



## NC2 Contactor, 115~800A

### 1. General

- 1.1 Certificates: NC2-115~800  
CE, VDE, UKrSEPRO, EAC, RCC, UL;
- 1.2 Electric ratings: AC50/60Hz, up to 690V, up to 800A;
- 1.3 Application: remote making & breaking circuits;  
protect circuit from overload when assembling  
with thermal over-load relay;
- 1.4 Ambient temperature: -5°C~+40°C;
- 1.5 Altitude: ≤2000m;
- 1.6 Mounting category: III
- 1.7 Mounting conditions:  
inclination between the mounting plane and  
the vertical plane not exceed ±5°
- 1.8 Standard: IEC/EN 60947-4-1



### 2. Type designation

NC2-□□□□/□

Number of poles: 4P; Blank:3P

Derivation code :  
 Ns: horizontal mounting  
 Nc: vertical mounting  
 Z: DC control

Rated operational current (A), AC-3 380/400V

Design sequence No.

Contactor

Company code

### 3. Terminal connection

Model	The connection capability			Screw size	Tightening torque (N·m)
	Number of piece	Cable Cross section (mm <sup>2</sup> )	Cu busbar Cross section (mm <sup>2</sup> )		
NC2-115	1	70~95	-	M6	3
NC2-150	1	70~95	-	M8	6
NC2-185	1	95~150	-	M8	6
NC2-225	1	95~150	-	M10	10
NC2-265	1	120~185	-	M10	10
NC2-330	1	185~240	-	M10	10
NC2-400	1(2)	240(150)	30×5	M10	10
NC2-500	2	150~185	40×5	M10	10
NC2-630	2	185~240	50×5	M12	14
NC2-800	2	185~240	50×5	M12	14

**4. Technical data**

★ 3P contactors AC coil operation

Model			NC2-115(Z)	NC2-150(Z)	NC2-185(Z)	NC2-225(Z)
Frame			Frame 1		Frame 2	
Rated Conventional heating current (A) AC-1			200	200	275	275
Rated operational current (A)	AC-3	380/400V AC	115	150	185	225
	AC-4	660/690V AC	86	108	118	137
Power of controlled 3-phase cage motor (AC-3)	kW	380/400V AC	55	75	90	110
		660/690V AC	80	100	110	129
	hp	240V AC	40	50	60	75
		415V AC	60	75	100	125
		480V AC	75	100	100	125
600V AC	75	100	100	125		
Operating cycles (operations /h) AC-3			1,200	1,200	600	600
Electrical life ( $\times 10^6$ operations) AC-3			1.2	1.2	1	1
Mechanical life ( $\times 10^5$ operations)			10	10	6	6
Matched fuse type	Model		RT36-1	RT36-1	RT36-2	RT36-2
	Rated current A		250	250	315	315

★ 4P contactors AC coil operation

Model			NC2-115/4	NC2-150/4	NC2-185/4	NC2-225/4
Frame			Frame 1		Frame 2	
Conventional heating current (A) AC-1			200	200	275	275
Rated operational current (A)	AC-3	380/400V AC	115	150	185	225
	AC-4	660/690V AC	86	108	118	137
Power of controlled 3-phase cage motor (AC-3)	kW	380/400V AC	55	75	90	110
		660/690V AC	80	100	110	129
	hp	240V AC	40	50	60	75
		415V AC	60	75	100	125
		480V AC	75	100	100	125
600V AC	75	100	100	125		
Operating cycles (operations /h) AC-3			1,200	1,200	600	600
Electrical life ( $\times 10^6$ operations) AC-3			1.2	1.2	1	1
Mechanical life ( $\times 10^5$ operations)			10	10	6	6
Matched fuse type	Model		RT36-1	RT36-1	RT36-2	RT36-2
	Rated current (A)		250	250	315	315

NC2-265(Z)	NC2-330(Z)	NC2-400(Z)	NC2-500	NC2-630	NC2-800	
Frame 3	Frame 4	Frame 5	Frame 6		Frame 7	
315	380	450	630	800	800	
265	330	400	500	630	AC-3 800	AC-4 630
170	235	303	353	462	486	462
132	160	200	250	335	450	
160	220	280	335	450	475	
100	125	150	200	250	350	
150	150	200	250	350	600	
150	200	250	350	400	600	
150	200	300	350	500	650	
600	600	600	600	600	600	
0.8	0.8	0.8	0.8	0.8	0.6	
6	6	6	6	6	3	
RT36-3	RT36-3	RT36-3	RT36-4	RT36-4	RT36-4	
355	500	630	800	1000	1000	

