



Motor Control & Protection

CHINT•Empower the World



Founded in 1984, CHINT Group is a leader in Chinese industrial electric appliance and new energy sectors. With total assets of 36.5 billion RMB and nearly 30 thousand employees, the company is running business that covers the whole power equipment industrial chain including power generation, transmission, transformation, distribution, and consumption. The company is also operating in the fields of urban rail traffic, energy equipment manufacturing, new energy storage materials, Energy Internet, investment & financing platform, and business incubator. The products have been sold to over 120 countries and regions around the world, and have entered main component markets in Europe, Asia, Middle East, and Africa.

The group ranks among top 500 private enterprises in China, and has been the largest tax payer among all manufacturers in Wenzhou for a few consecutive years. Zhejiang CHINT Electric

The group ranks among top 500 private enterprises in China, and has been the largest tax payer among all manufacturers in Wenzhou for a few consecutive years. Zhejiang CHINT Electric Appliance Corporation under CHINT Group is the largest company in domestic LV electric appliance industry in terms of production and sales amount, and also the first company running LV electric appliance as main business listed in A-share market. CHINT Solar has built over a hundred photovoltaic power stations around the world, serving as the largest photovoltaic power station investor and operator in all domestic private players.

CHINT has always following the policies of innovation-driven industrial development. It's the first among all competitors to pass ISO9001 quality system certification, ISO 14001 environment system certification, and OHSAS18001 occupational health safety management certification. The group also holds China Compulsory Certificate (CCC), international CB safety certificate, US UL certificate, Finland FI certificate, Belgium CEBEC certificate, Netherland KEMA certificate, and Germany VDE certificate. The group now owns over 1000 domestic and foreign patents, and has led or participate in establishment and revision of over 120 industrial standards. Its HV and LV electric appliances and photovoltaic inverters won Germany Wed Dot Award. CHINT led development of critical manufacturing equipment PECVD, LPCVD, and MOCVD for China's first silicon based thin film photovoltaic cells, which has significantly improved semiconductor equipment manufacturing level in China

The group has won a number of awards including China Industrial Award, National Quality Management Award, China Excellent Private Science & Technology Enterprise, China Top Ten Machinery Manufacturers with Core Competitiveness, China Top Ten Leading Private Enterprises with Independent Innovation Capabilities, China Contract-Fulfilling and Trustworthy Enterprise, National Advanced Private Enterprise for Employment and Social Security, and China Charity Award.

In the future, CHINT will march towards the targets of creating world famous brands and contributing to an industrial power. It will focus on building the Energy Internet and becoming a smart energy developer and operator. The group will make great efforts to implement three policies: globalization, M&A and integration, and smart manufacturing. Four platforms will be created, including scientific innovation and industrial incubation platform, online industrial and civil Internet of Things platform, online & offline supply chain interaction platform, and investment & financing and payment platform. Four industrial clusters will also be developed, including smart electrical system solution industrial cluster for smart grid, industrial automation information cluster for smart cities, clean energy, environment protection, and energy conservation industrial cluster for smart micro-grid, high-tech material information technology and high-end equipment industrial cluster for smart manufacturing, and Internet of Things IT and smart home industrial group for smart business.

II II II II II II II





The Next Reliable Choice

Motor Control & Protection





The solution for various voltage fluctuation, guarantee the steady operation of the system

With 70% - 120% pull-in voltage range, which can avoid the voltage fluctuation in grid, also operates steadily in the peak power demands.



Equipped with more standard auxiliary contacts, to meet several application requirements

Standard equipped with 1NO+1NC below 100A and 2NO+2NC above 100A, which can optimize the inventory and cost performance.



Ergonomically design, easy to handle and maintain

Integrated label cover, with double coil terminal blocks, which can fast be connected without tools.



Delicate current specification, more cost-effective performance

Newly increase 6A, 16A, 22A, 38A, 75A, which fully cover 6-630A.



Absolute adaptability, with steady and reliable operation in extreme conditions

-35°C/+70°C operating temperature range. Meets several applications requirements.



Content

NXC AC contactor	
Overview	P-01
Description	P-02
Parameters	P-04
Accessories	P-07
Dimensions and installation	P-11
Wiring diagrams	P-13
Annex I: Instructions for use in abnormal conditions	P-15
Annex II: Utilization category description	P-16
NXR thermal overload relay	
Overview	P-17
Description	P-18
Parameters	P-20
Product front view	P-21
Dimensions and installation	P-21
Wiring diagrams	P-26
Annex I: Instructions for use in abnormal conditions	P-26
NXJ plug-in relay	
Overview	P-27
Description	P-27
Parameters	P-27
Accessories	P-29
Dimensions and installation	P-29

NXC AC contactor









Overview

Applicable scop

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 60947-1, IEC 60947-4-1, IEC 60947-5-1.

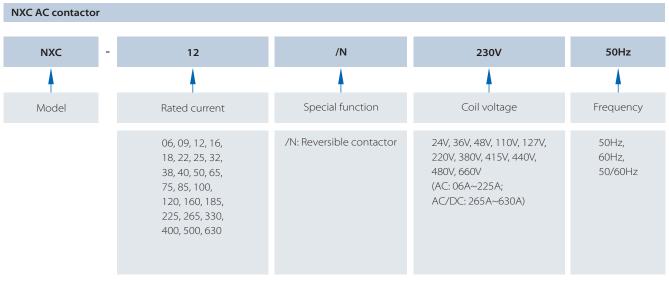
Parameters

- Rated operation current le: 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~12M)
- Coil control method: AC (NXC-06(M)~225), DC (NXC-06M~12M), AC/DC (NXC-265~630)
- Installation method: NXC-06M~100 rail and screw installation, NXC-120~630 screw installation

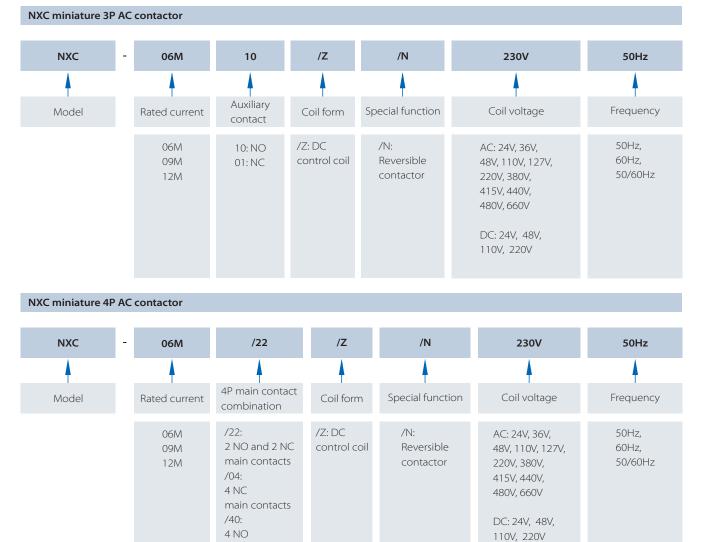
Operation and installation conditions

Туре	Operation and installation conditions
Installation class	Ш
Pollution degree	3
Compliant standards	IEC 60947-1, IEC 60947-4-1, IEC 60947-5-1
Certification mark	CE
Enclosure protection degree	NXC-06M~38: IP20; NXC-40~100: IP10; NXC-120~630: IP00
Ambient temperature	Operation temperature limits: -35°C~+70°C. Normal operation temperature range: -5°C~+40°C. The 24-hour average temperature should not exceed +35°C. 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°C. A higher relative humidity is allowed at a lower temperature, e.g. 90% at +20°C. 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 $\pm 5^\circ$.
Shock and vibration	The product should be installed in places without significant shaking, shock, and vibration.

Description



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.



Model example: NXC-12 230V 50Hz represents an AC contactor under AC-3 utilization category that provides a rated current of 12A at a main circuit voltage of 380V/400V. Each contactor body contains one NO auxiliary contact and one NC auxiliary contact. The coil control voltage and frequency are 220V AC and 50Hz respectively.

main contacts

NXC AC contactor

NXC AC contactor selection table

Motor power kW			Maximum operation current A	Number of contacts conta	ained in the contactor body	
220V/230V/240V	380V/400V	660V/690V	(AC-3 380V/400V)	NO	NC	Contactor model
1.5	2.2	3	6	1	0	NXC-06M10
1.5	2.2	3	6	0	Ī	NXC-06M01
1.5	2.2	3	6	1	1	NXC-06
2.2	4	4	9	1	0	NXC-09M10
2.2	4	4	9	0	1	NXC-09M01
2.2	4	5.5	9	1	1	NXC-09
3	5.5	4	12	1	0	NXC-12M10
3	5.5	4	12	0	1	NXC-12M01
3	5.5	7.5	12	1	1	NXC-12
3	7.5	7.5	16	1	1	NXC-16
4	7.5	10	18	1	1	NXC-18
5.5	11	11	22	1	1	NXC-22
5.5	11	15	25	1	1	NXC-25
7.5	15	18.5	32	1	1	NXC-32
9	18.5	18.5	38	1	1	NXC-38
11	18.5	30	40	1	1	NXC-40
15	22	37	50	1	1	NXC-50
18.5	30	37	65	1	1	NXC-65
22	37	37	75	1	1	NXC-75
22	37	45	85	1	1	NXC-85
25	45	45	100	1	1	NXC-100
37	55	80	120	2	2	NXC-120
45	75	100	160	2	2	NXC-160
55	90	100	185	2	2	NXC-185
63	110	110	225	2	2	NXC-225
75	132	160	265	2	2	NXC-265
90	160	200	330	2	2	NXC-330
132	200	300	400	2	2	NXC-400
160	250	335	500	2	2	NXC-500
200	335	350	630	2	2	NXC-630

Coil voltage specification table

NXC-06M~12M											
AC (V) 50Hz	24	36	48	110	127	220	380	415			
AC (V) 60Hz	24	36	48	110	127	220	380	415			
DC (V)	24	-	48	110	-	220	-	-			

