



NXMS series
Moulded-Case Circuit-Breaker

User Instructions



Safety Warning

- ① Installation in any damp, condensed-phase environment with inflammable and explosive gas is forbidden. Do not operate the product with wet hands.
- ② You are prohibited from touching the conductive part when the product is operating.
- ③ When the product is being installed or maintained, the power must be switched off.
- ④ This product must not be installed in the place where gas medium can corrode metal and damage insulation.
- ⑤ In order to avoid dangerous accidents, the installation and fixation of products must be carried out in strict accordance with the requirements of the instructions.
- ⑥ This product has been designed for environment A. Use of this product in environment B may cause unwanted electromagnetic disturbances in which case the user may be required to take adequate mitigation measures.

1 Use Information

a) Ambient temperature for normal use: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$;

Note: if it is used within the temperature range of $-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$, please consult with the manufacturer.

b) If the altitude exceeds 2000m, please consult with the manufacturer;

c) See the product sample for the inverse time lag, temperature compensation curve and altitude derating curve of the product;

d) Pollution degree: degree 3;

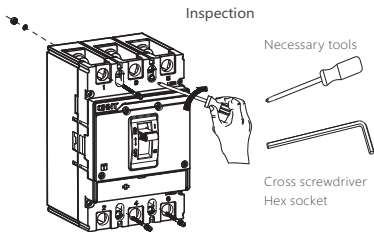
e) Main circuit installation category: III;

f) Degrees of protection provided by enclosure: IP30 (except wiring terminals);
















g) Rated insulation voltage U_i : 800V (NXMS-160/250);

1000V (NXMS-400/630/1000/1250/1600).

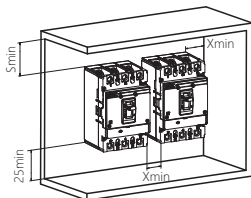
2 Inspection and Test



1. Determine product technical parameters;
2. Only qualified and professional technicians are allowed for installation, operation and maintenance.

Type	Screws	Nut	Flat gasket	PCS
NXMS-160	 M4×45			4
NXMS-250	 M4×85			4
NXMS-400 NXMS-630	 M5×70			4
NXMS-1000	 M6×90			4
NXMS-1250 NXMS-1600	 M5×140			4

Minimum installation distance



Unit: mm

Type	S	X
NXMS-160	50	25
NXMS-250		
NXMS-400	100	50
NXMS-630		
NXMS-1000		
NXMS-1250		
NXMS-1600		

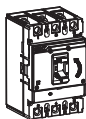


Ensure the minimum installation distance

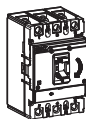
Test



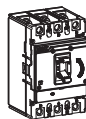
① Re-tripping



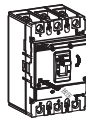
② Making



③ Breaking



④ Making



⑤ Tripping

3 Outline and installation size

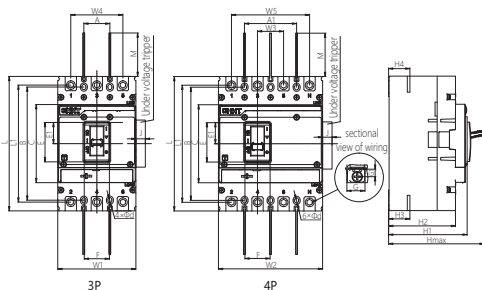


Figure 1 NXMS series front-panel wiring outline and installation size

Table 1 - NXMS Series Outline and Installation Size

Unit: mm

Size type	Size code	Product type						
		NXMS-160	NXMS-250	NXMS-400	NXMS-630	NXMS-1000	NXMS-1250	NXMS-1600
Outline size	C	90	102	150		170	175	
	E	45.5	51.5	84.7		100	120	
	E1	24.5	30.5	46		52	37.8	
	F	29	29	50		60	78	
	G	16.5	23	30.5		44.5	53	
	G1	7.5	11	12.5		15	15	
	J	25	25	25		25	25	
	Hmax	112	123	161		168	202	207
	H1	91	102	108.5		118	153	158
	H2	77.5	87	97.5		106	143	148
	H3	24.5	24.5	38	41.5	43.5	57	65
	H4	24.5	24.5	40.5	41.5	43.5	57	65
	L	155	165	257		280	370	
	L1	135	145	225		243	342	
	M	50	101.5	104		106	92.5	
	W1	90	105	140		210	210	
	W2	120	140	185		280	280	
	W3	30	35	44		70	70	
	W4	60	70	88		140	140	
	W5	90	105	132		210	210	
Installation size	A	30	35	44		70	70	
	A1	60	70	88		140	140	
	B	130.5	126	194		243	314	
	Φd	4.5	4.2	7		7.2	6	

