



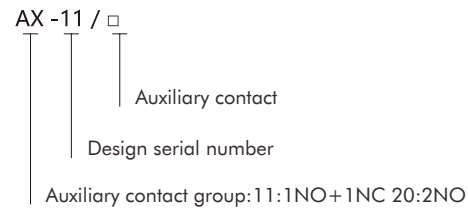
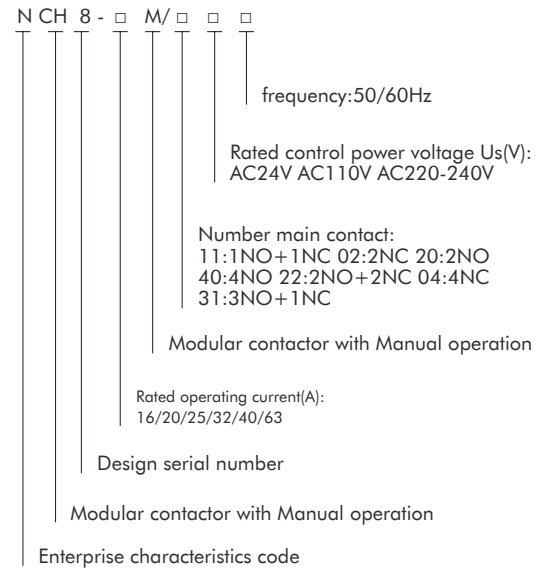
NCH8-M Series Modular AC Contactors with Manual Operation

1. The purpose of use

1.1 NCH8- □ M series Manual Modular 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 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, GB/T 17885

2. Type Designation



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 I
- 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

4.1 Parameters for NCH8-M

Table 1 Main 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						
Product power(230V)	2P	Release	2.8VA	2.8VA	2.8VA	4.1VA	4.1VA	4.1VA
		Operating	11.5VA	11.5VA	11.5VA	31VA	31VA	31VA
	4P	Release	4.1VA	4.1VA	4.1VA	7VA	7VA	7VA
		Operating	31VA	31VA	31VA	48VA	48VA	48VA
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 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)mm2, strip length 9mm					
		Flexible wire	(1.5~6)mm2, strip length 9mm					
	Power circuit	Hard wire	(1.5~4)mm2, strip length 9mm				(6~16)mm2, strip length 14mm	
		Flexible wire	1.5~4				6~16	
Torque(N.m)	Control circuit	0.8						
	Power circuit	0.8					3.5	

4.2 Parameters for AX-11 auxiliary contact

Model		AX-11
Rated insulation voltage Ui		500V
Rated impulse voltage Uimp		4kV
Usage category	AC-12	240V/5A
	AC-15	230V/2A
	DC-13	130V/1A
Wiring	Flexible wire	(1.5~6)mm2, strip length 9mm, torque 0.8N.m
	Hard wire	(1.5~6)mm2, strip length 9mm, torque 0.8N.m

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.