NXC-06~100										
AC (V) 50Hz	24	36	48	110	127	220	380	415		
AC (V) 60Hz	24	36	48	110	127	220	380	415		

NXC-120~225								
AC (V) 50Hz	-	-	-	-	110	127	220	380
AC (V) 60Hz	-	-	-	-	110	127	220	380

NXC-265~630										
AC/DC (V)	-	-	-	-	110~127	220~240	380~415	=		

Parameters

Main circuit parameters and technical performance

Contactor	model			NXC-06M	NXC-09M	NXC-12M	NXC-06	NXC-09	NXC-12	NXC-16	NXC-18	NXC-22
					pa l					100		
		al current Ith	(A)	20	20	20	20	20	25	25	32	32
Rated insul	Rated insulation voltage Ui (V)			690								
	Rated impulse withstand voltage Uimp (kV						8					
Rated making capacity				Making curre	nt: 10×le (AC-3) o	12×le (AC-4)						
Rated breaking capacity				Breaking curr	ent: 8×le (AC-3) o	10×le (AC-4)		,	,		,	,
	220V/2	220V/230V		6	9	12	6	9	12	16	18	22
Rated			AC-4	6	9	12	6	9	12	16	18	22
operation	380V/4	00V	AC-3	6	9	12	6	9	12	16	18	22
current			AC-4	6	9	9	6	9	12	12	18	18
le (A)	660V/6	2017	AC-3	3.8	4.9	4.9	3.8	6.6	8.9	8.9	12	14
	000070		AC-4	3.8	4.9	4.9	3.8	6.6	8.9	8.9	12	12
Rated	AC-3	220V/230V		1.5	2.2	3	1.5	2.2	3	3	4	5.5
control	(kW)	380V/400V		2.2	4	5.5	2.2	4	5.5	7.5	7.5	11
power		660V/690V		3	4	4	3	5.5	7.5	7.5	10	11
Electrical life	e (cycles)		AC-3	1.2×10 ⁶								
Mechanical	life (cycle	s)		1.2×10 ⁷								
Main conta	ct			3 NO, 4 NO, 2	NO+2 NC		3 NO					
Fuse suppli	ed for SCI	PD		NT00-20	NT00-20	NT00-25	NT00-20	NT00-20	NT00-25	NT00-25	NT00-32	NT00-32
Matching th	nermal ov	erload relay	Model	NXR-12			NXR-25					
D:	:::		3P	1 NO or 1 NC			1 NO+1 NC					
suiit-in auxi	uilt-in auxiliary contact 4P	_										

Control circu	ıit	Contactor mo	del	NXC-06M	NXC-09M	NXC-12M	NXC-06	NXC-09	NXC-12	NXC-16	NXC-18	NXC-22
		Prefabricated	1	1~2.5			1~4				1.5~6	
	Cable connection	flexible wire	2	1~1.5			1~2.5				1.5~4	
Main	(mm²)	Hard wire	1	1~2.5			1~4			1.5~6		
circuit connection	Hard wire		2	1~2.5			1~4				1.5~6	
				M3			M3.5			M3.5		
	Tightening t	ightening torque (N·m)			0.8					0.8		
		Prefabricated	1	1~2.5			1~4					
	Cable connection	flexible wire	2	1~1.5			1~2.5					
Control circuit	(mm²)	Hard wire	1	1~2.5			1~4					
connection		naid wife	2	1~2.5			1~4					
	Size of faster	ning screw		M3			M3.5					
	Tightening t	ightening torque (N·m)			0.8			0.8				

Contactor model		NXC-06M	NXC-09M	NXC-12M	NXC-06	NXC-09	NXC-12	NXC-16	NXC-18	NXC-22			
Coil control	AC 50Hz	24, 36, 48, 110, 1	27, 220, 380, 415		24, 36, 48, 110, 127, 220, 380, 415								
power supply	DC	24, 48, 110, 220		-									
Cantalialtana	Pull-in (75%~120%) Us					(70%~120%) Us							
Control voltage	Release	AC: (20%~70%)	Us; DC: (10%~70%)	(20%~65%) Us									
Coil average	Start	25~40			40~60 40~60								
power (VA)	Hold	2~7			9.5			9.5					
Heat dissipation (W)	AC	1~3			1~3				1~3				
r ieat dissipation (vv)	DC	-			-		-						

NXC AC contactor

Contactor m	odel			NXC-25	NXC-32	NXC-38	NXC-40	NXC-50	NXC-65	NXC-75	NXC-85	NXC-100			
									m.		100	The same of the sa			
Conventiona	l thermal	current Ith (A	i)	40	50	50	60	80	80	90	100	110			
Rated insulat	ion volta	ge Ui (V)		690											
Rated impuls	e withsta	and voltage U	limp (kV)	8	8										
Rated makin	g capacit	у		Making curre	ent: 10×le (AC-3)	or 12×le (AC-4)									
Rated breaki	Rated breaking capacity AC-3			Breaking cur	rent: 8×le (AC-3)	or 10×le (AC-4)	_	,				,			
	2201//2	220V/230V		25	32	38	40	50	65	75	85	100			
Rated	2201/2			25	32	38	40	50	65	75	85	100			
operation	380V/4	90\//400\/		25	32	38	40	50	65	75	85	100			
current le (A)	300 17		AC-4	25	32	32	40	50	65	75	85	100			
IE (A)	660V/6	90\/	AC-3	18	22	22	34	39	42	42	49	49			
	000 17 0		AC-4	18	22	22	34	39	42	42	49	49			
Rated	463	220V/230V		5.5	7.5	9	11	15	18.5	22	22	25			
control	AC-3 (kW)	380V/400V		11	15	18.5	18.5	22	30	37	37	45			
power		660V/690V		15	18.5	18.5	30	37	37	37	45	45			
Electrical life (cycles)		AC-3	1.2×10 ⁶			1×10 ⁶			0.8×10 ⁶					
			AC-4	See electrica	l life curve										
Mechanical lif	e (cycles)			1×10 ⁷			0.9×10 ⁷			0.65×10 ⁷					
Main contact				3 NO											
Fuse supplied	for SCPE)		gG50	gG63	gG63	gG63	gG80	gG80	gG100	gG100	gG125			
Matching the	rmal ove	load relay	Model	NXR-25	NXR-38		NXR-100								
Built-in auxilia	ry contac	1	3P	1 NO+1 NC											
Dane in adamid	.,		4P	-											

Control circu	ıit	Contactor mo	del	NXC-25	NXC-32	NXC-38	NXC-40	NXC-50	NXC-65	NXC-75	NXC-85	NXC-100	
		Prefabricated	1	1.5~10			6~25	6~25			10~35		
	Cabling	flexible wire	2	1.5~6			4~10			6~16			
Main circuit	(mm²)	I I and order	1	1.5~6			6~25			10~35			
connection		Hard wire	2	1.5~6			4~10			6~16			
	Size of fastening screw			M4			M8			M8			
	Tightenin	Tightening torque (N·m)			1.2			6			6		
		Prefabricated	1	1~4									
	Cabling	flexible wire	2	1~2.5									
Control	(mm²)	11 1 1	1	1~4									
circuit connection		Hard wire	2	1~4									
	Size of fas	Size of fastening screw			M3.5								
	Tightenir	Tightening torque (N·m)			0.8								

Contactor model NXC-25 NXC-32			NXC-38	NXC-40	NXC-50	NXC-65	NXC-75	NXC-85	NXC-100		
Coil control power supply	AC 50Hz	24, 36, 48, 110,	6, 48, 110, 127, 220, 380, 415								
Control voltage	Pull-in	(70%~120%) U:	120%) Us								
Control voltage	Release	(20%~65%) Us									
Coil average	Start	50~70			160~210			190~250			
power (VA)	Hold	8~11.4			13~25			17~30			
Heat dissipation (W)	AC	1~3	3			4~8			6~10		
r leat dissipation (W)	DC	-			-			=			

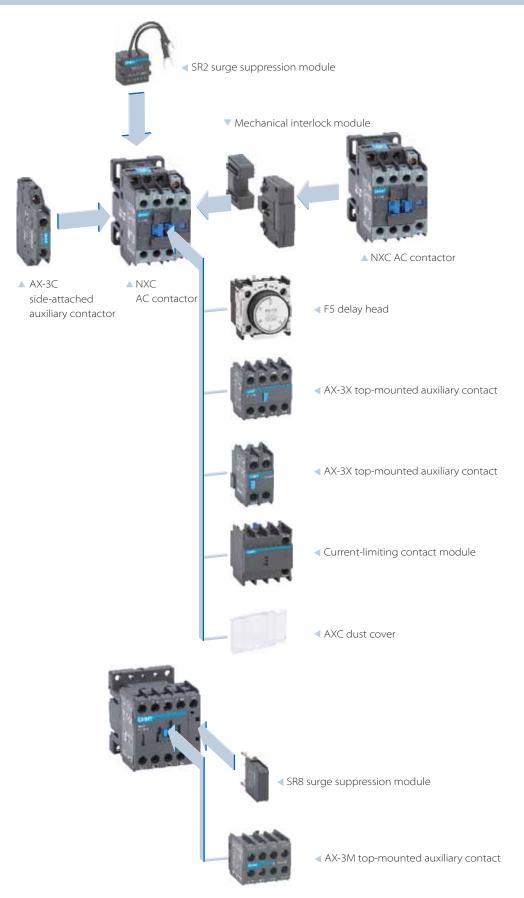
Contactor mo	odel			NXC-120	NXC-160	NXC-185	NXC-225	NXC-265	NXC-330	NXC-400	NXC-500	NXC-630
					() () () () () () () () () ()	6 - S			E S	200 M		
Conventional	thermal	current Ith (A	١)	200	200	275	275	315	380	450	630	700
Rated insulation	on voltag	ge Ui (V)		1000						'	•	•
Rated impulse	withsta	nd voltage U	imp (kV)	12								
Rated making capacity Makin					nt: 10×le (AC-3)	or 12×le (AC-4)						
Rated breaking capacity				Breaking curr	ent: 8×le (AC-3)	or 10xle (AC-4)						
	AC-5			120	160	185	225	265	330	400	500	630
Rated	22UV/2	20V/230V		120	160	160	185	265	330	330	500	500
operation	380V/4	2017	AC-3	120	160	185	225	265	330	400	500	630
current	3007/4	J0 V	AC-4	120	160	160	185	265	330	330	500	500
le (A)	660V/6	2017	AC-3	86	107	107	118	170	235	303	353	400
	000070	90 V	AC-4	86	107	107	107	137	170	235	303	353
Rated		220V/230V		37	45	55	63	75	90	132	160	200
control	AC-3 (kW)	380V/400V		55	75	90	110	132	160	200	250	335
power		660V/690V		80	100	100	110	160	200	300	335	350
Electrical life (c	vcles)		AC-3	1.2×10 ⁶				0.8×10 ⁶				
Licetifedi iiie (e	усісэ,		AC-4	See electrical	life curve							
Mechanical life (cycles)				0.6×10 ⁷								
Main contact				3 NO								
Fuse supplied for SCPD				gG224	gG224	gG315	gG315	gG400	gG425	gG500	gG800	gG950
Matching thermal overload relay Model			Model	NXR-200 NXR-630								
Ruilt-in auvilian	Built-in auxiliary contact		3P	2 NO+2 NC								
bunt-iii auxiiidi)	y contac	t	4P	-								

