

⚠ Safety Warning

- ① Only professional technicians are allowed for installation and maintenance.
- ② Installation in any damp, condensed-phase environment with inflammable and explosive gas is forbidden.
- ③ When the product is being installed or maintained, the power must be switched off.
- ④ You are prohibited from touching the conductive part when the product is operating.

1 Use Purpose and Application Range

NXC series AC contactor is mainly used for frequent start and control of motor in AC 50Hz (or 60Hz) circuits with rated operating voltage up to 690V under 400 (380V) AC-3 application category. It is used to connect and disconnect circuits remotely, and can be used with proper thermal overload relay to act as electromagnetic starter.

2 Key Technical Parameters and Performance

Table 1 Environmental Conditions

Table 1 Environmental Conditions		
Installation and operation conditions	Ambient temp (°C)	The limiting working temperature is -35 °C ~ +70 °C, the normal working temperature is -5 ~ +70 °C, and the average temperature within 24 hours is not more than +35 °C. If it is not in the normal operating temperature range, the capacity reduction shall be considered.
	Hot and humid conditions	Relative humidity should not exceed 50% at temperature up to +70°C, higher relative humidity is allowed under lower temperature, for example up to 90% at +20°C. User should take special measures against condensation due to temperature change.
	Altitude	Not higher than 2000m
	Pollution class	Class 3
	Installation category	III
	Installation conditions	The angle between the installation surface and the vertical surface should not be greater than ±5°.
	Impact vibration	The product should be installed and used at places free from significant shaking, impact and vibration.

01

Table 2 Key technical parameters and performance index

Model		NXC-120	NXC-160	NXC-185	NXC-225	NXC-265
Rated operating current Ie (A)	220V/230V	120	160	185	225	265
	AC-3			160	185	
	AC-4	120	160	185	225	
				AC-3	160	185
380V/400V	86	107	107	118	170	
AC-3			107	137		
660V/690V	AC-4					
Conventional free air thermal current Ith (A)		200		275		315
Rated insulation voltage Ui (V)		1000				
Rated impulse withstand voltage Uimp (kV)		12				
Coordination type		Type "2" coordination				
Rated limited short-circuit current Iq (kA)		50				
Power of controllable 3-phase motor (kW)	220V/230V	37	45	55	63	75
	380V/400V	55	75	90	110	132
	660V/690V	80	100	100	110	160
	AC-3	120			80	
Electrical life (x10 ⁴ times)(400V)	AC-3	1.5			1	
	AC-4				1.2	
Mechanical life (x10 ⁴ times)		600				
Rated current of fuse		gG224		gG315		gG400
Model of thermal overload relay		NXR-200		NXR-630		
Coil power	50HZ	Pick-up (VA)	500			600
		Hold (VA)	50			11
Operating range	Pick-up voltage	(85%~110%)Us			(85%~110%)Us	
	Release voltage	(20%~75%)Us			(10%~75%)Us	

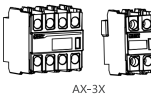
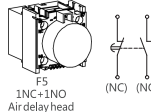

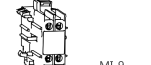

02

Table 2 (continue)

Model		NXC-330	NXC-400	NXC-500	NXC-630
Rated operating current Ie (A)	220V/230V	330	400	500	630
	AC-3				
	AC-4	330	400	500	630
380V/400V	235	303	353	400	
AC-3					170
660V/690V	AC-4				
Conventional free air thermal current Ith (A)		380		450	
Rated insulation voltage Ui (V)		1000			
Rated impulse withstand voltage Uimp (kV)		12			
Coordination type		Type "2" coordination			
Rated limited short-circuit current Iq (kA)		50			
Power of controllable 3-phase motor (kW)	220V/230V	90	132	160	200
	380V/400V	160	200	250	335
	660V/690V	200	300	335	350
Electrical life (x10 ⁴ times)(400V)	AC-3	80			
	AC-4	1.2	1	0.6	
Mechanical life (x10 ⁴ times)		600			
Rated current of fuse		gG425	gG500	gG800	gG950
Model of thermal overload relay		NXR630			
Coil power	50HZ	Pick-up (VA)	600		800
		Hold (VA)	11		11
Operating range	Pick-up voltage	(85%~110%)Us			
	Release voltage	(10%~75%)Us			

