

# Product Specification

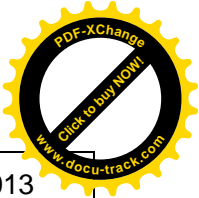
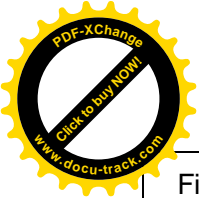
Product: NDM1-63 Series Miniature Circuit Breaker

Product type: NDM1-63

Date: June 13, 2013

Prepare	Review	Approval
Dai Feng	Li Meng	Yang Wei





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1 Application

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

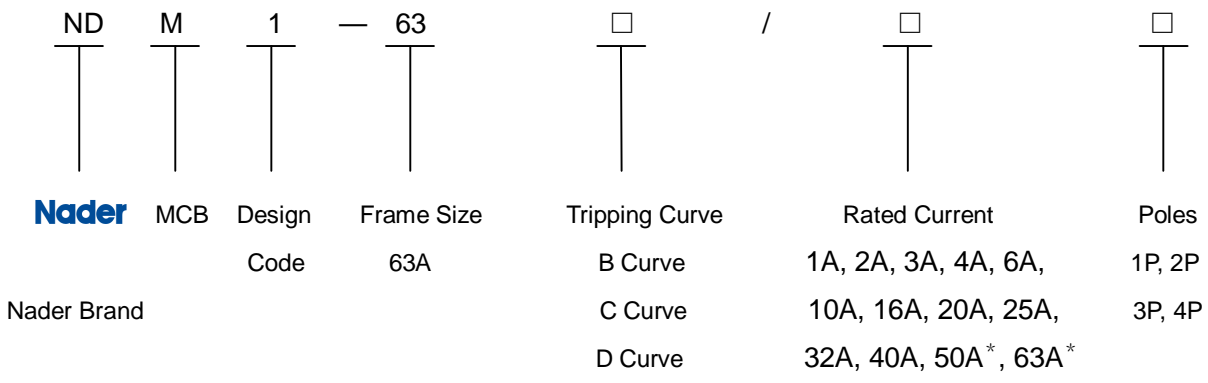
NDM1-63 series MCB is used in low voltage electrical distribution system in industry, real estate, power, telecom and construction field.

2 Product Picture



1P                      2P                      3P                      4P

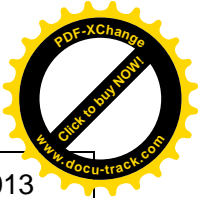
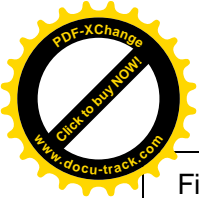
3 Model and implication



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

4 Main technical parameters

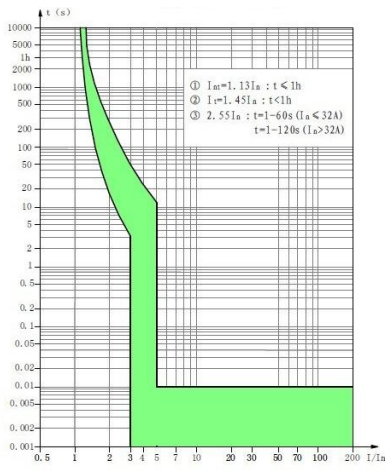
- Electrical parameters
  - Rated working voltage (Ue): AC 230V/400V, DC60V
  - Rated current (In): 1A, 2A, 3A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A



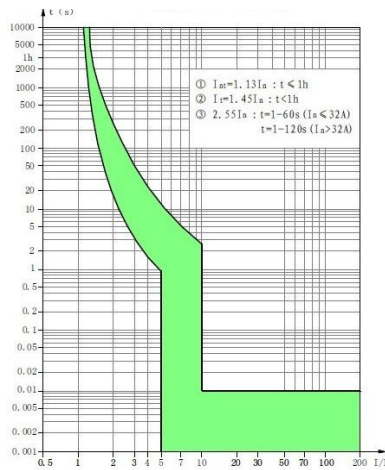
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- Breaking capacity (Icn): 6 kA for C curve breaker (4.5 kA for 50A and 63A breaker)  
4.5 kA for D curve breaker
- Impulse voltage endurance: 4KV
- Mechanical & electrical life: 10000 times
- Wiring
  - Adopt tunnel type wiring
  - Connection capability: 1mm<sup>2</sup> to 25 mm<sup>2</sup>
- 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

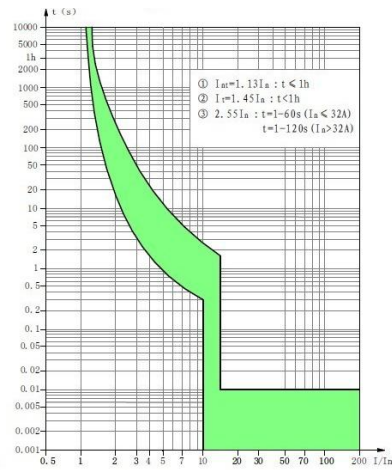
5 Tripping curves (ambient temperature 30°C)



B Curve



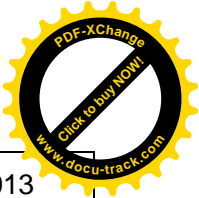
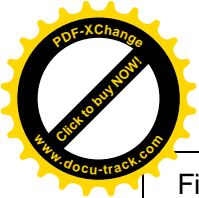
C Curve