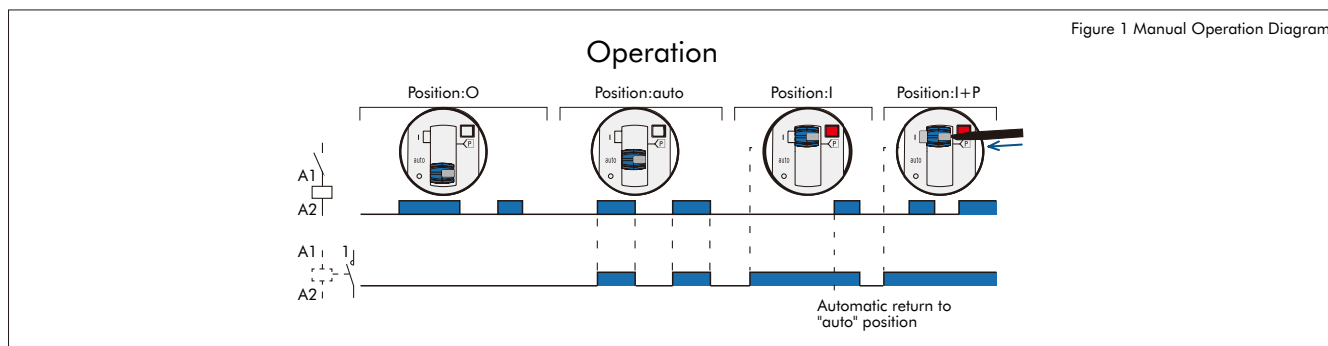


Figure 1 Manual Operation Diagram

6. Outline and Installation Dimensions

Unit:mm

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

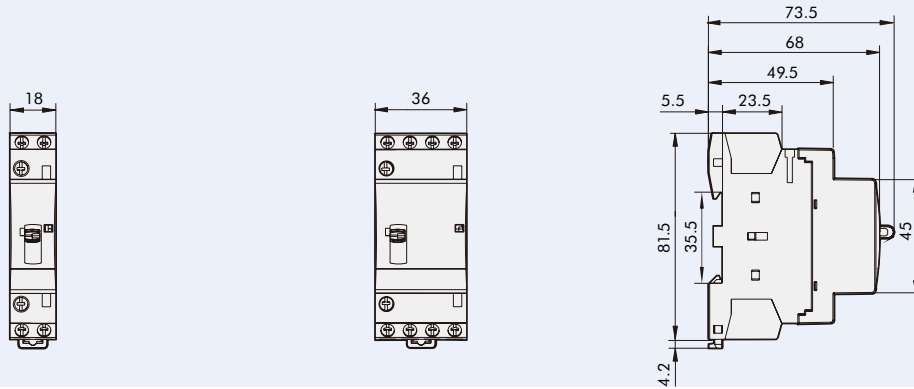


Figure 3 NCH8-32M,NCH8-40M,NCH8-63M

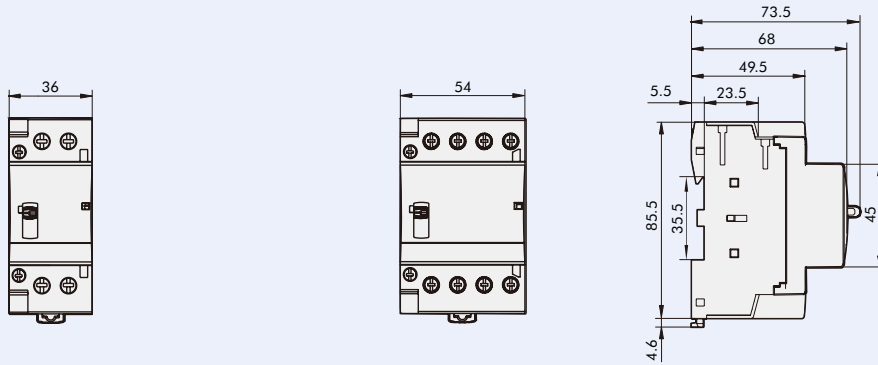


Figure 4AX-11

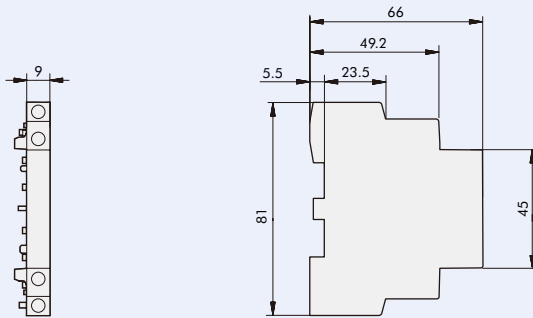
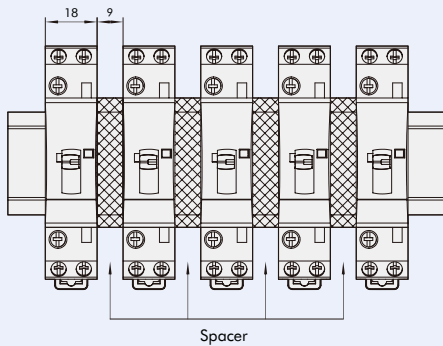