Control circu	it	Contactor mo	del	NXC-120	NXC-160	NXC-185	NXC-225	NXC-265	NXC-330	NXC-400	NXC-500	NXC-630	
		Prefabricated	1	10~150	10~150								
	Cable connection	flexible wire	2	10~75									
Main	(mm²)	I I and a day	1	10~150			50~240						
connection	ircuit Hard wire						50~240						
	Size of faster	ning screw		M6	M8								
	Tightening t	orque (N·m)		10	0								
		Prefabricated	1	1~4									
	Cable	flexible wire	2	1~2.5									
Control	connection (mm²)	11 1 1	1	1~4									
circuit connection	, ,	Hard wire	2	1~4	1								
	Size of faster	ning screw	w M3.5										
	Tightening torque (N·m) 0.8												

Contactor model	Contactor model NXC-120 NXC-160 NXC-185 NXC-225		NXC-225	NXC-265	NXC-330	NXC-400	NXC-500	NXC-630			
Coil control	AC 50Hz	110, 127, 220,	380			Common for AC and DC: 110, 127, 220, 380					
power supply	power supply DC -				Common Ac and Dc. 110, 127, 220, 300						
Control voltage	Pull-in	(75%~120%)U:	5			(75%~120%)Us					
Control voltage	ontrol voltage Release (20%~70%)Us					(10%~70%)Us					
Coil average	Start	500				600 800					
power (VA)	Hold	50				11			11		
Heat dissipation (W)	t dissipation (MA) AC 30~50					3~6 3~7					
rieat dissipation (vv)	DC	-				3~6 3~7					

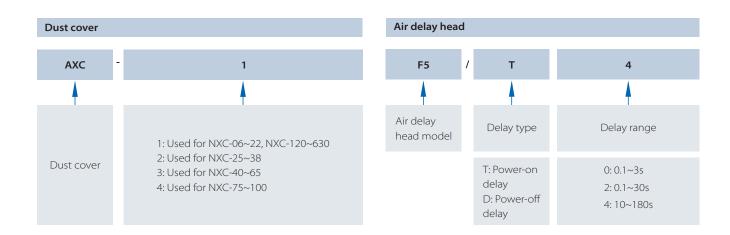
Accessories

Accessory diagrams



Accessory description

Top-mounted auxiliary contact group Side-attached auxiliary contact group **AX - 3X** 11 **AX - 3M** 11 AX - 3C 11 В Auxiliary NO and NC Auxiliary NO and NC Side-attached NO and NC A: Standard model, contact auxiliary contact contact group auxiliary contact auxiliary contact contact pair left omitted, applicable to group model pair combination model pair combination group model combination 6A~225A AC contactor B: Expanded model, Applicable to 11, 20, 02 Applicable to 11, 20, 02 22, 13, 31 used for 265A~630A 6A-630A NXC-06M ~12M 22, 13, 31 04, 40 04, 40 AC contactor AC contactor AC contactor 11 product product



NXC AC contactor

Accessory selection table (auxiliary contact)

Contactor	Optional accessory	Accessory model	Contact combination
		AX-3M/20	2NO+0NC
		AX-3M/11	1NO+1NC
		AX-3M/02	0NO+2NC
NXC-06M~12M	AX-3M top-mounted	AX-3M/40	4NO+0NC
NAC-00IVI~12IVI	auxiliary contact	AX-3M/31	3NO+1NC
		AX-3M/22	2NO+2NC
		AX-3M/13	1NO+3NC
		AX-3M/04	0NO+4NC
		AX-3X/20	2NO+0NC
		AX-3X/11	1NO+1NC
		AX-3X/02	0NO+2NC
	AX-3X top-mounted	AX-3X/40	4NO+0NC
NVC 0C 225	auxiliary contact	AX-3X/31	3NO+1NC
XC-06~225		AX-3X/22	2NO+2NC
		AX-3X/13	1NO+3NC
		AX-3X/04	0NO+4NC
	AX-3C side-attached auxiliary contact	AX-3C/11	1NO+1NC
		AX-3X/20	2NO+0NC
		AX-3X/11	1NO+1NC
		AX-3X/02	0NO+2NC
	AX-3X top-mounted	AX-3X/40	4NO+0NC
NVC 265 620	auxiliary contact	AX-3X/31	3NO+1NC
INAC-205~63U		AX-3X/22	2NO+2NC
		AX-3X/13	1NO+3NC
		AX-3X/04	0NO+4NC
XC-265~630	AX-3C side-attached auxiliary contact	AX-3C/11B	1NO+1NC

Accessory selection table (air delay head)

Contactor	Optional accessory	Accessory model	Contact combination	Delay range (s)
		F5-T0	1NO+1NC	0.1~3
		F5-T2	1NO+1NC	0.1~30
NXC full series	F5 air delay head	F5-T4	1NO+1NC	10~180
(except for NXC-06M~12M)	rs air deiay riead	F5-D0	1NO+1NC	0.1~3
		F5-D2	1NO+1NC	0.1~30
		F5-D4	1NO+1NC	10~180

Accessory selection table (dust cover)

Contactor	Optional accessory
NXC-06~22、NXC-120~630	AXC-1 dust cover
NXC-25~38	AXC-2 dust cover
NXC-40~65	AXC-3 dust cover
NXC-75~100	AXC-4 dust cover

Main parameters and technical performance indicators of accessories

Item			Main technical parameters					
Rated operation cu	ırrent (V)		To 690					
Rated insulation vo	oltage (V)		690					
Conventional therr	Conventional thermal current Ith (A)		10					
Rated making capa	Rated making capacity (A)		Breaking current 10 le (AC-15) or le (DC-13)					
Short-circuit protec	Short-circuit protection		gG fuse: 10A					
	Auxiliary contact	AC-15	380V/400V	1.5A				
Control capacity	riaxillary contact	DC-13	220V	0.3A				
Control capacity	F5 air delay head	AC-15	660V/380V	0.52A/0.95A				
	F5 air delay head DC-13		220V 0.15A					
Compliant standar	ds		IEC/EN 60947-5-1					
Product certification	n		CE					
Enclosure protection	on degree		IP 20					
	Flexible wire without	cold-pressed terminal	1~4					
	Tiexible Wife Without	cold pressed terminal	1~4					
Cable	Flexible wire with cold	t-nressed terminal	1~4					
connection (mm²)	TIEXIBIE WITE WITITEDIC	a pressed terrimal	1~2.5					
Hard wire			1~4					
	Hard wire		1~4					
Fastening screw siz	Fastening screw size		M3.5, M3 (AX-3M)					
Tightening torque	(N·m)		0.8					

Derivative products

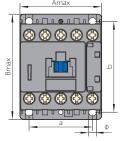
Name	Reversible AC contactor			
Reversible AC contactor		+	+	

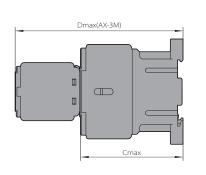
Dimensions and installation

NXC-06M-12M









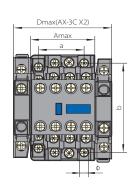
Model	Amax	Bmax	Cmax	Dmax	a	b	Φ
NXC-06M-12M	45.5	59	58	94	35±0.35	50±0.48	4.2
NXC-06M/4-12M/4	45.5	59	58	94	35±0.35	50±0.48	4.2
NXC-06M/Z-12M/Z	45.5	59	70	106	35±0.35	50±0.48	4.2
NXC-06M/4/Z-12M/4/Z	45.5	59	70	106	35±0.35	50±0.48	4.2

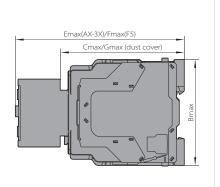
NXC-06-22

Dimensions and installation

Dimensions and installation



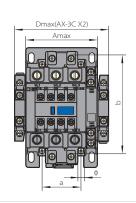


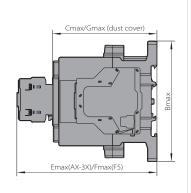


NXC-25-100

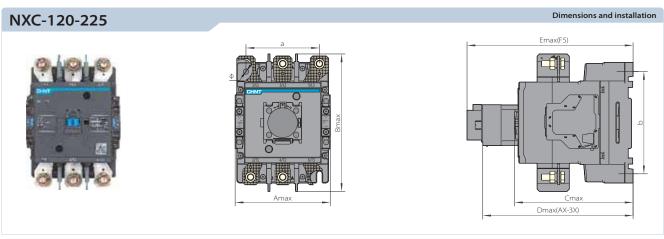
Dimensions and installation

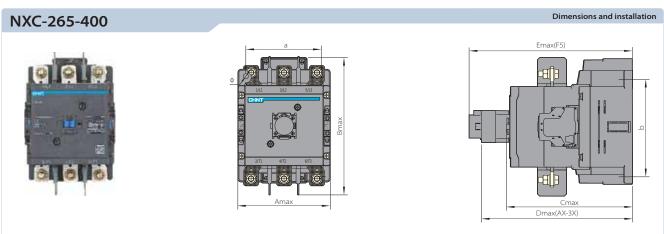


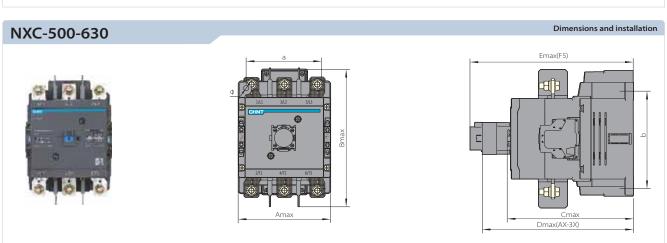




Model	Amax	Bmax	Cmax	Dmax	Emax	Fmax	Gmax	a	b	Ф
NXC-06-22	45.5	75	88	70	126.5	146.5	90	35±0.31	62±0.31	4.5
NXC-25-38	56.5	87	93	81	131.5	151.5	95	40±0.31	48±0.31	4.5
NXC-40-65	77	129	118	102	156.5	176.5	121	40±0.31	105±0.31	4.4
NXC-75-100	87	132	127	112	165.5	185.5	129	40±0.28	105±0.57	6.5



