



FUNCTIONS
and
FEATURES

Modular Contactor
CDCH6i Household AC Contactor



CDCH6i household AC contactor

Product name	Rated current	Number of poles	Main contact type	voltage type
CDCH6i	16	2	20	N
	16: 16A 20: 20A 25: 25A 40: 40A 63: 63A	2: 2P 4: 4P	20: 2NO 02: 2NC 11: 1NO, 1NC 10: 1NO 01: 1NC 03: 3NC 40: 4NO 04: 4NC 22: 2NO, 2NC 31: 3NO, 1NC 30: 3NO	N: 220V~240V L: 24V



RoHS



User Manual

Safety Notice

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



Danger:

- It is prohibited to operate the circuit breaker with your wet hands;
- It is prohibited to touch the conductive part during operation;
- Make sure that the product is de-electrified during maintenance and service;



Caution:

- The installation, maintenance, and service shall be carried out by the qualified professionals;
- Please confirm that the product voltage, current, frequency, and use category of the product meet the requirements before use;
- Please connect the control circuit for non-load operation test, and then connect the load after the product passes the test;
- Please tighten the wiring terminal regularly, and remove dust deposited on the product;
- Prevent foreign matter falling into the product;
- To purchase accessories, please select the matched accessories provided by our company;
- If found damage or abnormal sound when unpacking the product, please reject the product and contact the supplier;
- When scrapping the product, please dispose the product waste properly; thanks for your cooperation.

1 Purpose and Scope of Application

1.1 Purpose

CDCH6i series Household AC Contactor (hereinafter referred to as contactor) is a control apparatus used to remotely connect and disconnect the non-inductive load or low inductive load, electric resistance furnace, household appliances and similar low inductive load, and household motor.

1.2 Scope of application

The contactor is primarily used in the AC 50Hz / 60Hz power system with the rated operating current up to 400V and with the rated operating current up to 63A as the remote switch and control circuit under the AC-1, AC-7a, and AC-7b use category.

The contactor is not used to cut off the short circuit current, and the appropriate short circuit protection device is selected before use.

2 Normal Operation and Installation Conditions

2.1 The ambient air temperature is not higher than +60°C, and is not below than -5°C. When the contactor is installed in the power distribution box, spacer must be installed on both sides for convenient heat dissipation.

2.2 The altitude at the installation site does not exceed 2000m;

2.3 When the maximum ambient temperature is +60°C, the relative humidity of the atmosphere air does not exceed 50%; a large relative humidity is allowed at low temperatures, such as 90% at +20°C. Special protection measures shall be taken for condensations occurred occasionally due to temperature changes;

2.4 The installation position shall be vertical, and the inclination in each direction shall not exceed $\pm 5^\circ$;

2.5 Install in a place where there is no impact or vibration;

2.6 Pollution level: Level 2;

2.7 Installation category: Class II;

2.8 TH35-7.5 steel rail is used for installation.



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Technical Parameters

3 Main Technical Parameters

3.1 Technical Features

The common use category of the contactor and its code are listed in Table 1

Table 1 Use category and its code

Use category	Typical application
AC-7a	Household apparatus and similar low inductive load
AC-7b	Household motor load *

*AC-7b category can be used for occasional and dense power on/off (inching) or reverse braking reverse direction within the limited time. Within this limited time, the operation times shall not exceed 5 per minute or 10 within a 10 minute cycle.

3.2 Basic parameters of contactor are listed in Table 2

3.3 Rated working system

3.3.1 8h working system

This working system is the basic working system, and the contactor's resistive current I_{th} of the free air is determined by this working system.

3.3.2 Intermittent cycle working system

The rated operating frequency is 30 times / h and the load factor is 40% under this working system of the contactor.

3.4 Action (operation) conditions

Within the range of ambient air temperature $-5^{\circ}\text{C} \sim +60^{\circ}\text{C}$, the contactor sucking coil is applied with the rated control power voltage U_s , and the contactor shall be closed reliably under any voltage within the (85%~100%) U_s range when it heating is in the stable state; its release voltage is (205~75%) U_s .

