



Characteristic

- 120A Three-phase latching relay
- Double-layer structure, stronger resistance to strong magnetism
- Comply with UC3 terms of IEC 62055-31
- Electrical life 10000 times
- Outline dimension: 98mm*40mm*38mm

Contact parameter

Contact form	3A,3B
Contact resistance ⁽¹⁾	≤0.6 mΩ
Contact material	AgSnO ₂
Rated loading	120A 250VAC
Maximum switching voltage	250VAC
Maximum switching current	120A
Rated switching power	30000VA
Mechanical life	1 x 10 ⁵ TIMES

Note: these are initial values

Performance parameter

Insulation Resistance		1000MΩ (500VDC)
Voltage withstand	Between coil and contact	4000VAC 1min
	Between open contacts	2000VAC 1min
Creepage distance		>8mm
Operating time		≤20ms
Recovering time		≤20ms
Impingement	Stability	98m/s ²
	Intensity	980m/s ²
Vibration	10Hz ~ 55Hz 1.5mm Double amplitude	
Humidity		5% ~ 85% RH
Ambient temperature		-40°C ~ 70°C
Terminal pin form	Coil connection	PCB Fast connection
	Load connection	PCB Fast connection
Weight		about 180g
Sealing type		Dust-proof type

Note: these are initial values

Coil parameter

Rated coil power | Single coil : about : 5W; double coil : about : 10W

Coil specification sheet

23°C

Single coil

Rated voltage VDC	Operate and release VDC ⁽¹⁾	Pulse width ms	Coil resistance x (1±10%) Ω
5	≤3.5	50~100	5
6	≤4.2	50~100	7.2
9	≤6.3	50~100	16.2
12	≤8.4	50~100	28.8
24	≤16.8	50~100	115
48	≤33.6	50~100	460

Double coil

Rated voltage VDC	Operate and release VDC ⁽¹⁾	Pulse width ms	Coil resistance x (1±10%) Ω
5	≤3.5	50~100	2.5+2.5
6	≤4.2	50~100	3.6+3.6
9	≤6.3	50~100	8.1+8.1
12	≤8.4	50~100	14.4+14.4
24	≤16.8	50~100	57.5+57.5
48	≤33.6	50~100	230+230

NOTE: The above are the initial values, the recommended driving voltage is 1.5 times of rated voltage

Electric Life

UC Level	Uc	Ic	Power factor	on/off(s)	Electric life	
Non	250VAC	120A	COSφ=1	10:20	5000	10000
			COSφ=0.5		5000	

Note: The electrical life meets the IEC62055-31 test requirements, resistance load and then do inductive load.

Order Mark

	ZC90C	-3B	-12	Q	V	/	/	F	T	Z
Relay type										
Contact form ⁽¹⁾	3A:3 groups normally open 3B:3 groups normally close									
Coil voltage	5, 6, 9, 12, 24, 48VDC									
Coil power ⁽²⁾	Q:5W									
Load type	V:120A									
Coil type	None: Single Coil W:Double Coil									
Coil polarity	R:Negative Polarity None:positive polarity									
Insulation grade	F: Class F None: Class B									
Contact material	T:AgSnO2									
Installation type	X: PCB Y: Copper terminal bar connection Z: Pull-up terminal type									

Note:

(1)A indicates that the contact is open when the relay leaves the factory ,and B indicates that the contact is closed when the relay leaves the factory

