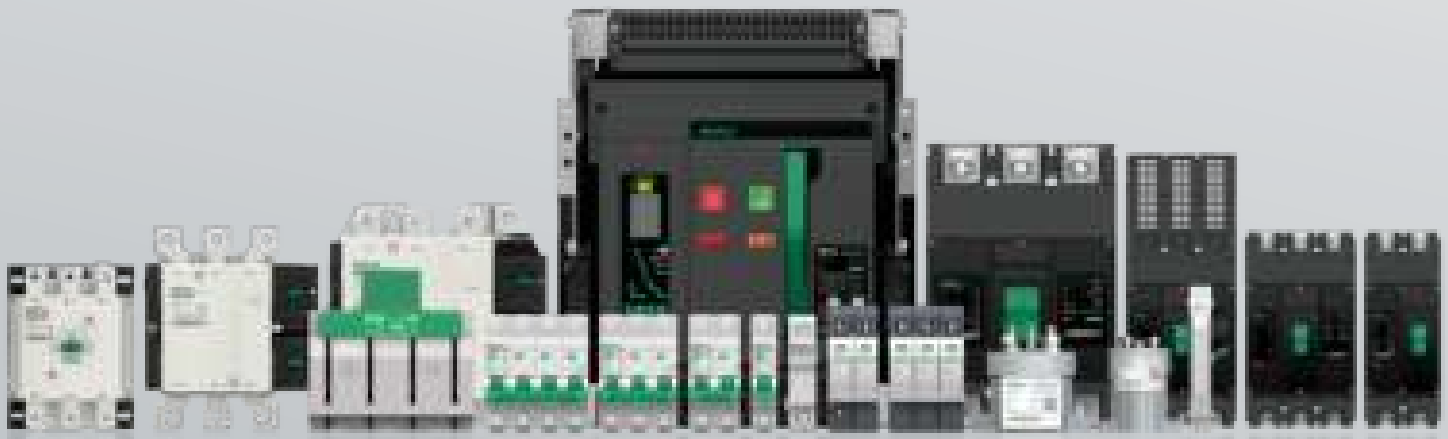


New Energy Series

PEOPLE ELECTRIC
PRODUCT SALES MANUAL

人民电器

For the people of the world
Provide safer electrical products

BRAND POWER

Brand leadership

Top 500 Chinese enterprises and top 500 global machinery enterprises. In 2025, evaluated by the World Brand Lab, the brand value of "People" is 101.636 billion yuan, and it has become one of the 500 most valuable brands in China.

Quality leadership

Products have won the highest award in the field of quality in China "National Quality Award" and China Quality Award nomination award, through CCC certification or "S", "CE", "CB" and other international certification, was named "China famous brand products" and "national customer satisfaction products", selling well in more than 125 countries and regions around the world.

Technology leadership

More than 100 national key new products, more than 3,000 domestic and foreign patents, more than 5,000 science and technology certificates, the company has reached strategic partnerships with more than 30 institutions of higher learning and technology research and development institutions around the world.

100+

National key new products

3000+

Domestic and foreign patents

5000+

Science and technology certification

Service leadership

5.0 Intelligent service with customers to establish a comprehensive service network, service hotline: 400-898-1166, we provide from the product unbox inspection, warranty period to provide three guarantees, warranty period to provide lifelong maintenance, on-site equipment installation arrangements to provide technical guidance and other leading services.

5.0 Smart Service

Five major service commitments:
professional, rapid, reliable, sincere, and satisfactory

The Ecological Cirele Of The Intelligent Industry

PEOPLE
ELECTRIC

People-driven Innovation, Beyond the Future

Perfect Smart Grid System

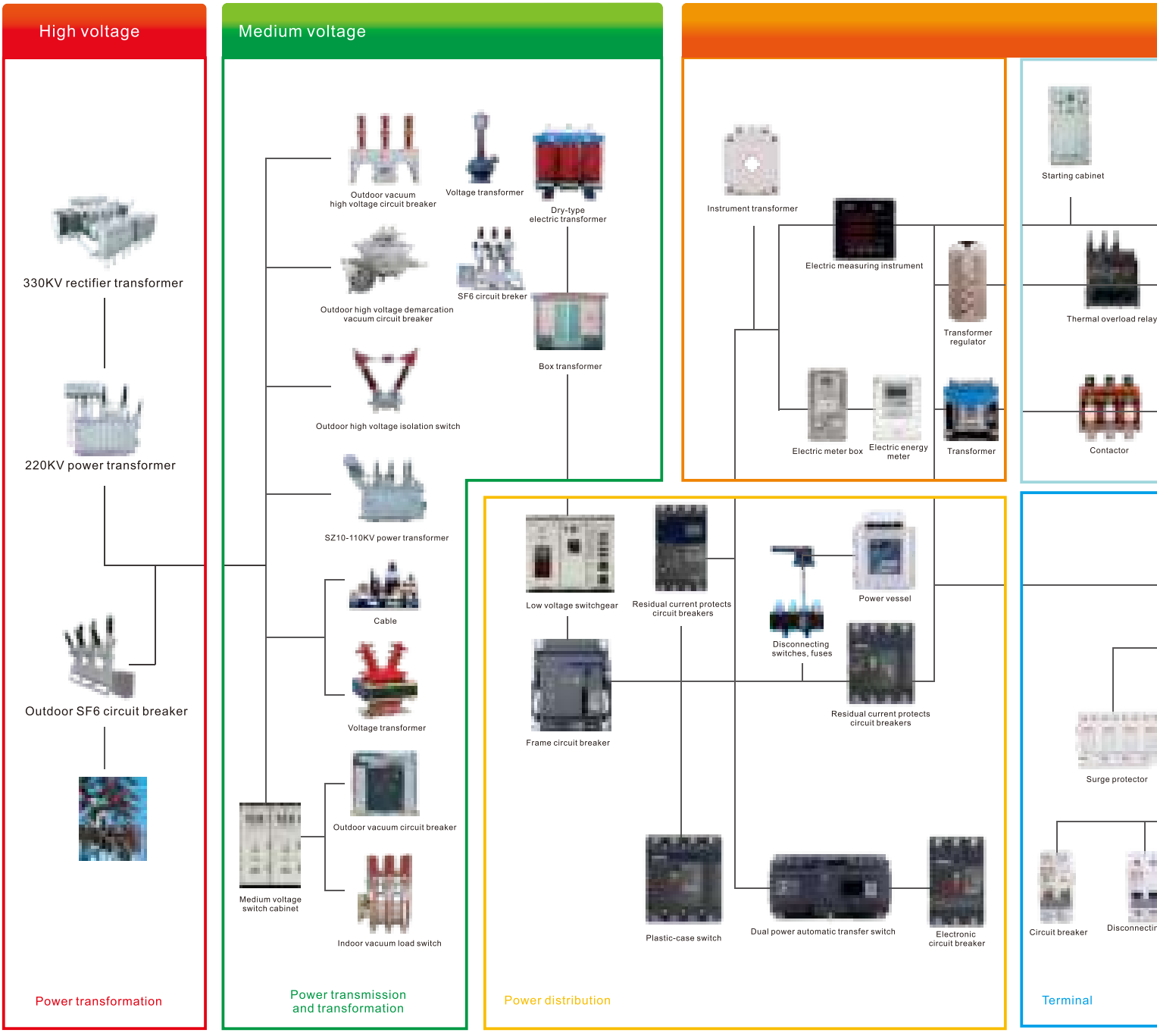
Constantly Producing High-Efficiency Electricity

Intelligent and Safe System Integration Provides New Impetus

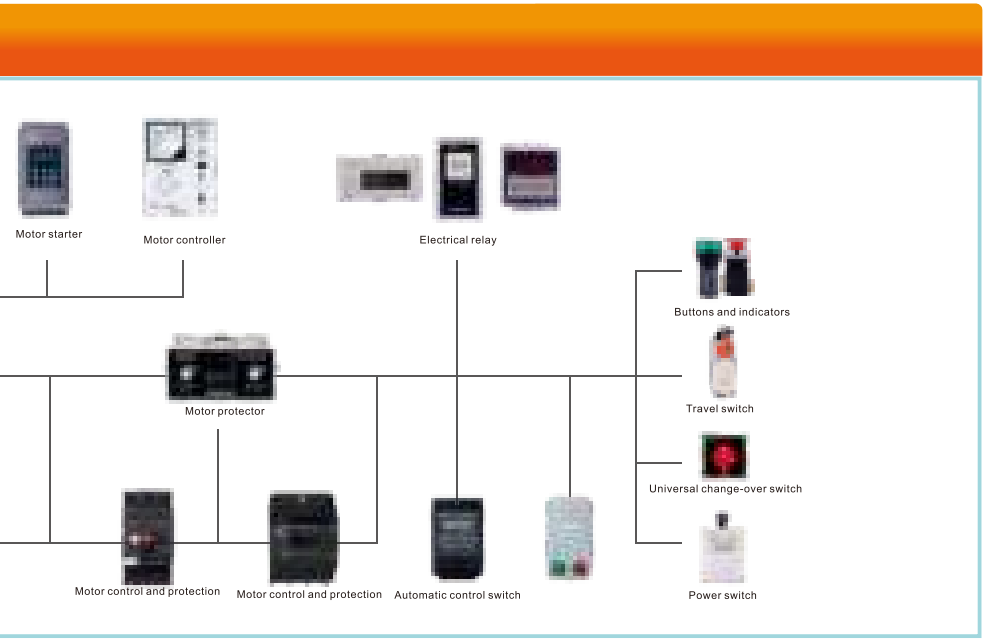
Green and Environmentally Friendly Clean Energy Ensures Sustainable Development

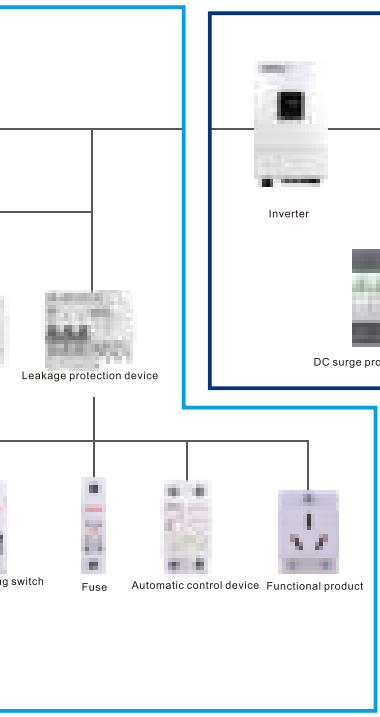
Electrical System for Intelligent Manufacturing

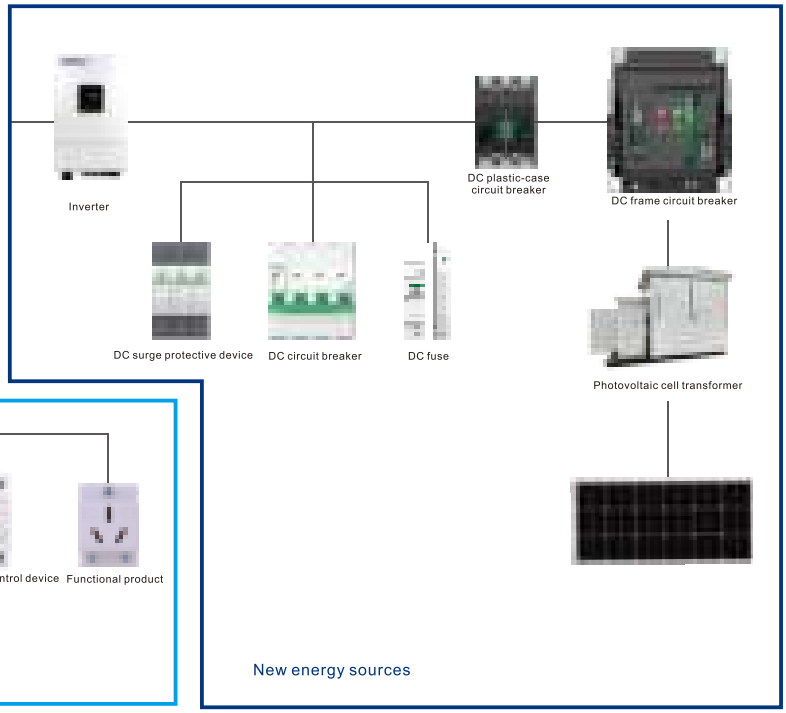
People's electrical appliances continue to serve the fields of "power generation", "transmission", "transformation", "distribution" and "electricity consumption", making electricity safer, more environmentally friendly and more intelligent.



PEOPLE
ELECTRIC







Relying on big data, cloud computing, artificial intelligence technology and smart grid, the company aims to be a smart power equipment industry chain system solution provider for power generation, transmission, storage, reverse, transformation, distribution and utilization, focusing on the development of efficient, reliable, technology-intensive electric components and high-end complete sets of electrical equipment.

New innovation leads the futu

PEOPLE ELECTRIC | NEW ENERGY

ure of intelligent manufacturing

contents

PEOPLE
ELECTRIC

RDW8DC series DC intelligent universal circuit breaker

Higher breaking and short-time tolerance

A full range of Icu, Ics, Icw, up to 120kA, leading the industry in performance,Meet the continuity and stability of power supply.

Excellent long life and reliability

Maximum mechanical life up to 20,000 times, electrical life up to 7,000 times, Innovative arc-extinguishing chamber design, truly achieve zero arc-flying.

Improved protection and selectivity

2500, 4000 two shell frames provide more selectivity, impact withstand voltage up to 12kV, Meet more industry requirements.

Multifunctional intelligent controller

LCD display intelligent controller for complete protection, measurement, Maintenance and communication functions.

RDW8DC series DC intelligent universal circuit breaker

Product overview

RDW8DC series universal circuit breaker (hereinafter referred to as circuit breaker), suitable for DC, rated current 800A~4000A, rated insulation voltage DC1500V, rated working voltage DC500V/750V, DC1000V/1500V/ distribution network. Used to distribute power and protect lines and power equipment from overload, undervoltage, short circuit and other faults; It also has reliable isolation function. Circuit breakers have a variety of protection functions, While achieving highly accurate selective protection, it can also avoid unnecessary power outage and improve the reliability and safety of the power supply system. The circuit breaker has the selective protection function to realize the inter-circuit breaker Hierarchical coordination protection and backup protection to reduce the accident scope of the power grid. Therefore, it is especially suitable for the protection system of large capacity DC current power supply.

Products comply with: GB/T 14048.2 standard.

Selection guide

RDW8	DC	25	16	3	H	Drawer level	AC230V	No undervoltage	A1
Product code	Breaking grade	Frame current	Rated current	poles	Controller	Installation mode	Control voltage	Attachments	Connection mode
DC intelligent type Universal circuit breaker	DC	25:2500(08-25) 40:4000(16-40)	08:800A 10:1000A 12:1250A 16:1600A 20:2000A 25:2500A 29:2900A 32:3200A 36:3600A 40:4000A	2:2P 3:3p 4:4P	R: Enhanced type (Liquid crystal Display) H: Advanced type (LCD with communication)	Drawer level Drawer vertical Fixed level Fixed vertical	AC230V AC400V DC220V DC110V	Interphase partition Quadruple transformation Door frame No undervoltage Mechanical interlocking Mechanical interlocking One lock, one key Two locks and one key Three locks, two keys It's 50-50 Six on, six off	2500:2 pole string, 3-pole string, 4-pole string (see figure) 4000:3 pole string, 4-pole string (see figure)

RDW8DC default standard configuration: shunt, closing, electric operation, 4 group conversion, door frame, interphase partition

For example: need to order a RDW8DC-2500, three pole drawer, rated current 1250A, intelligent controller for R type,

control voltage AC230V, wiring mode A1,

Expressed as: RDW8DC-25 12/3R drawer level AC230V without undervoltage A1.

RDW8DC series DC intelligent universal circuit breaker

Normal working conditions and installation conditions

Normal working condition

☐ The ambient air temperature is -5°C ~ +40°C, and the average value of 24h does not exceed +35°C;
Note: If the upper limit exceeds +40 ℃ or the lower limit is lower than -5 ℃, the user needs to negotiate with the manufacturer.
☐ The elevation of the installation site does not exceed 2000m;
Note: Consult with the manufacturer for the circuit breaker used in the working environment with an altitude of more than 2000m.
☐ The relative humidity of the atmosphere does not exceed 50% when the ambient air temperature is +40°C;
It can have higher relative humidity at lower temperatures;
For example, the wettest month has an average maximum relative humidity of 90%, while the The average minimum temperature of the month is +20 ℃, and treatment measures should be taken for the occasional condensation due to temperature changes.
☐ The pollution level is 3;
☐ When the rated working voltage of the main circuit is DC750V ~ DC1500V, the control circuit and auxiliary circuit need to be isolated from the main circuit by transformer, and the maximum working voltage of the control circuit and auxiliary circuit is AC400V, control circuit and auxiliary circuit installation category is III;
☐ The circuit breaker is suitable for electromagnetic environment A;
☐ Use category B.

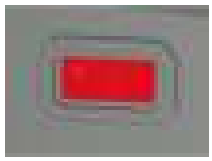
Normal installation condition

☐ Installation of fixed circuit breaker: The circuit breaker is placed in the distribution cabinet and secured with M10 (more than 2500A shell frame) bolts and washers. The circuit breaker is installed smoothly without additional mechanical stress Avoid circuit breaker damage or poor contact of main busbar;
☐ Installation of drawer type breaker: Remove the circuit breaker body from the drawer seat, install the drawer seat in the distribution cabinet first, and tighten with M10(more than 2500A shell frame) bolts and washers. Circuit breaker mounting level Stable, there should be no additional mechanical stress, so as to avoid circuit breaker damage or poor contact between the main bus and the secondary circuit,' after the completion of the circuit breaker body into the drawer seat connection position;
☐ The circuit breaker should be installed in a place without explosion risk and conductive dust, without enough to corrode metal and destroy insulation;
☐ The protection level is IP20. When the circuit breaker is installed in the cabinet and the door frame is installed, the protection level can reach IP40.
Normal storage and transport conditions
☐ The lower limit of temperature is not less than -25°C, the upper limit is not more than +55°C; Relative humidity (+25°C) does not exceed 95%;
☐ The product should be handled gently during transportation, and should not be inverted to avoid violent collision.

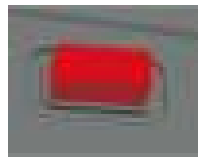
RDW8DC series DC intelligent universal circuit breaker

Circuit breaker operating condition

☐ Operating status of the intelligent controller

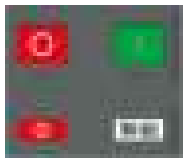


Intelligent controller working status

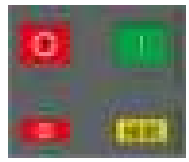


When the intelligent controller is in the protected state,
the circuit breaker is disconnected and the circuit is cleared
After the fault, press this button, the circuit breaker can be closed normally.

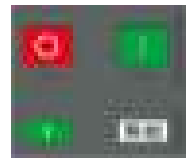
Operating mechanism working status



The circuit breaker is off
and has no energy storage



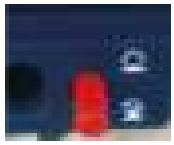
The circuit breaker is off and
the energy storage is complete



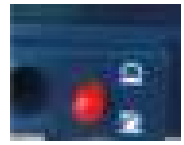
Circuit breaker closed
and no energy storage state

Circuit breaker closed and energy
storage completed state

Drawer seat working condition

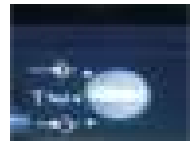


In "separate", "test", "connect"
In three positions,
the position lock is locked,
and the crank cannot
Operation (locked state)

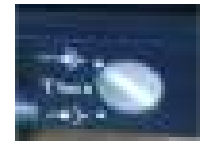


After the position lock is locked,
you need to continue operating the shake
Handle, press the position lock button to release the lock
(Unlocked state)

In the "separate" position,
both the main circuit and the
secondary circuit are disconnected



In the "test" position,
the main circuit is disconnected,
Secondary loop on



In the "Connect" position,
the main circuit and
All secondary circuits are connected

RDW8DC series DC intelligent universal circuit breaker

Technical parameters and performance

CIRCUIT BREAKER		RDW8DC-2500			RDW8DC-4000
Series poles (P)		2、3、4			3、4
Rated current In(A)		800、1000、1250、1600、2000、2500			1600、2000、2500、3200、3600、4000
Rated operating voltage Ue(V)		DC500V/750V(2P、3P) DC1000V/1500V(4P)			DC500V/750V(3P)、DC1000V/1500V(4P)
Rated insulation voltage Ui(V)		1500			1500
Rated impulse withstand voltage Uimp(kV)		12			12
Rated limit short circuit Breaking capacity Icu(kA)		DC500V	2P	50	/
			3P	65	120
		DC750V	2P	40	/
			3P	55	80
		DC1000V	4P	50	75
		DC1500V	4P	40	60
Rated operating short-circuit breaking capacity Ics(kA)		100% Icu			100%Icu
Rated short-circuit closing capacity Icm(kA)		100% Icu			100%Icu
Rated short-time withstand current Icw(kA)/1s		100% Icu			100%Icu
Installation method	Stationary	●			●
	Drawer type	●			●
Full segment time time (no additional delay)		25~30ms			
Closing time		≤70ms			
Mechanical life (with maintenance)		20000			20000
Mechanical life (no maintenance)		10000			10000
Electrical life		7000			6000
Connection mode (horizontal)		●			
Connection mode (vertical)		●			
Connection mode (top horizontal and bottom vertical) Connection mode (vertical up and horizontal down)		●			

Note: The mechanical life of drawer seat is 100 times, from "separation" to "connection" to "separation" is once, and the operation cycle is 1 time /2min.

RDW8DC series DC intelligent universal circuit breaker

Power loss

Product model	Frame current (A)	Power loss (W)	
		Drawer /4P	Fixed /4P
RDW8DC-2500	2500	625	320
RDW8DC-4000	4000	960	510

Note: Circuit breaker power consumption is the total power consumption measured by the rated shell current, this data can only be used as a general selection guide, can not be used as a power loss in actual use.

It is recommended that the cross-sectional area of the external conductor correspond to the rated current of the circuit breaker to ensure the normal operation of the circuit breaker.

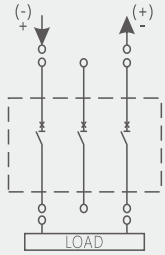
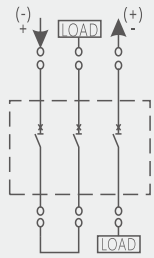
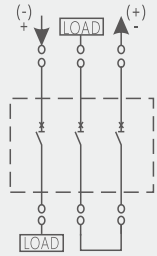
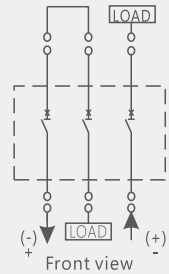
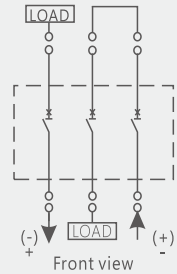
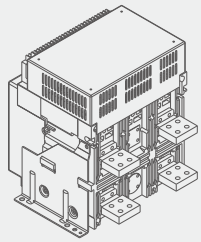
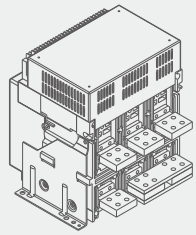
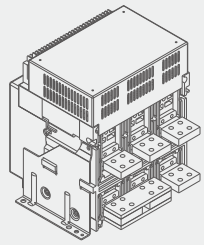
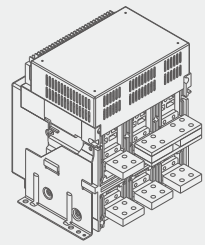
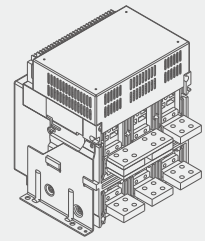
Rated current (A)	External copper bar Width x thickness (mm)	Number of roots per terminal	Cross-sectional area per terminal (mm^2)
800	50×5	2	500
1000	60×5	2	600
1250	80×5	2	800
1600	100×5	2	1000
2000	100×5	3	1500
2500	100×5	4	2000
2900	100×10	3	3000
3200	100×10	4	4000
3600	100×10	5	5000
4000	100×10	5	5000

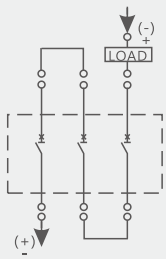
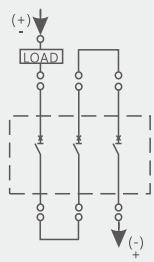
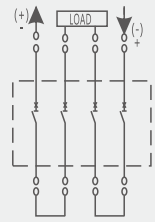
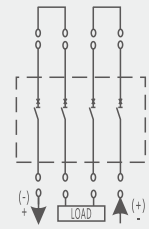
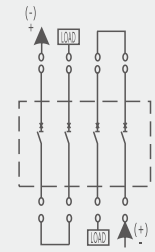
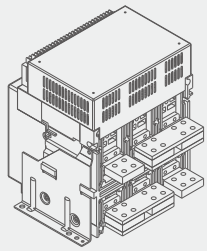
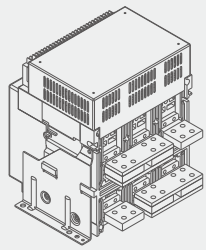
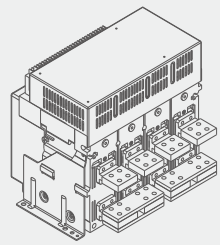
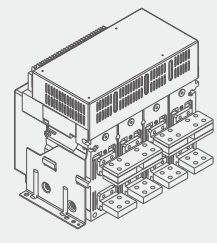
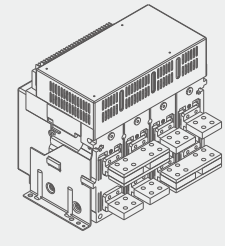
Coefficient of capacity reduction at altitude

Altitude (m)	2000	3000	4000	5000
Working current reduction coefficient	1	0.93	0.88	0.82
Short-circuit breakingcapacity reduction factor	1	0.83	0.71	0.63
Power frequency withstand voltage (V)	3500	3150	2500	2000

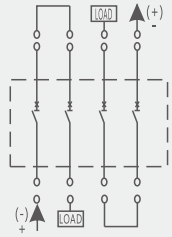
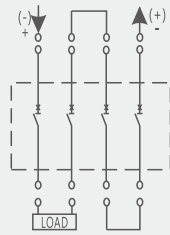
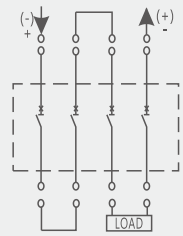
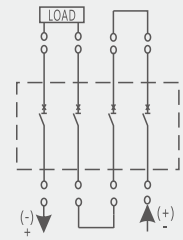
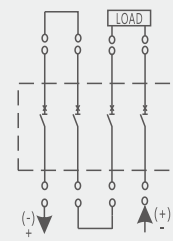
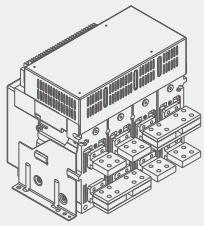
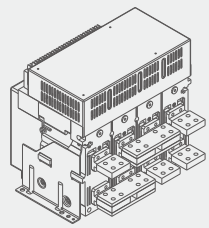
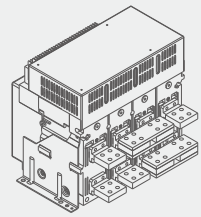
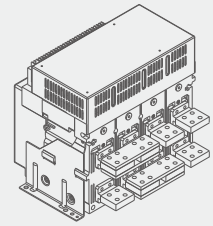
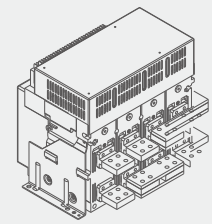
RDW8DC series DC intelligent universal circuit breaker

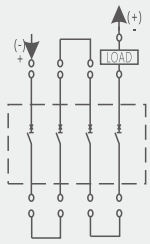
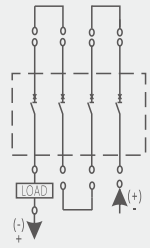
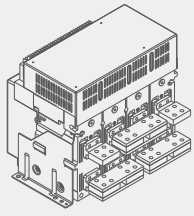
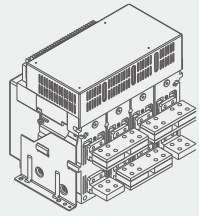
Dc series system

Series poles	2 p series	3Pseries(A1)	3Pseries(A2)	3Pseries(A3)	3Pseries(A4)
Connection mode	 Front view	 Front view	 Front view	 Front view	 Front view
	 3D rear view	 3D rear view	 3D rear view	 3D rear view	 3D rear view

Series poles	3P series (B1)	3Pseries (B2)	4Pseries(C1)	4Pseries (C2)	4Pseries (C3)
Connection mode	 Front view	 Front view	 Front view	 Front view	 Front view
	 3D rear view	 3D rear view	 3D rear view	 3D rear view	 3D rear view

RDW8DC series DC intelligent universal circuit breaker

Series poles	4 p series (C4)	4 p series (C5)	4 p series (C6)	4 p series (C7)	4 p series (C8)
Connection mode	 Front view	 Front view	 Front view	 Front view	 Front view
	 3D rear view	 3D rear view	 3D rear view	 3D rear view	 3D rear view

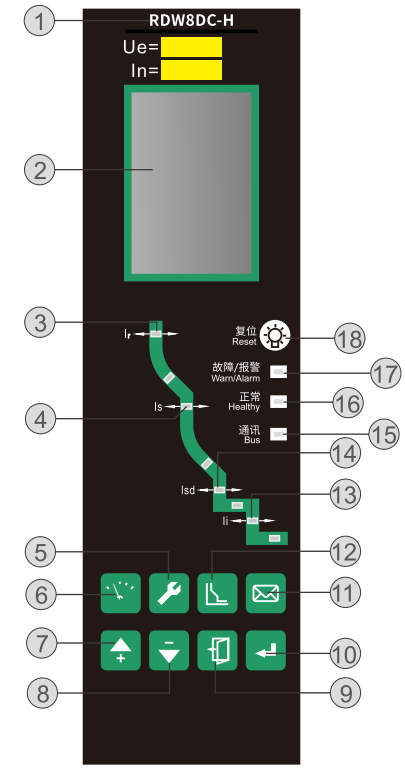
Series poles	4 p series (D1)	4 p series (D2)			
Connection mode	 Front view	 Front view			
	 3D rear view	 3D rear view			

Note: All the above installation methods can meet the requirements of up and down wire and non-polarity.

