NXMS

Series overview

Electronic protection for low-voltage distribution

NXMS provides overload and short-circuit protection for distribution circuits. Electronic releases offer adjustable long-time, short-time and instantaneous protection, with neutral-pole protection on applicable four-pole configurations.



Representative product: NXMS-630S/3300

Selection item	Series coverage
Frame sizes	160 / 250 / 400 / 630 / 1000 / 1250 / 1600 A
Poles	3P / 4P
Release	Electronic
Operation	Direct handle; motor operation; rotary handle
Installation	Fixed or plug-in; connection options vary by frame
Product standard	IEC/EN 60947-2
Operating temperature	-25 to +70 °C; apply temperature derating where required

Select the complete ordering designation, current rating, breaking-capacity code, pole arrangement, release and accessories together. Ratings in this sheet apply to the configurations shown in the selection tables.

CE 690 V configurations: CE certification only.

NXMS

Electrical and mechanical characteristics

Frame / Inm (A)	Rated current In (A)	Ui (V)	Uimp (kV)	Category
160	32, 63, 100, 125, 160	800	8	A
250	200, 250	To be confirmed*	8	A
400	300, 315, 320, 400	1000	12	B
630	500, 630	1000	12	B
1000	630, 800, 1000	1000	12	B
1250	1250	1000	12	B
1600	1600	1000	12	B

AC frequency: 50/60 Hz. Rated currents include the electronic-release selection rows. * NXMS-250 Ui: To be confirmed - 800 V / 1000 V differ between official catalogs. Confirm the supplied unit before ordering. Breaking capacities are configuration-specific; see the following matrix.

Frame (A)	Width 3P / 4P (mm)	Height (mm)	Depth (mm)
160	90 / 120	155	91
250	105 / 140	165	102
400	140 / 185	257	108.5
630	140 / 185	257	108.5
1000	210 / 280	280	118
1250	210 / 280	370	153
1600	210 / 280	370	158

Dimensions above describe the breaker body. Terminal, coupling-plate, rear-connection and plug-in arrangements require the associated installation drawings. Follow the exact model designation printed on each drawing.

NXMS

Short-circuit breaking capacities

Frame / code	220-240 V Icu / Ics (kA)	380-415 V Icu / Ics (kA)	500 V Icu / Ics (kA)	660-690 V Icu / Ics (kA)
160 F	50 / 50	36 / 36	30 / 30	10 / 5
160 H	75 / 50	50 / 36	30 / 30	10 / 5
250 F	50 / 50	36 / 36	-	-
250 H	75 / 50	50 / 36	-	-
400 S	75 / 50	50 / 36	-	10 / 7.5
400 F	75 / 75	50 / 50	40 / 40	10 / 10
400 H	100 / 75	70 / 50	50 / 40	15 / 10
630 S	75 / 50	50 / 36	-	10 / 7.5
630 F	75 / 75	50 / 50	40 / 40	10 / 10
630 H	100 / 75	70 / 50	50 / 40	15 / 10
1000 S	75 / 50	50 / 36	-	15 / 13
1000 H	100 / 75	70 / 50	50 / 40	20 / 15
1250 S	75 / 50	50 / 36	-	-
1250 H	100 / 75	70 / 50	-	30 / 20
1600 S	75 / 50	50 / 36	-	-
1600 H	100 / 75	70 / 50	-	30 / 20

Icu: rated ultimate short-circuit breaking capacity. Ics: rated service short-circuit breaking capacity. A dash indicates no published rating for that configuration. This matrix covers the listed F/S/H configurations; R configurations require separate selection. 690 V configurations: CE certification only.

Protection, operating conditions and accessories

Function	Electronic release
Long-time protection	Adjustable rated-current setting; eight steps. Distribution release: four delay settings. Motor release: selectable trip class, where applicable.
Short-time protection	Seven adjustable current steps and OFF position.
Instantaneous protection	Seven adjustable current steps and OFF position.
Neutral-pole protection	Two adjustable current steps and OFF position, where applicable.
Overload indication	Indication provided by the electronic release.
Optional accessories	Auxiliary and alarm contacts; shunt and undervoltage releases; communication module; maintenance tester; rotary-handle and motor mechanisms; interphase barriers.

Use the following ordering tables to specify the complete breaker. The dimension sheets identify front connection, mounting-hole positions, coupling plates, door cut-outs, rear connection and plug-in rear connection separately. Dimensions are in millimetres.

Electrical installation and coordination must use the selected configuration and its applicable protection settings. Current settings and delay characteristics depend on the release and rated current.

Ordering designation - frame, poles and capacity

NXMS - [frame][capacity] [operation] / [poles][release / accessories]

Element	Available designations
Series	NXMS - electronic moulded case circuit breaker
Frame	160, 250, 400, 630, 1000, 1250, 1600
Capacity code	F / H: 160 and 250 frames S / F / H: 400 and 630 frames S / H: 1000, 1250 and 1600 frames
Operation	No code: direct handle P: motor operation Z: rotary handle operation
Poles	3: three poles 4: four poles

Use the rated-current and breaking-capacity tables in this sheet when selecting a frame. Internal accessory combinations are shown on pages 7 and 8.

Ordering designation - release and options

Element	Designation
Release / accessories	The first digit identifies the release; the following digits identify internal accessories. Use the exact combination in the accessory tables.
Usage	No code: distribution protection 2: motor protection
Communication	No code: without communication module T: with communication module
Rated current	Select the rating published for the frame.
Connection	No code: front connection R: rear connection DR: plug-in rear connection

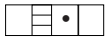
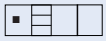
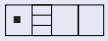
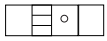
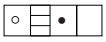
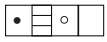
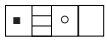
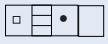
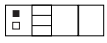
Ordering example

NXMS-160H P/3300 2 T 125R

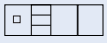
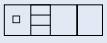
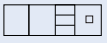
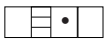
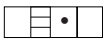
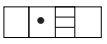
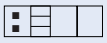
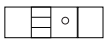
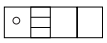
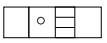
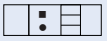
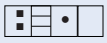
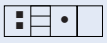
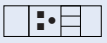
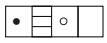
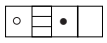
160 A frame; H breaking-capacity code; motor operation; three poles; electronic release without internal accessories; motor protection; communication module; 125 A rated current; rear connection.

Internal accessory selection - part 1

NXMS series electronic moulded case circuit breaker, code of inner accessories

Accessories name	Accessories code		NXMS-160F/H		NXMS-250F/H	
	Only magnetic	Thermal magnetic release	3P	4P	3P	4P
No inner accessories	200	300				
Alarm contact	208	308				
Shunt release	210	310				
Auxiliary contact (1NO1NC)	220	320				
Auxiliary contact (2NO2NC)						
Under voltage release	230	330				
Shunt release, auxiliary contact (1NO1NC)	240	340				
Shunt release, auxiliary contact (2NO2NC)						
Under voltage release, shunt release	250	350				
Two groups of auxiliary contact (2NO2NC)	260	360				
Under voltage release, auxiliary contact (1NO1NC)	270	370				
Under voltage release, auxiliary contact (2NO2NC)						
Shunt release, alarm contact	218	318				
Auxiliary contact (1NO1NC), alarm contact	228	328				
Auxiliary contact (2NO2NC), alarm contact						
Under voltage release, alarm contact	238	338				
Shunt release, auxiliary contact (1NO1NC), alarm contact	248	348				
Two groups of auxiliary contact (2NO2NC), alarm contact	268	368				
Under voltage release, auxiliary contact (1NO1NC), alarm contact	278	378				

