

CJX2-Z series


DC coil AC Contactor

OPERATION INSTRUCTION

Standard: IEC 60947-4-1

CNC

Deliver
Power For Better Life

-  Before installing and using this product, please read this instruction carefully and pay more attention to safety.

CJX2-Z series DC coil AC Contactor

Instructions

Safety Notification

Please read this instructions carefully before installing, operating, running, maintaining, testing. And installing and using the CJX2-Z DC coil AC Contactor according to the contents of this instruction.

Risks:

- Do not operate the contactor with wet hands.
- Do not touch the conductive parts during using.
- Maintenance must shut off power.

Attention:

- Installation and maintenance shall be operated by the person with expert certificate.
- Please confirm the voltage, current, frequency and utilization category of the product can meet the requirements.
- Please turn on the control circuit first, do no-load operation test, and then turn on the load without abnormal.
- Regularly tighten terminals, remove deposited dust.
- Do not let foreign matter fall into the product.
- If you need accessories, please select the accessories provided by our company.
- If the product is broken or has an abnormal noise when unpacking, should not use the item and contact the supplier.
- When products are scrapped. Please do in right way of waste disposal. Thanks for your cooperation.

Panel introduction

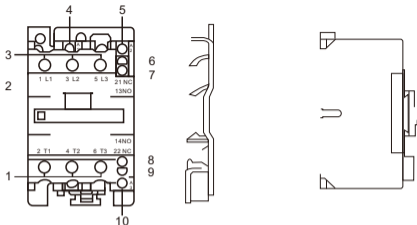


Figure 1 Product diagram

Explanation:

- 1 - Main circuit output 2/T1, 4/T2, 6/T3
- 2 - Product models and specifications
- 3 - Main circuit input 1/L1, 3/L2, 5/L3
- 4 - Coil input A1
- 5, 10 - coil output A2
- 6 -- Normally closed auxiliary wire inlet end 21/NC
- 7 -- Normally open auxiliary inlet end 13/NO
- 8 -- Normally open auxiliary outlet 14/NO
- 9 -- Normally closed auxiliary outlet 22/NC

● Technical Parameters

Table 1

Product Type	Conventional Free Air Thermal Current Ith A	AC-3 Use Category				AC-4 Use Category			
		Ie A		Maximum Power Of Controllable Three-Phase Squirrel-Cage Motor Pe kW		Ie A		Maximum Power Of Controllable Three-Phase Squirrel-Cage Motor Pe kW	
		380V	660V	380V	660V	380V	660V	380V	660V
CJX2-9Z	20	9	6.6	4	5.5	3.5	1.5	1.5	1.1
CJX2-12Z		12	8.9	5.5	7.5	5	2	2.2	1.5
CJX2-18Z	32	18	12	7.5	10	7.7	3.8	3	3.7
CJX2-25Z	40	25	18	11	15	8.5	4.4	4	4
CJX2-32Z	50	32	21	15	18.5	12	7.5	5.5	5.5
CJX2-38Z	50	38	21	15	18.5	12	7.5	5.5	5.5
CJX2-40Z	60	40	34	18.5	30	18.5	9	7.5	7.5
CJX2-50Z	80	50	39	22	33	24	12	11	11
CJX2-65Z		65	42	30	37	28	14	15	11
CJX2-80Z	110	80	49	37	45	37	17.3	18.5	15
CJX2-95Z		95	55	45	55	44	21.3	22	18.5

Conditions of normal use, installation and transport

● Normal use and installation conditions

- (1) Ambient air temperature shall not be higher than 40°C, not lower than -5°C, the average value is less than +35°C within 24h.
- (2) The altitude of installation place is no more than 2000m.
- (3) The relative humidity of the atmosphere is less than 50% when the highest ambient temperature 40°C.
- (4) The installation position should be vertical. The inclination in all directions shall not exceed $\pm 22.5^\circ$.
- (5) Installed in areas free from shock, vibration and rain.
- (6) Pollution grade: 3.
- (7) Installation category: III.
- (8) Rated impulse withstand voltage Uimp: 600ov.
- (9) Protection class: IP20.

- Normal storage and transport conditions (1) Temperature: -25°C~+55°C, can be up to 70°C for short time (24h)

- (2) Relative temperature: $\leq 95\%$
 (3) Products should be handled with care and without inversion in transportation to avoid strong collision
 (4) Products should not be encroached by rain and snow when carrying and storage

Accessories Installing

(1) Auxiliary contact

CJX2-9Z-38Z contactor body has a pair of normally open or normally closed auxiliary contact groups, and CJX2-40Z-95Z contactor body has a pair of normally open and normally closed auxiliary contact groups. See Table 2 for its main parameters.

