

# RDQH5系列双电源自动转换开关

## Description



RDQH5 Sereis ATS is used in the power system of AC50/60Hz, rated voltage 400V, rated current from 16A to 630A. Inline of the normal used and backup used side can be wired with 2 circuits of grid power supply or one circuit of grid power supply and one circuit of generator power supply. When one circuit power supply is abnormal (break phase, over-voltage, under-voltage), the product will automatically changed to another normal power supply, to ensure the load of uninterrupted power supply. It is mainly applicable for the important places of high building, market, bank, hospital and airport etc. that do not allow power cut. At the same time, it has the short-circuit protection and over-load protection, to ensure the reliability and safety of power supply.

## Guidance of selection

RDQH5	125	L	4P	R
Code	Frame size	Type of circuit breaker	Pole	Working mode
ATS	125 250 400 630	L: L type circuit breaker M: M type circuit breaker H: H type circuit breaker	3P 4P	R: (Normal one, do not mark) automatically changeover and automatically recover S: Automatically changeover and not automatically recover T: two are the backup

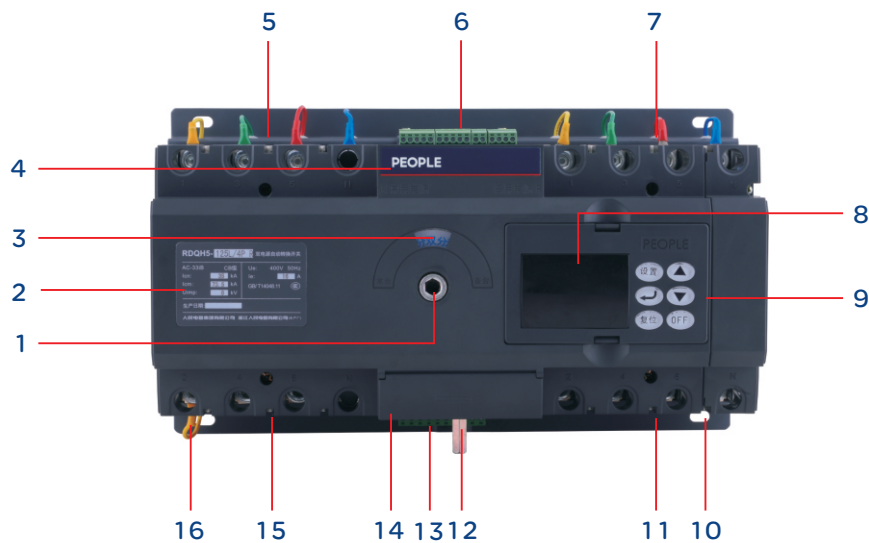
Note: Grid to generator only can select the working mode of automatically changeover and automatically recover

Remark the ATS mode: grid to grid, grid to generator, in order to set up the parameter when factory out

## Normal working condition and installation condition

- Using environment temperature: ambient temperature:  $-35^{\circ}\text{C} \sim +70^{\circ}\text{C}$ , average value within 24h does not exceed  $+35^{\circ}\text{C}$ .
- Relative humidity: does not exceed 50% when at  $+40^{\circ}\text{C}$ , it can has relatively high relative humidity when at low temperature.
- Pollution grade: 3
- Height above sea level: does not exceed 5000m
- Electromagnetic environment: A
- Installation category of main circuit: III
- Installation category: III
- Installation environment: at the places of There is no danger of explosion and conductive dust, not enough to corrode metal and destroy insulation.
- Installation angle: In places with no impact vibration and no rain and snow invasion, the inclination of the installation plate and each direction shall not exceed  $5^{\circ}$ ;
- The product should put lightly put when transportation, should not be inverted, to avoid violent collision.