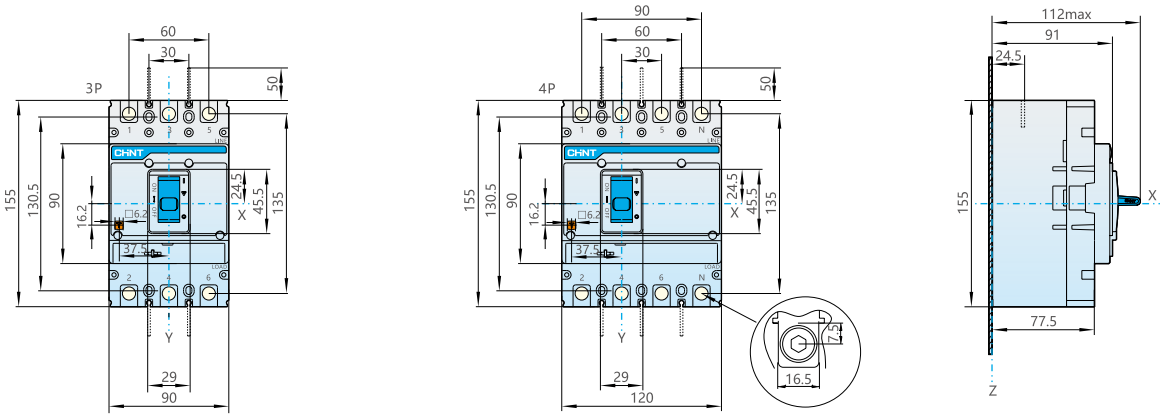
Internal accessory selection - part 2

	NXMS-400S/F/H NXMS-630S/F/H		NXMS-1000S/H		NXMS-1250S/H, NXMS-1600S/H	
	3P	4P	3P	4P	3P	4P
						
						
						
						
						
						
						
						
						

Dimensions and installation

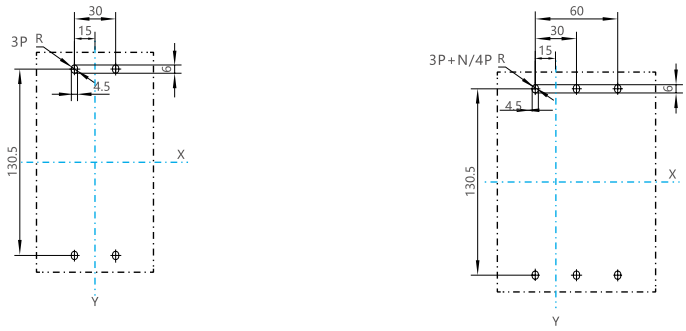
NXMS-160H

Front connection, dimension (mm)



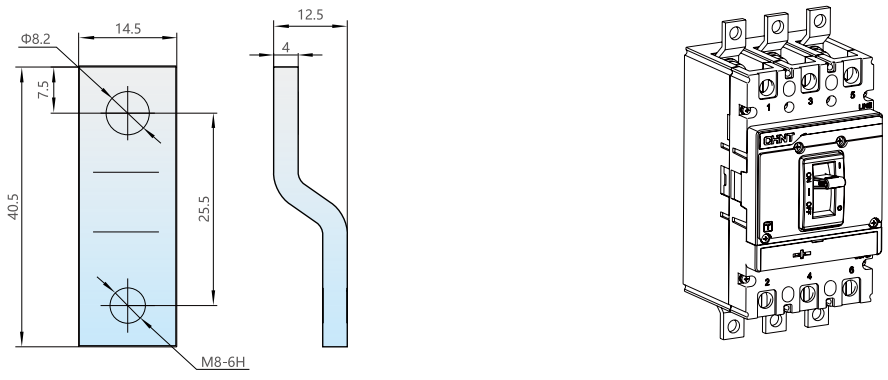
NXMS-160H

Installation size of baseplate (mm)



NXMS-160H

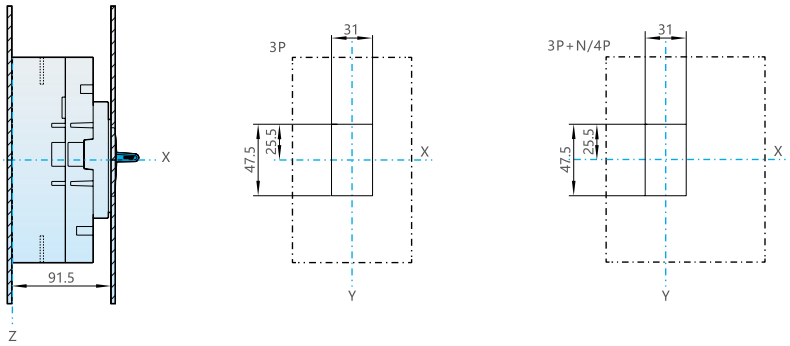
Coupling plates, dimension (mm)



Dimensions and installation

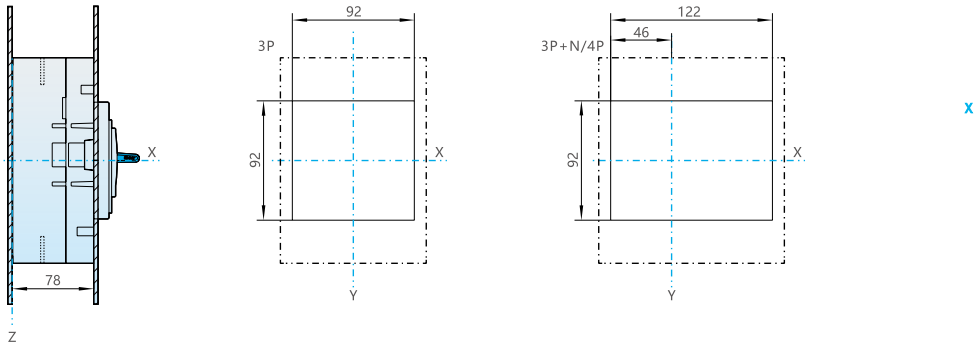
NXMS-160H

Cabinet gate hole (small) size (mm)



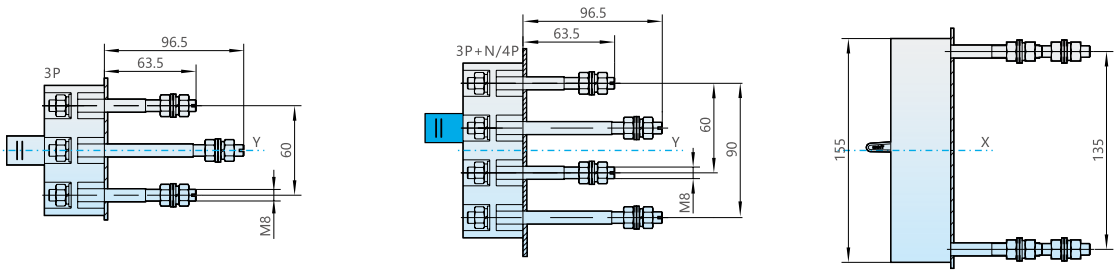
NXMS-160H

Cabinet gate hole (large) size (mm)



