### **General Purpose Relay**





# JQX-13F Miniature High-power Electromagnetic relay

#### 1. General

Contact switching capability of 10A; a complete range of AC/DC specifications; enclosed in transparent dust cover, a variety of mounting types; various sockets available;

Specifications with state indicators available; certifictaion: CQC 03001003918, UL E205607, CE; models of the same type: LY2(N), HH62P(-L).







# 2. Normal operating conditions and mounting conditions

Temperature range	-30°C∼+60°C
Relative humidity	+40℃ return 90%
Atmospheric pressure	86kPa~106kPa
Working position	Any

#### 3. Technical data

#### 3.1 Contact data

Contact form	2Z(C)
Initial contact resistance	100mΩ
Contact material	Silver alloy
Contact load (resistive)	10A/220VAC、10A/28VDC
Max. switching voltage	250VAC/125VDC
Max. switching current	10A
Max. switching power	2200VA 280W
Electrical life (times)	$1 \times 10^{5}$
Mechanical life (times)	1×10 <sup>7</sup>

#### 3.2 Characteristics data

Insulation resistance		100MΩ(500VDC)			
	Between coil & yoke,	1500/46			
Dielectric strength	between different groups of contacts	1500VAC			
	Between open contacts	1000VAC			
Operation time		≤25ms			
Release time		≤25ms			
Shock (resistance)		Acceleration: 100m/s², pulse duration: 11ms			
Vibration		1mm double amplitude, 10~55Hz			
Outlet terminal type		Plug-in type, PCB type			
Overall dimensions (mm)		27.5×21.5×35.5			

#### 3.3 Coil data

Rate power consumption	0.9W、1.2VA
Pick-up voltage	DC: ≤75% rated voltage; AC: ≤80% rated voltage
Release voltage	DC: ≥10% rated voltage; AC: ≥20% rated voltage
Max. voltage	110% Rated voltage



#### 3.4 Specification data

Rated	Operation voltage	Release voltage	Coil resistance
voltage	VDC(≤)	VDC(≥)	Ω <b>±10%</b>
5	3.75	0.5	28
6	4.5	0.6	44
12	9.0	1.2	160
24	18.0	2.4	640
36	27.0	3.6	1440
48	36.0	4.8	2560
110	82.5	11.0	14500
127	95.3	12.7	17000
220	165.0	22.0	39000

Rated	Operation voltage	Release voltage	Coil resistance	
voltage	VDC(≤)	VDC(≥)	Ω <b>±10%</b>	
6	4.8	1.2	10.5	
12	9.6	2.4	44	
24	19.2	4.8	180	
36	28.8	7.2	380	
48	38.4	9.6	650	
110	88.0	22	3670	
127	101.6	25.4	4100	
220	176.0	44	14500	
380	304.0	76	39000	

#### 4. Matching socket (optional)

Relay model	JQX-13F(D)/2Z					
Model of matching socket	CZT08A-01	CZT08A-02	CZT08B-01	CZT08B-01E		
Overall dimensions of socket (mm)	72×30×31	72×23×31	68×30×28	68×30×28		
Type of socket lead	Screw terminal (installation type, rail type)					

#### 5. Overall and mounting dimensions (mm)

Connection diagram (bottom view) (2Z)



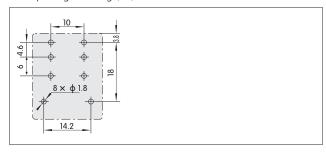
Connection diagram (bottom view) 2Z(D)



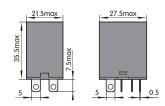
#### Connection diagram (bottom view) 2Z(B)



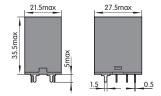
PCB opening drawing (2Z)



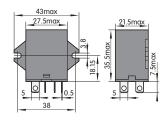
Outline drawing (plug-in type)



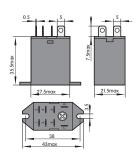
Outline drawing (PCB type)



