

## Distribution Apparatus

# YCQ9 Automatic Transfer Switch



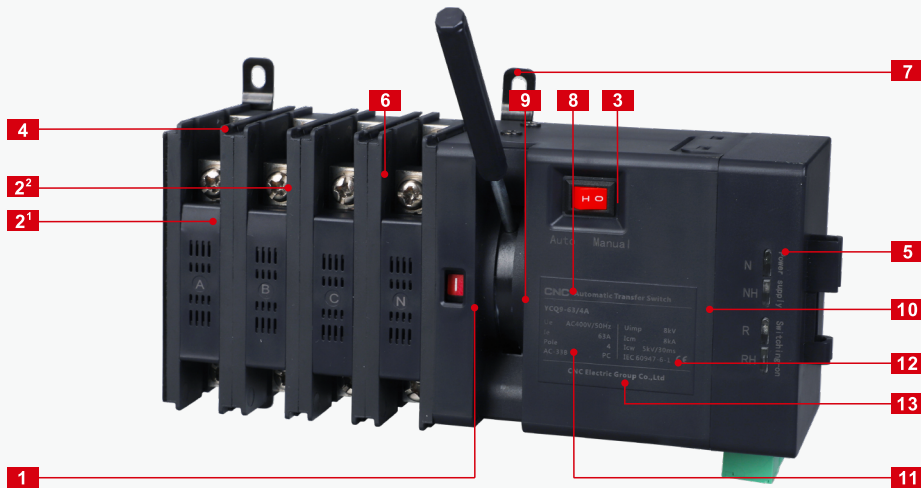
### General

YCQ9 series automatic transfer switch is suitable for AC 50Hz, rated working voltage AC400V, rated operating current up to 800A three-phase four-wire dual-circuit power supply grid, automatically connect one or several load circuits from one power supply to another to ensure load normal power supply of the circuit. This product is suitable for industrial, commercial, high-rise and residential buildings, etc. more important places.

Standard: IEC 60947-6

### Features

1. Full range of dual-input single-output(up in and down out),convenient wiring and cost-saving.
2. Handle front operation for convenience and labor-saving.
3. Compact size for space saving.
4. Two controllers to meet different user needs.
5. Low main circuit impedance and energy consumption.
6. Reliable double interlock protection function.
7. Instantaneous structural design, cleverly driven by dual springs, with a simple and stable structure.
8. Rotary contact structure, circular arc extinguishing device design, good arc extinguishing performance, and long contact working life.



- |  |                          |                    |
|--|--------------------------|--------------------|
| 1. Conversion position indication window                 | 5. Indicator             | 10. Model          |
| 2 <sup>1</sup> . Terminal on the normal supply side      | 6. Phase partition       | 11. Technical data |
| 2 <sup>2</sup> . Terminal on the alternative supply side | 7. Operating handle      |                    |
| 3. Manual/automatic operation button                     | 8. Company trademark     |                    |
| 4. Mounting hole   | 9. Operating handle hole |                    |

- Control voltage: switch control voltage level is 230V
- Position indication: Indicates the position of the switch working state (I, O, II)
- Main body of the switch: the front part is the I road, which is connected to the "normal power supply"; the rear part is the II road, which is connected to the "standby power supply"

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### Type designation

Model	Shell frame	Number of poles	Controller type	Rated current
YCQ9	63	3	A	16A
Automatic transfer switch(PC class)	63(16~63A) 80(63~80A) 125(63~125A) 225(100~225A) 250(100~250A) 400(250~400A) 630(400~630A) 800(630~800A)	2: 2P (Only below 250A) 3: 3P 4: 4P	A:Economy  B:Standard  C:Functional Type	16A 20A 25A 32A 40A 50A 63A 80A 100A 125A 160A 200A 225A 250A 315A 350A 400A 500A 630A 700A 800A