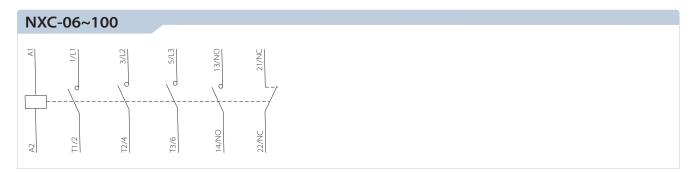


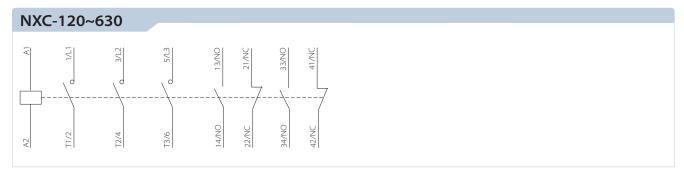


Model	Amax	Bmax	Cmax	Dmax	Emax	a	b	Ф
NXC-120-225	127	182	158	196.5	216.5	96±0.5	133.6±0.8	7
NXC-265-400	150	236	207	245.5	265.5	120±0.5	180±0.8	9
NXC-500-630	165	248	225	263.5	283.5	130±0.5	180±0.8	9

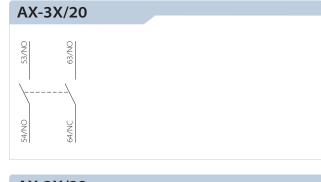
NXC AC contactor

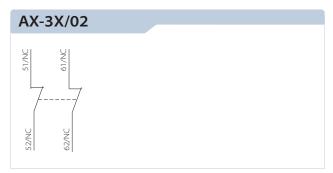
Wiring diagrams

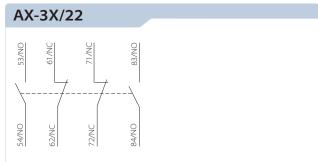


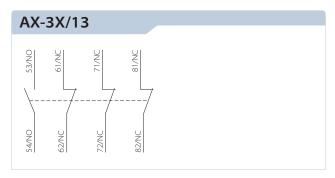


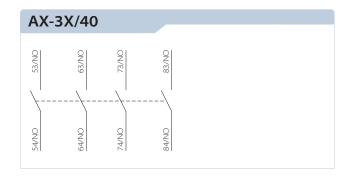


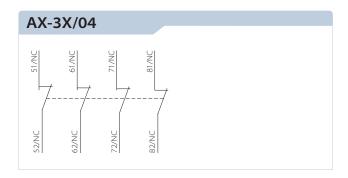


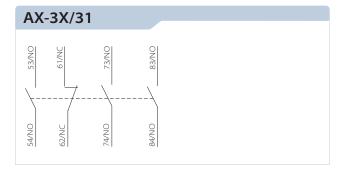






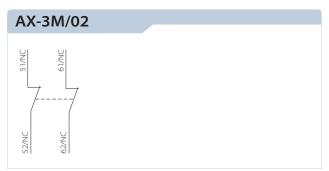


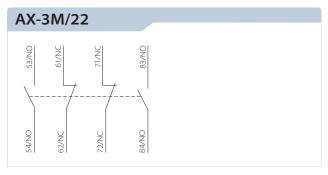


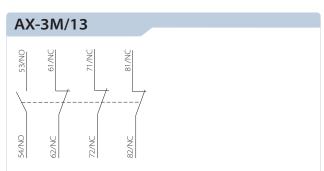


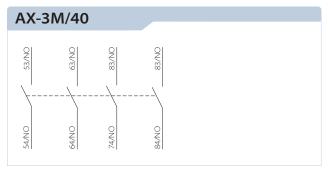


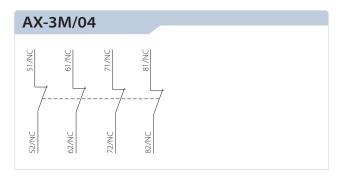


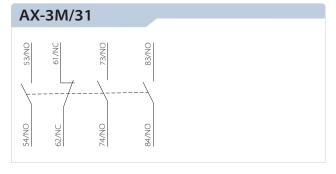












Annex I: Instructions for use in abnormal conditions

Instructions for use of correction factors in high altitude areas

- IEC 60947-1 standard defines the relation between altitude and impulse withstand voltage. An altitude of 2000 m above sea level or lower has no significant impact on product performance.
- At an altitude higher than 2000 m, air cooling effect and decease of rated impulse withstand voltage have to be considered. In this case, design and use of products have to be negotiated by the manufacturer and the user.
- The correction factors for rated impulse withstand voltage and rated operation current for altitudes higher than 2000 m are given in the following table. The rated operation voltage remains unchanged.

Altitude (m)	2000	3000	4000
Rated impulse withstand voltage correction factor	1	0.88	0.78
Rated operation current correction factor	1	0.92	0.9

Instructions for use under abnormal ambient temperature

- IEC 60947-1 standard defines normal operation temperature range for products. Use of products in the normal range will not cause significant impact on their performance.
- At an operation temperature higher than +40°C, the tolerable temperature rise of products needs to be reduced. Both rated operation current and number of contactors in standard products have to be decreased to prevent product damage, shortened service life, lower reliability, or impact on control voltage. At a temperature lower than -5°C, freezing of insulation and lubrication grease should be considered to prevent action failures. In these cases, design and use of products have to be negotiated by the manufacturer and the user.
- The correction factors for different rated operation current under operation temperature higher than +55°C are given in the following table. The rated operation voltage remains unchanged.

Ambient temperature (°C)	55	60	65	70
Correction factor	1	0.93	0.875	0.75

• At the temperature range of +55°C~+70°C, the pull-in voltage range of AC contactors is (90%~110%)Us, and (70%~120%)Us is the results of cold status tests at 40°C ambient temperature.

Instructions for derating during use in corrosive environment

- Impact on metal parts
 - Chlorine Cl₂, nitrogen dioxide NO₂, hydrogen sulfide H₂S, sulfur dioxide SO₂
 - Copper: The thickness of copper sulfide coating in chlorine environment will be twice that in normal environment conditions. This is also the case for environments with nitrogen dioxide.
 - Silver: When used in SO_2 or H_2S environment, the surface of silver or silver coated contacts will become dark due to formation of a silver sulfide coating. This will lead to higher contact temperature rise and may damage to the contacts.
 - In humid environments where Cl_2 and H_2S coexist, the coating thickness will increase by 7 times. With presence of both H_2S and NO_2 , the silver sulfide thickness will increase by 20 times.
- Considerations during product selection
 - In refinery, steel, paper, artificial fiber (nylon) industry or other industries using sulphur, equipment may experience vulcanization (also called oxidization in some industrial sectors). Equipment installed in machine rooms is not always well protected from oxidization. Short inlets are often used to ensure that the pressure in such rooms is slightly higher than atmospheric pressure, which helps reduce pollutions due to external factor to a certain degree. However, after operation for 5 to 6 years, the equipment still experience rust and oxidization inevitably. Hence in operation environments with corrosive gas, the equipment needs to be used with derating. The derating coefficient relative to the rated value is 0.6 (up to 0.8). This helps reduce rate of accelerated oxidization due to temperature rise.

Instructions for use with parallel poles

• In case of parallel poles, the rated current of such poles needs to be corrected to make up for distribution of long-term unstable current, as shown in the table below:

Number of parallel poles	2	3	4
Correction factor	1.6	2.25	2.8

Annex II: Utilization category description

Different types of power-consuming equipment may have significantly different loading characteristics and current changes during making/breaking, hence they have different requirements for contactors. IEC 60947-1 standard defines contactor utilization categories that are indicated by one or more of the following use conditions:

- Current, indicated with multiples of rated current
- Voltage, indicated with multiples of rated voltage
- Power factor or time constant
- Short-circuit performance
- Selectivity
- Other use conditions (if applicable)

NXC AC contactors mainly include the following categories:

Utilization categories of AC main circuit

AC-1 type

This type is used for AC loads with a power factor higher than or equal to 0.95.

Examples: heating, power distribution.

AC-2 type

This type is used for start revere braking and inching of slip ring motors.

During closing, the contactor makes a start current that is about 2.5 times motor rated current.

During opening, the contactor must break the start current at a voltage lower than or equal to the main supply voltage.

AC-3 type

This type is used for breaking normally started squirrel cage motors.

During closing, the contactor makes a start current that is about 7 times motor rated current.

During opening, the contactor breaks motor rated current. In this case, the voltage at the contactor wire terminal is about 20% of main supply voltage. The breaking process is not harsh.

Examples: all standard squirrel cage motors such as those in elevator, escalator, conveyance belt, air compressor, pump, mixer, and air conditioner.

AC-4 type

This type is used for reverse braking and inching of squirrel motors and sling ring motors.

The contactor makes a current that is 5 to 7 times rated motor current, and breaks the same current at higher voltage. At lower motor RPMs, the voltage breaking is as harsh as main voltage.

Control circuit utilization categories.

Examples: printing machinery, wire drawing machine, tower crane, crane, metallurgy

DC-13 type

This type of system is used for starting, reverse current braking, and inching of DC shunt excited machines. The duration is equal to or less than 2 ms. This type is used for switching electromagnetic loads.

AC-15 type

This type is used for switching electromagnetic loads. The pull-in power during closing of electromagnet is higher than 72VA. Examples: operation coil of switch contactors.













Overview

Applicable scope

NXR thermal overload relays (hereinafter abbreviated as thermal relays) are suitable for overload and phase loss protection for uninterrupted or intermittent AC motors with AC frequency of 50 Hz/60 Hz, a voltage up to 690 V, and a current of (0.1-630)A.

The thermal relays also provide temperature compensation, action indication, automatic and manual reset, stop, and testing functions. The products are characterized by stable and reliable performance. The thermal relays can be plugged into contactors or installed independently.

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

Structural characteristics

- Three-phase bi-metal sheet type or electronic type (NXR-200, NXR-630), with a tripping level of 10A
- With phase loss protection
- With a device for continuous adjustment of setting current
- With temperature compensation
- With action indication
- With testing mechanism
- With stop bottom
- With manual and automatic reset button (NXR-200 and NXR-630 only have manual reset)
- With one NO contact and one NC contact that are electrically separable
- Installation method: Plugged into contactor (NXR-12, 25, 38, 100) or installed independently (NXR-200, 630)
- Protection characteristics

Operation environment

Туре	Operation and installation conditions
Installation type	Ш
Pollution degree	3
Compliant standards	IEC 60947-4-1, IEC 60947-5-1
Certification mark	CE
Enclosure protection degree	IP20 (NXR-12, 25, 38, 100)
Ambient temperature	Operation temperature limits: -35°C~+70°C. Normal operation temperature range: -5°C~+40°C. The 24-hour average temperature should not exceed +35°C. For use beyond the normal operation temperature range, see "Instructions for use in abnormal conditions" in the annex.
Altitude	Not exceeding 2000m above sea level
Atmospheric conditions	The relative humidity should not exceed 50% at the upper temperature limit of $+70^{\circ}$ C. A higher relative humidity is allowed at a lower temperature, e.g. 90% at $+20^{\circ}$ C. 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 $\pm 5^\circ$.
Shock and vibration	The product should be installed in places without significant shaking, shock, and vibration.