Figure 5 Installation

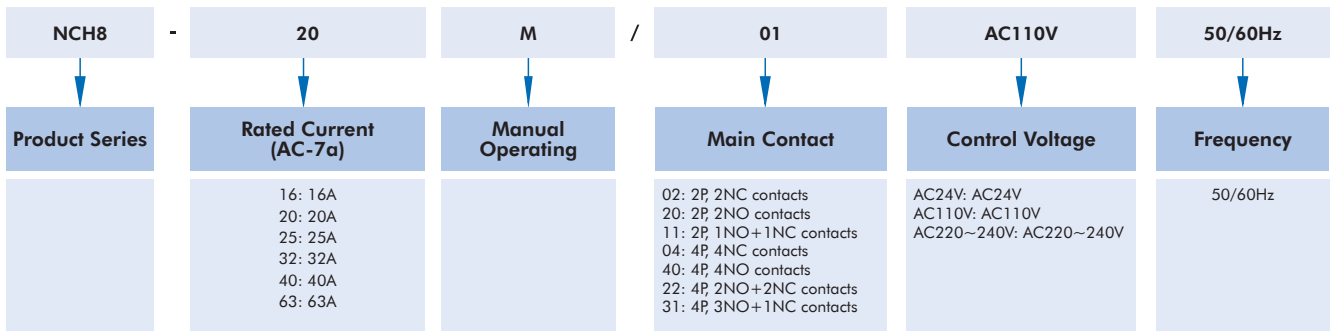


Note:When the contactors, or contactor and MCB are installed together, a spacer must be installed, or keep a 9mm gap between them, to facilitate the heat dissipation. when the temperature inside the box exceeds 40°C , the contactor should be derated to use.

7. Ordering instructions

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

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



NCH8-M Contactor 16~63A

AC-7a Current	Main Contacts	Auxiliary Contacts	Coil	Model Description	Code
16A	2NO	-	AC 24V 50/60Hz	NCH8-16M/20 AC24V 50/60Hz	257398
16A	2NO	-	AC 110V 50/60Hz	NCH8-16M/20 AC110V 50/60Hz	257399
16A	2NO	-	AC 220-240V 50/60Hz	NCH8-16M/20 AC220-240V 50/60Hz	257400
16A	1NO+1NC	-	AC 24V 50/60Hz	NCH8-16M/11 AC24V 50/60Hz	257401
16A	1NO+1NC	-	AC 110V 50/60Hz	NCH8-16M/11 AC110V 50/60Hz	257402
16A	1NO+1NC	-	AC 220-240V 50/60Hz	NCH8-16M/11 AC220-240V 50/60Hz	257403
16A	2NC	-	AC 24V 50/60Hz	NCH8-16M/02 AC24V 50/60Hz	257404
16A	2NC	-	AC 110V 50/60Hz	NCH8-16M/02 AC110V 50/60Hz	257405
16A	2NC	-	AC 220-240V 50/60Hz	NCH8-16M/02 AC220-240V 50/60Hz	257406
16A	4NO	-	AC 24V 50/60Hz	NCH8-16M/40 AC24V 50/60Hz	257452
16A	4NO	-	AC 110V 50/60Hz	NCH8-16M/40 AC110V 50/60Hz	257453
16A	4NO	-	AC 220-240V 50/60Hz	NCH8-16M/40 AC220-240V 50/60Hz	257454
16A	2NO+2NC	-	AC 24V 50/60Hz	NCH8-16M/22 AC24V 50/60Hz	257455
16A	2NO+2NC	-	AC 110V 50/60Hz	NCH8-16M/22 AC110V 50/60Hz	257456
16A	2NO+2NC	-	AC 220-240V 50/60Hz	NCH8-16M/22 AC220-240V 50/60Hz	257457
16A	4NC	-	AC 24V 50/60Hz	NCH8-16M/04 AC24V 50/60Hz	257458
16A	4NC	-	AC 110V 50/60Hz	NCH8-16M/04 AC110V 50/60Hz	257459