NC2-265/4	NC2-330/4	NC2-400/4	NC2-630/4
Frame 3	Frame 4	Frame 5	Frame 6
315	380	450	800
265	330	400	630
170	235	303	462
132	160	200	335
160	220	280	450
100	125	150	250
150	150	200	350
150	200	250	400
150	200	300	500
600	600	600	600
0.8	0.8	0.8	0.8
6	6	6	6
RT36-3	RT36-3	RT16-3	RT36-4
355	500	630	1000

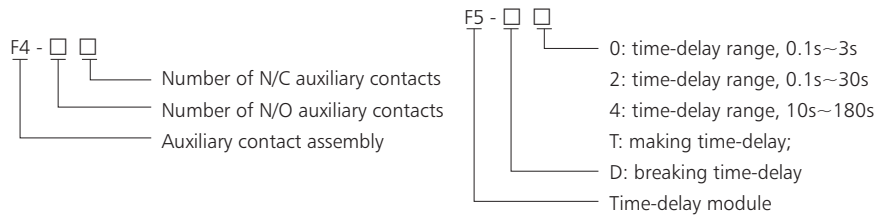
**5. Accessories**

Items		Model	NC2-115(Z)	NC2-150(Z)	NC2-185(Z)	NC2-225(Z)	
AC coil	Coil power	AC: In-rush (VA)	660		966		
		Sealed (VA)	60		75		
		DC: In-rush (W)	1500		1800		
		Sealed (W)	5		6		
	Operation range	Operation voltage	(85%~110%) Us				
		Drop-out voltage	Common products; 20%~75%; electricity-saving products: 10%~75%Us				
Coil code	3P	FF XXX (DC)		FG XXX (DC)			
(XXX=coil voltage)	4P	FF XXX/4		FG XXX/4			
Coil voltage (50Hz,60Hz,50/60Hz)(V AC)				AC: 110,127,220,230,380,400 DC: 48,110,220			

F4 auxiliary contact



F5 auxiliary contact



NC2-265(Z)	NC2-330(Z)	NC2-400(Z)	NC2-500	NC2-630	NC2-800
840	1,500	1,500	1,500	1,700	1,700
100	10	20	25	25	34.2
1500	1500	1700			
8	8	10			

(85%~110%) Us

Common products; 20%~75%; electricity-saving products: 10%~75%Us

FH XXX (DC)	FI XXX (DC)	FJ XXX (DC)	FK XXX	FL XXX	FM XXX
FH XXX/4	FI XXX	FJ XXX	-	FL XXX/4	-

AC: 110,127,220,230,380,400

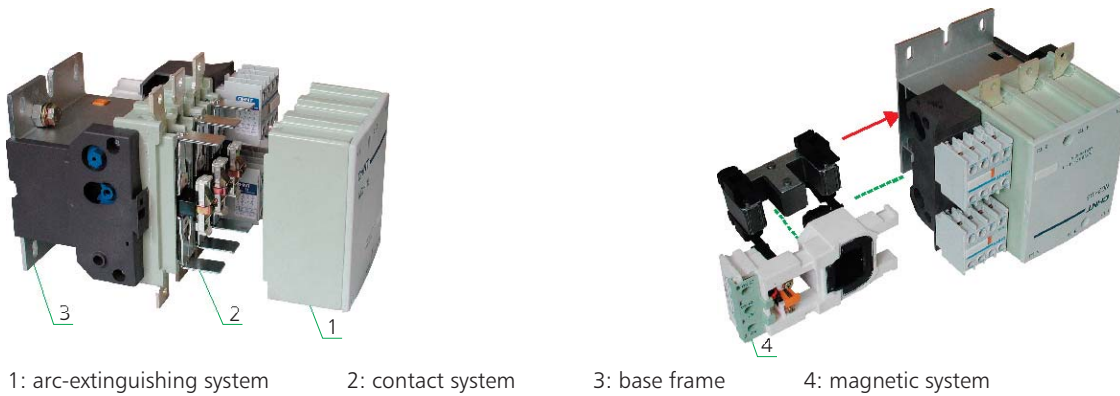
DC: 110,220(NC2-265Z/330Z/400Z)

Picture	Model	Configuration of contacts	
		Number of NO contact	Number of NC contact
	F4-20	2	0
	F4-11	1	1
	F4-02	0	2
	F4-40	4	0
	F4-31	3	1
	F4-22	2	2
	F4-13	1	3
	F4-04	0	4
Picture	Model	Time-delay range	Configuration of time-delay contacts
	F5-T0	0.1s~3s	N/O+N/C
	F5-T2	0.1s~30s	N/O+N/C
	F5-T4	10s~180s	N/O+N/C
	F5-D0	0.1s~3s	N/O+N/C
	F5-D2	0.1s~30s	N/O+N/C
	F5-D4	10s~180s	N/O+N/C

**6. Structure features**

The contactor is composed of arc-extinguishing system, contact system, base frame and magnetic system (including iron core, coil)  
 The contact system of the contactor is of direct action type and double-breaking points allocation.  
 The lower base-frame of the contactor is made of shaped aluminum alloy and the coil is of plastic enclosed structure.  
 The coil is assembled with the amature to be an integrated one. They can be directly taken out from or inserted into the contactor.  
 It is convenient for user's service and maintenance.