Description



Frame	Setting current
	0.1-0.16A
	0.16-0.25A
	0.25-0.4A
	0.4-0.63A
	0.63-1A
12	1-1.6A
	1.25-2A
	1.6-2.5A
	2.5-4A
	4-6A
	5.5-8A
	7-10A
	9-12A

Frame	Setting current
	0.1-0.16A
	0.16-0.25A
	0.25-0.4A
	0.4-0.63A
	0.63-1A
25	1-1.6A
	1.25-2A
	1.6-2.5A
	2.5-4A
	4-6A
	5.5-8A
	7-10A
	9-13A
	12-18A
	17-25A

Frame	Setting current
38	23-32A
30	30-38A
	23-32A
	30-40A
	37-50A
100	48-65A
	55-70A
	63-80A
	80-93A
	80-100A
200	80-160A
200	100-200A
	125-250A
630	200-400A
	315-630A

Selection example:

"NXR-25 7-10A" represents a NXR 3P thermal overload relay with a frame current class of 25 and a setting current range between 7A and 10A.

Quick selection and matching table

10	Product appearance	Rated current A	Specification of matching fuse (RT16 recommended) A	Model of matching contactor	
0.15-0.25 0.25-0.4 0.2-0.7 0.6-0.3 2 0.05-1 4 1-16 4 1.75-2 6 6 1.75-2 6 6 1.75-2 6 6 1.75-2 6 1.75-2 7-10 20 9-12 25 0.1-0.16 25-8 20 7-10 20 9-12 25 0.1-0.16 2 0.1-0.25 2 0.1-0.16 2 0.1-0.25 2 0.03-1 4 1-1.6 4 1.25-2 6 1.25-2					
0.25-0-8 0.4-0.63 0.2-1 0.4-0.63 0.2-1 1.1-1.6 1.1-1.6 1.1-1.6 1.1-1.5-2 1.6-2.5 1.6-2	145				
0.4-653					
0.63-1 4 4 1-1.6 4 4 1-1.6-2 6 6 1.6-25 6 6 1.6-25 6 6 1.6-25 6 6 1.6-25 6 6 1.6-25 6 7-10 20 9-12 25 0.6-25 6 1.6-25 6					
1-16				COOKED.	
125-2 6 6 125-40 10 10 10 10 10 10 10 10 10 10 10 10 10	THE RESERVE				
NXR-12 16				- N. P. P.	
NXR-12 4-6 16 55-8 20 7-10 20 9-17 25 01-016 2 016-025 2 025-04 2 04-063 2 065-1 4 1-16 4 175-2 6 16-25 6 16-25 6 16-25 6 16-25 6 16-25 6 17-25 6 18-25 6 20 29-13 25 12-18 35 17-25 30 17-25 30 17-25 30 100 37-50 100 37-50 100 37-50 100 80-100 115-20 100 115-20 100 100 100 100 100 100 100 100 100 1					
NNC-12 4-6 16 55-8 20 7-10 20 9-12 25 01-016 2 01-025 2 2 025-0.4 2 02-0.5 7-10 4 0 01-0.25 2 0.25-0.4 2 0.25-				4	
55-8 7-10 9-12 25 01-016 22 016-025 27 025-04 2 04-03 063-1 4 1-16 4 15-2-2 6 16-25 25-4 10 4-6 15 55-8 20 7-10 20 9-13 25 12-18 35 17-25 50 NXC-06,09,12,16,18 17-25 50 NXG-38 80 80 NXC-25,32; NXG-100 80-93 100 80-93 100 80-93 100 100 80-93 100 100 80-93 100 80-100 100 80-100 100 80-100 100 80-100 100 80-100 100 80-100 100 80-100 100 80-100 100 80-100 100 80-100 100 80-100 100 80-100 100 80-100 8	NXR-12			NXC-06M, 09M, 12M	
7-10 9-12 25 01-016 21-016 21 016-025 2 2 025-04 2 0-4-063 2 2 0-63-1 4 1-16 4 1 125-2 6 16-25 16-25 16-25 16-25 16-25 17-10 20 9-13 25 17-10 20 9-13 25 17-18 35 17-25 50 NNR-38 80 NNR-38 NNR-38 80 NNR-38 NNR-38 80 NNR-38 NNR-38 NNR-38 80 NNR-38 NNR-38 NNR-38 NNR-38 80 NNR-38 NNR-38					
9-12 25 0.1-0.16 2 0.16-0.25 2 0.35-0.4 2 0.4-0.63 2 0.63-1 4 1-1-1.6 4 1.55-2 6 1.6-2.5 6 1.6-2					
0.14-0.16 2 2 0.16-0.25 2 2 0.25-0.4 2 2 0.25-0.4 2 2 0.25-0.4 2 2 0.45-0.63 2 2 0.33-1 4 1-1.6 4 1.25-2 6 6 1.25-2 6 6 1.25-2 6 1.25-2 6 1.25-2 6 1.25-2 7 1.25-2 7 1.25					
016-025 2 025-04 2 04-063 2 04-063 2 063-1 4 1-1-16 4 125-2 6 16-2.5 6 16-2.5 6 15-8 20 NXC-06, 09, 12, 16, 18, 25 12-18 35 12-18 35 17-25 50 23-32 63 NXR-38 80 NXC-25, 32, 36 NXR-100 80-93 150 NXR-100 80-160 315 NXR-200 315 NXR-200 315 NXR-200 315					
04-0.03 0.63-1 4 1-1.6 4 1-1.5 4 1.25-2 6 1.6-2.5 6 2.5-4 10 NXR 25 4-6 16 5.5-8 20 7-10 20 9-13 25 12-18 35 12-18 35 17-25 50 23-32 63 30-40 100 37-50 100 37-50 100 37-50 100 37-50 100 37-50 100 38-65 100 63-80 125 63-80 125 80-100 160 NXR-100 80-100 125-200 315 NXR-200 125-200 315 NXR-200 800					
04-0.03 0.63-1 4 1-1.6 4 1-1.5 4 1.25-2 6 1.6-2.5 6 2.5-4 10 NXR 25 4-6 16 5.5-8 20 7-10 20 9-13 25 12-18 35 12-18 35 17-25 50 23-32 63 30-40 100 37-50 100 37-50 100 37-50 100 37-50 100 37-50 100 38-65 100 63-80 125 63-80 125 80-100 160 NXR-100 80-100 125-200 315 NXR-200 125-200 315 NXR-200 800					
0.63-1 4 4 1-1-16 4 4 1-1-16 4 4 1-125-2 6 6 1-125-2 6 6 1-125-2 6 6 1-125-2 6 6 1-125-2 6 6 1-125-2 6 6 1-125-8 20 NXR-25 8 20 NXC-06,09,12,16,18,2 9-13 25 12-18 35 17-25 50 12-18 35 17-25 50 12-18 35 17-25 50 12-18 35 17-25 50 12-18					
1-1.6				-	
1,25-2 6 6 7 16-25 6 6 7 10 7 10 10 10 10 10 10 10 10 10 10 10 10 10	and the same of			A STATE OF THE PARTY OF THE PAR	
1.6-2.5 6 2.5-4 10 NXR-25 4-6 16 5.5-8 20 NXC-06, 09, 12, 16, 18, 35 7-10 20 9-13 25 12-18 35 17-25 50 23-32 63 30-38 80 NXC-25, 32, 3 NXR-38 2-32 63 30-40 100 37-50 100 48-65 100 48-65 100 48-65 100 55-70 125 63-80 125 NXR-100 80-93 160 NXR-100 160 80-100 160 NXR-100 125-200 315 NXR-200 125-200 315	11				
NXR-25 4-6 55-8 20 NXC-06, 09, 12, 16, 18, 20 9-13 12-18 35 17-25 50 23-32 63 30-38 80 NXC-25, 32, 32 48-65 100 37-50 100 48-65 100 55-70 125 63-80 125 NXR-100 80-93 160 80-100 160 NXC-40, 50, 65, 75 NXC-40, 50, 65, 75 NXC-40, 50, 65, 75 NXC-120, 160, 18				No. of Control of Cont	
NXR-20 5.5-8 7-10 20 9-13 25 12-18 35 17-25 50 NXR-38 80 NXR-38 80 NXR-38 80 NXR-38 80 NXR-200 125-250 800 800 125-250 800 NXR-200 800 NXR-200 800 NXR-200 800 800 NXR-200 800 800 800 800 800 800 800	The second second	2.5~4	10	Section 1	
55-8 7-10 20 9-13 12-18 13-25 12-18 17-25 50 23-32 63 NXR-38 80 NXR-38 80 NXC-25, 32, 3 30-40 100 37-50 100 48-65 100 55-70 125 63-80 125 80-93 160 NXR-100 80-100 125-200 315 NXC-20, 12, 10, 16. 10. NXC-25, 32, 3 NXC-25, 32, 32 NXC-25, 32, 32	NYR-25	4~6	16		
9-13 12-18 35 17-25 50 23-32 63 30-38 80 NXR-38 23-32 63 30-40 100 37-50 100 48-65 100 48-65 100 55-70 125 63-80 125 80-93 160 NXR-100 80-100 125-200 315 NXR-200 125-250 800	IVAN-23	5.5~8	20	NXC-06, 09, 12, 16, 18, 22, 25, 32, 38	
12-18 17-25 50 23-32 63 30-38 80 NXC-25, 32, 3 30-40 100 37-50 100 48-65 100 55-70 125 63-80 125 80-93 160 NXC-120, 160, 15, 75, 160 80-100 125-200 315 NXC-200 315 NXC-120, 160, 16		7~10	20		
17~25 50 23~32 63 NXR-38 80 NXC-25, 32, 32 30~32 63 30~40 100 37~50 100 48~65 100 55~70 125 63-80 125 80~93 160 NXC-40, 50, 65, 75, 80 80~100 160 315 NXR-200 315 NXR-200 315 NXC-200 315		9~13	25		
23-32 63 NXR-38 23-32 63 30-40 100 37-50 100 48-65 100 55-70 125 63-80 125 NXR-100 80-93 160 NXC-40,50,65,75, 80-100 160 NXC-40,50,65,75, 125-250 800		12~18	35		
NXR-38 30-38 80 NXC-25, 32, 3 30-40 100 37-50 100 48-65 100 55-70 125 63-80 125 NXR-100 80-93 160 NXC-40, 50, 65, 75, 80-100 125-200 315 NXR-200 125-250 800		17~25	50		
NXR-38 23~32 30-40 100 37~50 100 48~65 100 55~70 125 63~80 125 NXR-100 80~93 160 80~100 160 NXC-40, 50, 65, 75, 125 NXR-200 315 NXC-120, 160, 18		23~32	63		
30~40 100 37~50 100 48~65 100 55~70 125 63~80 125 80~93 160 NXC-40,50,65,75, 80~100 160 NXC-40,50,65,75, 80~100 125~200 315 NXR-200 125~200 315 NXC-120, 160, 18	NXR-38			NXC-25, 32, 38	
37~50 100 48~65 100 55~70 125 63~80 125 NXR-100 80~93 160 80~100 160 80~160 315 NXR-200 315 NXC-120, 160, 18		23~32	63		
48-65 100 55-70 125 63-80 125 80-93 160 80-100 160 80-160 315 NXR-200 315 NXR-200 315 NXC-120, 160, 18	0 M H. E.				
55~70 125 63~80 125 80~93 160 NXC-40, 50, 65, 75, 160 80~100 160 80~160 315 NXR-200 315 NXC-120, 160, 18	State of the land			10000	
NXR-100 80~93 80~100 160 NXC-40, 50, 65, 75, 80~100 125~200 315 NXR-200 125~250 800 125	My The state of th			T. Mary	
NXR-100 80~93 80~100 160 NXC-40, 50, 65, 75, 80~160 315 NXR-200 125~200 315 NXC-120, 160, 18	TEXA.				
NXR-100 80~100 160 80~160 315 NXR-200 125~200 315 NXC-120, 160, 18 125~250 800					
80~160 315 NXR-200 315 NXC-120, 160, 18 125~250 800	NXR-100			NXC-40, 50, 65, 75, 85, 100	
NXC-120, 160, 18 125~250 800		Day 80 S	400		
	NXR-200	125~200	315	NXC-120, 160, 185, 225	
200~400		125~250	800	च त ॥	
A ST OF ST O		200~400	800		
NXR-630 800 NXC-225, 265, 330, 40		315~630	800	NXC-225, 265, 330, 400, 500, 630	

