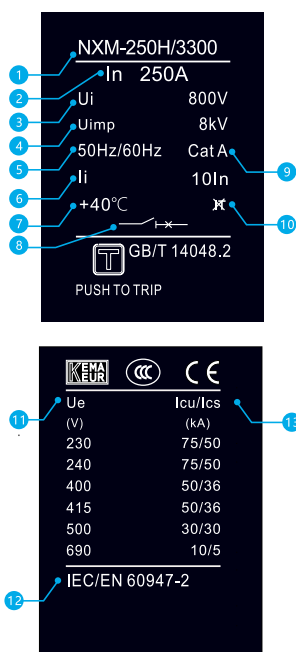




NXM-250S/4300A



NXMS-250H/3300



NXM Nameplate of thermomagnetic stationary molded case circuit breaker

NXM series moulded case circuit breaker

Breaker

The moulded case circuit breaker will provide protection for the circuit and equipment in case of overload, short circuit and under voltage condition occurred in the power distribution circuit. Besides, it can also provide protection of overload, short circuit and under voltage for the non-frequent start of motor

▪ Frame size:

NXM series moulded case circuit breaker: 63A, 125A, 160A(W125), 250A, 400A, 630A, 800A(W630), 1000A(W800), 1250A, 1600A

NXM series moulded case circuit breaker

- Rated operational voltage: U_e : 220V/230V/240V, 380V/400V/415V, 500V , 690V
- Breaking capacity code: E, S, F, H
- Number of poles: 2P, 3P, 4P
- Release type: thermal magnetic fixed type; magnetic fixed type; electronic type.
- Installation method: Fixed type; plug-in type

Nameplate interpretation

- 1 Product type: Frame size; breaking capacity; poles number
- 2 In: Rated operational current
- 3 Ui: Rated insulation voltage
- 4 Uimp: Rated impulsive withstand voltage
- 5 Frequency of A.C.
- 6 li: 10In Multiple of current of transient behavior
- 7 +40°C : Ambient temperature
- 8 Electrical symbol for circuit breaker with isolating function
- 9 Cat A: Utilization category of breaker
- 10 Not for IT systems
- 11 Ue: Rated operational voltage
- 12 The product is in conformity with standard IEC/EN 60947-2
- 13 Icu/Ics: Ultimate short circuit breaking capacity/Service short circuit breaking capacity

NXM series moulded case circuit breaker

Model definition and description

NXM	160	S	P	4	300
Product code	Frame size code	Breaking capacity code ²⁾	Operation way code	Number of poles code	Code of release type and inner accessories ³⁾
NXM: moulded case circuit breaker	63A 125A 160A(W125A) 250A 400A 630A 800A(W630A) 1000A(W800A) 1250A 1600A	E: 15kA S: 25kA F: 36kA H: 50kA E: 20kA S: 36kA F: 36kA H: 50kA E: 36kA S: 50kA F: 50kA H: 70kA S: 50kA F: 50kA H: 70kA S: 50kA H: 70kA	No code: direct handle operation P: motor operation Z: rotary handle operation	2: 2 poles 3: 3 poles 4: 4 poles	First number represents the release type 2: only magnetic type 3: thermal magnetic type The second number and the third number are codes of inner accessories

Model selection examples:

NXM-160SP/4300 2 A 100 R: To order one moulded case circuit breaker with 160A frame size, 35kA breaking capacity, thermal adjustable and magnetic fixed release, with motor-driven mechanism, 4 poles, with no inner accessories, motor protection, the category of four poles is A. The rated current is 100A and rear connection.

Note: ¹⁾ The rated current of each frame can be seen in table 1.

²⁾ The corresponding poles number and breaking capacity related to frame size can be seen in table 2.

³⁾ For tripping method and inner accessories, see page 17-20.

