



CJX2 Series AC Contactor

User Manual



Please carefully read this User Manual before installing and operating the product, and keep this manual properly for future reference

Safety Notice

Please carefully read this instruction before the installation, operation, run, maintenance, and inspection, and follow the contents of the instruction to properly install and operate this product.



Danger:

- Do not operate the contactor with your wet hands;
- Do not touch the energized parts during operation;
- Mark sure that the product is de-energized during the maintenance and service;

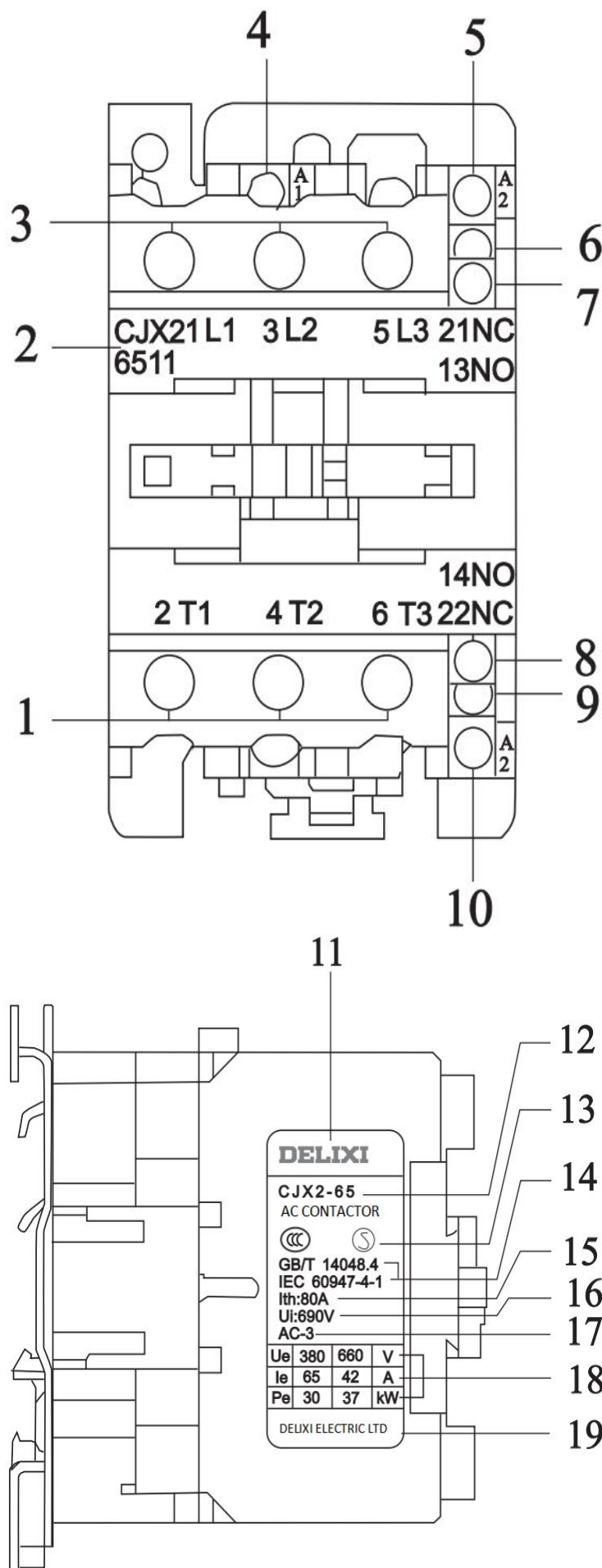


Caution:

- The installation, maintenance and service shall be performed by the qualified professional;
- Please confirm that the product voltage, current, frequency and utilization category of the product meet the operating requirements before use;
- Please connect the control circuit first, carry out the no-load operation test, and then connect the load if there is no abnormality;
- Please tighten the terminals regularly and remove the deposited dust;
- Do not let foreign objects fall into the product;
- If you need to purchase accessories, please choose the matching accessories provided by our company;
- If found damage or abnormal sound when unpacking, please stop the operation immediately and contact the supplier;
- When scrapping the product, please dispose the product waste properly. Thanks for your cooperation;

About CJX2-9~95 AC Contactor

● Panel Introduction (Figure 1 Product Diagram)



