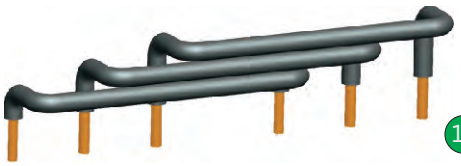
10



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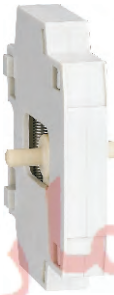

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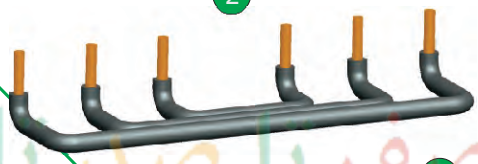

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NC8 and Accessories

1. Contactor
2. Mechanical interlock block
3. Contactor
4. Side mount aux
5. Side mount aux
6. Thermal overload relay
7. Front mount aux
8. Front mount aux
9. Pneumatic timers
10. Surge arrester block
11. Bus bar
12. Bus bar

D

3

4

8

9

NC8 Series AC Contactor 06~500A

1. General

NC8 series AC contactor is applied to circuits with AC current frequency of 50 Hz or 60 Hz, rated operational voltage up to 690 V and rated operational current up to 500 A. It is used for remote making & breaking circuits, and can also be used with proper thermal overload relay together as an electromagnetic starter to protect circuits from overload.

Standard: IEC/EN 60947-4-1.

2. Operating conditions

2.1 Certificates: CE, KEMA, UL;

2.2 Electric ratings: AC 50/60Hz, up to 690V, up to 500A;

2.3 Application: remotely makes and breaks circuit;
protect circuit from overload assembling
with proper thermal relay;

2.4 Utilization category: AC-1, AC-3, AC-4;

2.5 Mounting conditions: inclination between
mounting plane and vertical plane not
exceed ±5°

2.6 NC8-06 (M) ~65 : IP20
NC8-80~170 : IP10
NC8-205~500 : IP00(IP20 front face with shrouds SHD)

3. Type designation

3-pole contactor

NC8 - 06 M 01 /Z /N

- **Combination**
  / N: Reversing
  None: Without additional device
- **Coil type**
  / Z: DC operation coil
  None: AC operation coil
  /W:Wide voltage range operation coil
  (only for 115~170A)
- **Auxiliary contact**
  Mini type (6A~12A): 01: 1NC; 10: 1NO
  Normal type (9A~38A): None: 1NO+1NC; 22: 2NO+2NC
  Normal type (40A~100A): None: 1NO+1NC;
  Normal type (115A~500A): None: None
- **Contactor type**
  M: Mini type (6A~12A)
  None: Normal type(9A~500A)
- **Nominal rating**
  06: 6A; 09: 9A; ... 500: 500A
- **NC8 series AC contactor**

4-pole contactors

NC8 - 06 M /4 /Z /N

- **Combination**
  / N: Reversing
  None: Without additional device
- **Coil type**
  / Z: DC operation coil
  None: AC operation coil
- **Number of main contact**
  Mini type (6A~12A)
  / 4: 4NO; / 22: 2NO+2NC
  Normal type (9A~38A)
  / 4: 4NO; /22: 2NO+2NC
  Normal type (40A~100A)
  /4: 4NO
- **Contactor type**
  M: Mini type (6A~12A)
  None: Normal type(9A~100A)
- **Nominal rating**
  06: 6A; 09: 9A; ... 100: 100A
- **NC8 series AC contactor**

Accessories

F4 - 20

Contacts
20: 2NO
11: 1NO+1NC
02: 2NC
40: 4NO
31: 3NO+1NC
22: 2NO+2NC
13: 1NO+3NC
04: 4NC

Auxiliary contact

F5 - T 0

Time-delay range
0: 0.1s~3s
2: 0.1s~30s
4: 10s~180s

Time-delay type
T: Making time-delay
D: Breaking time-delay

Auxiliary contact

D

F8 - 20

Contacts
20: 2NO
11:1NO+1NC
02: 2NC
40: 4NO
31: 3NO+1NC
22: 2NO+2NC
13: 1NO+3NC
04: 4NC

Auxiliary contact

NCF8 - 11 (for NC8 - 09~100),expect (40～100、DC)

Contacts
11: 1NO+1NC

Side auxiliary contact

NCF1 - 11C / B

None: Normal type: for 115A~170A
/B: for 205A~500A

Contacts
11: 1NO+1NC

Side auxiliary contact

SR8 - A / RV 48

Voltage protection scope
48: 24V~48V AC/DC
250: 110V~250V AC/DC (for RV type)
127V~250V AC (for RC type)
440: 380V~440V AC

Type of element
RV: Varistor
RC: Resistance + Capacitance

Matching contactor
A: for mini type
B: for normal 9A～38A
C: for normal 40A～100A，expect DC

Surge Arrester

NCL8 - A

A: for NC8-0 9～38
B: for NCB- 40～100，expect DC
C: for NC8-205～500

Mechanical interlocking

Quick selection table

Frame size		9A	12A	18A	25A	32A	38A
3-pole contactors							
Auxiliary contacts	1NO+1NC	NC8-09	NC8-12	NC8-18	NC8-25	NC8-32	NC8-38
	2NO+2NC	NC8-0922	NC8-1222	NC8-1822	NC8-2522	NC8-3222	NC8-3822

Ratings/IEC/EN 60947-4-1		kW	A	kW	A	kW	A	kW	A	kW	A	kW	A
AC-1			25		25		32		40		55		55
AC-3	220V/230V/240V	2.2	9	3	12	4	18	5.5	25	7.5	32	9	38
	380V/400V	4	9	5.5	12	7.5	18	11	25	15	32	18.5	38
	415V	4	9	5.5	12	9	18	11	25	15	32	18.5	38
	660V/690V	5.5	6.7	7.5	9	9	10.6	15	17.3	18.5	21.9	18.5	21.9

Ratings/UL508		hp	A	hp	A	hp	A	hp	A	hp	A	hp	A
Continuous current (FLA)			25		25		32		40		50		50
Single phase	110V/120V	0.5		0.75		1		1.5		2		2	
	230V/240V	1		2		3		3		5		5	
Three phases	200V/208V	3		3		5		7.5		10		10	
	230V/240V	3		3		5		7.5		10		10	
	460V/480V	5		7.5		10		15		20		20	
	575V/600V	7.5		10		15		20		25		25	

Frame size		40A	50A	65A	80A	100A	115A	150A	170A
3-pole contactors									
Auxiliary contacts	1NO+1NC	NC8-40	NC8-50	NC8-65	NC8-80	NC8-100	NC8-115	NC8-150	NC8-170

Ratings/IEC/EN 60947-4-1		kW	A	kW	A	kW	A	kW	A	kW	A	kW	A	kW	A	kW	A
AC-1			60		80		80		125		125		200		200		275
AC-3	220V/230V/240V	11	40	15	50	18.5	65	22	80	25	100	37	115	45	150	55	170
	380V/400V	18.5	40	22	50	30	65	37	80	45	100	55	115	75	150	90	170
	415V	22	40	25	50	37	65	45	80	45	100	59	115	80	150	100	170
	660V/690V	30	34	33	39	37	42	45	49	45	49	80	86	100	107	110	118

Ratings/UL508		hp	A	hp	A	hp	A	hp	A	hp	A	hp	A	hp	A	hp	A
Continuous current (FLA)			60		80		80		125		125		200		200		275
Single phase	110V/120V	3		5		5		7.5		10		10		15		15	
	230V/240V	5		7.5		10		20		20		25		30		30	
Three phases	200V/208V	10		15		20		30		30		40		50		60	
	230V/240V	10		15		20		30		30		40		60		60	
	460V/480V	30		40		50		60		60		100		125		150	
	575V/600V	30		40		50		60		60		100		125		150	

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Frame size		205A	265A	300A	400A	500A
3-pole contactors						
Auxiliary contacts	2NO+2NC	NC8-205	NC8-265	NC8-300	NC8-400	NC8-500

Ratings/IEC/EN 60947-4-4		kW	A	kW	A	kW	A	kW	A	kW	A
AC-1			300		330		380		450		630
AC-3	220V/230V/240V	63	205	75	265	90	300	132	400	160	500
	380V/400V	110	205	132	265	160	300	200	400	250	500
	415V	110	205	140	265	160	300	220	400	280	500
	660V/690V	132	137	160	185	200	235	300	303	355	354

Ratings/UL508		hp	A	hp	A	hp	A	hp	A	hp	A
Continuous current (FLA)			300		330		380		450		630
Single phase	110V/120V	15		20		25		30		40	
	230V/240V	30		40		50		60		75	
Three phases	200V/208V	60		75		100		125		150	
	230V/240V	75		100		125		150		200	
	460V/480V	150		200		250		300		400	
	575V/600V	200		250		300		400		500	

Frame size		9A	12A	18A	25A	32A	38A
4-pole Contactors							
Auxiliary contacts	4NO	NC8-09/4	NC8-12/4	NC8-18/4	NC8-25/4	NC8-32/4	NC8-38/4
	2NO+2NC	NC8-09/22	NC8-12/22	NC8-18/22	NC8-25/22	NC8-32/22	NC8-38/22

Ratings/IEC/EN 60947-4-1		kW	A	kW	A	kW	A	kW	A	kW	A	kW	A
AC-1			25		25		32		40		55		55
AC-3	220V/230V/240V	2.2	9	3	12	4	18	5.5	25	7.5	32	9	38
	380V/400V	4	9	5.5	12	7.5	18	11	25	15	32	18.5	38
	415V	4	9	5.5	12	9	18	11	25	15	32	18.5	38
	660V/690V	5.5	6.7	7.5	9	9	10.6	15	17.3	18.5	21.9	18.5	21.9

Ratings/UL508		hp	A	hp	A	hp	A	hp	A	hp	A	hp	A
Continuous current (FLA)			25		25		32		40		50		50
Single phase	110V/120V	0.5		0.75		1		1.5		2		2	
	230V/240V	1		2		3		3		5		5	
Three phases	200V/208V	3		3		5		7.5		10		10	
	230V/240V	3		3		5		7.5		10		10	
	460V/480V	5		7.5		10		15		20		20	
	575V/600V	7.5		10		15		20		25		25	

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Frame size		**40A**	**50A**	**65A**	**80A**	**100A**
4-pole contactors						
Auxiliary contacts	4NO	NC8-40/4	NC8-50/4	NC8-65/4	NC8-80/4	NC8-100/4

Ratings/IEC/EN 60947-4-1		**kW**	**A**	**kW**	**A**	**kW**	**A**	**kW**	**A**	**kW**	**A**
AC-1			60		80		80		125		125
AC-3	220V/230V/240V	11	40	15	50	18.5	65	22	80	25	100
	380V/400V	18.5	40	22	50	30	65	37	80	45	100
	415V	22	40	25	50	37	65	45	80	45	100
	660V/690V	30	34	33	39	37	42	45	49	45	49

Ratings/UL508		**hp**	**A**	**hp**	**A**	**hp**	**A**	**hp**	**A**	**hp**	**A**
Continuous current (FLA)			60		80		80		125		125
Single phase	110V/120V	3		5		5		7.5		10	
	230V/240V	5		7.5		10		20		20	
Three phases	200V/208V	10		15		20		30		30	
	230V/240V	10		15		20		30		30	
	460V/480V	30		40		50		60		60	
	575V/600V	30		40		50		60		60	

Frame size	9A	12A	18A	25A	32A	38A
Contactors	 3-pole		 4-pole	 3-pole		 4-pole

Auxiliary contact block			
 F4 4-pole Front mount  F4 2-pole Front mount	Contacts aux	4NO	F4-40
		3NO+1NC	F4-31
		2NO+2NC	F4-22
		1NO+3NC	F4-13
		4NC	F4-04
		2NO	F4-20
		1NO+1NC	F4-11
		2NC	F4-02
 F5 1N/O+1N/C Pneumatic timer	Making time-delay range (s)	0.1~3	F5-T0
		0.1~30	F5-T2
		10~180	F5-T4
	Breaking time-delay range (s)	0.1~3	F5-D0
		0.1~30	F5-D2
		10~180	F5-D4
 NCF8 2-pole Side mount	Contacts aux	1NO+1NC	NCF8-11

Surge arrester			
 SR8-B/RC250 Surge arrester	Voltage protection scope	48	24V~48V AC/DC
		250	110V~250V AC/DC (for RV type) 127V~250V AC (for RC type)
		440	380V~440V AC

Overload relays		NR8-38		
 NR8-38 Bimetallic style Overload relay		Rated current (A)		
		0.10-0.14	0.9-1.25	7.5-10
		0.14-0.2	1.1-1.6	9-13
		0.18-0.25	1.4-2	12-16
		0.22-0.32	1.8-2.5	14-20
		0.28-0.4	2.2-3.2	18-24
		0.35-0.5	2.8-4	23-32
		0.45-0.63	3.5-5	30-38
		0.55-0.8	4.5-6.3	
		0.7-1	5.5-8	

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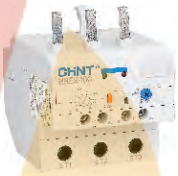
Frame size	40A	50A	65A	80A	100A
Contactors	 3-pole	 4-pole		 3-pole	 4-pole
Auxiliary contact block	 F4 4-pole Front mount	Contacts aux	4NO	F4-40	
			3NO+1NC	F4-31	
			2NO+2NC	F4-22	
			1NO+3NC	F4-13	
			4NC	F4-04	
			2NO	F4-20	
			1NO+1NC	F4-11	
			2NC	F4-02	
	 F4 2-pole Front mount				
	 F5 1N/O+1N/C Pneumatic timer	Making time-delay range (s)	0.1~3	F5-T0	
			0.1~30	F5-T2	
			10~180	F5-T4	
		Breaking time-delay range (s)	0.1~3	F5-D0	
			0.1~30	F5-D2	
			10~180	F5-D4	
	 NCF8 2-pole Side mount	Contacts aux	1NO+1NC	NCF8-11	
Surge arrester	 SR8-C/RC440 Surge arrester	Voltage protection scope	48	24V~48V AC/DC	
			250	110V~250V AC/DC (for RV type) 127V~250V AC (for RC type)	
			440	380V~440V AC	

Frame size	115A	150A	170A	205A	265A	300A	400A	500A
Contactors	 3-pole			 3-pole			 3-pole	
Auxiliary contact block	 F4 4-pole Front mount  F4 2-pole Front mount			Contacts aux: 4NO F4-40; 3NO+1NC F4-31; 2NO+2NC F4-22; 1NO+3NC F4-13; 4NC F4-04; 2NO F4-20; 1NO+1NC F4-11; 2NC F4-02				
	 F5 1N/O+1N/C Pneumatic timer			Making time-delay range (s): 0.1~3 F5-T0; 0.1~30 F5-T2; 10~180 F5-T4 Breaking time-delay range (s): 0.1~3 F5-D0; 0.1~30 F5-D2; 10~180 F5-D4				
	 1NO+1NC NCF1 2-pole Side mount		NCF1-11C		 1NO+1NC NCF1 2-pole Side mount		NCF1-11C/B	
Surge arrester	/							

D

Frame size	40A	50A	65A	80A	100A	115A	150A	170A
Contactors	 3-pole		 4-pole	 3-pole		 4-pole		 3-pole
Overload relays	 NR2-93 Bimetallic style Overload relay		NR2-93 Rated current (A) 23 ~ 32 30 ~ 40 37 ~ 50 48 ~ 65 55 ~ 70 63 ~ 80 80 ~ 93 NRE8-100			NR2-200 Rated current (A) 100 ~ 160 125 ~ 200		
	 NRE8-100 Electronic style Overload relay		Rated current (A) 65 100					

Frame size	205A	265A	300A	400A	500A
Contactors	 3-pole			 3-pole	
Overload relays	 NR2-630 Bimetallic style Overload relay			NR2-630 Rated current (A) 160~250 200~315 250~400 315~500 400~630	

Frame size			6A	9A	12A	6A	9A	12A
Contactors			AC coil			DC coil		
3-pole	Auxiliary contacts	1NO	NC8-06M10	NC8-09M10	NC8-12M10	NC8-06M10/Z	NC8-09M10/Z	NC8-12M10/Z
		1NC	NC8-06M01	NC8-09M01	NC8-12M01	NC8-06M01/Z	NC8-09M01/Z	NC8-12M01/Z
4-pole	Main contacts	4NO	NC8-06M/4	NC8-09M/4	NC8-12M/4	NC8-06M/4/Z	NC8-09M/4/Z	NC8-12M/4/Z
		2NO+2NC	NC8-06M/22	NC8-09M/22	NC8-12M/22	NC8-06M/22/Z	NC8-09M/22/Z	NC8-12M/22/Z

Ratings/IEC/EN 60947-4-1		kW	A	kW	A	kW	A	kW	A	kW	A	kW	A
AC-1			20		20		20		20		20		20
AC-3	220V/230V/240V	1.5	6	2.2	9	3	12	1.5	6	2.2	9	3	12
	380V/400V	2.2	6	4	9	5.5	12	2.2	6	4	9	5.5	12
	415V	2.2	6	4	9	5.5	12	2.2	6	4	9	5.5	12
	660V/690V	3	3.8	4	4.9	4	4.9	3	3.8	4	4.9	4	4.9