Comparison table of frame sizes and rated current

Rated current (A)	10	16	20	25	32	40	50	63	80	100	125	140	150	160	180	200
63	■	■	■	■	■	■	■	■								
125	■	■	■	■	■	■	■	■	■	■	■					
W125				■	■	■	■	■	■	■	■					
160				■	■	■	■	■	■	■	■	■	■	■		
250											■	■	■	■	■	■
400																
630																
W630																
800																
W800																
1000																
1250																
1600																

Comparison table of frame sizes, number of poles and breaking capacity

Frame size (A)		63			125			160(W125)			250		
Number of poles		2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
Frame size (A)	E	■	■	■	■	■	■	■	■	■	■	■	■
	S	■	■	■	■	■	■	■	■	■	■	■	■
	F	-	■	■	-	■	■	-	■	■	-	■	■
	H	-	■	■	-	■	■	-	■	■	-	■	■

Technical Parameters

NXM series moulded case circuit breaker

Frame Size, rated current Inm (A)			63				125				160 (W125)						250			
Rated current In (A), 40°C , 55°C			10,16,20,25,30,32,40,50,60,63				10,16,20,25,30,32,40,50,60,63,70,75,80,100,125				32,40,50,60,63,70,75,80,100,125,140,150,160						160,170,180,200,225,250			
Rated insulation voltage Ui(V)			800				800				800						800			
Rated impulse withstand voltage Uimp(kV)			8				8				8						8			
Rated operational voltage Ue(V), AC50/60Hz			220/230/240, 380/400/415/500				220/230/240, 380/400/415/500				220/230/240, 380/400/415, 500/690						220/230/240, 380/400/415, 500/690			
Breaking capacity code			E	S	F	H	E	S	F	H	E	S	F	H	R	E	S	F	H	
Number of poles	2P		■	■	-	-	■	■	-	-	■	■	-	-	-	■	■	-	-	
	3P		■	■	■	■	■	■	■	■	■	■	■	■	-	■	■	■	■	
	4P		■	■	■	■	■	■	■	■	■	■	■	■	-	■	■	■	■	
Rated ultimate short circuit breaking capacity Icu (kA)	AC220/230/240V		18	36	50	75	18	36	50	75	40	50	50	75	-	40	50	50	75	
	AC380/400/415V		15	25	36	50	15	25	36	50	20	36	36	50	40	20	36	36	50	
	AC500V		-	-	15	25	-	-	15	25	-	-	30	30	40	-	-	-	-	
	AC660/690V		4	5	5	6	4	5	5	6	8	8	10	10	10	-	8	-	-	
Rated service short circuit breaking capacity Ics (kA)	AC220/230/240V		18	18	50	50	18	18	50	50	30	30	50	50	-	30	30	50	50	
	AC380/400/415V		15	15	36	36	15	15	36	36	20	20	36	36	-	20	20	36	36	
	AC500V		-	-	15	15	-	-	15	15	-	-	30	30	40	-	-	-	-	
	AC660/690V		4	4	5	5	4	4	5	5	4	4	5	5	5	-	5	-	-	
In conformity with standards			IEC/EN 60947-2																	
Utilization category			A				A				A						A			
Isolation function			■				■				■						■			
Ambient temperature			-35°C ~ +70°C																	
Arcing distance			≤50				≤50				≤50						≤50			
Mechanical life (times)	Without maintenance		20000				20000				20000						20000			
	With maintenance		40000				40000				40000						40000			
Electrical life (times)	AC415V, In		10000				10000				10000						10000			
Release type and protection type	Magnetic release	Distribution protection	■		■		■		■		■			■			■		■	
		Motor protection	■		■		■		■		■			■			■		■	
	Thermal magnetic release	Distribution protection	■		■		■		■		■			■			■		■	
		Motor protection	■		■		■		■		■			■			■		■	
Accessories	Auxiliary contact		■		■		■		■		■			■			■		■	
	Alarm contact		■		■		■		■		■			■			■		■	
	Auxiliary contact, alarm contact		■		■		■		■		■			■			■		■	
	Shunt release		■		■		■		■		■			■			■		■	
	Under voltage release		■		■		■		■		■			■			■		■	
	Manual operational mechanism		■		■		■		■		■			■			■		■	
	Motor-driven mechanism		■		■		■		■		■			■			■		■	
	Rear connection		■		■		■		■		■			■			■		■	
	Plug-in type		■		■		■		■		■			■			■		■	
	Extending terminal bonding bar		■		■		■		■		■			■			■		■	
Derivative product	For special use of prepaid ammeter		■		-		■		-		■			-			■		-	
	Overload alarm non-trip		-		-		-		-		■			■			■		■	
Dimension and size(mm) Width (w) X height (H)X depth(D)		Width (2P/3P/4P)	56/78/103				56/78/103				63/90/120						78/105/140			
		Height	135				135				155						165			
		Depth (E/S/F/H type)	71/71/81/81				71/71/81/81				75.5/75.5/91/91						77/77/102/102			

