

Product Specification of NDM1-63

Product: Miniature Circuit Breaker

Product type: NDM1-63

Date: 20181119

Prepare	Review	Approval
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File number	NDT500482	Version	2 version	Date	20181119
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1 Application

- Protection against short circuit
- Protection against overload
- Control
- Isolation
- Protection of DC system

NDM1-63 series MCB is used in low voltage electrical distribution system in industry, real estate, power, telecom and construction field.

2 Product Picture



1P



2P

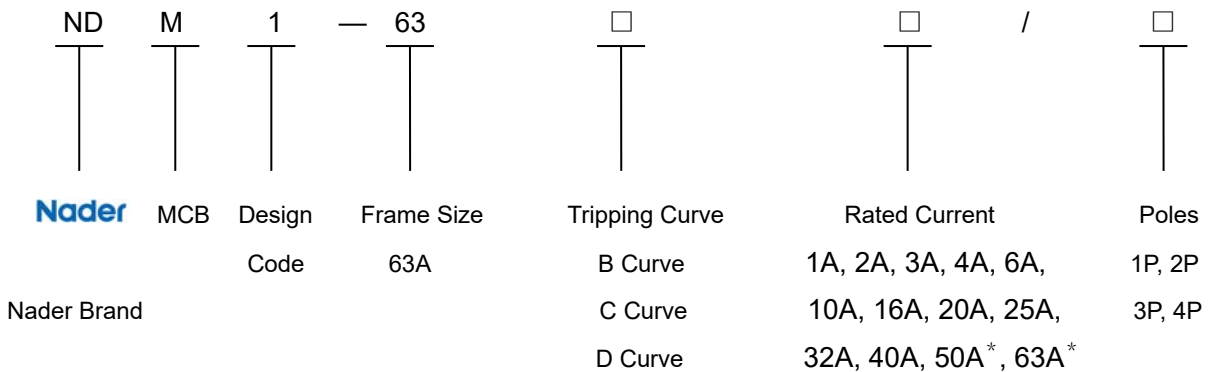


3P



4P

3 Model and implication



*Note: D curve is not available for 50A and 63A breaker.

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4 Main technical parameters

- Electrical parameters
 - Rated working voltage (Ue): AC230/240/400/415V (1P) ; AC400/415V(2P,3P,4P)
DC60/80V(1P,2P);
 - Rated current (In): 1A, 2A, 3A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
 - Breaking capacity (Icn): 6 kA (B, C curve breaker40A and below),
4.5 kA(B, C curve breaker 50A and above, D curve breaker)
 - Impulse voltage endurance: 4kV
 - Rated Insulation Voltage: 500V
 - Rated Frequency Withstand Voltage: AC2500V 50Hz 1min
- Mechanical & electrical endurance: 20000 times
electrical endurance: 10000 times; Mechanical endurance: 10000 times
- Wiring
 - Adopt tunnel type wiring
 - Connection capability: 1mm² to 25 mm²
 - Connection screw M5, Torque: 2.0N.m
- B curve
 - Non-inductive or micro-inductive loads
 - Tripping characteristic: instantaneous trip between 3In to 5In.
- C curve
 - Illumination distribution system
 - Tripping characteristic: instantaneous trip between 5In to 10In
- D curve
 - Industrial distribution system
 - Tripping characteristic: instantaneous trip between 10In to 14In
- Product certification and implementation standard.:
 - Product certificate: CCC,CE,TUV;
 - Product certification standard: GB/T 10963.1, IEC60898-1, GB/T 10963.2, IEC60898-2;
- Environmental requirements: RoHS

5 Working condition

- Ambient temperature: -40℃~+70℃
- Relative air humidity ≤95%
- Altitude ≤2000m
- Pollution degree: 2
- Used in place without obvious shock and vibration
- Protection Degree: IP20