Ratings/UL508		hp	A	hp	A	hp	A	hp	A	hp	A	hp	A
Continuous current			20		20		20		20		20		20
Single phase	110V/120V	0.3		0.5		0.75		0.3		0.5		0.75	
	230V/240V	0.75		1.5		2		0.75		1.5		2	
Three phases	200V/208V	1.5		3		3		1.5		3		3	
	230V/240V	1.5		3		3		1.5		3		3	
	460V/480V	3		5		7.5		3		5		7.5	
	575V/600V	3		5		10		3		5		10	

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Frame size	6A	9A	12A	6A	9A	12A
Contactors	AC coil			DC coil		

Auxiliary contact block	 F8 Front mount	contacts number	4NO	F8-40
			3NO+1NC	F8-31
			2NO+2NC	F8-22
			1NO+3NC	F8-13
			4NC	F8-04
			2NO	F8-20
			1NO+1NC	F8-11
			2NC	F8-02
Surge arrester	 SR8-A Surge arrester	Voltage protection scope	48	24V~48V AC/DC
			250	110V~250V AC/DC
			440	380V~440V AC
Overload relays	 NR8-11.5 Bimetallic style Overload relay	NR8-11.5		
		Rated current (A)		
			0.1~0.16	1.6~2.5
			0.16~0.25	2.5~4
			0.25~0.4	4~6
			0.4~0.63	5.5~8
			0.63~1	7~10
			1~1.6	9~13

4. Technical data

4.1 Working environment and technical index

Overvoltage category		Ⅲ		
Pollution degree		3		
Standard		IEC/EN 60947-4-1		
Certificate		CE, UL, KEMA		
Protection degree		IP20(NC8-06M~65)	IP10(NC8-80~170)	IP00(NC8-205~500)
Ambient air temperature	being working	-5℃~+40℃, the average temperature during 24 hours should not exceed +35℃. More information refer to table 1		
	transportation or storage	-25℃~+55℃, or up to +70℃ for a short time (in 24 hours)		
Altitude(m)		no exceeding 2000m, more information refer to table 2		
Atmosphere conditions		At mounting side, relative humidity no exceeding 50%, at the max temperature of +40℃. Higher relative humidity is allowable under lower temperature. For example, RH could be +20℃, special measure should be taken to occurrence of dews.		
Installation conditions		the inclination between installation plane and vertical plane is within ±5°		
Impact and shake		the product should be used in the places where there are no obvious impact and shake		

Table 1

environment temperature(℃)	40	50	60	70
correction coefficient	1	0.875	0.75	0.625

Table 2

Altitude(m)	2000	3000	4000
Rated impulse withstand voltage Correction coefficient	1	0.88	0.78
Rated operational current Correction coefficient	1	0.92	0.9

4.2 Main circuit parameter and technic capability

Frame size			6A	9A	12A	9A	12A	18A
			Mini type			Normal type		
Rated conventional heating current(A)			20	20	20	25	25	32
Rated insulation voltage(V)			690					
Rated impulse withstand voltage(kV)			6					
Rated making capability			making current: 10×Ie(AC-3) or 12×Ie(AC-4)					
Rated breaking capability			making-breaking current: 8×Ie(AC-3) or 10×Ie(AC-4)					
Short-time withstand current(A)		10s	48	72	96	72	96	144
Rated operational current (A)	220V/230V/240V	AC-3	6	9	12	9	12	18
		AC-4						
	380V/400V	AC-3	6	9	12	9	12	18
		AC-4			9			
	415V	AC-3	6	9	12	9	12	18
		AC-4			9			
	660V/690V	AC-3	3.8	4.9	4.9	6.7	9	10.6
		AC-4	3.8	4.9	4.9	6.7	9	10.6
Rated control power	AC-3(kW)	220V/230V/240V	1.5	2.2	3	2.2	3	4
		380V/400V	2.2	4	5.5	4	5.5	7.5
		415V	2.2	4	5.5	4	5.5	9
		660V/690V	3	4	4	5.5	7.5	9
	1PH(HP)	110V/120V	0.3	0.5	0.75	0.5	0.75	1
		230V/240V	0.75	1.5	2	1	2	3
	3PH(HP)	200V/208V	1.5	3	3	3	3	5
		230V/240V	1.5	3	3	3	3	5
		460V/480V	3	5	7.5	5	7.5	10
		575V/600V	3	5	10	7.5	10	15
Operating frequency(415V)		AC-3	1,200 operations/h					
		AC-4	300 operations/h					
Electrical life(415V)		AC-3	1,200,000 Operations					
		AC-4	to see Electrical life curves, page 32					
Mechanical life			10,000,000 Operations					
Configuration of main contacts			3-pole:3NO; 4-pole:4NO or 2NO+2NC					
Matched fuse type			RT16-20	RT16-20	RT16-20	RT16-20	RT16-25	RT16-32
Matched thermal over-load relay		Modle	NR8-11.5			NR8-38		
		current range	0.1~0.16 0.16~0.25 0.25~0.4 0.4~0.63	0.63~1 1~1.6 1.6~2.5	2.5~4 4~6 5.5~8 7~10	9~13	0.10-0.14 0.14-0.2 0.18-0.25 0.22-0.32	0.28-0.4 0.35-0.5 0.45-0.63 0.55-0.8	0.7-1 0.9-1.25 1.1-1.6 1.4-2	1.8-2.5 2.2-3.2 2.8-4 3.5-5	4.5-6.3 5.5-8 7.5-10 9-13	12-16 14-20 18-24 23-32	30-38

25A	32A	38A	40A	50A	65A	80A	100A	115A	150A	170A
	Normal type									
40	55	55	60	80	80	125	125	200	200	275
	690									
	6		8							
	making current:10×Ie(AC-3) or 12×Ie(AC-4)									
	making-breaking current:8×Ie(AC-3) or 10×Ie(AC-4)									
200	256	304	320	400	520	640	800	920	1200	1360
25	32	38	40	50	65	80	100	115	150	170
25	32	38	40	50	65	80	100	115	150	170
		32								150
25	32	38	40	50	65	80	100	115	150	170
		32								150
17.3	21.9	21.9	34	39	42	49	49	86	107	118
14	17.3	17.3	34	39	42	49	49			107

5.5	7.5	9	11	15	18.5	22	25	37	45	55
11	15	18.5	18.5	22	30	37	45	55	75	90
11	15	18.5	22	25	37	45	45	59	80	100
15	18.5	18.5	30	33	37	45	45	80	100	110
1.5	2	2	3	5	5	7.5	10	10	15	15
3	5	5	5	7.5	10	20	20	25	30	30
7.5	10	10	10	15	20	30	30	40	50	60
7.5	10	10	10	15	20	30	30	40	60	60
15	20	20	30	40	50	60	60	100	125	150
20	25	25	30	40	50	60	60	100	125	150

1,200 operations/h										
300 operations/h			120 operations/h							
1,200,000 Operations								800,000 Operations		600,000 Operations
to see Electrical life curves, page 32										
			10,000,000 Operations					6,000,000 Operations		
			3-pole: 3NO; 4-pole: 4NO					3-pole: 3NO		
RT16-50	RT16-63	RT16-63	RT16-63	RT16-80	RT16-80	RT16-100	RT16-125	NT2-224	NT2-224	NT3-315
NR8-38			NR2-93			NRE8-100		NR2-200		
0.10-0.14 0.45-0.63 1.8-2.5 7.5-10 30-38 0.14-0.2 0.55-0.8 2.2-3.2 9-13 0.18-0.25 0.7-1 2.8-4 12-16 0.22-0.32 0.9-1.25 3.5-5 14-20 0.28-0.4 1.1-1.6 4.5-6.3 18-24 0.35-0.5 1.4-2 5.5-8 23-32			23~32 30~40 37~50 48~65	55~70 63~80 80~93		65 100		100~160 125~200		

Frame size			205A	265A	300A	400A	500A
			Normal type				
Rated conventional heating current(A)			300	330	380	450	630
Rated insulation voltage(V)			1000				
Rated impulse withstand voltage(kV)			8				
Rated making capability			making current: 10×Ie(AC-3) or 12×Ie(AC-4)				
Rated breaking capability			making-breaking current: 8×Ie(AC-3) or 10×Ie(AC-4)				
Short-time withstand current(A)		10s	1640	2120	2400	3200	4000
Rated operational current (A)	220V/230V/240V	AC-3	205	265	300	400	500
		AC-4	205	265	300	400	500
	380V/400V	AC-3	205	265	300	400	500
		AC-4	205	265	300	400	500
	415V	AC-3	205	265	300	400	500
		AC-4	205	265	300	400	500
	660V/690V	AC-3	137	185	235	303	354
		AC-4	137	185	235	303	354

Rated control power	AC-3(kW)	220V/230V/240V	63	75	90	132	160
		380V/400V	110	132	160	200	250
		415V	110	140	160	220	280
		660V/690V	132	160	200	300	355
	1PH(HP)	110V/120V	15	20	25	30	40
		230V/240V	30	40	50	60	75
	3PH(HP)	200V/208V	60	75	100	125	150
		230V/240V	75	100	125	150	200
		460V/480V	150	200	250	300	400
		575V/600V	200	250	300	400	500

Operating frequency(415V)		AC-3	600 operations/h			300 operations/h	
		AC-4	30 operations/h				
Electrical life(415V)		AC-3	1,000,000 Operations			800,000 Operations	
		AC-4	to see Electrical life curves, page 32				
Mechanical life			6,000,000 Operations				
Configuration of main contacts			3-pole:3NO				
Matched fuse type			RT16(36)-315	RT16(36)-400	RT16(36)-425	RT16(36)-500	RT16(36)-800
Matched thermal over-load relay		Modle	NR2-630				
		current range	160~250 200~315 250~400 315~500 400~630				

4.3 The connection capability of main control circuit

Connection circuit	frame size		6A	9A	12A	9A	12A	18A	25A	32A	38A	40A	50A	65A	80A	100A
			Mini type			Normal type										
Main circuit connection	cable conne-ction (mm^2)	flexible cable (with cold-press terminal)	single cable	1~2.5		1~4		1.5~6	2.5~10			10~25			16~50	
			duad cable	1~1.5		1~2.5		1~4	2.5~6			4~16			10~35	
		stiff cable	single cable	1~2.5		1~4		1.5~4	2.5~10			-			-	
			duad cable	1~2.5		1~4		1.5~4	2.5~10			-			-	
	screw size			M3		M3.5			M4			M8				
	tightening torque		(N.m)	0.8		1.2			2			6				
			(lb.in.)	7		7			10			45				

Control circuit connection	cable conne-ction (mm^2)	flexible cable (with cold-press terminal)	single cable	1~2.5	1~4
			duad cable	1~1.5	1~2.5
		stiff cable	single cable	1~2.5	1~4
			duad cable	1~2.5	1~4
	screw size			M3	M3.5
	tightening torque		(N.m)	0.8	1.2
			(lb.in.)	7	7

Connection circuit	frame size		115A	150A	170A	205A	265A	300A	400A	500A
			Normal type							
Main circuit connection	cable conne-ction (mm^2)	flexible cable (with cold-press terminal)	single cable	10~95			-			
			duad cable	10~50			-			
		stiff cable	single cable	10~95			50~240			
			duad cable	10~50			50~240			
	screw size			M10			M10			
	tightening torque		(N.m)	10			14			
			(lb.in.)				124			

Control circuit connection	cable conne-ction (mm^2)	flexible cable (with cold-press terminal)	single cable	1~4
			duad cable	1~2.5
		stiff cable	single cable	1~4
			duad cable	1~4
	screw size			M3.5
	tightening torque		(N.m)	1.2
			(lb.in.)	7

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4.4 The characteristic of AC control circuit

Connection circuit	Frame size	6A	9A	12A	9A	12A	18A	25A	32A	38A	40A	50A	65A	80A	100A
		Mini type			Normal type										
Coil voltage(V)	AC 50Hz AC 50Hz/60Hz AC 60Hz	24, 36, 48, 110, 127, 220, 230, 240, 380, 400, 415													
	DC	24, 48, 110, 125, 220, 250													
Acting range	attraction(hot)	(85%~110%)Us; +40℃													
	release(cold)	AC: (20%~75%)Us, DC: (10%~75%)Us; -5℃													
The average power of AC coil(VA)	start	25~40			50~70						160~210			190~250	
	holding	2~7			6~10						13~25			17~30	
Heat wastage(W)	AC	1~4			2~4						4~7			5~8	
Main contact action time(ms)	close	10~18			12~25						15~25			15~30	
	disconnection	4~16			5~20						6~15			8~17	

Connection circuit	Frame size	115A	150A	170A	205A	265A	300A	400A	500A
		Normal type			Normal type				
Coil voltage(V)	AC	AC/DC			AC/DC				
	DC	110~127, 220~240, 380~415			110~127, 220~240, 380~415				
		/W: 100~250							
Acting range	attraction(hot)	(85%~110%)Us; +40℃							
	release(cold)	(10%~75%)Us; -5℃							
The average power of AC coil(VA)	start	600~700			300~600			500~800	
	holding	3~5			6~11			7~12	
Heat wastage(W)	AC	2~4			5~10			6~11	
	DC								
Main contact action time(ms)	close	15~30			30~95			45~100	
	disconnection	40~50			40~80			60~100	

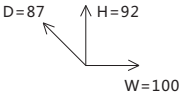
4.5 Main technical data of accessories

F4, front mount	matched contactor	model of accessories		F4-20	F4-11	F4-02	F4-40	F4-31	F4-22	F4-13	F4-04
	NC8-09~500	contacts	N/O	2	1	0	4	3	2	1	0
			N/C	0	1	2	0	1	2	3	4
F8, front mount	matched contactor	model of accessories		F8-20	F8-11	F8-02	F8-40	F8-31	F8-22	F8-13	F8-04
	NC8-06M~12M	contacts	N/O	2	1	0	4	3	2	1	0
			N/C	0	1	2	0	1	2	3	4
NCF8, side mount	matched contactor	model of accessories		NCF8-11							
	NC8-09~100	contacts	N/O	1							
			N/C	1							
NCF1, side mount	matched contactor	model of accessories		NCF1-11C or NCF1-11C/B							
	NC8-115~500	contacts	N/O	1							
			N/C	1							
F5, Pneumatic timer	matched contactor	model of accessories		F5-T0		F5-T2	F5-T4	F5-D0	F5-D2	F5-D4	
	NC8-09~500	contacts	N/O	1		1	1	1	1	1	
			N/C	1		1	1	1	1	1	
		time-delay range(s)		0.1~3		0.1~30	10~180	0.1~3	0.1~30	10~180	
SR8, surge arrester	NC8-06M~12M	SR8-A									
	NC8-09~38	SR8-B									
	NC8-40~100	SR8-C									
Rated operational voltage(V)				up to 690							
Rated insulation voltage(V)				690							
Rated conventional current(A)				10							
Rated making capability				making current 10×Ie(AC-15) or 1×Ie(DC-13)							
Short-circuit protection				gG fuse: 10A							
Control capacity			AC-15	360VA							
			AC-13	69W							
Standard				IEC/EN 60947-5-1							
Certificate				CE, UL, KEMA							
Protection degree				IP20							
Cable connection (mm^2)	flexible cable (without cold-press terminal)		single cable	1~4							
			duad cable	1~4							
	flexible cable (with cold-press terminal)		single cable	1~4							
			duad cable	1~2.5							
	inflexible cable		single cable	1~4							
			duad cable	1~4							
screw size				M3.5							
tightening torque		(N.m)		1.2							
		(lb.in.)		7							

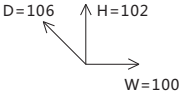
Note: The requirement to the environment of accesseries is same with that of the contactors'.
You can order the product that you need or recognize your existing product according to the above-mentioned number and the letter of alphabet code.

