



Note 3: Release code:

- 0: Tripper (none)
- 2: Instantaneous tripper only
- 3: Complex tripper;

Note 4: Application code

No code is available for the circuit breaker for distribution

2: Protection motor type;

Note 5: Type A: The N-pole isn't installed with an overcurrent tripper, but always connected;

Type B: The N-pole isn't installed with an overcurrent tripper, but on-off with the other three poles;

Type C: The N-pole is installed with an overcurrent tripper, and on-off with the other three poles;

Note 6: Remark on detailed accessory specifications

1. Detailed description of connection-type or rotation handle:

- ① Normal products are uncoded;
- ② P: Extended connection busbar;
- ③ JK: Only the inlet wire end adopts the connection frame while the outlet wire end adopts the front-plate connection mode as the wiring mode;
- ④ CK: Only the outlet wire end adopts the connection frame while the inlet wire end adopts the front-plate connection mode as the wiring mode;
- ⑤ K: Inlet and outlet wire ends adopt the connection frame as the wiring mode;
- ⑥ H: Rear-plate connection
- ⑦ Z1: Plug-in rear-plate connection
- ⑧ Z2: Plug-in front-plate connection

CCC, CQC, CB, CE, TUV

Molded Case Circuit Breakers

NDM3-160 series

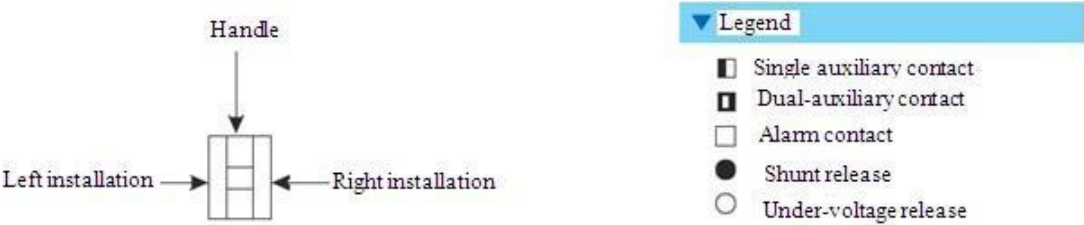
QUISURE

Keep quick, Make sure

ISO9001:2015

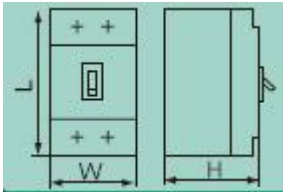
QUALITY GUARANTEED

Table 1: Comparison Table of Accessory Code:



Accessory code	Accessory name	Installation position	Model	NDM3-160	
			Number of poles	3	4
00	None			—	
10	Shunt release				
20	Dual-auxiliary contact				
21	Single auxiliary contact				
30	Under-voltage release				
40	Shunt release, dual-auxiliary contact			—	
41	Shunt release, single auxiliary contact				
50	Shunt release, under-voltage release			—	
60	Two sets of dual auxiliary contacts			—	
61	Two sets of single auxiliary contacts				
62	Dual-auxiliary contact, single auxiliary contact			—	
70	Under-voltage release, dual-auxiliary contact				
71	Under-voltage release, single auxiliary contact				
08	Alarm contact				
18	Shunt release, alarm contact			—	
28	Dual-auxiliary contact, alarm contact				
38	Under-voltage release, alarm contact			—	
48	Shunt release, single auxiliary/alarm contact			—	
58	Single auxiliary/alarm contact				
68	Dual-auxiliary contact, single auxiliary/alarm contact			—	
78	Under-voltage release, single auxiliary/alarm contact			—	

4. Main Technical Parameters

Model		NDM3-160			
Rated current of housing Inm (A)		160			
Rated current In (A)		125, 140, 160			
Rated insulation voltage Ui (AC V)		1000			
Rated impulse withstand voltage Uimp (V)		8000			
Rated working voltage Ue (AC V)		AC380/400/415V		AC660/690V	
Number of poles		3		4	
Rated limit short-circuit breaking capacity level		C	L	M	/
Rated limit short-circuit breaking capacity Icu (KA)	400V	35	40	70	70
	690V	/	/	20	20
Rated operating short-circuit breaking capacity Ics (KA)	400V	25	30	50	50
	690V	/	/	10	10
Operating performance	POWER ON	8000			
	Without electricity	20,000			
		NDM3-160C: 3P (W×L×H) :92×139×75.5			
		NDM3-160L: 3P (W×L×H) :92×150×74.5			
		NDM3-160M: 3P (W×L×H) :92×150×92.5			
		NDM3-160: 4P (W×L×H) :122×150×92.5			

4.1Connection capacity:

Rated current A	125	140	160
Wire cross-section area mm ²	50	50	75

4.2 Derating factor table of the circuit breaker

SN	Housing	Derating Factor Table of Product Temperature							
1	160	Temperature	40℃	45℃	50℃	55℃	60℃	65℃	70℃
		Derating factor	1	0.977	0.954	0.931	0.907	0.883	0.858

Note: 1). When the operating ambient temperature is below +40℃, the product can be used normally without derating capacity.