Power loss table

Product model	Making current(A)	Single pole resistance (mΩ)	3/4pole total power loss		
			Front connection	Rear connection	Plug-in rear connection
NXM-63	63	1.8	21	25	28
NXM-125	125	0.6	36	44	51
NXM-W125	125	0.42	23	30	48
NXM-160	160	0.42	38	45	53
NXM-250	250	0.35	47	55	65
NXM-400	400	0.13	88	95	145
NXM-630	630	0.09	180	190	200
NXM-W630	630	0.07	178	140(520A)	152(520A)
NXM-800	800	0.07	200	230	290
NXM-W800	800	0.058	160	212	234
NXM-1000	1000	0.058	250	280	300
NXM-1250	1250	0.042	265	-	-
NXM-1600	1600	0.027	280	-	-
NXMS-160	160	0.38	35	42	50
NXMS-250	250	0.3	44	52	62
NXMS-400	400	0.13	82	90	140
NXMS-630	630	0.07	140	130(520A)	150(520A)
NXMS-1000	1000	0.05	230	250(920A)	270(920A)
NXMS-1250	1250	0.04	265	-	-
NXMS-1600	1600	0.027	280	-	-
NXMLE-125	125	0.65	40	48	54
NXMLE-160(W125)	160	0.5	48	56	68
NXMLE-250	250	0.4	55	64	74
NXMLE-400	400	0.15	103	112	162
NXMLE-630	630	0.11	170	160(520A)	180(520A)
NXMLE-800	800	0.09	220	180(720A)	200(720A)
NXHM-63	63	1.8	21	25	28
NXHM-125	125	0.6	36	44	51
NXHM-160	160	0.42	38	45	53
NXHM-250	250	0.35	47	55	65
NXHM-400	400	0.13	88	95	145
NXHM-630	630	0.09	178	140(520A)	152(520A)
NXHM-800	800	0.07	200	160(720A)	180(720A)
NXHM-1000	1000	0.058	250	280(920A)	310(920A)

Parameter table of connecting cable/copper bar

The reference section of connecting cable/copper bar with different rated current is as follows.

Rated current (A)	Section of wire (mm ²)
10	1.5
16, 20	2.5
25	4.0
32	6.0
40, 50	10
63	16
80	25
100	35
125, 140	50
160	70
180, 200, 225	95
250	120
280, 315, 320, 350	185
400	240

Rated current (A)	Cable		Copper bar	
	Section (mm²)	Quantity	Width × thickness (mm)	Quantity
500	150	2	30×5	2
630	185	2	40×5	2
700, 800	240	2	50×5	2
			50×10	1
900, 1000	-	-	50×5	3
			63×10	1
1250	-	-	50×5	3
			40×10	2
1600	-	-	60×5	4
			60×10	2

The above reference section is the reference value under 40 degrees operating environmental temperature.