Table 2 Main parameters for auxiliary contact

Use Category	Rated Insulation Voltage U_i	Conventional Free Air Thermal Current I_{th} A	Control Capacity		Rated Working Current I_e	
			Connected	Breaking	220V	380V
AC-15	690V	10A	3600VA	360VA	1.6A	0.95A
DC-13			33W		0.15A	-

(2) Air delay head

The contactor can be equipped with an independent auxiliary contact module, and its model specification and combination of normally open and normally closed are shown in Table 3.

Table 3 Auxiliary contact group

Use Category	F4-20	F4-11	F4-02	F4-40	F4-31	F4-22	F4-13	F4-04
Normally open number	2	1	0	4	3	2	1	0
Normally closed number	0	1	2	0	1	2	3	4

The contactor can be equipped with LA2 (or FT6) air delay head to form a delay contactor, and its delay range is shown in Table 4

Table 4 Auxiliary contact group

Model And Specification	Delay Range	Number Of Delay Contact	Delay Type
LA2-DT0	0.1~3S	1NO +1NC	Power-on delay
LA2-DT2	0.1~30S		
LA2-DT3	10~180S		
LA3-DR0	0.1~3S		Power-off delay
LA3-DR2	0.1~30s		
LA3-DR4	10~180s		

Note: The air delay head is adjusted at the minimum value at the factory

(3)Electromagnetic starter

The contactor can be installed and combined with JRSID series thermal overload relay to form an electromagnetic starter.

Debugging and operation

- Check whether the technical parameters of the product meet the use requirements;
- Switch on the control loop first, carry out no-load operation test, and the nconnect the load after there is no abnormality;
- Do not let foreign matter fall into the product;
- SCPD is recommended to be selected according to type 1 coordination protection, rated limited short circuit current LQ: 20kA(corresponding test voltage 400V), and the fuse type is shown in Table 5.

Table 5 Models with fuses

Model	CJX2-09Z	CJX2-12Z	CJX2-18Z	CJX2-25Z	CJX2-32Z
Main Loop	RT16-00 20A	RT16-00 20A	RT16-00 32A	RT16-00 40A	RT16-00 50A
Model	CJX2s/CJX2i-40	CJX2-50Z	CJX2-65Z	CJX2-80Z	CJX2-95Z
Main Loop	RT16-00 63A	RT16-00 80A	RT16-00 80A	RT16-00 100A	RT16-00 125A
Auxiliary Loop	RT16-00 10A				

- Wiring capacity and fastening torque are shown in Table 6

Table 6 Wiring capacity and fastening twist

Current Specification			09/12/18	09/12/18	09/12/18	09/12/18
Main Loop Wiring						
Soft Wire Without Connect Terminal	1wire	mm ²	1...4	1...4	1...4	1...4
	2wire	mm ²	1...4	1...4	1...4	1...4
Soft Wire Without Connect Terminal	1wire	mm ²	1...4	1...4	1...4	1...4
	2wire	mm ²	1...2.5	1...2.5	1...2.5	1...2.5
Hard Wire Without Connect Terminal	1wire	mm ²	1...4	1...4	1...4	1...4
	2wire	mm ²	1...4	1...4	1...4	1...4
Tightening Torque		N-m	1.2	1.2	1.2	1.2

Current Specification			09/12/18	25/32/38	40/50/65	80/90
Control And Auxiliary Loop Wiring						
Soft Wire Without Connect Terminal	1wire	mm ²	1...4			
	2wire	mm ²	1...4			
Soft Wire Without Connect Terminal	1wire	mm ²	1...2.5			
	2wire	mm ²	1...2.5			
Hard Wire Without Connect Terminal	1wire	mm ²	1...4			
	2wire	mm ²	1...4			
Tightening Torque		N-m	1.2			

Overall and mounting dimensions(mm)