2). The above derating factors are measured at the frame current.

4.3 High-altitude derating factor

High-altitude Derating Factor Table of Molded Case Circuit Breaker

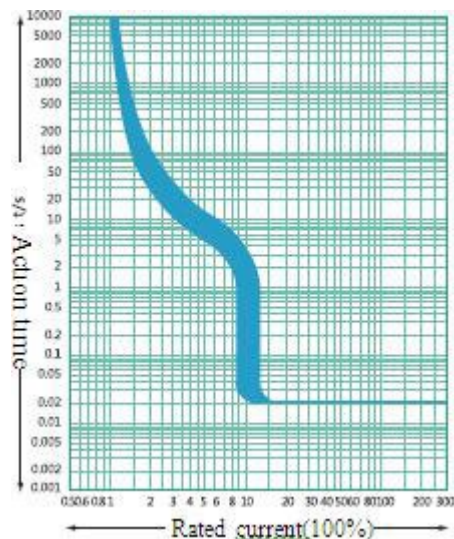
Altitude (km)	Rated operating current	Maximum operating voltage	Rated power frequency withstand voltage
2	In	Ue	U
2.5	In	Ue	U
3	0.980In	0.87Ue	0.909U
3.5	0.972In	0.846Ue	0.858U
4	0.963In	0.813Ue	0.820U
4.5	0.951In	0.781Ue	0.784U
5	0.938In	0.743Ue	0.752U

4.4 Normal Working Environment

- 1) Altitude ≤ 2000 m;
- 2) Ambient temperature: -35℃ ~ +70℃; the average within 24h shall not be more than +35℃. If the ambient temperature is higher than +40℃, the user needs to reduce the capacity. See "Derating Factor Table of Product Temperature Change" for the derating factory;
- 3) The relative humidity at an ambient temperature of +40℃ should not exceed 50%. A higher relative humidity is allowed at a lower temperature. For example, the relative humidity at 20℃ can reach 90%
- 4) For frost due to temperature change, the corresponding measures should be taken
- 5) The product can withstand the effects of wet air, salt mist and oil mist.
- 6) The installation category of the circuit breaker connected/not connected to the main loop is III and II respectively
- 7) The pollution level is Level 3
- 8) The maximum gradient is 22.5°.
- 9) The product can be disposed in places that are free from explosive media, media corrosive to metal, insulation damaging gas, and conductive dust
- 10) The product should be installed free from snow and rain
- 11) In case of stricter user conditions than the above description, negotiate with the manufacturer

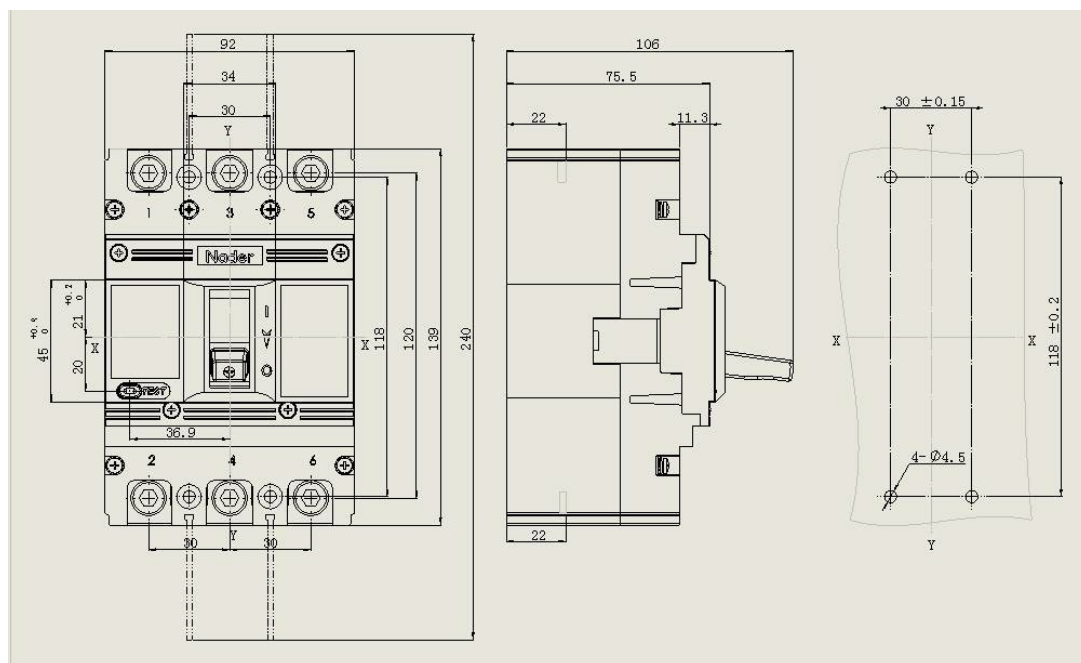
5. Characteristic Curve of Circuit Breaker