The recommended value of tightening torque of different housing current connecting cable/copper bar is as follows:

Rated current (A)	63A/125A	160A(W125)	250A/320A	400A/630A	800A(W630)	1000A(W800)	1250A/1600A
Torque (N m) ¹⁾	3/6 ⁴⁾	10	12	30	40	40	30
Torque (N m) ²⁾	3/6 ⁴⁾	10	12	30	40	40	30
Torque (N m) ³⁾	3/6 ⁴⁾	10	12	30	40	40	30

¹⁾ Tighten the torque of busbar (or extension busbar/connection lug) in case of connecting with the body directly.

²⁾ Tighten the torque of connecting terminal behind the stationary breaker/tighten the torque of connecting terminal of plug in breaker.

³⁾ Tighten the torque of extension busbar of terminal on the plug-in pedestal.

⁴⁾ Value of torque is 3 for 10A~63A of frame current 63 and 125A breaker, value of torque is 6 for 70A~125A for frame current 125A breaker.

Cascading (AC380/400/415V)

[illegible]

Type	In	Icu	Ics	Pole NO.	description	code
Thermomagnetic	50A	36KA	36KA	3	NXM-125F/3300 50A	947449
	50A	36KA	36KA	4	NXM-125F/4300B 50A	947457
	50A	50KA	36KA	3	NXM-125H/3300 50A	844288
	50A	50KA	36KA	4	NXM-125H/4300B 50A	844296
	50A	25KA	15KA	2	NXM-125S/2300 50A	209637
	50A	25KA	15KA	3	NXM-125S/3300 50A	844302
	50A	25KA	15KA	4	NXM-125S/4300B 50A	844308
	50A	20KA	20KA	3	NXM-160E/3300 50A	947547
	50A	36KA	36KA	3	NXM-160F/3300 50A	147040
	50A	36KA	36KA	4	NXM-160F/4300B 50A	147047
	50A	50KA	36KA	3	NXM-160H/3300 50A	146349
	50A	50KA	36KA	4	NXM-160H/4300B 50A	146356
	50A	36KA	20KA	2	NXM-160S/2300 50A	190874
	50A	36KA	20KA	3	NXM-160S/3300 50A	146335
	50A	36KA	20KA	4	NXM-160S/4300B 50A	146342
	50A	15KA	15KA	3	NXM-63E/3300 50A	269975
	50A	15KA	15KA	4	NXM-63E/4300B 50A	269991
	50A	36KA	36KA	3	NXM-63F/3300 50A	269983
	50A	36KA	36KA	4	NXM-63F/4300B 50A	270139
	50A	50KA	36KA	3	NXM-63H/3300 50A	205896
	50A	50KA	36KA	4	NXM-63H/4300B 50A	205904
	50A	25KA	15KA	2	NXM-63S/2300 50A	259287
	50A	25KA	15KA	3	NXM-63S/3300 50A	205888
	50A	25KA	15KA	4	NXM-63S/4300B 50A	205912
	63A	15KA	15KA	3	NXM-125E/3300 63A	270145
	63A	15KA	15KA	4	NXM-125E/4300B 63A	270153
	63A	36KA	36KA	3	NXM-125F/3300 63A	947450
	63A	36KA	36KA	4	NXM-125F/4300B 63A	947458
	63A	50KA	36KA	3	NXM-125H/3300 63A	844289
	63A	50KA	36KA	4	NXM-125H/4300B 63A	844297
	63A	25KA	15KA	2	NXM-125S/2300 63A	209638
	63A	25KA	15KA	3	NXM-125S/3300 63A	131360
	63A	25KA	15KA	4	NXM-125S/4300B 63A	844309
	63A	20KA	20KA	3	NXM-160E/3300 63A	947548
	63A	36KA	36KA	3	NXM-160F/3300 63A	147041
	63A	36KA	36KA	4	NXM-160F/4300B 63A	147048
	63A	50KA	36KA	3	NXM-160H/3300 63A	146350
	63A	50KA	36KA	4	NXM-160H/4300B 63A	146357
	63A	36KA	20KA	2	NXM-160S/2300 63A	190873
	63A	36KA	20KA	3	NXM-160S/3300 63A	146336
	63A	36KA	20KA	4	NXM-160S/4300B 63A	146343