● Technical Parameters

Table 1 Technical Parameters

Model	Ith A	AC-3 Utilization Category				AC-4 Utilization Category				The load factor is 40% of the rated operating frequency under intermittent cycle work	
		Ie A		Maximum power of three-phase squirrel-cage motor can be controlled Pe kW		Ie A		Maximum power of three-phase squirrel-cage motor can be controlled Pe kW			
		380V	660V	380V	660V	380V	660V	380V	660V	AC-3	AC-4
CJX2-9	25	9	6.6	4	5.5	3.5	1.5	1.5	1.1	380V:	380V: 300次 /h 660V: 120次 /h
CJX2-12		12	8.9	5.5	7.5	5	2	2.2	1.5	1200次/h	
CJX2-18	32	18	12	7.5	10	7.7	3.8	3	3.7	660V:	
CJX2-25	40	25	18	11	15	8.5	4.4	4	4	300次 /h	
CJX2-32	50	32	21	15	18.5	12	7.5	5.5	5.5	380V: 600次/h 660V: 300次 /h	
CJX2-40	60	40	34	18.5	30	18.5	9	7.5	7.5		
CJX2-50	80	50	39	22	33	24	12	11	11		
CJX2-65		65	42	30	37	28	14	15	11		
CJX2-80	125	80	49	37	45	37	17.3	18.5	15		
CJX2-95		95	55	45	55	44	21.3	22	18.5		

Normal Operation, Installation and Transport Conditions

●Normal Operation and Installation Conditions

- (1) The ambient air temperature is not higher than +40°C, and is not below -5°C, and the average value within 24 hours does not exceed +35°C;
- (2) The altitude of the installation site does not exceed 2000m;
- (3) Atmospheric conditions
The relative humidity of the atmosphere does not exceed 50% when the highest ambient temperature is +40°C, and a higher relative humidity is allowed at lower temperatures, such as 90% at 20°C. Protective measures shall be taken for condensation occasionally occurred due to temperature changes.
- (4) The installation position shall be vertical, and the inclination angle at each direction shall not exceed $\pm 5^\circ$;
- (5) Installed at a place where there is no impact, vibration, and rain or snow erosion;
- (6) Pollution level: Level 3;
- (7) Installation category: Class III;
- (8) Rated impact withstand voltage U_{imp} :8000V;
- (9) Rated frequency :50Hz;
- (10) Protection grade: IP20;
- (11) Suitable for 8h working system, intermittent cycle working system, uninterrupted working system and short-time working system.

● Normal Storage and Transport Conditions

- (1) Temperature: -25°C~+55°C, +70°C in a short time (24h);
- (2) Relative humidity : $\leq 95\%$;
- (3) During the transport, please handle the product gently, and do not upside it down, and prevent the product from harsh collision;
- (4) The product shall not be attacked by rain or snow during transportation and storage.

Installation Products

- The contactor has two installation methods: screw installation and rail installation. CJX2-9~32 can be installed with 35mm standard rail, and CJX2-40~95 can be installed with 35mm or 75mm standard rail.
- See Figure 2, Figure 3 and Table 2 for Outline and Installation Dimensions.