CJX2-09~32Z

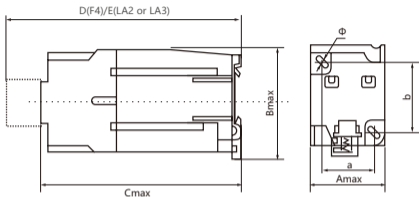


Photo 1 CJX2-09Z~32Z

CJX2-40~95Z

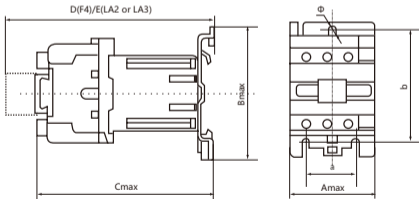


Photo 2 CJX2-40Z~95Z

Type	Amax	Bmax	Cmax	Dmax	Emax	a	b	Φ
CJX2-09Z~12Z	47	76	116	149	160	45	50/60	4.5
CJX2-18Z	47	76	120	157	177	45	50/60	4.5
CJX2-25Z	57	86	130	163	184	40	50/60	4.5
CJX2-32Z	57	86	135	168	189	40	50/60	4.5
CJX2-4011Z~6511Z	77	129	175	203	223	40	100/110	6.5
CJX2-4004Z~6504Z	85	129	174	203	223	40	100/110	6.5
CJX2-4008Z~6508Z	85	129	185	203	223	40	100/110	6.5
CJX2-8011Z~9511Z	87	129	183	212	230	40	100/110	6.5
CJX2-8004Z~9504Z	97	129	180	212	230	40	100/110	6.5
CJX2-8008Z~9508Z	97	129	191	212	230	40	100/110	6.5

Note: Not only for screw mounting, but also for 35mm [CJX2-09Z~95Z] and 75mm [CJX2-40Z~95Z] international standard Din-rail mounting.

Maintenance

- Contactors should regularly tighten the terminals, remove the terminals, remove the deposited dust and so on, otherwise there will be fire and short circuit risk;
- Small metal particles sprayed around the contact or on the cover of the contactor should be removed, and the contactor should be stopped using when contact surface burns to expose the base material.

Fault analysis and treatment

Table 7 Common fault analysis and treatment

Fault Performance	Cause Analysis	Treatment Measures
The iron core cannot be sucked in or the suction is insufficient (that is, the contact is closed but the iron core has not been completely sucked in)	<ol style="list-style-type: none">1. The power supply voltage is too low or fluctuates too much;2. Insufficient power supply capacity of the operating circuit or occurrence of disconnection, incorrect wiring and poor contact of control contacts;3. The technical parameters of the coil do not match the conditions of use;4. The product itself is damaged (e.g. the coil is broken or burned, the movable part of the machine is stuck, etc.)	<ol style="list-style-type: none">1. Increase the power supply voltage;2. Increase the power supply capacity, replace the circuit, repair the control contact;3. Replace the contactor;4. Eliminate stuck faults and repair damaged parts
No release or slow release	<ol style="list-style-type: none">1. Contact welding;2. The movable part of the machine is stuck;3. There is oil or dust on the pole surface of the iron core.	<ol style="list-style-type: none">1. Eliminate welding faults, repair or replace contactors;2. Eliminate the stuck fault;3. Clean up the pole surface of the iron core.
The coil is overheated or burned	<ol style="list-style-type: none">1. The power supply voltage is too high or too low;2. The technical parameters of the coil (such as rated voltage, frequency, continuity rate of energization, and working system, etc.) are not consistent with actual use;3. The moving part is stuck;4. The surface of the iron core is uneven or the dust sticks.	<ol style="list-style-type: none">1. Adjust the power supply voltage;2. Replace the contactor;3. Eliminate mechanical jam failure;4. Clear up pole surface of the iron core.

Renew Table 7 Common fault analysis and treatment

Fault Performance	Cause Analysis	Treatment Measures
Electromagnet (AC) Very noisy	<ol style="list-style-type: none"> 1. The power supply voltage is too low; 2. The magnetic system is skewed or mechanically jammed, so that the iron core cannot be flattened; 3. The surface of the iron core is rusty or foreign matter penetrates the surface of the iron core; 4. The short-circuit ring is broken or the surface of the iron core is excessively worn and uneven. 	<ol style="list-style-type: none"> 1. Increase the operating circuit voltage; 2. Adjust the magnetic system or eliminate mechanical jam failure; 3. Clean up pole surface of the iron core; 4. Replace the contactor.
Contact welding	<ol style="list-style-type: none"> 1. The operating frequency is too high or the product is overloaded; 2. Short circuit on the load side. 	<ol style="list-style-type: none"> 1. Replace with the appropriate contactor; 2. Eliminate short-circuit faults.

CNC

ELECTRIC

CERTIFICATE

Product Model: CJX2-Z series

Standard: IEC 60947-4-1

Inspector: **CNC006**

Production date: Printed on the product
or package.

This product is qualified according
to the delivery inspection

CNC ELECTRIC

Tel: 0086-577-61989999 Fax: 0086-577-61891122

www.cncele.com E-mail: cncele@cncele.com

CNC

CJX2-Z series DC coil AC Contactor