5. Derived products

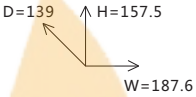
5.1 3-pole Reversing contactor



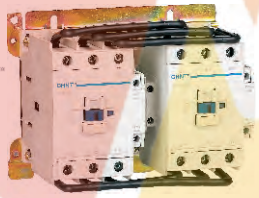
Frame size	Aux. contacts	
	1NO+1NC	2NO+2NC
9A	NC8-09/N	NC8-0922/N
12A	NC8-12/N	NC8-1222/N
18A	NC8-18/N	NC8-1822/N

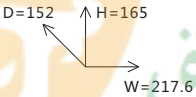


Frame size	Aux. contacts	
	1NO+1NC	2NO+2NC
25A	NC8-25/N	NC8-25922/N
32A	NC8-32/N	NC8-3222/N
38A	NC8-38/N	NC8-3822/N

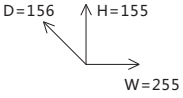


Frame size	Aux. contacts
	1NO+1NC
40A	NC8-40/N
50A	NC8-50/N
65A	NC8-65/N

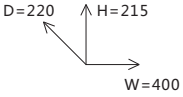




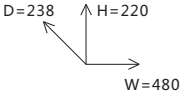
Frame size	Aux. contacts
	1NO+1NC
80A	NC8-80/N
100A	NC8-100/N



Frame size	Aux. contacts
	2NO+2NC
115A	NC8-115/N
150A	NC8-150/N
170A	NC8-170/N

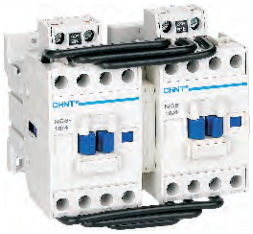


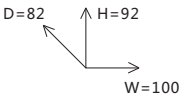
Frame size	Aux. contacts
	4NO+4NC
205A	NC8-205/N
265A	NC8-265/N
300A	NC8-300/N



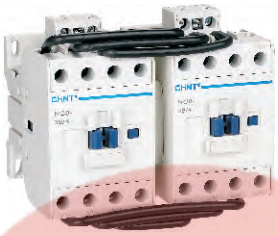
Frame size	Aux. contacts
	4NO+4NC
400A	NC8-400/N
500A	NC8-500/N

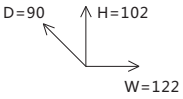
5.2 4-pole Reversing contactor





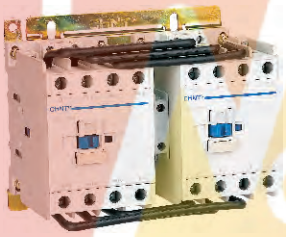
Frame size	Aux. contacts
	4NO
9A	NC8-09/4/N
12A	NC8-12/4/N
18A	NC8-18/4/N

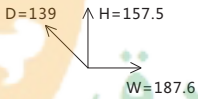




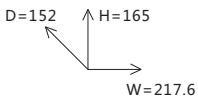
Frame size	Aux. contacts
	4NO
25A	NC8-25/4/N
32A	NC8-32/4/N
38A	NC8-38/4/N

D



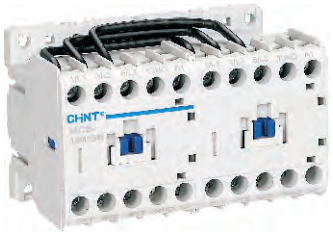


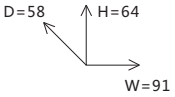
Frame size	Aux. contacts
	4NO
40A	NC8-40/4/N
50A	NC8-50/4/N
65A	NC8-65/4/N



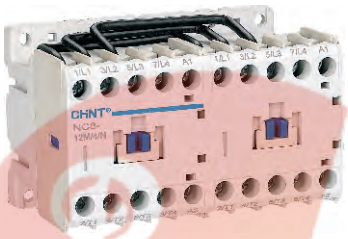
Frame size	Aux. contacts
	4NO
80A	NC8-80/4/N
100A	NC8-100/4/N

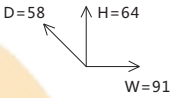
5.3 Mini type Reversing contactors/AC coil





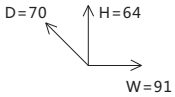
Frame size	3-pole	
	Aux. contacts	
	1NO	1NC
6A	NC8-06M10/N	NC8-06M01/N
9A	NC8-09M10/N	NC8-09M01/N
12A	NC8-12M10/N	NC8-12M01/N



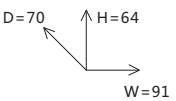


Frame size	4-pole	
	Main contacts	
	4NO	
6A	NC8-06M/4/N	
9A	NC8-09M/4/N	
12A	NC8-12M/4/N	

5.4 Mini type Reversing contactors/DC coil



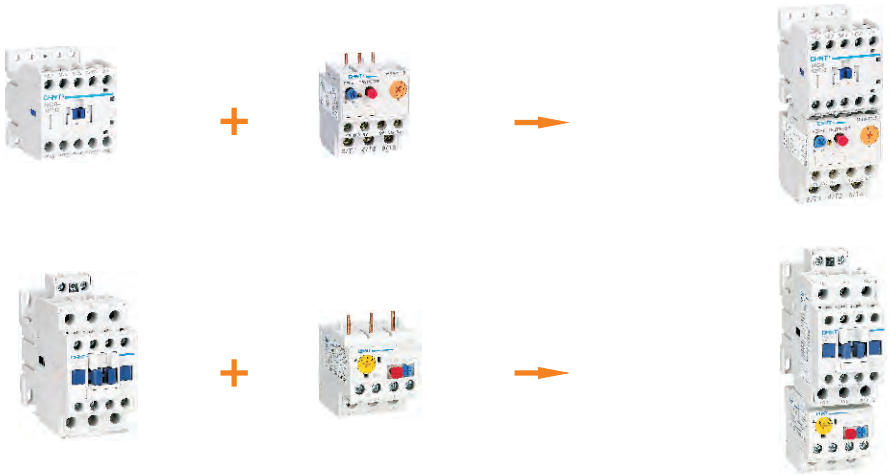
Frame size	3-pole	
	Aux. contacts	
	1NO	1NC
6A	NC8-06M10/Z/N	NC8-06M01/Z/N
9A	NC8-09M10/Z/N	NC8-09M01/Z/N
12A	NC8-12M10/Z/N	NC8-12M01/Z/N



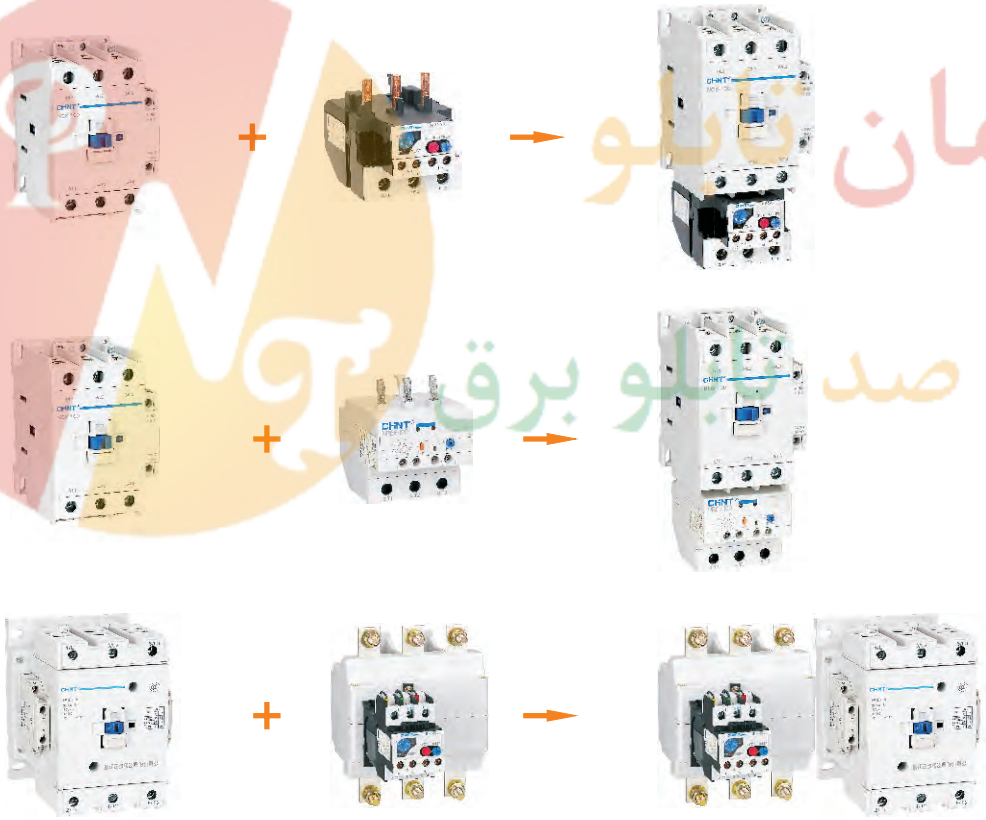
Frame size	4-pole	
	Main contacts	
	4NO	
6A	NC8-06M/4/Z/N	
9A	NC8-09M/4/Z/N	
12A	NC8-12M/4/Z/N	

5.5 Magnetic starter

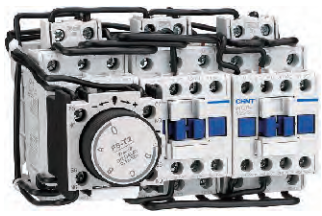
Mini type frame size from 6A to 12A



Normal type frame size from 40A to 170A



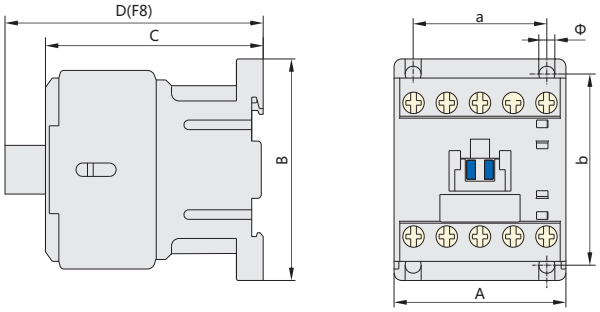
5.6 Star-delta starter



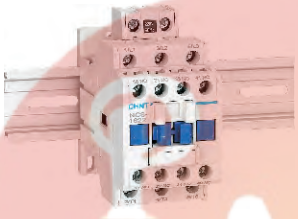
6. Overall and mounting dimensions (mm)

NC8-06M~12M
NC8-06M/4~12M/4

Model	Amax	Bmax	Cmax	Dmax	a	b	Φ
NC8-06M~12M	45	59	58	94	35±0.28	50±0.32	4.2
NC8-06M/4~12M/4	45	59	58	94	35±0.28	50±0.32	4.2
NC8-06M/Z~12M/Z	45	59	70	106	35±0.28	50±0.32	4.2
NC8-06M/4/Z~12M/4/Z	45	59	70	106	35±0.28	50±0.32	4.2

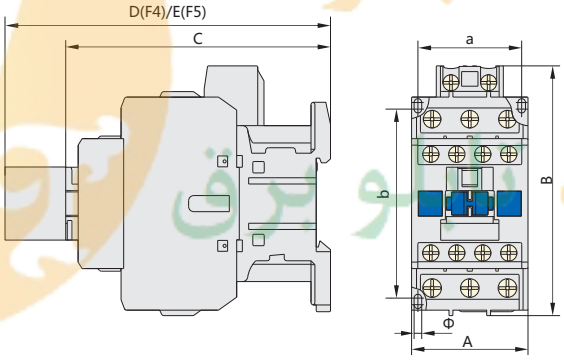


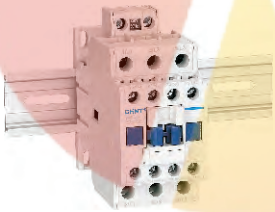
NC8-06M/Z~12M/Z
NC8-06M/4/Z~12M/4/Z



NC8-09~18

Model	Amax	Bmax	Cmax	Dmax	Emax	a	b	Φ
NC8-09~18	45	87	87	120	142	35±0.28	55~63	4.4
NC8-09/Z~18/Z	45	87	123	156	178	35±0.28	55~63	4.4
NC8-25~38	45	97	106	139	160	35±0.28	60~70	4.4
NC8-25/Z~38/Z	45	97	141	174	195	35±0.28	60~70	4.4

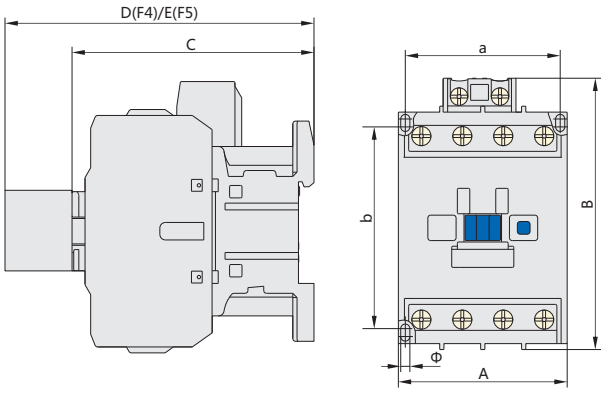


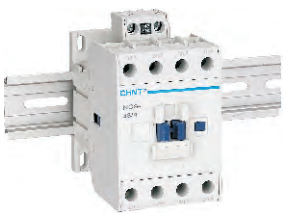


NC8-25~38

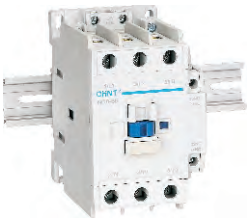
Model	Amax	Bmax	Cmax	Dmax	Emax	a	b	Φ
NC8-09/4~18/4	45	87	82	115	136	35±0.28	55~63	4.4
NC8-09/4/Z~18/4/Z	45	87	118	151	172	35±0.28	55~63	4.4
NC8-25/4~38/4	57	97	90	122.5	144	35±0.28	60~70	4.4
NC8-25/4/Z~38/4/Z	57	97	125	158	180	35±0.28	60~70	4.4

NC8-09/4~18/4



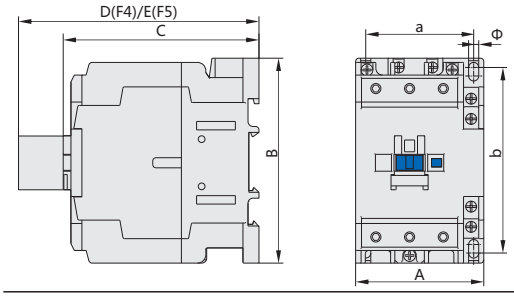


NC8-25/4~38/4



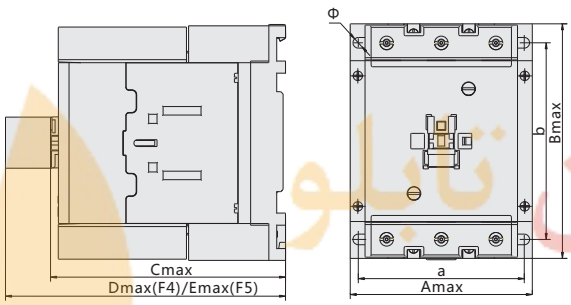
NC8-40~65

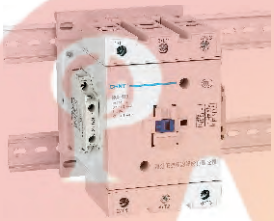
Model	Amax	Bmax	Cmax	Dmax	Emax	a	b	Φ
NC8-40~65	77	122.5	118	150	172	64±0.37	100~110	6.0
NC8-40/Z~65/Z	77	142	179	212	233	40	105	6.5
NC8-80~100	87	130	127	159	180	74±0.37	105~116	5.5
NC8-80/Z~100/Z	87	147	184	217	238	40	105	6.5



NC8-80~100

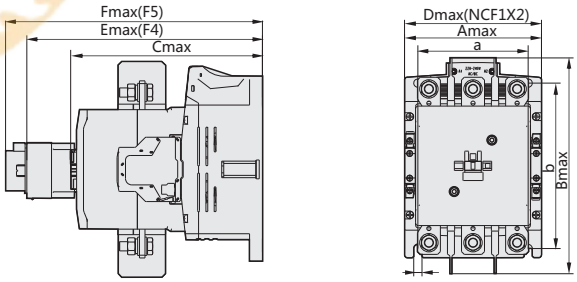
Model	Amax	Bmax	Cmax	Dmax	Emax	a	b	Φ
NC8-115~170	120	156	155	190.5	210.5	96~110	130±0.8	7.0

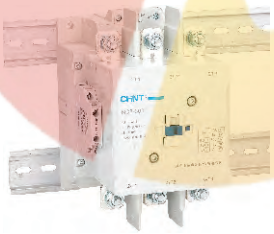




NC8-115~170

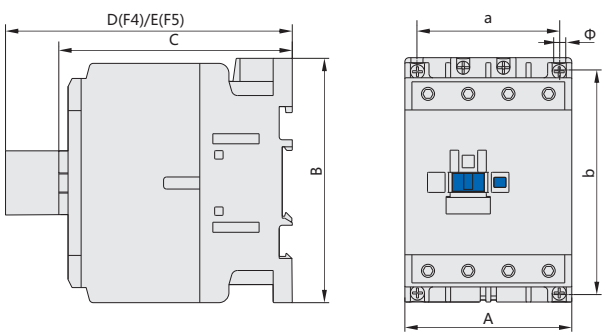
Model	Amax	Bmax	Cmax	Dmax	Emax	a	b	Φ
NC8-205~300	150	235	207	239	260	120	180	9.0
NC8-400~500	165	248	225	258	280	130	180	9.0



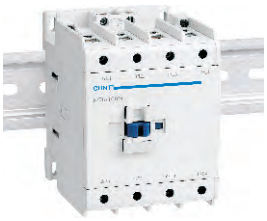


NC8-205~500

Model	Amax	Bmax	Cmax	Dmax	Emax	a	b	Φ
NC8-40/4~65/4	84	122.5	118	150	172	71±0.37	100~110.5	6.0
NC8-40/4/Z~65/4/Z	84	142	179	212	233	40	105	6.5
NC8-80/4~100/4	99	130	127	158	180	86±0.5	105~118.5	5.5
NC8-80/4/Z~100/4/Z	99	147	184	217	238	40	105	6.5