03

Table 3 Key parameters of auxiliary contacts and accessories

Key parameters	AC-15: 600VA DC-13: 66W Ith: 10A	
Product example	Product name	Product models
 AX-3X Top mounting auxiliary contact assembly	4NO	AX-3X/40
	3NO+1NC	AX-3X/31
	2NO+2NC	AX-3X/22
	1NO+3NC	AX-3X/13
	4NC	AX-3X/04
	2NO	AX-3X/20
 F5 1NC+1NO Air delay head Power-on delay assembly Power-off delay assembly	0.1s~3s	F5-T0
	0.1s~30s	F5-T2
	10s~180s	F5-T4
	0.1s~3s	F5-D0
	0.1s~30s	F5-D2
	10s~180s	F5-D4
 AX-3C Side mounting auxiliary contact assembly	1NO+1NC	AX-3C/11 (for NXC-120~225) AX-3C/11B (for NXC-265~630)
	2NO	For NXC-120~225
 ML-9 Mechanical interlock mechanism	-----	For NXC-265~630
	NCL8-C	-----
 AXC-1 Dust cover	-----	For NXC-120~630

04

3 Installation

See below for outline and installation dimensions of contactor

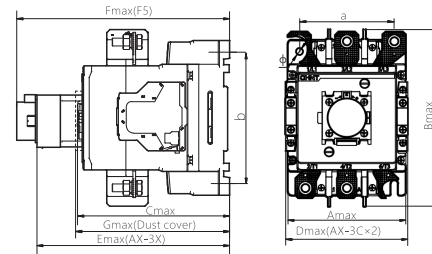


Table 4 Outline and installation dimensions

Model	Amax	Bmax	Cmax	Dmax	Emax	Fmax	Gmax	a	b	Φ
NXC-120~225	121	182	156	127	196.5	216.5	158	96±0.5	133.6±0.8	7
NXC-265~400	150	236	207	150	245.5	265.5	209	120±0.5	180±0.8	9
NXC-500~630	165	248	225	165	263.5	283.5	227	130±0.5	180±0.8	9

05

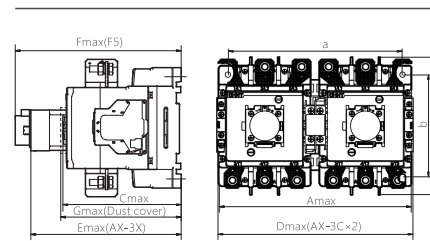
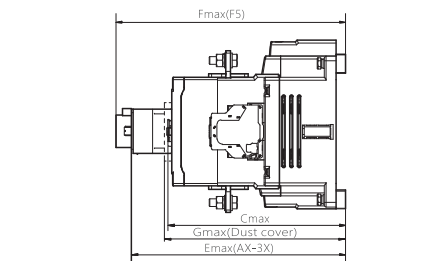


Figure 1 Outline and installation dimensions of NXC-120/N-225/N AC contactors



06

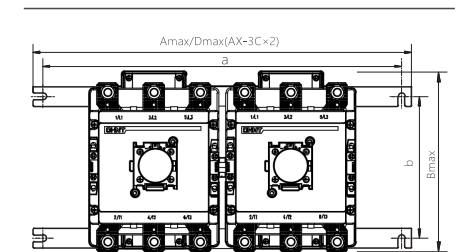


Figure 2 Outline and installation dimensions of NXC-265/N-630/N AC contactors

Table 5 Outline and installation dimensions

Model	Amax	Bmax	Cmax	Dmax	Emax	Fmax	Gmax	a	b	Φ
NXC-120/N-225/N	249	182	156	255	196.5	216.5	158	222±0.8	133.6±0.8	7
NXC-265/N-400/N	400	216	220	400	258.5	278.5	222	375±0.5	180±0.8	8.5
NXC-500/N-630/N	481	229	238	481	276.5	296.5	240	455±1	180±0.8	8.5