RDW8DC series DC intelligent universal circuit breaker

Intelligent controller protection features (liquid crystal type)

Intelligent control page description



RDW8DC Intelligent controller interface

1. Intelligent controller model (corresponding product model);
2. LCD liquid crystal display window: can display each phase current Value, voltage value, setting parameter, fault current Flow, trip time and information query parameters;
3. Overload long delay fault indication;
4. Short circuit short delay inverse time fault indication;
5. Setting key: Quickly switch to the parameter setting main menu, (in the password input interface is "To right" key);
6. Measurement key: Quickly switch to the measurement default main menu, (under the password input interface is"Left" key);
7. Up key: Move the menu content up at the current level, or change the selection up Parameters;
8. Down key: Move menu contents down at the current level, or change the selection down Parameters;
9. Back key: Exit the current level to enter the upper-level menu, or cancel the current parameter The selection of;
10. Ok key: Enter the next level menu that the current item points to, or proceed to the current parameter Select, store the changes made;
11. Query key: Switch to the history and maintenance theme menu;
12. Protection parameter setting key: Switch to the protection parameter setting theme menu;
13. Short circuit instantaneous fault indication;
14. Short-circuit short-delay fixed time fault indication;
15. Communication instruction :Profibus: no communication when off, communication constant light;
16. Modbus: turns off when no communication is available and blinks when communication is available. Normal indication: in the power state, the working state is normal, the LED is always green flashing;
17. Fault/alarm indicator: the "fault/alarm" LED does not light up during normal operation; breakdown When tripping, the "Fault/alarm" LED is red and flashes rapidly; In case of alarm When the LED red constant bright;
18. Reset button: When the intelligent controller is in the fault/alarm state, it needs to restore to normal work State, press this key to clear the intelligent controller fault/alarm indication.

RDW8DC series DC intelligent universal circuit breaker

Intelligent control protection features

□ Overload long delay protection

The overload long delay protection function is generally used to protect the cable from overload, and the protection is based on the true RMS of the current. Overload long delay inverse time protection, setting current Ir adjustable; The delay time tr is adjustable; peculiarity Multi-curve adjustable, respectively, general type (I^2t), very inverse time (It), high voltage fuse matching type (I4t) to meet the upstream and downstream overload protection selectivity and matching needs.

Table 1 Setting parameters related to overload long delay protection

	Setting range		remark
	Distribution mode	Generator type	
Long delay action current set Ir	(0.4 ~ 1.0)In(step 1A)	(0.4 ~ 1.2)In(step 1A)	
Long delay time set value tr:	I^2t:tr=(15~480)s Universalinverse Timeprotection(I=1.5Ir)	I^2t: tr =(8 ~ 60)s Universal inverse Time protection (I=1.3Ir)	Protection curve Type selection
	It:tr=(10to120)s Fastinversetime(I=1.5Ir)	It:tr=(10to120)s Fastinversetime(I=1.5Ir)	
	I4t: tr =(60 to 1440)s High voltage fuse compatibility (I=1.5Ir)	I4t: tr =(60 to 1440)s High voltage fuse compatibility (I=1.5Ir)	
Programmable DO output	Set a DO to "Long delay Failure" (optional)		
memory	Off, 10 minutes, 20 minutes, 30 minutes, 45 minutes, 1h, 2h, 3h Optional, power off can be cleared		

Type	Peculiarity	Current multiple (I/Ir)	Set time	Actual operating time	Delay tolerance
Power distribution	Inaction characteristic	<1.05	>2h inaction	-- ---	-- ---
	Action characteristic	>1.3	<1h action	-- ---	-- ---
	Action characteristic	1.5	(15～480)s (10~120)s (60~1440)s	(15～480)s (10~120)s (60~1440)s	±10%
	Action delay	>1.5	---	See calculation formula	±10%
Generator of electricity	Inactive characteristic	<1.05	>2h inaction	-- ---	-- ---
	Action characteristic	>1.15	<1h action	-- ---	-- ---
	Action characteristic	1.3	(8～60)s	(8～60)s	±10%
		1.5	(10～120)s (60~1440)s	(10～120)s (60~1440)s	
	Action delay	>1.3	---	See calculation formula	±10%

RDW8DC series DC intelligent universal circuit breaker

☐ Short delay protection

The short delay protection prevents the impedance short circuit of the distribution system, which is generally caused by the local short circuit fault of the line, and the current generally exceeds the range of overload, but the short circuit current is not very large. Short-circuit delay The trip delay is to achieve selective protection, is based ON current true RMS protection, there are two ways (the user can choose one of them when ordering) : I^2t ON, distribution protection, When I≤8Ir, act according to the inverse time limit; When I>8Ir1, the operation is limited according to the time limit. When the generator is protected, when I≤2Ir, act according to the inverse time limit; When I>2Ir1, act according to the specified time limit; tsd indicates short delay Setting time, Ir indicates the long delay setting current, I indicates the current fault current. I^2t OFF, fixed time protection. (The user does not specify, supply in this way).

Table 2 Short delay setting parameters

Type	Parameter name	Setting range	Set the step size
Power distribution	Action current setting Isd	(0.4～15)In+OFF	1A
	Fixed action time tsd	0.1～0.6s	0.1s
	Inverse time delay time T Delay time accuracy (±10%)	tsd x (8 x Ir/I)2(curve I2t)	---
		Long delay 1/10 of the delay time (curve It, I4t)	---
alternator	Action current setting Isd	(0.4～15)In+OFF	1A
	Fixed action time tsd	0.1～0.6s	0.1s
	Inverse time delay time T Delay time accuracy (±10%)	tsd x (8 x Ir/I)2(curve I2t) Later changed to tsd x (2 x Ir/I)2(curve It)	---
		Long delay 1/10 of the delay time (curve It I4t)	---
Programmable DO output	Programmable DO output	Set a DO to Short Delay Failure (optional)	

Table 3 Short delay setting parameters

Peculiarity	Current multiple (I/IS)	Set a trip time	Delay tolerance
Inactive characteristic	<0.9	Inaction	---
Action characteristic	≥1.1	Action	±10%

Note: Late change short delay inverse time time is not lower than the fixed time time.

☐ Instantaneous protection feature

The instantaneous protection function prevents short circuit of the power distribution system, which requires quick disconnection due to high current. This protection is based on the instantaneous value of the current.

Table 4 Setting parameters related to instantaneous protection

Parameter name	Setting range	Set the step size
Action current setting Ii	(1.0～20)In+OFF;Ii≦42kA	1A(Imn = 2500A)；1A(Imn = 4000A)
Programmable DO output	Set a DO to Instantaneous failure (optional)	

RDW8DC series DC intelligent universal circuit breaker

Table 5 Instantaneous protection action characteristics

peculiarity	Current multiple (I/Ii)	Set a trip time	Delay tolerance
Inactive characteristic	<0.85	ination	---
Action characteristic	>1.15	ation	---
Action delay	≥1.15	<30ms	---

☐ Overload warning function

Used for monitoring important loads. An additional function of the intelligent controller, when the circuit breaker current rises and exceeds the setting value of the forecast alarm current, the forecast alarm signal is sent after a delay of a period of time, and the forecast alarm light is forecast at this time Steady on; When more than a certain time (tp), the forecast alarm light shines, and the relay output signal; When the current drops below the set value or the overload trip, the alarm function is reset after a delay of a period of time. Overload preload The alarm can be turned on and off.

Table 6 overload forecasting alarm setting parameters

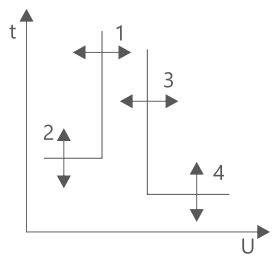
Parameter name	Setting range	Set the step size
Operating current Setting Ip(A)	(0.7~1.2)Ir	1A
Setting time tp(s)	(0.4~0.9)tr	1s
Return alarm current set value: (A)	0.9Ip	1A
Return time setting value: (s)	1~100	1s
Programmable DO output	Set a DO to Overload Alarm (optional)	

Table 7 overload forecasting alarm action characteristics

peculiarity	Current multiple (I/Ii)	Set a trip time	Delay tolerance
Inactive characteristic	<0.9	Inaction	---
Action characteristic	>1.1	Action	---
Action characteristic	≥1.1		±10%(inherent absolute error ±40ms)

Undervoltage protection

☐ Action rules for undervoltage protection



1: indicates the action threshold
2: action delay time
3: Returns the threshold
4: Returns the delay time

Figure 1 Action principle of undervoltage protection

When the voltage is less than the action threshold (1) start the alarm or trip delay, the action delay time (2) send the alarm or trip signal, undervoltage trip or undervoltage fault DO action; When the voltage is greater than the return threshold (3) Start the return delay, when the return delay time (4) to remove the alarm, undervoltage failure DO return.

RDW8DC series DC intelligent universal circuit breaker

Undervoltage protection Setting parameters

Table 8 Parameters related to undervoltage protection Settings

Parameter name	Setting range	Set the step size	remark
Protect startup Settings	80V～UmaxV	1V	Umax is set according to the rated voltage
Protection action delay time set	0.2～60s	0.1s	
Protection Action Returns the delayed setting value	Action Setting Value ~ UmaxV	1V	This setting is available only when the execution mode is alarmValue. The returned value must be greater than or equal to the start value
Protection return delay time	0.2～60s	0.1s	
Protect alarm DO output	Set a DO to "undervoltage fault" (if this is not set, the alarm information can only be read from the controller display, no contact output)		
Execution mode	Alarm/trip/shutdown		

Undervoltage protection action characteristics

Table 9 Operating characteristics of undervoltage protection

Peculiarity	Current multiple (U/ action setting)	Set a trip time	Delay tolerance
Non action characteristic	>1.1	inaction	
Action characteristic	<0.9	Action	
Action characteristic	≤0.9	The fixed time feature is equal to the set delay time	±10%(inherent absolute error ±40ms)

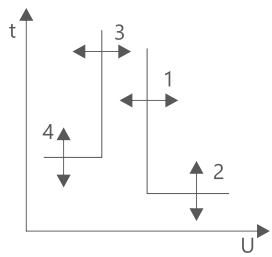
undervoltage protection alarm return value

Table 10 Undervoltage protection alarm return characteristics (only when the execution mode is "alarm")

Peculiarity	Current multiple (U/ action setting)	Set a trip time	Delay tolerance
Nonreturn characteristic	<0.9	not return	
Return characteristic	>1.1	Back	
Return delay	≥1.1	The fixed time feature is equal to the set delay time	±10%(inherent absolute error ±40ms)

Overvoltage protection

☐ Action rules for overvoltage protection



1: indicates the action threshold
2: action delay time
3: Returns the threshold
4: Returns the delay time

Figure 2 Action principle of overvoltage protection

When the voltage is greater than the action threshold (1) start the alarm or trip delay, the action delay time (2) send an alarm or trip signal, over voltage trip or undervoltage fault DO action; When the voltage is less than the return threshold (3) Start the return delay, when the return delay time (4) to remove the alarm, undervoltage failure DO return.

RDW8DC series DC intelligent universal circuit breaker

Set overvoltage protection parameters

Table 11 Settings of overvoltage protection parameters (the undervoltage setting must be smaller than the overvoltage setting)

Parameter name	Setting range	Set the step size	Remark
Protect startup Settings	80V～UmaxV	1V	Umax is set according to the rated voltage
Protection action delay time set	0.2～60s	0.1s	
Protection Action Returns the delayed setting value	80V ~ Action setting value	1V	This setting is available only when the execution mode is alarmValue. The returned value must be greater than or equal to the start value
Protection return delay time	0.2～60s	0.1s	
Protect alarm DO output	Set a DO to "Overvoltage fault" (if this is not set, the alarm information can only be read from the controller display, no contact output)		
Execution mode	Alarm/trip/shutdown		

Overvoltage protection action characteristics

Table 12 Operating characteristics of overvoltage protection

Peculiarity	Current multiple (U/ action setting)	Set a trip time	Delay tolerance
Inactive characteristic	<0.9	Inaction	
Action characteristic	>1.1	Action	
Action characteristic	≥1.1	The fixed time feature is equal to the set delay time	±10%(inherent absolute error ±40ms)

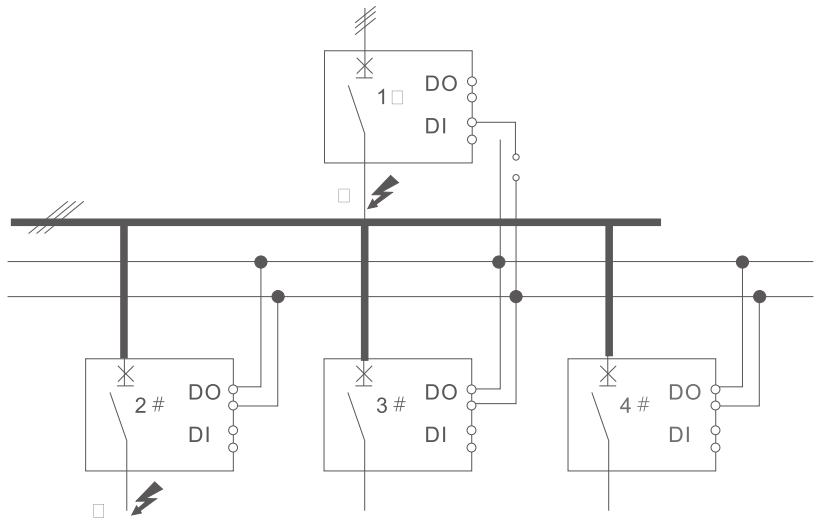
Overvoltage protection alarm return feature

Table 13 Overvoltage protection alarm return characteristics (this feature is available only when the execution mode is "alarm")

Peculiarity	Current multiple (U/ action setting)	Set a trip time	Delay tolerance
Nonreturn characteristic	>1.1	No Return	
Return characteristic	<0.9	Return	
Return delay	≤0.9	The fixed time feature is equal to the set delay time	±10%(inherent absolute error ±40ms)

RDW8DC series DC intelligent universal circuit breaker

Regional Chain (Zsl)



Regional linkage diagram

Regionally selective linkage includes short-circuit linkage. In the same power circuit with two or more connected circuit breakers:
When the short-circuit fault occurs at the outlet side of the lower circuit breaker (2# ~ 4# circuit breaker) (such as position ②), the lower circuit breaker instantaneously trips, and sends a regional interlocking trip signal to the upper circuit breaker; Upper cutThe breaker (1# circuit breaker) receives the zone interlocking trip signal and delays according to the short-circuit protection setting. If the fault current is eliminated during the delay of the upper circuit breaker, the protection returns and the upper circuit breaker does not operate. Jauxia If the fault current is not eliminated after the circuit breaker trips, the upper circuit breaker acts according to the short-circuit protection setting and cuts out the fault line.
When the short-circuit fault occurs between the upper circuit breaker (1# circuit breaker) and the lower circuit breaker (2# ~ 4# circuit breaker) (such as position ①), the upper circuit breaker does not receive the regional chain signal, and therefore instantaneous tripping. Fast removal of faulty lines.
Parameter setting: At least one DI of the upper circuit breaker is set to regional chain detection. At least one DO of the lower circuit breaker is set as a regional chain signal output.

Communication function

The controller can realize "four remote" data transmission functions such as telemetry, remote control, remote adjustment and remote communication through the communication port according to the specified protocol requirements. For details, please read the "DC Frame Circuit Breaker Communication Protocol".

Table 14 Communication parameter Settings

Communication protocol	MODBUs
Correspondence address	1~247(take part)
Baud rate (bit/s)	4.8k、9.6k、19.2k、38.4k

RDW8DC series DC intelligent universal circuit breaker

Test function

Test trip: you can use analog current to do no trip test, simulate long delay, short delay, instantaneous protection mode to test;
Action tests can also be performed directly in order to detect the controller and circuit breaker In addition, the programmable output module can also be simulated.

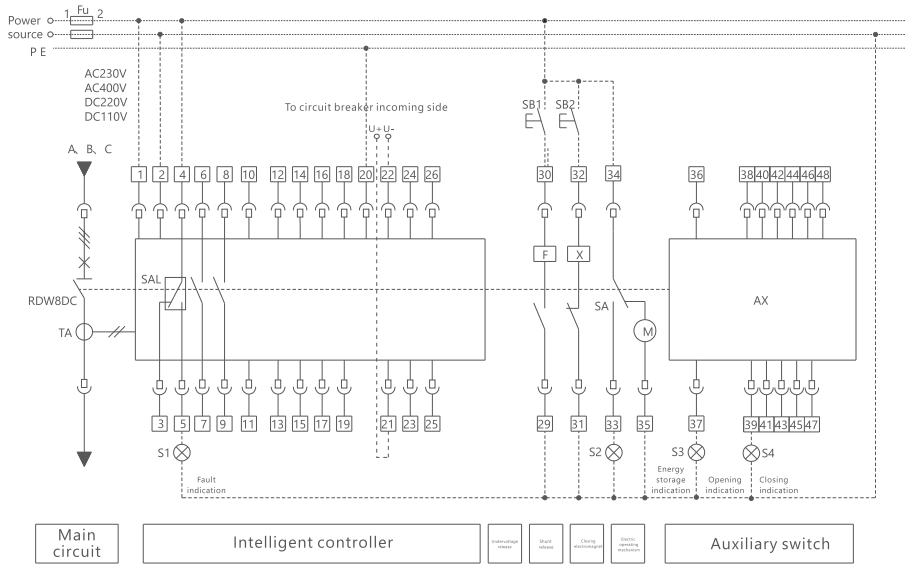
Thermal memory protection

Repeated overload may cause heat of conductors or equipment, the controller simulates the heating condition, and has a thermal effect (simulating bimetal characteristics) after fault delay actions such as overload long delay and short short delay. Over duty The long delay thermal effect energy is released 30 minutes after the fault is removed, and the short delay thermal effect energy is released 15 minutes after the fault is removed. During this period, if the circuit breaker is closed again, overload long delay and short delay occur If the circuit is short delay, the delay action time becomes shorter, which can make the line or equipment get more appropriate protection. If the controller is powered off once and then powered on, the accumulated heat effect is cleared.

Self-check function

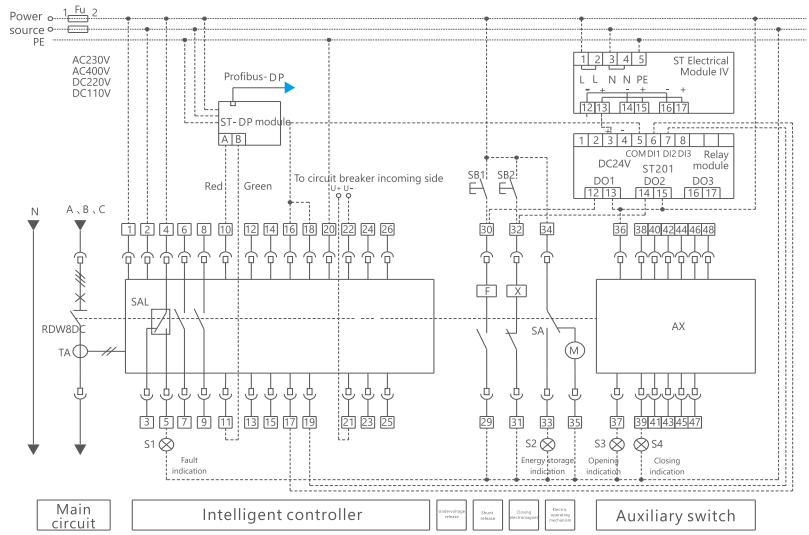
DC intelligent controller with system self-test function, built-in temperature sensor, magnetic flux break monitoring circuit, A/D conversion monitoring circuit. The intelligent controller periodically monitors the operation of the system and displays in case of failure The corresponding error information, at the same time can send an alarm signal.

Rdw8dc-250/4000 R type secondary circuit wiring diagram



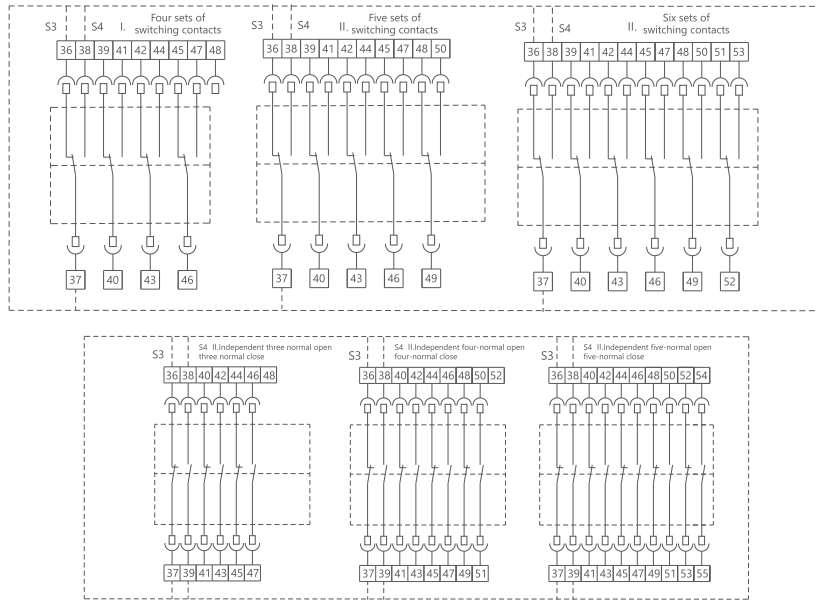
RDW8DC series DC intelligent universal circuit breaker

Rdw8dc-250/4000 H type secondary circuit wiring diagram



Note: The dotted part is connected by the user. If the intelligent controller, shunt trip device, closing electromagnet, electric operating mechanism and other voltages are different, different power supplies should be connected respectively. The rated working voltage of the main circuit is DC500V~DC1500V The control circuit and auxiliary circuit need to be isolated from the main circuit with a transformer, and the maximum operating voltage of the control circuit and auxiliary circuit is AC400V.

RDW8DC-2500/4000 auxiliary switch type (default is four sets of transfer contacts)



RDW8DC series DC intelligent universal circuit breaker

RDW8DC-2500/4000 R type secondary loop wiring diagram terminal function and symbol interpretation

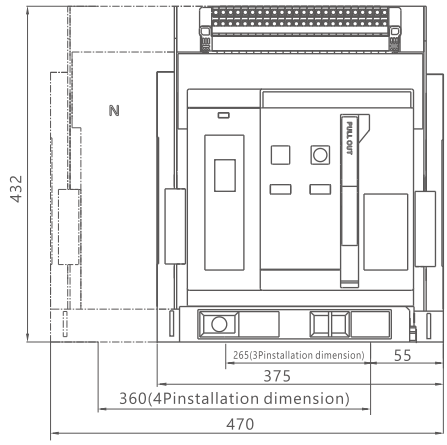
Terminal Number	Function Description	Symbol	Paraphrase	Remark
1、2	Auxiliary power input:AC230V、AC400V、DC220V、DC110V	RDW8DC	RDW8DC universal circuit breaker	
3、4、5	Fault trip auxiliary contact, contact capacity:AC250V、3A	S1~S4	Signal lamp	User provided
20	Ground (PE)	TA	Current transformer	
21、22	Voltage signal measurement: positive and negative power supply	SAL	microswitch	
29、30	Shunt release	SB1	Opening button	User provided
31、32	Closing electromagnet	Sb2	Closing button	User provided
33、34、35	Electric operating mechanism (electric energy storage), 37 connected with green line, 38 connected with black line, 39 connected with red line	X	Closing electromagnet	
36~48	Auxiliary contact terminal	F	Shunt release	
★Since the main circuit voltage of this series is high voltage, the voltage signal measurement of 21 and 22 of the R/H controller needs to be connected to the voltage conversion module。		M	Electric operating mechanism	
		SA	Electric operating mechanism ravel switch	
		Fu	fuse	User provided
		PE	Ground wire	
		AX	Auxiliary contact	

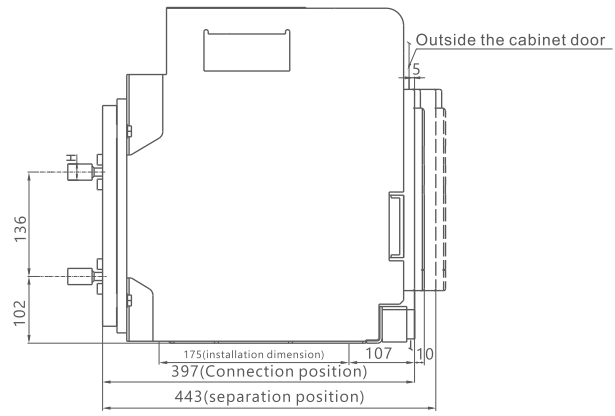
RDW8DC-2500/4000 H type secondary loop wiring diagram terminal function and symbol interpretation

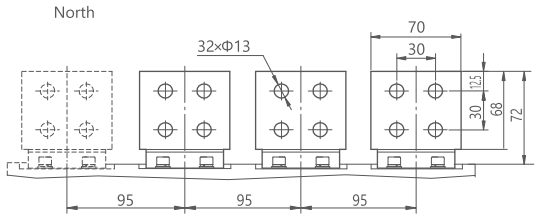
Terminal number	Terminal number	Symbol	Paraphrase	Remark
1、2	Auxiliary power input:AC230V、AC400V、DC220V、DC110V	RDW8DC	RDW8DC universal circuit breaker	
3、4、5	Fault trip auxiliary contact, contact capacity:AC250V、3A	S1～S4	Signal lamp	User provided
10、11	Communication interface output, 10 is (+),11 is (-); (Note: Default Modbus-RTU communication mode)	TA	Current transformer	
12～15	DO1, programmable signal output, contact capacity: AC250V, 3A	SAL	microswitch	
14、15	DO2, programmable signal output, contact capacity: AC250V, 3A	SB1	Opening button	User provided
16、17	DO3, opening signal output, contact capacity: AC250V, 3A	SB2	Closing button	User provided
18、19	DO4, closing signal output, contact capacity: AC250V, 3A	X	Closing electromagnet	
20	Ground (PE)	F	Shunt release	
21、22	Voltage signal measurement, positive and negative power supply	M	Electric operating mechanism	
29、30	Shunt release	SA	Electric operating mechanism travel switch	
31、32	Closing electromagnet	Fu	fuse	User provided
33、34、35	Electric operating mechanism (electric energy storage), 33 connected with green line, 34 connected with black line, 35 connected with red line	PE	Ground wire	
36~48	Auxiliary contact terminal	AX	Auxiliary contact	
★Since the main circuit voltage of this series is high voltage, the voltage signal measurement of 21 and 22 of the R/H controller needs to be connected to the voltage conversion module。		ST-DP module	when the communication mode is Profibus-DP	Selective assembly
		ST Power Module	Communication function when needed	Selective assembly
		St201 relay module	Communication function when needed	Selective assembly

RDW8DC series DC intelligent universal circuit breaker

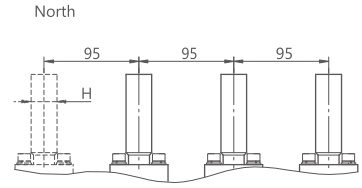
RDW8DC-2500 Intelligent universal Circuit breaker (Drawer type)



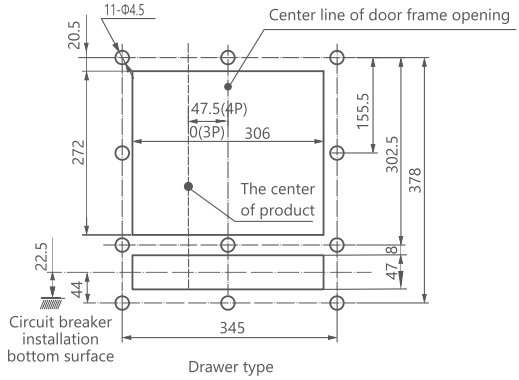




Horizontal connection and phase spacing



Vertical connection and phase spacing

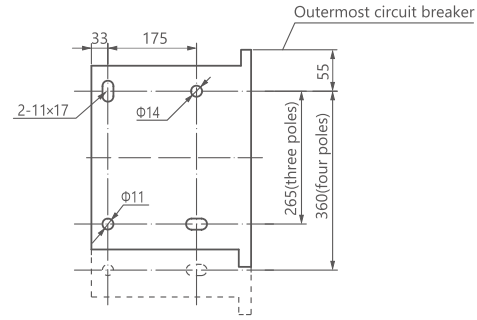


Drawer type

RDW8DC-2500 Drawer type circuit breaker panel opening size

Rated current (A)	Busbar thickness H (mm
800、1000、1250、1600	15
2000、2500	20

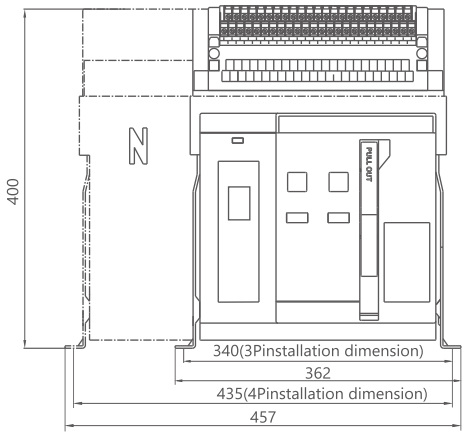
RDW8DC-2500 Mapping between the current and the thickness of the bus

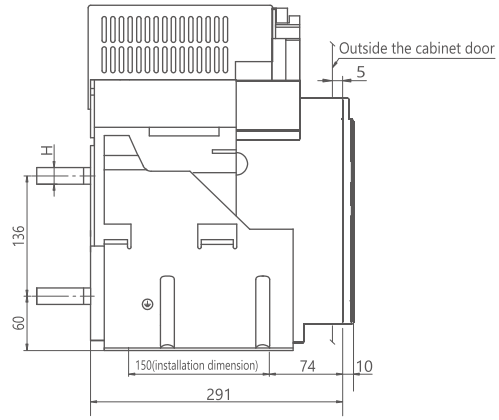


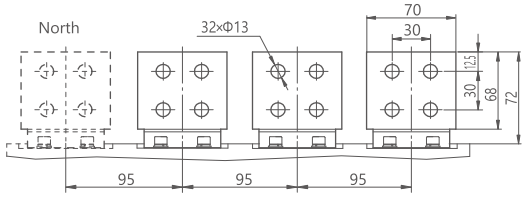
Installation dimension diagram

RDW8DC series DC intelligent universal circuit breaker

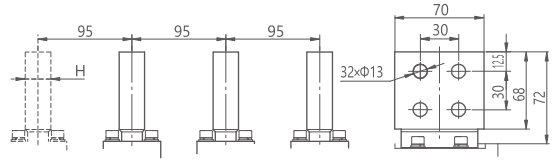
RDW8DC-2500 Intelligent universal Circuit Breaker (fixed type)