Scheme of NC2-115~265 structure



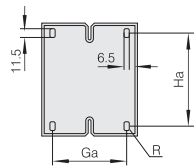
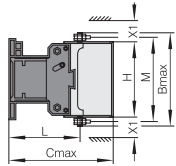
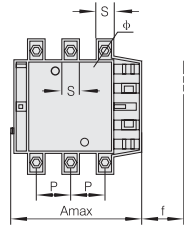
NC2 series contactor is of short arcing distance. For example, the arcing distance of NC2-115~330 contactor is only 10mm (200~500V), which is about one sixth that of the previous contactor of the same capacity. It is an excellent complementary element used for an electric control device and it occupies smaller space in a complete set of equipment. The mechanical interlock can be added to the contactor in both horizontal direction and vertical direction. Three sets of contactor can be interlocked in the vertical direction.

Model	NC2-115		NC2-150		NC2-185		NC2-225	
	3P	4P	3P	4P	3P	4P	3P	4P
A	167	204	167	204	171	211	171	211
B	163	163	171	171	174	174	197	197
C	172	172	172	172	183	183	183	183
P	37	37	40	40	40	40	48	48
S	20	20	20	20	20	20	25	25
φ	M6	M6	M8	M8	M8	M8	M10	M10
f	131	131	131	131	131	131	131	131
M	147	147	150	150	154	154	172	172
H	124	124	124	124	127	127	127	127
L	107	107	107	107	113.5	113.5	113.5	113.5
X1 200~500V	10		10		10		10	
X1 660~1000V	15		15		15		15	
Ga	80		80		80		80	
Ha	110~120		110~120		110~120		110~120	

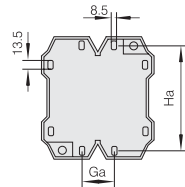
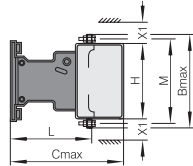
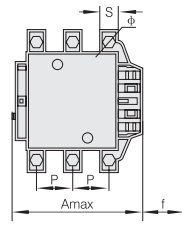
Note: a. f is the min distance needed to mount and dismount the coil.  
 b. X1: arcing distance is identified by operating voltage and breaking capacity.

**7. Overall and mounting dimensions (mm)**

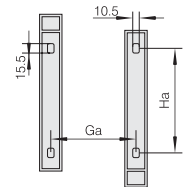
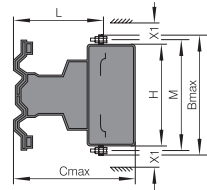
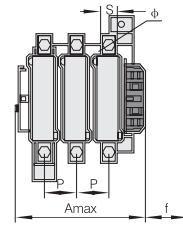
NC2-115~330



NC2-400~500





NC2-630~800



NC2-265		NC2-330		NC2-400		NC2-500	NC2-630		NC2-800
3P	4P	3P	4P	3P	4P	3P	3P	4P	3P
202	247	213	261	213	261	233	309	389	309
203	203	206	206	206	206	238	304	304	304
215	215	220	220	220	220	233	256	256	256
48	48	48	48	48	48	55	80	80	80
25	25	25	25	25	25	30	40	40	40
M10	M10	M10	M10	M10	M10	M10	M12	M12	M12
147	147	147	147	147	147	150	181	181	181
178	178	181	181	181	181	208	264	264	264
147	147	158	158	158	158	172	202	202	202
141	141	145	145	145	145	146	155	155	155
10		10		15		15	20		20
15		15		20		20	30		30
96		96		80		80	180	240	180
110~120		110~120		170~180		170~180	180~190		180~190

**8. Assembly with overload relay**

8.1 Assembly with thermal overload relay

Model of contactor	Assembled thermal overload relay			
	Model	Rated current (A)	Recommended fuse type	
			aM	gG
NC2-115 NC2-150 NC2-185 NC2-225	 NR2-200	80~125	125	200
100~160		160	250	
125~200		200	315	
NC2-185 NC2-225 NC2-265 NC2-330 NC2-400 NC2-500 NC2-630~800	 NR2-630	160~250	250	400
200~315		315	500	
250~400		400	630	
315~500		500	800	
400~630		630	800	