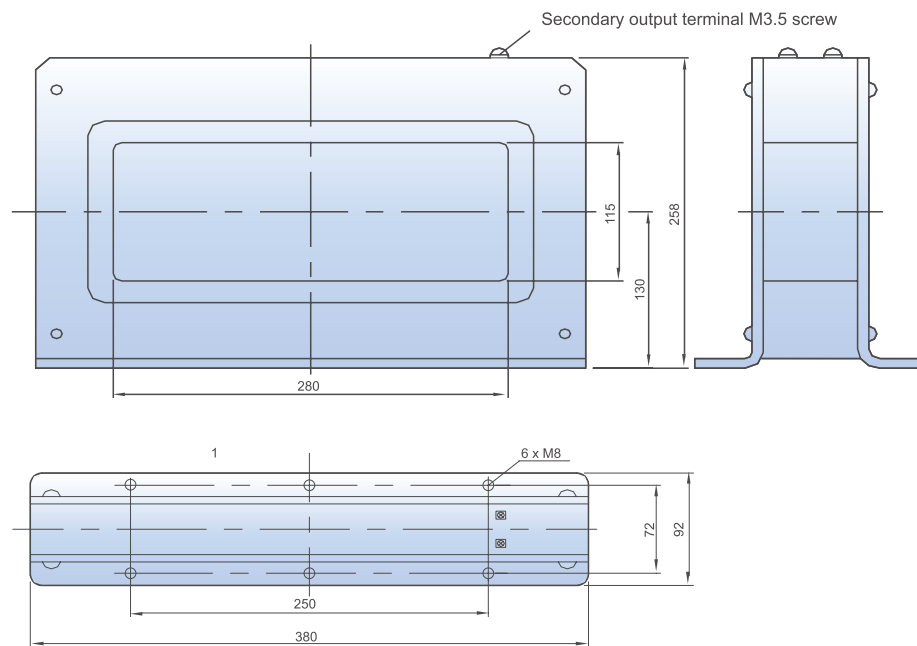


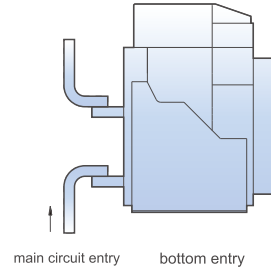
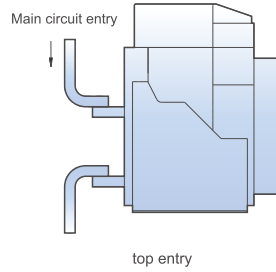
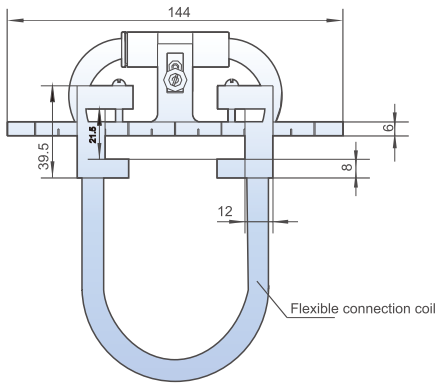
Figure 7.10 Overall dimensions of earth current transformer



Note: Circuit breaker with leakage transformer must use vertical bus connection

Figure 7.11 Overall dimensions of leakage protection transformer

Front view



Note: 1. Neutral transformer should be installed at the entry end of circuit breaker, with its flexible cable side facing towards the entry direction of main circuit.  
 2. When the rated current is 200A-630A, the transformer needs to be wrapped around the busbar twice to be used normally

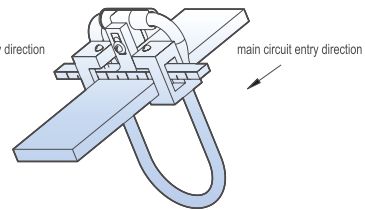
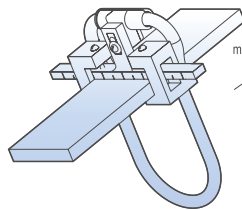


Figure 7.12 Overall dimensions of neutral pole current transformer

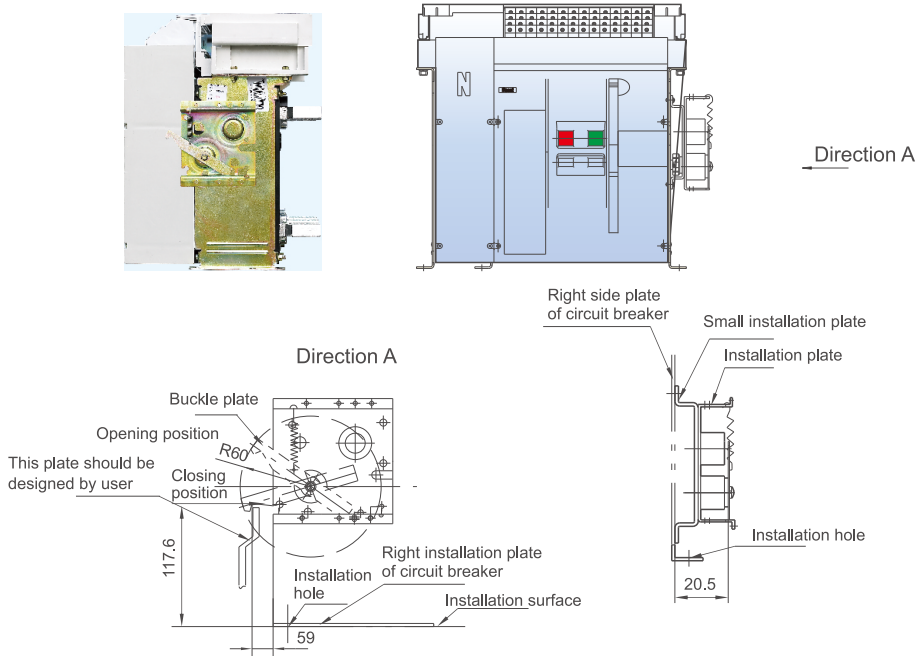


Figure 7.13 WEW1-1600 fixed type circuit breaker status door interlock installation dimensions

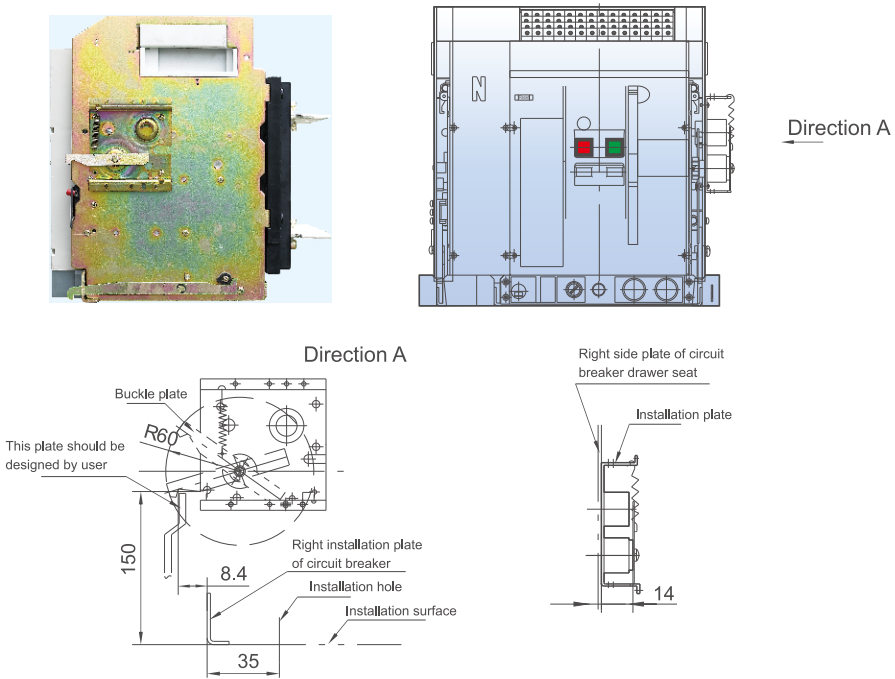


Figure 7.14 WEW1-1600 withdrawable type circuit breaker status door interlock installation dimensions

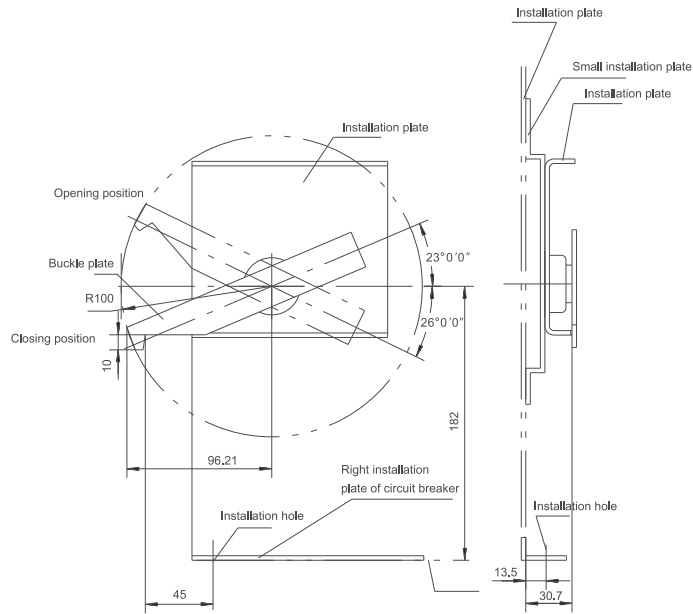


Figure 7.15 WEW1 -2500~4000 fixed type circuit breaker status door interlock installation dimensions

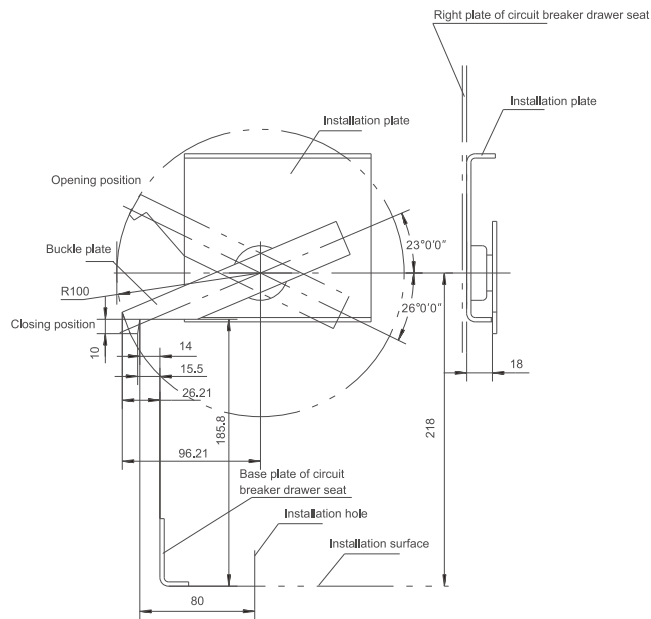
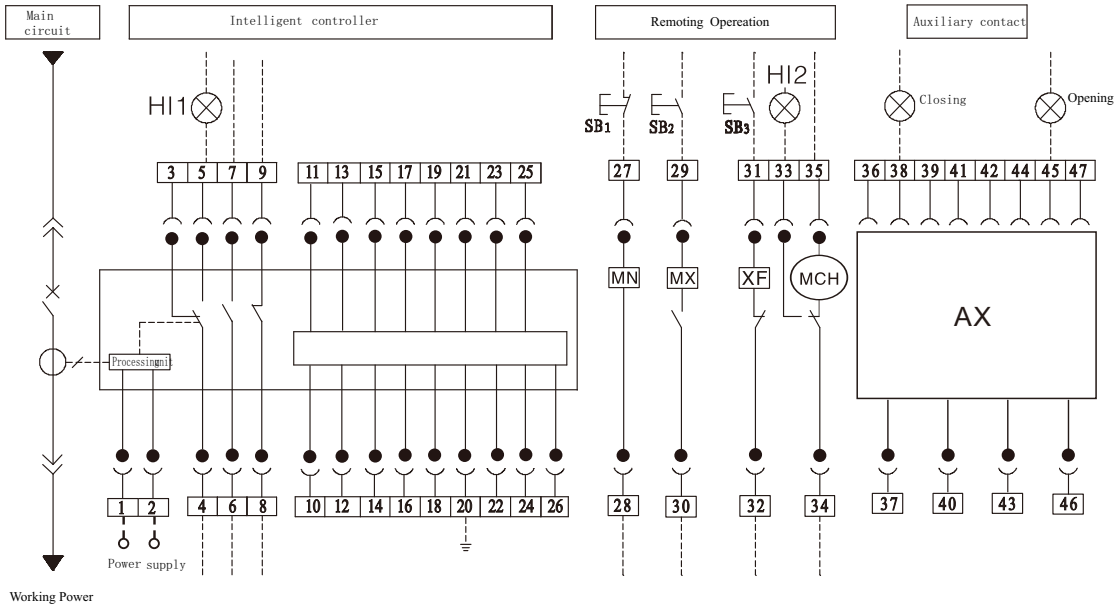


Figure 7.16 WEW1 -2500~7500 withdrawable type circuit breaker status door interlock installation dimensions