#### Outline drawing (lateral flange type)



#### Outline drawing (top flange type)



### **General Purpose Relay**



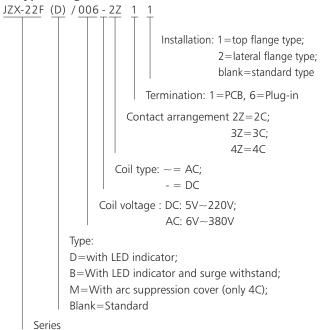


### JZX-22F Miniature Power Relay

#### 1. General

- 1.1 3A, 5A switching current
- 1.2 Various sockets available
- 1.3 With indicator to be selected
- 1.4 Full range of AC and DC coil
- 1.5 Certificate: CE.

#### 2. Type designation



#### 3. Technical data

Contact Arrangement		2C	3C	4C
Initial contact resistance	m Ω	100		
Contact material			Silver al	loy
Rated load(resistive)		5A/22	0VAC	3A/220VAC
nated load(lesistive)		5A/28	BVDC	3A/28VDC
MAX. switching voltage	VAC	250		
WAX. SWITCHING VOITage	VDC	125		
MAX. switching current	А	5	5	3
Max. swithcing capacity	VA	110	AVO	660VA
iviax. swithcing capacity	W	14	10	84
Electrical endurance	Cycles( $\times 10^3$ )	100		
Machenical endurance	Cycles( $\times 10^6$ )	10		

#### 4. Coil specification

AC

Rated voltage	Holding voltage	Must drop- out voltage	Operating range	Power consumption
6				
12				
24				
36				
48	80%Un	20%Un	(80%~110%)Un	1.2VA
110				
127				
220				
230				
380				





2**72** us



DC

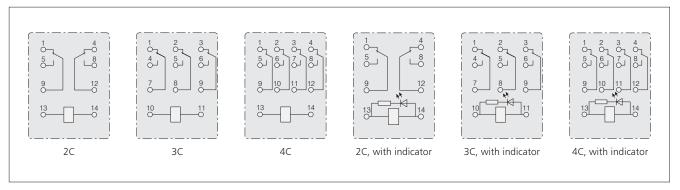
Rated voltage	Holding voltage	Must drop- out voltage	Operating range	Power consumption
5				
6			(75%~110%) Un	0.9W
12				
24				
36	75%Un	10%Un		
48				
110				
127				
220				

#### 5. Characteristics

Insulation resistance(at 500VDC)		<b>M</b> Ω	100		
Dielectric	Between coil & contacts		1500VAC		
strength	Between open contacts	-	1000VAC		
Operation time		ms	≤25		
Release time		ms	≤25		
Shock resistance		m/s²	100		
Vibration			10 $\sim$ 55Hz,1mm double amplitude		
Humidity			90% RH at +40℃		
Ambient temperature	Ambient temperature range		-30∼+55		
Termination			Plug-in, PCB		
Dimension		mm	27.5×21.5×35.5		

#### 6. Overall mounting dimensions (mm)

Internal connection(bottom view)



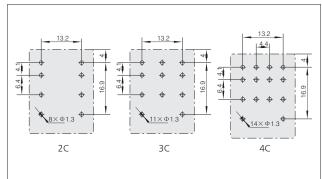
Internal connection(botton view)

