NO:2021.09

CHINT ELECTRICS

NCH8-M
Household AC Contactor

User Instruction

Standard:IEC/EN 61095
IEC/EN 60947-4-1

⚠ Safety Warning

1. Only professional technicians are allowed for installation and maintenance.
2. It is strictly prohibited to install in the environment containing inflammable, explosive gas and moist condensation.
3. Power must be turned off when installing and maintaining the product.
4. Do not touch the conductive part of the product during working.

1 Use Purpose

NCH8-M series household AC contactor (hereinafter referred to 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 switch for circuit control under AC-1 and AC-7a (non-inductive load or low-inductive load/resistance furnace, household 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.

2 Type Key and Definitions

N CH 8 — □ M □ □ □

(1) (2) (3) (4) (5) (6) (7) (8)

(1) Enterprise characteristics code
(2) Household AC contactor
(3) Design serial number
(4) Rated operating current (A): 16A/20A/25A/32A/40A/63A
(5) M: manual operation
(6) Number of poles of main contact: 20: 2NO 11: 1NO+1NC 02: 2NC 40: 4NO 22: 2NO+2NC 04: 4NC 31: 3NO+1NC
(7) Rated control power voltage Us (V): AC24V AC110V AC220-240V
(8) frequency: 50Hz/60Hz

AX — 11 / □

(1) (2) (3)

(1) Auxiliary contact
(2) Design serial number
(3) Auxiliary contact group: 11: 1NO+1NC 20: 2NO

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

3 Key Technical Parameters

Table 1 Normal Operating Conditions

Ambient temperature	-5℃~+40℃
Humidity	Relative humidity < 50% at +40℃; up to 90% at +20℃
Altitude	< 2000m
Pollution class	Class 2
Installation category	Class II
Protection class	IP20
Installation conditions	Vertical installation; the inclination of the installation surface to any direction should not exceed 5°; use TH35-7.5 steel mounting rails for installation.
Operation conditions	Pickup voltage: (85%~110%) Us; release voltage: (20%~75%) Us

Table 2 Key Technical Parameters

Model			16A	20A	25A	32A	40A	63A
Rated current In (A)	AC-7a		16	20	25	32	40	63
	AC-7b		6	7	9	12	18	25
Conventional thermal current Ith (A)			25	25	25	63	63	63
Rated insulation voltage Ui~ (V)			500					
Rated operating Rated Ue~ (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 (AC-1)	250V	3.5	4.5	5.5	8	9	14
		400V	6	7.5	9.5	12	15	24
	AC-7b (AC-3)	250V	1.4	1.6	2	3	4	5.5
		400V	2.2	2.5	3.2	4.5	6	8
Rated control power supply voltage Us (V)			AC24V, AC110V, AC220-240V					

Rated duty system	Intermittent		30 times/h load factor 40%	
	Eight hours		Basic duty system	
Wiring (mm2)	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

4 Structure and Operating Principles

When the coil is powered on, the coil current will generate a magnetic field which has enough electromagnetic attraction to offset counterforces, so the armature can be picked up and the contact can be connected. When there is no voltage on the coil or the voltage drops to a certain level, the magnetic flow on the armature surface decreases, which means the electromagnetic attraction is not strong enough to offset the counterforces generated by reaction spring and contact spring, so the armature will be released and detached from the magnet yoke. Consequently, the contact is disconnected.

