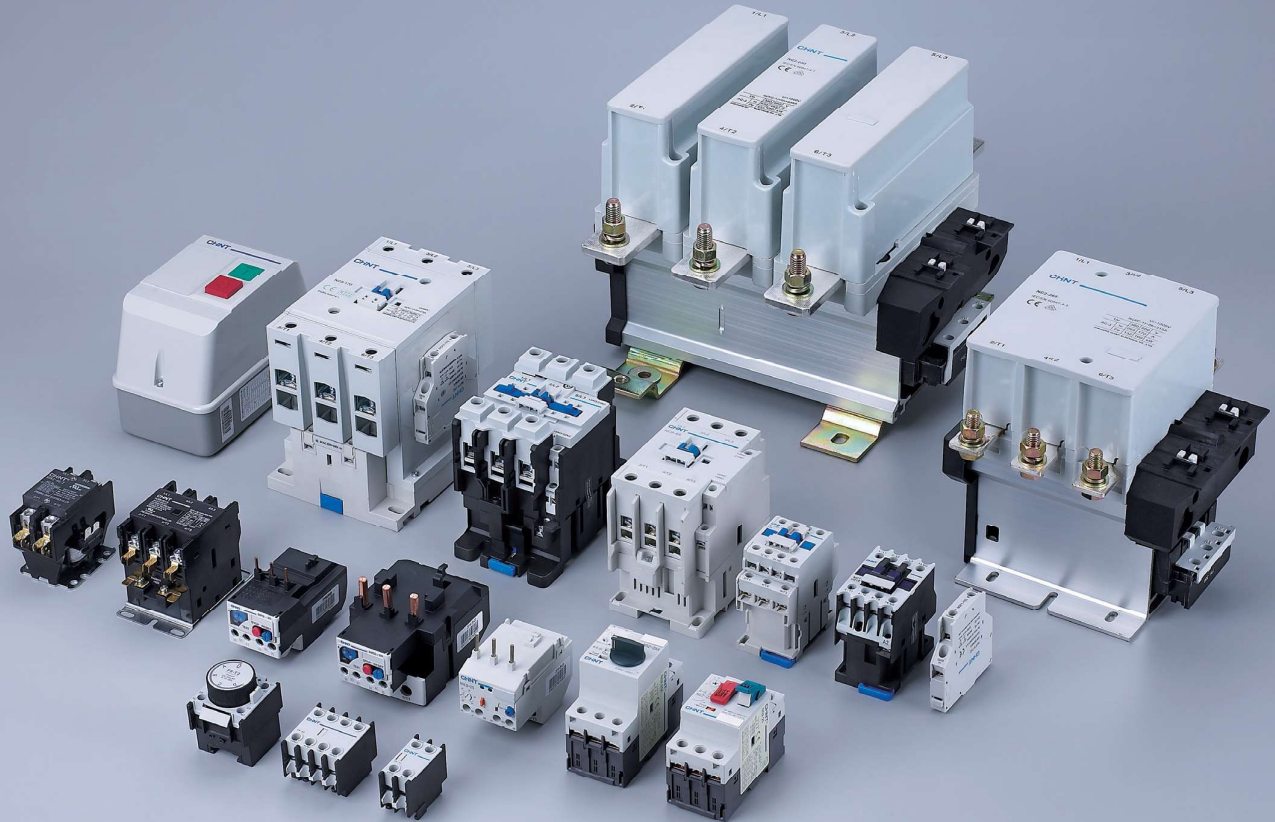


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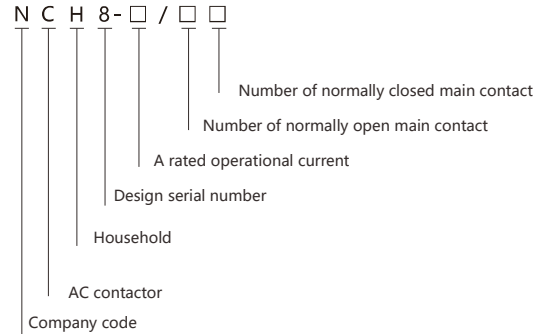