Table 2 Basic parameters of contactor

Product name	CDCH6i-16		CDCH6i-20		CDCH6i-25		CDCH6i-40		CDCH6i-63	
	2P	4P	2P	4P	2P	4P	2P	4P	2P	4P
Main circuit characteristic										
Poles										
Rated operating voltage (U_e) V	500									
Number of main contacts										
1P	1NO, 1NC									
2P	1NO 1NC, 2NO, 2NC									
3P	3NO, 3NC									
4P	2NO 2NC, 3NO 1NC, 4NO, 4NC									
Rated insulation voltage (U_i) V	250V (1P, 2P) - 400V (3P, 4P)									
Resistive current of free air I_{th} (A)	25				63					
Rated operating current (I_e)										
AC-7a	16		20		25		40		63	
AC-7b	6		7		8.5		15		20	
Number of operating cycles	$\leq 30,000$									
Rated operating frequency										
AC-7a	360									
times/hour	360		180		180		120		90	
Making and Breaking										
capacities (A)										
AC-7a	1.05 I_e									
AC-7b	6 I_e									
Short-time withstand current (A)	8 I_e (Ac-7b) / 10s									
Coil control power supply voltage (U_s)	AC24V AC22-240V									
Allow control loop voltage										
(V)										
Attract	85% - 110% U_s									
freed	20% - 75%									
Coil power (VA)										
Start	9.2	34	9.2	34	9.2	34	34	53	34	53
Suction	2.7	4.6	2.7	4.6	2.7	4.6	4.6	6.5	4.6	6.5
Working power (W)	1.2	1.6	1.2	1.6	1.2	1.6	1.6	2.1	1.6	2.1
Electrical life	10,000 times									
Mechanical life	100,000 times									
Install	Spacers (CDCH6iIS) need to be installed on both sides of the contactor to facilitate heat dissipation									
Indicator light	There is a signal indicator on the contactor, red, the coil is connected									
Standard compliant	IEC 61095 / GB 17885									
Comply with certification	CCC									