2C with indicator and diode

3C with indicator and diode

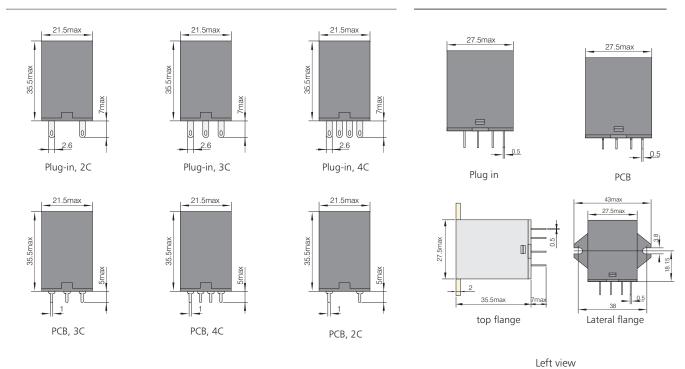
3C with indicator and diode

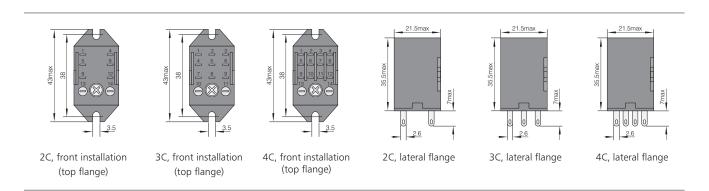
PCB mounting poles





Dimensions







#### 4 Technical data

4.1 Main data and technical characteristics

	Conventional Max. rated power		d power (kW)	Model of matching	Model of matching	Setting current	Number of turns of
Туре	heating	AC-3					
	current (A)	380V	220V	AC contactor	motor protector	range (A)	protector (turn)
NJBK5-10 0.72A~2.4A	2.4	1.1	0.55	CJX2-1210	JD-8/0.5A~5A	0.72~2.4	5
NJBK5-10D 0.72A~2.4A	2.4	1.1 0.55	UX2-1210	JD-6/0.3A** 3A	0.72~2.4	3	
NJBK5-10 3.5A~11A	1.2	5.5	2	CJX2-1210	JD-8/2A~20A	3.5~11	1
NJBK5-10D 3.5A~11A	12	5.5 .	3	CJX2-1210	JD-0/2A* 20A	3.5~11	I
NJBK5-10 10A~16A	1.6	7.5	4	CIV 2 1010	ID 0/24 204	10 16	1
NJBK5-10D 10A~16A	16	7.5	4	CJX2-1810	JD-8/2A~20A	10~16	
NJBK5-10 20A~25A	25	4.4		CIV2 2510	ID 0/204 004	20. 25	4
NJBK5-10D 20A~25A	25	11	5.5	CJX2-2510	JD-8/20A~80A	20~25	1

- 4.2 Rated control supply voltage Us: AC220V, AC380V.
- 4.3 Degree of protection of enclosure: IP55.
- 4.4 Protection characteristics of the controller
- 4.4.1 Phase failure protection characteristics of the controller: In case of failure of any phase of the three-phase main circuit passing through the center hole of the motor comprehensive protector in the controller, the motor comprehensive protector operates for a period of  $\leq 5s$ .
- 4.4.2 Overload protection characteristics of the controller under balanced three-phase load.

No.	Setting current multiple	Operation time			Starting conditions
1	1.05	No operation within 2h			Cold state start
2	1.2	Operation within 2h			Start after No.1
3	1.5	Tripping class	30	≤12min	Start after applying a 1.0 times setting current for 2h
4	7.2	Tripping class	30	9s <tp≤30s< td=""><td>Cold state start</td></tp≤30s<>	Cold state start

- 4.5 Down-lead distance of liquid level control electrode: 200m max.
- 4.6 Mounting type: installation type.

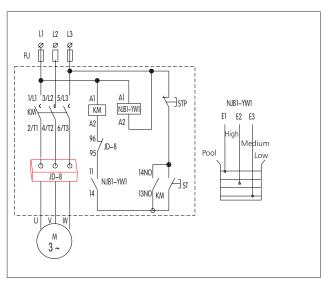
#### 5. Features

The controller consists of a CJX2 series AC contactor, a JD-8 series motor comprehensive protector and an NJB1-YW1 liquid level relay in a protective enclosure and is divided into two types, with liquid level relay and without liquid level relay. Products with liquid level relay are used to control the start and stop and automatic pumping and drainage of water pumps and provide overload and phase failure protection. Products without liquid level relay are used to control the start and stop of motors and provide overload and phase failure protection.