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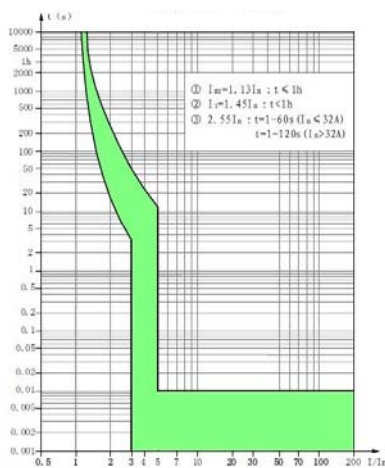
6 Lower capacity coefficient table above 2000 meters above sealevel

Height above sea level (km)	Rated current	Rated voltage	Rated frequency voltage tolerance	Breaking Capacity	Breaking Capacity and Electrical life	Remarks
2	In	Ue	1.00	1.00	1.00	
3	0.99 In	Ue	0.89	0.89	0.83	
4	0.96In	Ue	0.80	0.80	0.71	
5	0.94In	Ue	0.73	0.73	0.63	

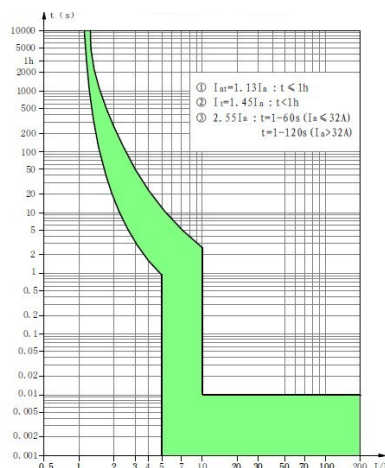
7 Side-by-side volume reduction coefficient table

Number of products placed side by side	1	2~3	4~5	6~9	10
Current derated coefficient	1	0.9	0.8	0.7	0.6

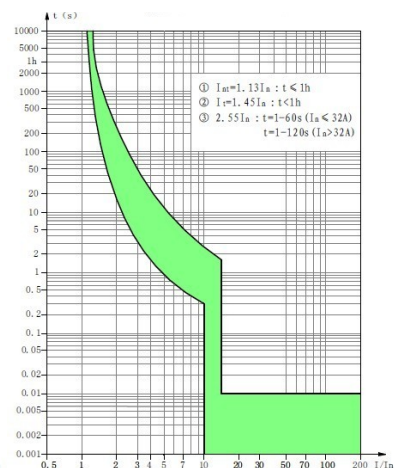
6 Tripping curves (ambient temperature 30°C)



B Curve



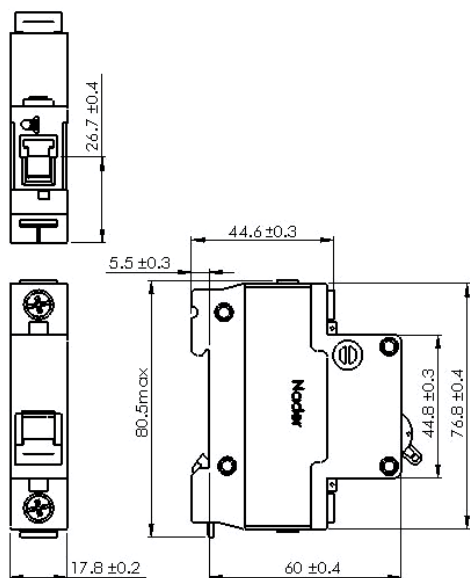
C Curve



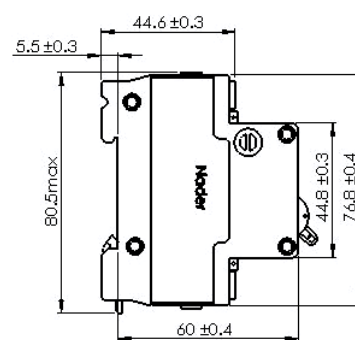
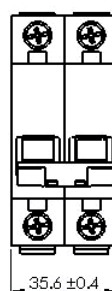
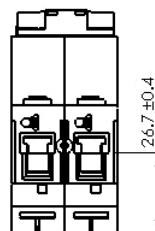
D Curve