NXMS-160H

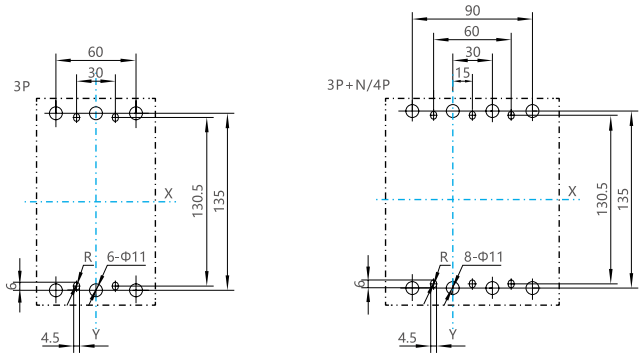
Rear connection, dimension (mm)



Dimensions and installation

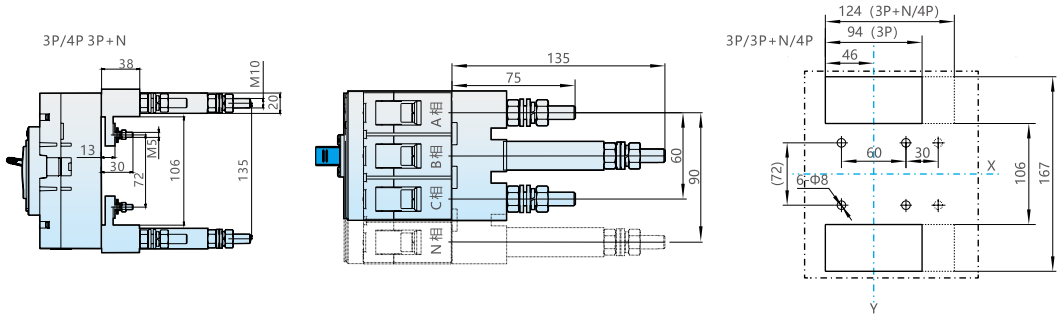
NXMS-160H

Rear connection, dimension (mm)



NXMS-160H

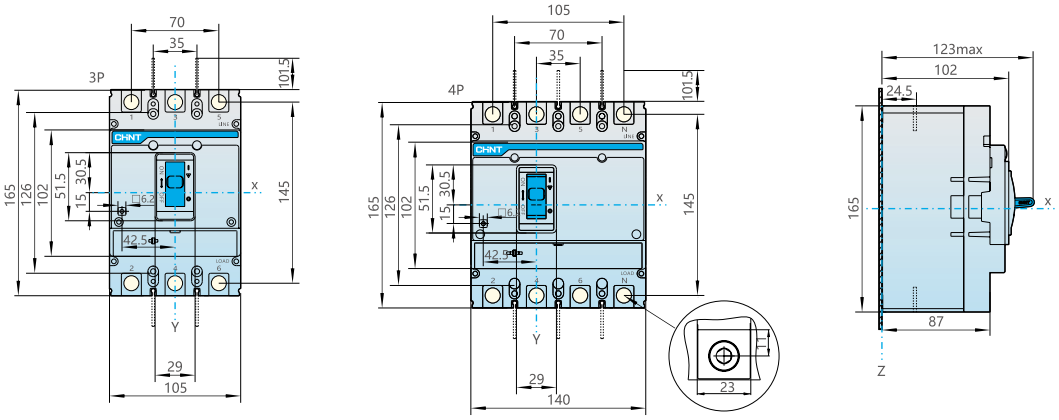
Plug-in rear connection, dimension (mm)



Dimensions and installation

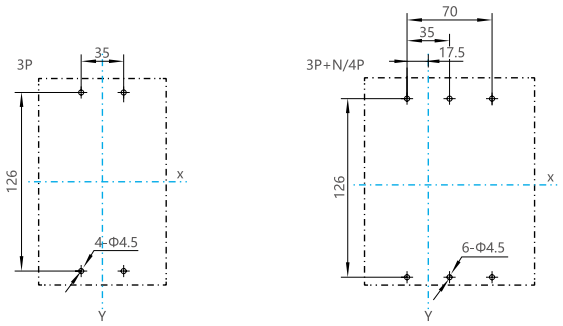
NXMS-250H

Front connection, dimension (mm)



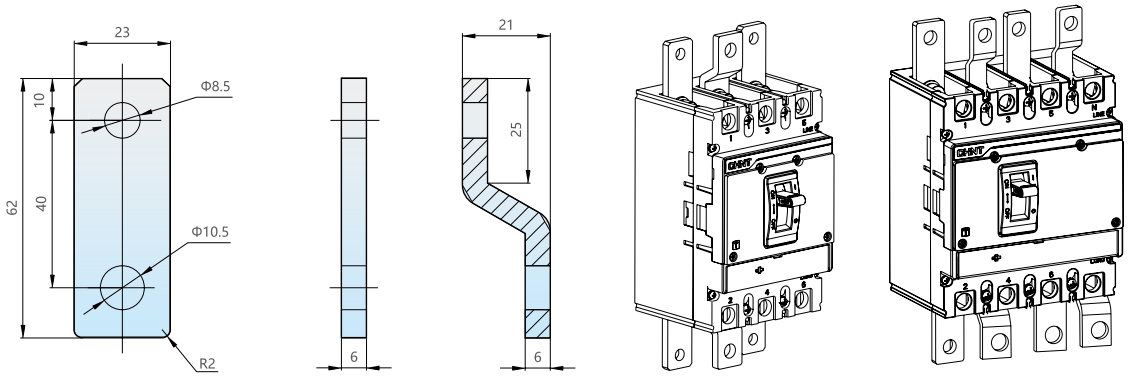
NXMS-250H

Installation size of baseplate (mm)



NXMS-250H

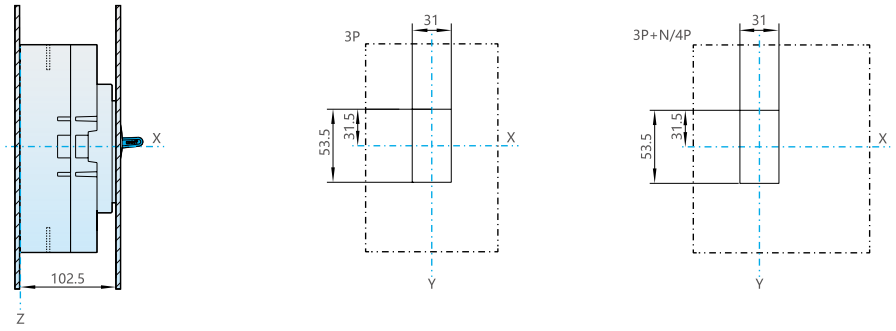
Coupling plates, dimension (mm)



Dimensions and installation

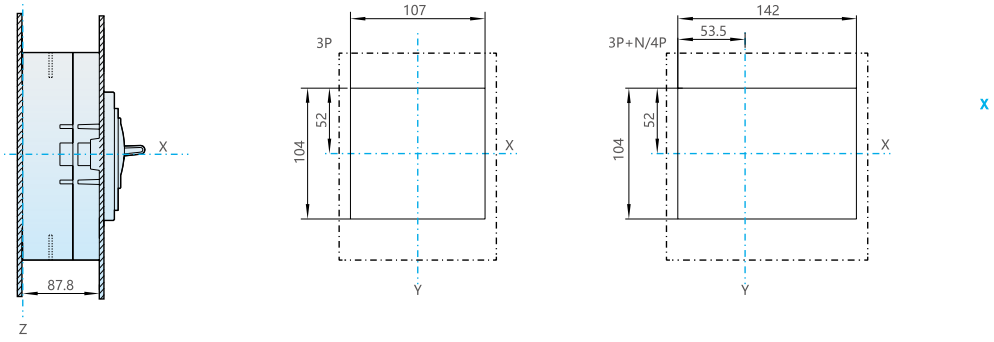
NXMS-250H

Cabinet gate hole (small) size (mm)