16A	4NC	-	AC 220-240V 50/60Hz	NCH8-16M/04 AC220-240V 50/60Hz	257460
16A	3NO+1NC	-	AC 24V 50/60Hz	NCH8-16M/31 AC24V 50/60Hz	257461
16A	3NO+1NC	-	AC 110V 50/60Hz	NCH8-16M/31 AC110V 50/60Hz	257462
16A	3NO+1NC	-	AC 220-240V 50/60Hz	NCH8-16M/31 AC220-240V 50/60Hz	257463
20A	2NO	-	AC 24V 50/60Hz	NCH8-20M/20 AC24V 50/60Hz	257407
20A	2NO	-	AC 110V 50/60Hz	NCH8-20M/20 AC110V 50/60Hz	257408
20A	2NO	-	AC 220-240V 50/60Hz	NCH8-20M/20 AC220-240V 50/60Hz	257409
20A	1NO+1NC	-	AC 24V 50/60Hz	NCH8-20M/11 AC24V 50/60Hz	257410
20A	1NO+1NC	-	AC 110V 50/60Hz	NCH8-20M/11 AC110V 50/60Hz	257411
20A	1NO+1NC	-	AC 220-240V 50/60Hz	NCH8-20M/11 AC220-240V 50/60Hz	257412
20A	2NC	-	AC 24V 50/60Hz	NCH8-20M/02 AC24V 50/60Hz	257413
20A	2NC	-	AC 110V 50/60Hz	NCH8-20M/02 AC110V 50/60Hz	257414
20A	2NC	-	AC 220-240V 50/60Hz	NCH8-20M/02 AC220-240V 50/60Hz	257415
20A	4NO	-	AC 24V 50/60Hz	NCH8-20M/40 AC24V 50/60Hz	257464
20A	4NO	-	AC 110V 50/60Hz	NCH8-20M/40 AC110V 50/60Hz	257465
20A	4NO	-	AC 220-240V 50/60Hz	NCH8-20M/40 AC220-240V 50/60Hz	257466
20A	2NO+2NC	-	AC 24V 50/60Hz	NCH8-20M/22 AC24V 50/60Hz	257467
20A	2NO+2NC	-	AC 110V 50/60Hz	NCH8-20M/22 AC110V 50/60Hz	257468
20A	2NO+2NC	-	AC 220-240V 50/60Hz	NCH8-20M/22 AC220-240V 50/60Hz	257469
20A	4NC	-	AC 24V 50/60Hz	NCH8-20M/04 AC24V 50/60Hz	257470
20A	4NC	-	AC 110V 50/60Hz	NCH8-20M/04 AC110V 50/60Hz	257471
20A	4NC	-	AC 220-240V 50/60Hz	NCH8-20M/04 AC220-240V 50/60Hz	257472
20A	3NO+1NC	-	AC 24V 50/60Hz	NCH8-20M/31 AC24V 50/60Hz	257473
20A	3NO+1NC	-	AC 110V 50/60Hz	NCH8-20M/31 AC110V 50/60Hz	257474
20A	3NO+1NC	-	AC 220-240V 50/60Hz	NCH8-20M/31 AC220-240V 50/60Hz	257475