NC8-40/4~65/4



NC8-80/4~100/4

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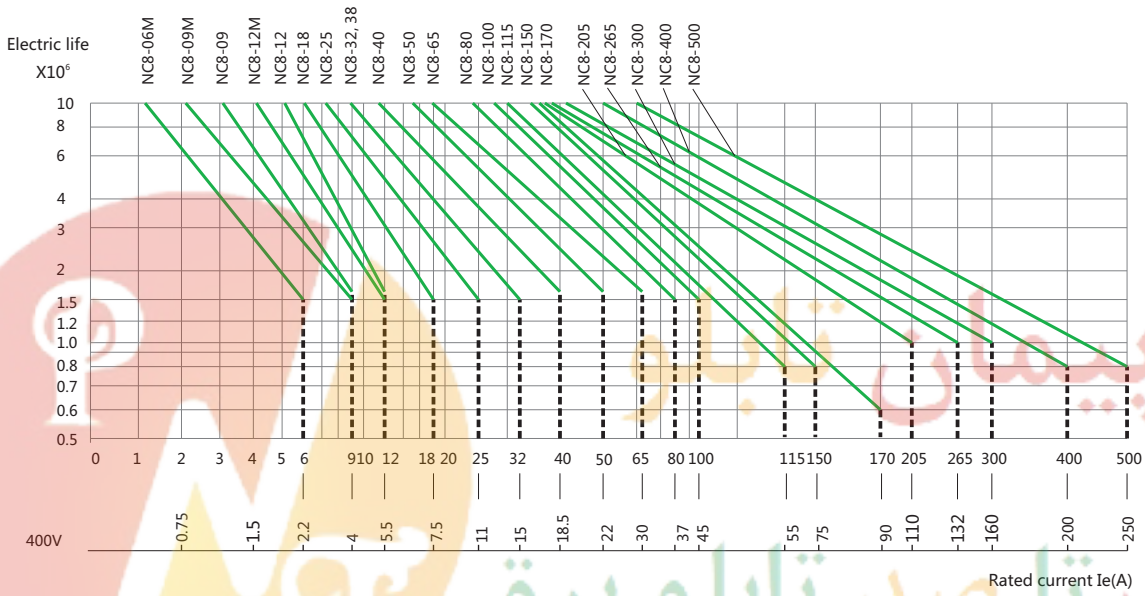
7. Excursus

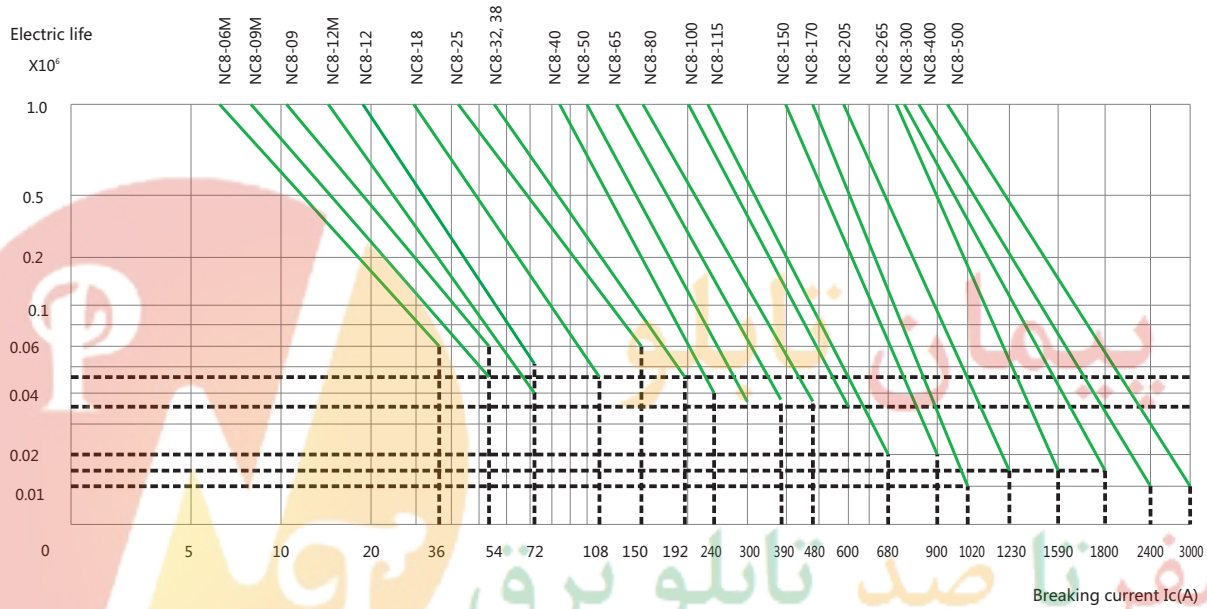
7.1 Electric life Curves

Electric life curves (AC-3 Ue=400V)



Rated outputs of three-phase motors (50Hz AC-3)

Electric life curves (AC-2, AC-4 Ue=400V)



Example:
Request to control the start of three-phase motors
main technical parameter of three-phase motors: P=11kW, Ue=380V, Ie=22.6A
usage category: AC-3, The electric life span of request: 1,000,000 operations
the contactor should be NC8-25 according to the curves above

7.2 The application in illumination circuit

Model of contactor			**06M, 09M, 12M**	**09, 12**	**18**	**25**	**32, 38**	**40**	**50, 65**	**80, 100**
lamp technical data (220V/240V)			maximum permissible number of lamps per phase							
W	A	μF								
Incandescent lamp										
60	0.27	-	35	59	77	92	129	163	207	296
75	0.34	-	28	47	61	73	103	129	164	235
100	0.45	-	21	35	46	55	77	97	124	177
150	0.68	-	14	23	30	36	51	64	82	117
200	0.91	-	10	17	23	27	38	48	62	88
300	1.40	-	6	11	15	18	25	31	40	57
500	2.30	-	4	7	8	11	15	19	24	34
750	3.40	-	2	4	6	7	10	13	16	23
1000	4.60	-	2	3	4	5	7	9	12	17
Single fluorescent lamp (with starter, without compensation)										
20	0.39	-	24	41	53	66	89	112	143	205
40	0.45	-	21	35	46	57	77	97	124	177
65	0.70	-	12	22	30	37	50	62	80	114
80	0.80	-	12	20	26	32	43	55	70	100
110	1.15	-	8	12	15	20	26	35	46	66
Single fluorescent lamp (with starter, with parallel compensation)										
20	0.18	5	83	94	105	155	215	233	335	530
40	0.26	5	58	65	75	107	150	160	230	365
65	0.42	7	35	40	45	66	92	100	142	225
80	0.52	7	28	32	36	53	74	80	115	180
100	0.60	16	23	26	29	43	59	64	92	145
110	0.70	18	21	24	27	40	55	59	85	135
Fluorescent lamps in dual mounting (with starter, without compensation)										
2×20	2×0.22	-	21	36	46	58	78	100	126	180
2×40	2×0.41	-	11	18	24	30	42	52	68	96
2×65	2×0.67	-	7	10	14	18	26	32	40	58
2×80	2×0.82	-	5	8	12	14	20	26	34	48
2×110	2×1.10	-	4	6	8	10	14	18	24	36

..... to be continued

Model of contactor			06M, 09M, 12M	09, 12	18	25	32, 38	40	50, 65	80, 100
lamp technical data (220V/240V)			maximum permissible number of lamps per phase							
W	A	μF								
Fluorescent lamps in dual mounting (with starter, with compensation in series)										
2×20	2×0.13	-	36	60	80	100	134	168	214	306
2×40	2×0.24	-	20	32	42	54	72	90	116	166
2×65	2×0.39	-	12	20	26	32	44	56	70	102
2×80	2×0.48	-	10	16	20	26	36	44	58	82
2×110	2×0.65	-	7	12	16	20	26	32	42	60
Single fluorescent lamp (without starter, without compensation)										
20	0.43	-	22	37	48	60	97	102	130	186
40	0.55	-	17	29	38	47	63	80	101	145
65	0.80	-	12	20	26	32	43	55	70	100
80	0.95	-	10	16	22	27	36	46	58	84
110	0.40	-	6	11	15	18	25	31	40	57
Single fluorescent lamp (with starter, with parallel compensation)										
20	0.19	5	50	84	110	136	184	231	294	421
40	0.29	5	33	55	72	89	101	151	193	275
65	0.46	7	20	34	45	56	76	95	121	173
80	0.57	7	16	28	36	45	61	77	98	140
110	0.79	16	-	20	26	32	44	55	70	101
Fluorescent lamps (without starter, without compensation)										
2×20	2×0.25	-	19	32	42	52	70	88	112	160
2×40	2×0.47	-	10	16	22	26	36	46	158	84
2×65	2×0.76	-	6	10	12	16	22	28	36	52
2×80	2×0.93	-	5	8	10	12	18	22	30	42
2×110	2×1.30	-	3	6	8	10	12	16	20	30
Fluorescent lamps in dual mounting (without starter, with compensation in series)										
2×20	2×0.15	-	34	56	74	92	124	156	200	234
2×40	2×0.26	-	18	30	40	50	66	84	106	152
2×65	2×0.43	-	11	18	24	30	40	50	64	92
2×80	2×0.53	-	9	14	18	24	32	40	32	74
2×110	2×0.72	-	6	10	14	18	24	30	38	54
Low press sodium vapour lamps (with parallel compensation)										
35	0.3	17	-	40	50	63	86	110	140	200
55	0.4	17	-	30	37	47	65	82	105	150
90	0.6	25	-	-	25	31	43	55	70	100
135	0.9	36	-	-	-	21	28	36	46	66
150	1.0	36	-	-	-	19	26	33	42	60
180	1.2	36	-	-	-	15	21	27	35	50
200	1.3	36	-	-	-	14	20	25	32	46

D

Model of contactor			06M, 09M, 12M	09, 12	18	25	32, 38	40	50, 65	80, 100
lamp technical data (220V/240V)			maximum permissible number of lamps per phase							
W	A	μF								
High press sodium vapour lamps (without compensation)										
150	1.9	-	4	6	7	10	13	17	22	31
250	3.2	-	2	3	4	5	8	10	13	18
400	5.0	-	1	2	3	3	5	6	8	12
700	8.8	-	-	-	2	2	2	3	4	6
1000	12.4	-	-	-	1	1	2	2	3	4
High press sodium vapour lamps (with parallel compensation)										
150	0.84	20	-	-	17	22	30	39	50	71
250	1.4	32	-	-	-	13	18	23	30	42
400	2.2	48	-	-	-	8	11	15	19	27
700	3.6	96	-	-	-	-	6	8	10	15
1000	5.5	120	-	-	-	-	-	6	7	10
High press hydrargyrum lamps (without compensation)										
50	0.54	-	14	22	27	35	48	64	77	111
80	0.81	-	9	14	18	23	32	40	51	74
125	1.20	-	6	9	12	15	21	27	34	49
250	2.30	-	3	5	6	8	11	14	17	26
400	4.10	-	1	2	3	4	6	8	10	14
700	6.80	-	-	1	2	2	3	4	6	8
1000	9.90	-	-	1	1	1	2	3	4	6
High press hydrargyrum lamps (with parallel compensation)										
50	0.30	10	-	40	50	63	86	110	140	120
80	0.45	10	-	26	33	42	57	73	93	133
125	0.67	10	-	17	22	28	38	49	62	89
250	1.3	18	-	9	11	14	20	25	32	46
400	2.3	25	-	-	6	8	11	14	18	26
700	3.8	40	-	-	-	5	6	8	11	15
1000	5.5	60	-	-	-	3	4	8	7	10

8. Ordering information

8.1 The following items should be illustrated when ordering:
8.1.1 The full name and model of contactor;
8.1.2 Rated operational voltage and frequency of coil;
8.1.3 Ordering total pcs;
8.2 Ordering example:NC8-1822 AC contactor,coil voltage 220V,50Hz 10 pcs;

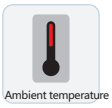
NC7 Series AC Contactor 09~620A

1. General

The NC7 series AC contactor (hereinafter referred to as "contactor") is mainly used in the circuit with an alternating current of 50Hz (or 60Hz), rated operational voltage up to 690V, and rated operational current up to 620A under the usage category of AC-3/400V; this contactor is mainly used for remotely closing and breaking circuits, and can be combined with an appropriate thermal overload relay to form a electromagnetic starter so as to protect the circuits likely to be overloaded in operation; the contactor is well suited for frequently starting and controlling AC motors.

Standard: IEC60947-4-1

2. Operating conditions



2.1 Ambient air temperature:-5℃~+40℃,
its mean value not greater than +35℃
within 24 hours.

2.2 Atmospheric conditions:
When the maximum temperature is +40℃, the relative humidity of the air shall not be higher than 50%; a higher relative humidity is allowed at a lower temperature, e.g., up to 90% at 20℃. Special measures shall be taken for the condensation occasionally produced due to temperature change.

2.3 Altitude: not higher than 2000m.

2.4 Pollution grade: 3

2.5 Installation classification: Ⅲ

2.6 Installation condition:
the installing surface shall be inclined at not greater than ±5°to the vertical.

2.7 Impact vibration:
The product shall be installed in the place free of remarkable shake, impact and vibration.

2.8 NC7-09~170 : IP10
NC7-205~620 : IP00(IP20 front face with shrouds SHD)

D

3. Type and meaning

3.1 Product type and meaning

NC7 - 09 01 / N

AC Contactor

Main circuit current	
09	9A
12	12A
···	···
475	475A
620	620A

Number of auxiliary contacts		
9A~95A	11	1NO+1NC
115A~170A	···	···
205A~620A	omitted	4NO+4NC

An interlock product		
9A~95A	/N	Reversible product
	omitted	Single unit of the product
115A~170A	/N	Reversible product
	omitted	Single unit of the product
205A~620A	/Nc	Reversible product vertical installation
	/Ns	Reversible product horizontal installation
	omitted	Single unit of the product

3.2 Accessory type and meaning

AX-3 / 20 F5 - T 0

Top suspension auxiliary contactor block

Number of auxiliary contacts	
20	2NO
11	1NO+1NC
02	2NC
40	4NO
31	3NO+1NC
22	2NO+2NC
13	1NO+3NC
04	4NC

Air time-delay head

Time-delay type	
T	Making time-delay
D	Breaking time-delay

Time-delay range	
0	0.1s~3s
2	0.1s~30s
4	10s~180s

NCF1 - 11C NJL S-GG

Side suspension auxiliary contactor block

Number of auxiliary contacts	
11C	1NO+1NC

Mechanical interlock module

Installation mode		Size code	
S	Horizontal installation	GG	NC7-205 Combination of two units
		HH	NC7-250~300 Combination of two arbitrary units
		KK	NC7-410~475 Combination of two arbitrary units
		LL	NC7-620 Combination of two units
C	Vertical installation	GG	NC7-205 Combination of two units
		GH	NC7-205 and NC7-250~300
		GK	NC7-205 and NC7-410~475
		GL	NC7-205 and NC7-620
		HH	NC7-250~300 Combination of two arbitrary units
		HK	NC7-250~300 and NC7-410~475
		HL	NC7-250~300 and NC7-620
		KK	NC7-410~475 Combination of two arbitrary units
		KL	NC7-410~475 and NC7-620
		LL	NC7-620 Combination of two units

Note: For the NC7 product, the 9A-95A mechanical interlock module can be directly purchased with an indication.

4. Quick selection table

Specified current		9A		12A		18A		22A		25A		32A		38A	
															
Number of the auxiliary contacts provided with the body itself	1 NO+1NC auxiliary contact	NC7-0911		NC7-1211		NC7-1811		NC7-2211		NC7-2511		NC7-3211		NC7-3811	
IEC/EN 60974-4-1		kW	A	kW	A	kW	A	kW	A	kW	A	kW	A	kW	A
Appointed free air heat generation current (A)			20		20		32		32		40		50		50
Rated operational current and power	380V/400V(AC-3)	4	9	5.5	12	7.5	18	11	22	11	25	15	32	18.5	38
	380V/400V(AC-4)	1.5	3.5	2.2	5	3	7.7	3	7.7	4	8.5	5.5	12	5.5	12
	660V/690V(AC-3)	5.5	6.6	7.5	8.9	10	12	11	14	15	18	18.5	22	18.5	22
	660V/690V(AC-4)	1.1	1.5	1.5	2	3.7	3.8	3.7	3.8	4	4.4	5.5	7.5	5.5	7.5

Accessories which can be further attached

Side suspension auxiliary contact

Top suspension auxiliary contact

Air delay head

Mechanical interlock module

Surge suppressor

Thermal overload relay

Electronic overload relay

D

Specified current		40A		50A		65A		80A		95A	
											
Number of the auxiliary contacts provided with the body itself	1NO+1NC auxiliary contact	NC7-4011		NC7-5011		NC7-6511		NC7-8011		NC7-9511	
IEC/EN 60974-4-1		kW	A	kW	A	kW	A	kW	A	kW	A
Appointed free air heat generation current (A)			60		80		80		110		110
Rated operational current and power	380V/400V(AC-3)	18.5	40	22	50	30	65	37	80	45	95
	380V/400V(AC-4)	7.5	18.5	11	24	15	28	18.5	37	22	44
	660V/690V(AC-3)	30	34	37	39	37	42	45	49	45	49
	660V/690V(AC-4)	7.5	9	11	12	11	14	15	17.3	18.5	21.3

Accessories which can be further attached

Side suspension auxiliary contact

Top suspension auxiliary contact

Air delay head

Mechanical interlock module

Surge suppressor

Thermal overload relay

Electronic overload relay

Specified current		115A		150A		170A	
							
Number of the auxiliary contacts provided with the body itself		NC7-115		NC7-150		NC7-170	
IEC/EN 60974-4-1		kW	A	kW	A	kW	A
Appointed free air heat generation current (A)			200		200		275
Rated operational current and power	380V/400V(AC-3)	55	115	75	150	90	170
	380V/400V(AC-4)	55	115	75	150	90	150
	660V/690V(AC-3)	80	86	100	107	110	118
	660V/690V(AC-4)	80	86	100	107	110	107