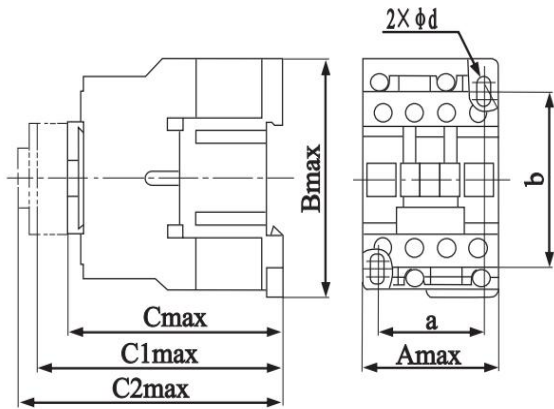


Fig. 2 CJX2-9~32

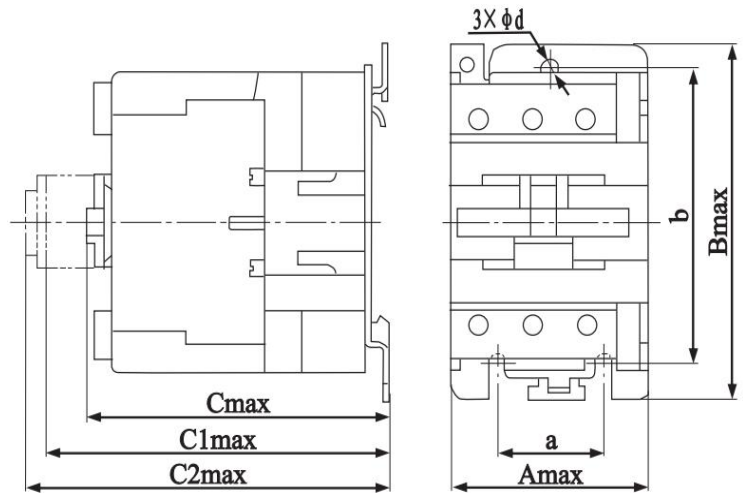


Fig. 3 CJX2-40~95

Table2 CJX2-9~95 AC Contactor Outline and Installation Dimensions

Unit: mm

Model	Amax	Bmax	Cmax	C1max	C2max	a	b	d
CJX2-9、12	47	76	82	115	134	35	50/60	4.5
CJX2-18	47	76	87	120	139	35	50/60	4.5
CJX2-25	57	86	97	130	149	40	50/60	4.5
CJX2-32	57	86	102	135	154	40	50/60	4.5
CJX2-40、50、65	77	129	116	149	168	40	100/110	6.5
CJX2-80、95	87	129	127	160	179	40	100/110	6.5

Note: C1 max-Contactor +F4 (or FD6) C2max-Contactor + SK4 (or FT6)

● Accessories installation

(1) Auxiliary contact

The CJX2-9~32 contactor main body has 2 NO or 2 NC auxiliary contact groups, and the CJX2-40~95 contactor main body has 2NO + 2NC auxiliary contact groups, its main parameters are shown in Table 4;

Table 4 Main parameters of auxiliary contact

Utilization category	Rated insulation voltage U_i	Conventional free air heating current I_{th}	Control capacity		Rated operating current I_e	
			Make	Break	220V	380V
AC-15	690V	10A	3600VA	360VA	1.6A	0.95A
DC-13			33W		0.15A	-

The contactor can be equipped with an independent auxiliary contact module. Its model specification and combination of NO and NC are shown in Table 5.

Model	F4-20	F4-11	F4-02	F4-40	F4-31	F4-22	F4-13	F4-04
	FD6-20	FD6-11	FD6-02	FD6-40	FD6-31	FD6-22	FD6-13	FD6-04
NO	2	1	0	4	3	2	1	0
NC	0	1	2	0	1	2	3	4

(2) Air delay head (Pneumatic timer)

The contactor can be combined with SK4 (or FT6) air delay head to form a delay contactor. The delay range is shown in Table 6.

Table 6 Air delay head

Model	Time Range	Contact	Delay type
SK4 - 20(FT6 - 20)	0.1~3s	1NO + 1NC	Power-on delay
SK4 - 22(FT6 - 22)	0.1~30s		
SK4 - 24(FT6 - 24)	10~180s		
SK4 - 30(FT6 - 30)	0.1~3s		Power-off delay
SK4 - 32(FT6 - 32)	0.1~30s		
SK4 - 34(FT6 - 34)	10~180s		
Note: The air delay head is adjusted to the minimum value when delivery.			

(3) Electromagnetic starter

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

Debugging, operation

- Check whether the technical parameters of the product meet the requirements for use;
- Connect the control circuit first, conduct a no-load operation test, and then connect the load if there is no abnormality;
- Do not let foreign objects fall into the product;
- It is recommended to select SCPD according to type 2 coordinated protection, and its fuse type is shown in Table 7.

Table 7 Matching fuse model

Model	CJX2-9、12	CJX2-18	CJX2-25	CJX2-32	CJX2-40	CJX2-50、65	CJX2-80	CJX2-95
Main circuit	RT16-20	RT16-32	RT16-40	RT16-50	RT16-63	RT16-80	RT16-100	RT16-125
Auxiliary circuit	RT16-10							