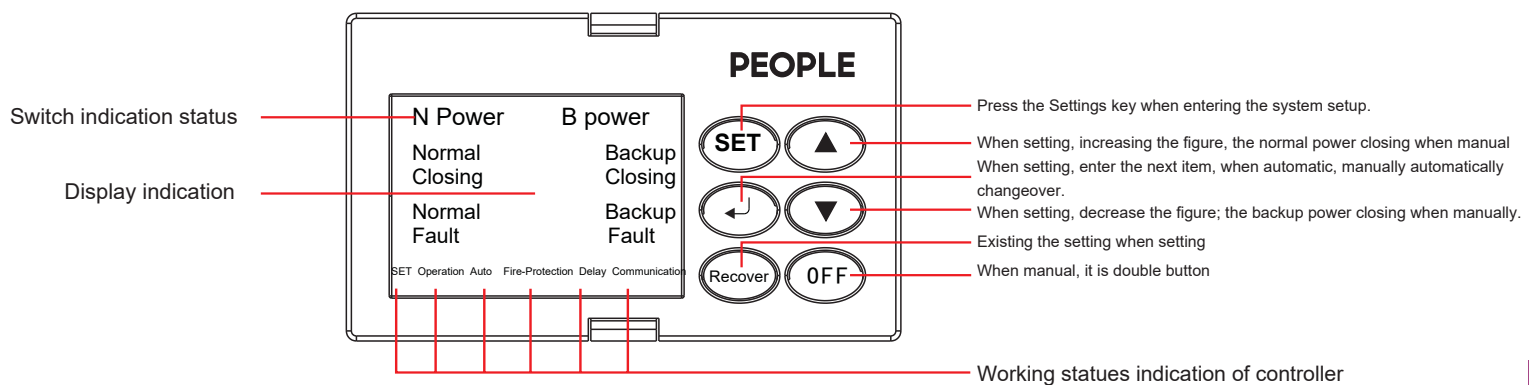
## Structure



Impication				
1. handle hole when manual			8. Controller display screen	
2. Name plate			9. Controller keyboard control button	
3. Main contact position indication	Normal power closing	Normal power	10. Fixed screw hole	
	Double break position	Double break	11. Load side for backup power supply	
	Backup power closing	Backup	12. Handle	
4. Logo			13. Power indication, closing indication, fault indication output terminal	
5. Input and power sampling line of normal power supply			14. Cover for the handle	
6. Signal terminal: Fire protection voltage input, generator startup signal output			15. Load side for normal power supply	
7. Input and power sampling line of backup power supply			16. Power supply sampling line	

## Controller operation

RDQH5 Parameter of controller can be set, operation to see below illustration:



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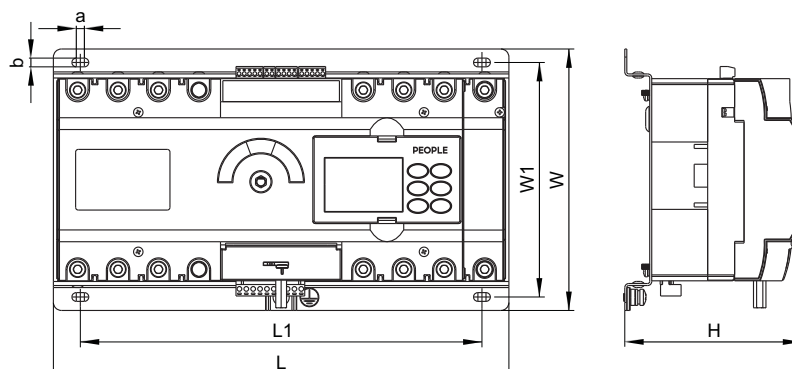
## Controller function