Parameters

Item		NXR-12	NXR-25	NXR-38	NXR-100	NXR-200	NXR-630	
Current level		12	25	38	100	200	630	
Rated insula	ation voltage \	/	690	690	690	690	690	690
Rated impu	lse withstand	voltage V	6000	6000	6000	6000	6000	6000
Enclosure p	rotection deg	ree	IP20	IP20	IP20	IP20	-	-
Phase loss p	protection		Yes	Yes	Yes	Yes	Yes	Yes
Manual and	automatic re	set	Yes	Yes	Yes	Yes	Manual	Manual
Temperatur	e compensati	on	Yes	Yes	Yes	Yes	Yes	Yes
Trip indicati	on		Yes	Yes	Yes	Yes	Yes	Yes
Test button		Yes	Yes	Yes	Yes	Yes	Yes	
Stop button		Yes	Yes	Yes	Yes	Yes	Yes	
Installation method		Plugged	Plugged	Plugged	Plugged	Independent	Independent	
Integrated auxiliary contact		1NO+1NC	1NO+1NC	1NO+1NC	1NO+1NC	1NO+1NC	1NO+1NC	
AC-15 380V	/400V rated cu	urrent A	1.5	1.5	1.5	1.5	1.5	1.5
DC-13 220V	rated current	A	0.2	0.2	0.2	0.2	0.2	0.2
		Single-core or stranded wire	1~4	1~6	4~10	4~35	25~95	50~2×185
Conductor	Main circuit	Wiring screw	M3.5	M4	M4	M10	M8	M10
cross		Tightening torque (N·m)	0.8	0.8	0.8	0.8	1.2	1.2
section		Single-core or stranded wire	1~2.5	1~2.5	1~2.5	1~2.5	1~2.5	1~2.5
mm²	Auxiliary circuit	Wiring screw	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5
	3,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Tightening torque (N·m)	1.2	1.7	1.7	10	10	20

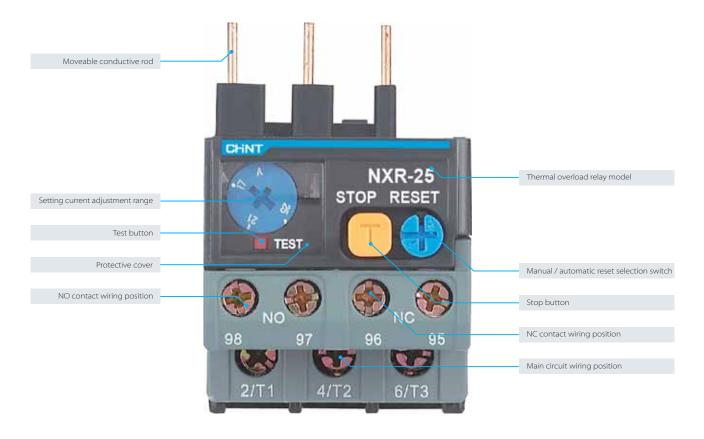
Protection characteristics

Item	No.	Multiples of setting current		Action time	Test conditions
	1	1.05		Without action in 2 hours	Start from cold state
	2	1.2		Act within 2 hours	Start from hot state (after No. 1)
Overload protection	3	1.5		Act within 2 minutes	Start after thermal equilibrium is reached under setting current
	4	7.2		2s <tp≤10s< td=""><td>Start from cold state</td></tp≤10s<>	Start from cold state
	-	Any two phases	The other phase	Without action in 2 hours	Start from cold state
Phase loss protection	5	1.0	0.9	Without action in 2 hours	Start from Cold state
	6	1.15	0	Act within 2 hours	Start from hot state (after No. 5)