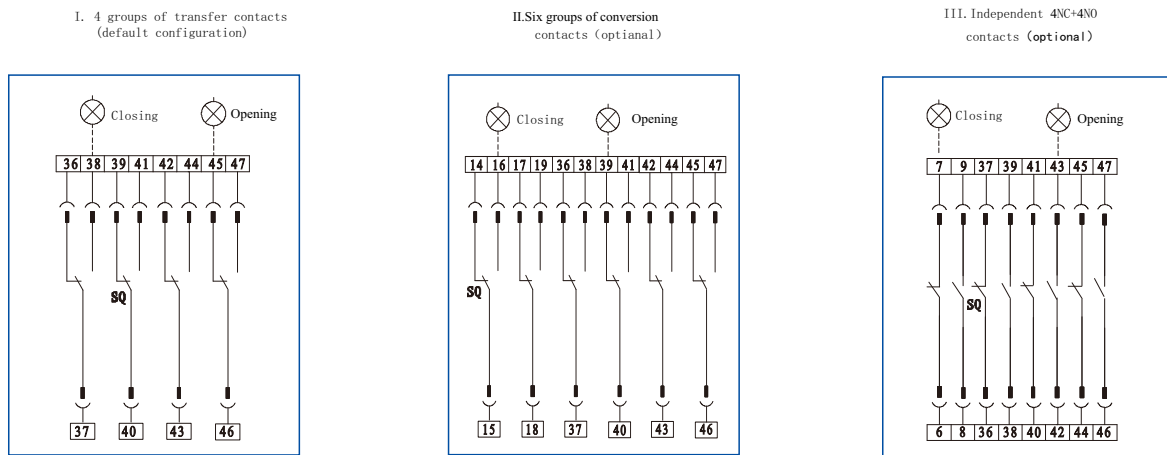
# 10. Electrical Schematic Diagram

10.1 circuit wiring diagram of WEW1-1000/1600 circuit breaker with (M, 3M) controller

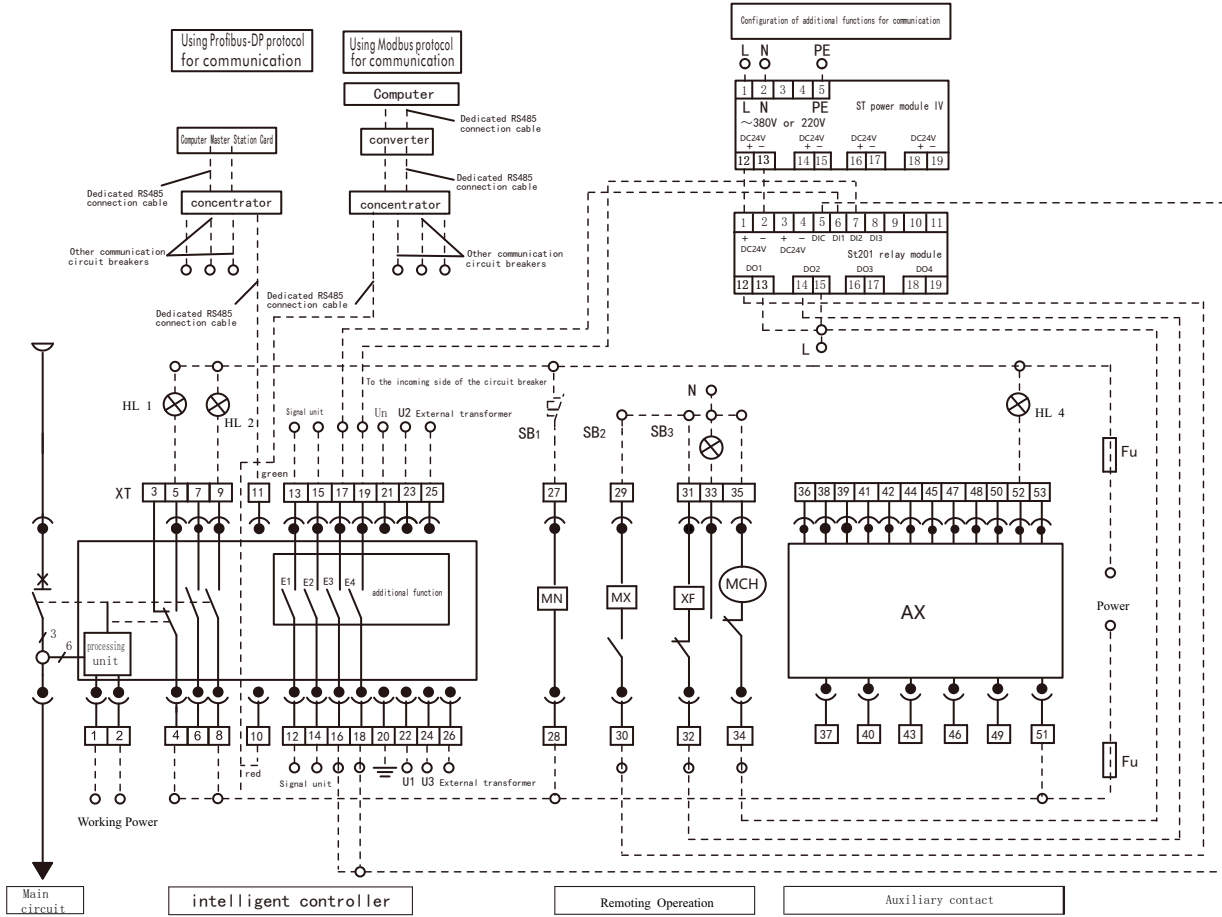


- HL 1: Fault indication
- HL2: Energy storage indication
- SB1: Undervoltage disconnect button (can be short circuited when not needed)
- SB2: Shunt release
- SB3: Closing button
- Note: The virtual part is connected by the user to various accessories with different rated voltages which can be connected to separate power sources
- 3#, 4#, 5#: Fault tripping contact output
- 4# Common terminal capacity AC230V, 3A
- MN: Undervoltage (instantaneous time-delay) release
- MX: Shunt release
- XF: Closing electromagnet
- MCH: Energy storage motor
- AX auxiliary switch
- 1#, 2# Controller auxiliary power input
- 6#, 9#: Controller auxiliary point output (Auxiliary contact capacity AC230V 3A)
- 20#: Protective grounding point
- 25#, 26#: External transformer input terminal
- 27#, 28# Undervoltage (instantaneous time-delay) release
- 29#, 30#: Shunt release
- 31#, 32#: Closing electromagnet
- 33#, 34#: Energy storage motor
- 36#, 47#: Auxiliary contact capacity AC230V 3A

10.2 Control circuit wiring diagram of WEW1-1000 circuit breaker with (M, 3M) controller auxiliary contact



### 10.3 circuit wiring diagram of WEW1-1000/1600 circuit breaker with (3H) controller



- HL1: Fault indication
- HL2: Close indication
- HL3: Energy storage indication
- SB1: Undervoltage disconnect button (can be short circuited when not needed)
- SB2: Shunt release
- SB3: Closing button

Note: The dashed part is connected by the user to different accessories rated voltages, and can be connected to different power sources separately. When wiring in this way, ST201 module DO2 must be set to "open" and DO3 must be set to "close"

- MN: Undervoltage (instantaneous or time-delay) release
- MX: Shunt release
- XF: Closing electromagnet
- MCH: Energy storage motor
- AX: auxiliary switch

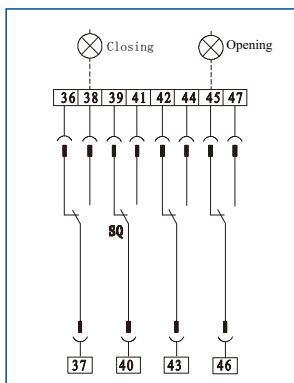
- 1#, 2#: Controller auxiliary power input
- 3#, 4#, 5#: Fault tripping contact output
- 4#: Common terminal capacity AC230V, 3A
- 6#-9#: Controller auxiliary power input (capacity AC380V, 3A)

- 10#, 11#: Communication interface output terminal
- 12#, 13#: Load alarm 1 signal output
- 14#, 15#: Load alarm 2 signal output
- 16#, 17#: Opening signal output
- 18#, 19#: Closing signal output
- 20#: 3H controller ground wiring
- 21#-24#: N/A/B/C phase voltage signal input (note that the sequence should not be connected incorrectly and should be connected to the power input side. If there is no additional selection function, this pin is empty)

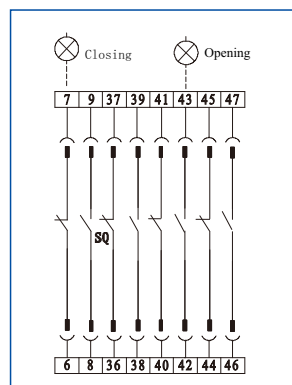
- 25#, 26#: External transformer input terminal
- 27#, 28#: Undervoltage (instantaneous or time-delay) release
- 29#, 30#: Shunt release
- 31#, 32#: Closing electromagnet
- 33#, 34#: Energy storage motor
- 36#-47#: Auxiliary contact capacity AC380V 3A

### 10.4 Control circuit wiring diagram of WEW1-1000 circuit breaker with (3H) controller auxiliary contact

I. 4 groups of transfer contacts (default configuration)



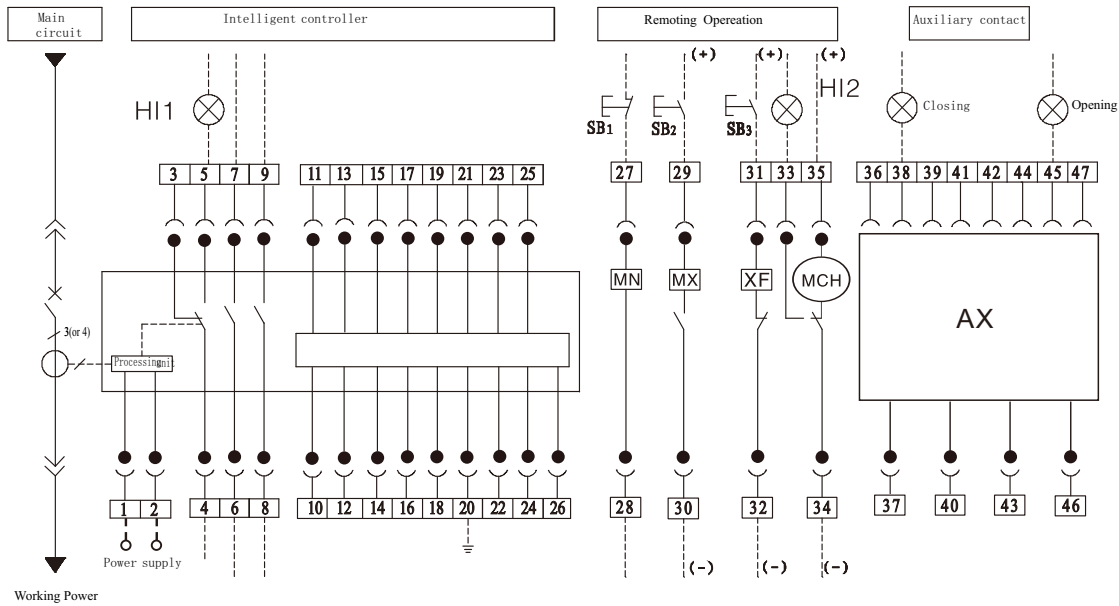
II. Independent 4NC+4NO contacts (optional)





# 11. Electrical Schematic Diagram

11.1 circuit wiring diagram of WEW1-2000~6300 circuit breaker with (M, 3M) controller



HL 1: Fault indication  
 HL2: Energy storage indication  
 SB1: Undervoltage disconnect button  
 (can be short circuited when not needed)  
 SB2: Shunt release  
 SB3 Closing button

MN: Undervoltage (instantaneous or  
 MX: Shunt release  
 XF: Closing electromagnet  
 MCH: Energy storage motor  
 AX :auxiliary switch  
 SQ2: Motor micro switch

**Note:**

1. If the control power supply voltage of MX, XF, and MCH is different, they can be connected to different power sources separately. XF and MX are short-term working components with a power on time of (50ms ± 10ms).
2. Terminal 35 # can be directly connected to the power supply (automatic pre energy storage), or connected in series to the normally open button and then connected to the power supply (manual pre energy storage)
- 3 buttons and indicator lights to be provided by the user
4. When the action power supply of the controller is AC power, there is no need for a power module, and terminals 1 # and 2 # directly enter the power supply
- 5 position indicator contacts are optional for users
6. 21# 22#. 23#. 24# the voltage cannot over 690V

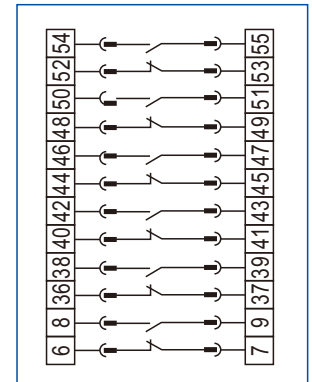
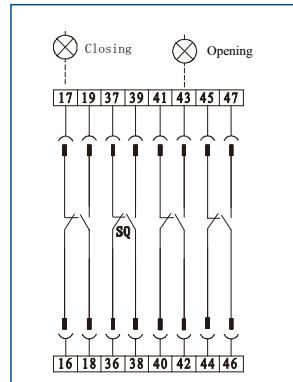
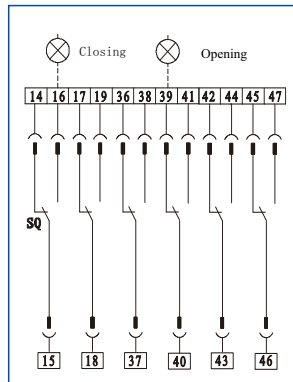
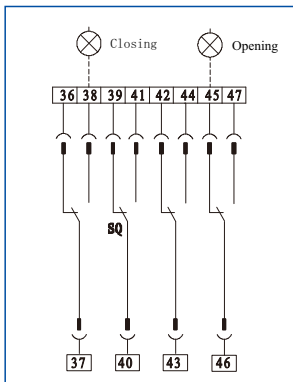
11.2 Control circuit wiring diagram of WEW1-2000-6300 circuit breaker with (M, 3M) controller auxiliary contact