Accessories which can be further attached

Top suspension auxiliary contact

Air delay head

Side suspension auxiliary contact

Thermal overload relay

Electronic overload relay

Mechanical interlock module

D

Specified current		205A		250A		300A	
							
without auxiliary contacts, can mount two Top suspension auxiliary contacts	mount two AX-3/22 4NO+4NC	NC7-205		NC7-250		NC7-300	
	Other mode	Note		Note		Note	
IEC/EN 60974-4-1		kW	A	kW	A	kW	A
Appointed free air heat generation current (A)			275		315		380
Rated operational current and power	380V/400V(AC-3)	110	205	132	250	160	300
	380V/400V(AC-4)	110	205	132	250	160	300
	660V/690V(AC-3)	129	137	160	170	220	235
	660V/690V(AC-4)	129	137	160	170	220	235

Accessories which can be further attached

Top suspension auxiliary contact

Air delay head

Mechanical interlock module

Thermal overload relay

Electronic overload relay

Specified current		410A		475A		620A	
							
without auxiliary contacts, can mount two Top suspension auxiliary contacts	mount two AX-3/22 4NO+4NC	NC7-410		NC7-475		NC7-620	
	Other mode	Note		Note		Note	
IEC/EN 60974-4-1		kW	A	kW	A	kW	A
Appointed free air heat generation current (A)			450		630		800
Rated operational current and power	380V/400V(AC-3)	200	410	265	475	335	620
	380V/400V(AC-4)	200	410	265	475	335	620
	660V/690V(AC-3)	280	303	335	353	450	462
	660V/690V(AC-4)	280	303	335	353	450	462

Accessories which can be further attached

Top suspension auxiliary contact

Air delay head

Mechanical interlock module

Thermal overload relay

Electronic overload relay

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Modularized accessories which can be installed additionally

 AX-3 Auxiliary contact	Number of auxiliary contacts	4NO	AX-3/40	Able to be used for the whole series products
		3NO+1NC	AX-3/31	
		2NO+2NC	AX-3/22	
		1NO+3NC	AX-3/13	
		4NC	AX-3/04	
		2NO	AX-3/20	
		1NO+1NC	AX-3/11	
		2NC	AX-3/02	
 F5 1N/O+1N/C Air delay head	On-delay time (s)	0.1~3	F5-T0	Able to be used for the whole series products
		0.1~30	F5-T2	
		10~180	F5-T4	
	Off-delay time (s)	0.1~3	F5-D0	
		0.1~30	F5-D2	
		10~180	F5-D4	
 NCF1-11C Secondary side suspension auxiliary contact	Number of auxiliary contacts	1NO+1NC	NCF1-11C	Able to be used for the products of 170A or lower
 SR2-A Surge suppressor	Suppression voltage range	AC 24V~48V	SR2-A 24V~48V	Able to be used for the products of 9A~38A or lower
		AC 100V~250V	SR2-A 100V~250V	
		AC 380V~440V	SR2-A 380V~440V	
 SR2-C Surge suppressor		AC/DC 24V~48V	SR2-C 24V~48V	Able to be used for the products of 40A~95A or lower
		AC/DC 100V~250V	SR2-C 100V~250V	
		AC/DC 380V~440V	SR2-C 380V~440V	

NR2
Thermal overload relay

		NR2-25	9A~32A	
		NR2-36	32A, 38A	
		NR2-93	40A~95A	
		NR2-150	115A~150A	
		NR2-200	115A~170A	
		NR2-630	205A~620A	

NRE8
Electronic overload relay

		NRE8-25	9A~32A	
		NRE8-40	40A	
		NRE8-100	40A~95A	
		NRE8-200	115A~170A	
		NRE8-630	205A~620A	

NC7-09~95
Mechanical interlock module

9A~95A	Purchase individually	How to purchase the products of 205A or higher	Purchase it individually, and install it by yourself
40A~95A	Reversible product without connecting wire		Directly purchase the reversible products (specified current for two contactors to be the same)
9A~38A	Reversible product with connecting wire		
115A~170A	Purchase individually		

NC7-115~170
Mechanical interlock

NC7-205~620
Mechanical interlock

Over 205A product mechanical interlocking mechanism code			
	Horizontal installation	NJLs-GG	NC7-205 Combination of two units
		NJLs-HH	NC7-250~300 Combination of two arbitrary units
		NJLs-KK	NC7-410~475 Combination of two arbitrary units
		NJLs-LL	NC7-620 Combination of two units
	Vertical installation	NJLc-GG	NC7-205 Combination of two units
		NJLc-GH	NC7-205 and NC7-250~300
		NJLc-GK	NC7-205 and NC7-410~475
		NJLc-GL	NC7-205 and NC7-620
		NJLc-HH	NC7-250~300 Combination of two units
		NJLc-HK	NC7-250~300 and NC7-410~475
		NJLc-HL	NC7-250~300 and NC7-620
		NJLc-KK	NC7-410~475 Combination of two units
		NJLc-KL	NC7-410~475 and NC7-620
		NJLc-LL	NC7-620 Combination of two units

D

5. Main parameters and technical performance

5.1 Main parameters and technical performance criteria for the NC7 product

Type			NC7-09	NC7-12	NC7-18	NC7-22	NC7-25	NC7-32	NC7-38	NC7-40	NC7-50	NC7-65	NC7-80	NC7-95
Rated operational current (A)	380V/400V	AC-3	9	12	18	22	25	32	38	40	50	65	80	95
		AC-4	3.5	5	7.7	7.7	8.5	12	12	18.5	24	28	37	44
	660V/690V	AC-3	6.6	8.9	12	14	18	22	22	34	39	42	49	49
		AC-4	1.5	2	3.8	3.8	4.4	7.5	7.5	9	12	14	17.3	21.3
Appointed free air heat generation current (A)			20	20	32	32	40	50	50	60	80	80	110	110
Rated insulation voltage (V)			690	690	690	690	690	690	690	690	690	690	690	690
Rated impulse withstand voltage (kV)			6	6	6	6	6	6	6	8	8	8	8	8
Rated making capacity			Making current: 10xIe(AC-3) or 12xIe(AC-4)											
Rated breaking capacity			Making/breaking current: 8xIe(AC-3) or 10xIe(AC-4)											
Short time withstand current (10s)			72	96	144	176	200	256	304	320	400	520	640	760
Controllable three-phase squirrel-cage motor power(AC-3)kW		380V/400V	4	5.5	7.5	11	11	15	18.5	18.5	22	30	37	45
		660V/690V	5.5	7.5	10	11	15	18.5	18.5	30	37	37	45	45
Intermittent-periodic-duty motor power(AC-4)kW		380V/400V	1.5	2.2	3	3	4	5.5	5.5	7.5	11	15	18.5	22
		600V/690V	1.1	1.5	3.7	3.7	4	5.5	5.5	7.5	11	11	15	18.5
Frequency of operation (times/h)	Electrical life	AC-3	1200	1200	1200	1200	1200	600	600	600	600	600	600	600
		AC-4	300	300	300	300	300	300	300	300	300	300	120	120
	Mechanical life		3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600
Electrical life (ten thousand times)		AC-3	100	100	100	100	100	80	80	80	60	60	60	60
		AC-4	20	20	20	20	20	20	20	15	15	15	10	10
Mechanical life(ten thousand times)			1000	1000	1000	1000	1000	800	800	800	800	800	600	600
Type of the fuse adapted			RT16-20	RT16-20	RT16-32	RT16-32	RT16-40	RT16-50	RT16-50	RT16-63	RT16-80	RT16-80	RT16-100	RT16-125
Piece (of string, etc)			1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
Cold-pressed terminal	Non-prefabricated-tip cord	mm²	1/2.5 1/2.5	1/2.5 1/2.5	1.5/4 1.5/4	1.5/4 1.5/4	1.5/4 1.5/4	2.5/6 2.5/6	2.5/6 2.5/6	6/25 4/10	6/25 4/10	6/25 4/10	10/35 6/16	10/35 6/16
	Cord with the prefabricated tip		1/4 1/2.5	1/4 1/2.5	1.5/6 1.5/4	1.5/6 1.5/4	1.5/10 1.5/6	2.5/10 2.5/6	2.5/10 2.5/6	6/25 4/10	6/25 4/10	6/25 4/10	10/35 6/16	10/35 6/16
	Non-prefabricated-tip hard wire		1/4 1/4	1/4 1/4	1.5/6 1.5/6	1.5/6 1.5/6	1.5/6 1.5/6	2.5/10 2.5/10	2.5/10 2.5/10	6/25 4/10	6/25 4/10	6/25 4/10	10/35 6/16	10/35 6/16
Connection terminal screw size and tightening torque (N•m)			M3.5 0.8	M3.5 0.8	M3.5 0.8	M3.5 0.8	M4 1.2	M4 1.2	M4 1.2	M8 4	M8 4	M8 4	M10 6	M10 6
AC coil power	50Hz	Attracting(VA)	70	70	70	70	110	110	110	200	200	200	200	200
		Holding(VA)	9	9	9.5	9.5	14	19	19	57	57	57	57	57
		Power(W)	1.8~2.7	1.8~2.7	3~4	3~4	3~4	3~4	3~4	6~10	6~10	6~10	6~10	6~10
Action (actuating)range			Pull-in voltage: 85%Us~110%Us; Release voltage: 20%Us~75%Us											
Basic parameters of the auxiliary contact			AC-15 : 0.95A 380V/400V DC-13 : 0.15A 220V/250V Ith : 10A											

5.2 Rated control source voltage Us and code for the NC7 ac contactor of 170A or lower

Coil voltage Us(V)	24	36	42	48	110	127	220	230	240	380	400	415	440	480	500	600	660
50Hz	B5	C5	D5	E5	F5	G5	M5	P5	U5	Q5	V5	N5	R5	T5	S5	X5	Y5
60Hz	B6	C6	D6	E6	F6	G6	M6	P6	U6	Q6	V6	N6	R6	T6	S6	X6	Y6
50/60Hz	B7	C7	D7	E7	F7	G7	M7	P7	U7	Q7	V7	N7	R7	T7	S7	X7	Y7

Type			NC7-115	NC7-150	NC7-170	NC7-205	NC7-250	NC7-300	NC7-410	NC7-475	NC7-620
Rated operational current (A)	380V/400V	AC-3	115	150	170	205	250	300	410	475	620
		AC-4	115	150	150	205	250	300	410	475	620
	660V/690V	AC-3	86	107	118	137	170	235	303	353	462
		AC-4	86	107	107	137	170	235	303	353	462
Appointed free air heat generation current (A)			200	200	275	275	315	380	450	630	800
Rated insulation voltage (V)			1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage (kV)			8	8	8	8	8	8	8	8	8
Rated making capacity			Making current: 10xIe(AC-3) or 12xIe(AC-4)								
Rated breaking capacity			Making/breaking current: 8xIe(AC-3) or 10xIe(AC-4)								
Short time withstand current (10s)			920	1200	1360	1640	2000	2400	3280	3800	4960
Controllable three-phase squirrel-cage motor power(AC-3)kW		380V/400V	55	75	90	110	132	160	200	265	335
		660V/690V	80	100	110	129	160	220	280	335	450
Intermittent-periodic-duty motor power(AC-4)kW		380V/400V	55	75	90	110	132	160	200	265	335
		600V/690V	80	100	110	129	160	220	280	335	450
Frequency of operation (times/h)	Electrical life	AC-3	1200	1200	600	600	600	600	600	600	600
		AC-4	120	120	120	60	60	60	60	60	60
	Mechanical life		1200	1200	600	600	600	600	600	600	600
Electrical life (ten thousand times)		AC-3	80	80	60	60	60	60	60	60	60
		AC-4	2	2	1	1	1	1	1	0.6	0.6
Mechanical life(ten thousand times)			600	600	600	600	600	600	600	600	600
Type of the fuse adapted			NT3-225	NT3-225	NT3-315	RT16-3	RT16-3	RT16-3	RT16-3	RT16-4	RT16-4
AC coil power	50Hz	Attracting(VA)	115	150	170						
		Holding(VA)	660	660	660						
		Power(W)	91.2	91.2	91.2						
			10-15	10-15	10-15						
Action (actuating)range			Pull-in voltage: 85%Us~110%Us; Release voltage: 20%Us~75%Us; NC7-250~620 Release voltage: 10%Us~75%Us								
Basic parameters of the auxiliary contact			AC-15: 0.95A 380V/400V DC-13: 0.15A 220/250V Ith: 10A								

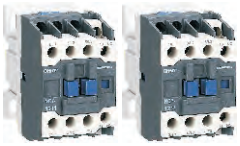
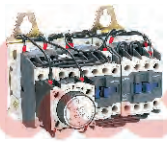
Type	NC7-115	NC7-150	NC7-170	NC7-205	NC7-250	NC7-300	NC7-410	NC7-475	NC7-620
Piece (of string, etc)	2	2	2	1	1	1	1 (2)	2	2
Cable (mm^2)	10~50	10~50	10~50	95~150	120~185	185~240	240 (150)	150~185	185~240
Copper (mm)	-	-	-	-	-	-	30X5	40X5	50X5
Bolt	M10	M10	M10	M10	M10	M10	M10	M10	M12
Tightening torque(N·m)	10	10	10	10	10	10	10	10	14

5.3 Rated control source voltage Us and code for the NC7 ac contactor (205A - 620A) product coil

Coil code / Control voltage (V) / Contactor type	110	127	220	380	Power VA		Schematic drawing
					Start	Hold	
NC7-205	FG110	FG127	FG220	FG380	966	66	
NC7-250	FI110	FI127	FI220	FI380	1500	18	
NC7-300	FI110	FI127	FI220	FI380	1500	18	
NC7-410	FJ110	FJ127	FJ220	FJ380	1500	20	
NC7-475	FK110	FK127	FK220	FK380	1500	25	
NC7-620	FL110	FL127	FL220	FL380	1700	30	

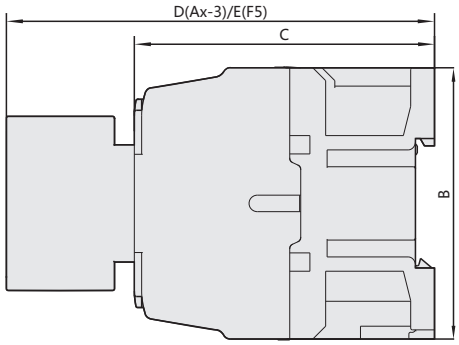
Note: Products of NC7-250 or higher are duplex winding ones.

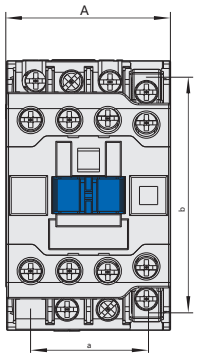
6. Derivative products

Derivative products	Contactor	Auxiliary module	Schematic drawing
Reversing contactor		 Mechanical interlocking mechanism	
Timing-delay contactor		 Air delay head	
Star-delta starter		 Air delay head	
Magnetic starter		 Thermal relay	

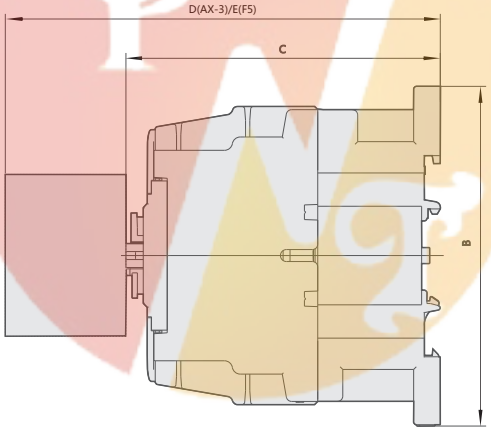
7. Overall and mounting dimensions (mm)