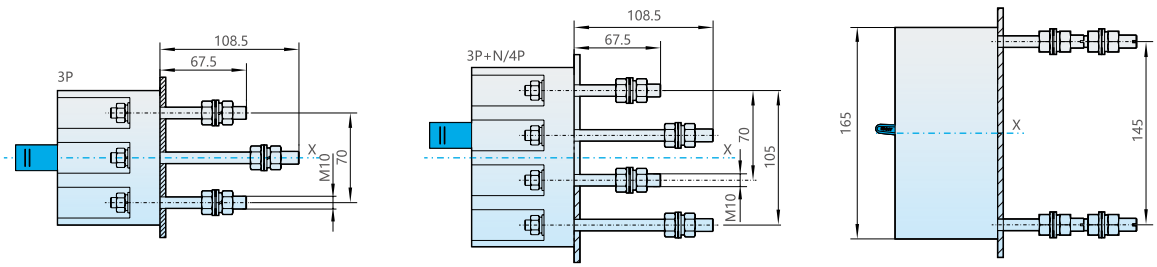
NXMS-250H

Cabinet gate hole (large) size (mm)



NXMS-250H

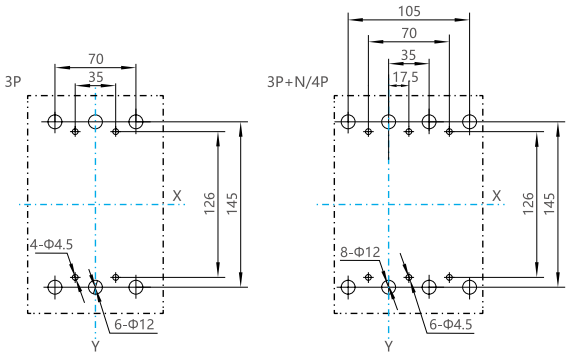
Rear connection, dimension (mm)



Dimensions and installation

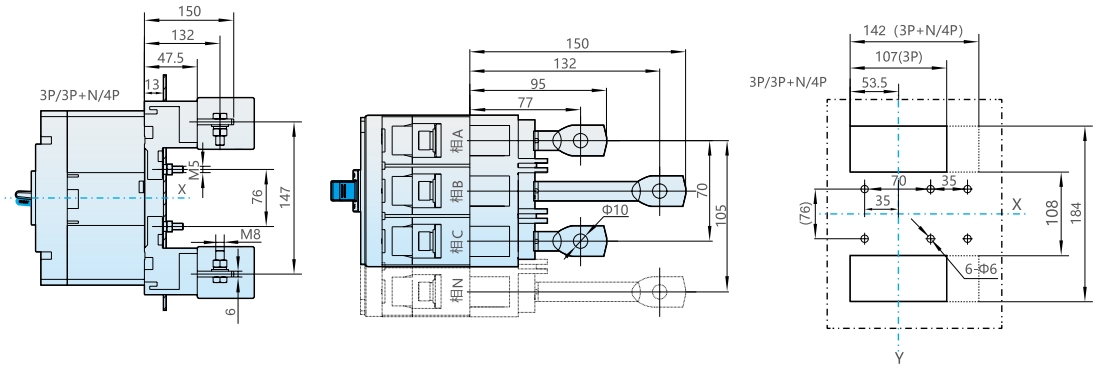
NXMS-250H

Rear connection, dimension (mm)



NXMS-250H

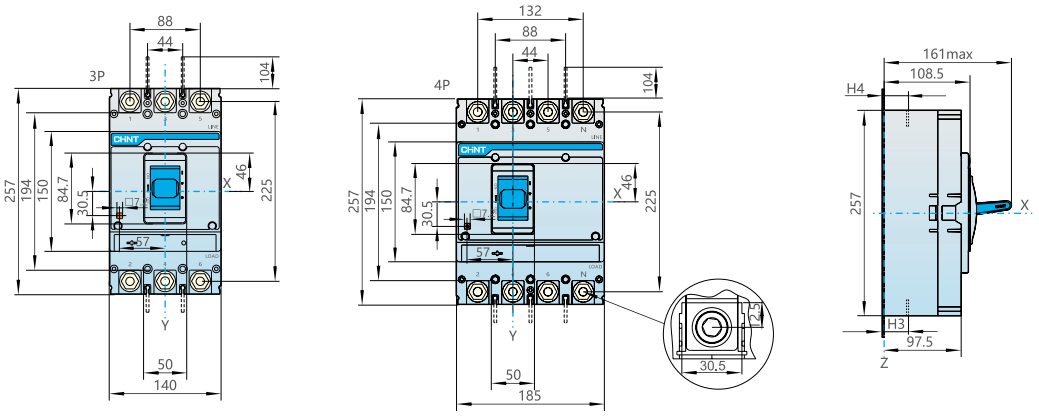
Plug-in rear connection, dimension (mm)



Dimensions and installation

NXMS-400S/H, 630S/H

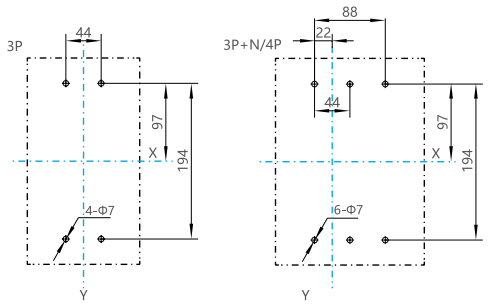
Front connection, dimension (mm)



Specification and model	H3	H4	Remark
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NXMS-630S/H	41	41	

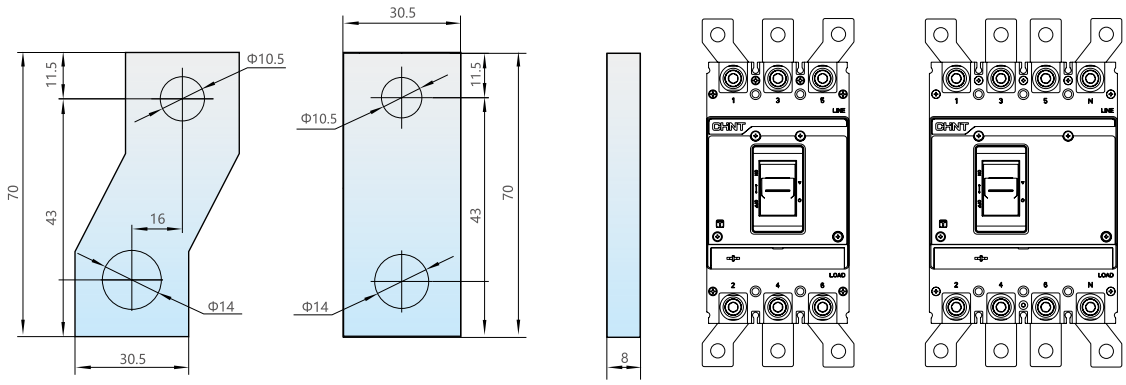
NXMS-400S/H, 630S/H

Installation size of baseplate (mm)