- Wiring capacity and tightening torque are shown in Table 8

Table 8 Wiring capacity and tightening torque

Model			CJX2-9、12	CJX2-18	CJX2-25	CJX2-32	CJX2-40、50、65	CJX2-80、95
Main circuit wiring								
Flexible wire without terminals	1 pce wire	mm ²	1~4	1~4	1.5~6	1.5~10	2.5~25	4~50
	2 pcs wire	mm ²	1~4	1~4	1.5~6	1.5~6	2.5~16	4~25
Flexible wire with terminals	1 pce wire	mm ²	1~4	1~4	1~6	1~6	2.5~25	4~50
	2 pcs wire	mm ²	1~2.5	1~2.5	1~4	1~4	2.5~10	4~16
Hard wire without terminals	1 pce wire	mm ²	1~4	1.5~6	1.5~6	1.5~6	2.5~25	4~50
	2 pcs wire	mm ²	1~4	1.5~6	1.5~6	1.5~6	2.5~16	4~25
Tightening torque		N.m	1.2	1.2	1.85	1.85	5	9
Control and auxiliary circuit wiring								
Flexible wire without terminals	1 pce wire	mm ²	1~4					
	2 pcs wire	mm ²	1~4					
Flexible wire with terminals	1 pce wire	mm ²	1~2.5					
	2 pcs wire	mm ²	1~2.5					
Hard wire without terminals	1 pce wire	mm ²	1~4					
	2 pcs wire	mm ²	1~4					
Tightening torque		N.m	1.2					

Maintenance

- The contactor should be tightened regularly, remove the deposited dust and other operations, otherwise there will be a risk of fire and short circuit;
- The small metal particles splashed around the contacts of the contactor or on the arc cover should be removed, and the contact surface should be stopped when the surface of the contact is burned to expose the base material.

Fault Analysis and Treatment

See Table 9 for common fault analysis and handling.

Table 9 Analysis and treatment of common faults

Fault	Cause Analysis	Treatment measures
The iron core cannot be closed or the suction force is insufficient (that is, the contact has been closed but the iron core has not been fully attracted)	1. The power supply voltage is too low or fluctuates too much; 2. The power supply capacity of the operating circuit is insufficient or disconnection, wiring errors and poor contact of the control contacts; 3. The technical parameters of the coil do not match the conditions of use; 4. The product itself is damaged (Such as coil disconnection or burnout, mechanical movable parts stuck, etc.)	1. Increase the power supply voltage; 2. Increase the power supply capacity, replace the circuit, and repair the control contacts; 3. Replace the contactor; 4. Eliminate stuck faults and repair damaged parts.
no release or slow release	1. The contact is welded; 2. The movable part of the machine is stuck; 3. There is oil or dust on the pole surface of the iron core.	1. Eliminate welding faults, repair or replace the contactor; 2. Eliminate stuck faults; 3. Clean the pole surface of the iron core.
Coil overheating or burning out	1. The power supply voltage is too high or too low; 2. The technical parameters of the coil (such as rated voltage, frequency, energization duration and applicable working system, etc.) do not match the actual use; 3. The moving part is stuck; 4. The pole surface of the iron core is uneven or dust sticking.	1. Adjust the power supply voltage; 2. Replace the contactor; 3. Eliminate mechanical jamming; 4. Clear the pole surface.
Electromagnet (AC) is noisy	1. The power supply voltage is too low; 2. The magnetic system is skewed or mechanically stuck, so that the iron core cannot be sucked flat; 3. The pole surface of the iron core is rusted or foreign matter invades the pole surface of the iron core; 4. The short-circuit ring is broken or the pole of the iron core is broken. The surface is excessively worn and uneven.	1. Increase the voltage of the operating circuit; 2. Adjust the magnetic system or eliminate mechanical jamming; 3. Clean the pole surface; 4. Replace the contactor.
Contact welding	1. The operating frequency is too high or the product is overloaded; 2. The load side is short-circuited;	1. Replace the appropriate contactor; 2. Eliminate the short circuit fault.

Company Commitment

Under the condition that users follow the use and storage conditions and the product are well sealed, within 18 months from the production date, our company will provide repair and replacement service free of charge for any damage or abnormal operation due to poor manufacture quality. A paid repair will be provided if the warranty period expires. For any damage due to one of the following situations, a paid repair will be given even if within the warranty period:

- (1) Improper operation, maintenance, or storage;
- (2) Modified and improper repair without permission;
- (3) Damage due to falling off or found during installation after purchase;
- (4) Force majeure such as earthquakes, fires, lightning strikes, abnormal voltages, and secondary disasters; If you have any question, please contact the dealer or our company's customer service department.

DELIXI
ELECTRIC
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Certificate

DELIXI ELECTRIC LTD

Name: AC Contactor

Model: CJX2 Series

This product passes the inspection and is allowed to be shipped.

Standard: GB/T 14048.4

Inspector: Check 06

Production date: See label on inner box

www.cn-delixi.com

The first edition of this manual was issued on Apr., 2020.