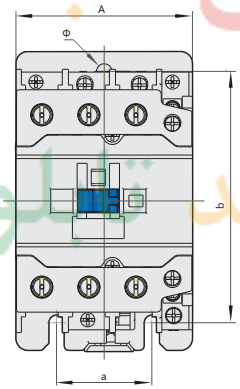
NC7 09~38



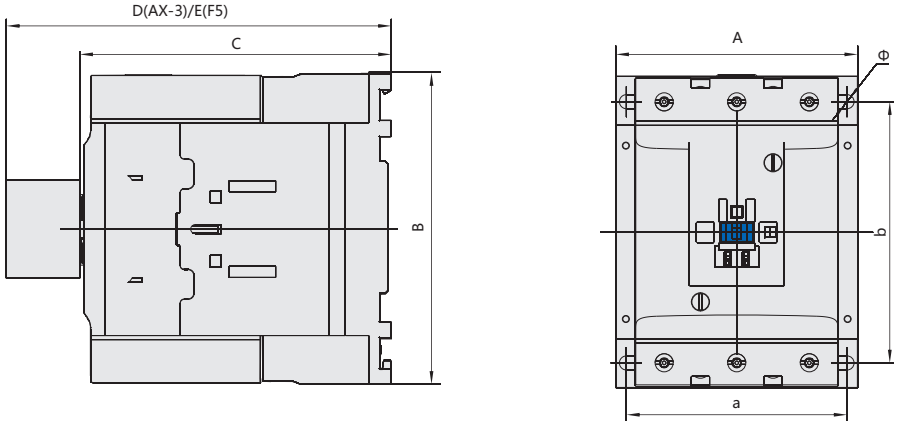


NC7 40~95

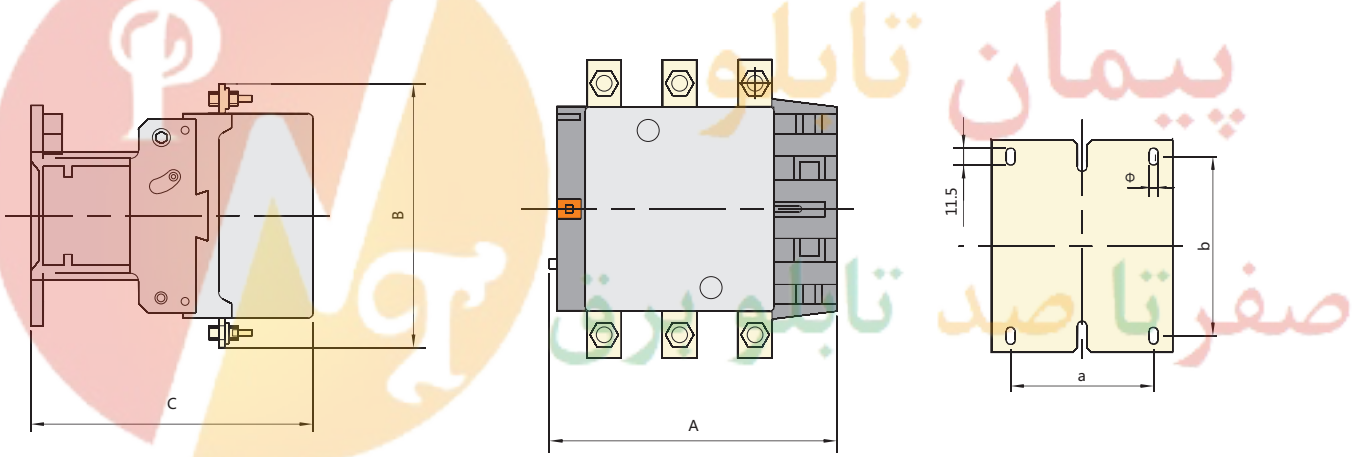




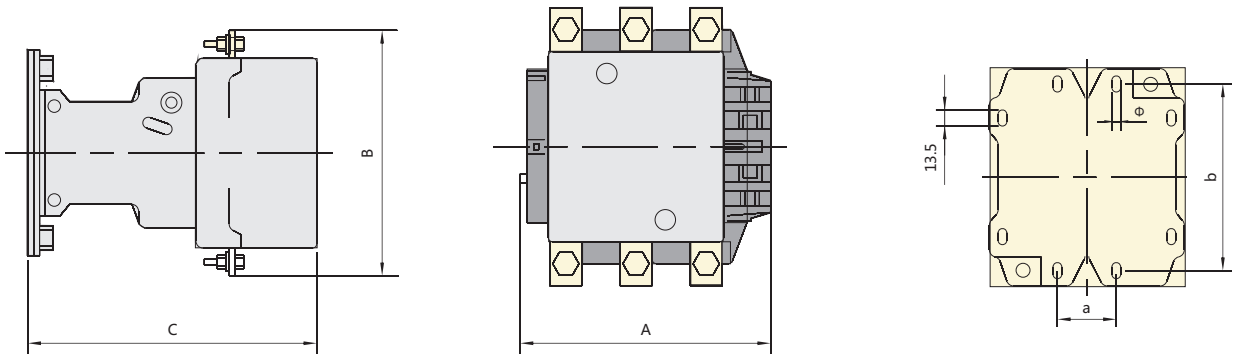
NC7 115~170



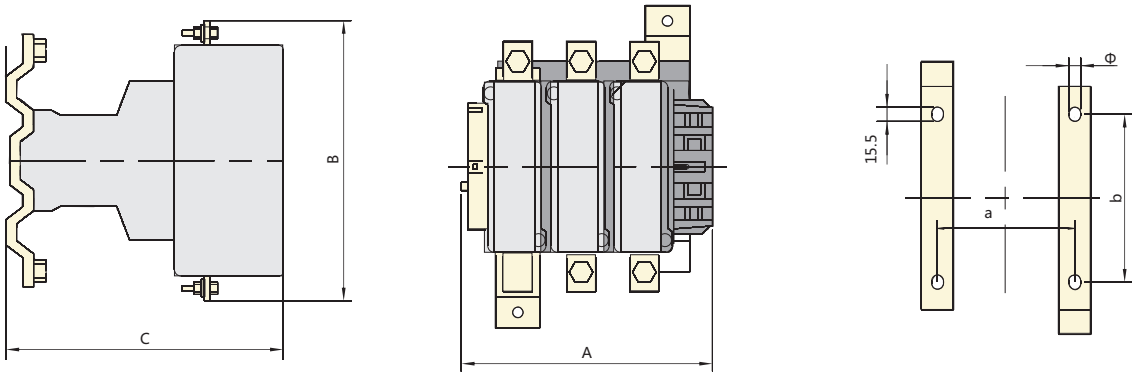
NC7 205~300



NC7 410~475



NC7 620



D

mm

Type	Amax	Bmax	Cmax	Dmax	Emax	a	b	Φ
NC7-0911~1211	45	75	88	124.5	144.5	34/35	50/60/61.8	4.5
NC7-1811~2211	45	75	91	127.5	147.5	34/35	50/60/61.8	4.5
NC7-2511	56	88	100	135.5	155.5	40	50/60/75	4.5
NC7-3211~3811	56	88	105	140.5	160.5	40	50/60/75	4.5
NC7-40~65	77	129	119	157.5	177.5	40.5	107	6.5
NC7-80~95	87	129	127	165.5	185.5	40.5	107	6.5
NC7-115~170	122	157	158	192.5	212.5	96~110	130	7
NC7-205	171	197	186			80	110~120	6.5
NC7-250	202	203	215			96	110~120	6.5
NC7-300	213	206	220			96	110~120	6.5
NC7-410	213	206	220			80	170~180	8.5
NC7-475	233	238	233			80	170~180	8.5
NC7-620	309	304	256			180	180~190	10.5

8. Ordering information

The following to be indicated when ordering:

8.1 Full name and type of the contactor

8.2 Rated control source voltage and frequency or size code of the coil

8.3 If you need to order the AX-3 auxiliary contactor block, F5 air delay head or standard rail track for the product, you should further give a clear indication; For products of 205A or higher, the auxiliary contactor blocks will not be attached for lack of indication such as the number of those blocks and how they are combined.

8.4 When the NC7 115A-170A products leave the factory, the body is not provided with the dust cap. It is hoped users will further give a clear indication when they need it.

8.5 Amount on order

8.6 The 38A-or-lower derivative N conventional products triple poles are provided in the mode of reversible wiring, so you must give clear indication for your special wiring mode.

8.7 The 205A-or-higher derivative NS conventional products triple poles are provided in the mode of reversible wiring, so you must give clear indication for your special wiring mode.

8.8 Order Sample:
10 units of NC7-0911 ac contacts, coil voltage 220V/50Hz, with 5 pieces of AX-3/22
10 units of NC7-300 ac contacts, coil voltage 220V/50Hz, with 10 pieces of AX-3/22 further attached

Mechanical interlocking mechanism to be order	Writing format for ordering
NC7-205 combined with NC7-620 Aertical installation, Mechanical interlocking mechanism, 30 sets	NJLc-GL 30 sets
Two NC7-250 combination in a mode of Horizontal installation, Mechanical interlocking mechanism, 30 sets	NJLc-HH 30 sets

NC6 AC Contactor, 6~9A

1. General

1.1 Certificates: CE, VDE, UKrSEPRO, EAC, UL;

1.2 Electric ratings: AC50/60Hz, up to 690V, up to 9A;

1.3 Application: remotely makes and breaks circuit, protect circuit from overload assembling with proper thermal relay;

1.4 Utilization category: AC-1, AC-3, AC-4;

1.5 Ambient temperature: -5℃~+40℃;

1.6 Altitude: ≤2000m;

1.7 Mounting category: Ⅲ

1.8 Mounting conditions: inclination between mounting plane and vertical plane not exceed ±30°

1.9 Standard: IEC/EN 60947-4-1

1.10 IP00

2. Type designation

N C 6 - □ □ □ □ □

- Company code
- Contactor
- Design sequence No.
- Rated operational current (AC-3, 380V)
- Number of contacts
  - 10: 3N/O main contacts, 1N/O auxiliary contact
  - 01: 3N/O main contacts. 1N/C auxiliary contact
  - 04: 4N/O main contacts
  - 08: 2N/O+2N/C main contacts
- Blank: Screw-clamp connection
  K: With solder "pins" for direct connection to printed circuit boards.

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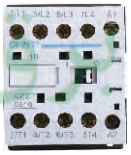
3. Technical data

3.1 Contactor

★ 3P contactor AC coil operation

Items		Model	NC6-06	NC6-06-K	NC6-09	NC6-09-K
						
Rated cinventional heating current (A)	AC-1		20		20	
Rated operational current (A)	AC-3/AC-4	380/400V	6		9	
		660/690V	3.8		5	
Power of motor	kW (AC-3)	220/230V	1.5		2.2	
		380/400V	2.2		4	
		660/690V	3		4	
	hp	240V	2		2	
		400V	3		3	
		600V	3		3	
Operating cycles (operations/h)	Electrical	AC-3	1,200		1,200	
		AC-4	300		300	
	Mechanical		3,600		3,600	
Electrical life (×10³ operations)		AC-3	1,200		1,200	
		AC-4	25		25	
Mechanical life (×10⁶ operations)			10		10	
Matching fuse model			RT16-16		RT16-20	

★ 4P contactor AC operation

Items	Model		NC6-06	NC6-09
				
Rated operational current (A)	AC-1		20	20
	AC-3/AC-4	380/400V	6	9
		660/690V	3.8	5
Power of motor	kW (AC-3)	220/230V/240V	1.5	2.2
		380/400V	2.2	4
		660/690V	3	4
	hp	240V	-	2
		400V	-	3
		600V	-	3
Operating cycles (operations/h)	Electrical	AC-3	1,200	1,200
		AC-4	300	300
	Mechanical		3,600	3,600
Electrical life (×10³ operations)		AC-3	1,200	1,200
		AC-4	25	25
Mechanical life (×10⁶ operations)			10	10
Matching fuse model			RT16-16	RT16-20

3.2 AC coil specifications

Items	Model	NC6-06	NC6-09
Rated control voltage (V AC)		24, 36, 48, 110, 127, 220, 230, 380, 400	
Coil power (VA)	In-rush	30	30
	Sealed	4.5	4.5

4. Terminal connection

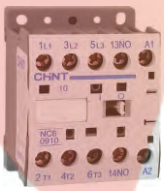
Model	Number of piece	Conductor (mm^2)	Screw size	Tightening torque (N·m)
NC6-06	1	2.5	M3	0.5
NC6-09	1	2.5	M3	0.5

5. Accessories

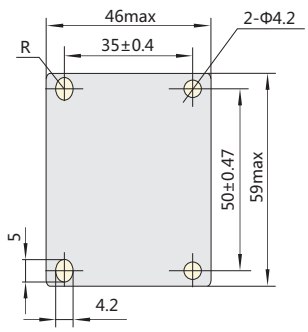
5.1 Auxiliary contact

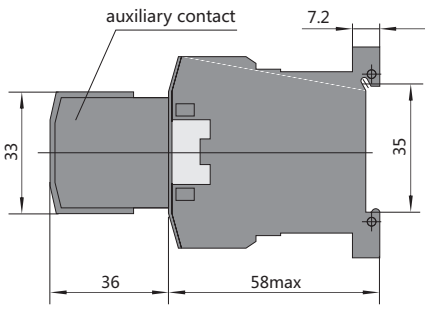
Model	Auxiliary contact		
	Model of assembled contact	Conventional heating current (A)	Control capacity
NC6-06	NCF6-20; NCF6-02 NCF6-11; NCF6-40 NCF6-31; NCF6-22 NCF6-13; NCF6-04	10	AC-15: 380/400V/0.95A DC-13: 220/250V/0.15A
NC6-09	NCF6-20; NCF6-02 NCF6-11; NCF6-40 NCF6-31; NCF6-22 NCF6-13; NCF6-04	10	AC-15: 380/400V/0.95A DC-13: 220/250V/0.15A

5.2 Assembly with thermal over-load relay

Model of contactor	Assembled thermal over-load relay			
	Model	Rated current (A)	Recommended fuse type	
			aM	gG
		0.1~0.16	0.25	2
		0.16~0.25	0.5	2
		0.25~0.4	1	2
		0.4~0.63	1	2
		0.63~1	2	4
		1~1.6	2	4
		1.25~2	4	6
		1.6~2.5	4	6
		2.5~4	6	10
		4~6	8	16
		5.5~8	12	20
NC6-09	NR2-11.5	7~10	12	20
		9~13	16	25

6. Overall and mounting dimensions (mm)





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NC1 AC Contactor, 9~95A

1. General

1.1 Certificates: CE, KEMA, VDE, EK, EAC, RCC, UL;

1.2 Electric ratings: AC50Hz (or 60Hz), 690V, up to 95A;

1.3 Application: remote making & breaking circuits;
protect circuit from over-load when assembling with thermal over-load relay;
Frequent start-up and control of AC contactor;

1.4 Utilization category: AC-3, AC-4;

1.5 Altitude: ≤2000m;

1.6 Ambient temperature: -5℃~+40℃;

1.7 Mounting category: Ⅲ

1.8 Mounting conditions:
inclination between the mounting plane and the vertical plane should not exceed ±5°

1.9 Standard: IEC/EN 60947-4-1

2.0 IP10

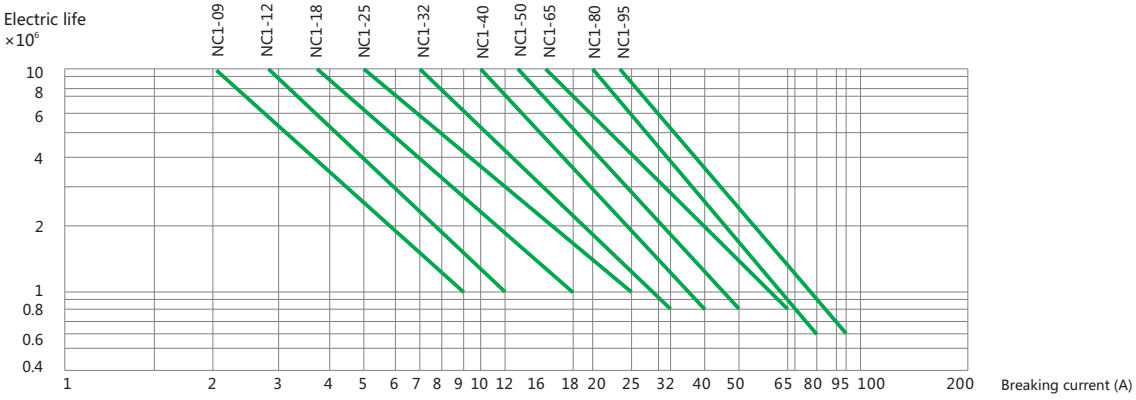
2. Type designation

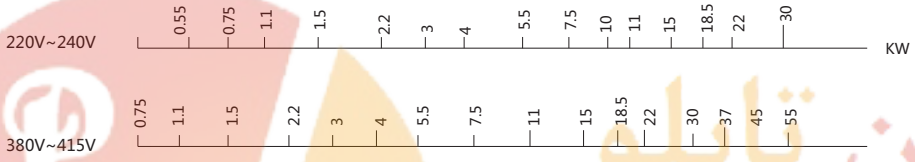
N C 1-□□ □□ -□

- Company code
- Contactor
- Design sequence No.
- Basic specification, expressed with the rated operational current 400(380)V, AC-3
- Number of contacts
  - 10: 3 N/O main contacts+1 N/O auxiliary contact (9A,12A,18A,25A,32A)
  - 01: 3 N/O main contacts+1 N/C auxiliary contact (9A,12A,18A,25A,32A)
  - 11: 3 N/O main contacts+1 N/O and 1N/C auxiliary contact (40A,50A,65A,80A,95A)
  - 04: 4 N/O main contacts (9A,12A,25A,40A,50A,65A,80A,95A)
  - 08: 2 N/O and 2N/C main contacts (9A,12A,25A,40A,50A,65A,80A,95A)
- Z: DC coil
  N:Reversing/change-over type contactor (There is no such type as NC1-**Z (DC coil) and NC1-**08 (2N/O+2N/C)).

