



NCH8 Series Modular AC Contactor

User Instruction



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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, maintaining and maintaining the product.
- ④ Do not touch the conductive part of the product during working.

1 Purpose of Use and Range of Application

NCH8 series modular AC contactor is mainly used in AC 50Hz (60Hz) power systems with rated operating voltage up to 400V and rated operating current up to 63A. The product is used as remote switch and control circuit under AC-1/AC-7a application category (non-inductive or low inductive load/resistance furnace, domestic appliance and low inductive load of similar applications). The contactor can also be used for AC-7b application category (household motor load), but it must be derated.

The contactor is not designed to break short circuit current, therefore it should be used with a matching short circuit protector.

2 Main Technical Parameters and Performance

Table 1 Main parameters and technical performance index of the contactor

Model		NCH8 -20 2P	NCH8 -20 4P	NCH8 -25 2P	NCH8 -25 4P	NCH8 -40 2P	NCH8 -40 4P	NCH8 -63 2P	NCH8 -63 4P
Rated insulation voltage U_i (V)				500					
Rated impulse withstand voltage U_{imp} (kV)				4					
Conventional thermal current I_{th} (A)		25				63			
Rated operating current I_e (A)	AC-1/AC-7a	20		25		40		63	
	AC-7b	9		9		15		20	
Rated voltage U_e (V)		230	400	230	400	230	400	230	400
Operation frequency (time/h)	AC-1/AC-7a			360					
	AC-7b	360				180			
Electrical life (10000 times)		AC-1/AC-7a		10					
Mechanical life (10000 times)				100					

Model		NCH8-20 2P	NCH8-20 4P	NCH8-25 2P	NCH8-25 4P	NCH8-40 2P	NCH8-40 4P	NCH8-63 2P	NCH8-63 4P
Coil control power voltage Us(V)		24、220/230、240							
Operation range	Pick-up voltage	85%~110%Us							
	Release voltage	20%~75%Us							
Enclosure protection degree		IP20							
Rated duty system		8-hour duty, uninterrupted duty, intermittent periodic duty							
Ambient temperature		-5°C~+40°C							
Humidity		relative humidity < 50% at +60°C; up to 90% at +20°C							
Altitude		No influence below 2000m							
Pollutin class		Class 2							
Installation category		II							

3 Installation

1) See Table 2 for outline and installation dimensions.

Table 2 Overall and installation dimensions of NCH8

Unit:mm

Model	D		L	L1	L2	H	H1
	2 poles	4 poles					
NCH8-20~25	18	36	85	35.5	45	66.5	50
NCH8-40~63	36	54	85	35.5	45	66.5	50

Unit:mm

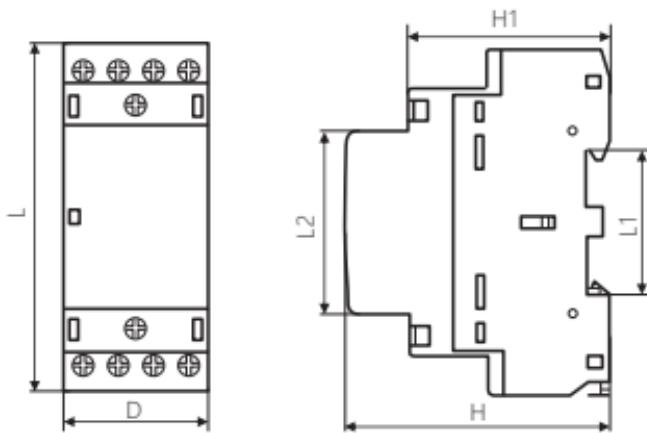


Figure 1 NCH8

Unit:mm

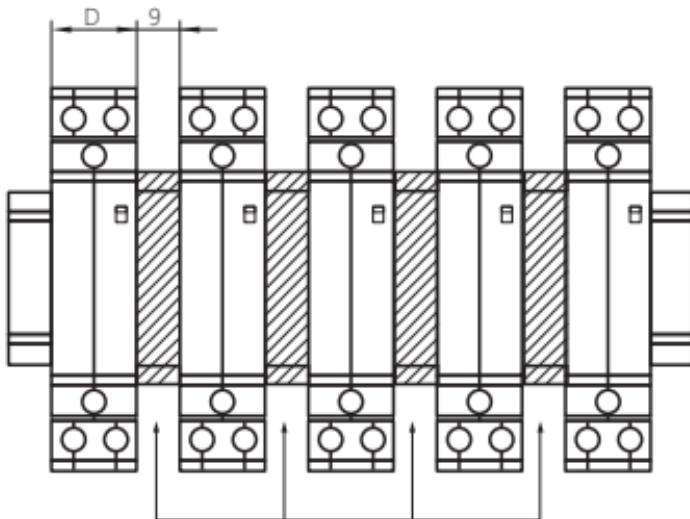


Figure 2 Installation dimensions of partition

2) Installation method: use TH35-7.5 steel mounting rail, see Figure 3 below.