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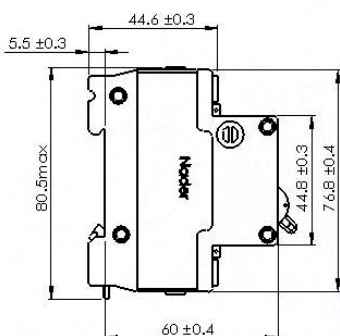
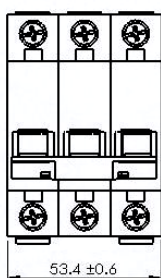
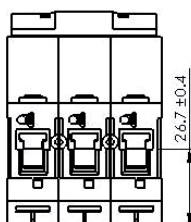
7 Outline dimensions and installation



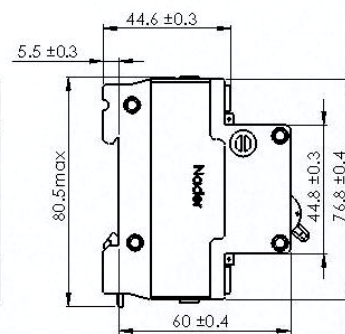
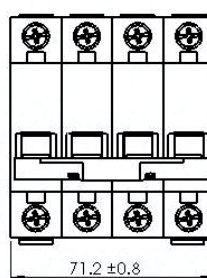
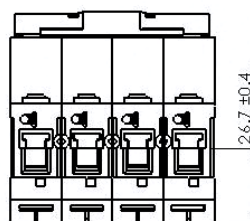
1P



2P



3P



4P

8 Mounting

Modularized structure, can be easily installed in TH35mm×7.5 Standard DIN rail.

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9 Packaging and storage

9.1 Maximum packing quantity

1-pole: 12 pieces in a box, 12 boxes in an overwrap carton.

2-pole: 2 pieces in a box, 12 boxes in an overwrap carton.

3-pole: 4 pieces in a box, 12 boxes in an overwrap carton.

4-pole: 3 pieces in a box, 12 boxes in an overwrap carton.

9.2 The products should be stored in the warehouse where there is ventilation. The relative humidity there should not exceed 80%, and the ambient temperature there is between -40°C to $+70^{\circ}\text{C}$. In addition, there should not be acidic, alkaline and corrosive gas in the air. The products should not be deposited more than 3 years in the above mentioned conditions since the producing date.

10 Accessories

- OF auxiliary contact: Installed on the left hand of the NDM1-63 series MCBs to indicate tripping status of the breaker.

- SD alarm contact: Installed on the left hand of the NDM1-63 series MCBs to indicate failure tripping status of the breaker.

- MX+OF shunt release: Installed on the right hand of the NDM1-63 series MCBs to control the breaker from a distance.

- NDH1 series busbar is a kind of modulus accessory for NDM1-63, which applies to connecting the ends of the same phase incoming line of several breakers. It can also be used as a general standard accessory which connects the electric appliances of the same phase terminal.

- NDM1L-32/50 series residual current unit clipped onto the right side of NDM1-63 series MCBs to protection against earth leakage faults.

- NDM1LG-32/50 series overvoltage protection residual current unit clipped onto the right side of NDM1-63 series MCBs to protection against earth leakage faults and overvoltage.

11 Notices

11.1 Manufacturer will take no responsibility for problems caused by disassembly privately.

11.2 Attention to live part when the breaker is energized and avoid touching them.

11.3 Manufacturer will take no responsibility for the quality problem caused by adjusting the characteristic of the breaker privately.

11.4 Wiring properly to avoid mis-trip or terminal burn.

11.5 Please open the cover when installing the accessory. Please refer to *OF, SD MX+OF Instruction* for details.