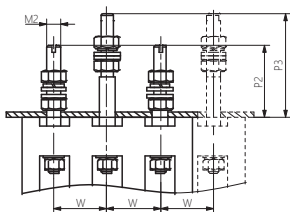


Figure 2 NXMS-160/250 back-panel wiring outline and installation size

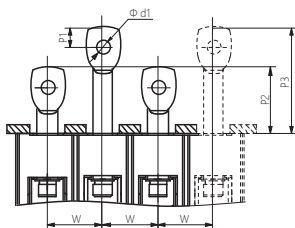


Figure 3 NXMS-400/630 back-panel wiring outline and installation size

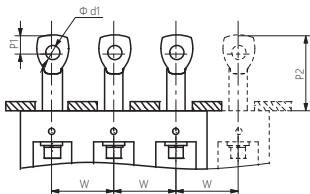


Figure 4 NXMS-1000 back-panel wiring outline and installation size

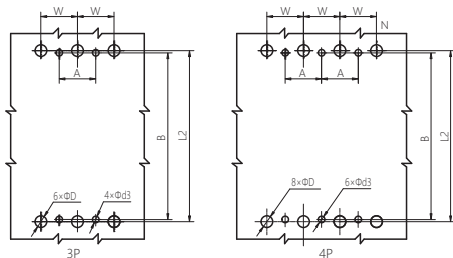


Figure 5 NXMS series back-panel wiring mounting plate hole size

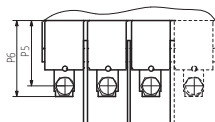


Figure 6 NXMS-400/630/1000 plug-in structure

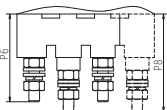


Figure 7 NXMS-160 plug-in structure

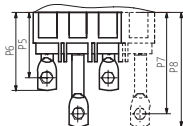
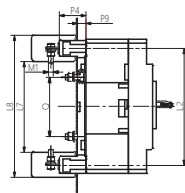
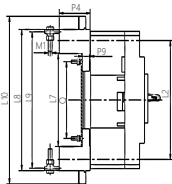


Figure 8 NXMS-250 plug-in structure



NXMS-160, 250
Installation diagram



NXMS-400~1000
Installation diagram

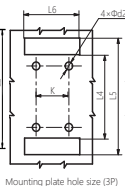


Table 2 (Continued)

Size type	Size code	Product type			
		NXMS-160	NXMS-250	NXMS-400 NXMS-630	NXMS-1000
Outline size	Φd1	--	--	Φ12	Φ16
	M1	M10			M12
Installation size	Φd2	8	6	9	12
	ΦD	11	12	33	40
	B	130.5	126	194	243
	L2	135	145	225	243
	L4	106	108	168	177
	L5	167	180	320	355
	L6	3P:94/4P:124	3P:105/4P:140	3P:142/4P:187	3P:214/4P:284
	L7	--	--	169	181
	L8	--	--	281	305
	L7	--	--	258	289
	L8	--	--	317	351
	K	3P:60/4P:90	3P:70/4P:105	3P:88/4P:132	3P:90/4P:185
	Q	72	74	145	146
	A	30	35	44	70
	Φd3	4.5	4.5	7	