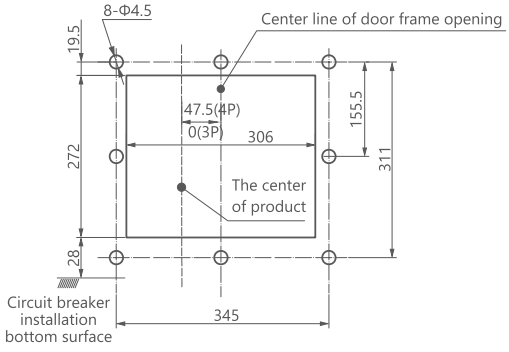




Horizontal connection and phase spacing



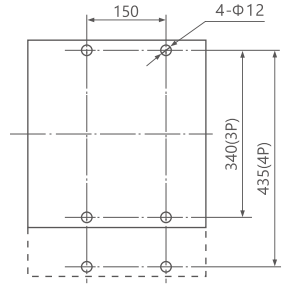
Vertical connection and phase spacing



RDW8DC-2500 fixed circuit breaker panel opening size

Rated current (A)	Busbar thickness H (mm
800、1000、 1250、1600	15
2000、2500	20

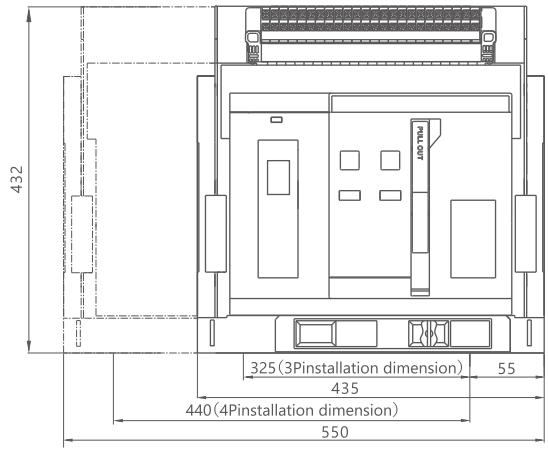
RDW8DC-2500 Mapping between the current and the thickness of the bus

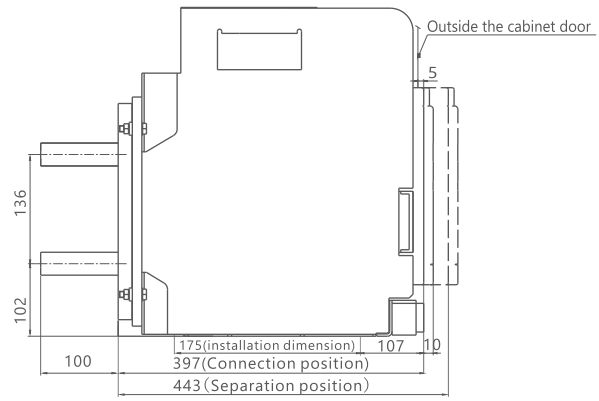


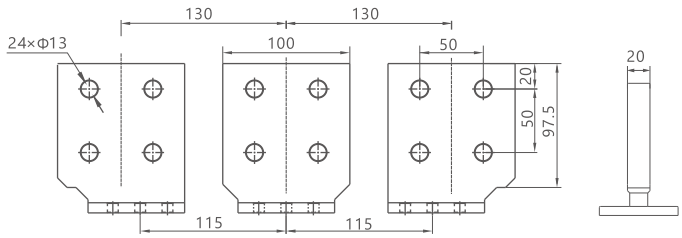
Installation dimension diagram

RDW8DC series DC intelligent universal circuit breaker

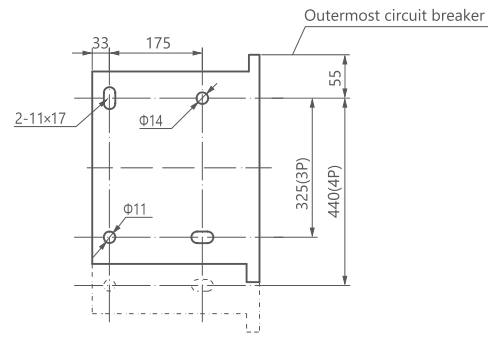
RDW8DC-4000 Intelligent universal Circuit breaker (Drawer type)



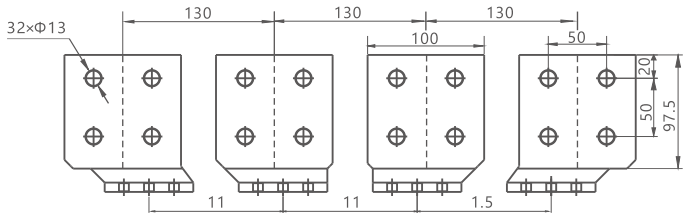




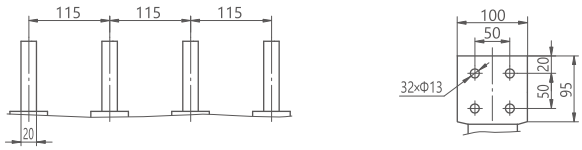
Horizontal connection and phase spacing(3P)



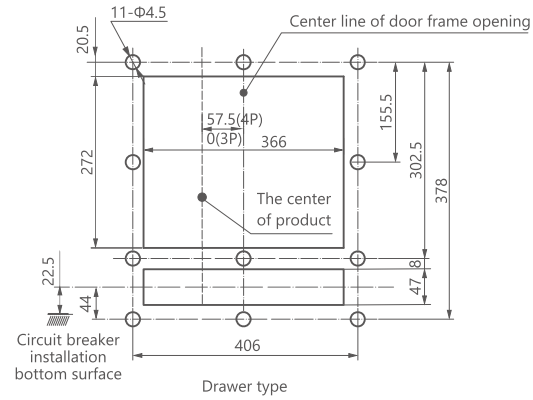
Installation dimension diagram



Horizontal connection and phase spacing (4P)



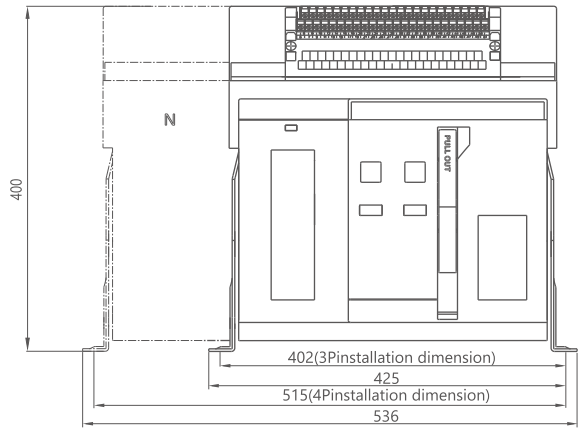
Vertical connection and phase spacing

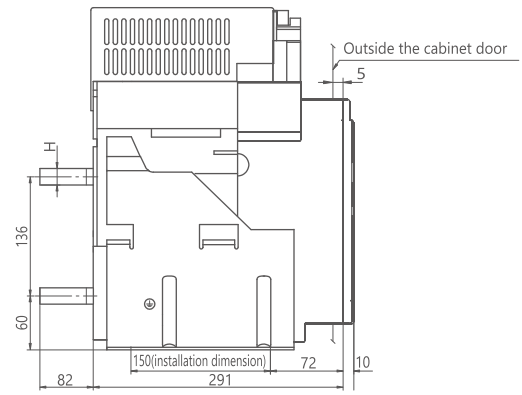


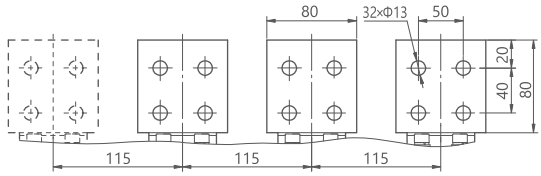
RDW8DC-4000 Drawer type circuit breaker panel opening size

RDW8DC series DC intelligent universal circuit breaker

RDW8DC-4000 Intelligent universal Circuit breaker（fixed type）



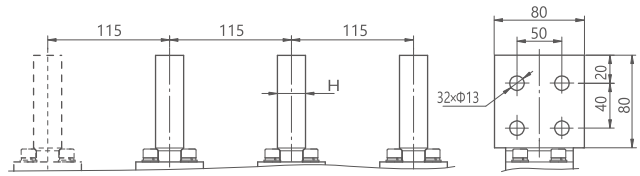




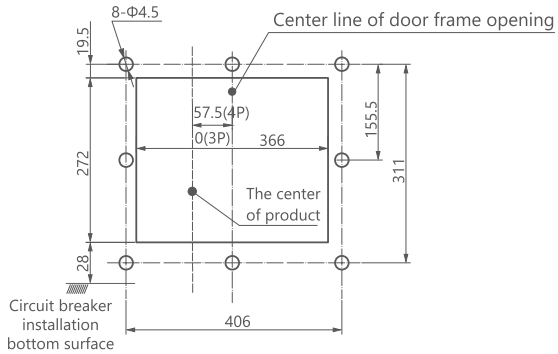
Horizontal connection and phase spacing

Rated current (A)	Busbar thickness H (mm)
1600、2000、2500、2900、3200、3600、4000	20

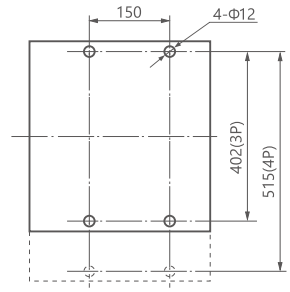
The current corresponds to the thickness of the bus



Vertical connection and phase spacing



RDW8DC-4000 fixed circuit breaker panel opening size



Installation dimension diagram

RDW8DC series DC intelligent universal circuit breaker

Accessory functions and features

RDW8DC-2500 ~ 4000 Close the electromagnet

☐ Close the electromagnet

When the circuit breaker completes the storage operation and is in the normal opening state, the circuit breaker can be controlled remotely by the closing electromagnet to close the circuit breaker quickly.

Operating voltage Us	AC230V	AC400V	DC220V	DC110V
Operating voltage range	(85～110)%Us			
Starting current	1.3A	0.7A	1.3A	2.5A
Suction time	≤60ms			

RDW8DC-2500 ~ 4000 shunt trip device

☐ Shunt trip device

When the circuit breaker is in the closing state, the shunt trip device can be used to remotely control the circuit breaker to quickly disconnect.

Operating voltage Us	AC230V	AC400V	DC220V	DC110V
Action voltage range	(70～110)%Us			
Starting current	1.3A	0.7A	1.3A	2.5A
Suction time	≤30ms			

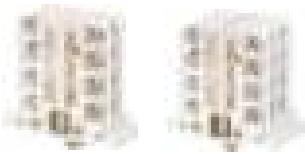
RDW8DC-2500 ~ 4000 energy storage motor

☐ Energy storage motor

To realize electric circuit breaker energy storage and automatic re-energy storage operation after circuit breaker closing, so that the circuit breaker can be re-closed immediately after breaking Operate.

Operating voltage Us	AC230V	AC400V	DC220V	DC110V
Operating voltage range	(85～110)%Us			
Energy storage time	5s			
RDW8DC-2500	110VA		110W	
RDW8DC-4000	150VA		150W	

Note: Manual energy storage can also be performed during circuit breaker maintenance



RDW8DC-2500 ~ 4000 auxiliary switch

☐ Auxiliary contacts

Default configuration: Four sets of conversion contacts

Other types: four normal open four normal close, six groups of conversion contacts, six normal open six normal close

Operating voltage Us	AC230V	AC400V	DC220V	DC110V
Conventional heating current	6A			
Rated control capacity	300VA		60W	

RDW8DC series DC intelligent universal circuit breaker

Interphase partition

☐ Interphase partition

It is vertically installed between the bus terminals of each phase of the circuit breaker to enhance the insulation between phases of the circuit breaker.

Break locking device

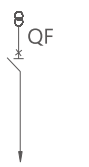
☐ Phase disconnect locking device

The switch button of the circuit breaker is locked in the press position, and the circuit breaker cannot be closed.

Note 1: When you need to pull out the key, you must first hold down the opening button and then turn the key counterclockwise to pull out the key;
Note 2: The following list in the power supply mode is for reference only.
Interlocks can be installed according to the actual power supply system needs on site, or consult the manufacturer for consultation.

Mode 1: One power supply and one load interlock

Circuit diagram



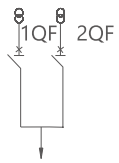
Possible modes of operation

QF
0
1

A lock and a key: a circuit breaker with a lock and a key, locked state does not allow the circuit breaker to close.

Mode 2: Two power supplies and one load interlock

Circuit diagram



Possible modes of operation

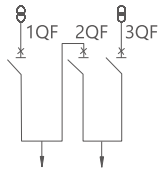
1QF	2QF
0	0
1	0
0	1

Two locks and one key: two circuit breakers with two identical locks and one key, only one circuit breaker is allowed to close.

RDW8DC series DC intelligent universal circuit breaker

Mode 3: Two power supplies and two loads interlock

Circuit diagram Possible modes of operation

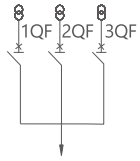


1QF	2QF	3QF
0	0	0
1	0	0
0	0	1
1	1	0
1	0	1
0	1	1

Three locks and two keys: three circuit breakers with three identical locks and two keys, only two circuit breakers are allowed to close.

Mode 4: Three power supplies and one load interlock

Circuit diagram Possible modes of operation



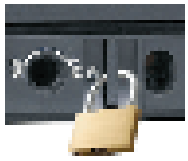
1QF	2QF	3QF
0	0	0
1	0	0
0	1	0
0	0	1

Three locks and one key: three circuit breakers with three identical locks and one key, only one circuit breaker is allowed to close.

Door frame

☐ Door frame

The door frame is installed on the door where the circuit breaker is installed in the power distribution cabinet, which plays a sealing and beautiful role, and the protection level can reach Ip40.



Drawer operation padlock

☐ Drawer operation padlock

When the body of the drawer circuit breaker is in the "separate" position, pull out the card plate and lock it with the padlock. After locking, the body can not be shaken to the "test" or Connect location. (Padlock user provided).

Relay module

☐ Relay module

Input voltage: DC24V

Contact capacity: AC250V 10A; DC28V10A When the load capacity of the control circuit breaker is large, it needs to be converted by the relay module and then controlled.The installation method is 35mm standard guide rail or direct installation.

RDW8DC series DC intelligent universal circuit breaker

Voltage conversion module

☐ Voltage conversion module

1. The voltage conversion module is designed to extend the voltage measurement range of the intelligent controller. This module can be used for expansion when the bus voltage is high Exhibition. The module must be used together with the controller.

Location Door interlock

☐ The location door is interlocked

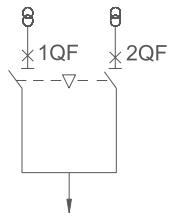
When the drawer type circuit breaker body is in the "test" or "connection" position, the cabinet door is prohibited to open, and when the circuit breaker body is in the "separation" position, Allow the cabinet door to open.

☐ Mechanical interlocking

Inter locking of two flat circuit breakers or interlocking of two stacked circuit breakers.

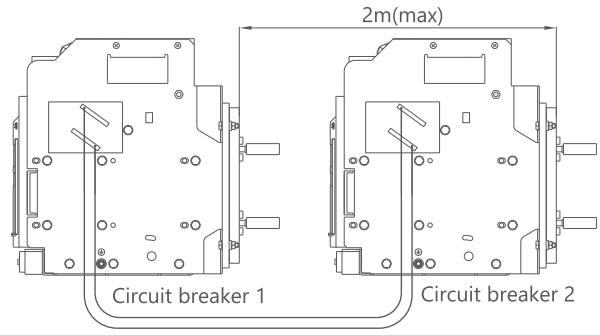
Only one circuit breaker can be used for each load of the two power supplies

Circuit diagram



Possible operation

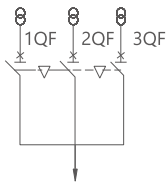
1QF	2QF
0	0
0	1
1	0



RDW8DC series DC intelligent universal circuit breaker

Steel cable interlocking or connecting rod interlocking of three circuit breakers
Three power sources and one load can only connect one circuit breaker

Circuit diagram

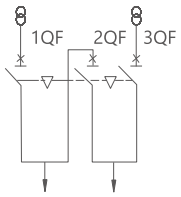


Possible modes of operation

1QF	2QF	3QF
0	0	0
1	0	0
0	1	0
0	0	1

Two power supplies, two loads, up to two circuit breakers

Circuit diagram

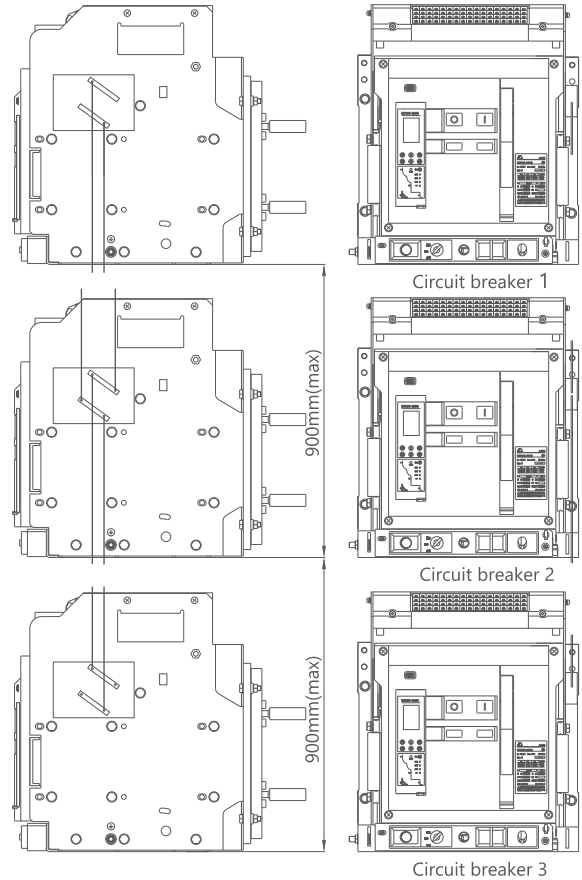


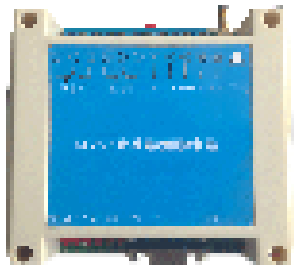
Possible modes of operation

1QF	2QF	3QF
0	0	0
1	0	0
0	0	1
1	1	0
0	1	1
1	0	1

QF: Circuit breaker

Note: The transition arc at the interlocking bend of the steel cable is not less than R120mm





Remote controller

☐ Remote controller

To meet the user's RDW8DC products wireless remote control or remote alarm to the user, remote control, remote alarm to SMS command execution, short The message content can be customized by users.

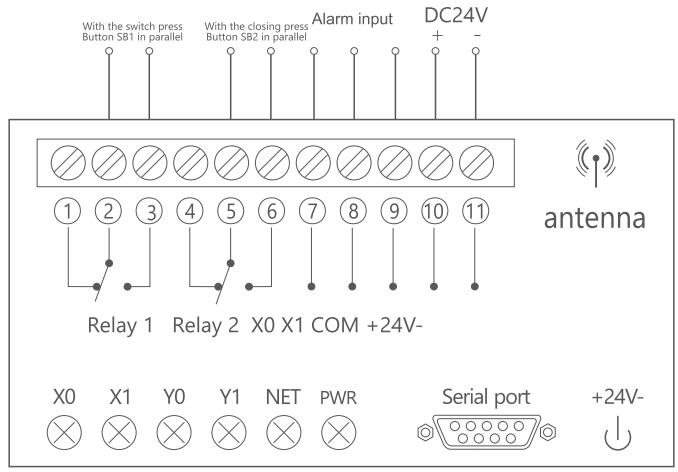
Applications: unattended room monitoring and remote maintenance in power industry, telecommunications industry, etc.

Alarm input signal: can be connected to smoke, infrared, switch detection sensors, to achieve SMS alarm function, when there is an alarm signal, can be more A mobile phone sends a short message to remind, and then the user sends a short message command to the remote controller for control.

Installation method: 35mm standard guide rail stuck in the installation

RDW8DC series DC intelligent universal circuit breaker

Remote controller wiring diagram



☐ Description of remote controller terminals

① and ③ are the output terminals of relay 1, and ② are the input terminals of relay 1, which can be connected to AC230/400V load and the output current is 5A; X0 is the indicator light of relay 1, the light is on (1), (2) disconnect, (2), (3) close.

④, ⑥ is the output terminal of relay 1, ⑤ is the input end of relay 2, which can be connected to AC230/400V load, and the output current is 5A; X1 is the indicator light of relay 2, the light is on ④, ⑤ disconnect, ⑤, ⑥ close.

⑦ ~ ⑨ is the input end of two alarm signals, and ⑨ is the public end, which is connected with smoke, infrared, detection sensors; Y0 is 7, ⑨ alarm light, Y1 is 8, ⑨ alarm light, the light indicates that there is signal input.

⑩ Input power to the remote controller. There is also an input power supply at the lower end, and the remote controller will work normally with a voltage of DC24V.

NET is a network indicator. After the installation is correct and the power is turned on, the NET indicator blinks once every second, indicating that the network is being sought. When the NET indicator blinks from 1 second to 3 seconds, the remote controller is successfully connected to the network Perform remote control.

PWR indicates the power indicator. When the indicator is steady on, it indicates that the power supply is normal and can work properly.

The serial port is the data interface for connecting the computer to the remote controller for various Settings. Drivers and special configuration software need to be installed.

The antenna is configured for the remote controller to have a better reception of network signals, so that it can work normally in the place where the network signal is not good, and the antenna length is 2m.

RDW8DC series DC intelligent universal circuit breaker

Order specification

Company | Contact person | Contact number | Order quantity(unit) | Order date

Product model	RDW8DC-2500☐	RDW8DC-4000☐
Rated current (A)	☐800 ☐1000 ☐1250 ☐1600 ☐2000 ☐2500	☐1600 ☐2000 ☐2500 ☐2900 ☐3200 ☐3600 ☐4000
Number of series poles	☐2P string (Optional only for RDW8DC-2500) ☐3P series ☐4P series	
Installation mode	☐ Fixed ☐ Drawer type	
Connection mode	☐2P series connection; 3P series A cable (☐A1, ☐A2, ☐A3, ☐A4, ☐A5); 3P series B cable (☐B1, ☐B2); Note: The 2P string is a wiring method 4P series C-type cables (☐C1, ☐C2, ☐C3, ☐C4, ☐C5, ☐C6, ☐C7, ☐C8); 4P series D-type cable (☐D1, ☐D2);	
Rated operating voltage	☐DC500V ☐DC750V ☐DC1000V ☐DC1500V Note :DC500V/DC750V is 2P string or 3P string; The DC1000V/DC1500 is 4P	
Intelligent controller Type selection	type	☐R Enhanced (liquid crystal Display) ☐H Advanced type (LCD with communication) Note: The R/H type requires a voltage conversion module
	Control voltage	☐ AC230V ☐ AC400V ☐DC220V ☐DC110V ☐DC24V
	Protection parameter setting	Default factory Settings: Ir=1In, Tr=15s; Fixed duration Isd=5Ir, Tsd=0.4s; Inverse time limit Isd=OFF; Ii=10In;
	Long delay protection Ir	Ir=_____In (Select or OFF from 0.4 to 1.0) Tr(1.5ir)= _____ s (at 15, 30, 60,..... Choose from 480)
	Short-circuit delay Protect Isd	Isd= _____Ir (selected from 1.5 to 15 or OFF) ☐ Set the time limit _____Tsd= s(liquid crystal is selected from 0.1 to 0.4); ☐ Inverse time limit TSD=0.1Tr
	Short circuit nstantaneous Protection Ii	Ii=_____In(Select or OFF from 1.0 to 20, up to 42kA)
	Optional function	☐ Communication function : Modbus Protocol (default), H Type time has been belt) ☐ Profibus
Standard accessory	Closing electromagnet	☐ AC230V ☐ AC400V ☐DC220V ☐DC110V
	Shunt release	☐ AC230V ☐ AC400V ☐DC220V ☐DC110V
	Energy storage motor	☐ AC230V ☐ AC400V ☐DC220V ☐DC110V
	Auxiliary switch	☐ Four groups of conversion contacts ☐ Four normal open four normal close ☐ Six groups of conversion contacts ☐Six normal open six normal close ☐Special form
	Opening lock device	☐ A circuit breaker with a lock and a key ☐ Two circuit breakers with two locks and a key ☐ Three circuit breakers with three locks and two keys ☐ Special form (customized)
Optional accessories	Mechanical interlocking	Two circuit breakers ☐ Link interlock (upper and lower interlock) ☐ Steel cable interlocking
		Three circuit breakers ☐ Link interlock (upper and lower interlock) ☐ Steel cable interlocking
	other	☐ Interphase partition ☐ Power adapter ☐ Relay module ☐ Communication Conversion Module (Profibus-DP) ☐ Drawer seat three-position lock

Note 1: If the user has other special requirements, please consult with the manufacturer before ordering;
Note 2: The optional functions and accessories of the circuit breaker are not included in the standard configuration of the circuit breaker, and the cost is calculated separately.
Note 3: The auxiliary switch of fixed circuit breaker has no six normal open and six normal close.

PEOPLE
ELECTRIC

RDW8HU series high voltage intelligent universal circuit breaker

Higher breaking and short-time tolerance

A full range of Icu, Ics, Icw, up to 85kA, leading the industry in performance,Meet the continuity and stability of power supply.

Excellent long life and reliability

Maximum mechanical life up to 20,000 times, electrical life up to 7,000 times, Innovative arc-extinguishing chamber design, truly achieve zero arc-flying.

Improved protection and selectivity

2500, 4000, 6300 three shell frames provide more selectivity and impact pressure resistance Up to 12kV, to meet more industry requirements.

Multifunctional intelligent controller

LCD display intelligent controller for complete protection, measurement, Maintenance and communication functions.

RDW8HU series high voltage intelligent universal circuit breaker

Product overview

RDW8HU series universal circuit breaker (hereinafter referred to as circuit breaker), suitable for AC 50Hz/60Hz, rated current 630 ~ 6300A, rated insulation voltage 1250V, rated working voltage of AC800, Ac1000, In the AC1140V distribution network, it is used to distribute power and protect lines and power equipment from overload, undervoltage, short circuit, single-phase grounding and other faults, and it has isolation function. Circuit breakers have a variety of The protection function, while achieving highly accurate selective protection, can also avoid unnecessary sudden power failure, improve the reliability and safety of the power supply system. Products comply with: GB/T 14048.2 standard.

Selection guide

RDW8	HU	25	16	3	H	Drawer level	AC230V	No undervoltage
Product code	Breaking grade	Frame current	Rated current	Number of poles	controller	Installation mode	Control voltage	attachments
High voltage intelligent Universal circuit breaker	HU	25:2500(06-25) 40:4000(08-40) 63:6300(40-63)	06:630A 08:800A 10:1000A 12:1250A 16:1600A 20:2000A 25:2500A 29:2900A 32:3200A 36:3600A 40:4000A 50:5000A 63:6300A	3:3P 4:4P	M: Standard type (Digital display) R: Enhanced type (Liquid crystal Display) H: Advanced type (LCD with communication)	Drawer level Drawer vertical Fixed level Fixed vertical	AC230V AC400V DC220V DC110V	Interphase partition Quadruple transformation Door frame No undervoltage Undervoltage instantaneous Under calendering time Mechanical interlocking Mechanical interlocking One lock, one key Two locks and one key Three locks, two keys It's 50-50 Six on, six off

RDW8HU default standard configuration: shunt, closing, electric operation, 4 group conversion, door frame, interphase partition

For example: need to order a RDW8HU-2500, three-pole drawer, rated current 1250A, intelligent controller for R type, control voltage AC230V,

Expressed as: RDW8HU-25 12/3R drawer level AC230V without undervoltage.

RDW8HU series high voltage intelligent universal circuit breaker

Normal working conditions and installation conditions

Normal working condition

☐ The ambient air temperature is -5℃ ~ +40℃, and the average value of 24h does not exceed +35℃;
Note: If the upper limit exceeds +40 ℃ or the lower limit is lower than -5 ℃, the user needs to negotiate with the manufacturer.
☐ The elevation of the installation site does not exceed 2000m;
Note: Consult with the manufacturer for the circuit breaker used in the working environment with an altitude of more than 2000m.
☐ The relative humidity of the atmosphere does not exceed 50% when the ambient air temperature is +40℃; It can have higher relative humidity at lower temperatures; For example, the wettest month has an average maximum relative humidity of 90%, while the
The average minimum temperature of the month is +20 ℃, and treatment measures should be taken for the occasional condensation due to temperature changes.
☐ The pollution level is 3;
☐ When the rated working voltage of the main circuit is AC800V ~ AC1140V, the control circuit and auxiliar y circuit need to be isolated from the main circuit by transformer, and the maximum working voltage of the control circuit and auxiliar y circuit is AC400V, control circuit and auxiliar y circuit installation categor y is Ⅲ;
☐ The circuit breaker is suitable for electromagnetic environment A;
☐ Use categor y B.

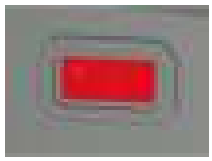
Normal installation condition

☐ Installation of fixed circuit breaker: The circuit breaker is placed in the distribution cabinet and secured with M10(more than 2500A shell frame) bolts and washers.
The circuit breaker is installed smoothly without additional mechanical stress
Avoid circuit breaker damage or poor contact of main busbar;
☐ Installation of drawer type breaker: Remove the circuit breaker body from the drawer seat, install the drawer seat in the distribution cabinet first,
and tighten with M10(more than 2500A shell frame) bolts and washers. Circuit breaker mounting level
Stable, there should be no additional mechanical stress, so as to avoid circuit breaker damage or poor contact between the main bus and the secondar y circuit,
after the completion of the circuit breaker body into the drawer seat connection position;
☐ The circuit breaker should be installed in a place without explosion risk and conductive dust, without enough to corrode metal and destroy insulation;
☐ The protection level is IP20. When the circuit breaker is installed in the cabinet and the door frame is installed, the protection level can reach Ip40.
Normal storage and transport conditions
☐ The lower limit of temperature is not less than -25℃, the upper limit is not more than +55℃; Relative humidity (+25℃) does not exceed 95%;
☐ The product should be handled gently during transportation, and should not be inverted to avoid violent collision.

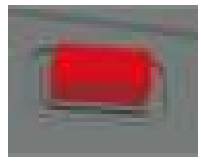
RDW8HU series high voltage intelligent universal circuit breaker

Circuit breaker operating condition

□ Operating status of the intelligent controller

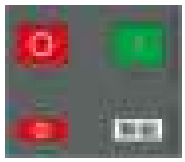


Intelligent controller working status

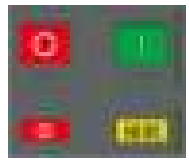


When the intelligent controller is in the protected state,
the circuit breaker is disconnected and the circuit is cleared
After the fault, press this button, the circuit breaker can be closed normally.