3. Curves

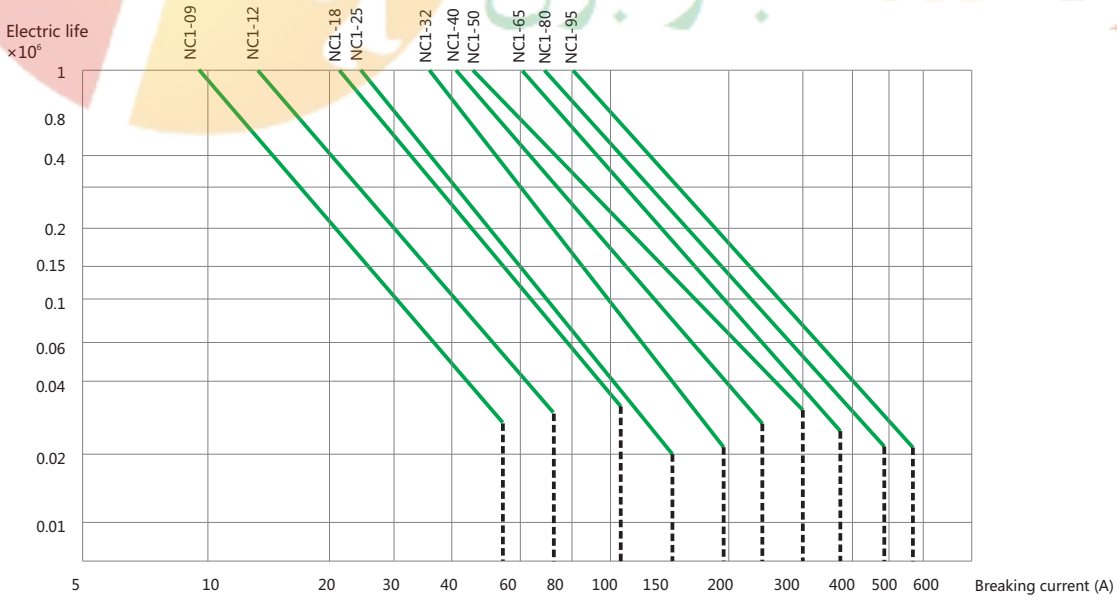
Electric life curves (AC-3)





Rated outputs of three-phase motors (50Hz AC-3)

Electric life curves (AC-4)



Example:
Request to control the start of three-phase motors
main technical parameter of three-phase motors: P=5.5kW, Ue=400V(380V), Ie=11A, Ic6×Ie=66A
The electric life span of request: 2,00,000 operations
the contactor should be NC1-32 according to the curves above

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4. Technical data

4.1 AC coil contactor

★ AC coil operation

Items / Model			NC1-09	NC1-12	NC1-18	NC1-25
Frame			Frame 1 (3P, 4P)		Frame 2 (3P)	Frame 3 (3P, 4P)
						
Rated conventional heating current (A) AC-1			25	25	32	45
Rated operational current (A)	400(380)V	AC-3	9	12	18	25
		AC-4	3.5	5	7.7	8.5
	690(660)V	AC-3	6.6	8.9	12	18
		AC-4	1.5	2	3.8	4.4
Rated insulation voltage (V AC)			690	690	690	690
Power of controlled 3-phase cage motor (AC-3)	kW	230(220)V AC	2.2	3	4	5.5
		400(380)V AC	4	5.5	7.5	11
		690(660)V AC	5.5	7.5	10	15
	hp	200V AC	3	5	7.5	7.5
		240V AC	3	5	7.5	10
		460V AC	5	7.5	10	15
		600V AC	5	7.5	10	15
Operating frequency (operations/h)	Electrical	AC-3	1,200	1,200	1,200	1,200
		AC-4	300	300	300	300
	Mechanical		3,600	3,600	3,600	3,600
Electrical life ($\times 10^3$ operations)	AC-3		1,000	1,000	1,000	1,000
	AC-4		200	200	200	200
Mechanical life ($\times 10^6$ operations)			10	10	10	10
Matched fuse type			RT16-20	RT16-20	RT16-32	RT16-40

★ AC coil operation, reversing type

Items / Model			NC1-09N	NC1-12N	NC1-18N	NC1-25N
Frame			Frame 1 (3P, 4P)		Frame 2 (3P)	Frame 3 (3P, 4P)
Rated conventional heating current (A) AC-1			25	25	32	45
AC-4	Ie(A)	380/400V	3.5	5	7.7	8.5
		660/690V	1.5	2	3.8	4.4
	Pe(kW)	380/400V	1.5	2.2	3	4
		660/690V	1.1	1.5	3.7	4
Power of controlled 3-phase cage motor (AC-3)	hp	200V	3	5	7.5	7.5
		240V	3	5	7.5	10
		460V	5	7.5	10	15
		600V	5	7.5	10	15

★ AC coil operation, change-over type

Items / Model			NC1-09N	NC1-12N	NC1-25N
Frame			Frame 1 (4P)	Frame 2 (4P)	Frame 3 (4P)
Rated conventional heating current (A) AC-1			25	25	45
AC-4	Ie(A)	380/400V	3.5	5	8.5
		660/690V	1.5	2	4.4
	Pe(kW)	380/400V	1.5	2.2	4
		660/690V	1.1	1.5	4
Power of controlled 3-phase cage motor (AC-3)	hp	200V	3	5	7.5
		240V	3	5	10
		460V	5	7.5	15
		600V	5	7.5	15

	NC1-32	NC1-40	NC1-50	NC1-65	NC1-80	NC1-95
	Frame 4 (3P)	Frame 5 (3P, 4P)			Frame 6 (3P, 4P)	
						
	50	60	80	80	110(Can be customized for 125)	110(Can be customized for 125)
	32	40	50	65	80	95
	12	18.5	24	28	37	44
	21	34	39	42	49	49
	7.5	9	12	14	17.3	21.3
	690	690	690	690	690	690
	7.5	11	15	18.5	22	25
	15	18.5	22	30	37	45
	18.5	30	37	37	45	45
	10	15	15	20	25	30
	15	20	20	25	30	30
	20	25	30	40	40	50
	20	25	30	40	40	50
	600	600	600	600	600	600
	300	300	300	300	300	300
	3,600	3,600	3,600	3,600	3,600	3,600
	800	800	600	600	600	600
	200	150	150	150	100	100
	8	8	8	8	6	6
	RT16-50	RT16-63	RT16-80	RT16-80	RT16-100	RT16-125

	NC1-32N	NC1-40N	NC1-50N	NC1-65N	NC1-80N	NC1-95N
	Frame 4 (3P)	Frame 5 (3P, 4P)			Frame 6 (3P, 4P)	
	50	60	80	80	110(Can be customized for 125)	110(Can be customized for 125)
	12	18.5	24	28	37	44
	7.5	9	12	14	17.3	21.3
	5.5	7.5	11	15	18.5	22
	5.5	7.5	11	11	15	18.5
	10	15	15	20	25	30
	15	20	20	25	30	30
	20	25	30	40	40	50
	20	25	30	40	40	50

	NC1-40N	NC1-50N	NC1-65N	NC1-80N	NC1-95N
	Frame 4 (4P)	Frame 5 (4P)		Frame 6 (4P)	
	60	80	80	110(Can be customized for 125)	110(Can be customized for 125)
	18.5	24	28	37	44
	9	12	14	17.3	21.3
	7.5	11	15	18.5	22
	7.5	11	11	15	18.5
	15	15	20	25	30
	20	20	25	30	30
	25	30	40	40	50
	25	30	40	40	50

4.2 DC coil contactor

★ DC coil operation(24V,110V,220V)

Items / Model			NC1-09Z	NC1-12Z	NC1-18Z	NC1-25Z
Frame			**Frame 1 (3P, 4P)**		**Frame 2 (3P)**	**Frame 3 (3P, 4P)**
						
Rated conventional heating current (A) AC-1			25	25	32	45
Rated operational current (A)	400(380)V	AC-3	9	12	18	25
		AC-4	3.5	5	7.7	8.5
	690(660)V	AC-3	6.6	8.9	12	18
		AC-4	1.5	2	3.8	4.4
Conventional heating current (A)			25	25	32	45
Rated insulation voltage (V AC)			690	690	690	690
Power of controlled 3-phase cage motor (AC-3)	kW	230(220)V AC	2.2	3	4	5.5
		400(380)V AC	4	5.5	7.5	11
		690(660)V AC	5.5	7.5	10	15
Operating frequency (operations/h)	Electrical	AC-3	1,200	1,200	1,200	1,200
		AC-4	300	300	300	300
	Mechanical		3,600	3,600	3,600	3,600
Electrical life ($\times 10^3$ operations)	AC-3		1,000	1,000	1,000	1,000
	AC-4		200	200	200	200
Mechanical life ($\times 10^6$ operations)			10	10	10	10
Matched fuse type			RT16-20	RT16-20	RT16-32	RT16-40

	NC1-32Z	NC1-40Z	NC1-50Z	NC1-65Z	NC1-80Z	NC1-95Z
	Frame 4 (3P)	Frame 5 (3P, 4P)			Frame 6 (3P, 4P)	
						
	50	60	80	80	110(Can be customized for 125)	110(Can be customized for 125)
	32	40	50	65	80	95
	12	18.5	24	28	37	44
	21	34	39	42	49	49
	7.5	9	12	14	17.3	21.3
	50	60	80	80	110(Can be customized for 125)	110(Can be customized for 125)
	690	690	690	690	690	690
	7.5	11	15	18.5	22	25
	15	18.5	22	30	37	45
	18.5	30	37	37	45	45
	600	600	600	600	600	600
	300	300	300	300	300	300
	3,600	3,600	3,600	3,600	3,600	3,600
	800	800	600	600	600	600
	200	150	150	150	100	100
	8	8	8	8	6	6
	RT16-50	RT16-63	RT16-80	RT16-80	RT16-100	RT16-125

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5. Accessories

5.1 Accessories

Items		Model	NC1-09	NC1-12	NC1-18	NC1-25
AC coil	Coil power	In-rush (VA)	70	70	70	110
		Sealed (VA)	9	9	9.5	14
		Power (W)	1.8~2.7	1.8~2.7	3~4	3~4
	Operation range	Operation voltage	(85%~110%) Us			
		Drop-out voltage	(20%~75%) Us			
	Coil voltage(50Hz,60Hz, 50/60Hz)(V)		24,36,48,110,127,220,230,240,380,415,440,480,500,600,660			
DC coil	Coil power(W)		9	9	11	11
	Operation range	Pick-up voltage	(85%~110%) Us			
		Drop-out voltage	(10%~75%) Us			
	Coil voltage (V)		24,36,48,110,220			

F4 auxiliary contact

F4 - □ □
- Number of N/C auxiliary contact
- Number of N/O auxiliary contact
- Auxiliary contact assembly

F5 auxiliary contact

F5 - □ □
- 0: time-delay range, 0.1s~3s
- 2: time-delay range, 0.1s~30s
- 4: time-delay range, 10s~180s
- T: making time-delay; D: breaking time-delay
- Time-delay module

NCF1-11C lateral side auxiliary contact

NC F1 - 1 1 C
- Lateral side
- 1 N/C contact
- 1 N/O contact
- Design sequence No.
- Auxiliary contact assembly
- Contactor
- Company code

	NC1-32	NC1-40	NC1-50	NC1-65	NC1-80	NC1-95
	110	300	300	300	300	300
	14	57	57	57	57	57
	3~4	6~10	6~10	6~10	6~10	6~10
	(85%~110%) Us					
	(20%~75%) Us					
	24,36,48,110,127,220,230,240,380,415,440,480,500,600					
	11	20	20	20	20	20
	(85%~110%) Us					
	(10%~75%) Us					

Picture	Model	Configuration of contacts	
		Number of N/O contact	Number of N/C 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	Number 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
	NCF1-11C NC1-40Z-95Z (DC coil) cannot be installed with such accessory	1	1

 SR2-A Surge suppressor	Suppression voltage range	AC 24V~48V	SR2-A 24V~48V	Able to be used for the products of 9A~38A or lower
		AC 100V~250V	SR2-A 100V~250V	
		AC 380V~440V	SR2-A 380V~440V	
 SR2-C Surge suppressor		AC 24V~48V	SR2-C 24V~48V	Able to be used for the products of 40A~95A or lower
		AC 100V~250V	SR2-C 100V~250V	
		AC 380V~440V	SR2-C 380V~440V	

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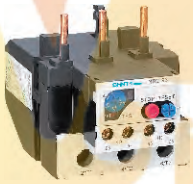
5.2 Derived products when the contactor is assembled with following accessory module

Derived products	Contactor	Accessorial modular	Picture
Time-delay contactor	 +	 Time-delay block →	
Reversing contactor	 +	 Mechanical interlock →	
Magnetic starter	 +	 Thermal relay →	
AC contactor for capacitor switching	 +	 Current-limiting contact assembly →	
Star-delta starter	 +	 Time-delay block +  Auxiliary contact assembly →	

Note: NC1-09Z-95Z cannot form the reversing contactor.

5.3 Assembly with thermal over-load relay

Model of contactor	Assembled thermal over-load relay			
	Model	Rated current (A)	Recommended fuse type	
			aM	gG
NC1-09 NC1-12 NC1-18 NC1-25 NC1-32	 NR2-25	0.1~0.16	0.25	2
		0.16~0.25	0.5	2
		0.25~0.4	1	2
		0.4~0.63	1	2
		0.63~1	2	4
		1~1.6	2	4
		1.25~2	4	6
		1.6~2.5	4	6
		2.5~4	6	10
		4~6	8	16
		5.5~8	12	20
		7~10	12	20
		9~13	16	25
		12~18	20	35
		17~25	25	50
NC1-32	 NR2-36	23~32	40	63
		28~36	40	80
NC1-40 NC1-50 NC1-65 NC1-80 NC1-95	 NR2-93	23~32	40	63
		30~40	40	100
		37~50	63	100
		48~65	63	100
		55~70	80	125
		63~80	80	125
		80~93	100	160

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5.4 Assembly with electronic overload relay

Model of contactor	Model	Rated	Range of setting	Recommended
		Assembled thermal current (A)	Over-load relay current (A)	Fuse type
NC1-09		1.2	0.6~1.2	RT36-4 (NT00-4)
		2.4	1.2~2.4	RT36-6 (NT00-6)
		4	2~4	RT36-10 (NT00-10)
		8	4~8	RT36-16 (NT00-16)
NC1-12		10	5~10	RT36-20 (NT00-20)
		12	7~12	RT36-25 (NT00-25)
NC1-18		20	10~20	RT36-40 (NT00-40)
NC1-25	NRE8-25	25	20~25	RT36-50 (NT00-50)
NC1-32		32	22~32	RT36-80 (NT00-80)
NC1-40		4	2~4	RT36-10 (NT00-10)
		8	4~8	RT36-16 (NT00-16)
		10	5~10	RT36-20 (NT00-20)
		20	10~20	RT36-40 (NT00-40)
	NRE8-40	40	20~40	RT36-80 (NT00-80)
NC1-40		65	30~65	RT36-160 (NT00-160)
NC1-50				
NC1-65				
NC1-80		100	50~100	RT36-200 (NT1-200)
NC1-95	NRE8-100			

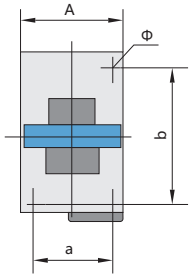
6. Technical information

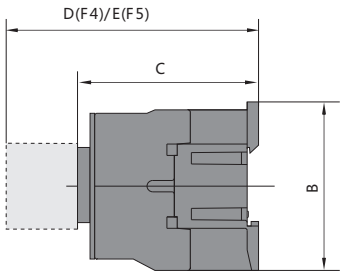
6.1 Terminal connection

Model	Cabling cross section(Cu)				Screw size	Tightening torque (N·m)
	Number of piece	Flexible cable with cold-pressed socket (mm^2)	Flexible cable without cold-pressed socket (mm^2)	Inflexible cable (mm^2)		
NC1-09	1	1/2.5	1/4	1/4	M3.5	0.8
	2	1/2.5	1/2.5	1/4	M3.5	0.8
NC1-12	1	1/2.5	1/4	1/4	M3.5	0.8
	2	1/2.5	/	1/4	M3.5	0.8
NC1-18	1	1.5/4	1.5/6	1.5/6	M3.5	0.8
	2	1.5/4	1.5/4	1.5/6	M3.5	0.8
NC1-25	1	1.5/4	1.5/10	1.5/6	M4	1.2
	2	1.5/4	1.5/6	1.5/6	M4	1.2
NC1-32	1	2.5/6	2.5/10	2.5/10	M4	1.2
	2	2.5/6	2.5/6	2.5/10	M4	1.2
NC1-40	1	6/25	6/25	6/25	M8	4
	2	4/10	4/10	4/10	M8	4
NC1-50	1	6/25	6/25	6/25	M8	4
	2	4/10	4/10	4/10	M8	4
NC1-65	1	6/25	6/25	6/25	M8	4
	2	4/10	4/10	4/10	M8	4
NC1-80	1	10/35	10/35	10/35	M10	ⓘ 6 ◎ 10
	2	6/16	6/16	6/16	M10	ⓘ 6 ◎ 10
NC1-95	1	10/35(50)	10/35(50)	10/35(50)	M10	ⓘ 6 ◎ 10
	2	6/16	6/16	6/16	M10	ⓘ 6 ◎ 10

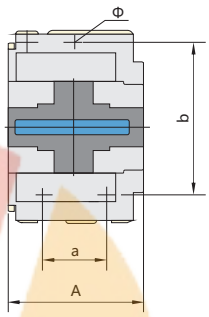
7. Overall and mounting dimensions (mm)

