

## ⚠ Safety Warning

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

## 1 Use Purpose

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

## 2 Main Technical Parameters

- See Table 1 for installation and operation conditions of the contactor.
- See Table 2 for the key technical parameters and performance of the contactor.

Table 1 Installation and operation conditions

Installation and operation conditions	Ambient temp (°C)	The limiting working temperature is -35°C ~ +70°C, the normal working temperature is -5°C ~ +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.

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Table 2 Main technical parameters

Model	NXC-06M		NXC-09M		NXC-12M		NXC-16M		NXC-06		NXC-09		NXC-12		NXC-16		NXC-18		NXC-22					
	220/230V	AC-3	6	9	12	16	6	9	12	16	18	22	6	9	12	16	18	22	6	9	12			
Rated operating current Ie(A)	380/400V	AC-3	6	9	12	16	6	9	12	16	18	22	6	9	12	16	18	22	6	9	12			
	660/690V	AC-4	6	9	9	12	6	9	12	12	18	18	6	9	12	12	18	18	6	9	12			
Conventional thermal current Ith(A)	AC-3		3.8	4.9	4.9	6.7	3.8	6.6	8.9	8.9	12	14	3.8	6.6	8.9	8.9	12	14	3.8	6.6	8.9			
	AC-4		3.8	4.9	4.9	4.9	3.8	6.6	8.9	8.9	12	12	3.8	6.6	8.9	8.9	12	12	3.8	6.6	8.9			
Rated insulation voltage Ui(V)			20		22		20		25		32		20		25		32		32		32			
Rated impulse withstand voltage Uimp(kV)			6		8		6		8		8		6		8		8		8		8			
Rated duty system			8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system		8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system		8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system		8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system		8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system		8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system		8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system		8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system		8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system		8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system			
Rated limited short-circuit current Iq(kA)			50		50		50		50		50		50		50		50		50		50			
Power of controllable 3-phase motor (AC-3)kW	220/230V		1.5	2.2	3	4	1.5	2.2	3	3	4	5.5	2.2	3	3	4	5.5	7.5	7.5	11	11	11		
3-phase motor (AC-3)kW	380/400V		2.2	4	5.5	7.5	2.2	4	5.5	7.5	7.5	11	2.2	4	5.5	7.5	7.5	11	11	11	11	11		
	660/690V		3	4	4	7.5	3	5.5	7.5	7.5	10	11	3	4	4	7.5	7.5	10	11	11	11	11		
Arcing distance (mm)			3		3		3		10		10		3		3		3		3		3			
Electrical life (×10 <sup>4</sup> times)	AC-3		120		120		120		120		120		120		120		120		120		120			
400V	AC-4		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"			
	400V		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"		See attachment "Electrical life curve"			
Mechanical life(×10 <sup>4</sup> times)			1200		1200		1200		1200		1200		1200		1200		1200		1200		1200		1200	
Operation frequency (times/h)	AC-3		600		600		600		600		600		600		600		600		600		600		600	
Endorse protection class	AC-4		150		150		150		150		150		150		150		150		150		150		150	
	DC-13		IP20		IP20		IP20		IP20		IP20		IP20		IP20		IP20		IP20		IP20		IP20	
Model of matching fuse			gG20		gG25		gG20		gG25		gG32		gG20		gG25		gG32		gG20		gG25		gG32	

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Continued Table 2

Model	NXC-06M		NXC-09M		NXC-12M		NXC-16M		NXC-06		NXC-09		NXC-12		NXC-16		NXC-18		NXC-22			
	20	25	20	25	20	25	20	25	20	25	20	25	20	25	20	25	20	25	20	25		
Rated current of fuse of different model (A)	20		25		20		25		20		25		20		25		20		25		32	
Coordination type	Type "2" coordination																					
Model of matching thermal overload relay	NXR-12										NXR-25											
Parameters of auxiliary circuit	AC-15		Ue/Ie: AC380V/400V/1.5A Ith: 10A																			
	DC-13		Ue/Ie: DC220V/0.3A																			
Coil power	Pick-up (VA)		20~40										40~60									
	Hold (VA)		9.0										9.5									

Table 2 Main technical parameters

Model	NXC-25		NXC-32		NXC-38		NXC-40		NXC-50		NXC-65		NXC-75		NXC-85		NXC-100					
	25	32	38	40	50	65	75	85	100	25	32	38	40	50	65	75	85	100				
Rated operating current Ie(A)	220/230V	AC-3	25	32	38	40	50	65	75	85	100	25	32	38	40	50	65	75	85	100		
	380/400V	AC-4	25	32	32	40	50	65	75	85	100	25	32	32	40	50	65	75	85	100		
660/690V	AC-3	18	22	22	34	39	42	42	49	49	49	18	22	22	34	39	42	42	49	49		
	AC-4	18	22	22	34	39	42	42	49	49	49	18	22	22	34	39	42	42	49	49		
Conventional thermal current Ith(A)			40		50		60		80		90		100		110		110		110		110	
Rated insulation voltage Ui(V)	690																					
Rated impulse withstand voltage Uimp(kV)	8																					
Rated duty system	8 hour duty system, uninterrupted duty system, intermittent duty system, short term duty system																					
Rated limited short-circuit current Iq(kA)	50																					