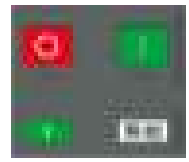
Operating mechanism working status



The circuit breaker is off
and has no energy storage



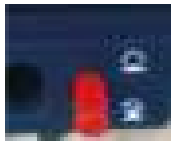
The circuit breaker is off and
the energy storage is complete



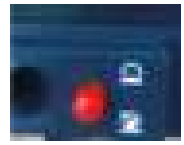
Circuit breaker closed
and no energy storage state

Circuit breaker closed and energy
storage completed state

Drawer seat working condition

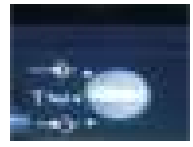


In "separate", "test", "connect"
In three positions,
the position lock is locked,
and the crank cannot
Operation (locked state)

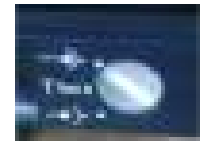


After the position lock is locked,
you need to continue operating the shake
Handle, press the position lock button to release the lock
(Unlocked state)

In the "Separate" position,
both the main circuit and the
secondary circuit are disconnected



In the "Test" position,
the main circuit is disconnected
and the secondary circuit is connected



In the "Connect" position,
both the main circuit and the
secondary circuit are connected

RDW8HU series high voltage intelligent universal circuit breaker

Technical parameters and performance

Number of poles	3P/4P								
Frequency	50/60Hz								
Rated operating voltage Ue(V)	AC800V/AC1000V/AC1140V								
Rated impulse withstand voltage Uimp(kV)	AC12kV								
Rated insulation voltage Ui(V)	AC1250V								
Frame grade	25HU			40HU			63HU		
In(A)									
630	•								
800	•			•					
1000	•			•					
1250	•			•					
1600	•			•					
2000	•			•					
2500	•			•					
2900				•					
3200				•					
3600				•					
4000				•			•		
5000							•		
6300							•		
Breaking capacity	AC800V	AC1000V	AC1140V	AC800V	AC1000V	AC1140V	AC800V	AC1000V	AC1140V
Rated limit short-circuit breaking capacity Icu(kA)	60	55	50	75	60	60	85	66	66
Rated operating short-circuit breaking capacity Ics(kA)	60	55	50	75	60	60	85	66	66
Rated short-term endurance Icw/1s(kA)	60	55	50	75	60	60	85	66	66
Full segment time time (no additional delay)	25~30ms								
Closing time	≤70ms								
Mechanical life (with maintenance)	20000			20000			13000		
Mechanical life (no maintenance)	10000			10000			6500		
Electrical life	7000			6000			1500		
Connection mode (horizontal)	•								
Connection mode (vertical)	•								
Connection mode (top horizontal and bottom vertical) Connection mode (vertical up and horizontal down)	•								

Note: The mechanical life of drawer seat is 100 times, from "separation" to "connection" to "separation" is once, and the operation cycle is 1 time /2min.

RDW8HU series high voltage intelligent universal circuit breaker

Power loss

Product model	Frame current (A)	Power loss (W)	
		Drawer type /4P	Fixed /4P
RDW8HU-2500	2500	625	320
RDW8HU-4000	4000	960	510
RDW8HU-6300	6300	1270	830

Note: Circuit breaker power consumption is the total power consumption measured by the rated shell current, this data can only be used as a general selection guide, can not be used as a power loss in actual use.

It is recommended that the cross-sectional area of the external conductor correspond to the rated current of the circuit breaker to ensure the normal operation of the circuit breaker.

Rated current (A)	External copper bar Width x thickness (mm)	Number of roots per terminal	Cross-sectional area per terminal (mm^2)
630	40×5	2	400
800	50×5	2	500
1000	60×5	2	600
1250	80×5	2	800
1600	100×5	2	1000
2000	100×5	3	1500
2500	100×5	4	2000
2900	100×10	3	3000
3200	100×10	4	4000
3600	100×10	5	5000
4000	100×10	5	5000
5000	100×10	6	6000
6300	100×10	8	8000

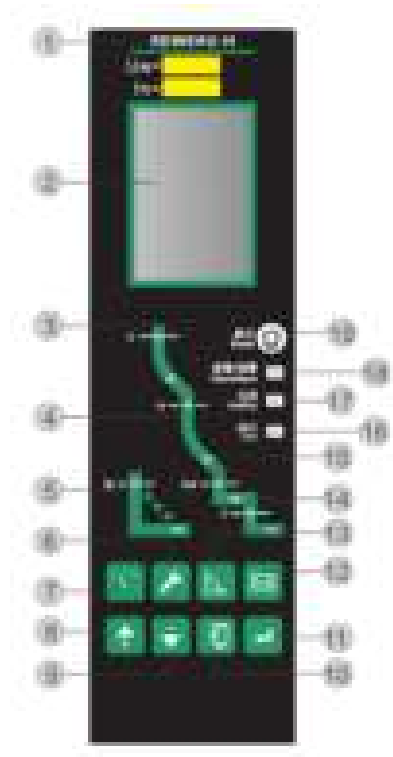
Coefficient of capacity reduction at altitude

Altitude (m)	2000	3000	4000	5000
Working current reduction coefficient	1	0.93	0.88	0.82
Short-circuit breaking capacity reduction factor	1	0.83	0.71	0.63
Power frequency withstand voltage (V)	3500	3150	2500	2000

RDW8HU series high voltage intelligent universal circuit breaker

Intelligent controller protection features (liquid crystal type)

Intelligent control page description



RDW8DC Intelligent controller interface

1. **Intelligent controller model** (corresponding product model);
2. **LCD liquid crystal display window**: can display each phase current Value, voltage value, setting parameter, fault current Flow, trip time and information query parameters;
3. **Overload long delay fault indication**;
4. **Short circuit short delay inverse time fault indication**;
5. **Ground or neutral fault indication**;
6. **Setting key**: Quickly switch to the parameter setting main menu, (in the password input interface is"Right" key);
7. **Measurement key**: Quickly switch to the measurement default main menu, (under the password input interface is "Left" key);
8. **Up key**: Move the menu content up at the current level, or change the selection up Parameters;
9. **Down key**: Move menu contents down at the current level, or change the selection down Parameters;
10. **Back key**: Exit the current level to enter the upper-level menu, or cancel the current parameter the selection of;
11. **Ok key**: Enter the next level menu that the current item points to, or proceed to the current parameter Select, store the changes made;
12. **Query key**: Switch to the history and maintenance theme menu;
13. **Protection parameter setting key**: Switch to the protection parameter setting theme menu;
14. **Short circuit instantaneous fault indication;**
15. **Short-circuit short-delay fixed time fault indication;**
16. **Communication indication** :Profibus: no communication when off, communication constant light;
    Modbus: turns off when no communication is available and blinks when communication is available.
17. **Normal indication**: in the power state, the working state is normal, the LED is always green flashing;
18. **Fault/alarm indication**: the "fault/alarm" LED does not light up during normal operation; breakdown When tripping, the "Fault/alarm" LED is red and flashes rapidly; In case of alarm When the LED red constant bright;
19. **Reset button**: When the intelligent controller is in the fault/alarm state, it needs to restore to normal work State, press this key to clear the intelligent controller fault/alarm indication.

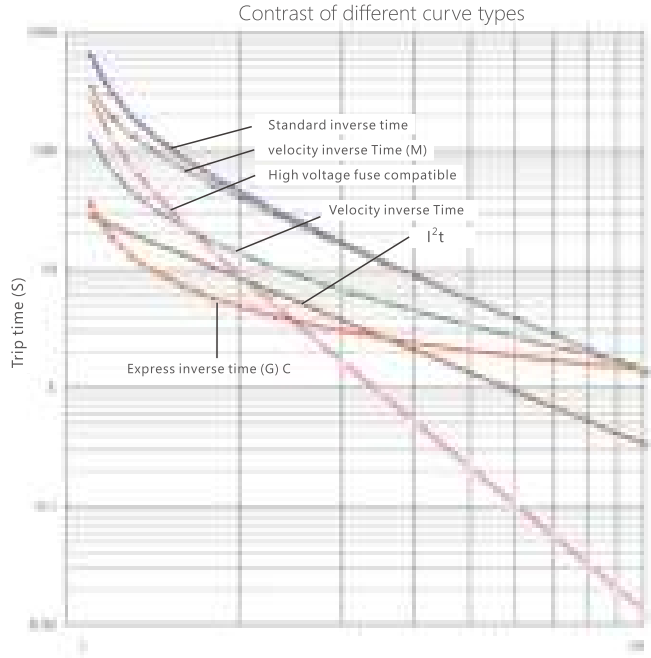
RDW8HU series high voltage intelligent universal circuit breaker

Action current set value Ir		(0.4～1.0)In+OFF								Current tolerance				±10%			
Applied current I										Set a trip time							
1.05Ir										>2h does not trip							
1.3Ir										< 1h Trip							
Protection characteristic type	Fault current	Set time Tr (s)															
SI Standard inverse time	1.5Ir	0.61	0.98	1.47	2.46	3.68	4.91	6.14	9.21	11.05	17.19	24.56	36.84	49.13	61.41	73.69	85.97
	2Ir	0.36	0.57	0.86	1.43	2.15	2.87	3.58	5.37	6.45	10.03	14.33	21.49	28.65	35.82	42.98	50.15
	6Ir	0.14	0.22	0.33	0.55	0.82	1.1	1.37	2.06	2.47	3.84	5.48	8.22	10.96	13.7	16.45	19.19
	7.2Ir	0.12	0.2	0.3	0.5	0.74	0.99	1.24	1.86	2.23	3.48	4.97	7.45	9.93	12.42	14.9	17.38
VI velocity inverse time	1.5Ir	2	3.2	4.8	8	12	16	20	27	36.6	56	80	120	160	200	240	280
	2Ir	1	1.6	2.4	4	6	8	10	13.5	18	28	40	60	80	100	120	140
	6Ir	0.2	0.32	0.48	0.8	1.2	1.6	2	2.7	3.6	5.6	8	12	16	20	24	28
	7.2Ir	0.16	0.26	0.39	0.65	0.97	1.29	1.61	2.18	2.9	4.52	6.45	9.68	12.9	16.13	19.35	22.58
EI(G) Express inverse time(General distribution protection)	1.5Ir	8	12.8	19.2	32	48	64	80	108	144	224	320	480	640	800	960	1000
	2Ir	3.33	5.33	8	13.33	20	26.67	33.33	45	60	93.33	133.33	200	266.67	333.33	400	433.33
	6Ir	0.29	0.46	0.69	1.14	1.71	2.29	2.86	3.86	5.14	8	11.43	17.14	22.86	28.57	34.29	37.14
	7.2Ir	0.2	0.31	0.47	0.79	1.18	1.57	1.97	2.66	3.58	5.51	7.87	11.8	15.74	19.67	23.6	25.57
EI(M) Express inverse time(Motor protection)	1.5Ir	6.22	9.96	14.93	24.89	37.34	49.78	62.23	84.01	112.01	174.24	248.91	373.37	497.82	622.28	746.73	208.96
	2Ir	2.95	4.72	7.07	11.79	17.69	23.58	29.48	39.79	53.06	82.53	117.9	176.86	235.81	294.76	353.71	383.19
	6Ir	0.28	0.45	0.68	1.13	1.69	2.26	2.82	3.81	5.08	7.9	11.29	16.94	22.58	28.23	33.88	36.7
	7.2Ir	0.2	0.31	0.47	0.78	1.17	1.56	1.95	2.63	3.51	5.46	7.8	11.7	15.61	19.51	23.41	25.36
HV High voltage fuse compatible	1.5Ir	2.46	3.94	5.91	9.85	14.77	19.69	24.62	33.23	44.31	68.92	98.46	147.69	196.92	246.15	295.38	320
	2Ir	0.67	1.07	1.6	2.67	4	5.33	6.67	9	12	18.67	26.67	40	53.33	66.67	80	86.67
	6Ir	0.01	0.01	0.02	0.03	0.05	0.06	0.08	0.1	0.14	0.22	0.31	0.46	0.62	0.77	0.93	1
	7.2Ir	0	0.01	0.01	0.01	0.02	0.03	0.04	0.05	0.07	0.1	0.15	0.22	0.3	0.37	0.45	0.48
I^2T Universal inverse time protection	1.5Ir	15	30	60	120	240	360	480	600	720	840	960					
	2Ir	8.44	16.88	33.75	67.5	135	202.5	270	337.5	405	472.5	540					
	6Ir	0.94	1.88	3.75	7.5	15	22.5	30	37.5	45	52.5	60					
	7.2Ir	0.65	1.3	2.6	5.21	10.42	15.63	20.83	26.04	31.25	36.46	41.67					

Note: Intelligent controller long delay protection feature factory default is I^2T universal inverse time protection: I2TL=(1.5Ir) 2tL, tL - long delay 1.5Ir setting time, TL - Long delay action time. Operation time error ±15%

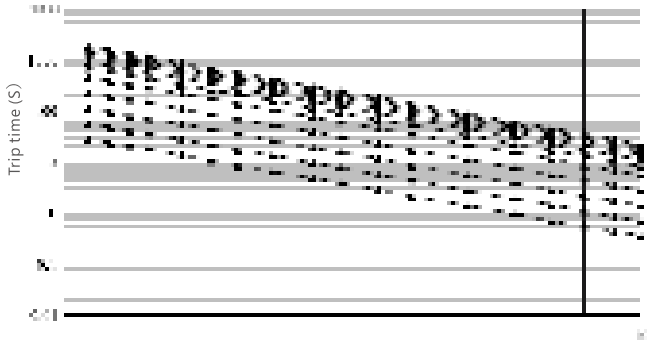
RDW8HU series high voltage intelligent universal circuit breaker

Contrast of different curve types



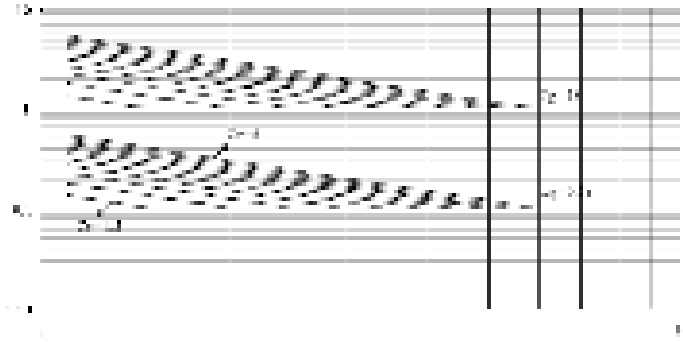
*Ir （Long delay setting value）

I^2 T graph



*Ir（Long delay setting value）

Ground protection



×Ig（Ground setting value）

RDW8HU series high voltage intelligent universal circuit breaker

Protection features of intelligent controller

☐ The protection feature of intelligent controller has inverse time limit and fixed time limit.

When the fault current exceeds the inverse time limit setting value, the controller delays protection according to the specified time limit。

☐ The inverse time curve conforms to the characteristic curve I^2t

Overload long delay protection feature

Overload long delay protection action threshold

☐ <1.05Ir：>2hnon-trip

☐ ≥1.3：<1htrip

☐ IrCurrent setting range：(0.4~1.0)In+OFF

Inverse time action characteristics $I^2T=(1.5Ir)^2Tr$

Set the multiple of current	Action time (s)										
1.5Ir	15	30	60	120	240	360	480	600	720	840	960
2Ir	8.44	16.88	33.75	67.5	135	202.5	270	337.5	405	472.5	540
6Ir	0.94	1.88	3.75	7.5	15	22.5	30	37.5	45	52.5	60
7.2Ir	0.65	1.3	2.6	5.21	10.42	15.63	20.83	26.04	31.25	36.46	41.67

Note:T--- Fault action delay time Tr --- Long delay time set value Allowable error in operation time±15%

Short circuit delay protection feature

Short circuit delay protection action threshold

☐ <0.9Isd：inaction；

☐ >1.1Isd：action

☐ IsdCurrent setting range：(1.5~15)Ir+OFF

Current	Action time					
Isd<I≤8Ir	inverse time	Action characteristic	$I^2t=(8Ir)^2tsd$			
		Setting time s	0.1	0.2	0.3	0.4
I≥1.1Isd	Set a time limit, the minimum time is the return time	Setting time s	0.1	0.2	0.3	0.4
		Min s	0.08	0.14	0.23	0.35
		Max s	0.14	0.2	0.32	0.5

Notes:Isd-Short delay current setting I --- Fault current value Ir --- Long delay setting value t --- Fault action delay time tsd — Short delay inverse time set value action time tolerance error±20%

Short circuit instantaneous protection feature

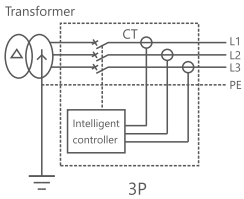
Operation current set value	(1.0~20)In+OFF	Current tolerance	±10%
Action characteristic	≤0.85Ii inaction		
	>1.15Iiaction		

RDW8HU series high voltage intelligent universal circuit breaker

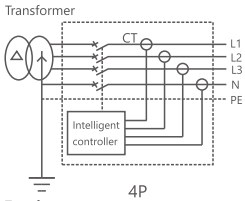
Ground fault protection features

Ground protection current setting Ig				
Action current setting value Ig		(0.2~1.0)In+OFF	Current tolerance	±10%
Action characteristic		<<0.8Ig inaction		
		≥1.1Ig inaction		
Action time Tg Time tolerance ±10%	Set a time limit	0.1~1s+OFF		
	Inverse time shear coefficient Cr	1.5~6+OFF		
	Inverse time limit formula	t=TgxCrxIg/I t-Delay time Tg-Set delay time Cr-shearing factor Ig-Set operating Current I-Ground fault current		

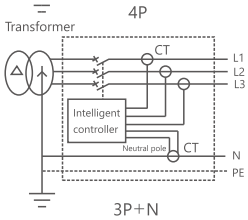
Ground fault protection method and electrical schematic diagram



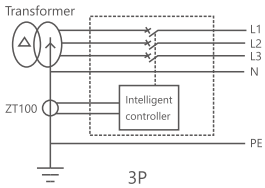
3P



4P



3P+N



3P

Method 1 (difference type)

☐ TN-C, TNC-S and TN-S power distribution systems use three-pole circuit breakers without neutral current transformers。
☐ The ground fault protection signal is the vector sum of the three-phase current。
☐ The protection feature is fixed time or inverse time protection。

Method 2 (difference type)

☐ TN-S power distribution system adopts four-pole circuit breaker and built-in neutral current transformer。
☐ The ground fault protection signal is the four-phase current vector sum。
☐ The protection feature is fixed time or inverse time protection。

Method 3 (Difference type)

☐ TN-S power distribution system uses three-pole circuit breaker and external neutral current transformer。
☐ The ground fault protection signal is the sum of three-phase current and N-phase current vector。
☐ The protection feature is fixed time or inverse time protection。
☐ Note: The length of the neutral current transformer conductor is not greater than 2m。

Mode 4 (ground current mode)

☐ The ground current protection type distribution system uses three-pole circuit breaker and external neutral line current transformer。
☐ Attach a special current transformer。
☐ The distance between the special current transformer and the circuit breaker is not more than 10m。

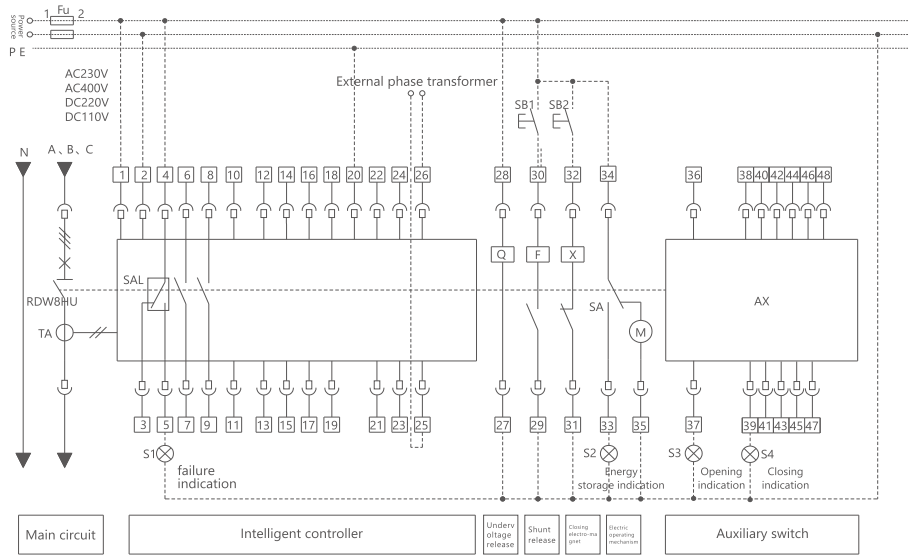
Factory setting value of intelligent controller

Trip cur vel I^2t	Long delay		Short time delay		instant	Ground fault		Thermal memory
	IR	tR	Isd	ts	Ii	Ig	tg	
	1.0In	15s	8Ir1	0.4s	12In	OFF	/	20min

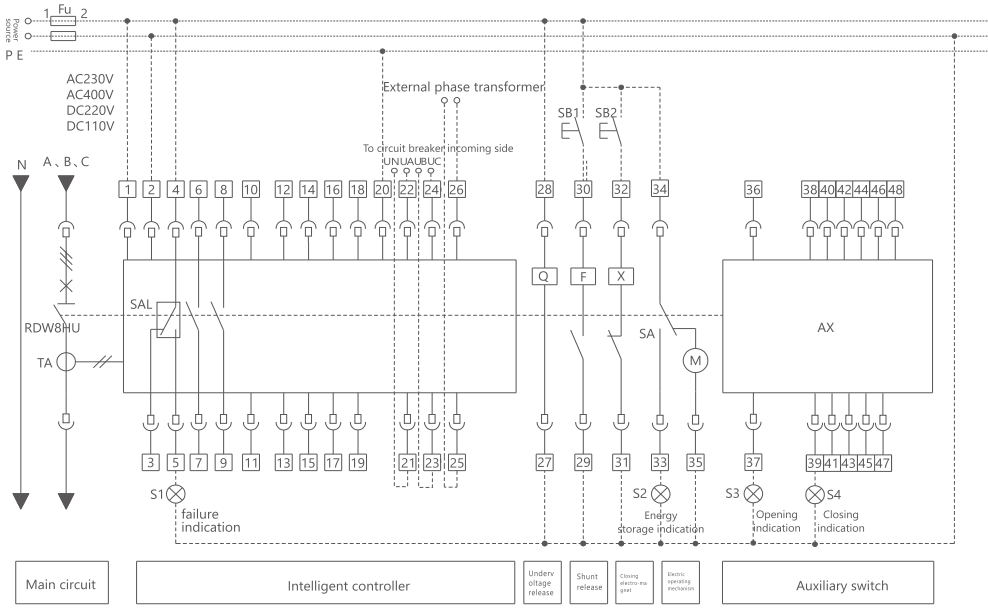
RDW8HU series high voltage intelligent universal circuit breaker

Circuit breaker control circuit wiring diagram

RDW8HU-2500/4000/6300 M-type secondary circuit wiring diagram

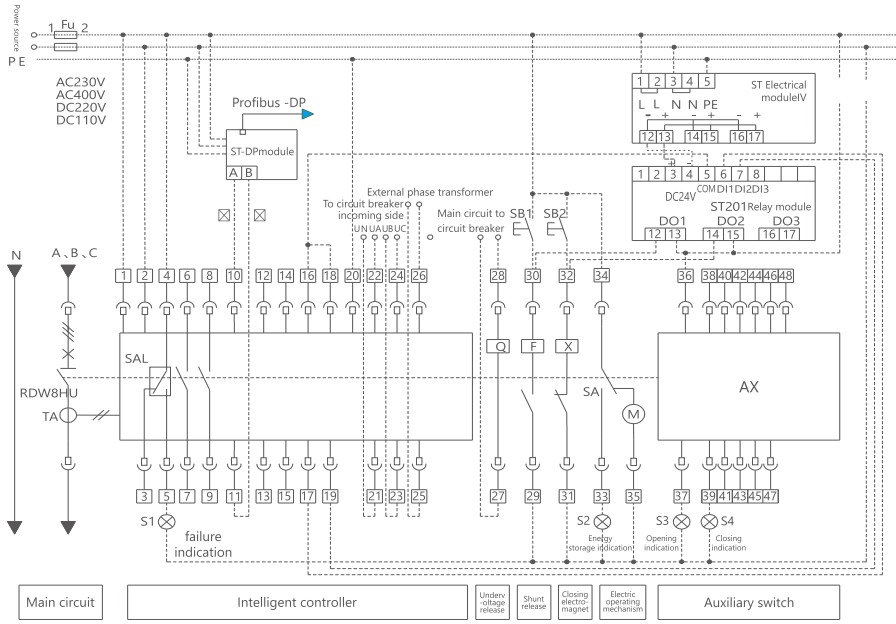


RDW8HU-2500/4000/6300 R-type secondary circuit wiring diagram



RDW8HU series high voltage intelligent universal circuit breaker

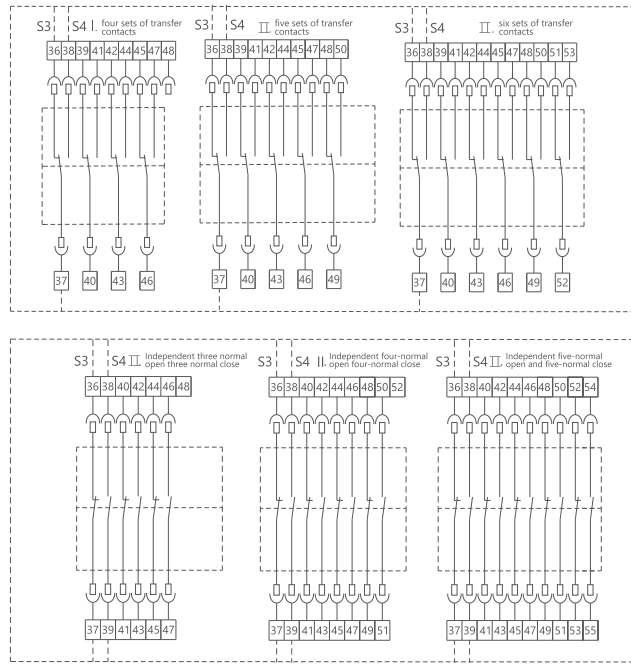
RDW8HU-2500/4000/6300　　H-type secondary circuit wiring diagram



Note: The dotted part is connected by the user. If the intelligent controller, undervoltage release device, shunt release device, closing electromagnet, electric operating mechanism and other voltages are different, they should be connected to different power sources respectively. The undervoltage releaser must be directly connected to the main circuit power supply, when the rated working voltage of the main circuit is AC800V~AC1140V, the control circuit and auxiliary circuit need to be isolated from the main circuit with a transformer, and the maximum working voltage of the control circuit and auxiliary circuit is AC400V.