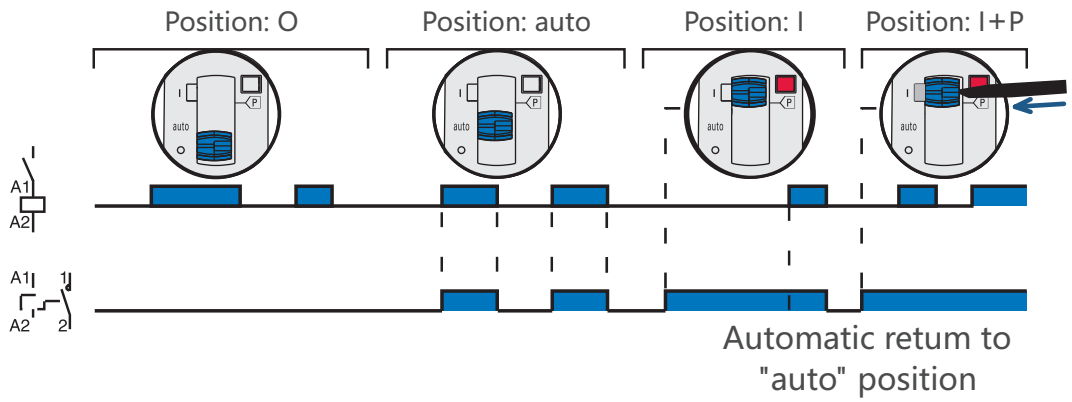

Figure 1 Manual Operation Diagram

5 Installation

Unit:mm

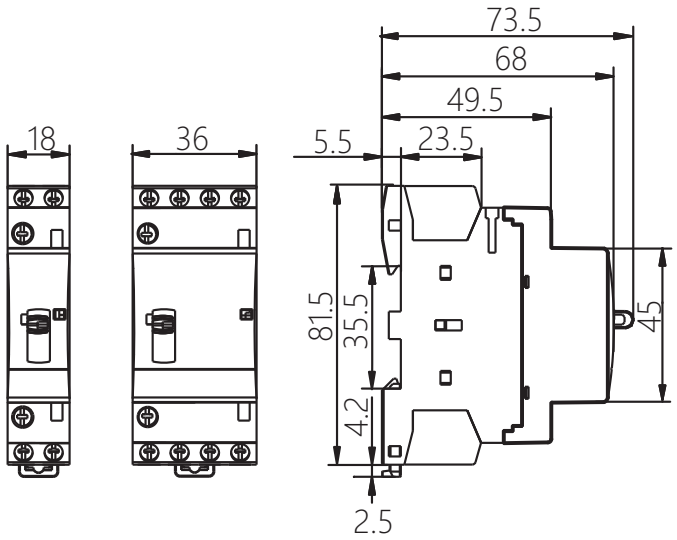

Figure 2 NCH8-16M, NCH8-20M, NCH8-25M

Unit:mm

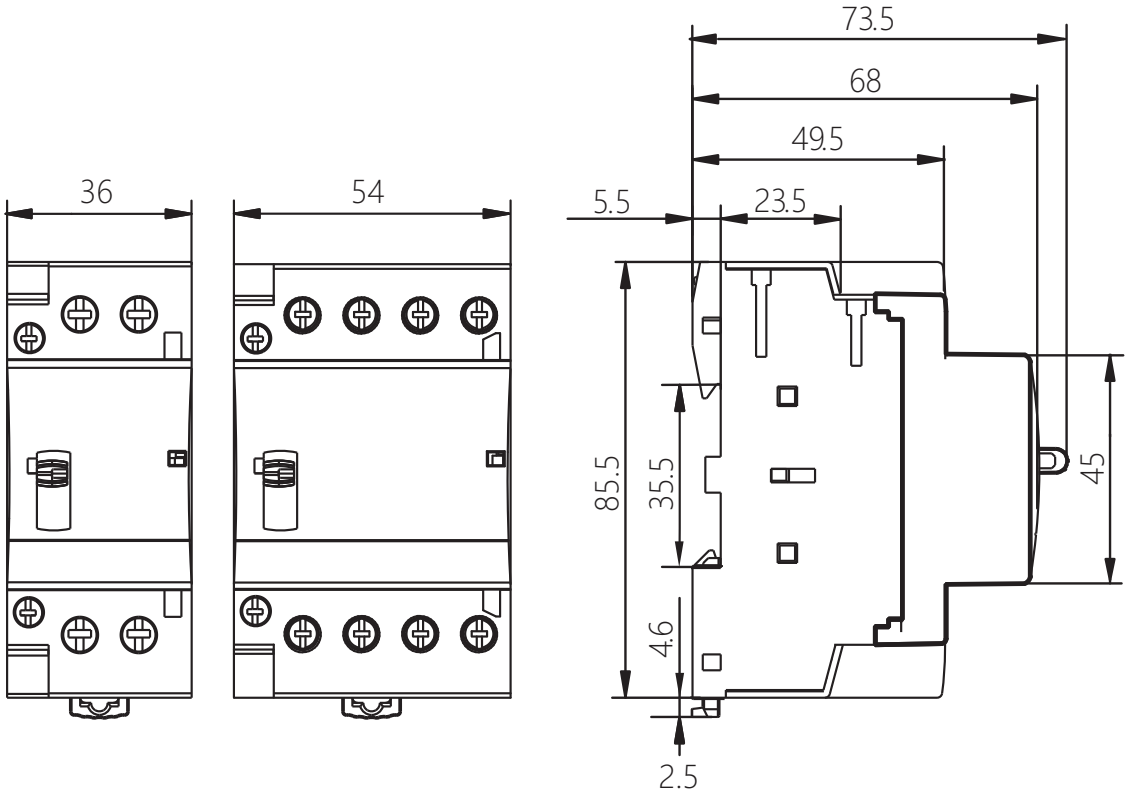

Figure 3 NCH8-32M, NCH8-40M, NCH8-63M

Unit:mm

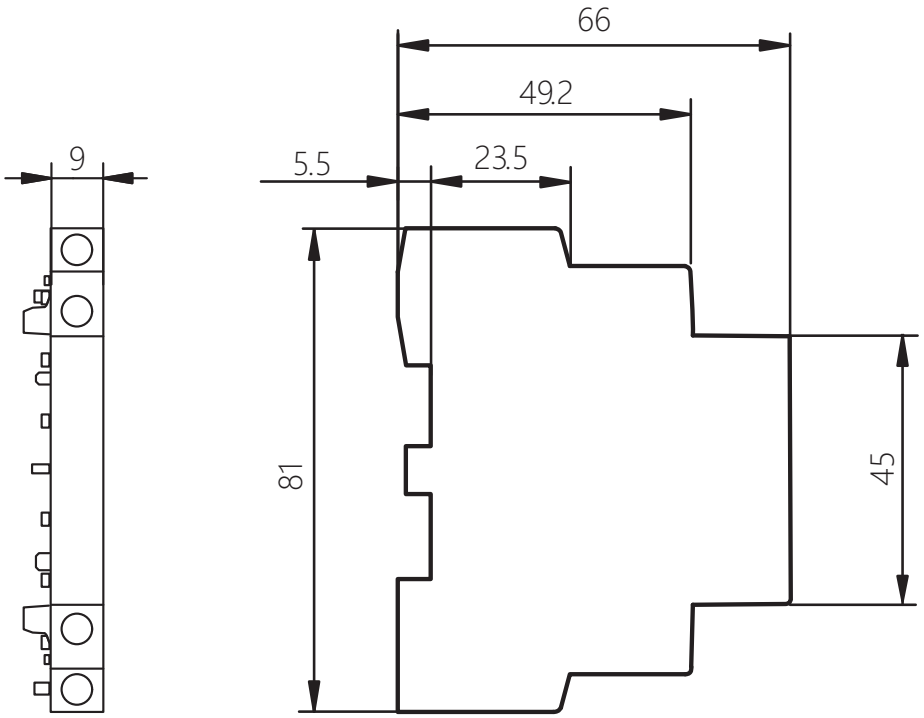

Figure 4 AX-11

6 Maintenance

●Remove dust daily; check the tightness of terminal screws, check the status of wires.

●If the product is stored under the environment specified in the instructions or shut down for half a year, please check the status before use.

●Prevent the product from rain and falling during operation and storage.

7 Environmental Protection

In order to protect the environment, when the product or its parts are scrapped, please properly dispose of them as industrial wastes; or be sent to the recycling station for assortment, dismantling and recycling.

CHINT

QC PASS

NCH8-M

Household AC Contactor

IEC/EN 61095

IEC/EN 60947-4-1

Check 01

Test date: Please see The packing

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CHINT ELECTRICS

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User Instruction

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