AC-7a Current	Main Contacts	Auxiliary Contacts	Coil	Model Description	Code
25A	2NO	-	AC 24V 50/60Hz	NCH8-25M/20 AC24V 50/60Hz (R)	257416
25A	2NO	-	AC 110V 50/60Hz	NCH8-25M/20 AC110V 50/60Hz (R)	257417
25A	2NO	-	AC 220-240V 50/60Hz	NCH8-25M/20 AC220-240V 50/60Hz (R)	257418
25A	1NO+1NC	-	AC 24V 50/60Hz	NCH8-25M/11 AC24V 50/60Hz (R)	257419
25A	1NO+1NC	-	AC 110V 50/60Hz	NCH8-25M/11 AC110V 50/60Hz (R)	257420
25A	1NO+1NC	-	AC 220-240V 50/60Hz	NCH8-25M/11 AC220-240V 50/60Hz (R)	257421
25A	2NC	-	AC 24V 50/60Hz	NCH8-25M/02 AC24V 50/60Hz (R)	257422
25A	2NC	-	AC 110V 50/60Hz	NCH8-25M/02 AC110V 50/60Hz (R)	257423
25A	2NC	-	AC 220-240V 50/60Hz	NCH8-25M/02 AC220-240V 50/60Hz (R)	257424
25A	4NO	-	AC 24V 50/60Hz	NCH8-25M/40 AC24V 50/60Hz (R)	257476
25A	4NO	-	AC 110V 50/60Hz	NCH8-25M/40 AC110V 50/60Hz (R)	257477
25A	4NO	-	AC 220-240V 50/60Hz	NCH8-25M/40 AC220-240V 50/60Hz (R)	257478
25A	2NO+2NC	-	AC 24V 50/60Hz	NCH8-25M/22 AC24V 50/60Hz (R)	257479
25A	2NO+2NC	-	AC 110V 50/60Hz	NCH8-25M/22 AC110V 50/60Hz (R)	257480
25A	2NO+2NC	-	AC 220-240V 50/60Hz	NCH8-25M/22 AC220-240V 50/60Hz (R)	257481
25A	4NC	-	AC 24V 50/60Hz	NCH8-25M/04 AC24V 50/60Hz (R)	257482
25A	4NC	-	AC 110V 50/60Hz	NCH8-25M/04 AC110V 50/60Hz (R)	257483
25A	4NC	-	AC 220-240V 50/60Hz	NCH8-25M/04 AC220-240V 50/60Hz (R)	257484
25A	3NO+1NC	-	AC 24V 50/60Hz	NCH8-25M/31 AC24V 50/60Hz (R)	257485
25A	3NO+1NC	-	AC 110V 50/60Hz	NCH8-25M/31 AC110V 50/60Hz (R)	257486
25A	3NO+1NC	-	AC 220-240V 50/60Hz	NCH8-25M/31 AC220-240V 50/60Hz (R)	257487
32A	2NO	-	AC 24V 50/60Hz	NCH8-32M/20 AC24V 50/60Hz (R)	257425
32A	2NO	-	AC 110V 50/60Hz	NCH8-32M/20 AC110V 50/60Hz (R)	257426
32A	2NO	-	AC 220-240V 50/60Hz	NCH8-32M/20 AC220-240V 50/60Hz (R)	257427
32A	1NO+1NC	-	AC 24V 50/60Hz	NCH8-32M/11 AC24V 50/60Hz (R)	257428
32A	1NO+1NC	-	AC 110V 50/60Hz	NCH8-32M/11 AC110V 50/60Hz (R)	257429
32A	1NO+1NC	-	AC 220-240V 50/60Hz	NCH8-32M/11 AC220-240V 50/60Hz (R)	257430
32A	2NC	-	AC 24V 50/60Hz	NCH8-32M/02 AC24V 50/60Hz (R)	257431
32A	2NC	-	AC 110V 50/60Hz	NCH8-32M/02 AC110V 50/60Hz (R)	257432
32A	2NC	-	AC 220-240V 50/60Hz	NCH8-32M/02 AC220-240V 50/60Hz (R)	257433
32A	4NO	-	AC 24V 50/60Hz	NCH8-32M/40 AC24V 50/60Hz (R)	257488
32A	4NO	-	AC 110V 50/60Hz	NCH8-32M/40 AC110V 50/60Hz (R)	257489
32A	4NO	-	AC 220-240V 50/60Hz	NCH8-32M/40 AC220-240V 50/60Hz (R)	257490
32A	2NO+2NC	-	AC 24V 50/60Hz	NCH8-32M/22 AC24V 50/60Hz (R)	257491
32A	2NO+2NC	-	AC 110V 50/60Hz	NCH8-32M/22 AC110V 50/60Hz (R)	257492
32A	2NO+2NC	-	AC 220-240V 50/60Hz	NCH8-32M/22 AC220-240V 50/60Hz (R)	257493
32A	4NC	-	AC 24V 50/60Hz	NCH8-32M/04 AC24V 50/60Hz (R)	257494
32A	4NC	-	AC 110V 50/60Hz	NCH8-32M/04 AC110V 50/60Hz (R)	257495
32A	4NC	-	AC 220-240V 50/60Hz	NCH8-32M/04 AC220-240V 50/60Hz (R)	257496
32A	3NO+1NC	-	AC 24V 50/60Hz	NCH8-32M/31 AC24V 50/60Hz (R)	257497
32A	3NO+1NC	-	AC 110V 50/60Hz	NCH8-32M/31 AC110V 50/60Hz (R)	257498
32A	3NO+1NC	-	AC 220-240V 50/60Hz	NCH8-32M/31 AC220-240V 50/60Hz (R)	257499