I. 4 groups of transfer contacts (default configuration)

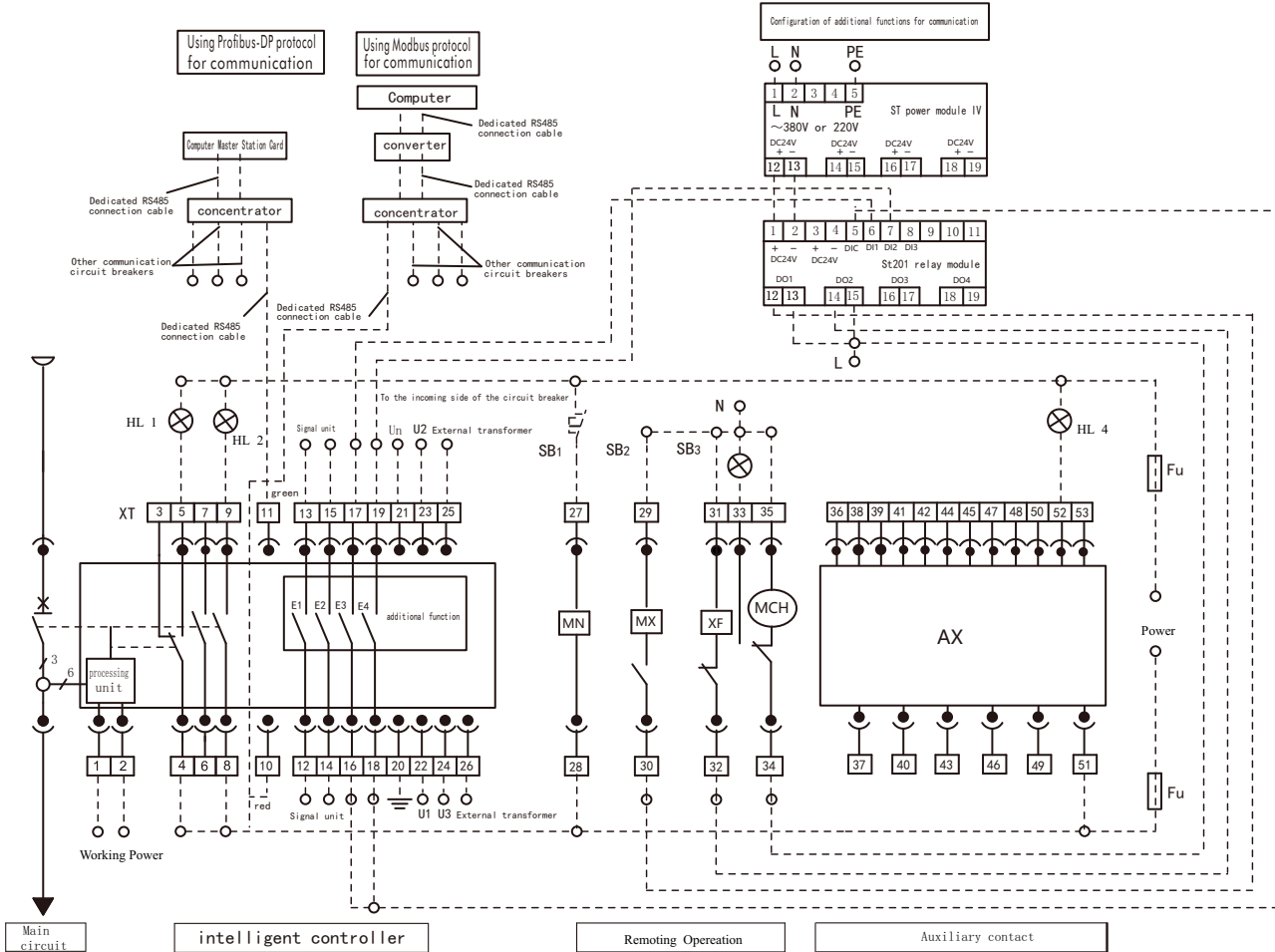
II. Six groups of conversion contacts (optional)

III. Independent 4NC+4NO contacts (optional)

VI. Independent 6NC+6NO contacts (optional) 3H



11.3 circuit wiring diagram of WEW1-2000~6300 circuit breaker with (3H) controller



HL1: Fault indication  
 HL2: Close indication  
 HL4: Opening indication  
 SB1: Undervoltage disconnect button  
 (can be short circuited when not needed)  
 SB2: Shunt release  
 SB3 Closing button

MN: Undervoltage (instantaneous time-delay) release  
 MX: Shunt release  
 XF: Closing electromagnet

MCH: Energy storage motor  
 AX auxiliary switch  
 SQ2: Motor micro switch

1#、2# Controller auxiliary power input  
 3#、4#、5#: Fault tripping contact output  
 4# Common terminal capacity AC230V、3A  
 6#~9#: Controller auxiliary power input  
 (capacity AC380V、3A)

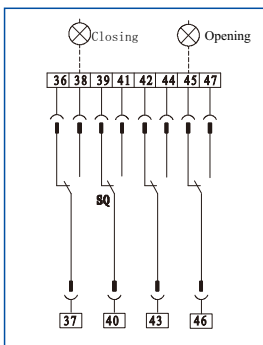
21#~24#: N/A/B/C phase voltage signal input (note that the sequence should not be connected incorrectly and should be connected to the power input side.  
 If there is no additional selection function, this pin is empty)

25#、26#: The foot is the input terminal of the external transformer;

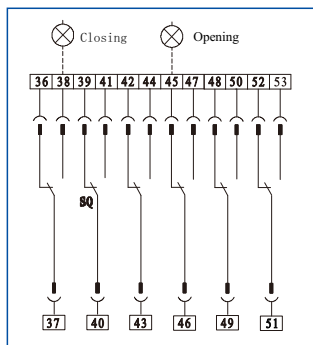
Note:

- If the control power supply voltage of MX, XF, and MCH is different, they can be connected to different power sources separately. XF and MX are short-term working components with a power on time of (50ms ± 10ms).
- Terminal 35 # can be directly connected to the power supply (automatic pre energy storage), or connected in series to the normally open button and then connected to the power supply (manual pre energy storage)
- 3 buttons and indicator lights to be provided by the user
- When the action power supply of the controller is AC power, there is no need for a power module, and terminals 1 # and 2 # directly enter the power supply
- 5 position indicator contacts are optional for users
- 6.21#22#.23#.24# the voltage cannot over 690V

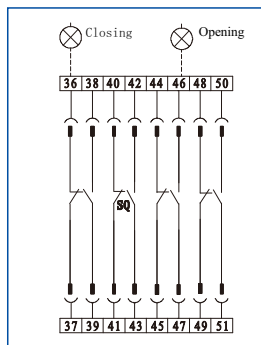
I. 4 groups of transfer contacts (default configuration)



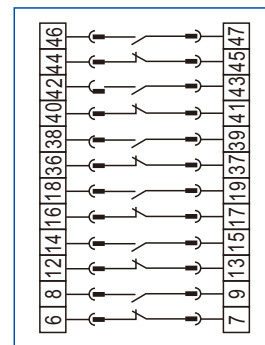
II. Six groups of conversion contacts (optional)



III. Independent 4NC+4NO contacts (optional)

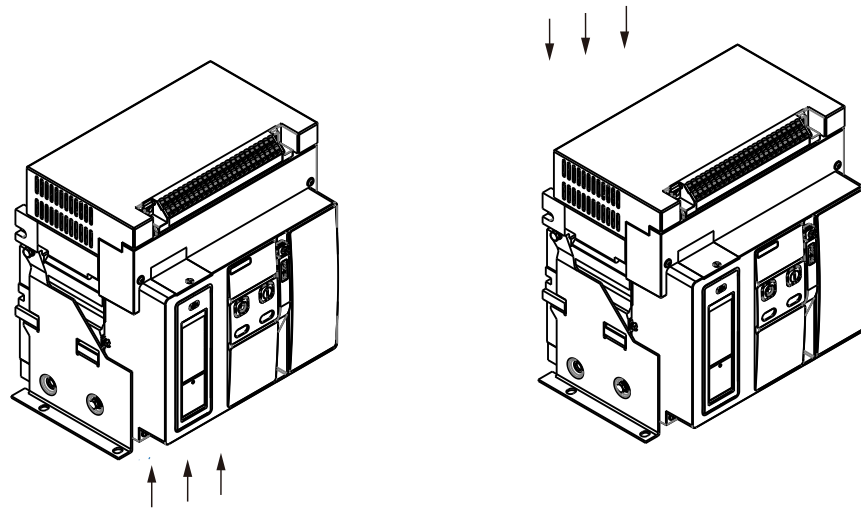


VI. Independent 6NC+6NO contacts (optional)

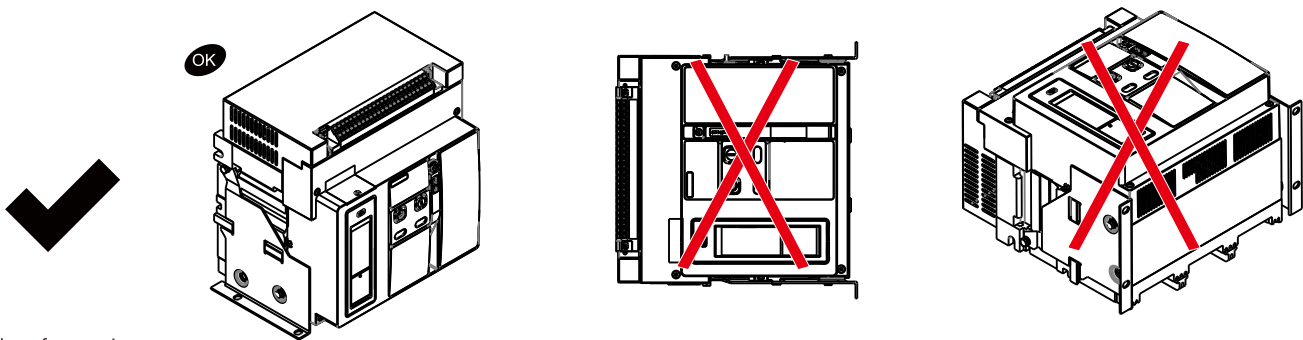


## 12. Mounting of circuit breaker

### 12.1 Modes of down-lead

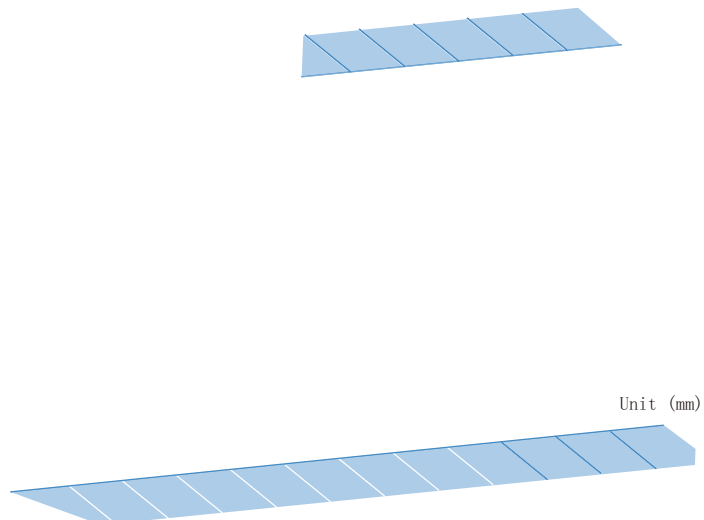


### 12.2 Modes of mounting



Modes of mounting

### 12.3 Safe distance



Unit (mm)

## 12. Intelligent Controller indicators

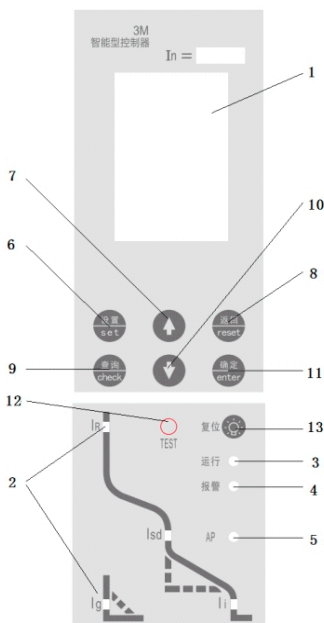
IC5.0 (M)



IC7.0 (3M)  
IC8.0 (3H)

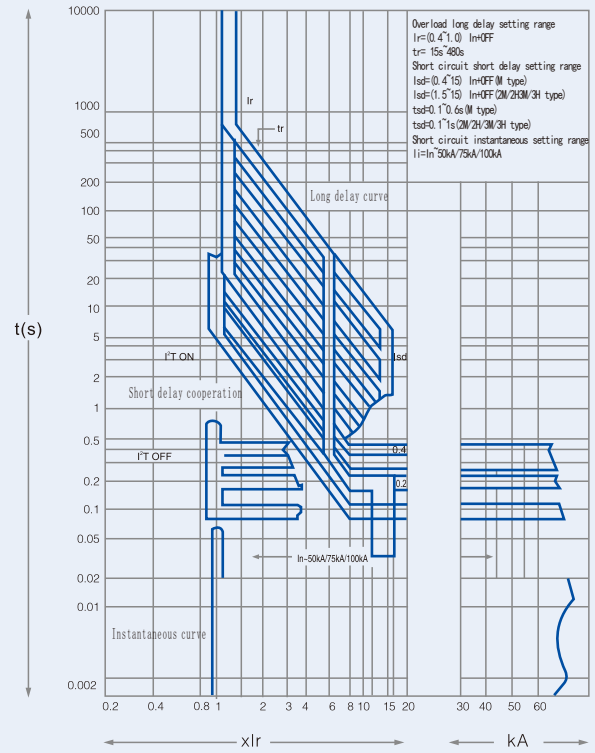
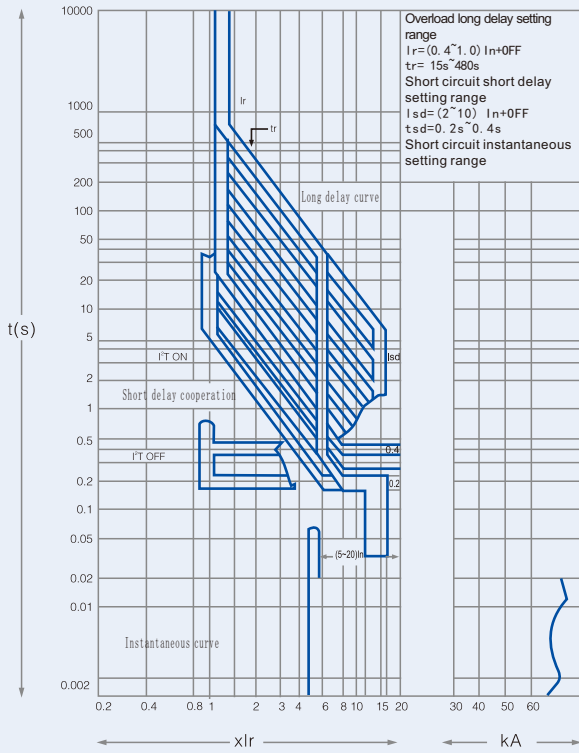


indicator	Types	function
In	table	Indicating the rated current of the controller
G	Light green	Grounding or leakage current indicator light
L1	Light green	A-phase current indicator light
L2	Light green	B-phase current indicator light
L3	Light green	C-phase current indicator light
MAX	Light green	A/B/C-phase max. current indicator light
A	Light green	Current unit:Amper
kA	Light green	Current unit:kA
s	Light green	time unit:s
TEST	Light yellow	function testing indicator lights
Ic1	Light red	Load monitoring 1 protection indicator light
Ic2	Light red	Load monitoring 2 protection indicator light
δ	Light red	Current imbalance protection indicator light
N	Light red	N-phase indicator light
Ir	Light red	Long delay protection indicator light
Isd	Light red	Short delay protection indicator light
Ii	Light red	Instantaneous protection indicator light
Ig	Light red	earth grounding protecting protection indicator light
status	red/yellow/green	Controller operation status indicator light Green:normal operating blue: protection/alarm red:tripping
Set, up, back, Search, Down, OK, Test, Reset		Human computer interaction buttons(8pcs) Test key