Accessory installation drawing

07

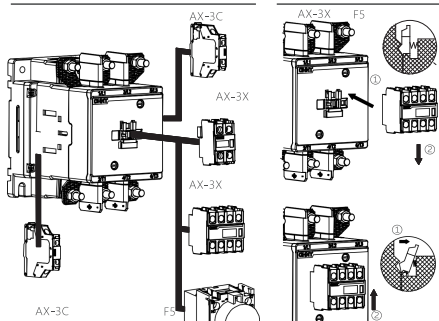


Figure 3-1 Installation of auxiliary contacts

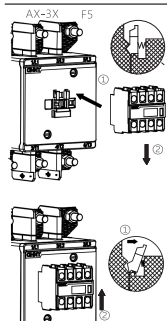


Figure 3-2 Installation of AX-3X and F5

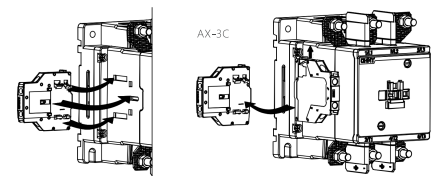


Figure 3-3 Installation of AX-3C

08

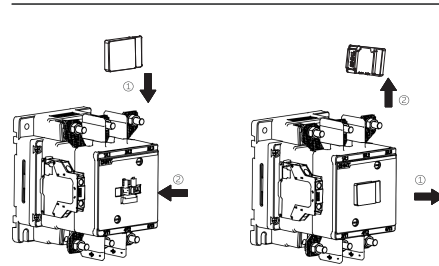


Figure 4 Installation of dust cover

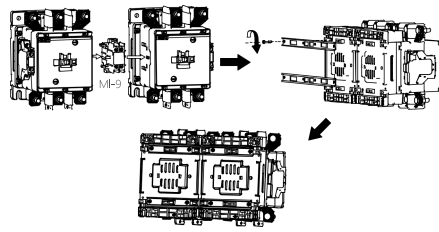


Figure 5 Installation of NXC-120/N~225/N mechanical interlock

09

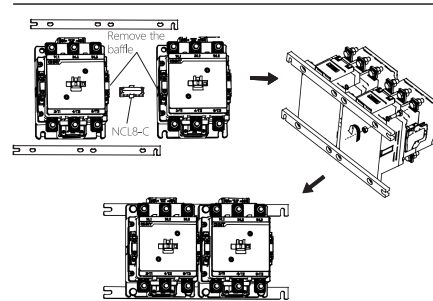


Figure 6 Installation of NXC-265/N~630/N mechanical interlock

Model	Safety distance (F) (mm)	
	380V/400V	660V/690V
NXC-120~330	15	35
NXC-400~630	20	40

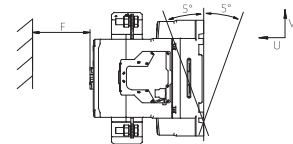


Figure 7 Product installation drawing

10

4 Maintenance

See Table 4 for the wiring capacity of terminals.

Table 6 Wiring capacity of terminals

Main circuit	Wrench	NXC-120 ~225	S(mm ²)					S with prefabricated terminal
			10-150	10-150	10-150	10-150	10-150	
M6-M10 (10-16N·m)	Wrench	NXC-265 ~630	50-240	50-240	50-240	50-240	50-240	A > 3.5mm, L < 8mm
M10 14N·m	Wrench	NXC-120 ~630	1-4	1-4	1-4	1-4	1-4	
Control circuit	M3.5 Slot type Philips	NXC-120 ~630	1-4	1-4	1-4	1-4	1-4	

Check if the contactor can operate reliably every month. Method: Check if the contact incline 5° forward upon pick-up and incline 5° backward upon release.

Conduct maintenance every month.

Note: Do not disassemble, assemble and repair the product at will. Replace the product if it is found to be damaged.

11

Table 7 Analysis and Troubleshooting of Faults

Symptoms	Cause analysis	Troubleshooting method
The product does not operate or does not operate reliably	Inconsistency between control power voltage and coil voltage.	Use control power supply that complies with coil voltage.
	Insufficient operation circuit power capacity or disconnection or wrong connection exists in the circuit.	Check the circuit to ensure correct connection.
	Coil burnt; mechanical movable parts jammed.	Replace the coil remove foreign objects or replace the product.
Noise	There are foreign objects on the polar face of magnet yoke or armature.	Clean the polar face of the iron core.
	The voltage of control power supply is too low.	Use control power supply that complies with coil voltage.
The product does not release or release slowly	Contact welding	Replace the product.
	There is oil or dust on the polar face of the iron core.	Clean the polar face of the iron core.

5 Environmental Protection

In order to protect the environment, the product or product parts should be disposed of according to the industrial waste treatment process, or be sent to the recycling station for assortment, dismantling and recycling according to local regulations.

12

CHNT
QC PASS

NXC-120~630
AC Contactor
IEC/EN 60947-4-1

Check 01

Test date: Please see the packing

ZHEJIANG CHINT ELECTRICS CO.,LTD.

13



Zhejiang Chint Electrics Co., Ltd.
Add: No.1, CHINT Road, CHINT Industrial Zone, North Baixiang,
Yueqing, Zhejiang 325603, P.R.China
E-mail: global-sales@chint.com
Website: http://en.chint.com

NXC-120~630
AC Contactor
User Instruction



(NO:2020.04)



NXC-120~630
AC Contactor

User Instruction

Standard: IEC/EN 60947-4-1