RDW8HU series high voltage intelligent universal circuit breaker

RDW8HU-2500/4000/6300 auxiliary switch type (default is four sets of transfer contacts)



RDW8HU-2500/4000/6300 M-type secondary circuit wiring diagram terminal function and symbol interpretation

Terminal number	Function Description	Symbol	Paraphrase	Remark
1、2	Auxiliary power input: AC230V, AC400V, DC220V, DC110V	RDW8HU	RDW8HU universal circuit breaker	
3、4、5	Fault trip auxiliary contact, contact capacity: AC250V, 3A	S1~S4	Signal lamp	User provided
20	Ground (PE)	TA	Current transformer	
27、28	Undervoltage release	SAL	microswitch	
29、30	Shunt release	SB1	Opening button	User provided
31、32	Closing electromagnet	SB2	Closing button	User provided
33、34、35	Electric operating mechanism (electric energy storage), 37 connected with green line, 38 connected with black line, 39 connected with red line	X	Closing electromagnet	
36~48	Auxiliary contact terminal	F	Shunt release	
		Q	Undervoltage release	
		M	Electric operating mechanism	
		SA	Electric operating mechanism travel switch	
		Fu	fuse	User provided
		PE	Ground wire	
		N	Neutral (N phase)	
		A、B、C	Phase line	
		AX	Auxiliary contact	

RDW8HU series high voltage intelligent universal circuit breaker

RDW8HU-2500/4000/6300 R-type secondary circuit wiring diagram terminal function and symbol interpretation

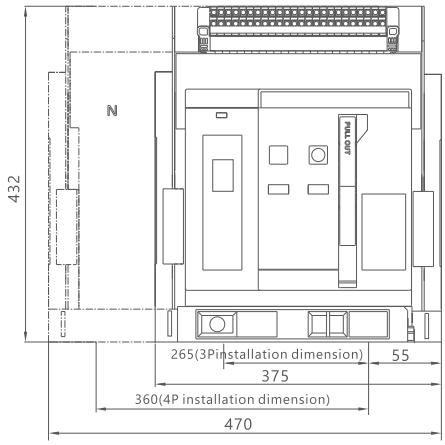
Terminal number	Function Description	Symbol	Paraphrase	Remark
1、2	Auxiliary power input: AC230V, AC400V, DC220V, DC110V	RDW8HU	RDW8HU universal circuit breaker	
3、4、5	Fault trip auxiliary contact, contact capacity: AC250V, 3A	S1~S4	Signal lamp	User provided
20	Ground (PE)	TA	Current transformer	
21、22、23、24	Voltage signal measurement, 21 is connected to phase N, 22 is connected to phase A, 23 is connected to phase B, 24 is connected to phase C	SAL	microswitch	
27、28	Undervoltage release	SB1	Opening button	User provided
29、30	Shunt release	SB2	Closing button	User provided
31、32	Closing electromagnet	X	Closing electromagnet	
33、34、35	Electric operating mechanism (electric energy storage), 37 connected with green line, 38 connected with black line, 39 connected with red line	F	Shunt release	
36~48	Auxiliary contact terminal	Q	Undervoltage release	
★Since the main circuit voltage of this series is high voltage, the voltage signal measurement of R/H type controller 21, 22/23, 24 needs to be connected to the voltage conversion module。		M	Electric operating mechanism	
		SA	Electric operating mechanism travel switch	
		Fu	fuse	User provided
		PE	Ground wire	
		N	Neutral (N phase)	
		A、B、C	Phase line	
		AX	Auxiliary contact	

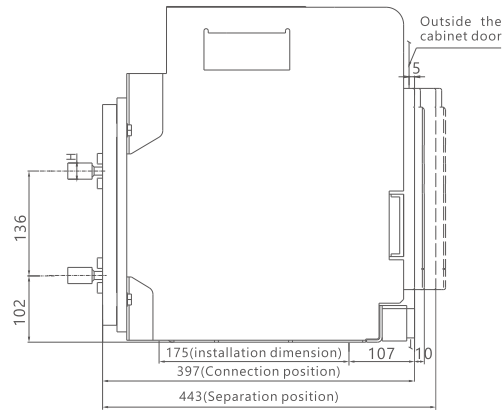
RDW8HU-2500/4000/6300 H-type secondary circuit wiring diagram terminal function and symbol interpretation

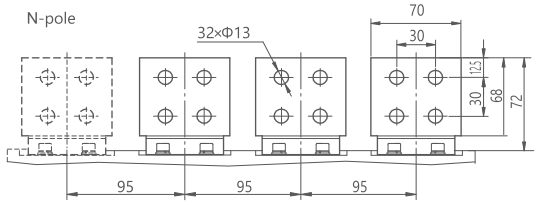
Terminal number	Function Description	Symbol	Paraphrase	Remark
1、2	Auxiliary power input: AC230V, AC400V, DC220V, DC110V	RDW8HU	RDW8HU universal circuit breaker	
3、4、5	Fault trip auxiliary contact, contact capacity: AC250V, 3A	S1～S4	Signal lamp	User provided
10、11	Communication interface output, 10 is (+),11 is (-); (Note: Default Modbus-RTU communication mode))	TA	Current transformer	
12～15	DO1, programmable signal output, contact capacity: AC250V, 3A	SAL	microswitch	
14、15	DO2DO3, opening signal output, contact capacity: AC250V, 3A	SB1	Opening button	User provided
16、17	DO4, closing signal output, contact capacity: AC250V, 3A	SB2	Closing button	User provided
18、19	Ground (PE)	X	Closing electromagnet	
20	Voltage signal measurement, 21 is connected to phase N, 22 is connected to phase A, 23 is connected to phase B, 24 is connected to phase C	F	Shunt release	
21、22、23、24	External N transformer input	Q	Undervoltage release	
25、26	Undervoltage release	M	Electric operating mechanism	
27、28	Shunt release	SA	Electric operating mechanism travel switch	
29、30	Closing electromagnet	Fu	fuse	User provided
31、32	Electric operating mechanism (electric energy storage), 37 connected with green line, 38 connected with black line, 39 connected with red line	PE	Ground wire	
33、34、35	Auxiliary contact terminal	N	Neutral (N phase)	
36~48		A、B、C	Phase line	
★Since the main circuit voltage of this series is high voltage, the voltage signal measurement of R/H type controller 21, 22/23, 24 needs to be connected to the voltage conversion module。		AX	Auxiliary contact	Selective assembly
		ST-DPmodule	This parameter is required when the communication mode is Profibus-DP	Selective assembly
		STPower module	Communication function when needed	Selective assembly
		ST201Relay module	Communication function when needed	

RDW8HU series high voltage intelligent universal circuit breaker

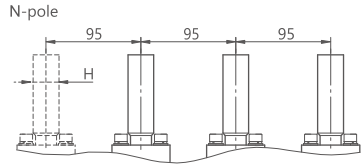
RDW8HU-2500 Intelligent universal Circuit breaker (Drawer type)



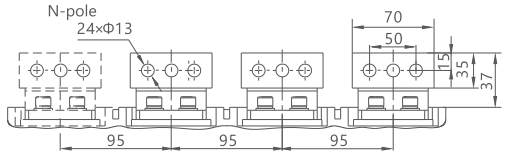




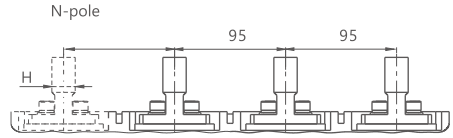
Default factory: Horizontal wiring and phase spacing (long row)



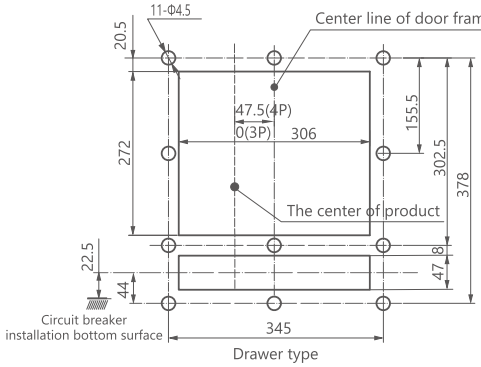
Vertical connection and phase spacing（long row)



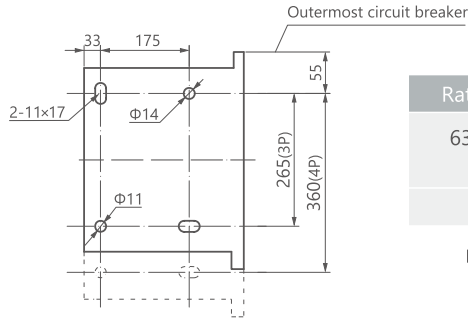
Horizontal connection and phase spacing (short row)



Vertical connection and phase spacing（short row)



RDW8DC-2500 Drawer type circuit breaker panel opening size



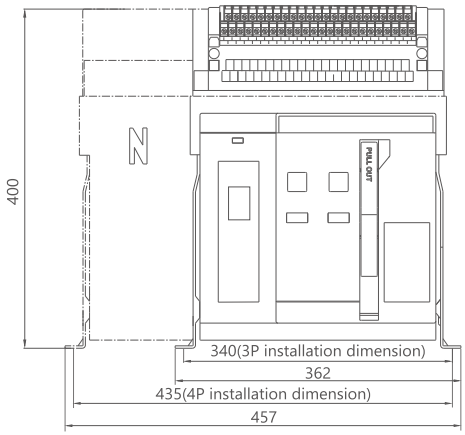
Installation dimension diagram

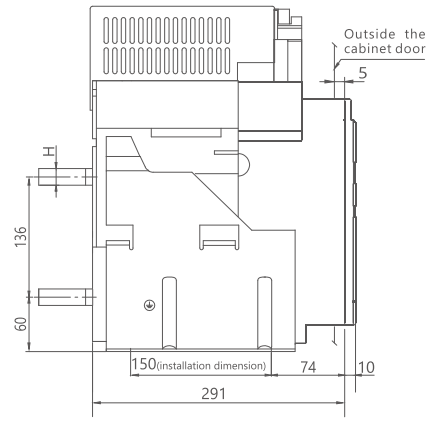
Rated current (A)	Busbar thickness H (mm)
630、800、1000、1250、1600	15
2000、2500	20

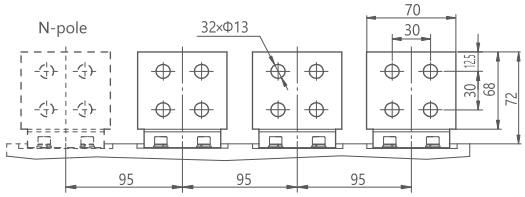
RDW8HU-2500 The current corresponds to the busbar thickness

RDW8HU series high voltage intelligent universal circuit breaker

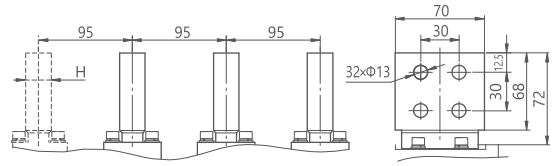
RRDW8HU-2500 Intelligent universal Circuit breaker (fixed)



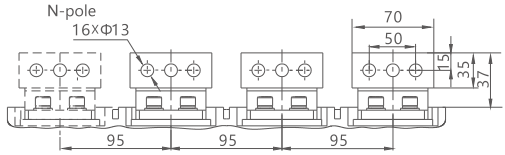




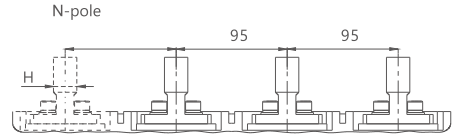
Horizontal wiring and phase spacing



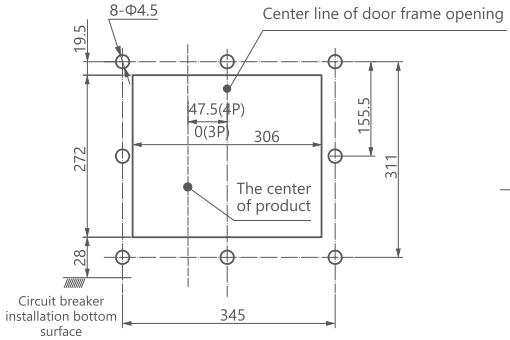
Vertical connection and phase spacing



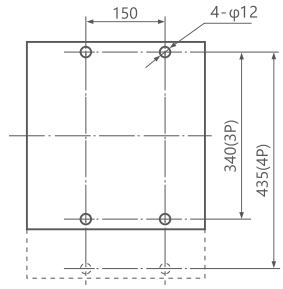
Horizontal wiring and phase spacing(short row)



Vertical connection and phase spacing(short row)



RDW8DC-2500 fixed circuit breaker panel opening size



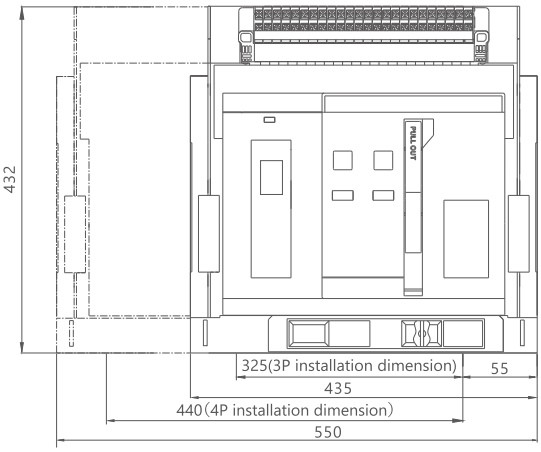
Installation dimension diagram

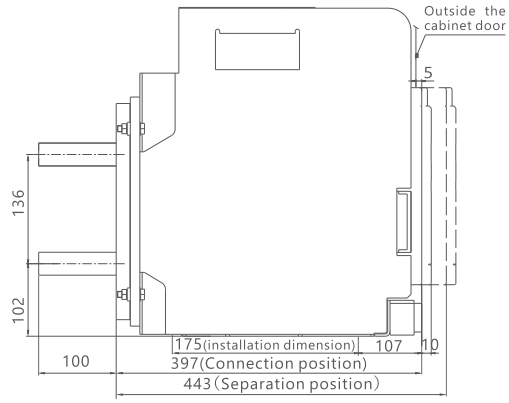
Rated current (A)	Busbar thickness H (mm)
630、800、1000、1250、1600	15
2000、2500	20

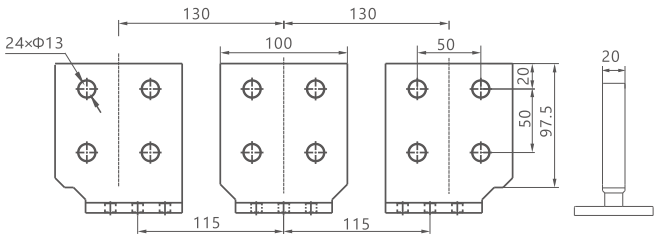
RDW8HU-2500 The current corresponds to the busbar thickness

RDW8HU series high voltage intelligent universal circuit breaker

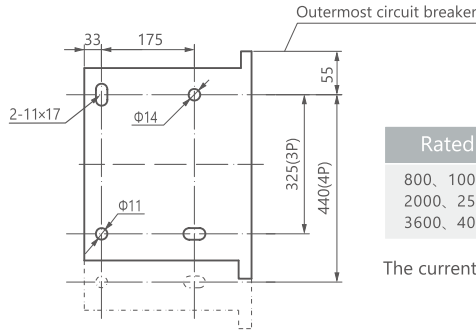
RDW8HU-4000 Intelligent universal Circuit breaker (Drawer type)







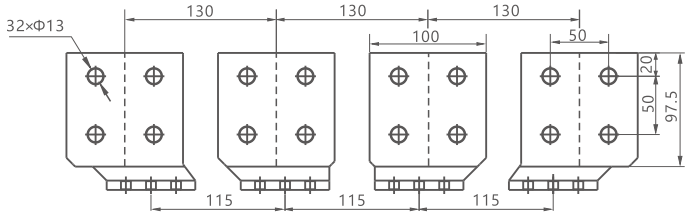
Horizontal wiring and phase spacing(3P)



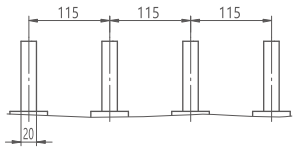
Installation dimension diagram

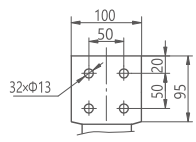
Rated current (A)	Busbar thickness H (mm)
800、1000、1250、1600、2000、2500、2900、3200、3600、4000	20

The current corresponds to the busbar thickness

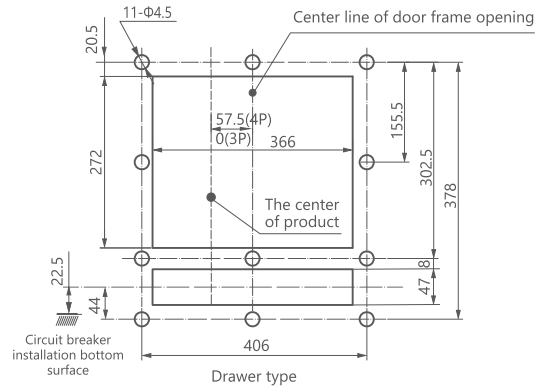


Horizontal wiring and phase spacing(4P)





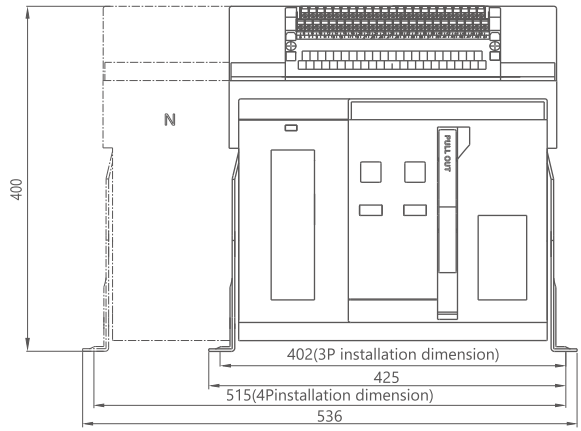
Vertical connection and phase spacing

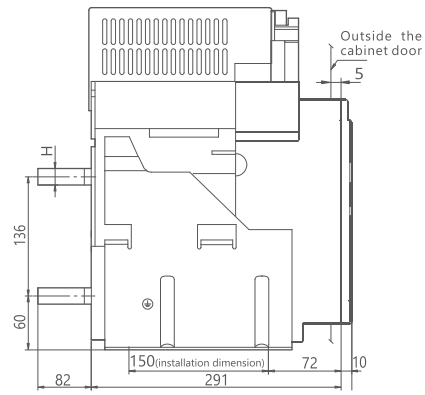


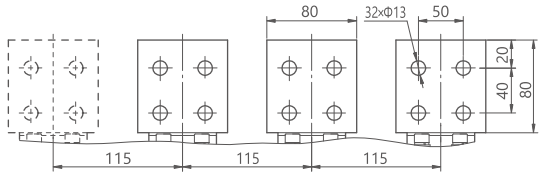
RDW8HU-4000 drawer type circuit breaker panel opening size

RDW8HU series high voltage intelligent universal circuit breaker

RDW8HU-4000 Intelligent universal Circuit breaker (fixed)



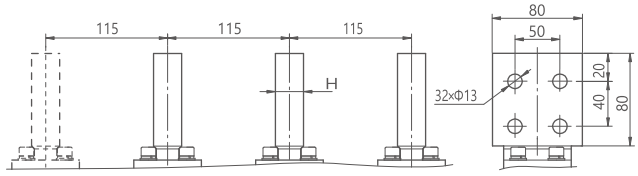




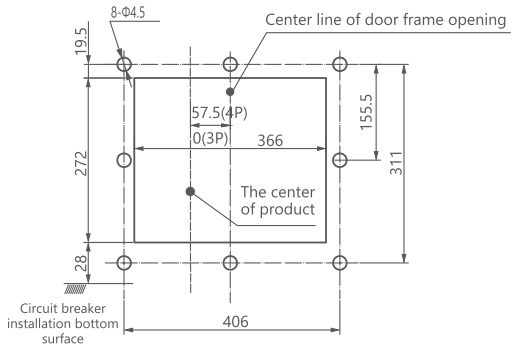
Horizontal wiring and phase spacing

Rated current (A)	Busbar thickness H (mm)
800、1000、1250 1600、2000、2500 2900、3200、3600 4000	20

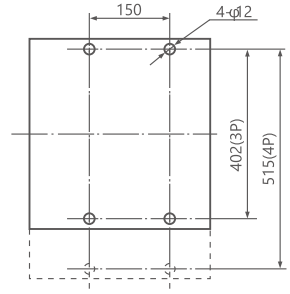
The current corresponds to the busbar thickness



Vertical connection and phase spacing



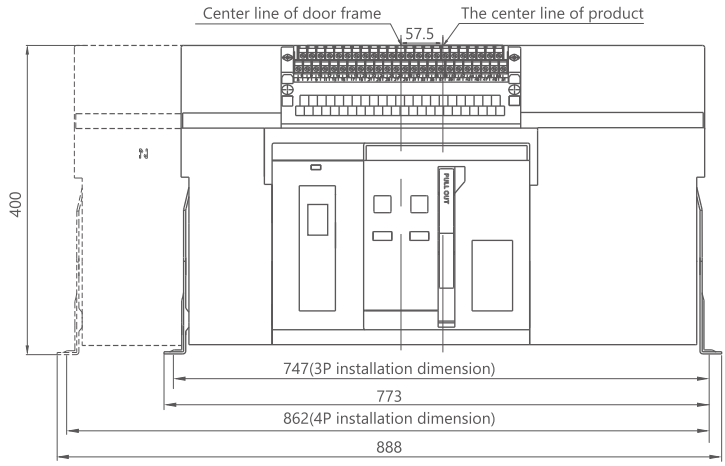
RDW8HU-4000 fixed circuit breaker panel opening size

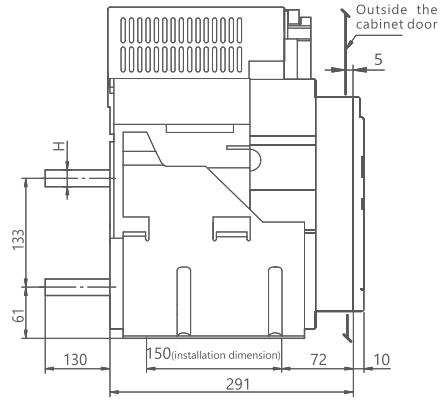


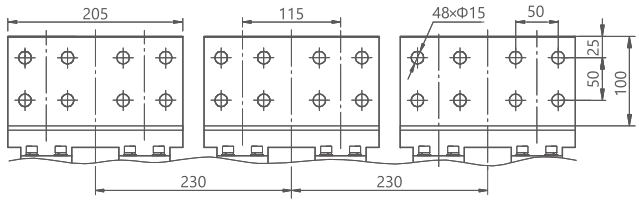
Installation dimension diagram

RDW8HU series high voltage intelligent universal circuit breaker

RDW8HU-6300 Intelligent universal Circuit breaker (fixed)

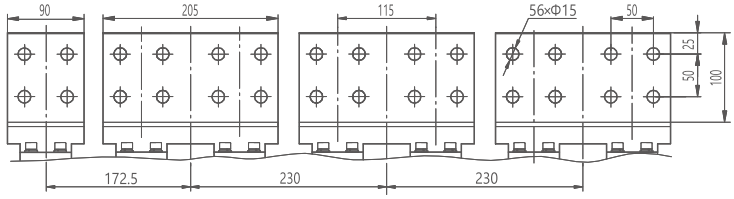




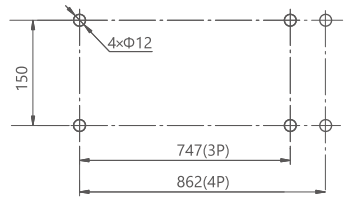


Rated current (A)	Busbar thickness H (mm)
4000	25
5000~6300	30

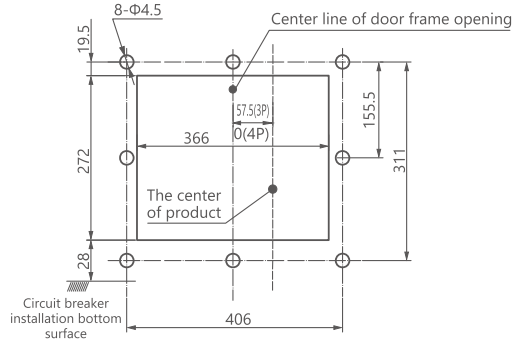
3P Horizontal wiring and phase spacing



4PHorizontal wiring and phase spacing



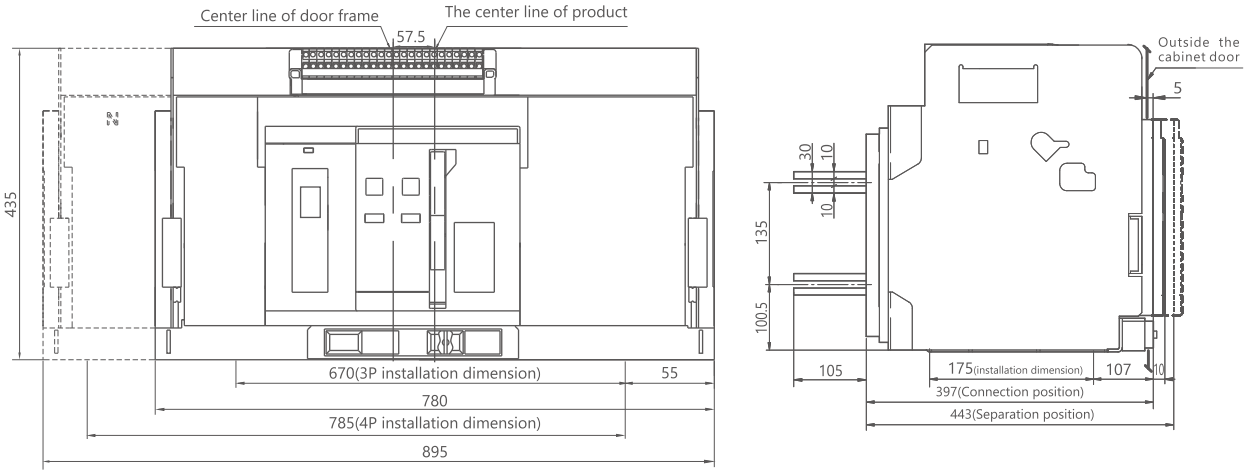
Installation dimension diagram

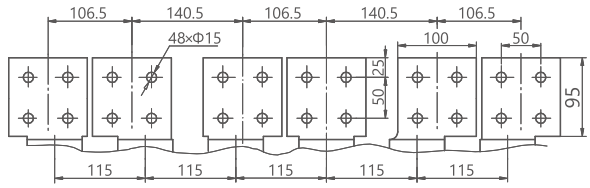


RDW8HU-6300 fixed circuit breaker panel opening size

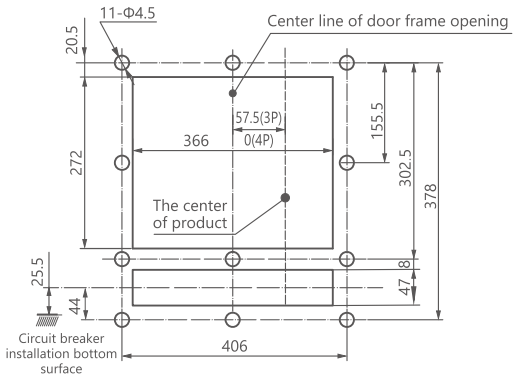
RDW8HU series high voltage intelligent universal circuit breaker

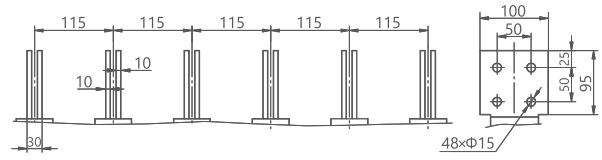
RDW8HU-6300 Intelligent universal Circuit breaker (Drawer type)





3P Horizontal wiring and phase spacing



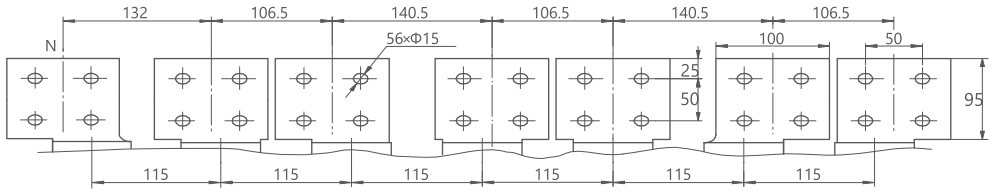


3P Vertical connection and phase spacing

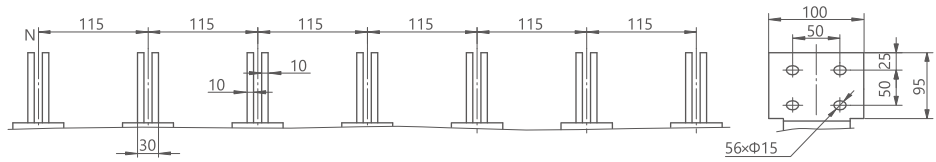
RDW8HU-6300 Drawer type circuit breaker panel opening size

RDW8HU series high voltage intelligent universal circuit breaker

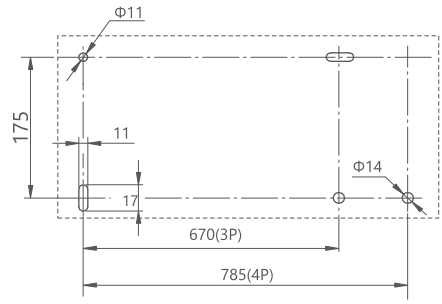
RDW8HU-6300 Intelligent universal Circuit breaker (Drawer type)



4P Horizontal wiring and phase spacing



4P Vertical connection and phase spacing



Installation dimension diagram

RDW8HU series high voltage intelligent universal circuit breaker

Accessories

Remote operation

RDW8-2500~6300
Closing electromagnet

☐ Closing electromagnet

Operating voltageUs	AC230V	AC400V	DC220V	DC110V
Operating voltage range	(85~110)%Us			
Starting current	1.3A	0.7A	1.3A	2.5A
Suction time	≤60ms			

Note: When the circuit breaker completes the storage operation and is in the normal opening state, the circuit breaker can be controlled remotely by the closing electromagnet to close the circuit breaker quickly

RDW8-2500~6300
Shunt release

☐ Shunt release

Operating voltageUs	AC230V	AC400V	DC220V	DC110V
Operating voltage range	(70~110)%Us			
Starting current	1.3A	0.7A	1.3A	2.5A
Suction time	≤30ms			

Note: When the circuit breaker is in the closing state, the shunt trip device can be remotely controlled to quickly disconnect the circuit breaker

RDW8-2500~6300
Undervoltage release

☐ Undervoltage release

Operating voltageUs	AC230V	AC400V
Operating voltage range	(35~70)%Ue	
Reliable closing voltage range	(85~110)%Ue	
Unable close voltage range	≤35%Ue	
Power dissipation	20VA	
Above RDW5-2500 tripping time	Short time 0.5s、1s、3s、5s	

Note: 1. When the undervoltage release is not powered, the circuit breaker can not be closed;
2. Within 1/2 delay trip time, when the operating voltage is restored to more than 85%Ue, the circuit breaker will continue to open;
3. In lightning-prone areas and unstable power supply voltage grids, it is recommended to use an undervoltage release device with delay to prevent the circuit breaker from being disconnected due to short-term voltage reduction

RDW8-2500~6300
Energy storage motor

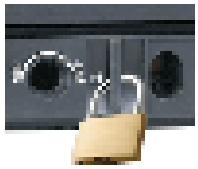
☐ Energy storage motor

Operating voltageUs	AC230V	AC400V	DC220V	DC110V
Operating voltage range	(85~110)%Us			
Energy storage time	5s			
RDW5-2500 power consumption	110VA		110W	
Above RDW5-4000	150VA		150W	

Note: 1. Realize electric circuit breaker energy storage and automatic re-energy storage operation after circuit breaker closing, so that the circuit breaker can be re-closed immediately after breaking;
2. You can also manually store energy during circuit breaker maintenance

RDW8HU series high voltage intelligent universal circuit breaker

Lock and interlo



Drawer operation padlock

☐Drawer operation padlock

1.The body of the drawer circuit breaker is pulled out of the card plate and locked with a padlock when it is in the "separate" position. After being locked, the body cannot be shaken to the "test" or "connect" position. (Padlock user

Key lock

☐Key lock

1.Key lock Locks the circuit breaker in the off position. The circuit breaker can be closed only when the lock is opened by the key and the key is not removed

2.There are three types of commonly used Key locks: one-lock key, two-lock key, and three-lock two key

Note: Two-lock and three-lock are used in two-line and one-link distribution systems

Position Door interlock

☐Position Door interlock

1..When the drawer type circuit breaker body is in the "test" or "connection" position, the cabinet door is prohibited to open, and when the circuit breaker body is in the "separate" position, the cabinet door is allowedto open。

Drawer position locking mechanis

☐ Position Door interlock

1.In the drawer type circuit breaker, the lock device of the circuit breaker"connection", "test" and "separation" position, the three positions of the circuit breaker are displayed through the indicating window, the advance and retreat handle is locked in the exact position, and the lock can be

Mechanical interlocking

☐ Mechanical interlocking

1.There are lever interlocks and cable interlocks

2.Using lever interlocking, two or three circuit breakers can only be installed vertically, using cable interlocking, circuit breakers can be installed horizontally and vertically

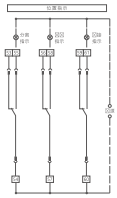
indicating contactor

RDW8-2500~6300 Auxiliary switch

☐Auxiliary contact

Rated operational voltage	AC230V	AC400V	DC220V	DC110V
Conventional thermal current	6A			
Rated control capacity	300VA		60W	

Notes：1.Default configuration: Four sets of conversion contacts 2.Other types: four normal open four normal close, six groups of conversion contacts, six normal open six normal close



Position signal device wiring diagram

☐Position signal device wiring diagram

1.Drawer type optional accessories

2.The three-position indicating contact is installed on the drawbar to indicate the position of the circuit breaker in the drawer

3.When the circuit breaker is in the connected position, see the wiring diagram on the