- LCD 界面显示
  - 曲线LED  
曲线内隐藏有红色LED指示灯。在故障跳闸时相应的LED灯闪烁指示故障类型；在保护参数设置时，LED恒亮指示当前设定的项目。
- 故障和报警复位键
- “运行”LED  
只要控制器通电而且工作状态正常，绿色LED始终闪烁。
  - “故障/报警”LED  
正常工作时，LED不点亮；故障跳闸时，红色LED会快速闪烁；在出现报警时红色LED恒亮。
  - “AP”LED  
高级保护故障指示（如：断相、过电压、电压不平衡、欠频、过频、相序、逆功率等故障跳闸，若只报警不脱扣则“报警”灯亮。）
- 键盘
  - 设置——功能键1，在测量主题菜单和保护参数设定主题菜单之间循环切换（在密码输入界面下为“向左”键）。
  - 向上——在当前所用等级向上移动菜单内容，或向上改变选定参数。
  - 退出——退出当前所用等级进入上一级菜单，或取消当前参数的选定。
  - 查询——功能键2，在参数设定主题菜单和历史记录和维修主题菜单之间循环切换（在密码输入界面下为“向右”键）。
  - 向下——在当前所用等级向下移动菜单内容，或向下改变选定参数。
  - 确定——进入当前项目指向的下一级菜单，或进行当前参数的选定，存储所作修改。
  - test——测试键，按下后控制器脱扣一次，用于测试机械配合是否正常。
  - 复位——故障复位键，故障后LCD界面显示故障，排除故障后需按该键进行显示复位。

12.1 Overcurrent protection curve



Unit (mm)

12.2 Differences of intelligent controllers

Function configuration	Model and specification of the intelligent controller			Remarks
	M	3M	3H	
Current display function	■	■	■	①
Overload long-time delay protection (inverse time-delay)	■	■	■	
Short circuit short-time delay (definite time-delay + inverse time-delay)	■	■	■	
Instantaneous short circuit protection	■	■	■	
Single-phase grounding protection	■	■	■	
Current unbalance protection	-	□	□	
Parameter setting function	■	■	■	
Simulation test function	■	■	■	
Query function	■	■	■	
Self-diagnostic function	□	■	■	
Programming interface function	-	□	■	
Communicating and networking function	-	□	■	
Record of contact equivalent	-	□	■	
Record of operation times	-	√	√	
Clock record	-	■	■	
Alarm records	-	■	■	
Displacement record	-	■	■	
Historical peak current record	-	√	√	
MCR and HSISC functions	□	□	□	
Electric leakage protection (inverse time-delay and definite time-delay)	□	□	□	
Neutral phase (N-phase) protection	□	□	□	
Load monitoring function (Method I or Method II)	□	□	□	
Voltage measurement display function	-	□	■	
Frequency measurement display function	-	□	■	
Display of unbalanced voltage measurement	-	□	■	
Power measurement display function	-	□	■	
Electric energy measurement and display function	-	□	■	
Fault clock function	-	■	■	
Historical data recording function	■	■	■	
Phase sequence test	-	□	■	
Harmonic measurement function	-	□	□	
Harmonic impact factor function	-	□	□	
Overvoltage and undervoltage protection	-	□	□	
Voltage unbalance protection	-	□	□	
Over-frequency and under-frequency protection	-	□	■	
Phase sequence protection	-	□	■	
Inverse power protection	-	□	■	
Demand value protection	-	□	□	
Location lock function	-	-	-	
Thermal memory function	■	■	■	
Relay output function	-	□	■	

1. Note: “■” represents default configuration function; “□” represents optional function; “-” represents unsupported functions.

2. Remarks① Conventional product of WEW1 series is M controller

### 13. Protective characteristics of the intelligent controller

#### 13.1 Protective characteristics of the intelligent controller

Protective characteristics of the intelligent controller include inverse time-delay and definite time-delay. When the fault current exceeds the inverse time-delay setting value, the controller provides the time-delay protection function according to the definite time-delay.

##### Overload long-time delay protection features

Range of IR current setting value		IC5.0 (M) / IC7.0 (3M) IC8.0 (3H)	(0.4~1.0) x In+OFF (Adjust according to 1A gradient)					
Allowable error of action time ±15%	current	Action time						
	≤1.05Ir	<2h Inaction;						
	≥1.3Ir	<1h inaction						
	1.5Ir	Setting time Tr(s)	15	30	60	120	240	480
	2.0Ir	Action time Tr(s)	8.4	16.9	33.8	67.5	135	270
	7.2Ir	Action time Tr(s)	0.65	1.3	2.6	5.2	10	21
Thermal memory time		30min (ON) / OFF						
N-phase overload and overcurrent characteristics		100% In or 50% In (applicable to 3P+N or 4P products)						

Note: N Fault current divide the multiple of setting current I/IR  
 t Fault action delay time  
 Tr Long-time delay action setting value  
 Allowable error of action time ±15%

##### Short circuit short-time delay protection features

Range of Isd current setting value		IC5.0 (M)	(0.4~15) x In+OFF (Adjust according to 1A gradient)					
		IC7.0 (3M) / IC8.0 (3H)	(1.5~15) x In+OFF (Adjust according to 1A gradient)					
Allowable error of Current ±15%	IC5.0 (M)	Current	Action time					
		$I \geq I_{sd}, I \leq 8I_r$	Inverse time delay $T = (8I_r)^2 \times t_{sd} / I^2$ - actual current					
	IC7.0 (3M)	$I \geq I_{sd}, I > 8I_r, \text{ or } I \geq I_{sd}$	Definite time delay Setting time s (tsd)	0.1	0.2	0.3	0.4	0.5
		$I \leq 8I_r$	Returnable time (s)	0.06	0.16	0.26	0.35	0.44
IC8.0 (3H)	Definite time-delay	Setting time s (tsd)	0.1~1s (level difference of 0.1s)+OFF (timing limit closed, inverse time limit open)					
	Inverse time-delay	Curve rate	The curve is the same as the overload long delay curve, and the curve speed is 10 times faster than the overload long delay curve					
Thermal memory time		15min (ON) / OFF						

Note: Isd Short-time delay current setting value  
 I Fault current value  
 IR Long-time delay setting value  
 Tsd Short-time delay inverse time-delay setting value  
 Allowable error of action time ±15%

##### Instantaneous short circuit protection features

Range of Ii current setting value	IC5.0 (M) / IC7.0 (3M) IC8.0 (3H)	In~50kA+off(WEW1-1000/2000) In~75kA+off(WEW1-3200) In~75kA+off(WEW1-4000) In~100kA+off(WEW1-6300)
-----------------------------------	--------------------------------------	------------------------------------------------------------------------------------------------------------

Ground fault protection features

Range of I <sub>g</sub> current setting value(A)		I 0.5 (M) / I 0.7 (3M) I 0.8 (3H)	(0.2~1.0) x I <sub>n</sub> +OFF (Among them, M/2H has a minimum of 100A)	
Allowable error of Current ±15%	I 0.5 (M)	Definite time-delay	Setting time T <sub>g</sub> (s)	0.1~1s (0.1-1s differential 0.1s)
	I 0.7 (3M) I 0.8 (3H)	Definite time-delay	Setting time T <sub>g</sub> (s)	0.1~1s (0.1-1s differential 0.1s)

Load monitoring

Method I	Range of I <sub>c1</sub> , I <sub>c2</sub> current setting value(A)	(0.2~1.0) x I <sub>n</sub> +OFF		
	Delay characteristics t <sub>c1</sub> , t <sub>c2</sub> (S)	t <sub>c1</sub> =(0.2~0.8) × t <sub>r</sub> , t <sub>c2</sub> (0.2~0.8) × t <sub>r</sub>		
Method II	Range of I <sub>c1</sub> , I <sub>c2</sub> current setting value(A)	(0.2~1.0) I <sub>n</sub> +OFF		
	Delay characteristics t <sub>c1</sub> , t <sub>c2</sub> (S)	t <sub>c1</sub> =(0.2~0.8) × t <sub>r</sub>		
		Definite time delay t <sub>c2</sub> =60s		

Voltage imbalance protection

Action threshold	2%~30% (differential 1%)	
Action delay time(s)	0.2~60 (differential 1%)	
Return threshold (when working in "alarm" mode)	2%~30% (differential 1%) Not greater than the action threshold	
Return delay time (s) (when working in "alarm" mode)	0.2~60 (differential 1%)	
Alarm contact output	optional	
action characteristic	Actual voltage imbalance/set value < 0.9	Agreed release time
	≥ 1.1	non-Action
		Definite time-action

注:延时允差±10%

under voltage protection

Action threshold	100- Return threshold (step size 1)	
Action delay time(s)	0.2~60 (in steps of 0.1)	
Return threshold (when working in "alarm" mode)	Action threshold~1200 (step size 1)	
Return delay time (s) (when working in "alarm" mode)	0.2~60 (in steps of 0.1)	
Action or alarm characteristics	Voltage multiplier (U <sub>max</sub> /action threshold) < 0.9	Agreed release or alarm time
	≥ 1.1	Timed action or alarm, contact (optional) output
		No action or alarm, no contact output

Note: Delay tolerance ±10%



### Current imbalance protection

Unbalance rate $\delta$ Adjust body range	40% ~ 100%+OFF
Action or alarm characteristics	$\leq 0.9 \delta$ , non-action
	$< 1.1 \delta$ , Delay action
Delay Time (s)	0.1 ~ 1.0s+OFF (OFF: Alarm only and no action, with a level difference of 0.1s)

### Overvoltage protection

Action threshold (V)	Return threshold ~ 1200 (step size 1)	
Action delay time (s)	0.2 ~ 60 (in steps of 0.1)	
Return threshold (when working in "alarm" mode)	100 ~ Action threshold (step size 1)	
Return delay time (s) (when working in "alarm" mode)	0.2 ~ 60 (in steps of 0.1)	
Action or alarm characteristics	Voltage multiplier ( $U_{max}/\text{action threshold}$ )	Agreed release or alarm time
	$< 0.9$	No action or alarm, no contact output
	$\geq 1.1$	Timed action or alarm, contact (optional) output

Note: Delay tolerance  $\pm 10\%$

### Leakage protection

action current $I \Delta n$ (A)	0.5 ~ 30 (differential 0.1A)	
Delay Time $T \Delta n$ (s)	0 ~ 0.83	
action characteristic	Current multiplier $I/I \Delta n$	Agreed release time
	$< 0.8$	non-action
	$\geq 1.0$	Definite time-action

Note: Delay tolerance  $\pm 10\%$

### Leakage protection action delay

setting time (s)	0.06	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.83	瞬时
Fault current	Maximum closing time (s)											
$I \Delta n$	0.36	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	0.04
$2I \Delta n$	0.18	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	0.04
$5I \Delta n$	0.072	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	0.04
$10I \Delta n$												

### Without any special requirements from the user, the intelligent controller is set as follows

Overload long-time delay protection (inverse time-delay)	$I_r$	$1 I_n$
	$t_r$	60s
Short circuit short-time delay (definite time-delay + inverse time-delay)	$I_{sd}$	$6 I_n$
	$t_{sd}$	0.4s
Instantaneous short circuit protection	$I$	$10 I_n$
Single-phase grounding protection	$I_g$	$0.8 I_n$ or 1200A (get minimum value)
Load monitoring function (Method I or Method II)	$I_{c1}$	$1 I_n$
	$I_{c2}$	$1 I_n$

Single phase grounding leakage protection refers to metal grounding protection with a fault current of several amperes or more, generally used in neutral directly grounded systems. The controller has two different protection methods, One type is differential type (T), and the controller protects based on the vector sum of three-phase current and neutral pole current. It can be divided into three forms: 3PT, 4PT, and (3P+N), as shown in Figure 3 and Figure 4, respectively Figure 5. Another type is ground current type (W), where the controller directly takes an additional current transformer output current signal between the neutral point of the main power supply and the ground for protection. The transformer has N-line PE between stages, a neutral pole transformer or current transformer is added.