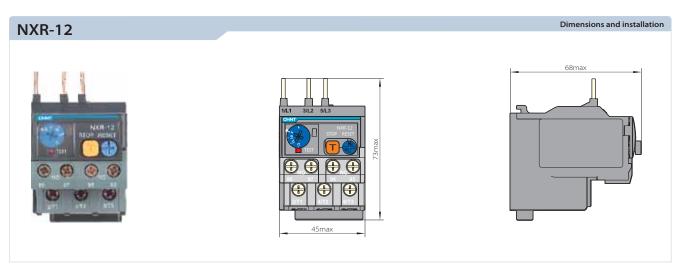
Trip characteristics

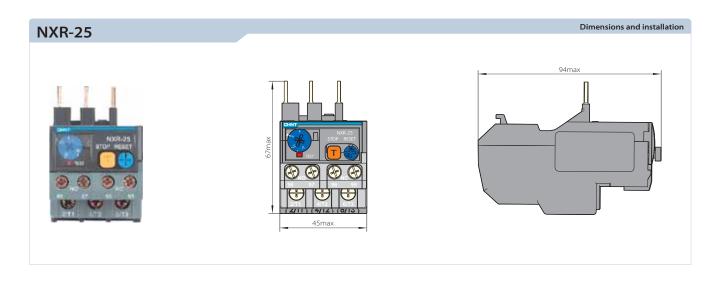


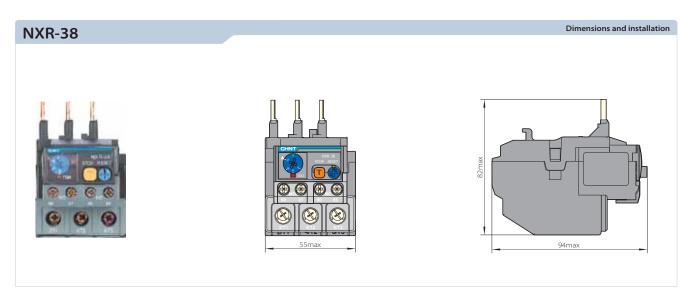
Product front view

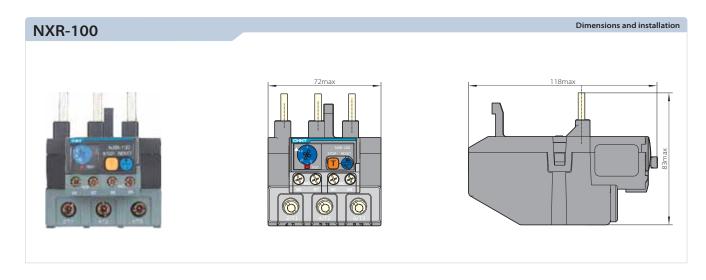


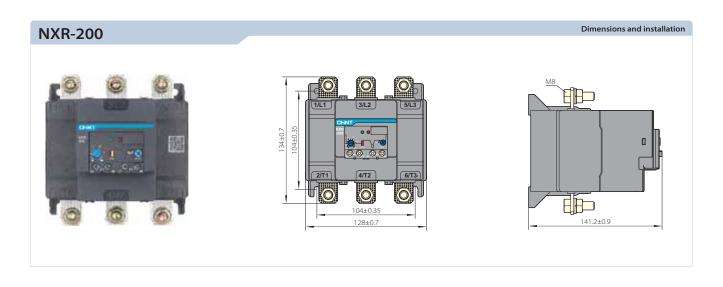
Dimensions and installation

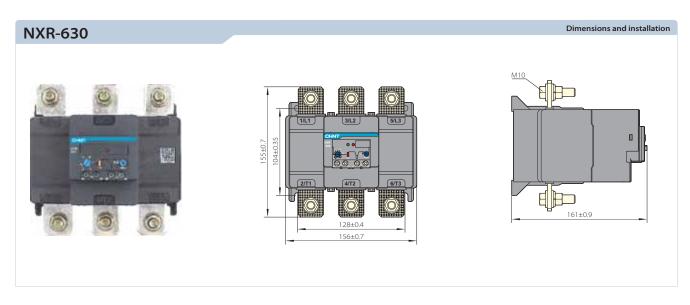


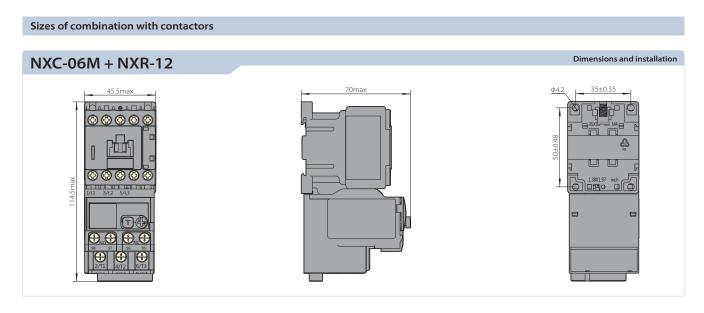


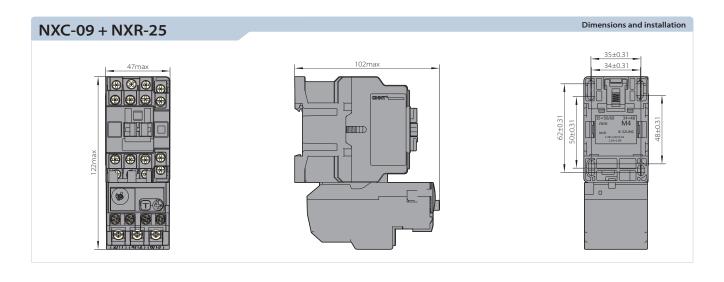


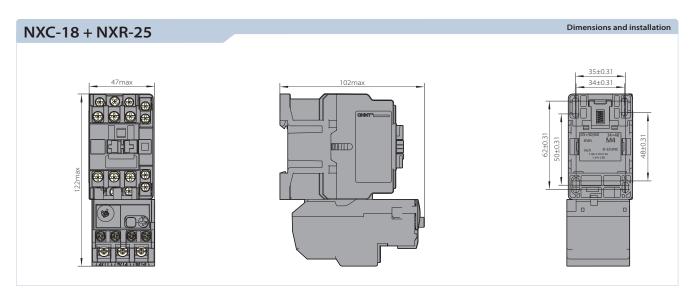


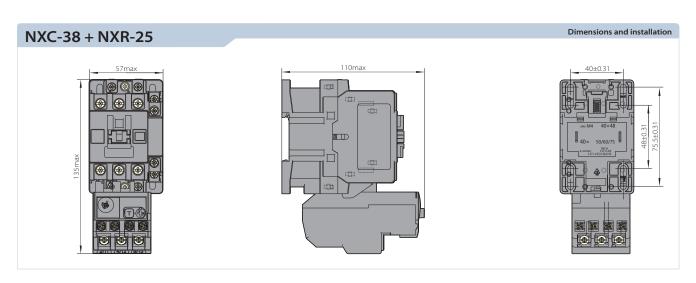


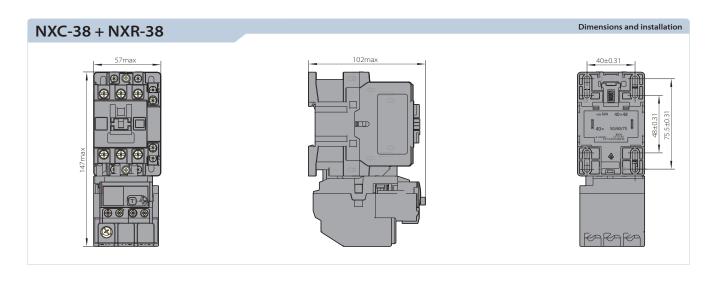


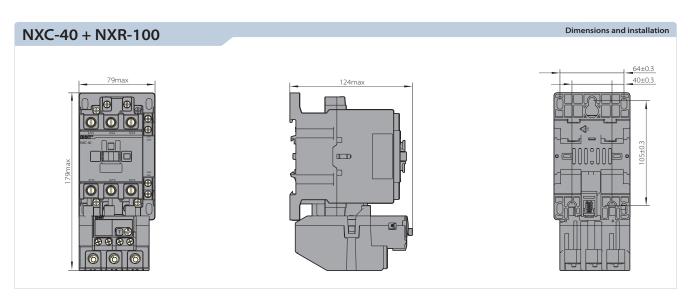


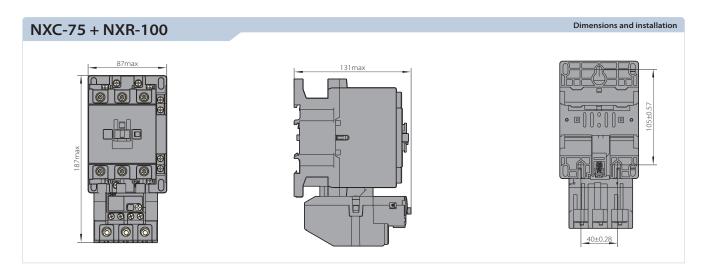




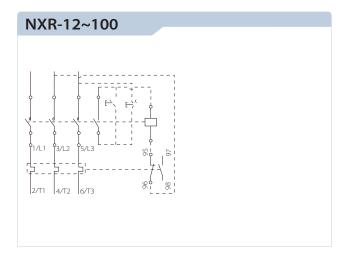


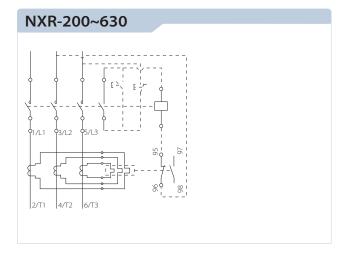






Wiring diagrams



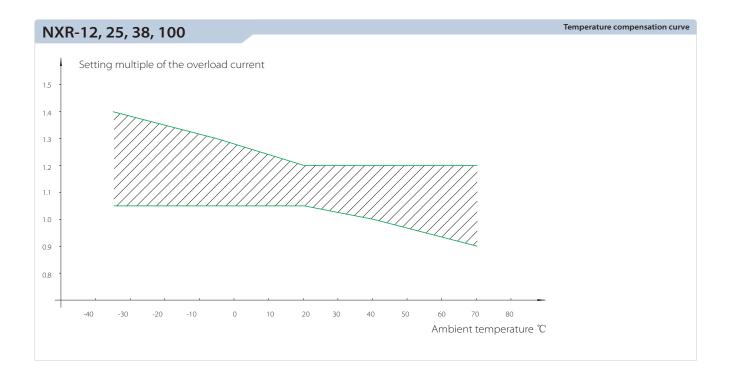


Annex I: Instructions for use in abnormal conditions

- IEC 60947-1 standard defines normal operation temperature range for products. Use of products in the normal range will not cause significant impact on their performance.
- At an operation temperature higher than +40°C, the tolerable temperature rise of products needs to be reduced. The rated operation current should be adjusted to prevent product damage, shortened service life, lower reliability, or impact on action characteristics.

 At a temperature lower than -5°C, impact of changes to the heat dissipation system on the action characteristics of the products should be considered.
- The temperature compensation coefficients at an ambient temperature higher than +40°C and lower than -5°C are given below. The compensation coefficients corresponding to -35°C and +70°C environments are given in the table below. No corrections are required for NXR-200 and NXR-630.

Operation ambient temperature	-35℃	+70℃	
Temperature compensation coefficients for NXR-12, 25, 38, 100	Multiple of stable current	1.05	0.9
	Multiple of trip current	1.4	1.2



NXJ plug-in relay









Overview

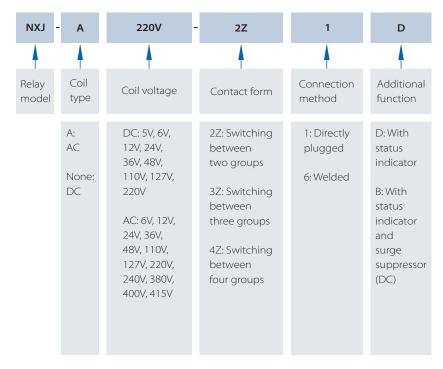
Applicable scope

Three types of contacts (2Z, 3Z, and 4Z): complete range of AC/DC models; high contact reliability, applicable to PLC control; transparent dust cover encapsulation; supplied with sockets; status indicators with optional specifications.

Normal operation conditions and installation conditions

Temperature range	-40℃~+70℃
Relative humidity	Up to 95% at +25℃
Atmospheric pressure	86kPa~106kPa
Operation position	Any

Description



Model example:

NXJ-A220-2Z1D represents the following relay: rated control coil voltage: AC220V; contact form: switching between two groups (1NO + 1NC for each contact group, contact rated operation current 5A); directly plugged, with indicator function.

Parameters

Contact parameters

Contact form	2Z (C), 3Z (C), 4Z (C), 2ZH(C)
Initial contact resistance	$50 \text{m}\Omega$
Contact material	Silver alloy
Contact load (cos \$\phi=1.0\$)	2Z, 3Z: 5A; 4Z: 3A; 2ZH: 10A (220VAC/28VDC)
Maximum switch voltage	250VAC/30VDC
Maximum switch current	2Z, 3Z: 5A; 4Z: 3A; 2ZH: 10A
Maximum switch power	2Z, 3Z: 1250VA/140W, 2ZH: 2200VA/280W
	4Z: 750VA/84W
Electrical life (cycles)	1.2x10 ⁵ * (see the safety certification report for details)
Mechanical life (cycles)	2×10 ⁷

Performance and characteristics parameters

Insulation resistance		1000MΩ (500VAC)	
Dielectric strength	Between contact coils	1500VAC, 1min	
Dielectric strengtri	Between broken contacts	1000VAC, 1min	
Action time		≤15ms	
Release time		≤15ms	
Impulse (stability)		Acceleration 100m/s², pulse duration:11ms	
Vibration		Dual-amplitude 1mm, (10~55)Hz	
Form of leading-out end		Directly plugged, welded	
Dimensions (mm)		27.5x21.5x35.5	

Coil parameters

Rated power	0.9~1W, 1.2~1.8VA
Pull-in voltage	DC≤75% rated voltage; AC: ≤80% rated voltage
Release voltage	DC≥10% rated voltage; AC: ≥20% rated voltage
Maximum voltage	120% rated voltage

Specification parameters

Rated voltage VDC	Action voltage VDC (≤)	Release voltage VDC (≥)	Coil resistance (20°C) Ω
5	3.75	0.5	28×(1±10%)
6	4.5	0.6	40×(1±10%)
12	9.0	1.2	160×(1±10%)
24	18.0	2.4	640×(1±10%)
36	27.0	3.6	1440×(1±15%)
48	36.0	4.8	2200×(1±15%)
110	82.5	11.0	14500×(1±15%)
127	95.3	12.7	17000×(1±15%)
220	165.0	22.0	39000×(1±15%)

Rated voltage VAC	Action voltage VAC (≤)	Release voltage VAC (≥)	Coil resistance (20°C) Ω
6	4.8	1.2	10.5×(1±10%)
12	9.6	2.4	44×(1±10%)
24	19.2	4.8	180×(1±10%)
36	28.8	7.2	380×(1±10%)
48	38.4	9.6	650×(1±10%)
110	88.0	22	3670×(1±15%)
127	101.6	25.4	4100×(1±15%)
220/230/240	176.0	44	15800×(1±15%)
380	304.0	72	39000×(1±15%)
400	320	80	43000×(1±15%)
415	332	83	46000×(1±15%)

Accessories

Supplied sockets (optional)

Relay model	NXJ/2Z (D)		
Supplied socket model	RS-NXJ-2Z/C1	RS-NXJ-2Z/C2	RS-NXJ-2Z/C3
Socket dimensions (mm)	72×23×31	72×23×31	63×30.5×26
Socket lead form	Screw type wiring terminal (device type, rail type)		