NCH8 Modular AC Contactor 20~63A

1. General

- 1.1 Electric ratings: up to 20A, 25A, 40A, 63A, 230V, 400V AC50/60Hz;
- 1.2 Utilization category: AC-1, AC-7a, AC-7b, AC-3;
- 1.3 Standard: IEC/EN 61095, IEC 60947-4-1

2. Model and meanings



3. Features

- 3.1 Compact design and modularization design;
- 3.2 Insulation material with excellent performances has been adopted to enhance the operation security to a great extent;
- 3.3 Elegant appearance. A mounting instruction diagram is appended for convenient operation;
- 3.4 No noise during operation.
- 3.5 IP20

4. Technical data

4.1 Ratings

Model	Utilization category	U _i (V)	U _e (V~)	Conventional heating current (A)	I _e (A)	Controlled power (kW)
NCH8-20/20 NCH8-20/11 NCH8-20/02 NCH8-20/10 NCH8-20/01	AC-1/AC-7a AC-3/AC-7b	500	230	25	20 9	4 1.2
NCH8-20/40 NCH8-20/22 NCH8-20/31	AC-1/AC-7a AC-3/AC-7b	500	400	25	20 9	10 4
NCH8-25/20 NCH8-25/11 NCH8-25/02 NCH8-25/10 NCH8-25/01	AC-1/AC-7a AC-3/AC-7b	500	230	25	25 9	5 1.2
NCH8-25/40 NCH8-25/22 NCH8-25/31	AC-1/AC-7a AC-3/AC-7b	500	400	25	25 9	16 4
NCH8-40/20 NCH8-40/11 NCH8-40/02	AC-1/AC-7a AC-3/AC-7b	500	230	63	40 15	7.5 3
NCH8-63/20 NCH8-63/11 NCH8-63/02	AC-1/AC-7a AC-3/AC-7b	500	230	63	63 20	12 4
NCH8-40/40 NCH8-40/31 NCH8-40/22	AC-1/AC-7a AC-3/AC-7b	500	400	63	20	26 7.5
NCH8-63/40 NCH8-63/31 NCH8-63/22	AC-1/AC-7a AC-3/AC-7b	500	400	63	63 20	40 11



4.2 Action (operation) conditions:

When the ambient air temperature is $-5\text{ }^{\circ}\text{C} \sim +40\text{ }^{\circ}\text{C}$, the rated control power supply voltage u_s is applied to the contactor suction coil, so that when it is heated to a stable state, the contactor can be reliably closed under any voltage within the range of (85% ~ 110%) u_s . The release voltage is neither higher than 75% u_s nor less than 20% u_s .

4.2.1 Agreed operational performance

Utilization category	Making conditions ^B			reaking conditions			Electrification time (s)	Interval time (s)	Operating frequency
	I/I _e	U/U _e	COSΦ	I _c /I _e	U _r /U _e	COSΦ			
AC-1	1.0	1.05	0.8	1.0	1.05	0.8	0.05	10	6000
AC-7a	1.0	1.05	0.8	1.0	1.05	0.8	0.05	10	30000
AC-3/AC-7b	6.0	1.0	0.45	1.0	0.17	0.45	0.05	10	30000

4.2.2 Making and breaking capacity

Utilization category	Making and breaking conditions			Electrification time (s)	Interval time (s)	Operating frequency
	I _c /I _e	U _r /U _e	COSΦ			
AC-1/AC-7a	1.0	1.05	0.8	0.05	10	50
AC-3/AC-7b	8	1.05	0.45	0.05	10	50