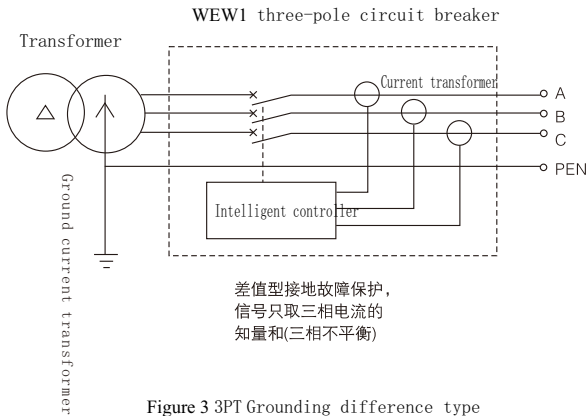


Figure 3 3PT Grounding difference type

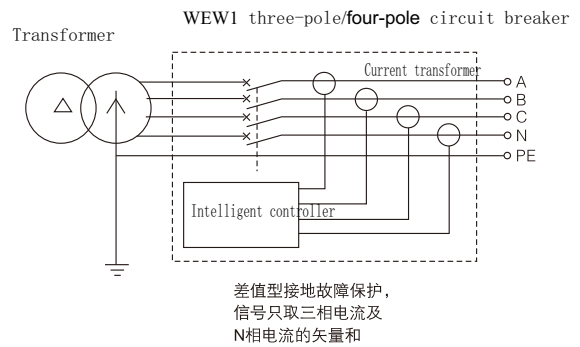


Figure 4 4PT Grounding difference type

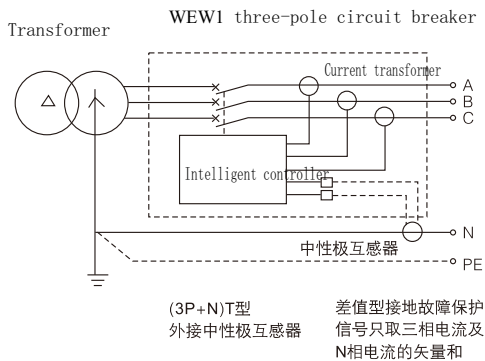


Figure 5 (3P+N) T Grounding difference type

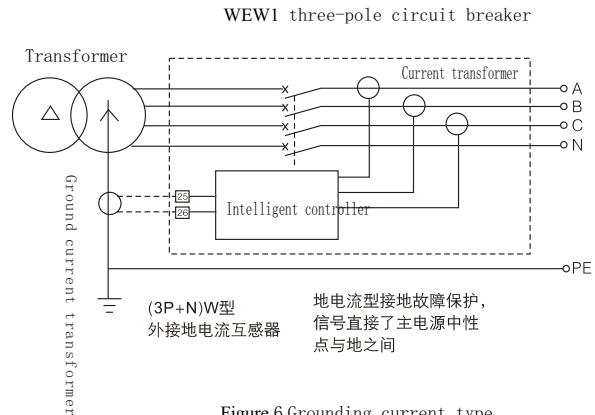


Figure 6 Grounding current type

Leakage protection mainly takes signals through zero sequence transformers, which have high flexibility and are suitable for grounding protection in several ampere high resistance grounding systems, as well as direct grounding systems. Generally, it only alarms and does not trip. When needed, the circuit breaker can also be disconnected. The connection method is shown in Figure 7 and Figure 8. In addition, there are two types: load circuit (ZCT) or transformer grounding wire (ZT).

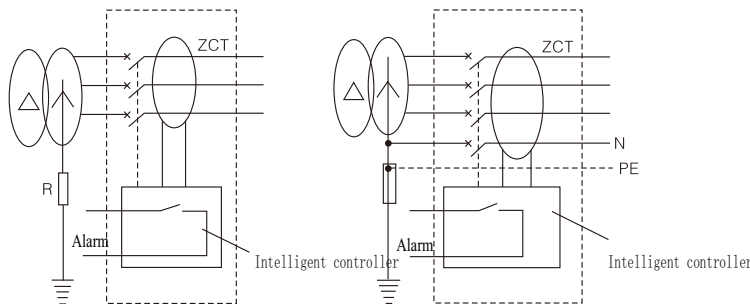


图7 漏电负载电路型

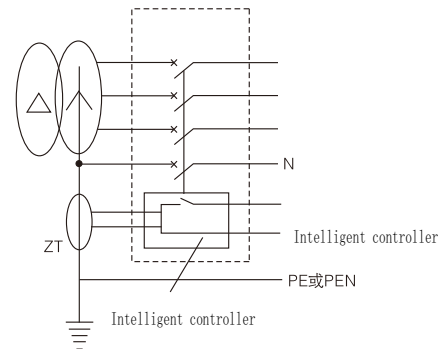


图8 漏电变压器接地线型

## 14. Measurement accuracy of the controller

Current measurement	
Measurement range	Ia, Ib, Ic and IN less than 15In (rated current of circuit breaker)
Measurement accuracy	Below 0.1In; it is inaccurate during measurement
	0.1In-0.4In; the accuracy will change from 5% to 2% linearly
	0.4In - 1.5In; the accuracy is 2%
	Above 1.5In; the accuracy will change from 2% to 15% linearly
Voltage measurement	
Measurement range	Line voltage: (0~1200)V
Measurement accuracy	Phase voltage: (0~690)V
	Error: $\pm 1\%$
Frequency	
Measurement range	40Hz~70Hz
Error	$\pm 0.1\text{Hz}$
Power	
Measurement mode	Effective value
Measurement contents	3P type: Total active power, total reactive power and total apparent power
	4P type: Split-phase active power, split-phase reactive power, split-phase apparent power, total active power, total reactive power, total apparent power
Measurement range	Active power: $-32768\text{KW}\sim+32767\text{KW}$
	Reactive power: $-32768\text{Kvar}\sim+32767\text{Kvar}$
	Apparent power: $0\text{KVA}\sim65535\text{Kvar}$
	Error: $\pm 2.5\%$
Power factor	
Measurement contents	3P type: Total power factor
	4P type: Split-phase power factor of each
Measurement range	$-1.00\sim+1.00$
Electric energy	
Measurement contents	Input reactive electric energy (EQin), output reactive electric energy (EQout)
	Input active electric energy (EQin), output reactive electric energy (EQout)
	Total active energy (EPtotal), total reactive energy (EQtotal) and total apparent energy (ESTotal)
Measurement range	Active: $0\sim4294967295\text{kWh}$
	Reactive: $0\sim4294967295\text{kvarh}$
	Apparent: $0\sim4294967295\text{kVAh}$
Measurement accuracy	$\pm 2.5\%$
Harmonics measurement	
Fundamental wave measurement	Current: Ia, Ib, Ic
	Voltage: Uab, Ubc, Uca
Total harmonic distortion	
THD and Thd	THD: The total distortion rate of harmonics relative to fundamental waves
	Thd: The total distortion rate of harmonics relative to effective values
The amplitude spectrum of harmonics	The controller can display the FFT amplitude of 3-31 odd harmonics, in the unit of %.
Measurement accuracy of the control unit	$\pm 2\%$

## 15. Product accessories

### 15.1 Shunt release

After the circuit breaker stores energy, the shunt excitation coil can disconnect the circuit breaker instantaneously under the specified power supply voltage, which can be achieved remotely;

#### 15.1.1 1000-1600 frame



Rated control power supply voltage $U_s$ (V)	AC220/230/240	Dc220	
	AC380/400/415		
Action voltage (V)	$(0.85 \sim 1.1)U_e$		
Power consumption	56VA	250W	
Segment time (ms)	$(50 \pm 10)$ ms		

#### 15.1.2 2000-6300 frame



Rated control power supply voltage $U_s$ (V)	AC380/400、230/220	DC220	DC110
	$(0.7 \sim 1.1)U_e$		
Power consumption	300VA	132W	70W
Segment time (ms)	$(50 \pm 10)$ ms		

### 15.2 Closing electromagnet

After the circuit breaker stores energy, the closed electromagnet can close the circuit breaker under the specified power supply voltage, which can be achieved remotely;

#### 15.2.1 1000-1600 frame



Rated control power supply voltage $U_s$ (V)	AC220/230/240	DC220、DC110	
	AC380/400/415		
Action voltage (V)	$(0.85 \sim 1.1)U_e$		
Power consumption	56VA	250W	
Segment time (ms)	$(50 \pm 10)$ ms		

#### 15.2.2 2000-6300 frame



Rated control power supply voltage $U_s$ (V)	AC380/400、230/220	DC220	
	$(0.85 \sim 1.1)U_s$		
Power consumption	300VA	132W	70W
Closing time (ms)	No more than 70ms		

Note: Long-time closing shall be prevented to avoid damage. Especially, in the automatic control system, it must be pulse mode, with the pulse width of 1s; otherwise, the elements may be burned.

### 15.3 Undervoltage release

Achieve the undervoltage protection function of the circuit breaker. The Undervoltage time-delay release can disconnect the circuit breaker after 0.3s, 0.5s, 0.7s, 1s, 3s, 5s

- When the voltage is 35%-70% of the rated working voltage, the Undervoltage release shall make the circuit breaker trip reliably.
- When the voltage is 85%-110% of the rated working voltage, the Undervoltage release shall ensure to make the circuit breaker closed.
- When the voltage is below 35% of the rated working voltage, the Undervoltage release shall prevent the circuit breaker from closing.

#### 15.3.1 1000-1600 frame



Rated working voltage Ue (V)	AC220/230/240, AC380/400/415
Action voltage (V)	(0.35~0.7)Ue
Reliable closing voltage (V)	(0.85~1.1)Ue
Reliable unclosing voltage (V)	≤0.35Ue
Power consumption	20VA

#### 15.3.2 2000-6300 frame



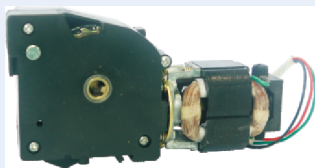
Rated working voltage Ue (V)	AC380/400、230/220	DC220、DC110
Action voltage (V)	(0.35~0.7)Ue	(0.35~0.7)Ue
Reliable closing voltage (V)	(0.85~1.1)Ue	(0.85~1.1)Ue
Reliable unclosing voltage (V)	≤0.35Ue	≤0.35Ue
Power consumption	12VA	12VA

Note: The Undervoltage release must be energized first in order to re-buckle and close the circuit breaker, otherwise it will damage the circuit breaker.

### 15.4 Electric motor operating mechanism

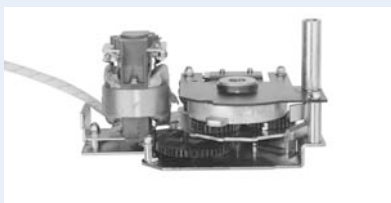
When the circuit breaker is powered on, it will automatically store energy; The energy can be stored with handle when it is powered off.

#### 15.3.1 1000-1600 frame



Rated control power supply voltage Us (V)	AC220/230/240 AC380/400/415	DC220、DC110
Action voltage (V)	(0.85~1.1)Us	
Power consumption	90VA	90W
Stored-energy time	< 4s	
Operation frequency	≤ 3 minutes/time	

#### 15.4.2 2000-6300 frame



Rated control power supply voltage Us (V)	AC380/400、230/220	DC220	DC110
Action voltage (V)	(0.85~1.1)Us		
Power consumption	85/110	85	110
Stored-energy time	≤ 7s		

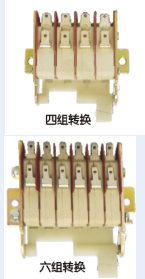
Note: It shall not be powered on for a long time, to avoid damage.

### 15.4. Auxiliary contact

It can be used for monitoring the status of the circuit breaker, such as connecting with the position signal lamp and disconnecting indicator light of the circuit breaker.

- Standard type, 4NO+4NC by default (4 sets of transfer contacts)
- Special type, 3NO+3NC, 5 sets of transfer contact, 6 sets of transfer contact

#### 15.4.1 1000-1600 frame



Rated voltage (V)	Rated heating current Ith (A)	Rated control capacity
AC230	6	300VA
AC415	6	300VA
DC220	50	60W

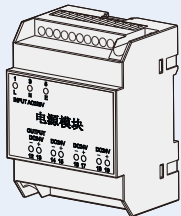
Rated voltage (V)	Rated current (A)
AC230	1.5A
AC415	0.9A
Dc110	0.55A
DC220	0.27A

#### 15.4.2 2000-6300 frame



Rated voltage (V)	Rated heating current Ith (A)	Rated control capacity
Ac230	6	300VA
AC415	6	300VA
DC220	6	60W

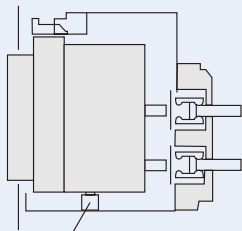
### 15.5 Power supply module



input power:AC230V/AC400V/DC110V/DC220V(optional)

When using grounding protection, communication, thermal memory functions, or requiring the circuit breaker to maintain input and output signals in the open state, auxiliary power supply must be equipped. When selecting a DC intelligent controller, the DC power supply must be converted to DC24V through the DC power module and then provided to the intelligent controller

#### 15.5.1 three position switch



three position switch

The three position switch is mainly suitable for withdrawable type circuit breakers

Indication of separation, testing, and connection status;

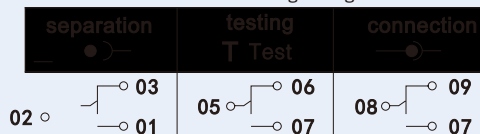
Install one normally open and one normally closed contact at the separation position;

Install one normally open and one normally closed contact at the testing position;

Configure one normally open and one normally closed contact at the connection position

Rated voltage (V)	Rated heating current Ith (A)
Ac250	3
Ac380	1
Dc220	0.3
Utilization category	AC-15、AC-12 DC-12

"Three Position" Wiring Diagram



### 15.6 Door frame and gasket

It is installed on the door of the distribution cabinet chamber for sealing, with the protection grade of IP40 (it is divided into drawer type and fixed type).



### 15.7 Dust cover

Fastened to the beam of the drawer seat to prevent any dust or other debris from falling into the secondary circuit terminal, leading to poor contact.



### 15.8 Phase partition

It is installed between phases of the terminal block, for increasing the interphase insulation capacity of the circuit breaker.



### 9.9 Grounding current transformer

It is a special external transformer for measuring neutral phase current when the ground mode is ground current return mode. It can protect the upper and lower ground faults of the circuit breaker at the same time.