NDM3-160 Time/Current Characteristic Curve

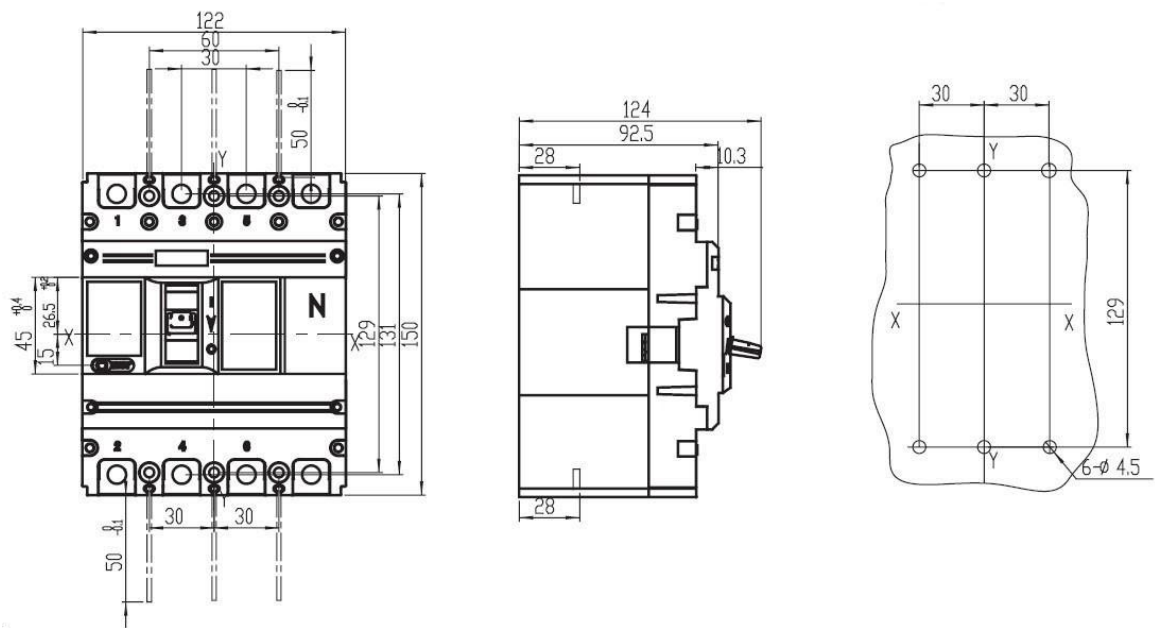


6. Outline and Mounting Hole Dimensions

6.1 NDM3-160C



6.4 NDM3-160/4P

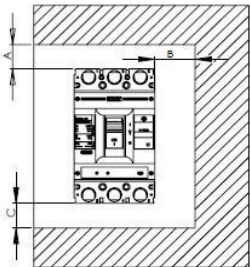


Note: The limit deviation not indicated with the tolerance dimensions is as per GB/T 1804-m.

7 Mounting distance (mm)

1) Insulation distance mounted in the metal cabinet (unit: mm), as shown below:

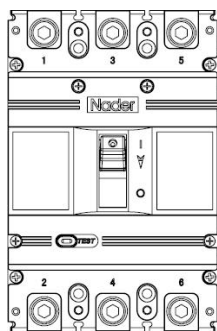
Mounting distance	A (inlet wire end to the cabinet face)		B (distance from side to cabinet)	C (outlet wire end to the cabinet face)
Specification	With a 0 arcing cover	Without a 0 arcing cover		
NDM3-160	25	65	30	30



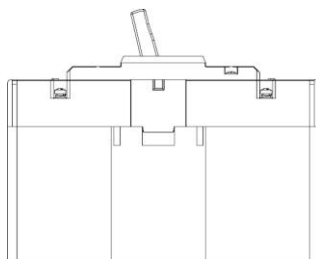
8. Installation Mode

For vertical installation of the product, the gradient between the installation surface and the vertical plane is no more than $\pm 22.5^\circ$.

Horizontal installation of the product.



Vertical Installation



Horizontal Installation

9. Packaging and Storage

Minimum packaging quantity: 1 piece/box. The packaged products should be stored in a warehouse with the ambient temperature of $-40^\circ\text{C} \sim 75^\circ\text{C}$ and relative humidity below 80% without acidic, alkali or other corrosive gas in the surrounding air. Under the conditions above, the storage period shall be no more than 36 months since the manufacturing date.

10. Precautions

- ▲ Various characteristics and accessories of the circuit breaker are set in the factory, which shall not be adjusted randomly;
- ▲ The circuit breaker handle can be located in three positions, indicating three states: on, off and free tripping. When the handle is in the free tripping position, pull the handle in the off direction when the circuit breaker is connected and on.