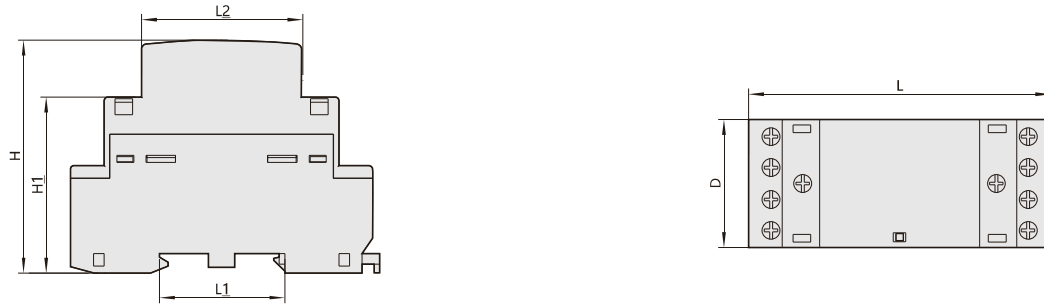
4.3 Conventional heating current under different ambient temperature

Rated current	40	50	60	70
I _e =20A	20A	18A	16A	14A
I _e =25A 2	5A 2	2A 1	8A 1	6A
I _e =40A	40A	38A	36A	32A
I _e =63A	63A	57A	50A	46A

4.4 Number of appended lamps with voltage up to 230V

Unit power	Tungsten filament and halogen 230V					
	60W	100W	200W	300W	500W	1000W
20A	20	12	6	4	2	1
25A	36	20	11	74		2
40A	85	50	25	17	10	5
63A	115	70	35	23	14	7

5. Overall and mounting dimensions (mm)



Model	D		L	L1	L2	H	H1
	2P	4P					
NCH8-20~25	18	36	85	35.5	45	65.5	50
NCH8-40~36	36	54	85	35.5	45	65.5	50

6. Ordering information

Model	Number of contact	Coil voltage
NCH8-20	2NO	24V,220/230V,240V 50/60Hz
NCH8-20	1NO+1NC	
NCH8-20	2NC	
NCH8-20	1NO	
NCH8-20	1NC	
NCH8-20	4NO	
NCH8-20	2NO+2NC	
NCH8-20	3NO+1NC	
NCH8-25	2NO	
NCH8-25	1NO+1NC	
NCH8-25	2NC	
NCH8-25	1NO	
NCH8-25	1NC	
NCH8-25	4NO	
NCH8-25	2NO+2NC	
NCH8-25	3NO+1NC	
NCH8-40	4NO	
NCH8-40	3NO+1NC	
NCH8-40	2NO+2NC	
NCH8-40	2NO	
NCH8-40	1NO+1NC	
NCH8-40	2NC	
NCH8-63	4NO	
NCH8-63	3NO+1NC	
NCH8-63	2NO+2NC	
NCH8-63	2NO	
NCH8-63	1NO+1NC	
NCH8-63	2NC	



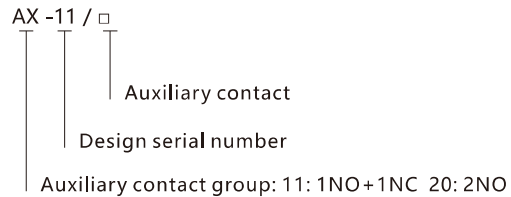
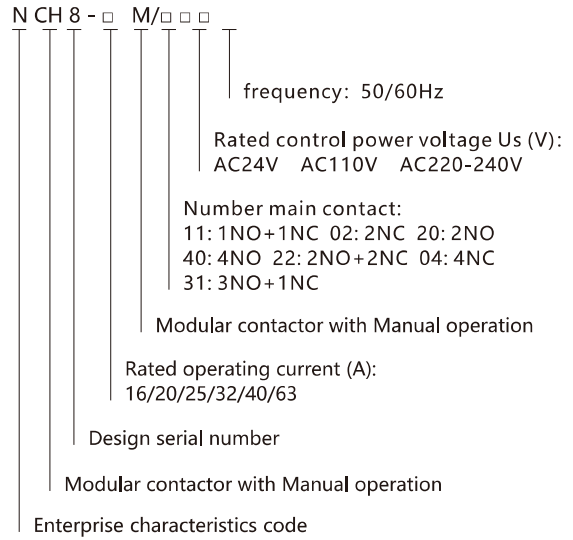
NCH8-□ M Modular contactor with Manual operation

1. The purpose of use

1.1 NCH8-□ M series Manual Modular AC contactor (here in after referred as contactor) is mainly used in power systems with AC 50Hz/60Hz, rated operating voltage up to 400V and rated operating current up to 63A. It is used as remote or manual switch for circuit control under AC-7b and AC-7a (non-inductive load or low-inductive load/resistance furnace, domestic appliance and low-inductive load of similar applications) application category. The contactor shall not be used for breaking short-circuit current, therefore it should be used with a proper short-circuit protection device.