NXMS-400S/H, 630S/H

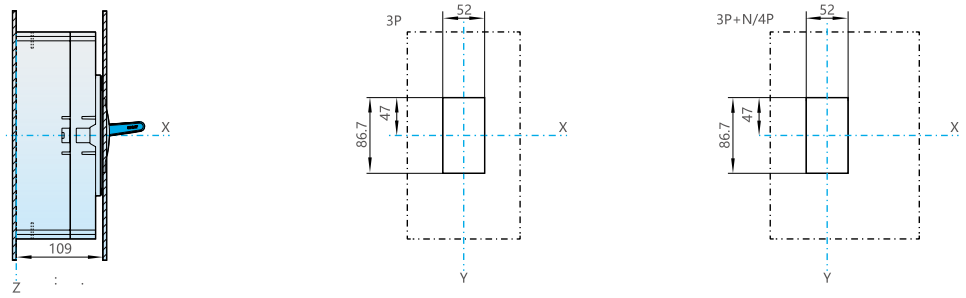
Coupling plates, dimension (mm)



Dimensions and installation

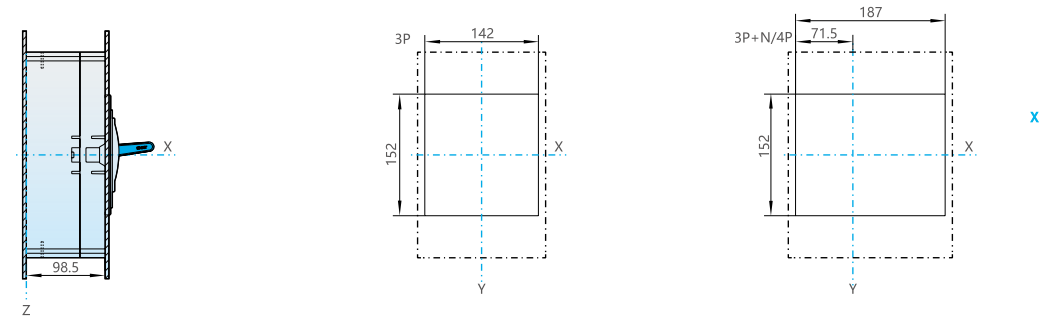
NXMS-400S/H, 630S/H

Cabinet gate hole (small) size (mm)



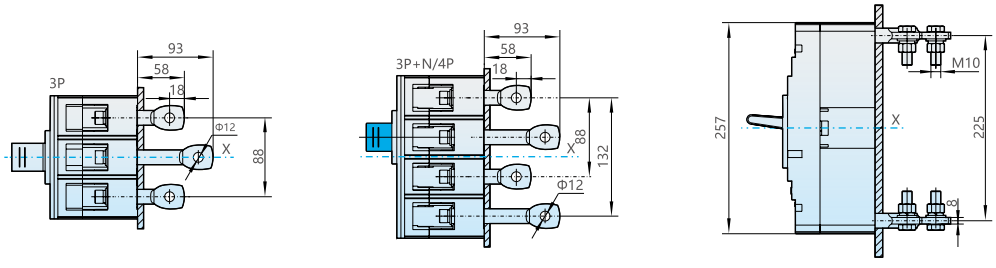
NXMS-400S/H, 630S/H

Cabinet gate hole (large) size (mm)



NXMS-400S/H, 630S/H

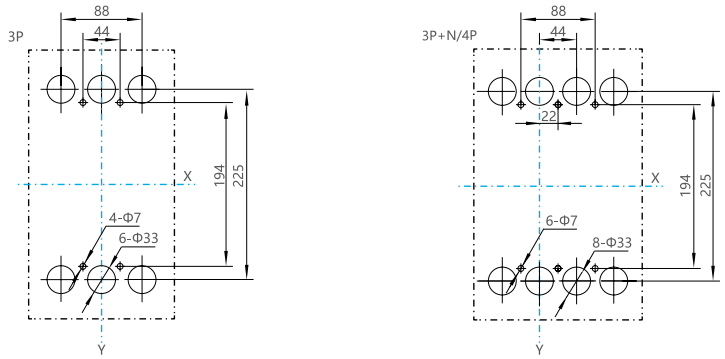
Rear connection, dimension (mm)



Dimensions and installation

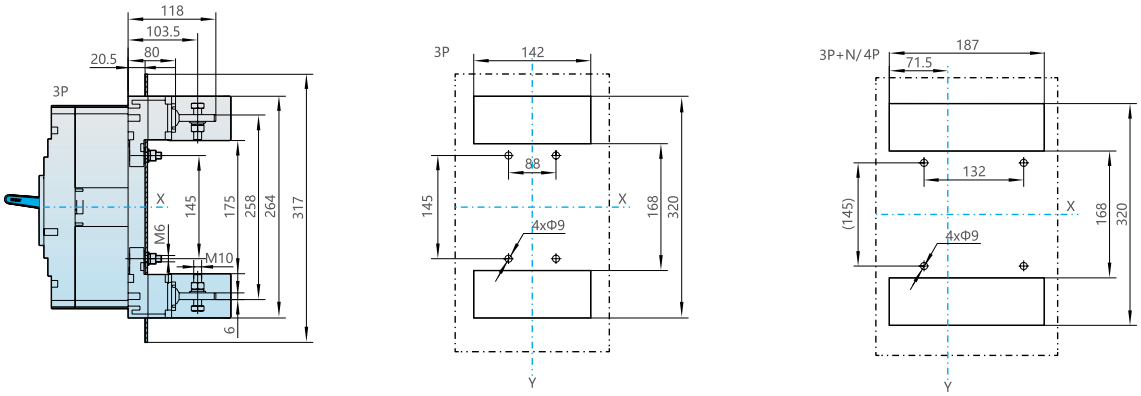
NXMS-400S/H, 630S/H

Rear connection, dimension (mm)



NXMS-400S/H, 630S/H

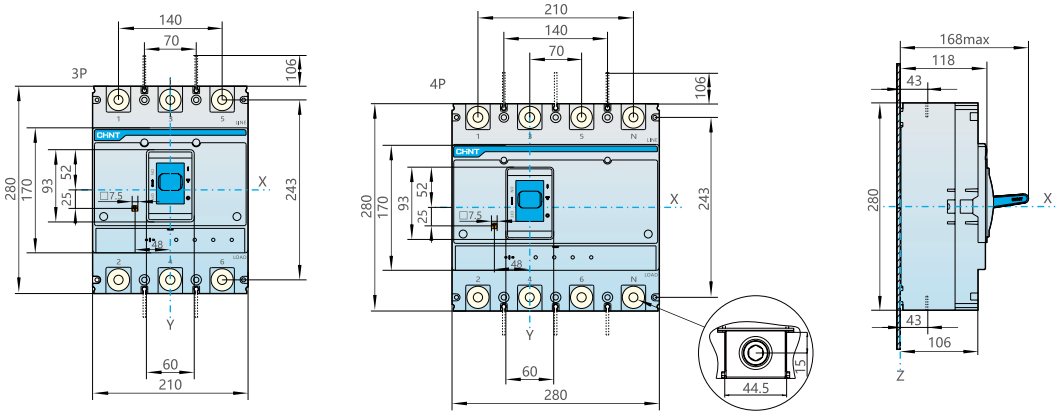
Plug-in rear connection, dimension (mm)