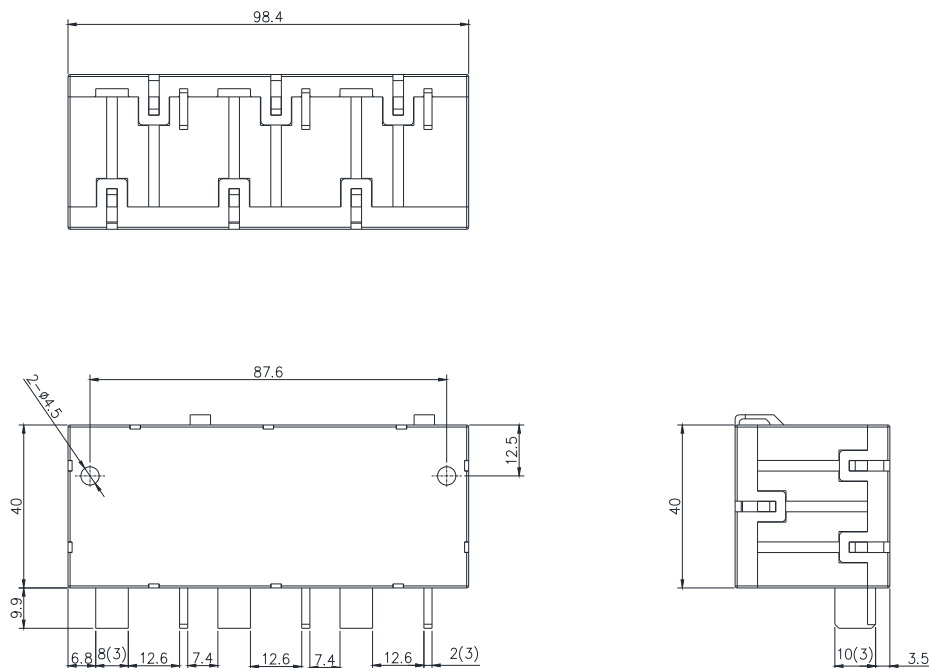
(2)The single coil is 5W and the double coil is 10W

(3)We can make all kinds of external parts according to customer's requirements, see the typical example diagram for details

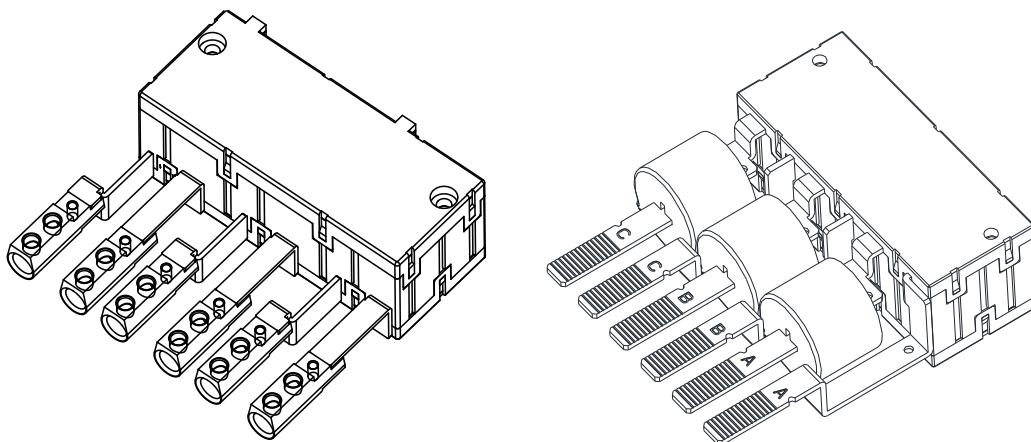
Outline size drawing, wiring diagram

Unit:mm

Outline size drawing



Typical case



The above is a typical example of peripheral installation.
Our company can accept different forms of peripheral structure customization

Note:

1. The initial state of the contact may change due to transportation turbulence or other external forces, so it is recommended to use rated voltage return the contact to the desired state;
2. Coil should not be applied voltage for a long time, please refer to the pulse time specified in this specification;
3. Soldering temperature of the load leading end of PCB installation shall not exceed 300°C, and soldering time shall not exceed 3 seconds;
4. This product is dust-proof structure, and the storage time is recommended not to exceed 6 months.
It is recommended that contacts leave the factory in a closed state.