1.2 Standard: IEC/EN 61095、IEC/EN60947-4-1

2. Type Specification and Definitions



Note: Auxiliary contacts are optional accessories (not standard accessories).

3. Regular Operating Conditions

- 3.1 Ambient temperature: $-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$
- 3.2 Humidity: Relative humidity $< 50\%$ at $+40^{\circ}\text{C}$; up to 90% at $+20^{\circ}\text{C}$
- 3.3 Altitude: $< 2000\text{m}$
- 3.4 Pollution class: Class 2
- 3.5 Installation category: Class II
- 3.6 Protection class: IP20
- 3.7 Installation conditions: Vertical installation; the inclination of the installation surface to any direction should not exceed 5° ; TH35-7.5 steel mounting rails should be used for installation.
- 3.8 Operation conditions: Pickup voltage: $(85\% \sim 110\%) U_s$; release voltage: $(20\% \sim 75\%) U_s$

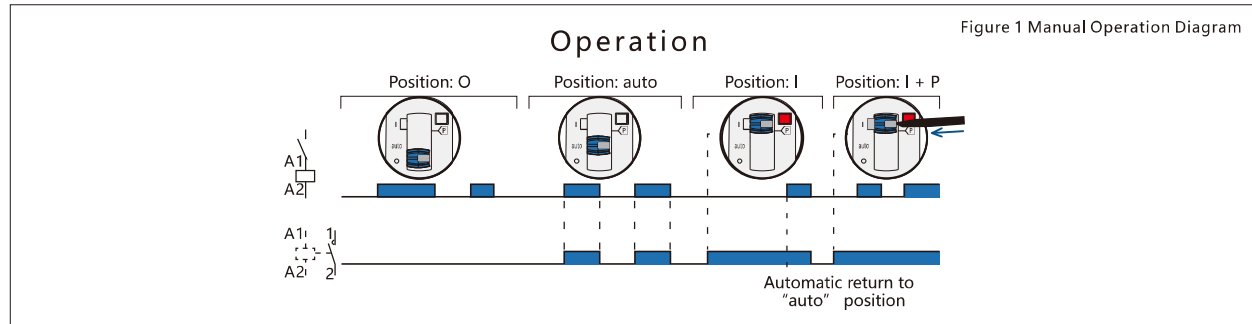
4. Main Technical Parameters

Table 1 Main Technical Parameters

Model		16A	20A	25A	32A	40A	63A	
Rated current I _n (A)	AC-7a	16	20	25	32	40	63	
	AC-7b	6	7	9	12	18	25	
Conventional thermal current I _{th} (A)		25	25	25	63	63	63	
Rated insulation voltage U _i (V)		500						
Rated operating Rated U _e (V)		250V (2P), 400V(4P)						
Number of main contacts	2P	1NO1NC, 2NO, 2NC						
	4P	2NO 2NC, 3NO 1NC, 4NO, 4NC						
Control power (kW)	AC-7a	250V	3.5	4.5	5.5	8	9	14
		400V	6	7.5	9.5	12	15	24
	AC-7b	250V	1.4	1.6	2	3	4	5.5
		400V	2.2	2.5	3.2	4.5	6	8
Electrical life (times)		8×10 ⁴						
Mechanical life (times)		100×10 ⁴						
Rated control power voltage U _s (V)		AC24V, AC110V, AC220-240V						
Rated duty system	Intermittent	30 times/h load factor 40%						
	Eight hours	Basic duty system						
Wiring (mm ²)	Control circuit	Hard wire	1.5~2.5			2×1.5		
		Flexible wire	1.5~2.5			2×2.5		
	Power circuit	Hard wire	1.5~6			6~25		
		Flexible wire	1.5~4			6~16		
Torque (N.m)	Control circuit	0.8						
	Power circuit	0.8				3.5		