4 Installation and Wiring

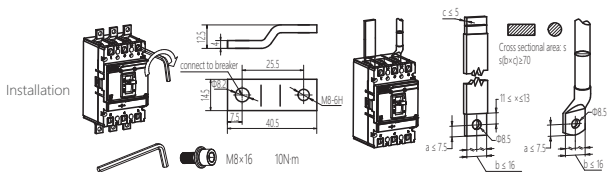


Figure 10 NXMS-160 connecting plate and wire size

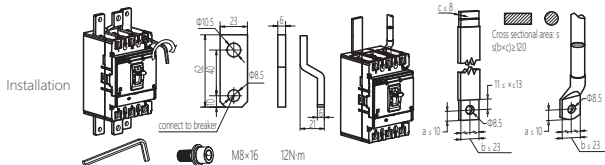


Figure 11 NXMS-250 connecting plate and wire size

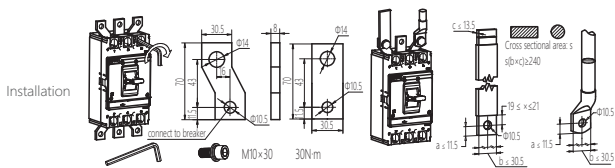


Figure 12 NXMS-400 connecting plate and wire size

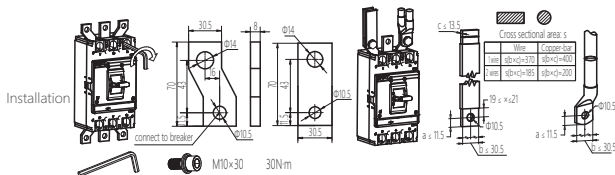


Figure 13 NXMS-630 connecting plate and wire size

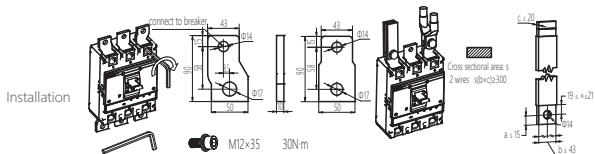


Figure 14 NXMS-1000 connecting plate and wire size

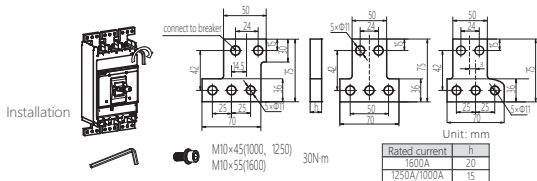


Figure 15 NXMS-1250/1600 connecting plate and wire size

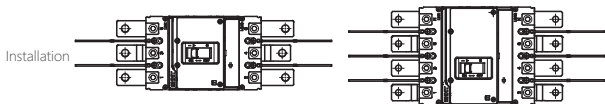


Figure 16 NXMS-160/250 connecting plate installation diagram

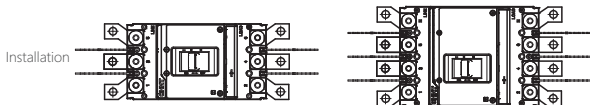


Figure 17 NXMS-400/630/1000 connecting plate installation diagram

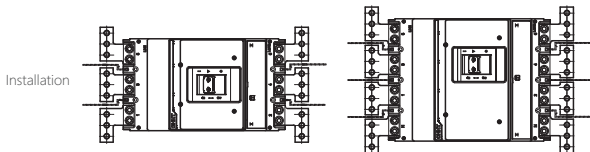
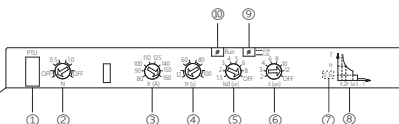
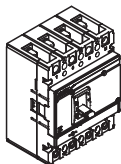


Figure 18 NXMS-1250/1600 connecting plate installation diagram

5 Parameter setting and communication

Electronic release



① figure: portable test unit

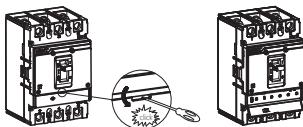
①	Portable test unit (PTU) interface, interface type: Micro-USB		
②	Neutral protection setting current multiple (4P) (0.5、1.0) × In、OFF、OFF, 3 gears		Default OFF
③	In (A)	Current setting of adjustable overload release: Ir (A)	Default
	32	14-16-18-20-25-28-30-32	32
	63	32-36-40-45-50-56-60-63	63
	100	63-70-75-80-85-90-95-100	100
	125	63-70-75-80-90-100-110-125	125
	160	80-90-100-110-125-140-150-160	160
	250	125-140-150-160-180-200-225-250	250
	400	200-225-250-280-300-315-350-400	400
	630	400-450-480-500-530-560-600-630	630
	800	500-550-600-630-660-700-750-800	800
	1000	630-680-720-780-820-900-950-1000	1000
	1250	630-700-800-900-1000-1100-1200-1250	1250
	1600	800-900-1000-1100-1250-1400-1500-1600	1600
④	For distribution protection	At 2xIr, corresponding tripping time: tr (s)	Default
		Inm ≤ 250A: 12、60、80、100, 4 gears	12
		Inm ≥ 400A: 12、60、100、150, 4 gears	
	For motor protection	Trip class 10A、10、20、30, 4 gears	Default 10A
⑤	Short time pick-up current: Isd		Default
	(1.5、2、3、4、5、6、8) × Ir + OFF, 8 gear		OFF
⑥	Rated instantaneous short time current setting: li		Default
	For distribution	(2、3、4、6、8、10、12) × In + OFF, 8 gear	12
	For motor	(2、4、6、8、10、12、14) × In + OFF, 8 gear	14