**B**

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### Technical data

Model	YCQ9-63	YCQ9-80	YCQ9-125	YCQ9-225	YCQ9-250	YCQ9-400	YCQ9-630	YCQ9-800
Rated current(A)	16, 20, 25, 32, 40, 50, 63	63, 80	63, 80, 100, 125	100, 125, 160, 180, 200, 225	100, 125, 160, 180, 200, 225, 250	250, 315, 350, 400	400, 500, 630	630, 700, 800
Standard	IEC 60947-6							
Rated working voltage(V)	AC-230/50Hz(2P) AC-400/50Hz(4P)							
Rated insulation voltage	800V					1000V		
Impulse withstand voltage	8kV					12kV		
Icw(kA)	5/30ms		10/30ms			18/30ms		25/1s
Icm(kA)	8kA		17kA			35kA		52.5kA
Use category	AC-33iB	AC-32B	AC-33iB	AC-32B	AC-33iB	AC-32B		
Items	Parameters							
Number of poles	2P/3P/4P							
Contact transfer time(S)	0.6±20%							
Transfer action time (S)	1.3±10%							
Return time (S)	1.3±10%							
Power off time (S)	0.6±20%							
Electrical level	PC class							
Installation and connection	Vertical fixed installation							
Wiring method	Screw wiring							
Connection method	Front panel							
Operating method	Auto/Manual							
EMC environment	Environment B							
The maximum number of conductors allowed to be clamped	1					2		
Protection degree	IP20 (Except for the main circuit wiring terminal)							
Screw tightening torque	3			10		15	22	
Screw breaking torque	3			10		15	26	
Power supply voltage deviation range	160 ± 10% (Economy, Standard) also with edge dyeing							
Normal working range	85%Ue~110%Ue							
Special requirements	None (Normal installation conditions)							
Whether the product is suitable for isolation	Yes							
Switch position	Normal (I), Power Off (O), Standby (II)							
Mechanical life	8000(*)					4000(*)	3000(*)	
Electrical life	2000(*)					1000(*)	1000(*)	

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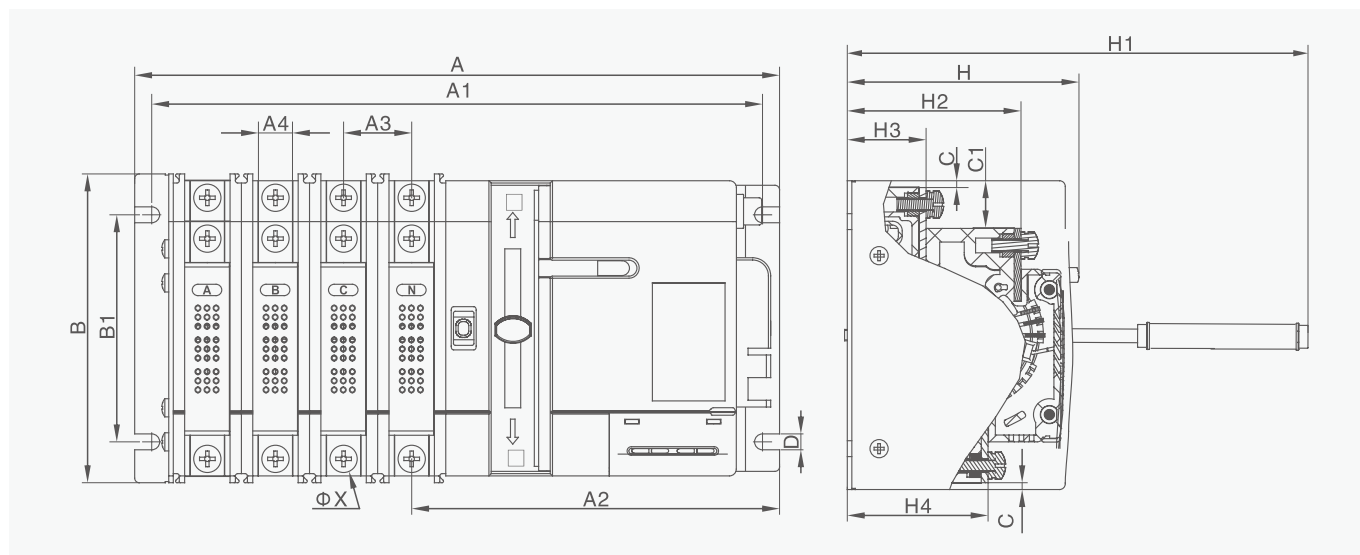
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### Parameters of controller

Type	Type A	Type B	Type C
Power supply and opening/closing indication	■	■	■
Automatically transfer and restore operation	■	■	■
Grid-grid	■	■	■
Grid-generator(start/stop)	-	□	■
Three-phase monitoring commonly used to detect phase loss in power supply	■	■	■
Three-phase monitoring commonly used to detect power loss in power supply	■	■	■
Single-phase monitoring commonly used to detect phase loss in power supply	■	■	■
Single-phase monitoring commonly used to detect power loss in power supply	■	■	■
Handle manual operation	■	■	■
External wiring terminal of indicator light	■	■	■
Fire control linkage(24VDC)	-	□	■
Fire feedback	-	□	■

Note: For shell frames 63 and 80, only Type A controller is available, configured for normally used single-phase and backup single-phase detection.