AC-7a Current	Main Contacts	Auxiliary Contacts	Coil	Model Description	Code
40A	2NO	-	AC 24V 50/60Hz	NCH8-40M/20 AC24V 50/60Hz (R)	257434
40A	2NO	-	AC 110V 50/60Hz	NCH8-40M/20 AC110V 50/60Hz (R)	257435
40A	2NO	-	AC 220-240V 50/60Hz	NCH8-40M/20 AC220-240V 50/60Hz (R)	257436
40A	1NO+1NC	-	AC 24V 50/60Hz	NCH8-40M/11 AC24V 50/60Hz (R)	257437
40A	1NO+1NC	-	AC 110V 50/60Hz	NCH8-40M/11 AC110V 50/60Hz (R)	257438
40A	1NO+1NC	-	AC 220-240V 50/60Hz	NCH8-40M/11 AC220-240V 50/60Hz (R)	257439
40A	2NC	-	AC 24V 50/60Hz	NCH8-40M/02 AC24V 50/60Hz (R)	257440
40A	2NC	-	AC 110V 50/60Hz	NCH8-40M/02 AC110V 50/60Hz (R)	257441
40A	2NC	-	AC 220-240V 50/60Hz	NCH8-40M/02 AC220-240V 50/60Hz (R)	257442
40A	4NO	-	AC 24V 50/60Hz	NCH8-40M/40 AC24V 50/60Hz (R)	257500
40A	4NO	-	AC 110V 50/60Hz	NCH8-40M/40 AC110V 50/60Hz (R)	257501
40A	4NO	-	AC 220-240V 50/60Hz	NCH8-40M/40 AC220-240V 50/60Hz (R)	257502
40A	2NO+2NC	-	AC 24V 50/60Hz	NCH8-40M/22 AC24V 50/60Hz (R)	257503
40A	2NO+2NC	-	AC 110V 50/60Hz	NCH8-40M/22 AC110V 50/60Hz (R)	257504
40A	2NO+2NC	-	AC 220-240V 50/60Hz	NCH8-40M/22 AC220-240V 50/60Hz (R)	257505
40A	4NC	-	AC 24V 50/60Hz	NCH8-40M/04 AC24V 50/60Hz (R)	257506
40A	4NC	-	AC 110V 50/60Hz	NCH8-40M/04 AC110V 50/60Hz (R)	257507
40A	4NC	-	AC 220-240V 50/60Hz	NCH8-40M/04 AC220-240V 50/60Hz (R)	257508
40A	3NO+1NC	-	AC 24V 50/60Hz	NCH8-40M/31 AC24V 50/60Hz (R)	257509
40A	3NO+1NC	-	AC 110V 50/60Hz	NCH8-40M/31 AC110V 50/60Hz (R)	257510
40A	3NO+1NC	-	AC 220-240V 50/60Hz	NCH8-40M/31 AC220-240V 50/60Hz (R)	257511
63A	2NO	-	AC 24V 50/60Hz	NCH8-63M/20 AC24V 50/60Hz (R)	257443
63A	2NO	-	AC 110V 50/60Hz	NCH8-63M/20 AC110V 50/60Hz (R)	257444
63A	2NO	-	AC 220-240V 50/60Hz	NCH8-63M/20 AC220-240V 50/60Hz (R)	257445
63A	1NO+1NC	-	AC 24V 50/60Hz	NCH8-63M/11 AC24V 50/60Hz (R)	257446
63A	1NO+1NC	-	AC 110V 50/60Hz	NCH8-63M/11 AC110V 50/60Hz (R)	257447
63A	1NO+1NC	-	AC 220-240V 50/60Hz	NCH8-63M/11 AC220-240V 50/60Hz (R)	257448
63A	2NC	-	AC 24V 50/60Hz	NCH8-63M/02 AC24V 50/60Hz (R)	257449
63A	2NC	-	AC 110V 50/60Hz	NCH8-63M/02 AC110V 50/60Hz (R)	257450
63A	2NC	-	AC 220-240V 50/60Hz	NCH8-63M/02 AC220-240V 50/60Hz (R)	257451
63A	4NO	-	AC 24V 50/60Hz	NCH8-63M/40 AC24V 50/60Hz (R)	257512
63A	4NO	-	AC 110V 50/60Hz	NCH8-63M/40 AC110V 50/60Hz (R)	257513
63A	4NO	-	AC 220-240V 50/60Hz	NCH8-63M/40 AC220-240V 50/60Hz (R)	257514
63A	2NO+2NC	-	AC 24V 50/60Hz	NCH8-63M/22 AC24V 50/60Hz (R)	257515
63A	2NO+2NC	-	AC 110V 50/60Hz	NCH8-63M/22 AC110V 50/60Hz (R)	257516
63A	2NO+2NC	-	AC 220-240V 50/60Hz	NCH8-63M/22 AC220-240V 50/60Hz (R)	257517
63A	4NC	-	AC 24V 50/60Hz	NCH8-63M/04 AC24V 50/60Hz (R)	257518
63A	4NC	-	AC 110V 50/60Hz	NCH8-63M/04 AC110V 50/60Hz (R)	257519
63A	4NC	-	AC 220-240V 50/60Hz	NCH8-63M/04 AC220-240V 50/60Hz (R)	257520
63A	3NO+1NC	-	AC 24V 50/60Hz	NCH8-63M/31 AC24V 50/60Hz (R)	257521
63A	3NO+1NC	-	AC 110V 50/60Hz	NCH8-63M/31 AC110V 50/60Hz (R)	257522
63A	3NO+1NC	-	AC 220-240V 50/60Hz	NCH8-63M/31 AC220-240V 50/60Hz (R)	257523