RDW8HU series high voltage intelligent universal circuit breaker

Protection

Door fram

☐Door fram

1.The Door frame is installed on the door where the circuit breaker is installed in the power distribution cabinet, and plays a sealing and beautiful role with up to the protection level。

Phase partitio

☐Phase partitio

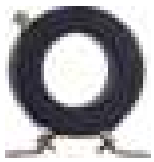
1.It is vertically installed between the bus terminals of each phase of the circuit breaker to enhance the insulation between phases of the circuit breaker

Controller accessories

N-class current transforme

☐N-class current transformer

1.In the 3P+N grounding mode, the external transformer used to measure the neutral phase current is installed on the wiring busbar by the user
2.Choose between ground transformer and leakage transformer



Ground current transformer

☐Ground current transform

1.The special external transformer used to measure the neutral phase current can protect the grounding fault of the breaker at the same time
2.The grounding mode is ground current return
3.Only applicable to R/H controllers
4.Choose one of the three external transformers and leakage transformers with N phase

Auxiliary power module

☐Auxiliary power module

1.The input voltage: AC230V/AC400V/DC110V DC220V (optional);
2.Auxiliary power module can provide power not less than 9.6W,DC24V power supply, can output four sets of wiring terminals, can provide power for intelligent controller, relay module；
3.The installation method is 35mm standard guide rail or direct installation。

Relay module

☐Relay module

1.Input voltage: DC24V
2.Contact capacity: AC250V10A; DC28V10A
3.If the switching capacity of the circuit breaker is large, the Relay module switches the circuit breaker to the relay Module.
4.The installation method is 35mm standard guide rail or direct installation

Voltage conversion module

☐Voltage conversion module

1.The voltage conversion module is designed to extend the voltage measurement range of the intelligent controller and can be used for expansion when the bus voltage is high. The module must be used together with the controller。

RDW8HU series high voltage intelligent universal circuit breaker

Order specificatio

Company Contacts Contact number Order quantity (units) Order date

Product model number	RDW8HU-2500☐	RDW8HU-4000☐	RDW8HU-6300☐
Rated current(A)	☐630 ☐800 ☐1000 ☐1250 ☐1600 ☐2000 ☐2500	☐800 ☐1000 ☐1250 ☐1600 ☐2000 ☐2500 ☐2900 ☐3200 ☐3600 ☐4000	☐4000 ☐5000 ☐6300
Number of pol	☐3 poles ☐4 poles		
Installation mode	☐fixed type ▫Fixed type		
Connection mod	☐Vertical connection ☐Upper horizontal droop direct line ☐Connect cables vertically up and horizontally down ☐Other wiring modes		
Rated operational voltage	☐AC800V ☐AC1000V ☐AC1140V		
Intelligent controller selection	Type	☐M standard form(Digital display) ☐R Enhanced type(Liquid crystal display) ☐H advanced type(LCD with communication)	
	Control voltage	☐AC23OV ☐AC400V ☐DC220V ☐DC110V ☐DC24V	
	Protection parameter setting	Default factory Settings: Ir=1In,Tr=15s; Fixed duration Isd=8Ir,Tsd=0.4s; Inverse time limit Isd=OFF; Ii=12 In; Ig is OFF digit: IG_0.4 in inverse time shear coefficient k=OFF,Tg=OFF LCD: grounding protection OFF, grounding alarm OFF	
		Long delay protection Ir	Ir= In(Select or OFF from 0.4 to 1.0) Tr(1.5Ir)= s(at 15, 30, 60... Select from 960) Note: Digits only go up to 480
		Short circuit delay protection Is	sd= Ir(Select or OFF from 1.5 to 15) ☐Set the time limit Tsd=__s(liquid crystal is selected in 0.4~1.0; The number is selected from 0.1 to 1.0); ☐ Inverse time limit Tsd=0.1Tr
		Short circuit instantaneous protection Ii	I= _In(Select or OFF from 1.0 to 20), the maximum value is 100kA
		Ground protection Ig	g= In(Select or OFF from 0.2 to 1.0) Tg= s(Select from 0.1 to 1.0 Inverse time-bound shear coefficient k= (Select or OFF in 1.5~6
	Optional function	☐Reclosing function (Type R, Type H) ☐Communication function: Modbus protocol (Default, provided for H-mode) ☐profibus	
Standard accessory	Closing electromagnet	☐AC23OV ☐AC400V ☐DC220V ☐DC110V	
	Shunt relea	☐AC23OV ☐AC400V ☐DC220V ☐DC110V	
	Energy storage motor	☐AC23OV ☐AC400V ☐DC220V ☐DC110V	
	Auxiliary switc	☐Four groups of changeover contacts ☐Four normal open four normal closed ☐Six groups of conversion contacts ☐Six normal open six normal close☐Special form	
Ptional accessories	Undervoltage release	☐AC23OV ☐AC400V	
		☐Instantaneous (default) ☐0.5s ☐1s ☐3s ☐5s	
	Opening lock device	☐One circuit breaker with one lock and one key ☐Two circuit breakers with two locks and one key ☐Three circuit breakers with three locks and two keys ☐Special form (customized according to user requirements)	
	Mechanical interlocking	Two circuit breakers ☐Pole interlock (upper and lower interlock) ☐Steel cable interloc	
		Three circuit breakers ☐Pole interlock (upper and lower interlock) ☐Steel cable interloc	
	Other	☐Residual current transformer ☐External neutral line current transformer ☐Phase partition ☐Power adapter ☐Relay module ☐Communication Conversion module (Profibus-DP) ☐Drawer seat three-position loc	

Note 1: If the user has other special requirements, please consult with the manufacturer before ordering;
Note 2: The optional functions and accessories of the circuit breaker are not included in the standard configuration of the circuit breaker, and the cost is calculated separately;
Note 3: The auxiliary switch of fixed circuit breaker has no six normal open and six normal

PEOPLE
ELECTRIC

RDM8DC series DC molded case circuit breaker

High-quality materials, reliable electricity

The shell is made of polyamide material with high flame retardant, high strength, corrosion resistance, high temperature resistance and safe insulation。

Applies to various scenarios

It can be used in new energy, electric power, industrial control, real estate, telecommunications,rail transit and other industries。

Better protection and selectivity

250, 315, 400, 630, 800 five shell frame to provide more selectivity, impact pressure 12kV, to meet more industry requirements。

Panel removable design

Panel modular detachable design, complete selection of electrical installation accessories to meet different needs。

RDM8DC series DC molded case circuit breaker

Product overview

RDM8DC series DC circuit breaker (hereinafter referred to as circuit breaker) is used in the Rated voltageDC250V~DC1500V, rated working current 63A~800A DC power grid circuit, this circuit breaker has overload long delay, short circuit instantaneous protection function. Used to distribute power and protect lines and power equipment from overload, short circuit and other faults。

The product standard: IEC60947-1IEC 60947-2
GB/T14048.1 "Low voltage switchgear and control equipment - Part 1: General Provisions"
GB/T14048.2 "Low voltage switchgear and control equipment - Part 2: Circuit

Selection guide

RDM8DC	400	P	3	3	10	DC1500V	125A	AC230V	Board front connection
Product code	Shell level	operating mode	Number of poles	Trip mode	Accessory	Rated voltage	Rated current	Accessory voltage	Installation wiring mod
RDM8DC DC molded case ciercuit breaker RDM8PV molded case circuit breaker for photovoltaic	250(63~250) 315(280~315) 400(250~400) 630(400~630) 800(630~800)	No code: Direct handle operation P: electrical operation Z: Turn the handle to operate	2:2 poles 3:3 poles	2: Single magneti c type 3: Thermo magneti c type	00: No accessories 08: Alarm contact 10: Shunt release 18: Shunt release, alarm contact 20: auxiliary contact 02: auxiliary contact 28: auxiliary contact, alarm contact 40: Shunt release, auxiliary contact 12: Shunt release, auxiliary contact 48: Shunt release, auxiliary alarm contact 60: two sets of auxiliary contacts 68: Double auxiliary contact, alarm contact	DC250V DC500V DC750V DC1000V DC1250V DC1500V	63、80 100、125 140、60 180、200 225、250 280、300 315、350 400、500 630、700 800	Shunt release DC24V、DC400V	Board front connection (No code) Backboard connection

Note: Attached 2P products are only available in 08, 10, 20, 28(under 400 shell)

RDM8DC series DC molded case circuit breaker

Normal working conditions and installation

□The altitude of the installation site does not exceed 2000m;

□Allow the ambient temperature is not higher than +50℃, not lower than -5℃; (Over +50℃ capacity reduction use, specific consultation with the manufacturer)。

□Atmospheric conditions: When the ambient temperature is 50 ℃, the relative humidity of the atmosphere does not exceed 50%, and a higher relative humidity is allowed at a lower temperature, such as 90% at 20 ℃, and considering the condensation that occurs on the surface of the product due to temperature changes；

□The pollution level：level 3；

□The installation category：II;

□The magnetic field of the installation position should not exceed 5 times the geomagnetic field in any direction；

□In a medium that is not at risk of explosion, and in which there is no gas or conductive dust sufficient to corrode metal and destroy insulation；

□No erosion from wind and snow；

□an be installed in horizontal and vertical；

□There should be no significant impact and vibration at the installation place, and it should not be installed in flammable and explosive place

Table 1 Capacity reduction factor for ambient temperature changes

Model number	Rated current	+50℃	+55℃	+60℃	+65℃	+70℃
		Capacity reduction factor	Capacity reduction factor	Capacity reduction factor	Capacity reduction factor	Capacity reduction factor
RDM8□-250 RDM8□-315	Below 250A	1In	0.94In	0.9In	0.82In	0.74In
	280A、300A、315A	1In	0.93In	0.89In	0.81In	0.7In
RDM8□-400 RDM8□-630 RDM8□-800	250A、315A、350A、400A	1In	0.96In	0.94In	0.92In	0.89In
	500A、630A	1In	0.93In	0.91In	0.89In	0.85In
	700A	1In	0.9In	0.88In	0.86In	0.81In
	800A	1In	0.88In	0.83In	0.8In	0.75In

RDM8DC series DC molded case circuit breaker

Table 2 Capacity reduction factor of altitude

Model number	Rated current	2000m	2500m	3000m	3500m	4000m	4500m	5000m
		Derating factor	Derating factor	Derating factor	Derating factor	Derating factor	Derating factor	Derating factor
RDM8□-250 RDM8□-315	Below 250A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In
	280A、300A、315A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In
RDM8□-400 RDM8□-630 RDM8□-800	250A、315A、350A、400A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In
	500A、630A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In
	700A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In
	800A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In

Table 3 Release

□Alarmswitch ■Auxiliaryswitch ●Shuntrelease →Leaddirection

Handle

Left side installation  Right side installan

Code	Attachment name	RDM8
00	No internal accessories	
08	Alarm contact	
10	Shunt release	
18	Shunt release device, alarm contact	
20	Auxiliary contact	
28	Auxiliary contact, alarm contact	
40	Shunt release device, auxiliary contact	
48	Shunt release device, auxiliary alarm contact	
60	Two sets of auxiliary contacts	
68	Two sets of auxiliary contacts and alarm contacts	

Note: 2P products are only available under 08, 10, 20, 28(under 400 shell)

RDM8DC series DC molded case circuit breaker

Main technical parameters

Table4

Model		RDM8DC/PV-250/315	RDM8DC/PV-400/630/800
Rated current(A)		250: 63、80、100、125、140、160、180、200、225、250 315: 280、300、315	400:250、315、350、400 630:400、500、630 800:630、700、800
Number of pole		Two poles, three poles	
Rated insulation voltage Ue(DC:V)		250/500/750/1000/1500(2poles outline) 1000/1250/1500(3 poles outline)	250/500/750/1000/1500(2 poles outline) 1000/1250/1500(3 poles outline)
Rated insulation voltage Ui(V)		1500	1500
Rated impulse withstand voltage Uimp(kV)		12	12
Rated limit/operating short-circuit breaking capacity cu/Ics(kA)	DC250V/500V(2 poles)	50/50	50/50
	DC750V/1000V(2 poles)	25/25	25/25
	DC1500V(2 poles)	7.5/7.5	10/10
	DC1000V/1250V/1500V (3 poles)	25/25	1000:40/40 1500:30/30
Operating performance (times)	Electrify	1000	1000
	No electricity	7000	4000
Outline dimension mm (length X width X height)		200X76X135(2P) 200X107X135 (3P)	270X130X156 270X182X156

The over-current trip device consists of a thermal long-delay trip device with inverse time-limit characteristics and an instantaneous electromagnetic trip device, whose operating characteristics are shown in Table 5.

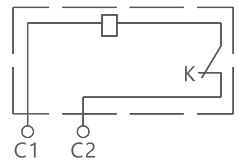
Table5

Distribution circuit breaker			
Rated current In(A)	thermal overload release		Electromagnetic trip operating current(A)
	1.05Inconventional non-tripping time(h)(cold)	1.30Inconventional non-tripping time(h)(thermal)	
In≤63	1	1	5In±20%
63<1n≤800	2	2	

RDM8DC series DC molded case circuit breaker

Shunt release

The rated control power supply voltage of shuntreleaseis:AC230V; 400V; DC24V;Thecircuit breaker can be reliably disconnected under 70% ~ 110% rated control power supply voltage.SeeFigure1 for the user connection。



Powerinput

Figure1 AC 230V、400V、DC 24V Wiring diagram

The auxiliarycontacts of the circuit breaker are divided into two groups, each group of auxiliary contacts is not separated electrically; Auxiliary contact parameters are showninTable8.User connections are shownin Table6.

Table6

The circuit breaker is in the"off" position	F14 F12 F11 F24 F22 F21	Shell level circuit breaker with 400A or higher current
	F14 F12 F11	Shell level circuit breaker with 250A or higher current
The circuit breaker is in the "on" position	When "off", the contact in the connected state turns to the disconnected state, When "off", the contact in the disconnected state turns into the connected state	

The Rated operational voltage and related parameters of alarm contacts are shown in Table 8, and the wiring diagram is shown in Table 7. The alarm contact of the circuit breaker does not operate when the circuit breakeris in normal closing, and the contact changes its original position only after free tripping or fault tripping

Table7

The circuit breaker is in the position of "off"or"on"	B14 B12 B11
The circuit breaker is in the position when the "free free tripping	B11,B12 contact from the connected state to the disconnected state B11, B14 contact from the disconnected state to the connected state。

Table8 Auxiliary contact,alarm contact parameters

Table8

Classification	Shell level rating current	Conventiona l thermal current A	AC-15			DC-13	
			Rated operational voltage	Rated frequency Hz	Rated current A	Rated operational voltage V	Rated current A
Auxiliary contact	Inm≤250	3	400	50	0.3	230	0.15
	Inm≥400	3			0.4		0.15
Alarm contact	63≤Inm≤800	3			0.3		0.15

RDM8DC series DC molded case circuit breaker

Connection mode

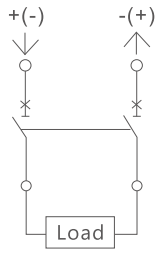


Figure1

Two pole product wiring diagram

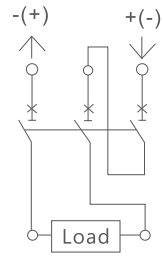


Figure 2

250/315 Three pole wiring diagram

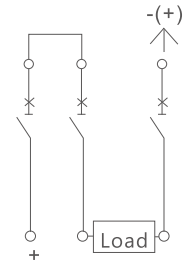
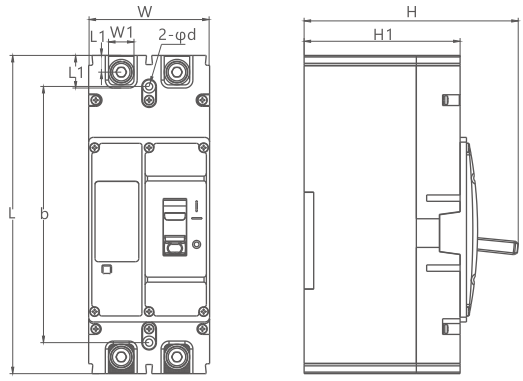


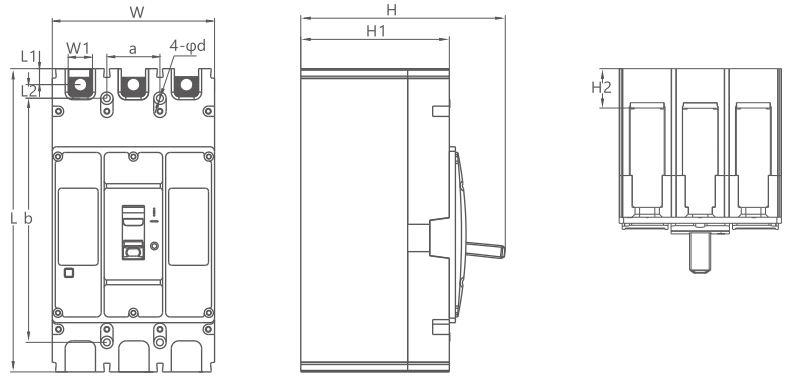
Figure 3

400/630/800 Three pole wiring diagram

Outline and Installation dimension



2P outline



3P outline

RDM8DC series DC molded case circuit breaker

Table 9

Type specification	Outline dimension(mm)								Installation dimension(mm)		
	L	W	H	L1	L2	W1	H1	H2	a	b	4-Ød
RDM8□-250/2 RDM8□-315/2	200	76	135	10.5	9.5	22	98	26	/	164	4.5
RDM8□-250/3 RDM8□-315/3	200	107	135	10.5	9.5	22	98	26	35	164	4.5
RDM8□-400/2 RDM8□-630/2 RDM8□-800/2	270	130	156	18	18	41	118	29	/	200	7
RDM8□-400/3 RDM8□-630/3 RDM8□-800/3	270	182	156	18	18	41	118	29	58	200	7

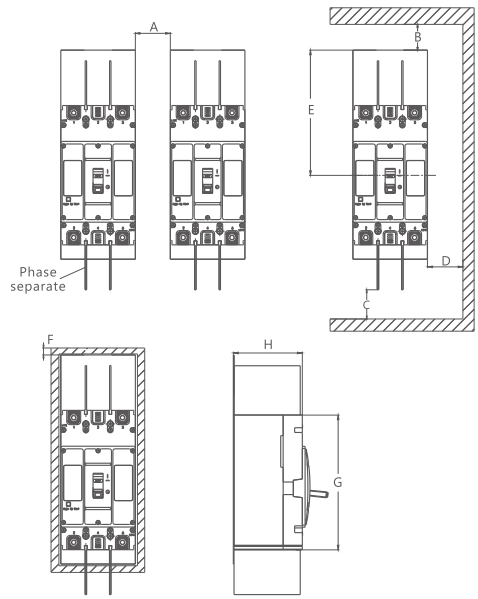


Table10

Type specification	Distance(mm)								
	A	B	C	D	E	F	G	H	n-φd
RDM8□-250	30	30	30	30	188	13	80	280	2-φ4.5
RDM8□-315									
RDM8□-400	30	30	30	30	185	13	50	320	4-φ4.5
RDM8□-630									
RDM8□-800									

RDM8DC series DC molded case circuit breaker

Main circuit connection

A.Board front connection：Select the PVC copper conductor of the corresponding section specified in Table 11, strip off the insulation layer of an appropriate length, insert it into the hole of the wire hoop, compress the outer layer of the wire hoop, wrap the wire tightly, and tighten the connecting hole of the wire hoop with the wiring end of the circuit breaker using screws (see Table 12 for screw tightening torque). For a copper bar, secure the patch board to the circuit breaker and then to the copper bar。

B.Backboard connection：Fix the circuit breaker to the Backboard connection stud as shown, and then fix it with the corresponding wire。

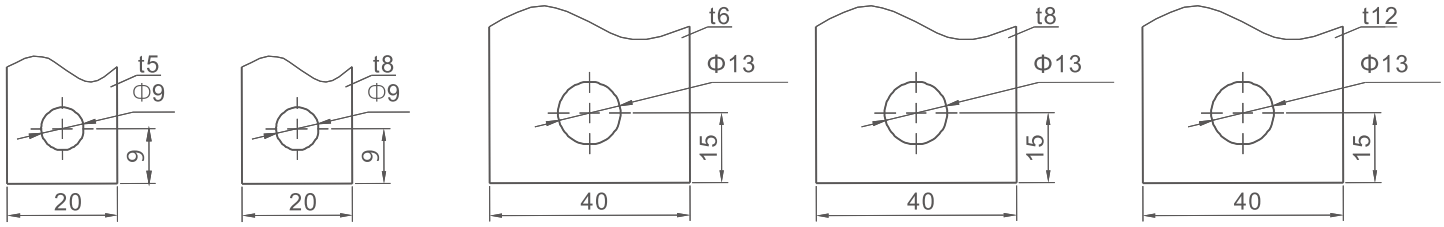
Table 11

Rated current(A)	63	80	100	125/140	160	180/200/225	250	315/350	400
Conductor area mm²	16	25	35	50	70	95	120	185	240
Rated current(A)	Sectional area of cable					Copper bar dimension			
	Number		Sectional area mm²			Number			
500	2		150			2		30×5	
630	2		185			2		40×5	
700、800	2		240			2		50×5	

Table 12 Screw tightening moment

Table 12

Model number	RDM8-250/315	RDM8-400/630/800
Wiring screw spe	M8	M10
Torque(N·m)	12	22



RDM8-250 RDM8-315 RDM8-400 RDM8-630 RDM8-800

RDM8 Series recommended prefabricated copper bar size

Order instructions

The following items must be filled out clearly when ordering

□Specify circuit breaker Model number, Rated current, short-circuit protection current setting value, operating mode, wiring mode；

□Trip mode and attachment code (see Table 1): If it is not specified when ordering, the goods shall be delivered without attachment (i.e. 2300 or 3300); When ordering a circuit breaker with a shunt trip, the rated control supply voltage must be indicated; This series of circuit breaker internal accessories (shunt, auxiliary, alarm) are used lead out of the line, if you need the terminal can be customized；

□Example: Order RDM8-250, photovoltaic DC1000V, two poles, Board front connection, 200A, 100 units.

It should be written as: RDM8PV-250/2300200A, DC1000V,100 units

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RDM8HU series high voltage molded case circuit breaker

Better arc protection

With high performance arc extinguishing cover, using the upper and lower two layers of isolation design arc flying distance is short, can effectively prevent arc flying out caused by line damage.

Double insulation design, safer electricity

The product adopts double-layer electrical insulation design, which improves the safety of user operation.

Stable performance and more durable

With high performance arc extinguishing cover, using the upper and lower two layers of isolation design arc flying distance is short, can effectively prevent arc flying out caused by line damage.

Multiple functions to protect electricity safety

As a line to distribute electrical energy and as aline and power equipment overload, short circuit and undervoltage protec

RDM8HU series high voltage molded case circuit breaker

Product overview

RDM8HU series high voltage molded case circuit breaker (hereinafter referred to as circuit breaker). The circuit breaker is suitable for AC 50/60Hz, Rated insulation voltage 1500V, Rated operational voltage 1140V and below, rated current below 800A distribution network. It is used to distribute power and protect lines and power equipment from overload, short circuit and undervoltage failures. Circuit breakers Rated current630A and below; Can also be used to protect the motor. Under normal circumstances, the circuit breaker can be used as a line to distribute power and as overload, short circuit and undervoltage protection for the line and power equipment。

Circuit breakers for protecting motors, used in distribution networks to break off squirrel-cage motors during starting and running and to protect squirrel-cage motors against overload, short circuit and undervoltage。

Circuit breakers can be installed vertically (i.e. vertical) or horizontally (i.e. horizontal).。

Circuit breakers are suitable for isolation, symbolized as "  "。

The product standard：IEC60947-1IEC60947-2

GB/T14048. 1 Low-voltage switchgear and control equipment - Part 1: General

GB/T14048. 2 Low-voltage switchgear and control equipment - Part 2: Circuit

Selection guide

RDM8HU	400	M	P	3	3	10	AC1140V	125A	AC230V	Board front connection
Product code	Shell level	Breaking ability level	operating mode	Number of poles	Trip mode	Accessory	Rated voltage	Rated current	Accessory voltage	Installation wiring mod
High voltage molded case circuit breaker	250(63~250) 315(280~315) 400(250~400) 630(400~630) 800(630~800)	M: Higher fracture type H: High segment type	Nocode: Direct handle operation P:electrical operation Z:Turnthe handleto operate	3:3 poles	2:Single magnetic type 3:Thermo magnetic type	00: No accessories 08: Alarm contact 10: Shunt release 18: Shunt release, alarm contact 20: auxiliary contact 02: auxiliary contact 28: auxiliary contact, alarm contact 40: Shunt release, auxiliary contact 12: Shunt release, auxiliary contact 48: Shunt release, auxiliary alarm contact 60: two sets of auxiliary contacts 68: Double auxiliary contact, alarm contact	AC800V AC1000V AC1140V	63、80、100、125、140、160、180、200、225、250、280、300、315、350、400、500、630、700、800	Shunt release DC24V AC230V AC400V	Board front connection (no code) Backboard connection

RDM8HU series high voltage molded case circuit breaker

Normal working conditions and installation conditions

□The altitudeof the installation site does not exceed 2000m;

□Allow the ambient temperature is not higher than +40°C, not lower than -5°C; (Over +40°C capacity reduction, specific consultation with the manufacturer)。

Atmospheric conditions: When the ambient temperature is 40 ℃, the relative humidity of the atmosphere does not exceed 50%, and a higherrelative humidity is allowed at a lowertemperature, such as 90% at 20 ℃, and considering the condensation that occurs on the surface of the product due to temperature changes；

□The pollution level：level 3；

□Installation category：II;

□The magnetic field of the installation position should not exceed 5 times the geomagnetic field in any direction；

□In a medium that is not at risk of explosion, and in which there is no gas or conductive dust sufficient to corrode metal and destroy insulation；

□No erosion from wind and snow；

□Can be installed horizontally and vertically；

□There should be no significant impact and vibration at the installation place, and it should not be installed in flammable and explosive places。

Table 1 Capacity reduction factor for ambient temperature changes

Model number	Rated current	+40°C	+45°C	+55°C	+60°C	+65°C
		Capacity reduction factor	Capacity reduction factor	Capacity reduction factor	Capacity reduction factor	Capacity reduction factor
RDM8HU-250 RDM8HU-315	Under 250A	1In	0.94In	0.9In	0.82In	0.74In
	280A、300A、315A	1In	0.93In	0.89In	0.81In	0.7In
RDM8HU-400 RDM8HU-630 RDM8HU-800	250A、315A 350A、400A	1In	0.96In	0.94In	0.92In	0.89In
	500A、630A	1In	0.93In	0.91In	0.89In	0.85In
	700A	1In	0.9In	0.88In	0.86In	0.81In
	800A	1In	0.88In	0.83In	0.8In	0.75In

RDM8HU series high voltage molded case circuit breaker

Table 2 Capacity reduction factor of altitude

Model number	Rated current	2000m	2500m	3000m	3500m	4000m	4500m	5000m
		Capacity reduction factor	Capacity reduction factor	Capacity reduction factor	Capacity reduction factor	Capacity reduction factor	Capacity reduction factor	Capacity reduction factor
RDM8HU-250 RDM8HU-315	Below 250A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In
	280A、300A、315A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In
RDM8HU-400 RDM8HU-630 RDM8HU-800	250A、315A、350A、400A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In
	500A、630A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In
	700A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In
	800A	1In	1In	0.97In	0.96In	0.93In	0.9In	0.88In

Table 3 Release mode and accessory

□Alarm switch ■ Auxiliary switch ●Shunt release →Lead direction

Handle
Left side installation Right side installation

Code	Attachment name	RDM8HU
00	No internal accessories	
08	Alarm contact	
10	Shunt release	
18	Shunt release device, alarm contact	
20	Auxiliary contact	
28	Auxiliary contact, alarm contact	
40	Shunt release device, auxiliary contact	
48	Shunt release device, auxiliary alarm contact	
60	Two sets of auxiliary contacts	
68	Two sets of auxiliary contacts	

RDM8HU series high voltage molded case circuit breaker

Main technical parameter

Table4

Model		RDM8HU				
Specification		250	315	400	630	800
Number of pole		3				
Breaking ability level		M、H				
Rated current In(A)		63、80、100 125、140、160 200、225、250	280、300 315	250、315 350、400	400、500 630	630、700 800
Rated insulation voltage Ui(V)		1500		1500		
Rated impulse withstand voltage Uimp(kV)		12		12		
Rated operational voltage Ue(V)		AC800、1000、1140				
Arcing distance(mm)		+50(0)		+100(0)		
Rated limit short-circuit breaking capacity Icu(kA)	AC800V	M:36.5	H:50	M:36.5	H:50	
	AC1000V	M:20	H:20	M:20	H:20	
	AC1140V	M:10	H:15	M:10	H:15	
ated operating short-circuit breaking capacity Ics(kA	AC800V	M:25	H:35	M:25	H:37.5	
	AC1000V	M:12	H:15	M:12	H:15	
	AC1140V	M:10	H:15	M:10	H:15	
Electrical life(times)		1500	1000	1000	800	500
Mechanical life(times)[2]	Maintenance free	10000	10000	7000	7000	7000
	Maintenance required	15000	5000	10000	10000	10000
Outline dimension(length×width×height)		288×107×135		320×182×156		
Reference ambient temperature°C		40				

The over-current trip device consists of a thermal long-delay trip device with inverse time-limit characteristics and an instantaneous electromagnetic trip device, whose operating characteristics are shown in Table5.

Table5

Distribution circuit				Circuit breakers for protecting motors			
Rated current In(A)	thermal overload release		Electromagnetic trip operating current(A)	Rated current In(A)	thermal overload release		Electromagnetic trip operating current(A)
	1.05Inconventional non-tripping time(h)(cold)	1.30Inconventional non-tripping time(h)(thermal)			1.0Inconventional non-tripping time(h)(cold)	1.2Inconventional tripping current(h)(cold)	
63＜In≤125	2	2	10In±20%	63≤In≤630	2	2	12In±20%
125＜In≤800	2	2	5In±20% 10In±20%				

RDM8HU series high voltage molded case circuit breaker

Shunt releaser

The rated control power supply voltage of shuntreleaseis:AC230V; 400V; DC24V;Thecircuit breaker can be reliably disconnected under 70% ~ 110% rated control power supply voltage.SeeFigure1 for the user connection。

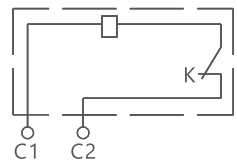


Figure1 AC 230V、400V、DC 24V Wiring diagram

The auxiliarycontacts of the circuit breaker are divided into two groups, each group of auxiliary contacts is not separated electrically; Auxiliary contact parameters are showninTable8.User connections are shownin Table6.