### 15.9 External transformer of Phase N

It is an external transformer for measuring the neutral phase current under 3P+N grounding mode. It shall be sleeved on the busbar



1600 frame



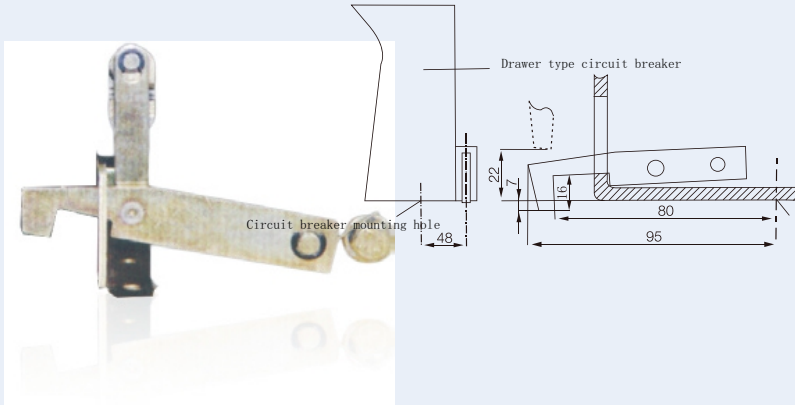
2000-6300 frame

#### 15.9.1 Electric leakage transformer

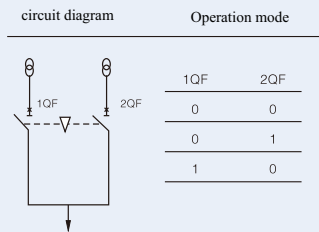
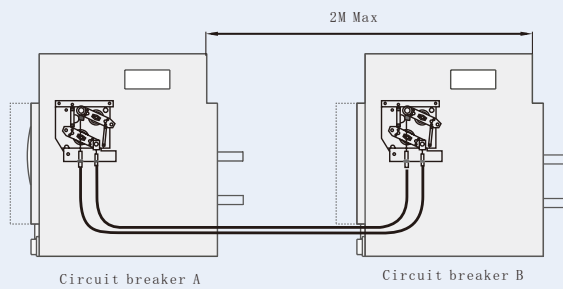


### 15.10 Door interlock

The gate interlock mechanism is installed on the circuit breaker, which can avoid the opening of the small chamber gate when the drawer type circuit breaker is separated. The door interlock is generally installed on the right side of the circuit breaker.



Interlocking of two flat circuit breakers with steel cables or interlocking of two stacked circuit breakers with connecting rods





15.11 Key lock

The breaking button of the circuit breaker can be locked at the down position. At the same time, the circuit breaker cannot close.

If the user selects it, the manufacturer will provide a lock and key.

If the user buys the key lock separately. During installation, a hole saw is required.

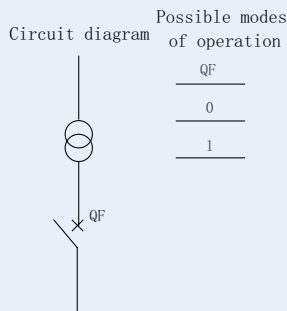
Tap a hole, with the diameter of  $\varnothing 28\text{mm}$ . The hole saw shall be prepared by the user.

**Note:** After the circuit breaker is locked with a key lock, it cannot be closed manually or electrically.

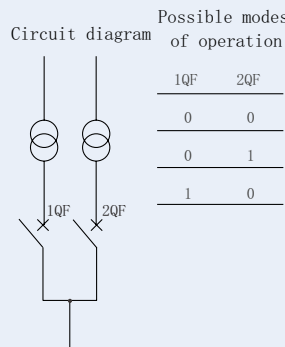


- One key with one lock
- Two locks with one key
- Three locks with two keys
- Five locks with three keys

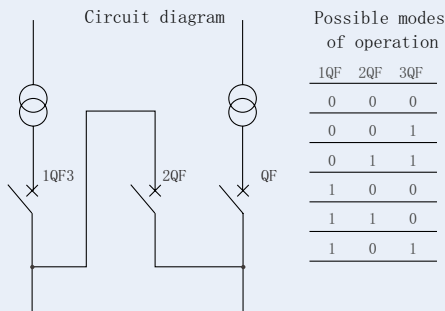
a. One key with one lock: A circuit breaker is equipped with an independent lock and a key.



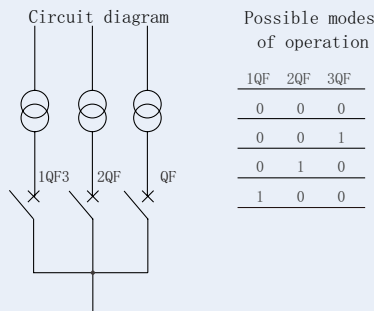
b. Two locks with one key: Two circuit breakers are equipped with 2 same locks and 1 key.



c. Three locks with two keys: Three circuit breakers are equipped with 3 same locks and 2 same keys.



d. Three locks with one key: Two circuit breakers are equipped with 3 same locks and 1 key.



**Attention:** For a Air Circuit Breaker with a key interlock, when the key needs to be pulled out, press the opening button firstly, turn the key counterclockwise and pull it out.

15.12 Three-position lock

It is in the drawer type circuit breaker and is used for breaking the “connection”, “test” and “separation” positions of the circuit breaker. The three positions of the circuit breaker shall be indicated by the indicator. The handle is locked in the exact position. The locking can be released through the reset button.



Separate, test, and connect the positions to avoid malfunctions caused by operators not operating the handle properly. Lock position release After the red interlock device pops up, if you want to operate the handle again, you must first press the red interlock device to operate the hand crank handle

Electrical indicator device for drawer

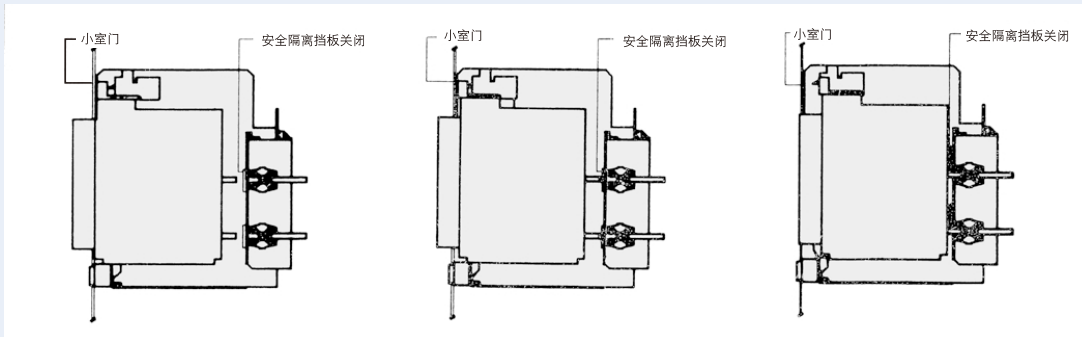
When the main body of the drawer type circuit breaker and the drawer seat are in three positions of "separation", "test", and "connection" respectively, the electrical indicator devices at these three positions can output electrical status signals corresponding to these three positions, and the device is installed inside the drawer

Rated voltage (V)	Rated heating current I <sub>th</sub> (A)	Rated current I <sub>e</sub> (A)
Ac230	10	1.5

Separation position status

Test position status

Connection position status



主电路和辅助回路全部断开  
安全挡板关闭

主电路断开，辅助回路接通  
安全挡板关闭，可进行必要的试验

主电路和辅助回路均接通  
安全挡板开启

### 15.13 Mechanical accessories

#### 15.13.1 Interlock mechanism

The mechanical interlock mechanism is installed on the right-side plate of circuit breaker;

When any circuit breaker is closed, then none of other circuit breakers can be closed;

The interlock mechanism and the interlocking that can be used for both drawer type circuit breakers and the fixed circuit breakers, 3P and 4P;

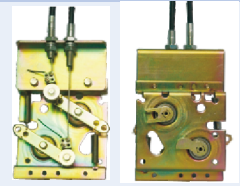
The interlock mechanism is installed by the user;

The distance between the circuit breaker using cable interlock and the circuit breaker shall not be more than 2m;

The distance between the circuit breaker using hard lever interlock and the circuit breaker is 0.9m;

When using the cable interlock, the minimum corner radius of the cable interlock shall not be less than R120mm.

Check the steel cable and ensure that there is sufficient lubricating oil inside the cable to ensure flexible movement of the steel cable

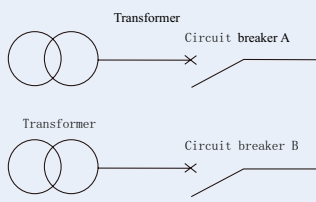


Mechanical interlock type that can be provided

Interlocking pattern	Between two circuit breakers		Among three circuit breakers	
	Horizontal	Vertical	Horizontal	Vertical
Cable interlock	✓	✓	✓	✓
Hard lever interlock	×	✓	×	×

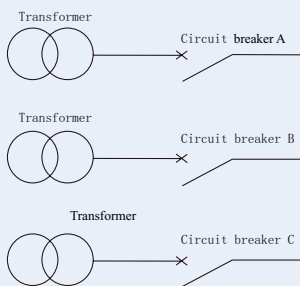
#### 15.13.2 Typical application of the interlocking device

##### 15.13.3 Interlock between two circuit breakers



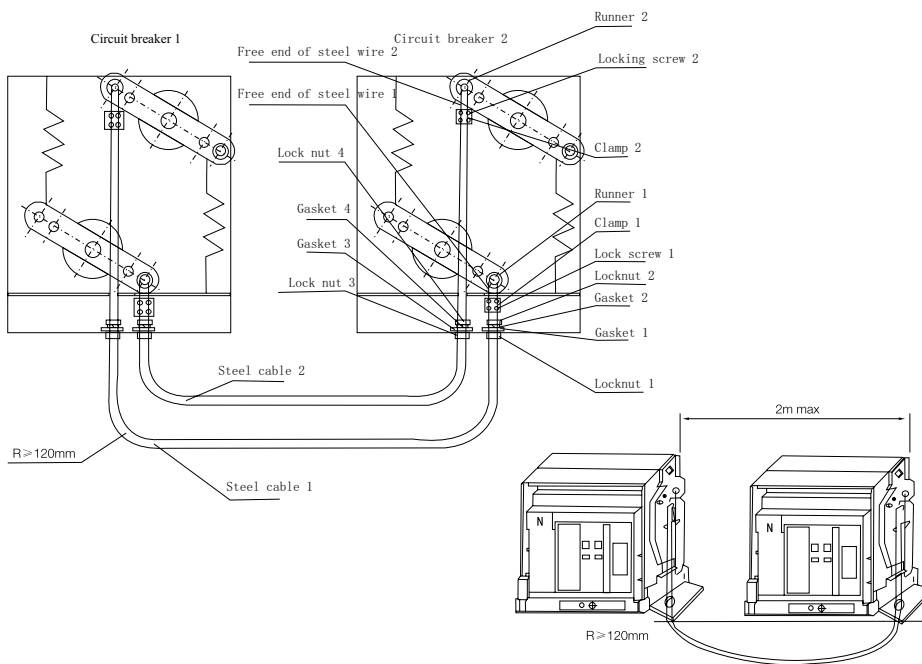
Emergency power supply (circuit breaker B)	Normal power supply (circuit breaker A)
0	0
0	1
1	0
1 represents circuit breaker closing; 0 represents circuit breaker disconnection	

##### 15.13.4 Interlock among three circuit breakers (only one circuit breaker can be closed)

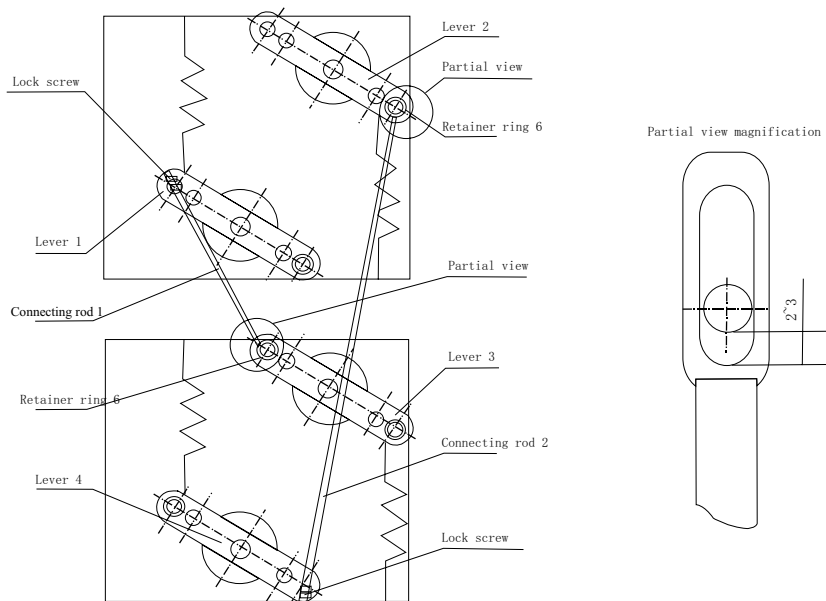


Emergency power supply (circuit breaker)	Emergency power supply (circuit breaker)	Normal power supply (circuit breaker)
0	0	0
0	0	1
0	1	0
1	0	0
1 represents circuit breaker closing; 0 represents circuit breaker disconnection		

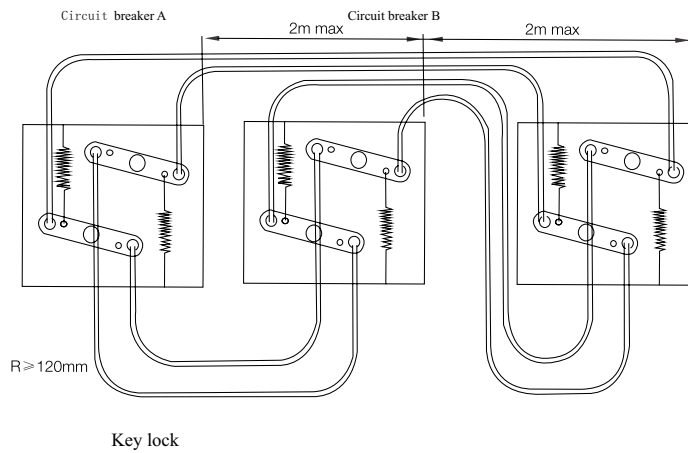
15.14 Schematic diagram of cable connection between two circuit breakers