5. Structure and Operation Principles

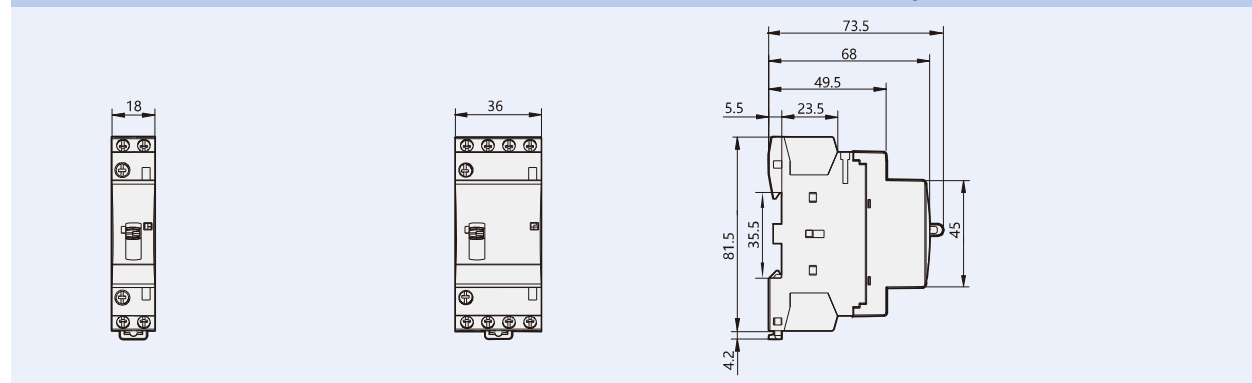
When the handle is moved to the "O" position, the control power on/off, contactor does not act; when the handle is in the "auto" position, the contactor switch on/off is control by control power on/off, just like the normal contactor; when the handle is moved to the "I" position, the contactor switch on immediately, and the handle automatically returns to the "auto" position after the control power from off to on; when the handle is in the "I" position, use a screwdriver to push out the white pin key at "P" position, the contactor is switch on and not acted by the control power on/off.