### Overall and mounting dimensions



Specifications	A			B	H	A1			B1	A1	A2	A4	H1	H2	H3	H4	C	C1	D	ΦX
	2P	3P	4P			2P	3P	4P												
YCQ9 -63	171	193	215	138	68	44	66	88	106	136	22	13	152	52	24	43	2	13	5.2	6
YCQ9 -80	171	193	215	138	68	44	66	88	106	136	22	13	152	52	24	43	2	13	5.2	6
YCQ9 -125	228	259	290	136	102	212	243	274	100	164	30	15	240	76	35	62	5	21	7	6
YCQ9 -225	228	259	290	136	102	212	243	274	100	164	30	15	240	76	35	62	5	21	7	6
YCQ9 -250	298	344	390	170	125	282	328	374	125	210	45	25	257	92	44	79	4	22	8.7	8
YCQ9 -400	357	410	463	212	158	344	397	450	156	258	53	40	333	119	53	97	5	33	10	10
YCQ9 -630	357	410	463	212	158	344	397	450	156	258	53	40	333	119	53	97	5	33	10	10
YCQ9 -800	460	528	596	255	192	433	501	569	188	325	68	49	367	144	65	118	6	40	13	12

Note: The operating handle is usually removed and used for emergency or manual operation.

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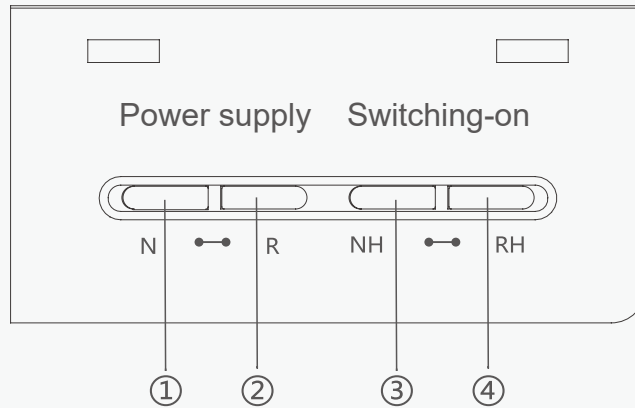
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### Controller

Interface of the display module of controller

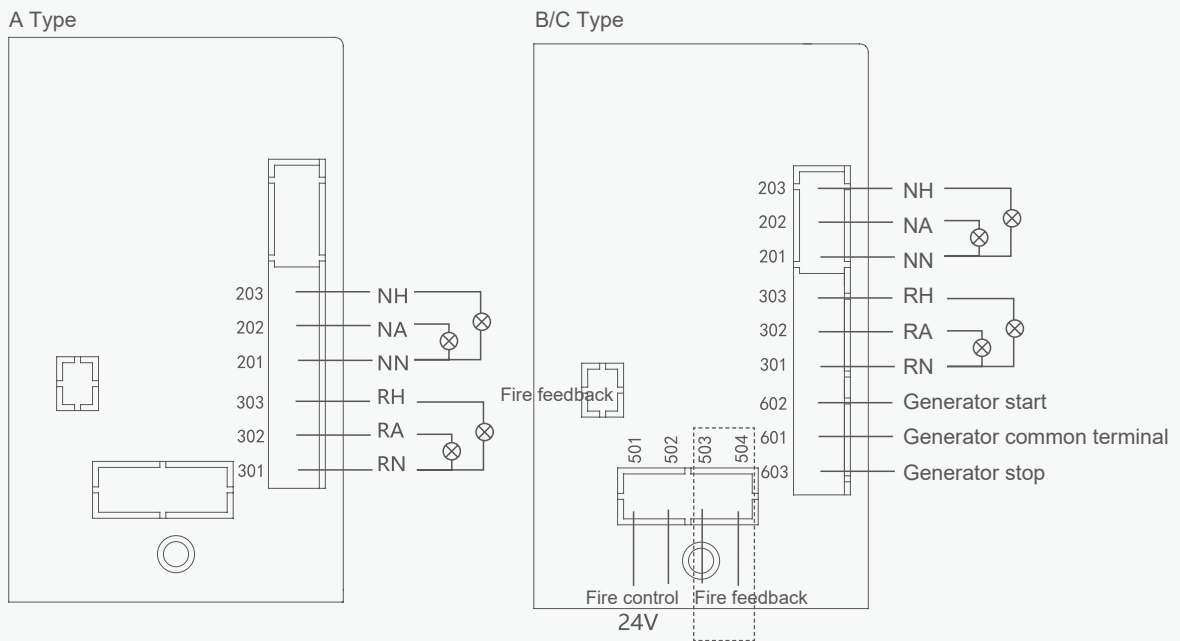
**B**



- ① N:Normal power indication
- ② R:Standby power indication
- ③ NH:Normal switch on indication
- ④ RH:Standby switch on indication