15.15 Connection diagram for hard lever interlock between two circuit breakers



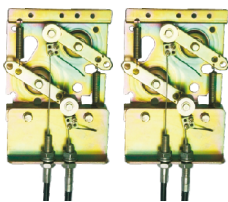
15.16 Cable interlock among three circuit breakers



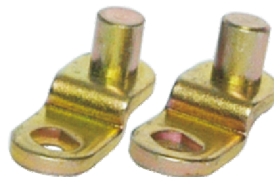
**Mechanical interlocking**

**Installation method** Installation of withdrawable type mechanical interlocking

**The components of mechanical interlocking**



+



lever

+



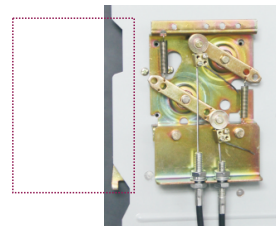
M4\*10mm screw

◆ **Installation steps for mechanical interlocking**

Install the lever on the main shaft on the right side of the body and fix it with screws M4\*10mm



Fix the mechanical interlocking mechanism on the right side of the drawer seat with 4 M4 \* 10 screws, paying attention to the reasonable curvature of the steel cable to ensure the reliability of the mechanical interlocking mechanism



**Note:**

When using the cable interlock, the minimum corner radius of the cable interlock shall not be less than R120mm.  
Check the steel cable and ensure that it has sufficient lubricating oil to ensure its flexible movement,

◆ **Fixed mechanical interlocking installation method**

◆ **Installation steps**

Install the lever on the main shaft on the right side of the body and fix it with screws M4\*10mm

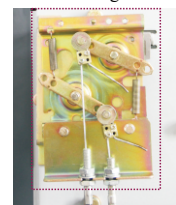


The fixed mechanical interlocking safety plate is fixed on the right side of the circuit breaker and fixed with 3 screws M4\*10mm



fixed mechanical interlocking assembling plate

Fix the mechanical interlocking mechanism on the right side of the drawer seat with 4pcs M4 \* 10 screws, paying attention to the reasonable curvature of the steel cable to ensure the reliability of the mechanical interlocking mechanism



## 16. Circuit Breaker maintenance and repair

### 11.1 Notes for circuit breaker maintenance and repair

Complete the following procedures before maintaining and repairing circuit breaker:

- open the circuit breaker, make sure the circuit breaker is under opening status;
- disconnect the upstream disconnector (if any), make sure the main circuit and secondary circuit are de-energized.
- release energy and opening circuit breaker, make sure the circuit breaker is free of energy and under opening status;
- all components and parts that may be touched by operator must be de-energized.



Caution

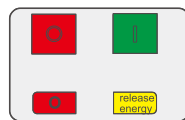
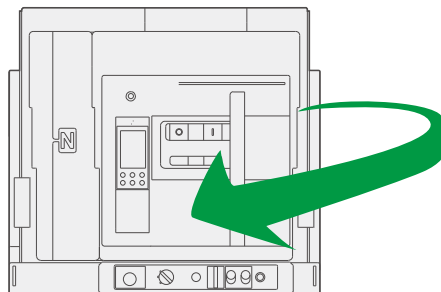
### 11.2 Maintenance and repair interval

**Table 31 Circuit breaker maintenance and repair interval**

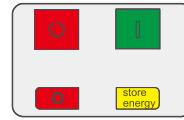
Conditions	Environment	Maintenance interval	Repair interval	Remarks
Normal conditions	Clean and dry air, no corrosive gas, with temperature between -5°C~+40°C, humidity comply with the requirements in 1.3 Operation condition c. extreme atmospheric conditions	Once half a year	Once a year (Once half a year after 3 years of installation )	Comply with IEC/EN 60947-2 General environmental condition requirements
Harsh conditions	Low temperature (-5°C~-40°C) or high temperature (40°C~65°C) or humidity≥90%	Once every 3 months	Once half a year (Once every 3 months after 3 years of installation )	
	With high content of dust and corrosive gas	Once a month	Once every 3 months	

### 11.3 Circuit breaker maintenance

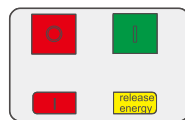
- Clean the foreign matters (such as tools, wire head or debris, metal objects etc.) in the cabinet regularly
- Remove the dust on the circuit breaker regularly, ensure good insulation
- Check whether the connecting bolts, grounding bolts and washers of main circuit flat and secure
- Check if the opening and closing indicator is correct and reliable



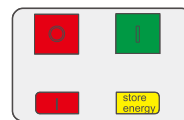
Open and release energy



Open and store energy



Close and release energy



Close and store energy

## 11.4 Circuit breaker repair

Circuit breaker repair contents (note: take NA8-4000 as example)

### 1. Connection check

The recommended torques for main circuit and secondary circuit are listed as follows:

**Table 32 Circuit breaker tightening torque**

Fastener specification	Torque requirement N•m
M3	1.5 ~ 2.5
M4	2.5 ~ 3.6
M8	20 ~ 33
M10	38 ~ 55
M12	61 ~ 94

### 2. Insulation test

The insulation resistance between phases and between phase and earth should be  $\geq 20M\Omega$ ;  
An insulation resistance test must be conducted before repairing and recovering power after long period ( $\geq 7$  days) of power-off.

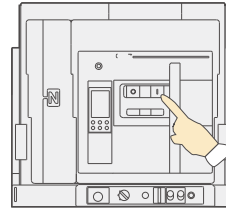
### 3. Operation check

Supply all the accessories with corresponding rated voltage according the nameplate and conduct the following operations:

Motor energy storage, opening and closing operations, conduct 5 cycles;

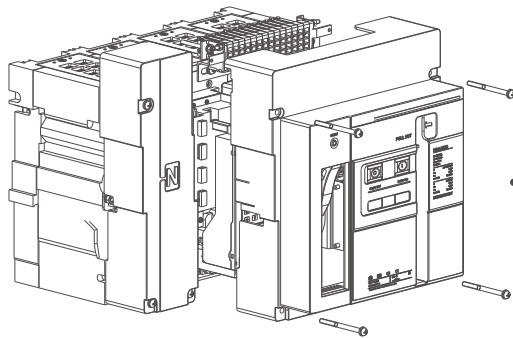
Manual energy storage, opening and closing operations, conduct 3 cycles;

The energy storage as well as opening and closing operations of circuit breaker should be normal. Note: main circuit must be de-energized, if an undervoltage release is used, you must supply with rated voltage first.



### 4. Circuit breaker component check

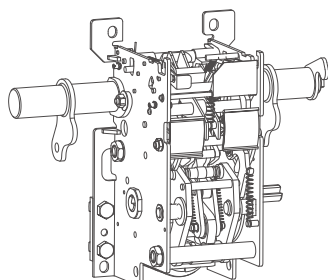
#### 4.1 Remove Front cover



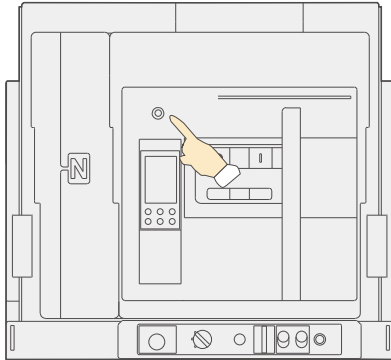
- Remove the four fixing bolts on circuit breaker panel, and take off the Front cover

#### 4.2 Operation mechanism check

All the parts should be free of fracture or damage, secure and clean all the fasteners, evenly grease all the rotating parts

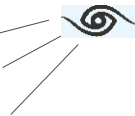
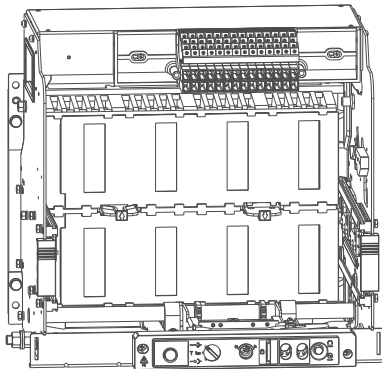


- Evenly apply 7012 low temperature grease or similar solid grease to lubricate all the rotating parts



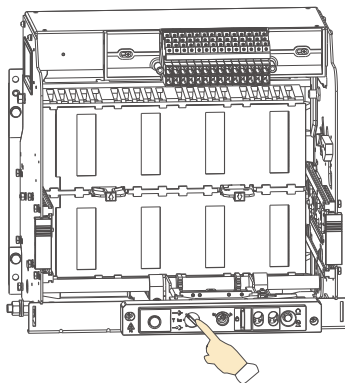
● Press the "Reset" key on the face shield to recover normal status

4.4 Drawer seat check (test after pulling out the body)  
No foreign objects inside

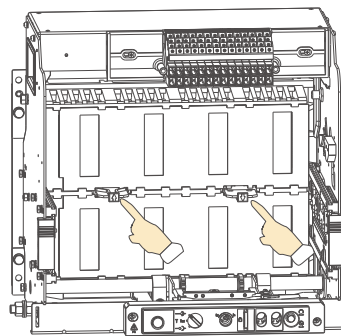


● Check whether there are foreign objects inside the drawer seat, such as screws, wire heads, iron scraps, etc. Remove any foreign objects found.

Flash barrier can open and close normally, isolation contacts are free of deformation and oxidation



● Rotate to Disconnected position, the flash barrier should be able to open and close freely, as shown in figure on the left

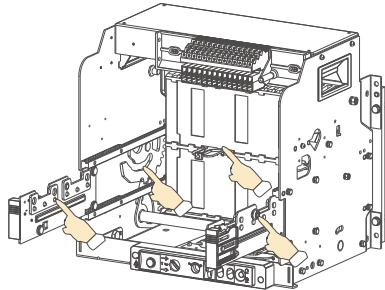


● Manually push the ejector rod in, the barrier should be able to open freely, as shown in figure on the left. After you release the ejector rod, the barrier should be able to close freely, check the bridge contacts of each phase are free of deformation, misalignment and oxidation. Replace the contact if any of these status is found.

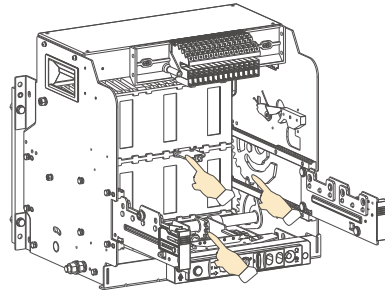


Rotate the friction parts and apply grease evenly

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- Evenly apply 7012 low temperature grease or similar solid grease to lubricate the positions pointed out in the figure

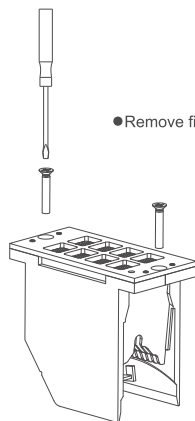


#### 4.5 Arc extinguishing cover

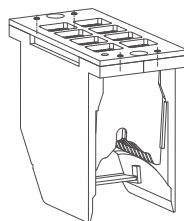
All the grids and arc initiating pieces should be intact, the arc extinguishing cover should be free of damage, if there is any damage found, please replace the arc extinguishing cover and clean the dust, corrosion layer and arc discharge point timely, if there is serious corrosion, please replace in time.

Note: must check after short circuit breaking

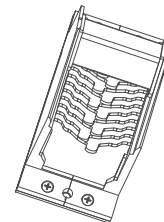
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- Remove fixing bolts



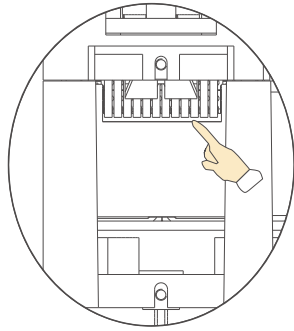
- Take out arc extinguishing cover



- Check the status inside
-

#### 4.6 Main contact check

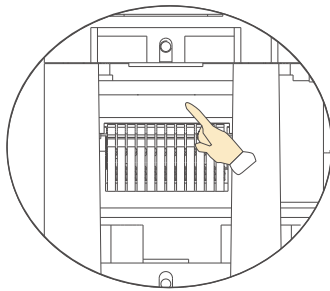
Over travel should be  $\geq 2\text{mm}$



- Close the circuit breaker manually, observe the over travel of main contact

Note: replace the contact if it reaches the position pointed out in the figure

Clean dust, corrosion layer and burnt particles



- Open the circuit breaker, the main contact should be at the position point out in the figure, check if there is dust, burnt particles and oxidation layer on static and dynamic contacts. If any, please clean up in time.

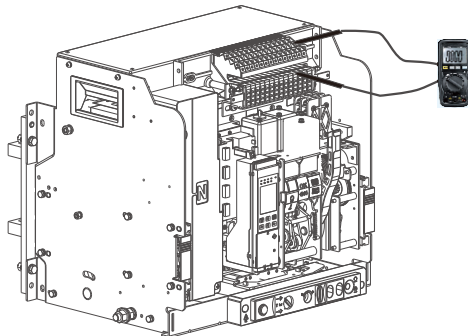
Note: must check after short circuit breaking

#### 4.7 Second circuit check

Enclosure is free of damage

Use multimeter to check whether the contacts of secondary circuits of withdrawable body and drawer seat can function normally at "test" position and "connect" position.

Check whether the connection screws are secured and the conductor insulation is intact.

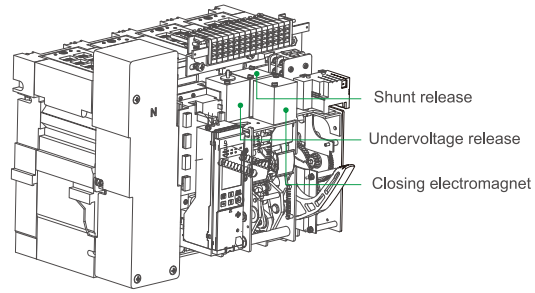


11.5 Circuit breaker accessory replacement

11.5.1 Replace undervoltage release, shunt release and closing electromagnet.

Conduct the following operations before replacing the any accessory.