6. Outline and Installation Dimensions

Unit: mm

Figure2 NCH8-16M, NCH8-20M, NCH8-25M



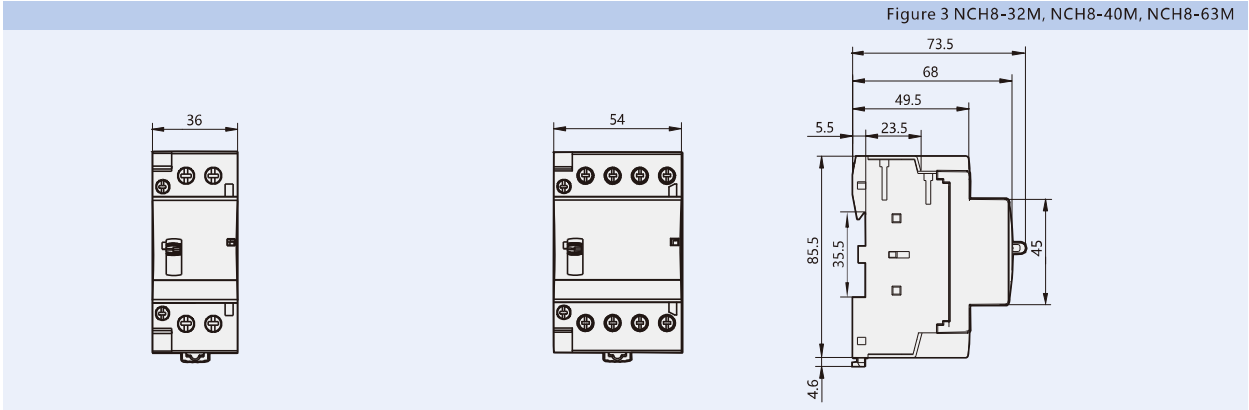


Figure 4 AX-11

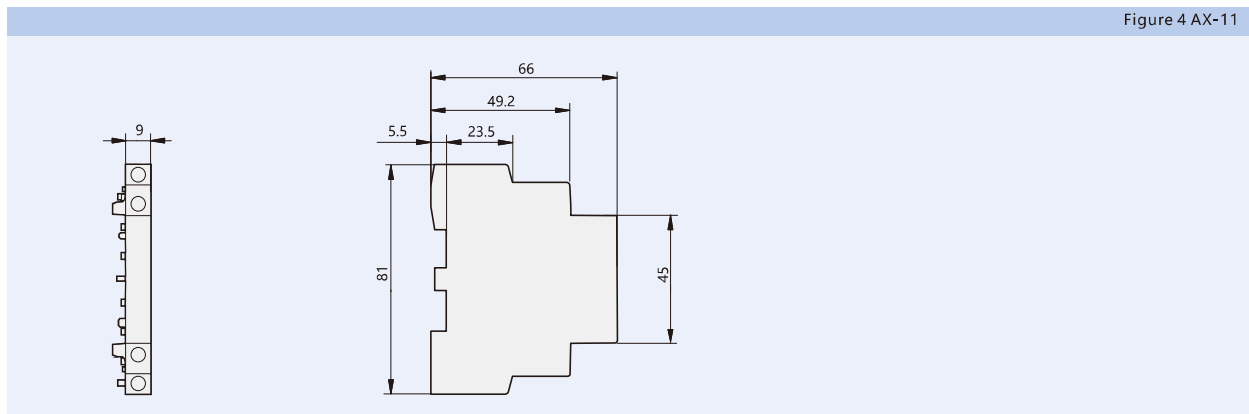
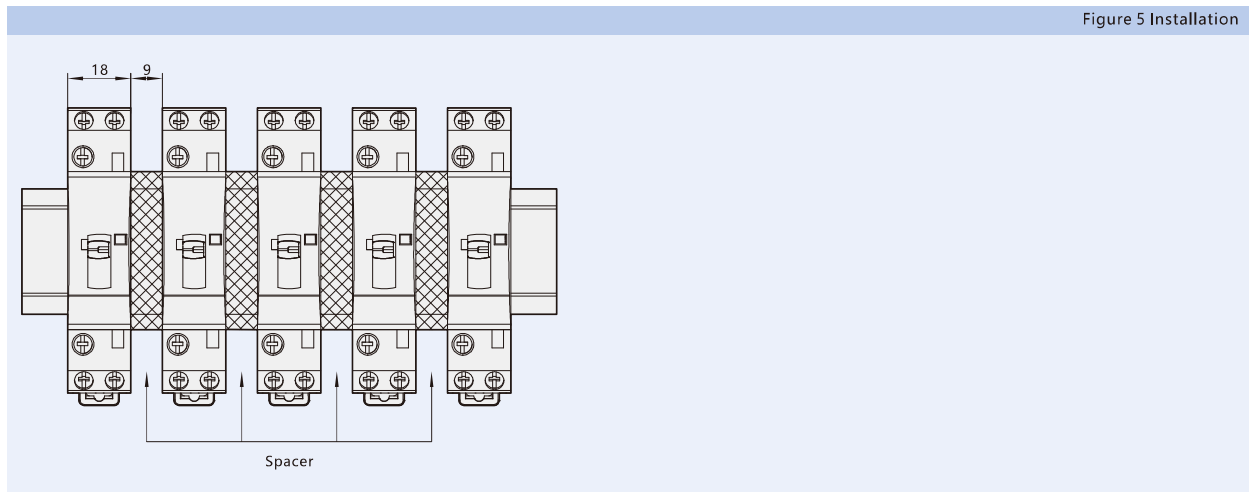


Figure 5 Installation



Note: When the ambient temperature is higher than 60°C the spacer must be assembled on both sides to facilitate heat dissipation.

7. Ordering instructions

During product selection, the user shall specify the following contents, if necessary, application conditions or requirements shall be further specified:

- Product name & type
- Rated operating current
- Number of poles of main contact
- Rated control power voltage & frequency