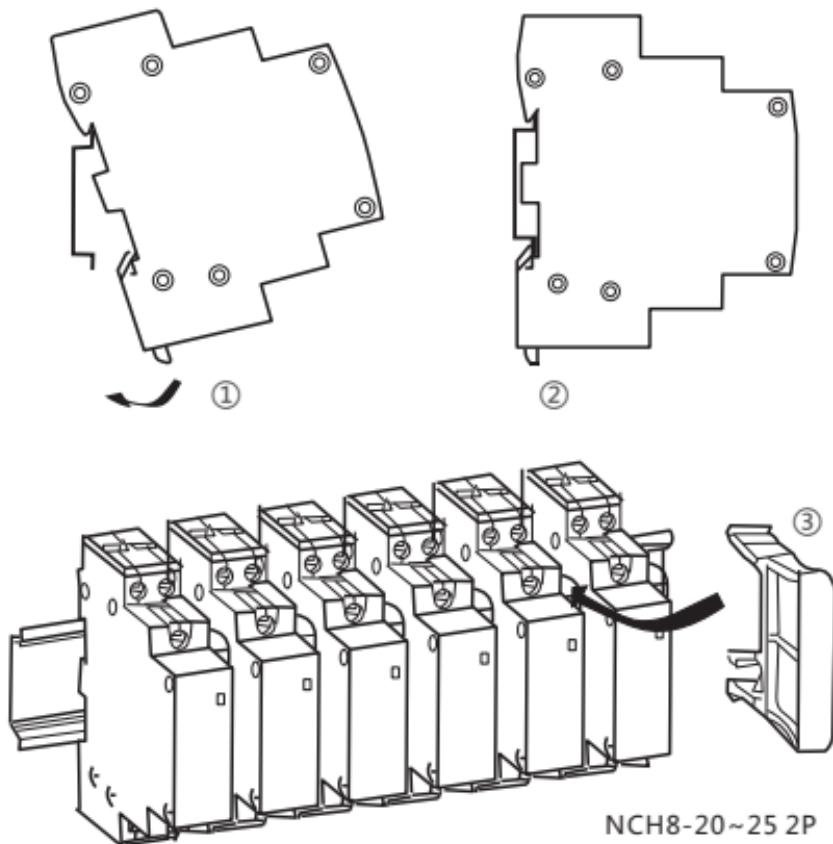


Figure 3 NCH8 installation diagram

3) Wire selection and connection method: applicable to copper wire connection, please refer to Table 3 below for wire category, sectional area, strip length and tightening torque, see Figure 4 below for connection method.

Table 3 Connection requirements for copper wire

Unit:mm²

	A							
	B							
A1	M3.5							
A2	0.8N.m							
Model Code	A	B	C	D	E	F	G	H
NCH8-20	M3.5	0.8N.m	1-4	1-2.5	1-4	1-2.5	1-4	1-2.5
NCH8-25								
NCH8-40	M5	2.0N.m	2.5-16	2.5-6	2.5-16	2.5-6	2.5-16	2.5-6
NCH8-63								

Note: You can connect up to 2 wires with same type and sectional area.

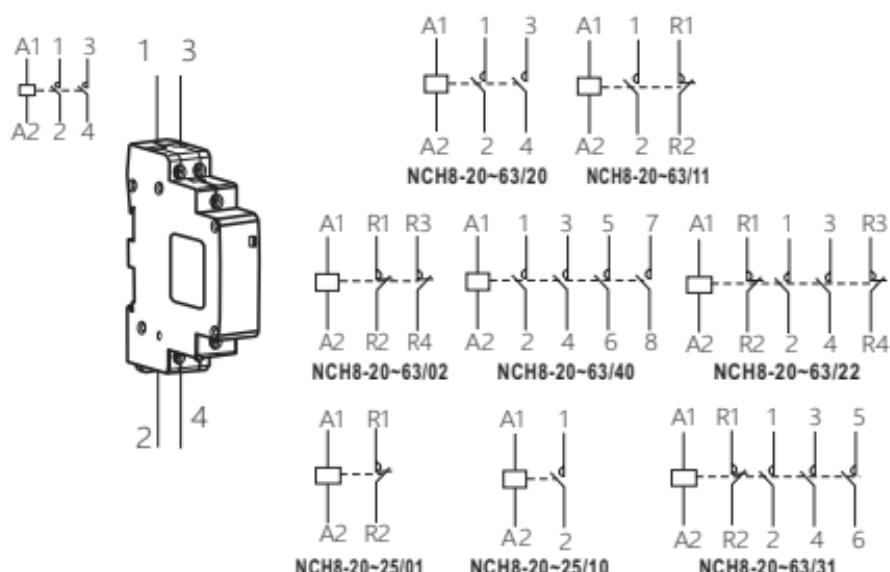


Figure 4 NCH8 connection method

4 Maintenance

Check the operation of the contactor every month. Method: The contactor should incline 5° forward upon picking up and 5° backward upon release; check if the contactor can operation smoothly.

Conduct inspection and maintenance every month. **Note: The product should not be assembled, disassembled or maintained at will. Please replace the product if it is damaged.**

Table 4 Analysis and Troubleshooting of Faults

Symptoms	Cause analysis	Troubleshooting method
No operation or operation is not reliable	The control power voltage does not comply with coil voltage.	Use control power that has the same voltage as the coil
	Insufficient operation circuit power capacity; disconnection or wrong connection occurred.	Check the circuit to ensure correct connections
	Coil is burnt; movable mechanical parts are jammed	Replace the product
Noise	There is foreign objects on the polar face of magnet yoke or armature	Replace the product
	The control power voltage is too low.	Use control power that has the same voltage as the coil
The contactor does not release or release slowly	Contact welding	Replace the product
	There is stain or dust on the polar face of the iron core.	Replace the product

5 Environmental Protection

In order to protect the environment, the product or product parts should be disposed of according to the industrial waste treatment process, or be sent to the recycling station for assortment, dismantling and recycling according to local regulations.

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QC PASS

NCH8 Series
Modular AC Contactor
IEC/EN 61095

Check 10

Test date: Please see the packing

ZHEJIANG CHINT ELECTRICS CO., LTD.

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