Dimensions and installation

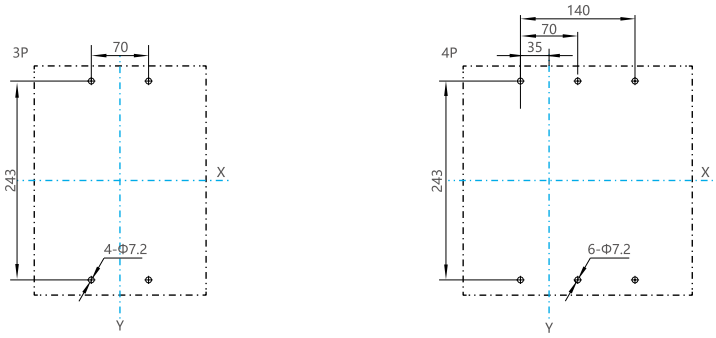
NXMS-1000S/H

Front connection, dimension (mm)



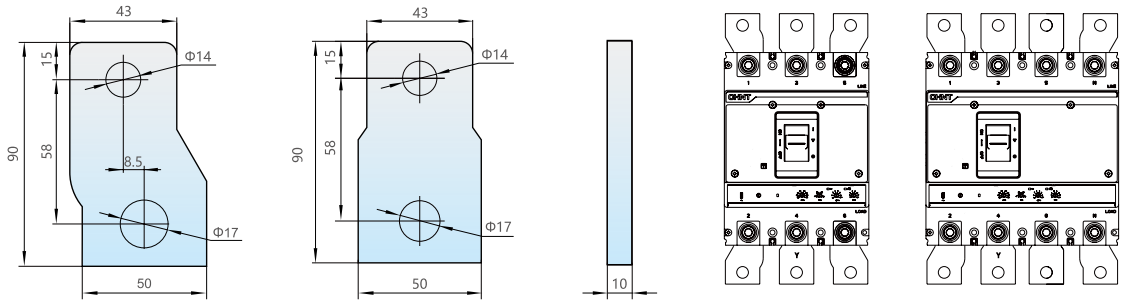
NXMS-1000S/H

Installation size of baseplate (mm)



NXMS-1000S/H

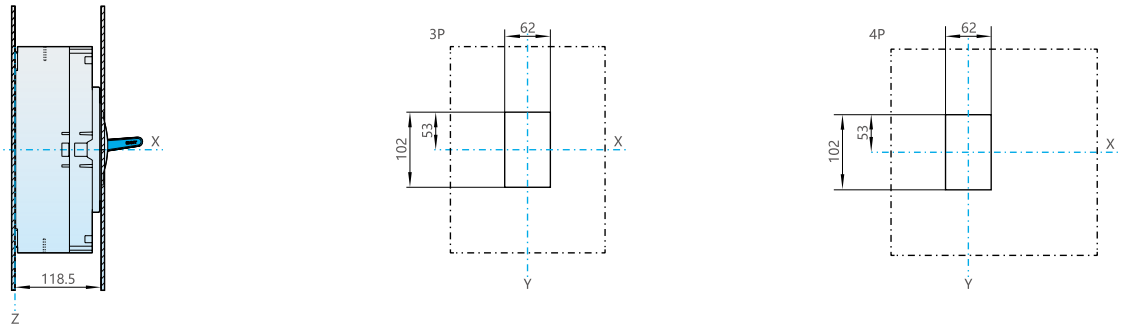
Coupling plates, dimension (mm)



Dimensions and installation

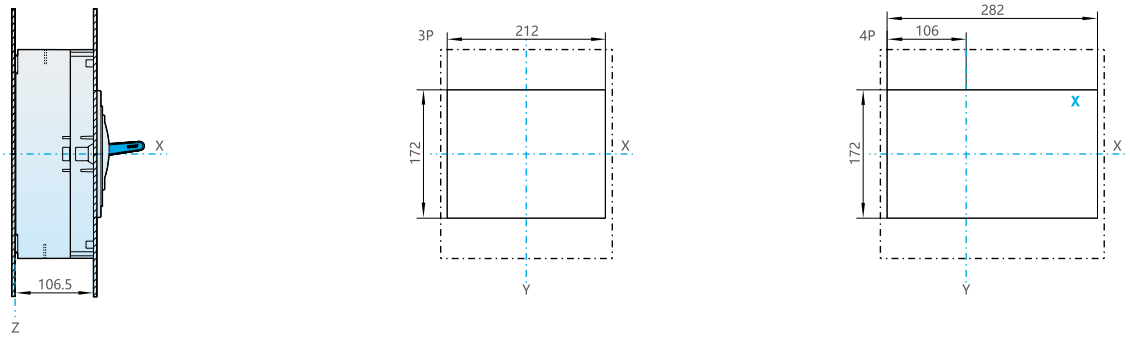
NXMS-1000S/H

Cabinet gate hole (small) size (mm)



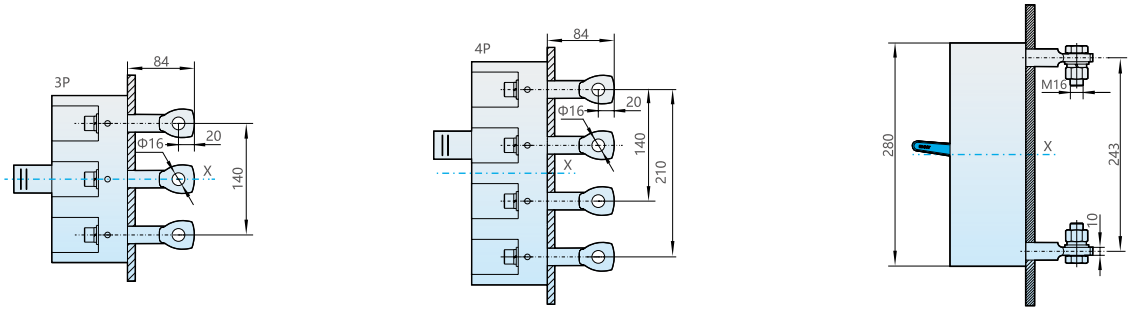
NXMS-1000S/H

Cabinet gate hole (large) size (mm)



NXMS-1000S/H

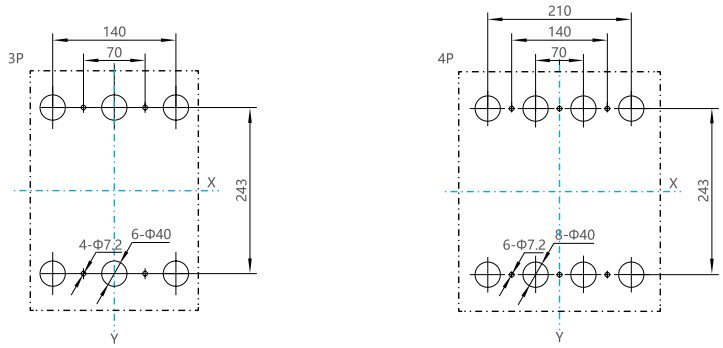
Rear connection, dimension (mm)



Dimensions and installation

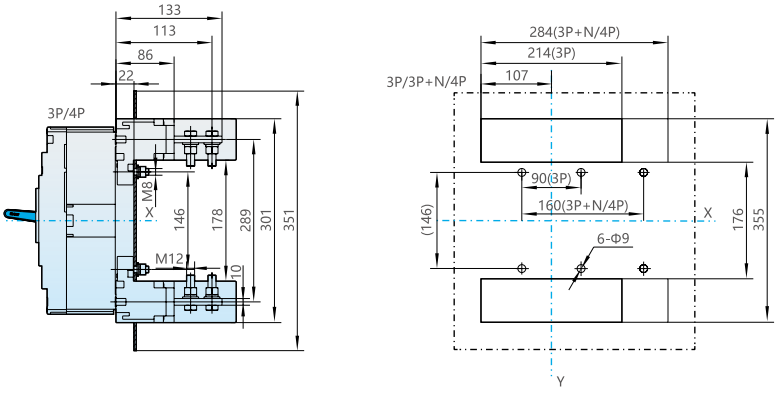
NXMS-1000S/H

Rear connection, dimension (mm)