Table6

The circuit breaker is in the "off" position	F14 F12 F11 F24 F22 F21	Chassis class current 400A and above circuit breakers
	F14 F12 F11	Chassis class current 250A and above circuit breakers
The circuit breaker is in the "on" position	When "off", the contact in the connected state turns to the disconnected state, When "off", the contact in the disconnected state turns into the connected state	

The rated working voltage and related parameters of alarm contacts are shown in Table 8, and the wiring diagram is shown in Table 7. The alarm contact of the circuit breaker does not operate when the circuit breaker is in normal closing, and the contact changes its original position only after free tripping or fault tripping。

Table7

The circuit breaker is in the position of "off" "on"	B14 B12 B11
The circuit breaker is in the position when the "free trip" alarm is issued	B11,B12 contact from the connected state to the disconnected state B11, B14 contact from the disconnected state to the connected state

Table8 Auxiliary contact,alarm contact parameters

Table8

Classification	Shell level rating current	Conventiona l thermal current A	AC-15			DC-13	
			Rated operating voltageV	Rated frequencyHz	Rated current A	Rated operating voltage V	Rated current A
Auxiliary contact	Inm≤250	3	400	50	0.3	230	0.15
	Inm≥400	3			0.4		0.15
Alarm contact	63≤Inm≤800	3			0.3		0.15

RDM8HU series high voltage molded case circuit breaker

Outline and Installation dimension

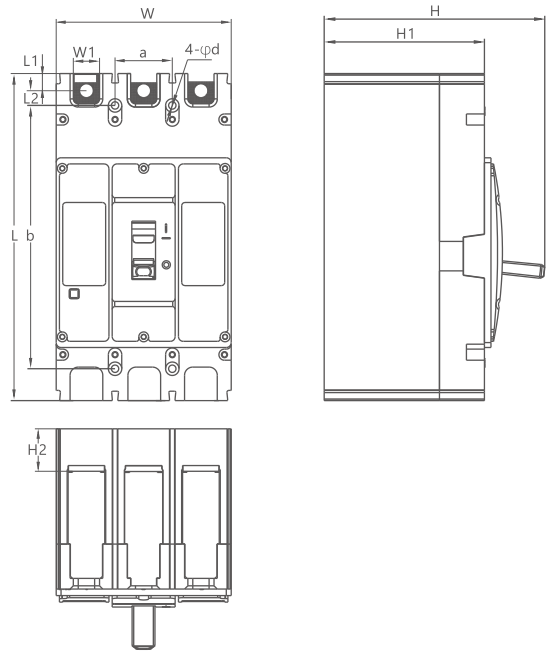
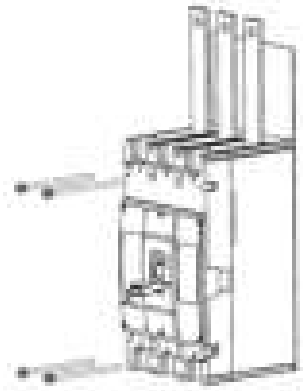


Table 9

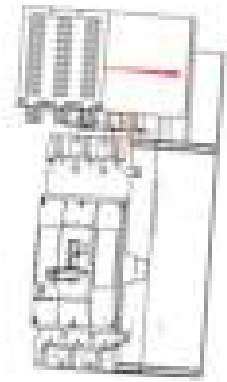
Type specification	Outline dimension(mm)								Installation dimension(mm)		
	L	W	H	L1	L2	W1	H1	H2	a	b	4-Ød
RDM8HU-250/3 RDM8HU-315/3	200	107	135	10.5	9.5	22	98	26	35	164	4.5
RDM8HU-400/3 RDM8HU-630/3 RDM8HU-800/3	270	182	156	18	18	41	118	29	58	200	7

RDM8HU series high voltage molded case circuit breaker

Terminal cover installation instruction



1.Use mounting screws to secure the product to the cabinet



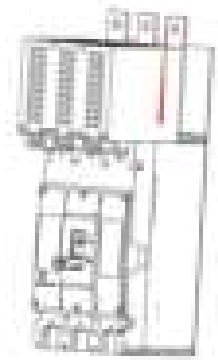


Figure 2

2. After the assembled flarc cover is flush with the red marked surface on the middle cover, slide the flarc cover to the product side according to Figure 2, so that the flarc cover and the base are clamped

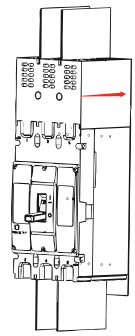


Figure 3

3. After the arcing cover is clamped between the base and the middle cover according to Figure 2, apply force in the direction marked in red according to Figure 3 to move the arcing cover. After installation, proceed as shown in Figure 3

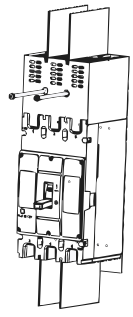


Figure 4

4.Finally, use screws to fix the arc baffle on the arc hood, as shown in Figure4

RDM8HU series high voltage molded case circuit breaker

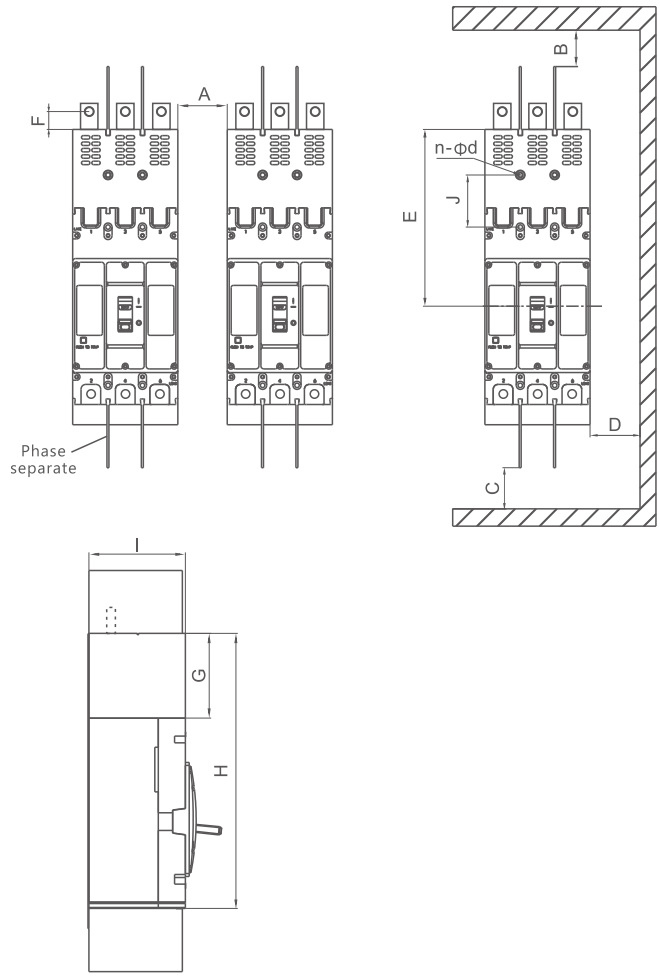


Table 10

Type specification	Distance(mm)									
	A	B	C	D	E	G	H	I	J	n-φd
RDM8HU-250/3	30	30	30	30	188	80	280	94	53	2-φ4.5
RDM8HU-315/3										
RDM8HU-400/3	30	30	30	30	185	50	320	118	60	4-φ4.5
RDM8HU-630/3										
RDM8HU-800/3										

RDM8HU series high voltage molded case circuit breaker

Main circuit connection

A.Wiring before the board: Select the PVC copper wire of the corresponding section specified in Table 11, strip the insulation layer of an appropriate length, insert it into the hole of the wire hoop, compress the outer layer of the wire hoop, wrap the wire tightly, and then tighten the connecting hole of the wire hoop with the wiring end of the circuit breaker with screws (see Table 12 for screw tightening torque); For a copper bar, secure the patch board to the circuit breaker and then to the copper bar.
B.Wiring at the back of the board: Fix the circuit breaker with the wiring stud at the back of the board according to the figure, and then fix it with the corresponding wire.

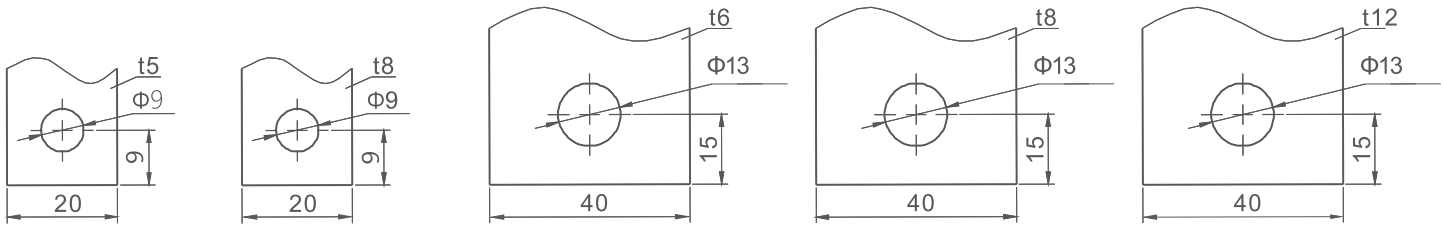
Table 11

Rated current(A)	63	80	100	125/140	160	180/200/225	250	315/350	400
Conductor area mm²	16	25	35	50	70	95	120	185	240
Rated current(A)	Sectional area of cable					Copper bar dimension			
	Number		Sectional area mm²			Number			
500	2		150			2		30×5	
630	2		185			2		40×5	
700,800	2		240			2		50×5	

Table 12 Screw tightening moment

Table 12

Model number	RDM8-250/315	RDM8-400/630/800
Wiring screw spe	M8	M10
Torque(N·m)	12	22



RDM8-250 RDM8-315 RDM8-400 RDM8-630 RDM8-800

RDM8 Series recommended prefabricated copper bar size

Order instructions

The following items must be filled out clearly when ordering
□Specify circuit breaker model, rated current, short-circuit protection current setting value, operation mode, wiring mode；
□Trip method and attachment code (Table 1): If it is not indicated when ordering, it shall be supplied without attachment (i.e. 3300);
When ordering a circuit breaker with a shunt trip, the rated control supply voltage must be indicated；
□This series of circuit breaker internal accessories (shunt, auxiliary, alarm) are used lead out of the line, if you need the terminal can be customized；
□Example: Order RDM8HU-250M, three poles, front board wiring, 200A, quantity 100 units。
It should be written as: RDM8HU-250M/3300200A 100 unitsnt connection, 200A, 100 units.
It should be written as: RDM8PV-250/2300200A, DC1000V,100 units

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RDB8DC-63 Series DC miniature circuit breaker

Adapt to more application scenarios

Suitable for photovoltaic, new energy, industry, communication and infrastructure applications。

Good environmental protection and durable materials

Using thermoplastic shell, flame retardant high temperature resistance, strong impact resistance, recyclable environmental protection materials。

Responsive with multiple protections

With overload protection, short circuit protection function, sensitive performance, fast power off, protect power safety。

Safe and reliable electric protections

Integrated front cover design, beautiful and safe, prevent arc overflow, ensure safe operation。

RDB8DC-63 series DC miniature circuit breaker

Product overview

RDB8DC-63 series DC miniature circuit breaker(hereinafter referred to as circuit breaker), mainly used in the rated DC operating voltage does not exceed 1000V, rated DC current does not exceed 63A, rated short circuit breaking capacity does not exceed 10000A protection distribution line, as the line is not frequently connected, broken and converted. With overload, short circuit protection function. At the same time, it has a powerful auxiliary function module, such as auxiliary contact, contact with alarm indication.

RDB8DC series circuit breaker is a circuit breaker product with high current limiting ability and high reliability, which is specially developed for the communication industry. It is mainly used for power distribution systems such as main cabinets, power supply cabinets, distribution cabinets, and outdoor cabinets in the communications industry.

Products comply with: GB/T14048.2 standard.

Selection guide

RDB8DC	63	6	2	C	63	OF
Product code	Shell level	Breaking capacity	Number of poles	Trip type	Rated voltage	Electric attachments
DC miniature circuit breaker	63	6kA 10kA	1P 2P 3P 4P	C D	1P:DC125V/250V 2P:DC250V/500V 3P:DC300V/750V 4P:DC500V/1000V	Auxiliary contact:OF Alarm contact:SD

RDB8DC-63 series DC miniature circuit breaker

Normal working conditions and installation conditions

□The upper limit of ambient air temperature shall not exceed +40°C, the lower limit shall not be lower than -5°C, and the average temperature of 24h shall not exceed +35°C;
□The elevation of the installation site should not exceed 2000m;
□The relative humidity of the atmosphere does not exceed 50% when the ambient air temperature is +40°C, and a higher relative humidity is allowed at a lower temperature. For example, 90% at +20°C. Special measures should be taken for condensation that occasionally occurs on the product due to temperature changes;
□When wiring, the correct pole of the power supply must be connected to the positive pole of the circuit breaker, and the negative extreme must be connected to the negative pole of the circuit breaker. Reverse connection is not allowed;
□Pollution level: Level 2;
□Installation conditions: Installed in a place without significant impact, vibration, and in a medium without danger (explosion);
□Installation method: Using TH35-7.5 mounting rail;
□Installationcategory:ClassII,ClassIII。

Product classification

□According to the number of poles:1P,2P,3P,4P;
□According to the instantaneous tripping current form:Type C (8In±20%),Type D(12In±20%);
□According to the rated current:6A、10A、16A、20A、25A、32A、40A、50A 和63A;
□According to the rated operating voltage:125V/250V DC(1P),250V/500V DC(2P),300V/750V DC(3P),500V/1000V DC(4P).

Main technical data

Overcurrent trip characteristics: When the circuit breaker is installed under normal conditions and the ambient temperature (30-35 ℃), the overcurrent trip characteristics comply with the provisions of Table 1。
The rated short-circuit breaking capacity of the circuit breaker is shown in Table 2

Table 1

Trip type	Test current In	Appointed time	Expected result	Initial state	Annotation
Type C	8In×80%	t≤0.2s	Non-trip	Cold State	Close the auxiliary switch and turn on the power
	8In×120%	t < 0.2s	trip		
TypeD	12In×80%	t≤0.2s	Non-trip		
	12In×120%	t < 0.2s	trip		
TypeC/D	1.05In	t≤1h	Non-trip	Cold State	-----
	1.3In	t<1h	trip	Hot state	Thecurrentrises tothe specifiedvaluewithin5S

Table 2

Trip type	Rated current A	Rated short-circuit breaking capacity
Type C/D	6≤In≤63	6000(1P 250V、2P 500V、3P 750V、4P 1000V) 10000(1P 125V、2P 250V、3P 300V、4P 500V)

RDB8DC-63 series miniature circuit breaker

Mechanical electrical life：

Circuit breaker under the specified rated voltage, switch on and break the rated current, power factor is 0.85~0.9, operating cyde120 times per hour (>32A) or 240 times (≤32A) frequency test, its mechanical and electrical life is 10000 times, electrical life DC 1500 times.

Structure and working principle：

The circuit breaker consists of contact system, arc extinguishing system, electromagnetic system, tripping mechanism, operating mechanism and housing。
The working principle of the circuit breaker. under normal working conditions, pull the operating mechanism, at this time the release mechanism is locked, and the dynamic and static contacts contact to make the power connected. When the line is overloaded, the bimetal sheet of the electromagnetic system produces deformation, pushes the lock to release the mechanism, and moves the contact to disconnect and cutoff the power supply. When the circuit is short-circuited,the electromagnetic system draws the iron core, and the iron core top rod pushes the lock to make the mechanism release, completing the breaking protection function of the circuit breaker。

Outline dimensions and installation dimension

Outline dimensions and installation dimensions of the circuit breaker are shown in Figure1。

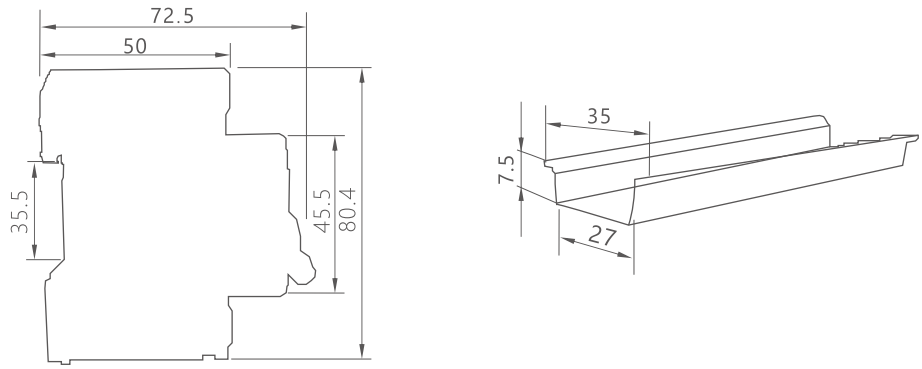
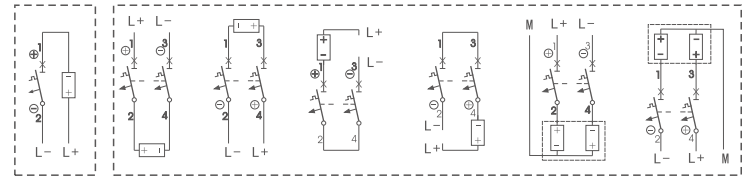


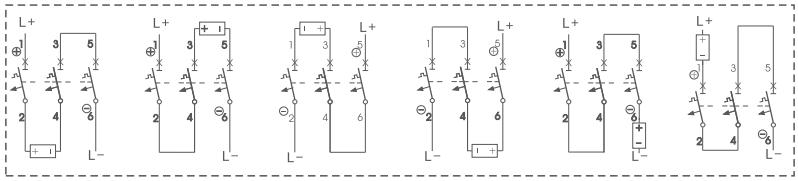
Figure1

Size	1P	2P	3P	4P
L(mm)	$18^{0}_{-0.5}$	$36^{0}_{-1.0}$	$54^{0}_{-1.5}$	$72^{0}_{-2.0}$

RDB8DC-63 series miniature circuit breaker

DC wiring diagram





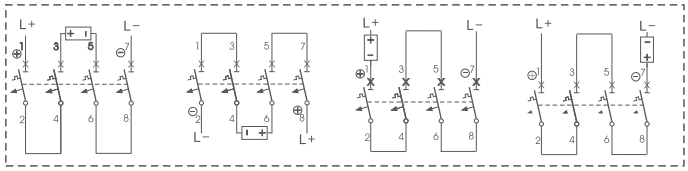


Figure 2

Wiring diagram specification：

1、L+: Positive power supply, L-:Negative power supply

2、+:Circuit breaker positive,-:Circuit breaker negative

3、⊣+⊢ four-load；

4、DC power supply usually: L- earthing, positive and negative power supply system polarity M earthing.

Installation and adjustment

Note the following before installing the circuit breaker：

a) Check the circuit breaker to ensure that it is intact and flexible。

b) Check whether the label content of the circuit breaker is consistent with the actual use conditions。

When installing the circuit breaker, pay attention to the sign of the wiring end。

The setting current cannot be adjusted by itself and no maintenance is required。

The circuit breaker is installed using the mounting rail as shown in Figure 3。

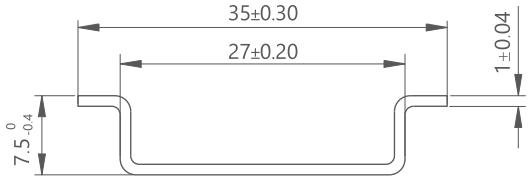


Figure 3 Dimensions of mounting rail

Order instruction

When ordering circuit breakers, the following points should be specified: 1) Product model and specification; 2) The number of poles of the circuit breaker; 3) Rated current; 4) Release type; 5) Order quantity

Example: Set RDB8DC-63 miniature circuit breaker rated current is 32A,1P,C type, 1000 sets。

It should be written as small circuit breaker RDB8DC-63 C321P,1000 sets。

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RDU8DC series surge protective device

Stable performance and sensitive response

It can be used in complex environments with high altitude and largeclimate change, with large flow capacity, low limiting voltage and fast response time。

More convenient to view the working status

With working status in dicator, real-time check the status change of the surge protector, easy maintenance。

Double insulation design, safer electricity

The product adopts double-layer electrical insulation design, which improves the safety of user operation.

Safe and reliable lightning protection

The nonlinear characteristics of excellent varistor performance, outstanding performance, lightning protection directly can be installed communication points.

RDU8DC series surge protective device

Product overview

The RDU8DC series surge protector (SPD) is used to protect the power surge caused by lightning or other instantaneous overvoltage, and r eleases the surge current on the power line to the ground to limit the overvoltage. Suitable for industrial, construction, civil aviation, finance, telecommunications, ports, wind power and other systems of power protection, lightning and operating overvoltage to suppress its instantaneous overvoltage sub-value, discharge surge energy, protect the safety of system circuits and equipment.

Selection guide

RDU8DC	B	20kA	2	DC500V
Product code	Protection class	Maximum discharge current	Number of poles	Maximum continuous operating voltage
Direct current surge device	B:Secondary protection	20kA 40kA	2P 3P	Front wiring (no code) Backboard connection

Normal working conditions and installation conditions

□Operating ambient temperature：-40℃~+70℃;

□Storage temperature：-40℃~+70℃;

□Altitude：Installation point elevation ≤2000m;

□The relative humidity of the atmosphere does not exceed 50% when the ambient air temperature is +40 ℃, and higher relative humidity can beallowed at lower temperatures, such as 90% at 20 ℃. Special measures should be taken for occasional condensation due to temperature changes;

□Pollution level：Level 2;

□Level of protection：IP20;

□Installation direction：

①Vertical installation,installation surface and vertical planein clination≤±5°;

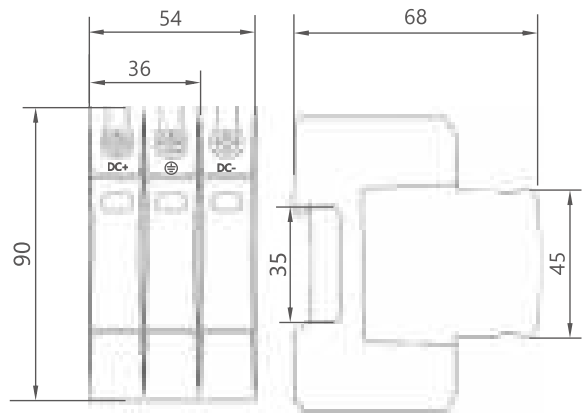
②Horizontal installation。

RDU8DC series surge protective device

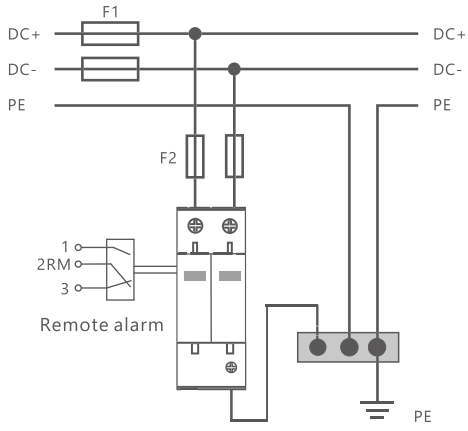
Maintechnical parameters

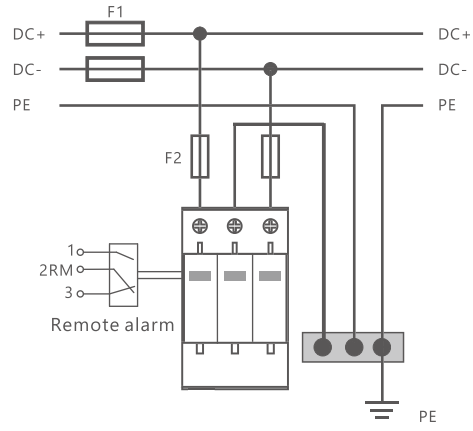
Type specification	Maximum continuous operating voltage Ucpv	Nominal discharge current In	Maximum discharge current Imax	Response time	Operating ambient temperature
RDU8DC-B20	1000VDC	10kA	20kA	≤25ns	-40~+70°C
RDU8DC-B40		20kA	40kA		

Product outline drawing



Installation diagram





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RDC8 Series AC contactors

Perfect fit, no fear of heat

50K main loop temperature rise, extended service life. 60°C high temperature environment test, not afraid of high temperature challenges. New platform, smaller size, save cabinet space.

Electronic design, guard security

Threshold voltage, accurate control of suction release voltage. Wide voltage suction, three-speed suction circumference.Built-in anti-surge function to protect equipment from damage。

Lower power dissipation, Assist " dual carbon"

With working status in dicator, real-time check the status change of the surge protector, easy maintenance。

Skilled in process, contact optimization

The contact bridge is integrated and the conductor resistivity is reduced by 12%. Contact face pressure striping and atomization process increase electrical contact reliability. Optimized silver point material, more durable and safer。

RDC8 series AC contactors

Product overview

RDC8-150~700 AC contactor (hereinafter referred to as contactor), mainly used in AC-1 use category, AC 50Hz (or 60Hz), rated working voltage to1140V, rated working current to 700A under the AC circuit, control resistance, non-inductive, micro inductive apparatus, d istribution circuit. Mainly used in charging pile. Products comply with: GB/T14048.4 IEC60947-4-1 standard。

Selection guide

RDC8	700	660V
Product code	Rated current	Control loop voltage
Ac contactor	150、250、350、450、550、700	AC 110V-~660V DC 110V~500V

Accessories

F4	20	LA8	20	LA2	D20
Product code	Auxiliary contact group	Product code	Auxiliary contact group	Product code	Air delay head delay range
Top auxiliary contact group	20:2NO 11:1NO+1NC 02:2NC 40:4NO 31:3NO+1NC 22:2NO+2NC 13:1NO+3NC 04:4NC NO:Moving auxiliary contact NC:Break auxiliary contact	Side auxiliary contact group	20:2NO 40:4NO 31:3NO+1NC 22:2NO+2NC NO: dynamic auxiliary contact NC: break auxiliary contact	LA2: The electric delay air delay head LA3: Air delay head for power failure	D20:Indicates a delay of 0.1-3s D22:Indicates a delay of 0.1-30s D24:Indicates a delay of 10 to180s

Normal working conditions and installation conditions

□Ambient air temperature: -25℃~+60℃, reduce the working current and voltage can be used in the air temperature of -40℃~70℃；
□altitude：There is no capacity reduction below 3000m, and it can be used to a higher altitude after reducing the working current and voltage；
□Atmospheric conditions: at +40℃, the relative humidity of the air does not exceed 50%; At lower temperatures, there can be higher relative humidity, the monthly average minimum temperature of the wettest month does not exceed +25 ℃, the monthly average maximum relative humidity of the month does not exceed 90%, and the condensation on the product due to temperature changes is considered；
□Pollution level: Level 3；
□Installationcategory:ClassIII；
□Installation conditions: The mounting surface and vertical inclination is not greater than ±5°when the coil end control voltage is not less than 85%Us, not greater than ±30°for other installation methods, electrical and mechanical life will not be guaranteed；
□Shock vibration: The product shall be installed and used where there is no significant shaking, shock or vibration。

RDC8 series AC contactors

Main technical parameter

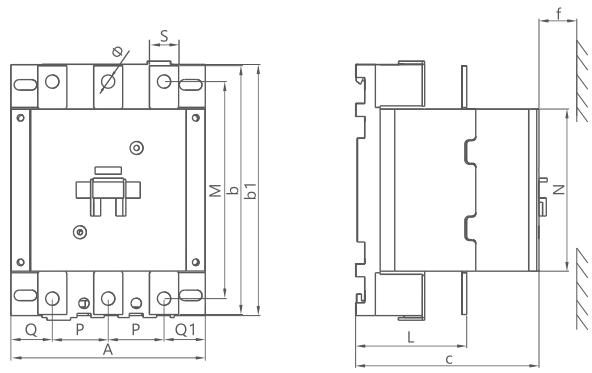
Typenumber		RDC8-150	RDC8-250	RDC8-350	RDC8-450	RDC8-550	RDC8-700
Rated operational current leAθ≤40°C	AC-1	150	250	350	450	550	700
Rated operating voltage Ue V		1140					
Convention free air heating current It A		150	250	350	450	550	700
Rated insulation voltage Ui V		1140					
Rated impulse withstand voltage Uimp KV		12					
Rated switching capacity (A)		225	375	525	675	825	1050
Rated breaking capacity (A)		Breaking current：1.5×I(AC-1)					
Short-time withstand current from cold state, prior to 60 minutes no current, ring temperature≤40°C	10 seconds	1500		2100	2700	3300	4200
	30 seconds	1200		1680	2160	2640	3360
	1 minute	750		1050	1350	1650	2100
	3 minute	600		840	1080	1320	1680
	10 minute	500		700	900	1100	1260
Maximum working power Pe kW θ≤40°C AC-1	220/240 V	50	80	120	150	190	240
	380/400 V	85	140	210	260	330	420
	440 V	100	160	230	300	360	470
	500 V	110	175	270	330	410	520
	660/690 V	145	240	370	450	570	685
	1000 V	220	355	540	650	810	1035
	1140 V	250	400	610	720	950	1180
Maximum operating frequency Working cycle/hour		600					
Mechanical life thousands of times		300					
Average impedance per pole Ith and 50Hz (mΩ)		0.35	0.35	0.3	0.25	0.2	0.17
Average power consumption per pole at rated operating current		8W	22W	37W	51W	61W	85W
Terminal assignable conductor	Number of copper bars	1		1	2	2	2
	Bar size mm^2	120		185	150	185	50×5
Impact resistance1/2 sine wave=11ms	Contactor open	6gn		9gn	7gn	6gn	6gn
	Contactor closing	15gn		15gn	15gn	15gn	15gn
Seismic performance 5...150Hz	Contactor open	2gn		2gn	2gn	2gn	1.5gn
	Contactor closing	4gn		4gn	4gn	5gn	5gn
Class of protection	Main circuit	IP00					
	Coil terminal	IP20 prevents direct finger contact					
Operating frequency y times/h		1200		1200	1200	600	600
Control circuit characteristic	AC	110...660V					