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Continued Table 2

Model	NXC-25		NXC-32		NXC-38		NXC-40		NXC-50		NXC-65		NXC-75		NXC-85		NXC-100							
	5.5	7.5	9	11	15	18.5	22 <td>22</td> <td>25</td> <td>30</td> <td>37</td> <td>37</td> <td>45</td> <td>45</td> <td>45</td> <td>45</td> <td>45</td> <td>45</td>	22	25	30	37	37	45	45	45	45	45	45						
Power of controllable 3-phase motor (AC-3)kW	220/230V	5.5	7.5	9	11	15	18.5	22	22	25	30	37	37	45	45	45	45	45	45					
380/400V	11	15	18.5	18.5	22	30	37	37	45	45	45	45	45	45	45	45	45	45	45					
	660/690V	15	18.5	18.5	30	37	37	37	45	45	45	45	45	45	45	45	45	45	45					
Arcing distance (mm)	10																12							
Electrical life (×10 <sup>4</sup> times)	AC-3	120		100		80																		
	AC-4	See attachment "Electrical life curve"																						
Mechanical life(×10 <sup>4</sup> times)	1000				900				650															
Operation frequency (times/h)	AC-3	600				600				600				600				600						
	AC-4	150																						
Enclosure protection class	IP20				IP10				IP10				IP10				IP10							
Model of matching fuse	gG40	gG50	gG63	gG80	gG100	gG125	gG100	gG125	gG100	gG125	gG100	gG125	gG100	gG125	gG100	gG125	gG100	gG125	gG100	gG125				
Rated current of fuse of different model (A)	40	50	63	80	100	125	100	125	100	125	100	125	100	125	100	125	100	125	100	125				
Coordination type	Type "2" coordination																							
Model of matching thermal overload relay	NXR-25/ NXR-38						NXR-100																	
Parameters of auxiliary circuit	AC-15		Ue/Ie: AC380V/400V/1.5A Ith: 10A																					
	DC-13		Ue/Ie: DC220V/0.3A																					
Coil power	Pick-up (VA)		50~70				160~210				200~280													
	Hold (VA)		11.4				36.6				36.6													

## 3 Installation

- See Figure 1 and Table 3 for the installation and overall dimensions of NXC-06M~16M series AC contactors. See label on the box for model, specifications and weight.

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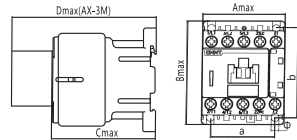


Figure 1 Installation and overall dimensions of NXC-06M~16M series AC contactor

Table 3 Overall and installation dimensions

Model	Outline dimensions				Installation dimensions		
	Amax	Bmax	Cmax	Dmax	a	b	Φ
NXC-06M~16M	45.5	59	58	94	35±0.35	50±0.48	4.2
NXC-06M/4~16M/4	45.5	59	58	94	35±0.35	50±0.48	4.2
NXC-06M/Z~16M/Z	45.5	59	70	106	35±0.35	50±0.48	4.2
NXC-06M/4/Z~16M/4/Z	45.5	59	70	106	35±0.35	50±0.48	4.2

- See Figure 2 and Table 4 for the installation and overall dimensions of NXC-06M/N~16M/N series directional AC contactors. See label on the box for model, specifications and weight.

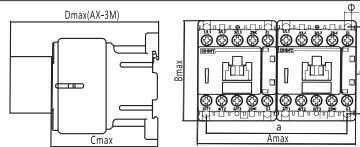


Figure 2 Installation and overall dimensions of NXC-06M/N~16M/N series directional AC contactors

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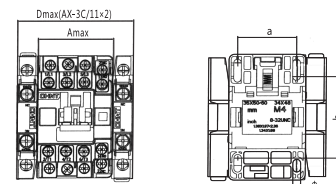
Table 4 Installation and overall dimensions and wiring capacity

Model	Outline dimensions				Installation dimensions		
	Amax	Bmax	Cmax	Dmax	a	b	Φ
NXC-06M/N~16M/N	91	64	58	94	80±0.7	50±0.48	4.2
NXC-06M/4/N~16M/4/N	91	64	58	94	80±0.7	50±0.48	4.2
NXC-06M/Z/N~16M/Z/N	91	64	70	106	80±0.7	50±0.48	4.2
NXC-06M/4/Z/N~16M/4/Z/N	91	64	70	106	80±0.7	50±0.48	4.2

Wiring Capacity	Terminal	Wiring Capacity
Main circuit	M3	mm <sup>2</sup>
Control circuit	0.8 N.m	mm <sup>2</sup>
	Phillips	mm <sup>2</sup>
	1~2.5	mm <sup>2</sup>
	1~2.5	mm <sup>2</sup>
	1~2.5	mm <sup>2</sup>
	1~1.5	mm <sup>2</sup>
	---	mm <sup>2</sup>
	---	mm <sup>2</sup>

- See Figure 3 and Table 5 for the installation and outline dimensions of NXC-06~38 series AC contactors. See label on the box for model, specifications and weight.



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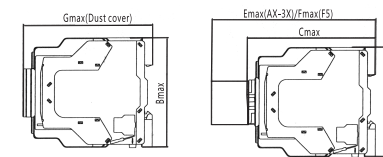


Figure 3 Installation and outline dimensions of NXC-06~38 series AC contactors

Table 6 Outline and installation dimensions

Model	Outline dimensions						Installation dimensions			
	Amax	Bmax	Cmax	Dmax	Emax	Fmax	Gmax	a	b	Φ
NXC-06~16	45.5	75	88	70	126.5	146.5	90	35±0.31	48±0.31	4.5
NXC-18~22	45.5	75	88	70	126.5	146.5	90	35±0.31	48±0.31</	