NXMS-1000S/H

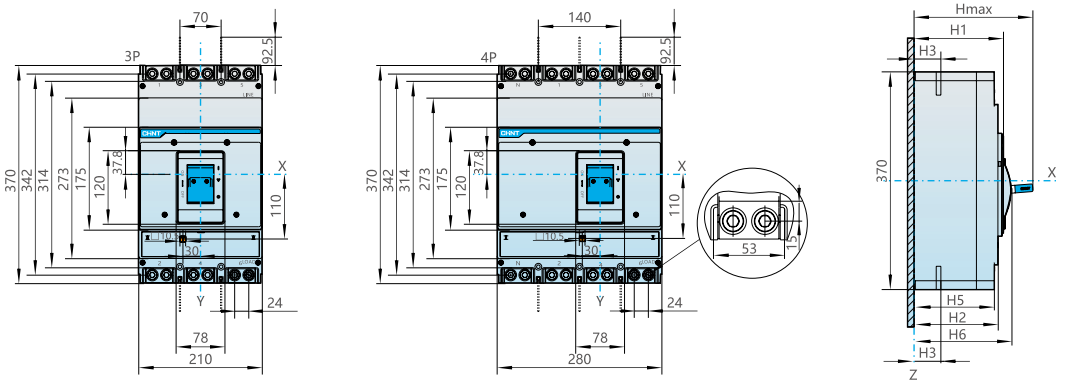
Plug-in rear connection, dimension (mm)



Dimensions and installation

NXMS-1600S/H , NXMS-1250S/H

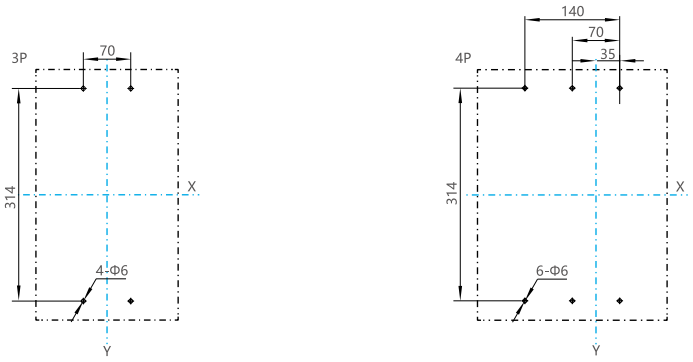
Front connection, dimension (mm)



Specification and model	Hmax	H1	H2	H3	H5	H6	Remark
NXMS-400S/H	242	153	143	57	136.5	202	1250A
NXMS-630S/H	247	158	148	65	141.5	207	1600A

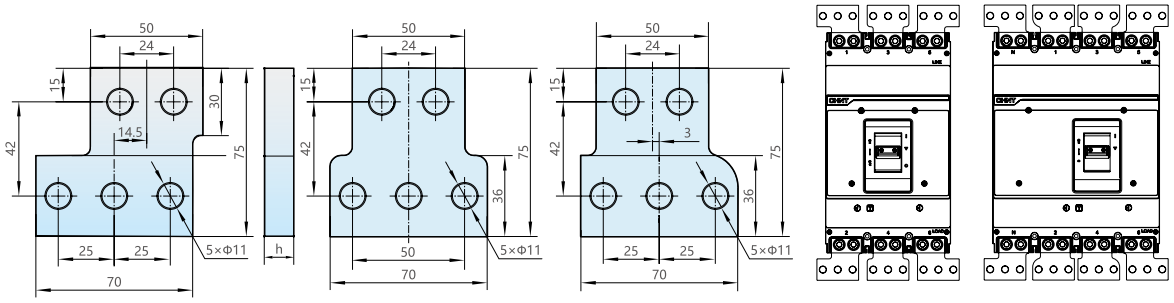
NXMS-1600S/H , NXMS-1250S/H

Installation size of baseplate (mm)



NXMS-1600S/H , NXMS-1250S/H

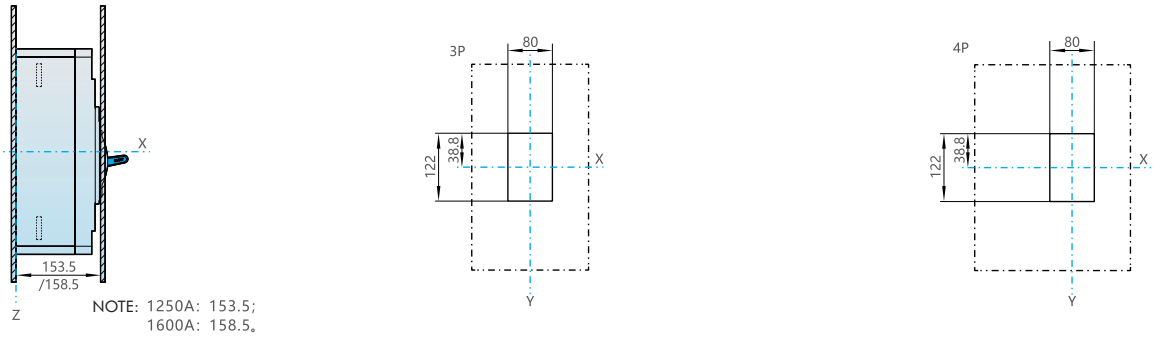
Coupling plates, dimension (mm)



Dimensions and installation

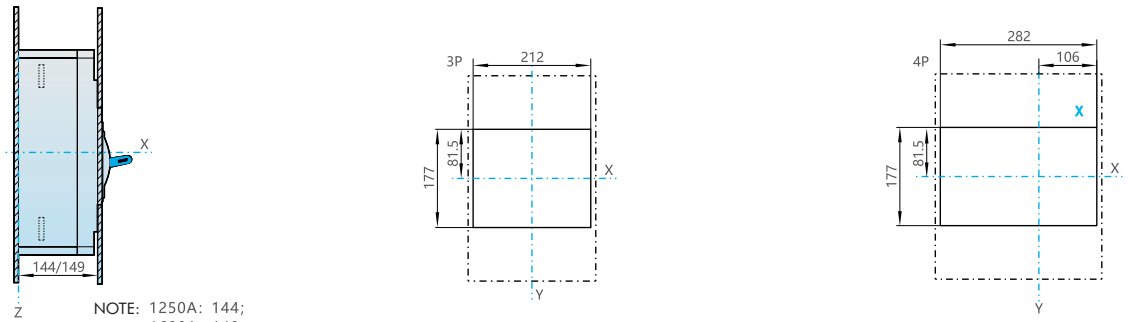
NXMS-1600S/H , NXMS-1250S/H

Cabinet gate hole (small) size (mm)