Function setting	Setting range	Default value
1 Operation mode	Automatic, manual	Automatic
2 Grid structure	Grid to grid, grid to generator	Grid/Grid
3 Working mode	Automatically changeover and automatically recover, Automatically changeover and not automatically recover, Both are backup	Automatically changeover and automatically recover,
4 Buzzer warning	Can be open, can be closed	Open
5 Monitoring function	Over-voltage, under-voltage, break-phase detection, over-voltage value can be set 230V~280V, under-voltage value can be set 140V~220V	Over-voltage set 270V, Under-voltage set 170V
6 Normal transfer to backup delay	1s~255s	3s
7 Backup transfer to normal delay	1s~255s	3s
8 Double breaking delay	0s~10s	3s
9 Phase sequence detection	Can be open, can be closed	Closing
10 Fire-protection gang control	AC/DC12V~36V input side double break	
11 Voltage calibration	Six-way voltage calibration is possible	

## Main technical parameter

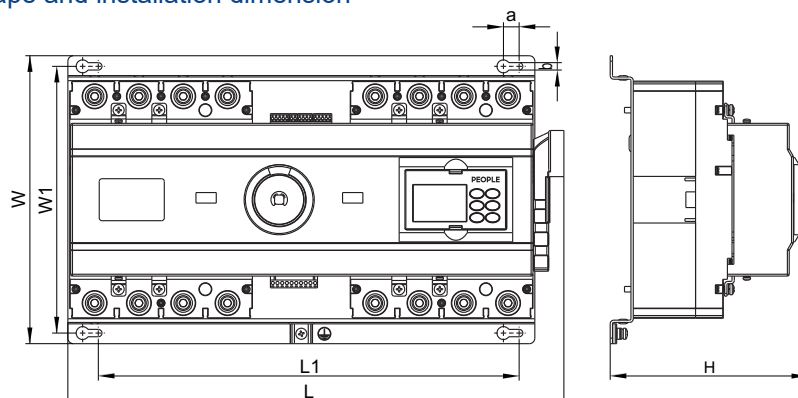
Rated current of frame size I nm(A)	125			250			400			630		
Rated current Ie(A)	16、20、25、32、40 50、63、80、100、125			100、125、160、180、 200、225、250			225、250、315、 350、400			400、500、630		
Pole	3P、 4P											
Rated frequency(Hz)	50											
Rated insulation voltage Ui(V)	AC800											
Rated impulse withstand voltage Uimp(kV)	8											
Rated working voltage Ue (V)	AC400											
Type of circuit breaker	L	M	H	L	M	H	L	M	H	L	M	H
Rated short-circuit breaking capacity Icn(kA)	35	50	85	35	50	85	50	65	100	50	65	100
Rated short-circuit making capacity cm(kA)	73.5	105	187	73.5	105	187	105	143	220	105	143	220
ATSE Grade	CB grade											
Usage category	AC—33iB											
Working temperature	-5℃~+40℃											
Electrical life(times)	1000			1000			1000			1000		
Mechanical life (time)	5000			5000			3000			2000		
Min. changeover action time	≤3s (Can add the delay changeover time)											

## RDQH5-125/250 Shape and installation dimension



Model No.	Shape dimension			Installation dimension			
	L (Length)	W (Width)	H (Height)	L1	W1	a	b
RDQH5-125L/3P	308	194	132	270	174	6	6
RDQH5-125L/4P	338	194	132	300	174	6	6
RDQH5-125M (H) /3P	308	194	149	270	174	6	6
RDQH5-125M (H) /4P	338	194	149	300	174	6	6
RDQH5-250L/3P	347	209	151	309	193	6	6
RDQH5-250L/4P	382	209	151	344	193	6	6
RDQH5-250M (H)/3P	347	209	169	309	193	6	6
RDQH5-250M (H) /4P	382	209	169	344	193	6	6

## RDQH5-400/630 Shape and installation dimension



Model No.	Shape dimension			Installation dimension			
	L (Length)	W (Width)	H (Height)	L1	W1	a	b
RDQH5-400(L、M、H)/3P	490	311	214	407	288	17	8
RDQH5-400(L、M、H)/4P	539	311	214	456	288	17	8
RDQH5-630(L、M、H)/3P	567	325	216.5	484	302	17	8
RDQH5-630(L、M、H)/4P	625	325	216.5	544	302	17	8