RDC8 series AC contactors

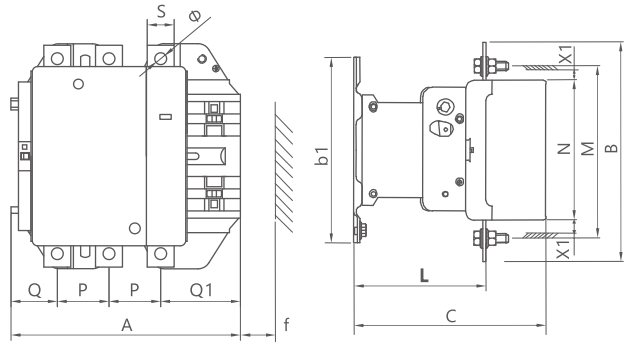
Continue form

Typenumber		RDC8-150	RDC8-250	RDC8-350	RDC8-450	RDC8-550	RDC8-700
Control circuit characteristic	DC	110...500V					
Operating voltage	Pull-in voltag	0.85-1.1Uc					
	Release voltage(AC)	0.2-0.75Uc					
	Release voltage(DC)	0.1-0.75Uc					
Average power consumption	Start (AC)	450VA		580VA	805VA	700VA	1150VA
	Holding (AC)	22VA		51VA	65VA	12VA	18VA
	Startup (DC)	/		665W	902W	803W	1140W
	Holding (DC)	/		4.9W	5.1W	4.6W	7.5W
Actuation time	actuation	40...75ms					
	AC release	100...170ms					
	DC release	100...170ms					
Mechanical life(under Uc)10^6times		3		3	3	3	3

Outline and mounting dimension



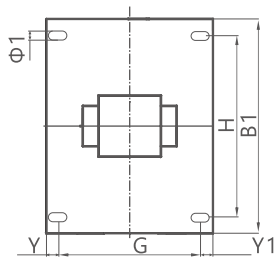
RDC8-150、250



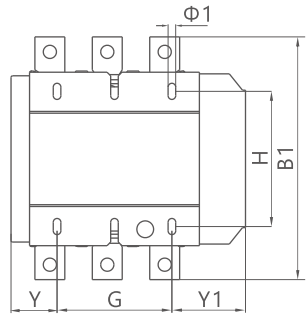
RDC8-350、450、550、700

f: The minimum distance required to remove the coil
X1: Arcing distance

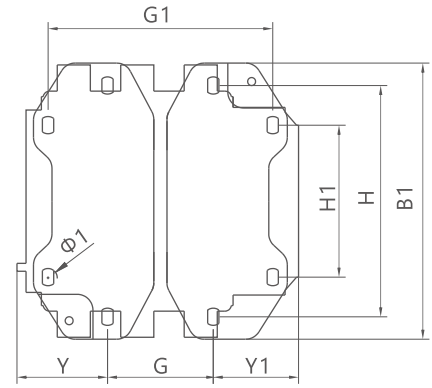
RDC8 series AC contactors



RDC8-150~250



RDC8-350~550



RDC8-700

Type number	RDC8-150	RDC8-250	RDC8-350	RDC8-450	RDC8-550	RDC8-700
A	120		168	168.5	213	213
P	34.5		40	48	48	48
Q	25.5		30.5	21	43	43
Q1	25.5		57.5	51.5	74	74
S	18		20	25	25	25
Φ	M8		M8	M10	M10	M10
f	10		131	130	147	151
B	154		170	197	206	206
b1	160		137	137	145	209
M	134		150	172	181	181
N	100		124	127	158	158
C	121		171	181	219	219
L	68.5		107	113.5	145	143.5
X1 ≤500V >>600V	15 20		15 20	15 20	15 20	15 20
G	100(95-110)		80	80	96	80(66~102)
H	130		120-106	120-106	120-106	170-180
φ1	6.5		6.5	6.5	6.5	8.5
⏚			M8	M8	M8	M10
Y	10		57	59.5	67	68.5
Y1	10		26.5	29	49.5	64.5
B1	160		170	209	209	209

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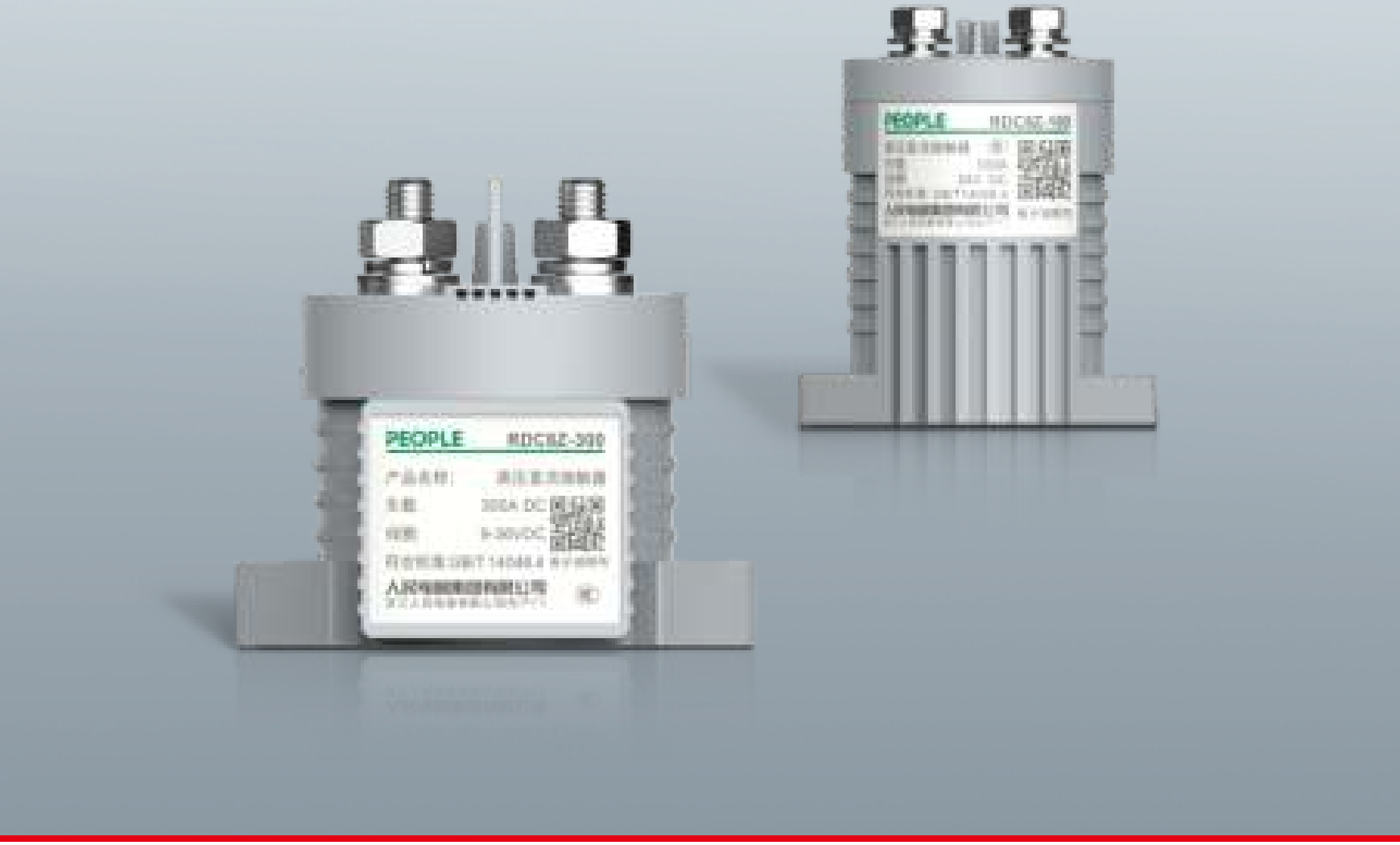


RDC8Z Series high voltage DC contactors

Excellent long service life

Threshold voltage, accurate control of suction release voltage. Wide voltage suction, three-speed suction circumference.Built-in anti-surge function to protect equipment from damage。

Excellent performance and ease of handling

The product contact seal meets the requirements of IP67, small size, more space saving, large transmission power, more environmentally friendly。

Applied to a variety of scenarios

It is mainly used for electric vehicle charging piles, automotive battery distribution systems, solar power generation equipment and other new energy-related infrastructure。

Complete specifications, more choices

Current specifications cover 50A to 300A, allowing customers to have more choices。

RDC8Z series high voltage DC contactor

Product overview

RDC8Z series high voltage direct current contactor (referred to as contactor), mainly used in the rated load voltage does not exceed 1000V, load current does not exceed the rated current of the direct current circuit environment for on-off use. The products are suitable for new energy vehicles, construction machinery, electric vehicles, charging piles, charging stations, communication power equipment, energy storage system, photovoltaic system, uninterruptible power supply and other systems。

Selection guide

RDC8Z	50	1000V
Product	Rated current	Control loop voltage
High voltage DC contactor	50、100、150、200、250、300	DC 1000V

Normal working conditions and installation conditions

□Temperature: -40°C~85°C
□Humidity: 5%~85% RH
□Installation direction: It can be installed at anyAngle according to the customer's installation environment
□Environmental pollution Class (III): The product can be used in an environment where there is conductive pollution, or where dry electrical pollution becomes conductive due to expected condensation
□Vibration impact environment: vibration 5g, impact 10g
□altitude：Below 2000 m

Technical parameters

□Themainloadcontact parametersareshown inTable1.
□AuxiliarycontactparametersareshowninTable2.
□Suction voltage: 9-36V Suction time: ≤30ms
□Release voltage: 5-7V Release time: ≤10ms
□Voltage resistance: 12KVDC between main contacts 1min Between the main contact and the coil 3500VDC 1min
□Insulation resistance：50MΩ

RDC8Z series high voltage DC contactor

Main technical parameters

Typenumber	RDC8Z-50A	RDC8Z-100A	RDC8Z-150A	RDC8Z-200A	RDC8Z-250A	RDC8Z-300A
Contact form	1K（1NO）					
Contact polarity	Nonpolarity					
Contact resistance	≤0.5mΩ（at 50A）		≤0.5mΩ（at 150A）	≤0.5mΩ（at 200A）	≤0.5mΩ（at 250A）	≤0.5mΩ（at 300A）
Maximum switching voltage	1000VDC					
Maximum breaking current	1000A(320VDC)1times		1500A(320VDC) 1times	2000A(320VDC) 1times	2000A(320VDC) 1times	2000A(320VDC) 1times
Mechanical durability	300000times					
Current tolerance	50A,lasting	100A,,lasting	150A,,lasting	200A,,lasting	250A,,lasting	300A,lasting
	130A,60min	130A,60min	200A,60min	400A,60min	400A,60min	400A,60min
	180A,5min	180A,5min	300A,5min	500A,5min	500A,5min	500A,5min
	300A,30S	300A,30S	400A,1min	600A,1min	600A,1min	600A,1min
Electrical durability (resistive load)	1500times (1000VDC,50A)	1000times (1000VDC,100A)	8000times (1000VDC,150A)	5000times (1000VDC,200A)	3000times (1000VDC,250A)	3000times (1000VDC,300A)
	2000times (750VDC,50A)	1500times 750VDC,100A)	10000times (750VDC,150A)	8000times (750VDC,200A)	5000times (750VDC,250A)	5000times (750VDC,300A)
	5000times (500VDC,50A)	5000times (500VDC,100A)	12000times (500VDC,150A)	10000times (500VDC,200A)	8000times (500VDC,250A)	8000times (500VDC,300A)
	20000times (110VDC,50A)	20000times (110VDC,100A)	/			

Table2 Auxiliary contact parameters

Auxiliary contact form	1K/1B/1Z（1NO/1NC/1Z）
Rated current of auxiliary contact	5A
Maximum breaking voltage of auxiliary contact	120VDC

Product wiring diagram

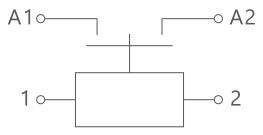


Diagram without auxiliary wiring

3,4Auxiliary terminal	
Al,A2The main terminal connection has no polarity	
1,2Coilconnection	9-36V

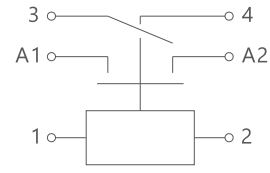
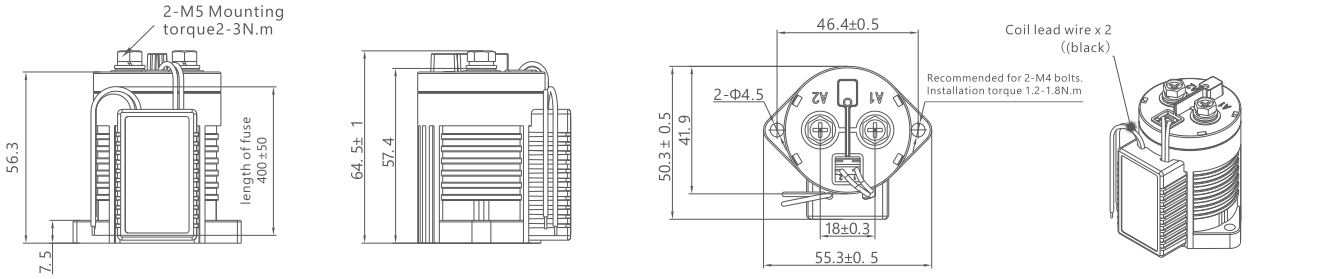


Diagram with tape normally open auxiliary wiring

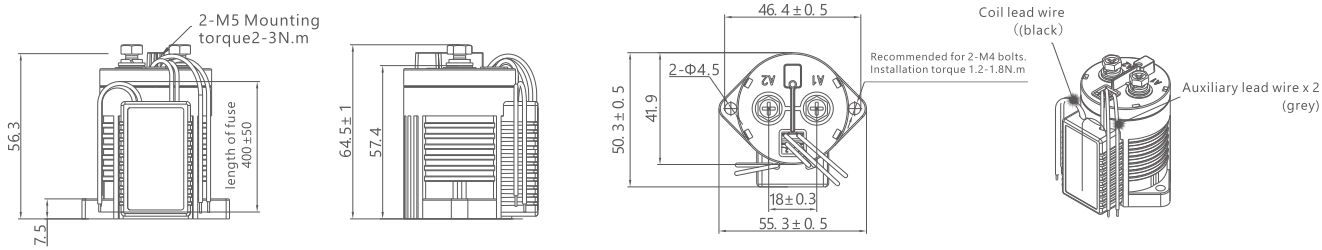
RDC8Z series high voltage DC contactor

Outline dimensional drawing

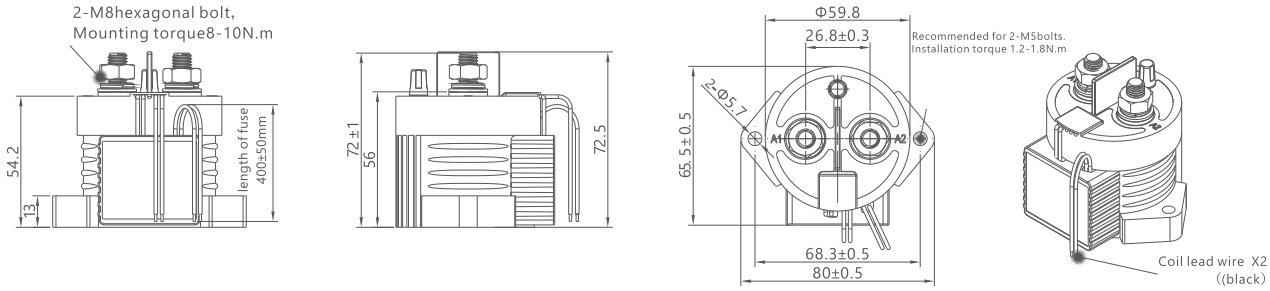
RDC8Z-50~100 Outline diagram without auxiliary contact



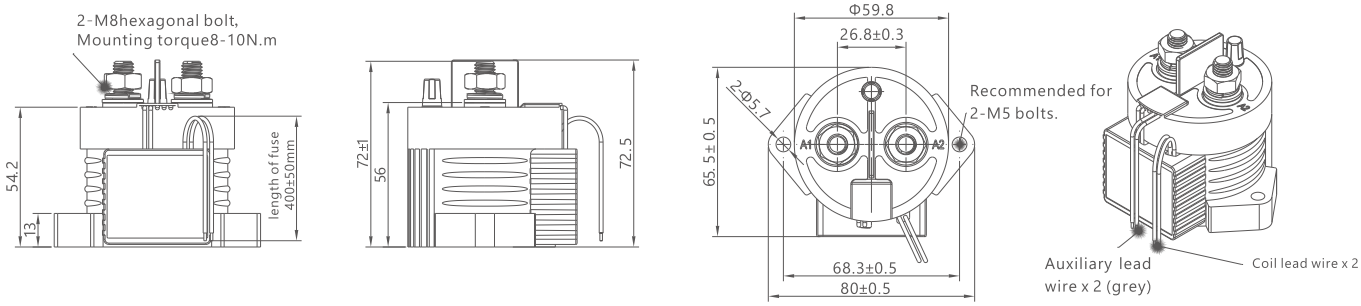
RDC8Z-50~100 outline diagram with auxiliary contact



RDC8Z-150~300 Outline diagram without auxiliary contact



RDC8Z-150~300 outline diagram with auxiliary contacts



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RDT8-PV Series fuse

More practical

Threshold voltage, accurate control of suction release voltage. Wide voltage suction, three-speed suction circumference.Built-in anti-surge function to protect equipment from damage。

More professional

Products through3C certification, strong current limiting ability, even if the working condition is complex, can also break 20kA fault current。

More reliable

It can be used in DC 1000V and 1500V optical storage systems。

More secure

Material high heat resistance, excellent electrical properties, VO flame retardant grade, with excellent high and low temperature resistance, acid and salt resistance, melt selection of silver material, stable characteristics and low power consumption。

RDT8-PV series fuse

Product overview

Fuse structure: composed of isolator and Fuse link. The moving contact consists of a Fuse carrier with a Fuse link. Fuse link structure: Made of pure silver melt, high-quality quartz sand, high-strength fuse and cylindrical cap contacts. Usage: gPV- with a full range of DC breaking capability, used for photovoltaic power generation and energy storage system DC side overcurrent protection.
Compliant with standards: GB/T14048.3, GB/T13539.1, GB/T13539.6。

Selection guide

RDT8	32	PV	30
Product code	Specification	Only for PV	Rated current of the fuse link
Packed closed tube type fuse	32 63	Dedicated to solar photovoltaic system	32(10×38):2,3,4,5,6,8,10,12,15,20,25,30 63(10×85):2,3,4,5,6,8,10,12,15,20,25,30

Normal working conditions and installation conditions

☐The ambient temperature does not exceed 40 ℃, the average measured in 24h does not exceed 35 ℃, and the average measured in a year is lower than the lowest value of the ambient air temperature of -5 ℃. The air is clean and its relative humidity does not exceed 50% at a maximum temperature of 40 ℃. You can have higher relative humidity at lower temperatures. For example, at 20 ℃, the relative humidity can reach 90%. Due to the temperature change occurring on the product body condensation situation must be taken measures。

☐The fuse should be installed in a place where there is no significant shaking or shock vibration。

☐Pollution level: Level 3。

☐Installationcategory:ClassIII。

☐The card is mounted on the TH35-7.5 standard guide rail and installed vertically。

☐Current correction factor

Altitude	≤2000m	(2000～3000)m	≥3000m
Current correction factor	1	0.9	0.8

RDT8-PV series fuse

Main technical parameters

Isolator	RDT8-32PV	RDT8-63PV
Rated voltage	DC 1000V	DC 1500V
Rated current	32A	63A
Peak withstand current	20kA	
Class of protection	IP2X	
Category of use	DC-PV0	
Fuse link size	10×38	10×85
Rated current /A	2,3,4,5,6,8,10,12,15,20,25,30	2,3,4,5,6,8,10,12,15,20,25,30
Rated breaking capacity	20kA	
Minimum fusing current	1.45In A	

Outline dimension

RDT8-32PV

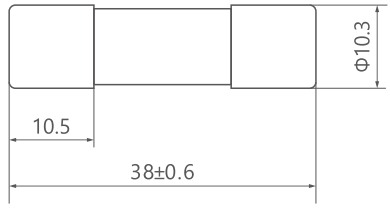


Figure 1 Fuse link

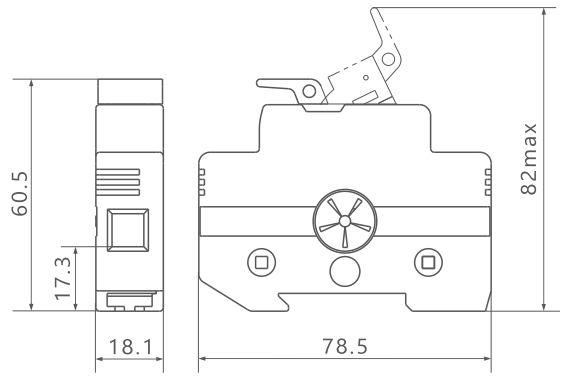


Figure 2 isolator

RDT8-63PV

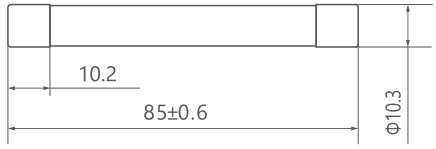


Figure 3 Fuse link

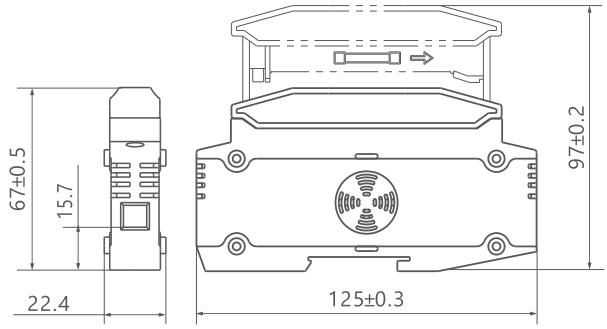


Figure 4 isolator

RDT8-PV series fuse

Protection characteristic curve

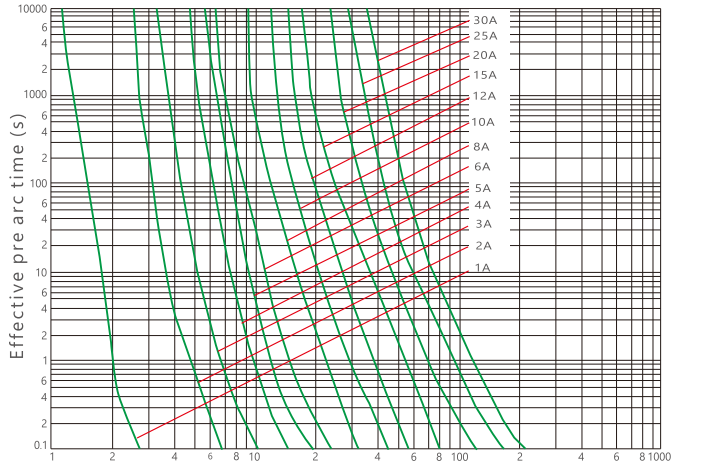


Figure 5：10×38 Fuse

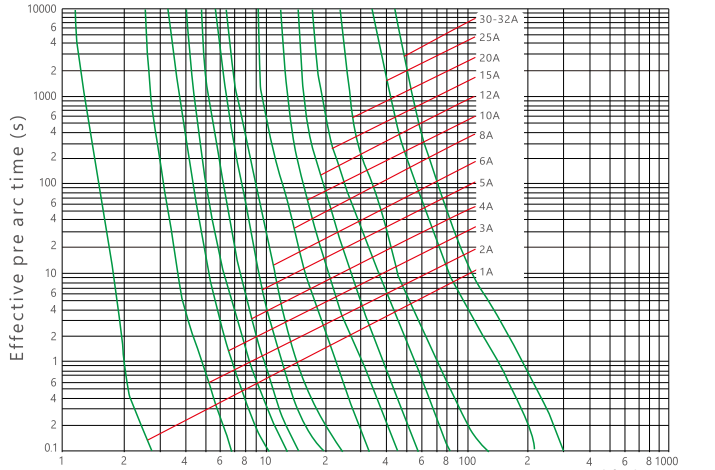


Figure 6：10×85 Fuse

Order instructions

Please indicate the name, model, rated current and quantity of fuse when purchasing。

☐Isolator and fuse breakers must be purchased separately。

☐When purchasing the fuse, please indicate the current of the fuse。

For example, Isolator RDT8-63PV 1000 pieces. Fuse RDT8-63PV/30A 1000 pieces。

PEOPLE
ELECTRIC

RDG8 series isolation switch

High quality materials for safe electricity use
High quality flame-retardant shell, high strength, high temperature resistance, corrosion resistance。

Small and exquisite frame for easy installation
Smallsize, largecurrent, save moreinstallationspace。

Simple operation and high efficiency
Handle operation, smooth opening and closing, no need to open the cover can be connected。

Applied to a variety of scenarios
It can beusedin photovoltaic andgrid box,industrial distribution,residential, shoppingmalls and other scenes。

RDG8 series isolation switch

Product overview

RDG8 isolation switch (hereinafter referred to as the isolation switch), its rated operating frequency is 50Hz, rated operating voltage AC 400V, rated current to125A, in the distribution equipment of industrial enterprises, used to switch on and break the rated current of the AC circuit or as an isolation switch.
The product meets the standard: GB/T14048.3.

Selection guide

RDG8	63	2
Product code	Conventional heating current(A)	Number of poles
Disconnecting switch	63 125	2 4

Normal working conditions and installation conditions

□Ambient air temperature：-5℃~+40℃, and the average value within 24 hours does not exceed +35℃;

□The altitude of the installation site：No more than 2000m;

□Atmospheric condition：The relative humidity of the atmosphere does not exceed 50% when the Ambient air temperature is +40℃, and the relative humidity can be higher at lower temperatures. For example, at 20℃, the relative humidity is 90%, and considering the condensation that occurs on the surface of the product due to temperature changes, special measures should be taken to eliminate it;

□Levelofpollution：3class;

□Installationcategory：III、IVCategory;

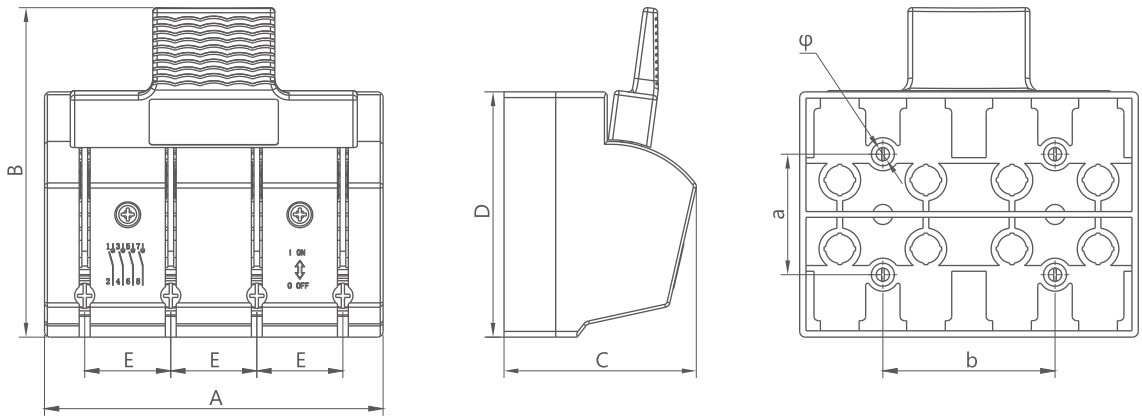
□Installation condition：It should be installed vertically in a place where there is no significant shaking, shock vibration and rain and snow attack, and the installation siteshould be free from explosive dangerous media, and there is no gas and dust in the media that can corrode metal and destroy insulation。

RDG8 series isolation switch

Main technical parameters

Conventional heating current(A)	Rated insulation voltage(V)	Rated impulse withstand voltage(kV)	Rated operating voltage(V)	Category of use	Rated operating current (A		Rated short-time withstand current Lcw(kA/s)	Mechanical life(times)
					2-220V/3、4-400V	3、4-690V		
63	800	8	AC:220/ 400/690	AC-22A	63	50	1.5	10000
125					125	80	2	

Outline dimension



Type specification	A	B	C	D	E	a	b	Φ
RDG8-63、125/2	58	115	67	85.5	30	42	-	4.5
RDG8-63、125/4	118	115	67	85.5	30	42	60	4.5

Order instructions

The ordering unit must indicate the Type specification, current level, number of poles, mode of operation and quantity of the switch, and please contact the relevant technical department of our company for special orders。

For example: RDG8-63/463A 20units。

PEOPLE
ELECTRIC

RDPV 8-H series PV bus box

Product specifications are comprehensive

6,8,10,12,16 loop can be customized.

Adapt to bad conditions

The protection level is above IP 54, waterproof, dustproof, outdoor for a long time make use of.

More reliable

Internal main components, using the people's new collar series of new energy Product, safe and reliable.

Intelligent remote control

The data acquisition module can be customized to facilitate users to grasp the entire power station in real time Make a state.

RDPV8-H series PV bus box

Product overview

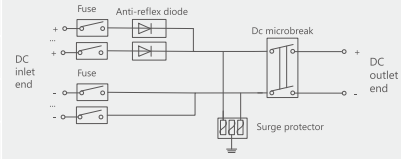
Photovoltaic bus box is an important part of photovoltaic power station, which reduces the number of upstream and downstream connection lines by connecting multiple circuits with the same power level in parallel to the photovoltaic bus box. In addition to the basic functions of the eople's electrical appliances photovoltaic junction box, such as the junction function and lightning protection function, it can also customize the advanced functions of current and voltage monitoring, failure alarm, data acquisition, wireless data transmission and temperature and humidity detection, and can realize the interconnection with the photovoltaic power station operation and maintenance center.

Selection guide

RD	PV	8	H	DC 15
People's electric apparatus	Photovoltaic type	Design code	Collecting box	Rated current AC:Communication DC: direct current

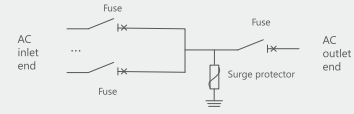
Collecting box

DC bus box

NO.	Name	Type/Code	Quantity	Schematic diagram
1	Miniature circuit breaker	RDB8DC	Custom-made	
2	surge protector	RDU8DC-B40	Custom-made	
3	Fuse	RDT8-32/63PV	Custom-made	
4	Anti-reflex diode	Anti-reflex diode 1600	Custom-made	

Note: Order remarks Specific configuration and current (customized)

AC bus box

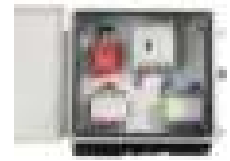
NO.	Name	Type/Code	Quantity	Schematic diagram
1	Miniature circuit breaker	RDB5	Custom-made	
2	Surge protector	RDU5	Custom-made	
3	Plastic-case circuit breaker	RDM5	Custom-made	

Note: Order remarks Specific configuration and current (customized)

RDPV8-H series PV bus box

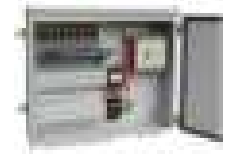
Product images









Installation rendering


PEOPLE ELE. APPLIANCE GROUP CHINA

No.555, Liule Road, Liushi, Yueqing City, Zhejiang Province, 325604, China
www.peopleelectric.com Email: simon@chinapeople.com