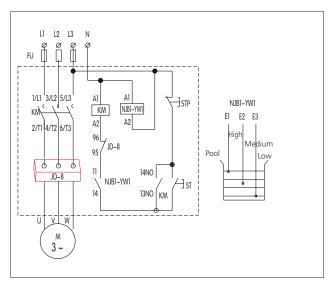
Setting of the motor comprehensive protector in the controller is required before it is connected and put into use.

#### 6. Wiring diagram

a. Connection diagram of NJBK5-10 in case both the control circuit voltage and the main circuit voltage are AC380V



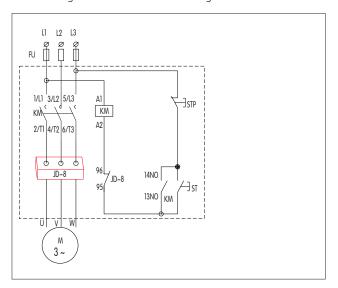
b. Connection diagram of NJBK5-10 in case the main circuit voltage is AC380V and the control circuit voltage is AC220V



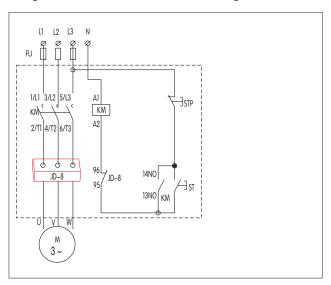
# **Protection Relay**



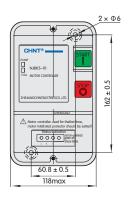
a.Connection diagram of NJBK5-10D in case both the control circuit voltage and the main circuit voltage are AC380V



b. Connection diagram of NJBK5-10D in case the main circuit voltage is AC380V and the control circuit voltage is AC220V



#### 7. Overall and mounting dimensions (mm)









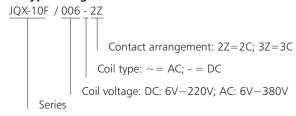


## JQX-10F Miniature power relay

#### 1. General

- 1.1 10A switching current
- 1.2 Various sockets available
- 1.3 Wide range of coil ratings
- 1.4 Certificate: UL, CE

#### 2. Type designation



#### 3. Technical data

Contact Arrangement		2C, 3C
Initial contact resistance	mΩ	100
Contact material		Silver alloy
Rated load (resistive)		10A/250VAC, 10A/28VDC
Max. switching voltage	VAC	250
iviax. Switching voltage	VDC	125
Max. switching current	А	10
Max. switching power	VA	2500
iviax. Switching power	W	280
Electrical endurance	Cycles( $\times 10^3$ )	100
Machenical endurance	Cycles( $\times 10^6$ )	10

#### 4. Coil specification

AC

Rated voltage	Holding voltage	Must drop- out voltage	Operating range	Power consumption
6				
12				
24				
36				
48	80%Un	20%Un	(80%~110%)Un	3VA
110				
127				
220				
230				
380				

DC

Rated voltage	Holding voltage	Must drop- out voltage	Operating range	Power consumption
5	75%Un	10%Un	(75%~110%)Un	2W
6				
12				
24				
36				
48				
110				
127				
220				





# **General Purpose Relay**



#### 5. Characteristics

Insulation resistance(at 500VDC)		<b>M</b> Ω	100	
Dielectric	Between coil & contacts		1500VAC	
strength	Between open contacts		1000VAC	
Operation time		ms	≤25	
Release time		ms	≤25	
Shock resistance	Shock resistance		100	
Vibration	Vibration		10 $\sim$ 55Hz,1mm double amplitude	
Humidity			98% RH at +20°C	
Ambient temperature range		$^{\circ}\!\mathbb{C}$	-40∼+55	
Termination			Plug-in, PCB	
Dimension		mm	35×35×52	

#### 6. Overall and mounting dimensions (mm)

Internal connection (bottom view)