Relay model	NXJ/3Z (D)		
Supplied socket model	RS-NXJ-3Z/C1	RS-NXJ-3Z/C2	RS-NXJ-3Z/C3
Socket dimensions (mm)	72×30×31	72×30×31	63×30.5×26
Socket lead form	Screw type wiring terminal (device type,	Screw type wiring terminal (device type, rail type)	

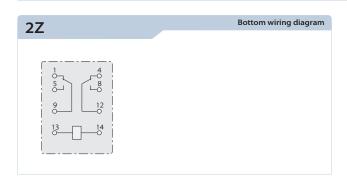
Relay model	NXJ/4Z (D)		
Supplied socket model	RS-NXJ-4Z/C1	RS-NXJ-4Z/C2	RS-NXJ-4Z/C3
Socket dimensions (mm)	72×30×31	72×30×31	63×30.5×26
Socket lead form	Screw type wiring terminal (device type, rail type)		

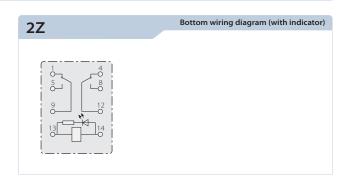
Connection socket and fixing hook

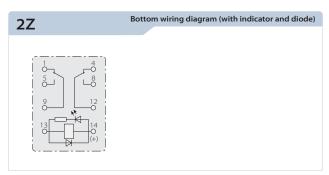
Model \ type	Normal	With finger protection	With indication sign
NXJ/2Z □	RS-NXJ-2Z/C1	RS-NXJ-2Z/C2	RS-NXJ-2Z/C3
NXJ/3Z □	RS-NXJ-3Z/C1	RS-NXJ-3Z/C2	RS-NXJ-3Z/C3
NXJ/4Z 🗆	RS-NXJ-4Z/C1	RS-NXJ-4Z/C2	RS-NXJ-4Z/C3
Fixing hook	NG102	NG102	NG103

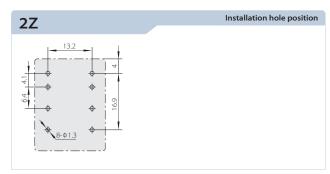
Dimensions and installation

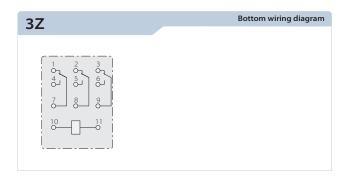
Body dimensions and installation sizes

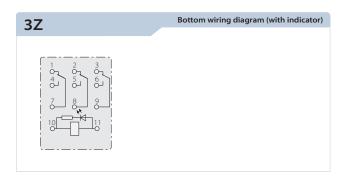


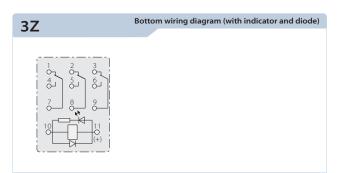


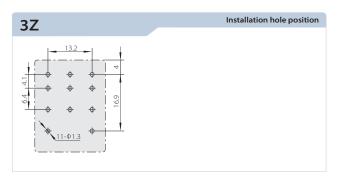


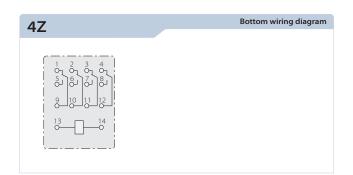


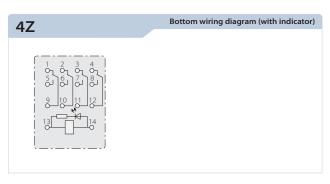


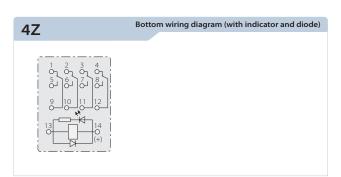


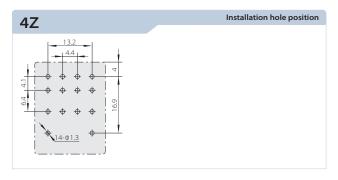




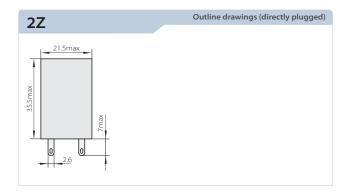


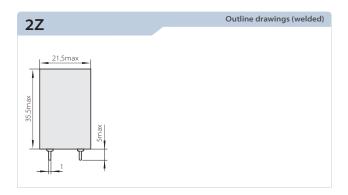


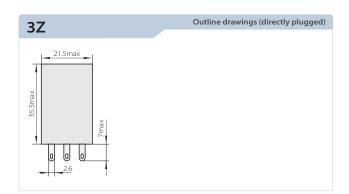


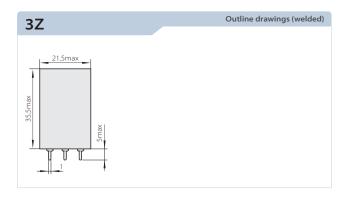


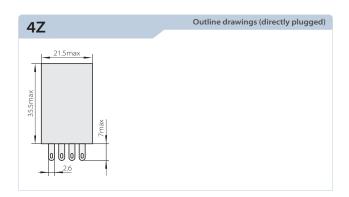
NXJ plug-in relay

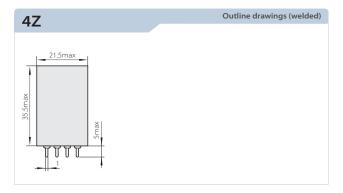








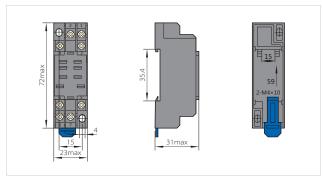




Socket outline and dimensions

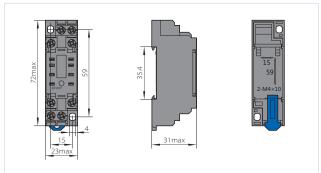


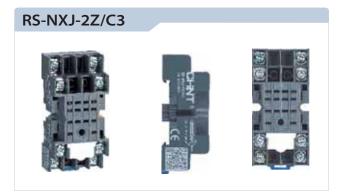




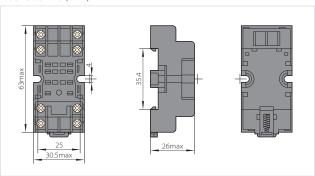


72×23×31 (mm)



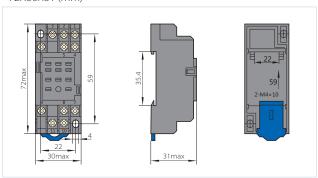


63×30.5×26 (mm)



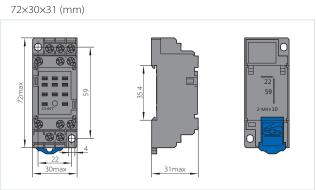


72×30×31 (mm)

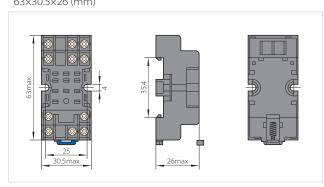


NXJ plug-in relay

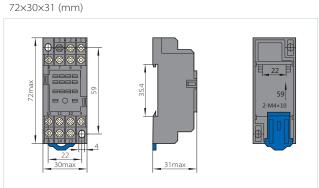




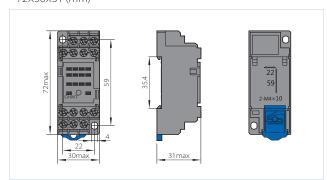


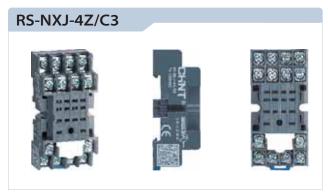




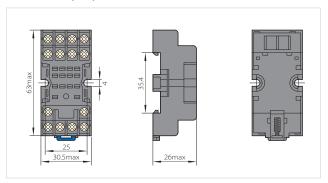








63×30.5×26 (mm)



Hook outline







Note Note

Note	

Europe

Italy

CHINT Electrics Europe S.R.L.

Add: Via A. Pacinotti 28, 30033 Noale (VE) Tel: 0039 335 6265 032 E-mail: chint_eu@chint.com

Czech Republic

NOARK Electric Europe s.r.o.

Add:Sezemická 2757/2, 193 00 Prague Tel: +420 226 203 120 Email: Europe@noark-electric.com www.noark-electric.eu

North America

United States

NOARK Electric (USA) Inc.

Add: 2188 Pomona Blvd., Pomona, CA 91767 Tel: 626-330-7007 Fax: 626-330-8035 E-mail: nasales@noark-electric.com na.noark-electric.com

West Asia & Africa

U.A.E

CHINT West Asia & Africa FZE

Add: Office NO. LB182406, P.O.Box:263174, Jebel Ali, Dubai, United Arab Emirates Tel: 00971-48848286 Fax: 00971-48848287 E-mail: chintwaa@chint.com

Spain

CHINT Electrics S.L.

Add: Calle José Echegaray, Num 8.Parque Empresarial Las Rozas Edificio 3, Planta 1°, Oficina 3.C.P: 28232 Las Rozas (Madrid) Tel: 0034 91 636 59 98 Fax: 0034 91 645 95 82 E-mail: info@chintelectrics.es

Russia

ООО «Чинт Электрик»

Адрес: РФ, 109089, г. Москва, ул. Угрешская, д.2, стр.3, оф.17 Тел.: +7 495 665 6340 Факс: +7 495 665 6340 Email: cis⊚chint.com

Latin America

Brazil

CHINT Electrics South America Ltd

Add: Avenida Paulista nº 2073 - Conjunto Nacional - Edifício Horsa 1-Conjunto Room 1407/1408, Sao Paulo 01311-300 Tel: 0055-11-3266-7654 Fax: 0055-11-3142-9601 E-mail: chintlatinamerica@chint.com ,xjie@chint.com

Asia Pacific

China

Zhejiang CHINT Electrics Co.,Ltd

Add (Shanghai): Bldg.2, No.3255 Sixian Road, Songjiang 201614 P.R.China Tel: 0086-21-67777706
Fax: 0086-21-6777777-88225
E-mail: asiapacific@chint.com, lwgen@chint.com



ZHEJIANG CHINT ELECTRICS CO.,LTD.

Add: No. 1, CHINT Road, CHINT Industrial Zone, North Baixiang, Yueqing, Zhejiang, 325603, P.R.China Tel: +86-577-61986198 Fax: +86-577-62775769 62871811

E-mail: global-sales@chint.com Website: http://next.chint.com/







Recycle Paper Printed

