Overview

Applicable scope

The new NXC AC contactors feature a novel appearance and a compact structure. They are mainly used for frequent starts and control of AC motors as well as remote circuit making /breaking. They can also be combined with appropriate thermal overload relays to form electromagnetic starters.

Compliant standards: IEC/EN 60947-1, IEC/EN 60947-4-1, IEC/EN 60947-5-1.

Parameters

- Rated operation current Ie: 6A~630A
- Rated operation voltage Ue: 220V~690V
- Rated insulation voltage: 690V (NXC-06M~100), 1000V (NXC-120~630)
- Number of poles: 3P and 4P (only for NXC-06M~16M,NXC-09-12.25.40.)
- Coil control method: AC (NXC-06(M)~225), DC (NXC-06M~16M), AC/DC (NXC-265~630)
- Installation method: NXC-06M~100 rail and screw installation, NXC-120~630 screw installation

Operation and installation conditions

Type	Operation and installation conditions
Installation class	Ⅲ
Pollution degree	3
Compliant standards	IEC/EN 60947-1, IEC/EN 60947-4-1, IEC/EN 60947-5-1
Certification mark	CE
Enclosure protection degree	NXC-06M~12M:IP20;NXC06~38: front IP20;NXC-40~100: IP10; NXC-120~630: IP00
Ambient temperature	Operation temperature limits: -35℃ ~+70℃ . Normal operation temperature range: -5℃ ~+40℃ . The 24-hour average temperature should not exceed +35℃ . For use beyond the normal operation temperature range, see "Instructions for use in abnormal conditions" in the annex.
Altitude	Not exceeding 2000 m above sea level
Atmospheric conditions	The relative humidity should not exceed 50% at the upper temperature limit of +70℃ . A higher relative humidity is allowed at a lower temperature, e.g. 90% at +20℃ . Special precautions should be taken against occasional condensation due to humidity variations.
Installation conditions	The angle between the installation surface and the vertical surface should not exceed ±5°.
Shock and vibration	The product should be installed in places without significant shaking, shock, and vibration.

Description

NXC AC contactor

NXC	-	12	/N	230V	50Hz
Model		Rated current	Special function	Coil voltage	Frequency
		06, 09, 12, 16, 18, 22, 25, 32, 38, 40, 50, 65, 75, 85, 100, 120, 160, 185, 225, 265, 330, 400, 500, 630	/N: Reversible contactor None: Standard contactor	24V, 36V, 48V, 110V, 127V, 220V, 230V,240V, 380V, 415V, 440V, 480V, 660V (AC: 06A~225A; AC/DC: 265A~630A)	50Hz, 60Hz, 50/60Hz

Note: 06A-100A products contain one NO auxiliary contact and one NC auxiliary contact; 120A-630A products contain two NO auxiliary contacts and two NC auxiliary contacts

Parameters

Main circuit parameters and technical performance

Contactor model				NXC-06M	NXC-09M	NXC-12M	NXC-16M	NXC-06	NXC-09	NXC-12	NXC-16	NXC-18	NXC-22
													
Rated impulse withstand voltage Uimp (kV)				20	20	20	22	20	20	25	25	32	32
Rated insulation voltage Ui (V)				690									
Conventional thermal current Ith (A)				6				8					
Rated making capacity				Making current: 10×Ie (AC-3) or 12×Ie (AC-4)									
Rated breaking capacity				Breaking current: 8×Ie (AC-3) or 10×Ie (AC-4)									
Rated operation current Ie (A)	220V/230V/240V		AC-1	20	20	20	22	20	20	25	25	32	32
			AC-3	6	9	12	16	6	9	12	16	18	22
			AC-4	6	9	12	16	6	9	12	16	18	22
	380V/400V/415V		AC-3	6	9	12	16	6	9	12	16	18	22
			AC-4	6	9	9	12	6	9	12	12	18	18
	660V/690V		AC-3	3.8	4.9	4.9	6.7	3.8	6.6	8.9	8.9	12	14
			AC-4	3.8	4.9	4.9	4.9	3.8	6.6	8.9	8.9	12	12
Rated control power	AC-3 (kW)	220V/230V/240V		1.5	2.2	3	3	1.5	2.2	3	3	4	5.5
		380V/400V/415V		2.2	4	5.5	7.5	2.2	4	5.5	7.5	7.5	11
		660V/690V		3	4	4	7.5	3	5.5	7.5	7.5	10	11
Electrical life (cycles)			AC-3	1.2×10^6									
Mechanical life (cycles)				1.2×10^7									
Main contact				3 NO, 4 NO, 2 NO+2 NC				3 NO					
Fuse supplied for SCPD				NT00-20	NT00-20	NT00-25	NT00-25	NT00-20	NT00-20	NT00-25	NT00-25	NT00-32	NT00-32
Matching thermal overload relay			Model	NXR-12				NXR-25					
Built-in auxiliary contact			3P	1 NO or 1 NC				1 NO+1 NC					
			4P	-									

Control circuit		Contactor model		NXC-06M	NXC-09M	NXC-12M	NXC-16M	NXC-06	NXC-09	NXC-12	NXC-16	NXC-18	NXC-22
Main circuit connection	Cable connection (mm^2)	Prefabricated flexible wire	1	1~2.5				1~4				1.5~6	
			2	1~1.5				1~2.5				1.5~4	
		Hard wire	1	1~2.5				1~4				1.5~6	
			2	1~2.5				1~4				1.5~6	
	Size of fastening screw			M3				M3.5				M3.5	
	Tightening torque (N·m)			0.8				1				1.2	
Control circuit connection	Cable connection (mm^2)	Prefabricated flexible wire	1	1~2.5				1~4					
			2	1~1.5				1~2.5					
		Hard wire	1	1~2.5				1~4					
			2	1~2.5				1~4					
	Size of fastening screw			M3				M3.5					
	Tightening torque (N·m)			0.8				1					

Contactor model		NXC-06M	NXC-09M	NXC-12M	NXC-16M	NXC-06	NXC-09	NXC-12	NXC-16	NXC-18	NXC-22
Coil control power supply	AC 50Hz	24, 36, 48, 110, 127, 220, 230, 240, 380, 415				24, 36, 48, 110, 127, 220, 230, 240, 380, 415					
	DC	24, 48, 110, 220				-					
Control voltage	Pull-in	(75%~120%) Us				(70% ~ 120%) Us					
	Release	AC: (20%~70%) Us; DC: (10%~70%) Us				(20% ~ 70%) Us					
Coil average power (VA)	Start	≤40				≤40				≤40	
	Hold	≤9				9.5				9.5	
Heat dissipation (W)	AC	1~3				1~3				1~3	
	DC	-				-				-	