### Controller action flow

Secondary wiring diagram of economyl and basic controllers



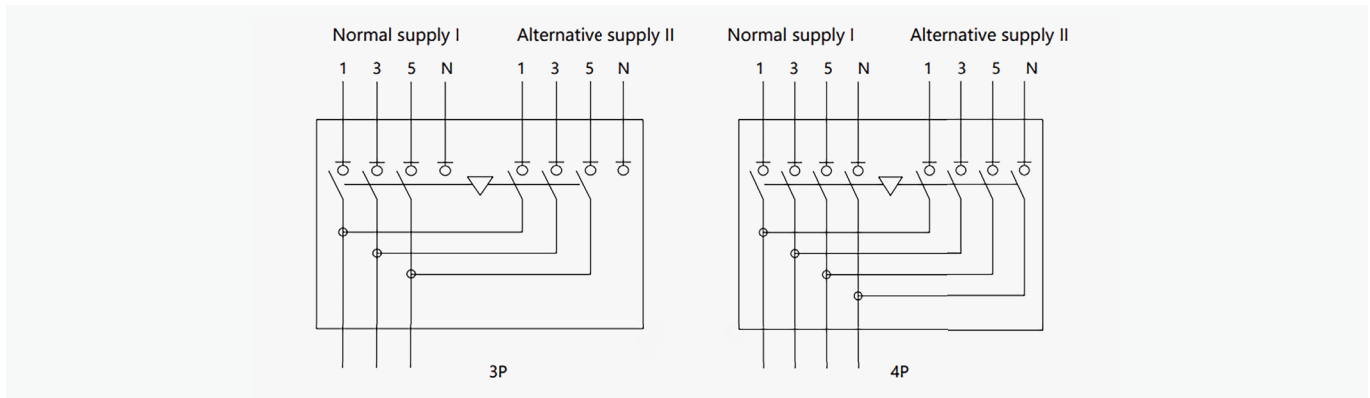
NH:Normal switch on indication  
 NA: A-phase of normal power indication  
 NN:Neutral wire of Normal

Fire feedback: Type C Configuration  
 RH:Standby switch on indication  
 RA:A-phase of standby power indication  
 RN:Neutral wire of Standby

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### Wiring diagram

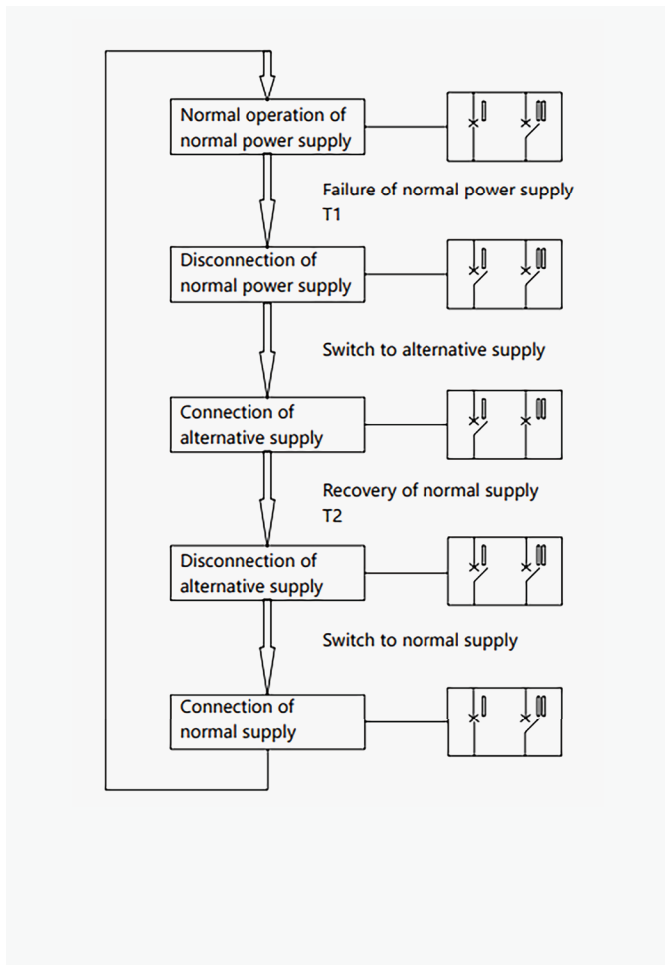


Note: Three-pole products must have the neutral wire connected to the controller(Normal neutral wire access 101)(Standby neutral wire access 201)



### Controller action flow

Automatically transfer and restore operation (power grid-power grid) work flow diagram of controller



Automatically transfer and restore operation (power grid-generator) work flow diagram of controller