Electronic release

	Short circuit short delay tripping time: tsd, 0.3s by default
⑦	Note: can be customized, select one gear among 0.2s、0.3s、0.4s、0.5s、0.6s、0.7s、0.8s、0.9s
⑧	Trip characteristic curve
⑨	Pre - warning and overload indicator, flash during pre-warning (0.9Ir~1.2Ir), and normally on when overload (> 1.2Ir)
⑩	Operation indicator, flashing during operation

Parameter setting

Tool: slot type screwdriver  2.5

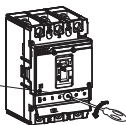


① Open the transparent cover with a slot screwdriver

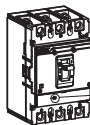
Total rotational angle: $235^{\circ} \pm 10^{\circ}$



This example:
tr is set to 100 seconds

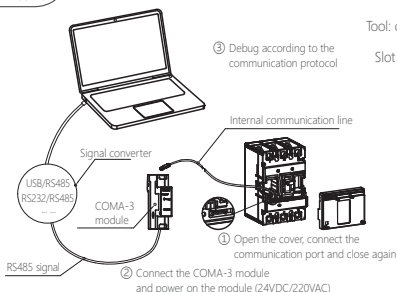


Adjust the parameter value
of each knob as required



Close the transparent cover and
seal it with lead if necessary

Communication module



Default communication parameters

Protocol	Address	Baudrate	Data bit	Parity bit	Stop bit
Modbus-RTU	1	9600bps	8	Even	1

6 Attachment information

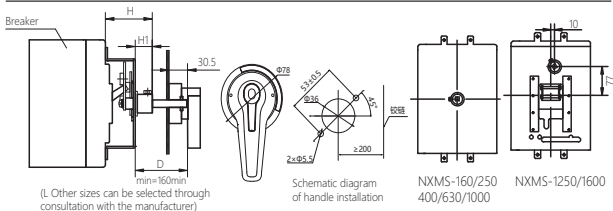


Figure 19 Manual operation mechanism installation size

Table 3 - NXMS series manual operation mechanism installation size

Unit: mm

Product type	NXMS-160	NXMS-250	NXMS-400 NXMS-630	NXMS-1000	NXMS-1250 NXMS-1600
Installation size N	61.5	63.5	98	97	68.5
Handle size L	65			95	

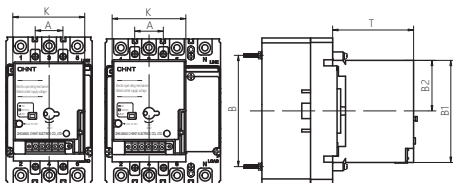
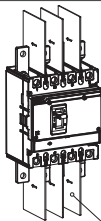


Figure 20 Electric operating mechanism outline and installation size

Table 4 – NXMS series electric operating mechanism outline and installation size

Unit: mm

Size type	Size code	Product type				
		NXMS-160	NXMS-250	NXMS-400 NXMS-630	NXMS-1000	NXMS-1250 NXMS-1600
Outline size	K	90	90	130	130	130
	B1	116	116	176	176	176
	B2	53	60.5	88	88	88
	T	97	97.5	154	154.5	156
Installation size	A	30	35	44	70	70
	B	130.5	142	194	243	314



Insert in the direction of the arrow on the flash barrier



- Flash barrier must be installed before operation.
- Check if the wiring is correct.
- After installation, the insulation resistance shall be not less than 10 MΩ.

Flash barrier or protective guard

7 Warranty

Under the normal storage and transportation conditions, if product packaging or product remains intact, the product warranty period shall be 24 months from the date of production.

The following situations are not covered by the warranty:

- 1) Damage caused by user's improper use, storage and maintenance;
- 2) Damage caused by the organization or personnel not designated by the company, or by disassembly and maintenance without authorization;
- 3) The warranty expires;
- 4) Damage caused by force majeure.

8 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.

CHNT

QC PASS

NXMS series
Moulded-Case Circuit-Breaker
IEC/EN 60947-2

Check 17

Test date: Please see the packing

ZHEJIANG CHINT ELECTRICS CO., LTD.

NXMS series Moulded-Case Circuit-Breaker User Instructions

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