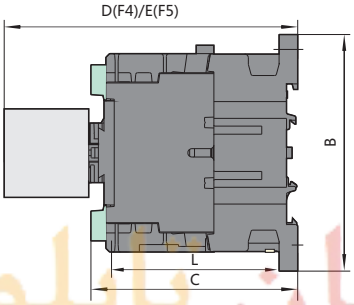
NC1-09~32



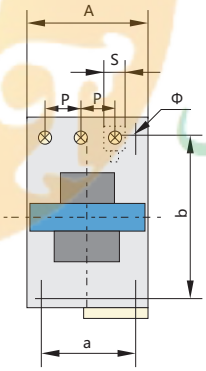


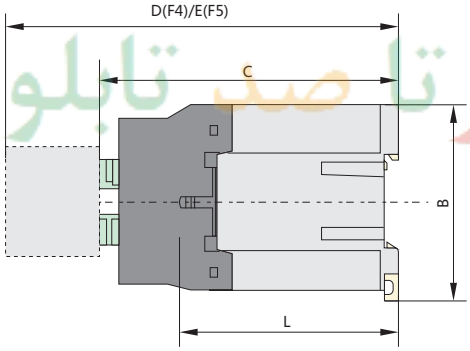
NC1-40~95



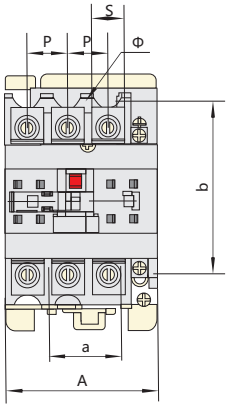


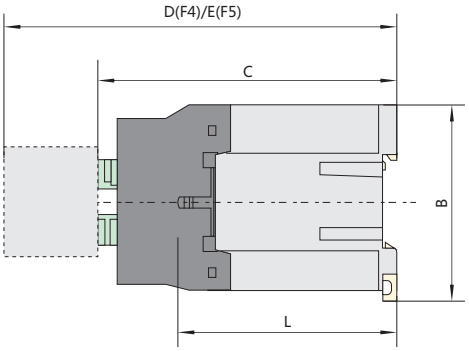
NC1-09Z~32Z





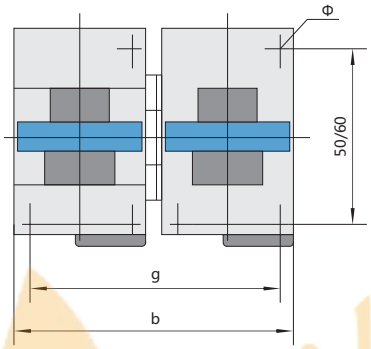
NC1-40Z~95Z

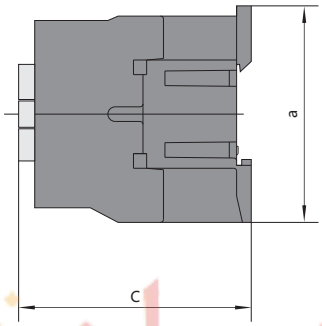




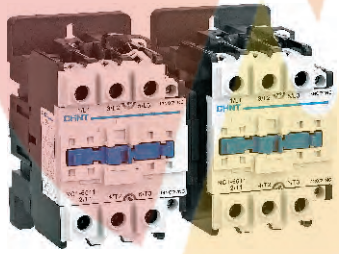
Model	A max	B max	C max	D max	E max	a	b	Φ	L	P	S
NC1-09(Z)~12(Z)	47	76	82(116)	120.5(154.5)	140.5(174.5)	34/35	50/60	4.5	60(95)	10.5	8.6
NC1-18(Z)	47	76	87(122)	125.5(160.5)	145.5(180.5)	34/35	50/60	4.5	61(96)	11.3	10.4
NC1-25(Z)	57	86	95(131)	133.5(169.5)	153.5(189.5)	40	48	4.5	70(107)	13.2	11.7
NC1-32(Z)	57	86	100(138)	138.5(176.5)	158.5(196.5)	40	48	4.5	71.6(120)	14.5	13
NC1-4011(Z)~6511(Z)	77	129	116(173)	154.5(211.5)	174.5(231.5)	40	105	6.5	78(135)	20	8.6
NC1-4004~6504	84	129	116	154.5	174.5	40	105	6.5	78(135)	20	8.6
NC1-4008~6508	84	129	127	154.5	174.5	40	105	6.5	78	20	8.6
NC1-8011(Z)~9511(Z)	87	129	127(188)	165.5(226.5)	185.5(246.5)	40	105	6.5	83(140)	23.5	12
NC1-8004~9504	96	129	122	160.5	180.5	40	105	6.5	83	23.5	12
NC1-8008~9508	96	129	135	160.5	180.5	40	105	6.5	83	23.5	12

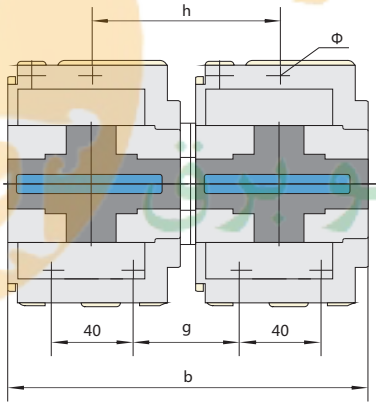
NC1-09~32N

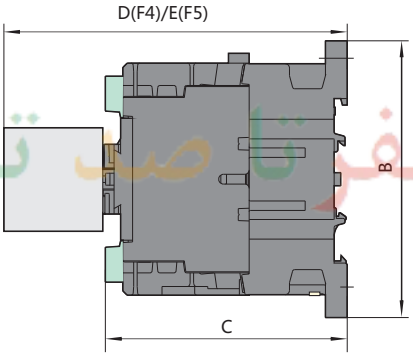




NC1-40~95N







Contactor model	a	b	c	g	h	Φ
NC1-09N~12N	86	109	82	95	--	4.5
NC1-18N	86	109	87	95	--	4.5
NC1-25N	93	131	95	111	--	4.5
NC1-32N	93	131	100	111	--	4.5
NC1-40N~65N(3P)	129	165	116	50	90	6.5
NC1-80N~95N(3P)	129	187	127	57	96	6.5
NC1-40N~65N(4P)	129	180	116	50	90	6.5
NC1-80N~95N(4P)	129	205	127	57	96	6.5

Note:

1. L: in main circuit, the distance between terminals and plate;
2. P: in main circuit, the distance between two phases;
3. S: in main circuit, the width of contacting plate.

NC1-2504Z(N) DP
NC1-4004Z(N) DP
Contactor

1. General

NC1-2504Z DP, NC1-4004Z DP AC contactor (hereinafter called contactor) is developed from NC1-2504, NC1-4004 ac contactor model, is mainly used for DC 48V, rated operation voltage up to 690V, rated current 25A and 40A circuit for remote making and breaking circuits. And apply to match with thermal overload relays electromagnetic starter; can meet reversible function matching with same model of NC1-2504, NC1-4004 AC contactor.

Standard: IEC60947-4-1

2. Type designation

N C 1-□□ 04 Z(N) DP

- Customised
- Reversing AC / DC contactor
- DC coil
- 4 N/O main contacts
- Basic specification, expressed with the rated operational current (380V, AC-3)
- Design Sequence No.
- Contactor
- Company Code

3. Operating conditions

3.1 Ambient temperature: -5℃~+40℃, average does not over +35℃

3.2 Altitude: bellow to 2000m

3.3 Humidity: +40℃ max, relative humidity is no more than 50%, lower temperature allows a higher relative humidity.

3.4 Pollution degree: 3

3.5 Installation category: Ⅲ

3.6 Installation conditions: the mounting surface and the vertical gradient of not more than ± 5°. Product should be installed and used for no apparent shake, shock and vibration

3.7 IP10

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4. Technical data

Model			NC1-2504Z DP			NC1-4004Z DP		
Rated current (A)	380V~400V	AC-3	25			40		
		AC-4	8.5			18.5		
	660V~690V	AC-3	18			34		
		AC-4	4.4			9		
Rated conventional current (Ith)(A)			40			60		
M Rated insulation voltage (V)			690V					
Power of controlled 3-phase cage motor (AC-3)kw		220V/230V	5.5			11		
		380V/400V	11			18.5		
		660V/690V	15			30		
Operation frequency		Electrical life (AC-4)	300					
		Mechanical life	1800					
Electrical life (AC-4)X10^4		400V (without derating)	1.5					
Mechanical life X10^4			50					
Coil voltage			DC 48V			DC48V		
Matched fuse model			RT16-40			RT16-63		
Cold end	pc	mm^2	1	2		1	2	
	Non-prefabricated cord ends		'1.5/4	1.5/4		6/25	4/10	
	Prefabricated cord ends		1.5/10	1.5/6		6/25	4/10	
	Non-prefabricated hard-wine ends		1.5/6	1.5/6		6/25	4/10	
Termial screw size			M4	M4	M4	M8	M8	M8
Tighting torque (N.M)			1.2	1.2	1.2	4	4	4
Operation range			Pick-up voltage:DC 40V-60V			Pick-up voltage:DC 40V-60V		
			Drop-out voltage:DC 4.8V-16V			Drop-out voltage:DC 4.8V-16V		

NC1-2504ZN DP			NC1-4004ZN DP		
25			40		
8.5			18.5		
18			34		
4.4			9		
40			60		
5.5			11		
11			18.5		
15			30		
20					
DC48V/ AC220V			DC48V/ AC220V		
RT16-40			RT16-63		
1	2		1	2	
1.5/4	1.5/4		6/25	4/10	
1.5/10	1.5/6		6/25	4/10	
1.5/6	1.5/6		6/25	4/10	
M4	M4	M4	M8	M8	M8
1.2	1.2	1.2	4	4	4
Pick-up voltage:DC40V-60V/AC 85%Us-110%Us			Pick-up voltage:DC40V-60V/AC 85%Us-110%Us		
Drop-out voltage:DC 4.8V-16V/AC 20%Us-75%Us			Drop-out voltage:DC 4.8V-16V/AC 20%Us-75%Us		

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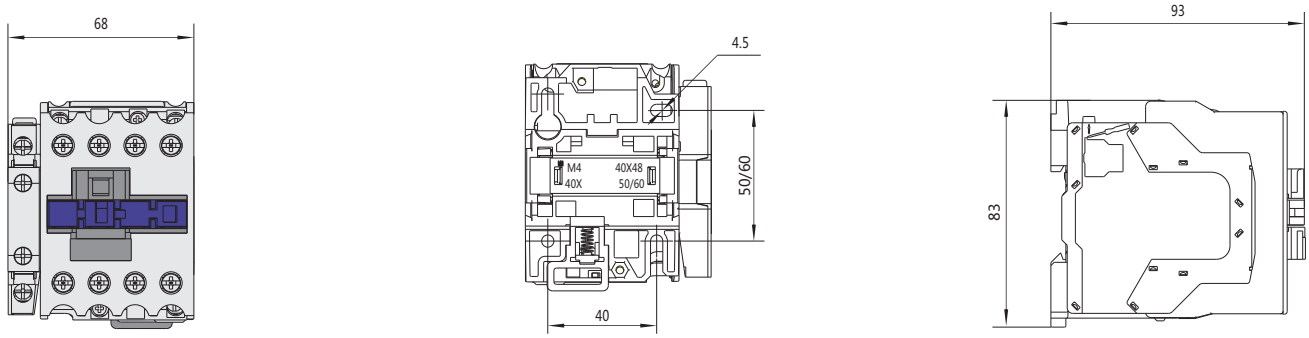
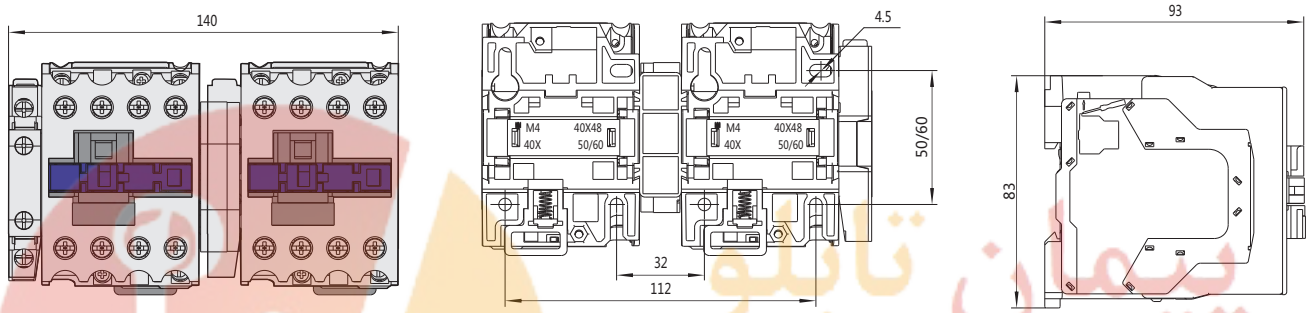
5. Overall and mounting dimensions (mm)

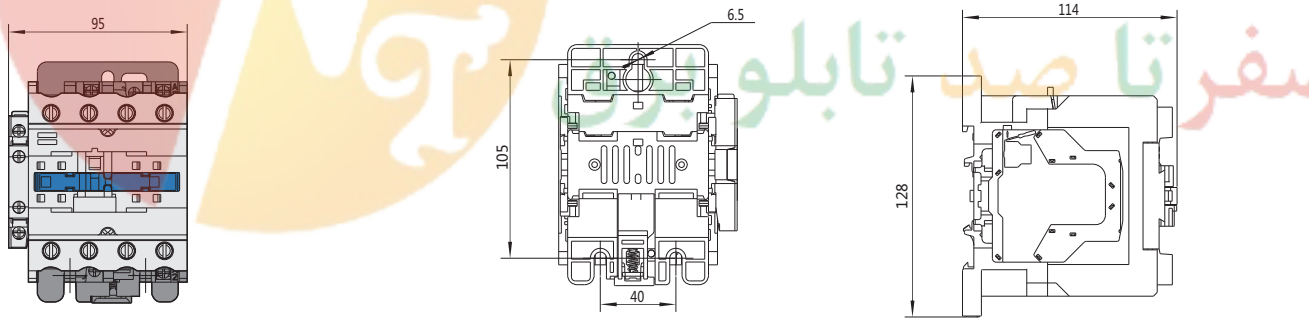
NC1-2504Z DP



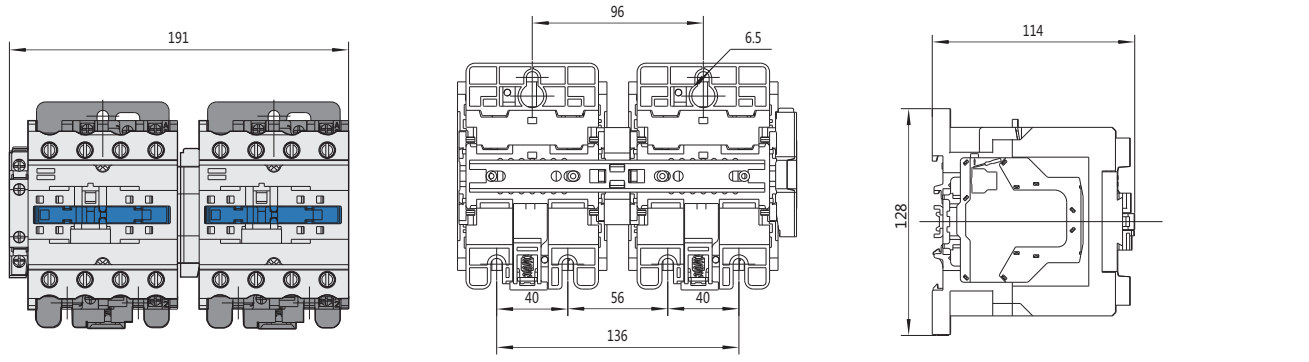
NC1-2504ZN DP



NC1-4004Z DP



NC1-4004ZN DP



6. Ordering information

6.1 Completed name and model of contactor;
6.2 Rated operation voltage and frequency for AC coil;
6.3 Purchase quantity;
6.4 Mark clearly for ordering F4 contacts or din-rail extra.

NC2 AC 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℃~+40℃;

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

1.9 IP00(IP20 front face with shrouds SHD)

2. Type designation

N C 2- □□□ □/□

- Number of poles: 4P; Blank:3P
- Derivation code:
  N: Reversing/chang-over type contactor
  (Ns: horizontal mounting;
  Nc: vertical mounting)
  Z: DC control
- Rated operational current (A), AC-3 380/400V
- Design sequence No.
- Contactor
- Company code

3. Technical data

3.1 Clearance between active and static contacts

Models	Distance between contacts
NC2-115N/150N	≥5mm
NC2-185N/225N	≥5mm
NC2-265N/330N	≥6mm
NC2-400N/500N	≥6.5mm
NC2-630N	≥7mm
NC2-800N	≥7mm

3.2 Mechanical life
a. NJLC-FF and NJLS-FF: 3×10^6 operations
b. Other model: 2×10^6 operations

(a) 3×10^6	NJLc-FF, NJLs-FF
(b) 2×10^6	NJLs-FF, NJLs-GG, NJLs-HH, NJLs-KK, NJLs-LL, NJLc-FF, NJLc-FG, NJLc-FH, NJLc-FK, NJLc-FL, NJLc-GG, NJLc-GH, NJLc-GK, NJLc-GL, NJLc-HH, NJLc-HK, NJLc-HL, NJLc-KK, NJLc-KL, NJLc-LL

3.3 Terminal connection

Model	The connection capability			Screw size	Tightening torque (N·m)
	Number of piece	Cable Cross section (mm^2)	Cu busbar Cross section (mm^2)		
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

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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 ($\times 10^6$ operations)			10	10	6	6
Matched fuse	Model		RT36-1	RT36-1	RT36-2	RT36-2
type	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 AC-4	380/400V AC	115	150	185	225
		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 ($\times 10^6$ operations)			10	10	6	6
Matched fuse	Model		RT36-1	RT36-1	RT36-2	RT36-2
type	Rated current (A)		250	250	315	315