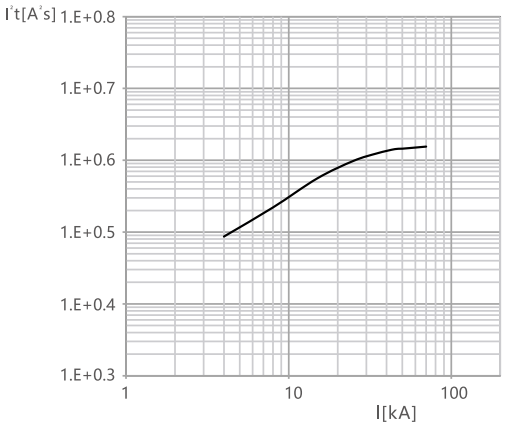
NXMS-1600S/H , NXMS-1250S/H

Cabinet gate hole (large) size (mm)



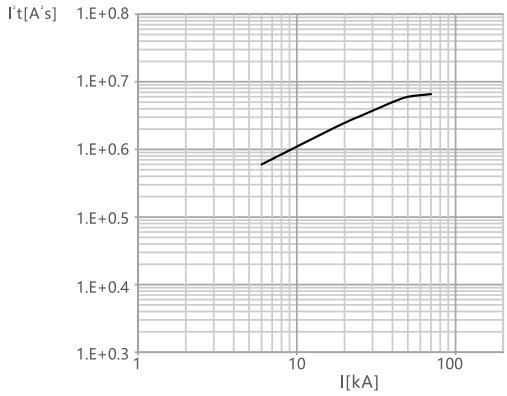
Current-limiting characteristics

160 shell frame pass-through curves



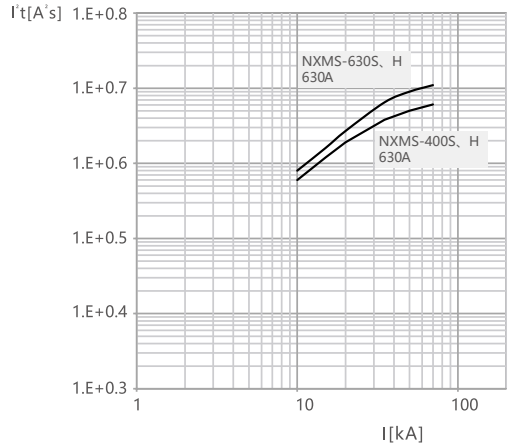
NXMS-160 Acceptable curves

NXMS-160 Acceptable curves



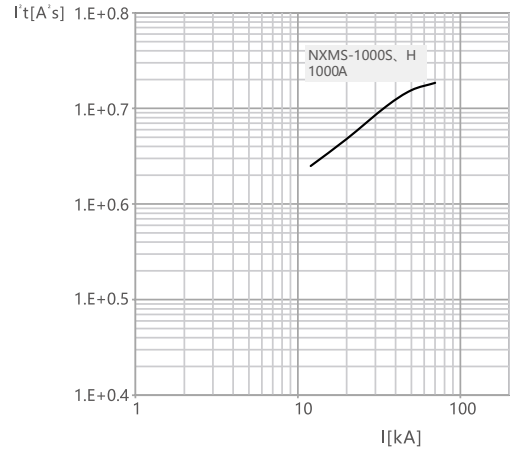
NXMS-250 Acceptable curves

400/630 shell frame pass-through curve



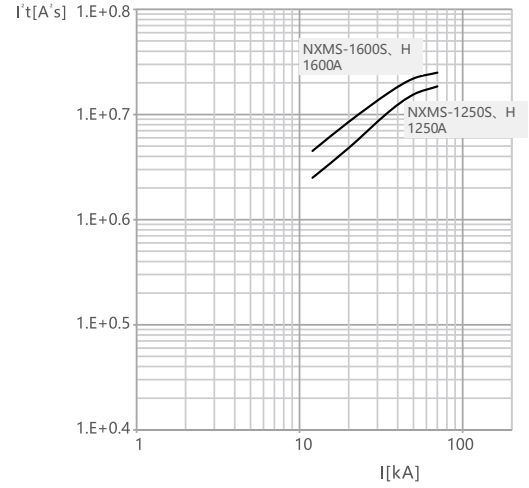
NXMS-400,630 Acceptable curves

800/1000 shell frame pass-through curve



NXMS-1000 Acceptable curves

1250/1600 shell frame pass-through curve

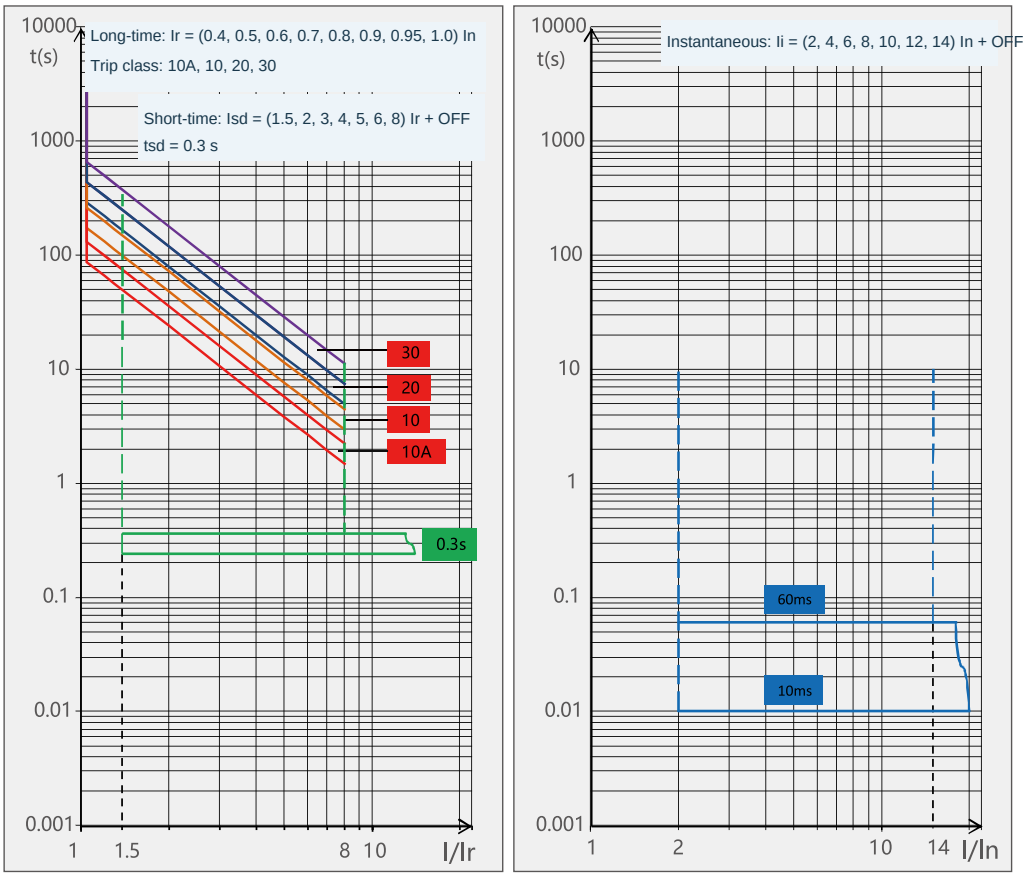


NXMS-1250,1600 Acceptable curves

Motor-protection tripping characteristics - 32 to 630 A

NXMS series electronic moulded case circuit breaker

Tripping curve of motor protection



Motor-protection release only, rated currents 32 to 630 A. Characteristic curves are schematic; select the actual current steps for the ordered release. Do not apply this curve to 1000 / 1250 / 1600 A distribution releases.