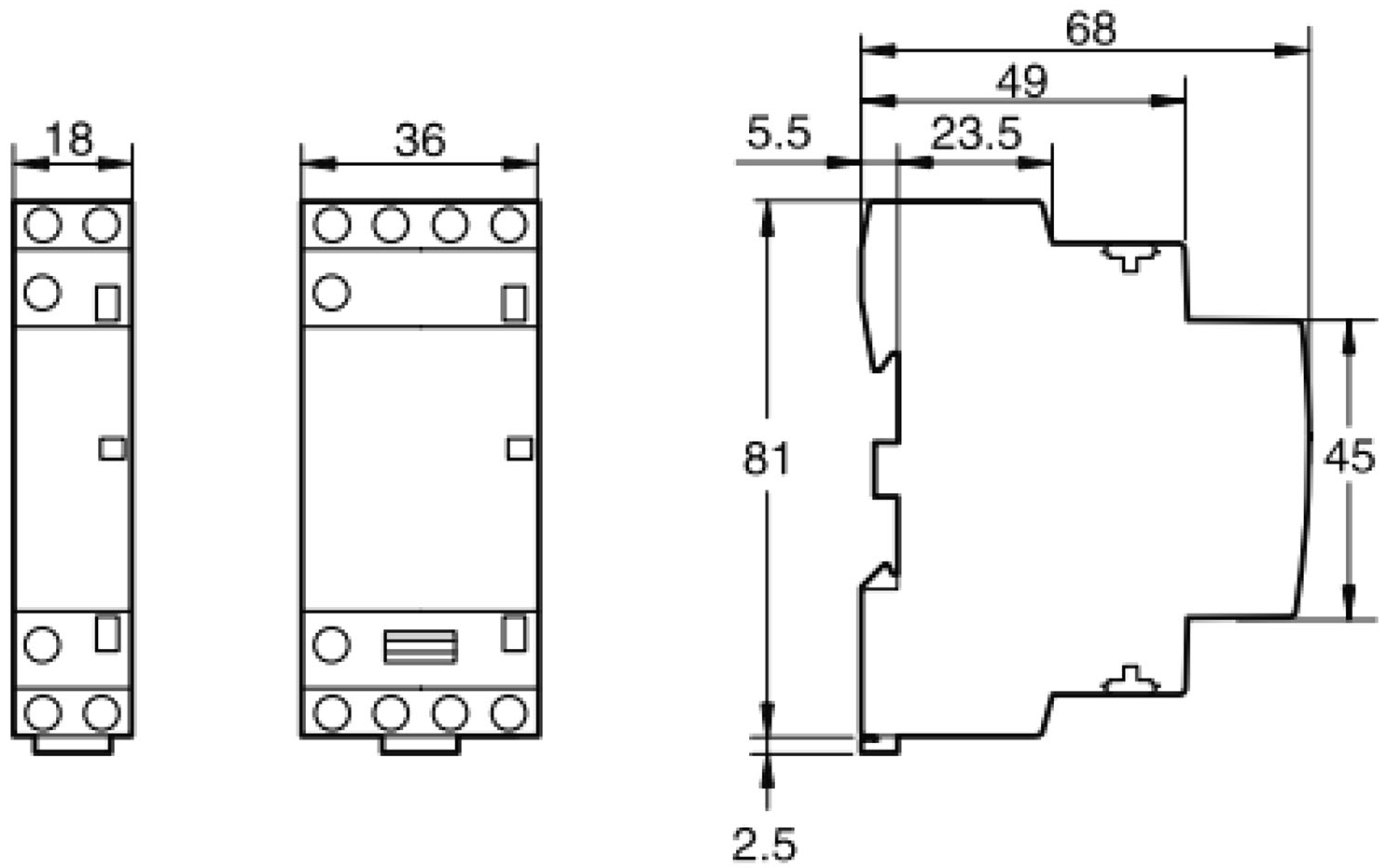
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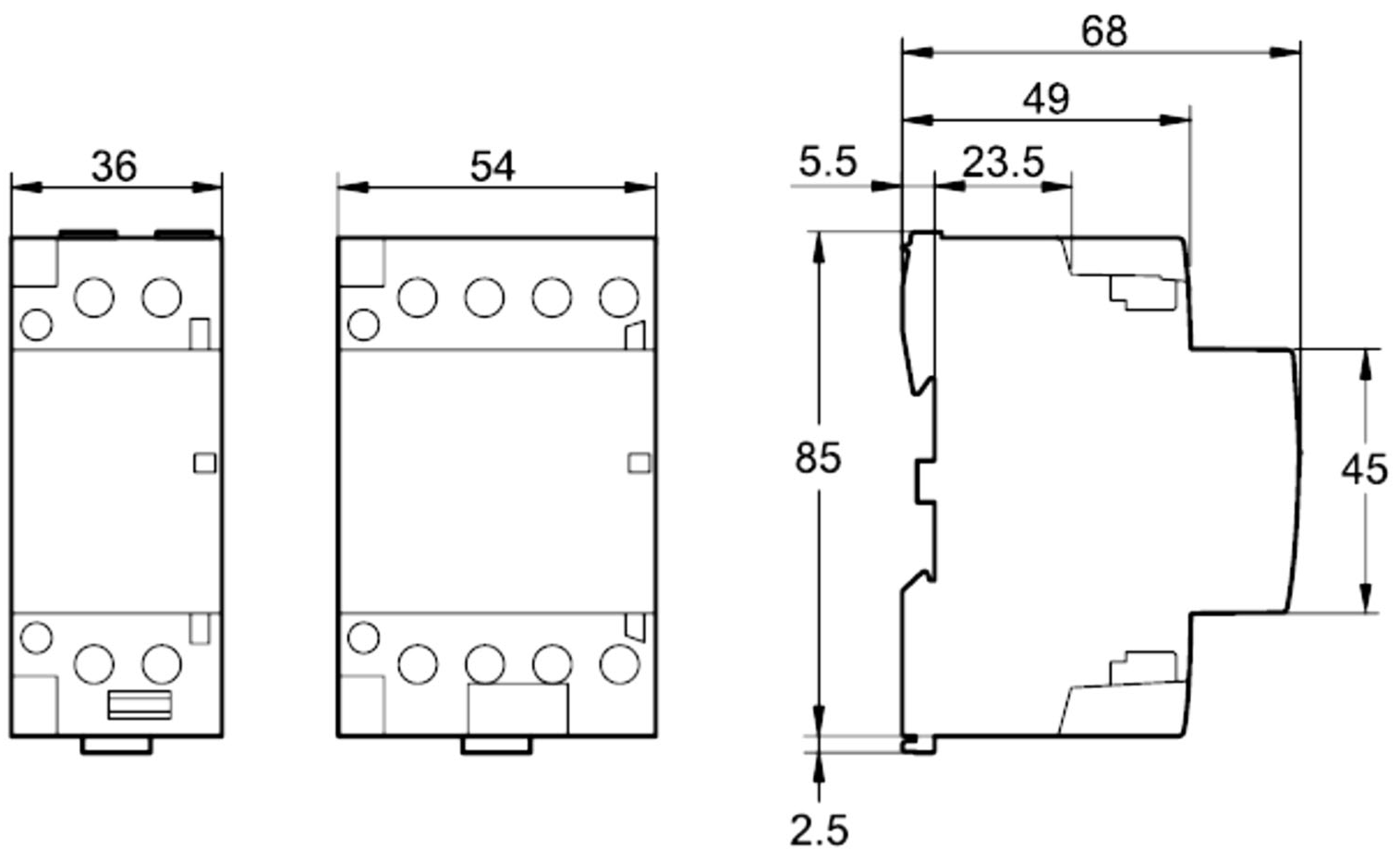