D Curve

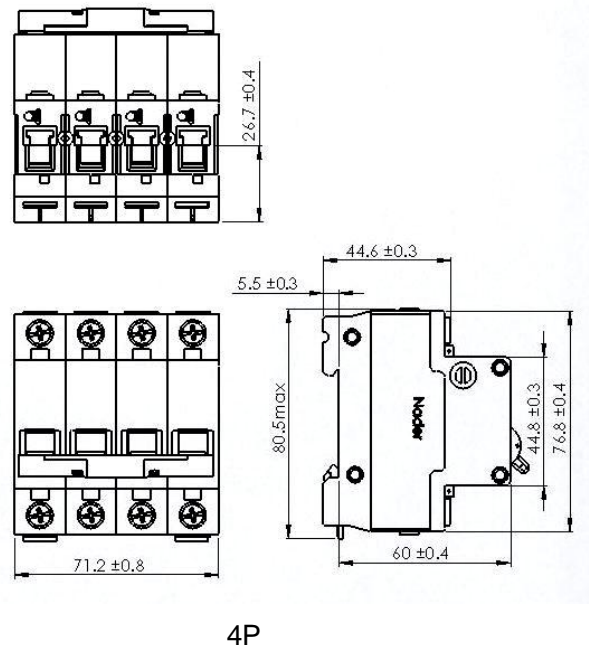
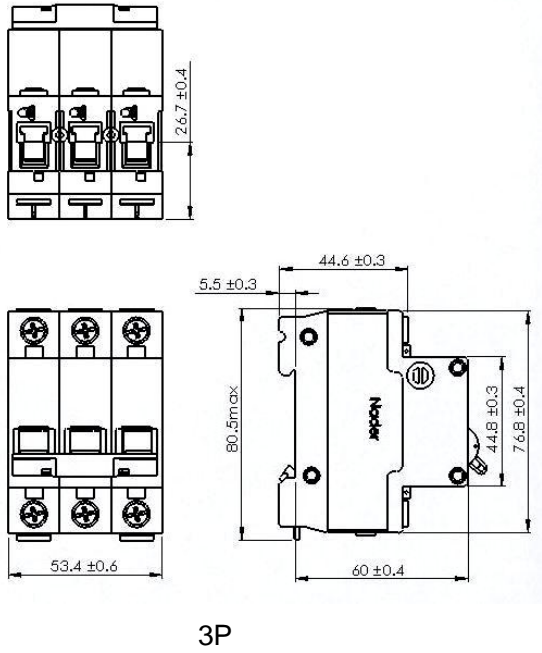
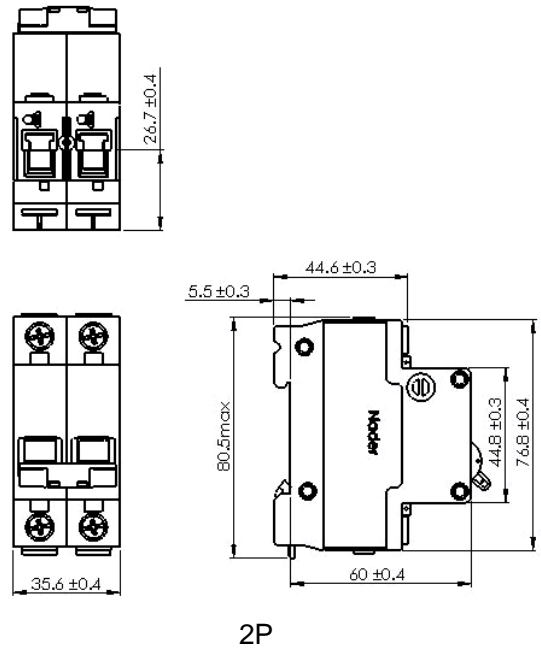
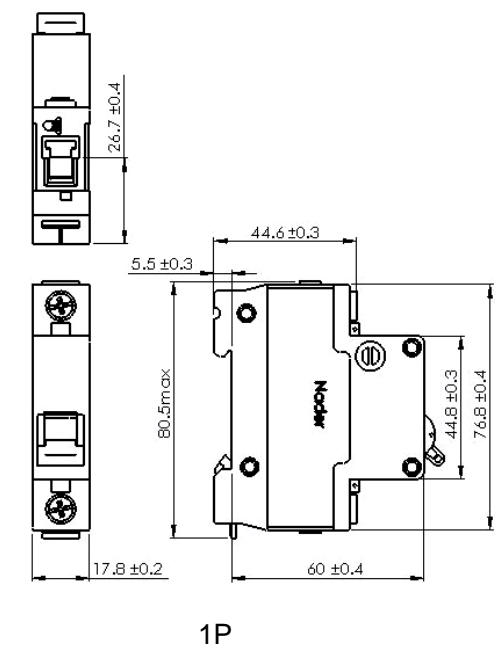
6 Working conditions

- Ambient temperature: -35°C ~ +70°C
- Relative air humidity ≤95%
- Altitude ≤2000m
- Pollution degree: 2
- Used in place without obvious shock and vibration



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7 Outline dimensions and installation



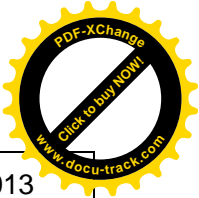
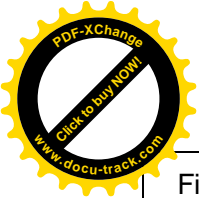
8 Mounting

Modularized structure, can be easily installed in TH35mmx7.5 Standard DIN rail.

9 Packaging and storage

9.1 Maximum packing quantity

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



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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  $-25^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ . 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.