Disconnect all power supplies, make sure none of the circuit breakers in main circuit and secondary circuit is under energy release and opening status.



11.5.2 Accessory replacement of fixed type circuit breaker

Remove the fixing bolts on the panel, take off the panel

Loosen the ties, remove the connection conductor

Remove the installation screws used to secure the accessories

Remove the accessories and replace them

11.5.3 Accessory replacement for withdrawable type circuit breaker

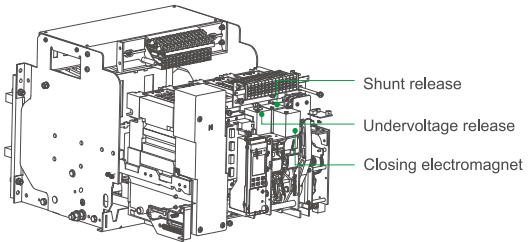
Rotate the body to disconnect position, take out the body

Remove the fixing bolts on the panel, take off the panel

Loosen the ties, remove the connection conductor

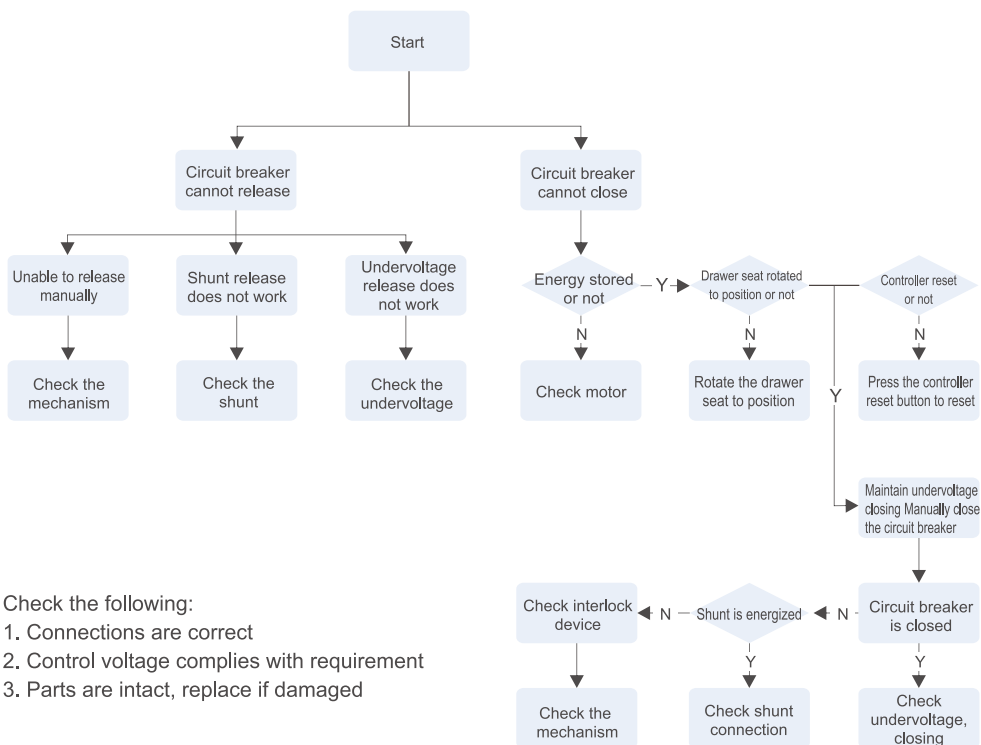
Remove the installation screws used to secure the accessories

Remove the accessories and replace them



## 17. Fault diagnosis and troubleshooting

12.1 Troubleshooting logic



Check the following:

1. Connections are correct
2. Control voltage complies with requirement
3. Parts are intact, replace if damaged

### 12.2 Identify fault cause

Identify faults by intelligent controller instructions



● Press "Inquiry" key to enter main menu



● Press "⏏" key to identify fault



● Press "Return" key to exit

Note: do not close circuit breaker with power on before trouble shooting

### 12.3 Common fault causes and solutions

The table below provides the possible problems that may occur during circuit breaker installation, commissioning and operation, as well as the causes and solutions to these problems.

**Table 33 Common fault causes and solutions**

No.	Technical problem	Possible cause	
1	Circuit breaker tripping (fault indicator on)	Overload fault release (long time delay indicator on)	Inspection and troubleshooting 1 Check breaking current value and operation time of intelligent controller 2 Analyze load and grid operation 3 If overload is confirmed, conduct inspection and troubleshooting immediately 4 If the actual operation current does not match with long time delay operation current, please alter the set value of long time delay operation current based on the actual operation current to provide proper protection; 5 Press reset button to reclose the circuit breaker
		Short circuit fault release (short time delay or instantaneous indicator on)	1 Check breaking current value and operation time of intelligent controller 2 If short circuit is confirmed, conduct inspection and troubleshooting immediately 3 Check the set value of intelligent controller 4 Check whether the circuit breaker is intact, and confirm whether it can be closed; 5 Press reset button to reclose the circuit breaker

Table 33 (continue)

No.	Technical problem	Possible cause	
1	Circuit breaker tripping (fault indicator on)	Ground fault release (ground fault indicator on)	1 Check breaking current value and operation time of intelligent controller 2 If ground fault is confirmed, conduct inspection and troubleshooting immediately 3 If ground fault does not exist, check if the set value of ground fault current is correct and matches with actual phase to be protected; if the set value is incorrect, change it; 4 Press reset button to reclose the circuit breaker
2	Circuit breaker does not close	Undervoltage release tripping	1 Check if the supply voltage is under 70%U <sub>e</sub> ; 2 Check if there is fault on undervoltage release and control unit
		Mechanical interlock operation	Check the status of the two circuit breakers installed with mechanical interlock
		Undervoltage release does not close	1 Check if the undervoltage release is energized; 2 Check if the supply voltage is under 85%U <sub>e</sub> ; 3 Check if there is fault on undervoltage release and control unit Replace the undervoltage release if fault is identified.
		Reset button did not reset	Press the reset button to reclose the circuit breaker
		Withdrawable circuit breaker was not rotated to position	Rotate the withdrawable circuit breaker to position (lockout at connect position)
		Bad contact of circuit breaker secondary circuit	Check the contact of secondary circuit and solve the problem
		Circuit breaker does not store energy	1 Check if the motor control power is connected and $\geq 85\%U_s$ ; 2 Check if there is fault on the energy storage mechanism
	Closing electromagnet problem	1 Check if the supply voltage of the closing electromagnet is $\geq 85\%U_s$ ; 2 If the closing electromagnet cannot close, replace it.	
3	Circuit breaker trips after closing	Immediate tripping Delayed tripping	1 A short circuit current may exist during closing, check and solve the problem; 2 Check whether there is overload current and solve the problem; 3 Check whether the circuit breaker mechanism is intact; 4 Check whether the set value of intelligent controller is correct, reset the value if necessary; 5 Press the reset button to reclose the circuit breaker
4	Circuit breaker does not open	Does not open electrically Does not open manually	1 Check the connection of shunt release and whether there is a fault on shunt release, if a fault is identified, replace the shunt release; 2 Check the operation mechanism for any mechanical fault
5	Circuit breaker does not store energy	Does not store energy electrically	1 Check whether the supply voltage of the control power of motor energy storage device is $\geq 85\%U_s$ , check the circuit; 2 Check the motor;
		Does not store energy manually	Energy storage mechanism fault.
6	Withdrawable circuit breaker can not pulled out at "Disconnected" position	The rotation handle is not pulled out; Circuit breaker did not fully reach "disconnect" position	Pull out the rotation handle Fully rotate the circuit breaker to "disconnect" position
7	Withdrawable circuit breaker cannot be rotated to "connected" position	The drawer is jammed by foreign object; the rotation mechanism or the gear of rotation mechanism is damaged; the position locking device is not unlocked	Check for foreign object and the status of gear. Turn the key on the drawer and unlock the device.
8	No display on intelligent controller	Intelligent controller is not energized; Incorrect voltage at input end of auxiliary power; Incorrect secondary output voltage of transformer; Poor connection between secondary output end of transformer and the controller;	1 Check the power connection of intelligent controller; 2 Disconnect the control power of intelligent controller, reconnect the power, if the fault still exists, it may be necessary to replace the intelligent controller.

## 18. Warranty

The warranty for this product is 12 months from the date of production if the normal storage and transportation conditions are observed and the package or the product itself is in good condition. The following circumstances are not covered by the warranty:

1. Damage due to user's improper use, storage and maintenance of the product.
2. Damage due to unauthorized disassembly, assembly and maintenance.
3. Warranty expires.
4. Damage due to force majeure

WEW1/WEW3 air circuit breaker Modlle List

(pls   Tick Or Fill in \_\_\_\_\_)

Company		Order amount:	Order date:
User Type and size	<input type="checkbox"/> WEW1-_____ <input type="checkbox"/> WEW3-_____		
Rated current (In)A	<input type="checkbox"/> _____		
Installation mode	<input type="checkbox"/> Withdrawable <input type="checkbox"/> fixed type		
Connection mode	<input type="checkbox"/> Horizontal connection <input type="checkbox"/> Vertical connecti <input type="checkbox"/> Front connection		
Number of poles	<input type="checkbox"/> 3P <input type="checkbox"/> 4P		
Intelligent controller	Setting of the protection parameter	<b>Factory's setting values:</b> IR=In, 2s(6IR); Isd=8IR, inverse-time limit 0.4s; li=12In; In ^ 1200A, Ig=800A; Ig=D× In, OFF If the user has some requirements different from the default, please write the numerical values on the line below	
		Long-time delay protection IR	Operating current setting _____ In (0.4,0.5,0.6,0.7,0.8,0.9,0.95,0.98,1) Operating time setting _____ s (1,2,4,8,12,16,20,24,30)
		Short-circuit short-time delay protection IR	Operating current setting _____ IR (1.5, 2, 2.5, 3, 4, 5, 6, 8, 10) Operating time setting _____ s (0.1, 0.2, 0.3, 0.4, OFF)
		Short-circuit instantaneous protection Ii	Operating current setting _____ In (2,3,4,6,8,10,12,15, OFF)
		Ground protection Ig	Operating current setting _____ In See Manual, p. 24 Operating time setting _____ s Definite-time limit _____ s
	Selecting the type	<input type="checkbox"/> M type <input type="checkbox"/> H type	
	Power input	<input type="checkbox"/> AC400V <input type="checkbox"/> AC230V <input type="checkbox"/> DC220V <input type="checkbox"/> DC110V <input type="checkbox"/> DC24V	
	Basic function	Three-section protection against over current      Neutral grounding fault protection      Voltage measurement Test function      Fault inquiry/memory function      Self-diagnostic function	
Optional function (this function to be added as required by the user, and to be matched with the controller type)	<input type="checkbox"/> Over voltage protection <input type="checkbox"/> Under voltage protection <input type="checkbox"/> Over frequency protection <input type="checkbox"/> Under frequency protection <input type="checkbox"/> Voltage unbalance measurement <input type="checkbox"/> Phase sequence protection <input type="checkbox"/> Voltage measurement <input type="checkbox"/> Frequency measurement <input type="checkbox"/> Measurement of harmonic current <input type="checkbox"/> Power factor measurement <input type="checkbox"/> Power measurement <input type="checkbox"/> Phase sequence detection <input type="checkbox"/> Voltage unbalance rate measurement <input type="checkbox"/> Electric energy measurement <input type="checkbox"/> Contact equivalent <input type="checkbox"/> Power network history parameter recording function <input type="checkbox"/> MCR make/break function <input type="checkbox"/> Load monitoring function <input type="checkbox"/> Signal contact output function <input type="checkbox"/> Communication function <input type="checkbox"/> ZSI regional interlocking protection		
Under voltage release	<input type="checkbox"/> Instantaneous <input type="checkbox"/> Time delay _____ s (1-2-3-4-5-6-7s provided for the 1600 shell, optional but not adjustable; 0.5-1-3-5s for the 3200 and 6300 shell, optional and adjustable) AC400V <input type="checkbox"/> AC230V		
Note: when the product is a multifunctional controller, not all the functions can be selected by the user, the communication function and the like are the basic configuration			
Accessories for standard configuration	Shunt release	<input type="checkbox"/> AC400V <input type="checkbox"/> AC230V <input type="checkbox"/> DC220V <input type="checkbox"/> DC110V	
	Closing electromagnet	<input type="checkbox"/> AC400V <input type="checkbox"/> AC230V <input type="checkbox"/> DC220V <input type="checkbox"/> DC110V	
	Energy storage motor	<input type="checkbox"/> AC400V <input type="checkbox"/> AC230V <input type="checkbox"/> DC220V <input type="checkbox"/> DC110V	
	Auxiliary contact	<input type="checkbox"/> 4 groups of transfer contacts (default configuration) <input type="checkbox"/> Six groups of conversion <input type="checkbox"/> Independent 4NC+4NO <input type="checkbox"/> Independent 6NC+6NO	
Accessories for optional configuration	OFF locking device	<input type="checkbox"/> One breaker is provided with one lock and one key <input type="checkbox"/> Two breakers is provided with two same locks and one key (the key/lock not available for the 1600 and 3200/6300 shell breakers) <input type="checkbox"/> Three breakers is provided with three same locks and two keys (the same key/lock not available for the 1600 and 3200/6300 shell breakers)	
	Mechanical interlock	<input type="checkbox"/> Two-breaker interlock solution <input type="checkbox"/> Steel cable interlock <input type="checkbox"/> Joint rod	
		<input type="checkbox"/> BUTTON locking device <input type="checkbox"/> Three-position locking device for the draw-out socket <input type="checkbox"/> Door interlock <input type="checkbox"/> Separator between phases <input type="checkbox"/> Door frame <input type="checkbox"/> Auxiliary power module	
		<input type="checkbox"/> ATS controller Explanation: 1. For mechanical interlocking, please select the type; 2. It already includes undervoltage protection and does not require the selection of an undervoltage protector; 3. Electrical accessories must choose AC230V working voltage	

Note: Extra costs are needed for the optional functions, optional accessories and the like for the breaker.



## Europe



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