4 Outline and Installation Dimensions

Dimension CDCH6i 16A-25A



Dimension CDCH6i 40A/63A





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5 Product Working Principle

The working principle of the contactor is as follow: When the coil is powered on, the magnetic filed is produced by the coil current, and the sufficient magnetic attraction force is generated to overcome the reaction force to pull in magnet and power on the contact; when the coil voltage disappears or the coil voltage is reduced to a certain value, that is when the voltage is released, as the magnetic flux produced on the end of the armature decreases, the magnetic attraction force will be less than the reaction force generated by the reaction spring and contact spring. The armature will release under this reaction force to leave the magnet yoke, so that the contact is disconnected.

6 Installation, Operation and Maintenance

6.1 Installation

6.1.1 Before installation, check whether the actual use application complies with the purpose and slope of application, technical parameters and its normal working conditions and installation conditions of the contactor.

6.1.2 When installation, pull the contactor stop downwards, put the contactor on the mounting rail, and push the stop upwards until the contact is fixed on the mounting rail without any looseness or falling off. To remove the contactor, pull the stop downwards and take it out easily.

6.2 When connecting the contactor wire, insert the wire into the wiring hole, and tighten the wiring screw until the wire cannot be loose and pulled out; the exposed copper wire cannot be exposed outside the wiring terminal;

6.2.1 Do not forcedly tighten the wiring screws when connecting the contactor wire; appropriate screwdriver is used when tightening and loosening the contactor screws.

6.2.2 After checking that the wire is connected properly, power on and off the coil several times when the main contact is de-energized, and check whether the product works reliably before use.

6.3 Maintenance

6.3.1 Regularly check the wiring screws are tightened firmly during the normal operation of the contactor, and tighten them timely if found any looseness; regularly remove the dust from the surface of the housing, and keep the housing in the good insulation state; if found a large noise or any failure of the housing insulation layer during operation, please replace the product timely by a new one; calculated according to the product working frequency and working time, when the working times of the product reaches (or near) the service life of the product, please replace the product timely by a new one.

6.3.2 The contactor shall not be subject to the rain immersion or falling off during the operation, storage, and storge.

Company's commitment

Under the premise that users follow the use and storage conditions and the product are well sealed, within 24 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 inappropriate repair without permission;
- (3) Damage due to falling off or 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 our dealer or our company's customer service department.

Customer service hotline: 400-826-8008

Certificate

DELIXI ELECTRIC LTD

Name: Household AC Contactor

Model: CDCH6i

This product passes the section in the factory, and is permitted to be shipped

Standard: GB/T 17885

Inspector: Check 06

Date of production: See label on inner box

DELIXI ELECTRIC LTD

Address: Delixi High-Tech Industrial Park, Liushi Town, Yueqing City, Zhejiang

Tel: (86-577) 61778888

Fax: (86-577) 61778000

Customer Service Hotline: 400-826-8008

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