

Shanghai Liangxin Electrical Co., Ltd.

NDB2N-125A

# Product Manual

(IPD-ENG-DEV-T19 A0 2011-09-19)

|             |             |      |            |
|-------------|-------------|------|------------|
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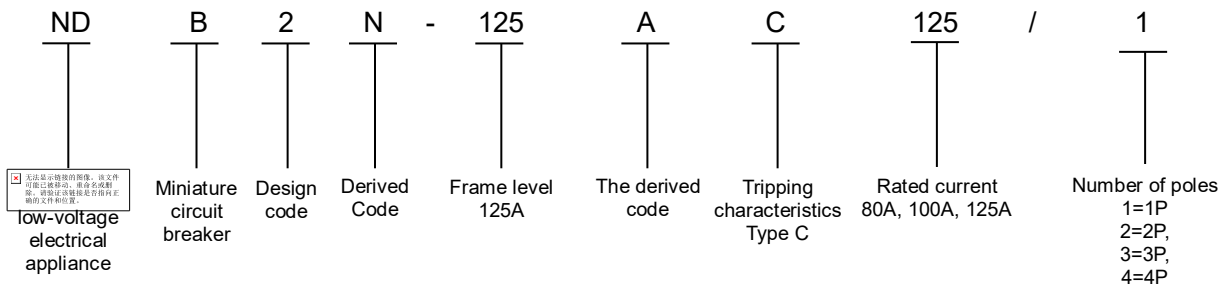
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## 1. Applicable Scope and Purpose

- Short-circuit protection
- Overload protection
- Isolation

NDB2N-125 moulded case circuit breaker is a kind of plastic shell circuit breaker, which is suitable for industrial, civil construction, energy, communication and infrastructure construction, as the short circuit, overload protection, isolation and other functions of the line.

## 2. Specification and Model Description



## 3. Main Technical Parameters

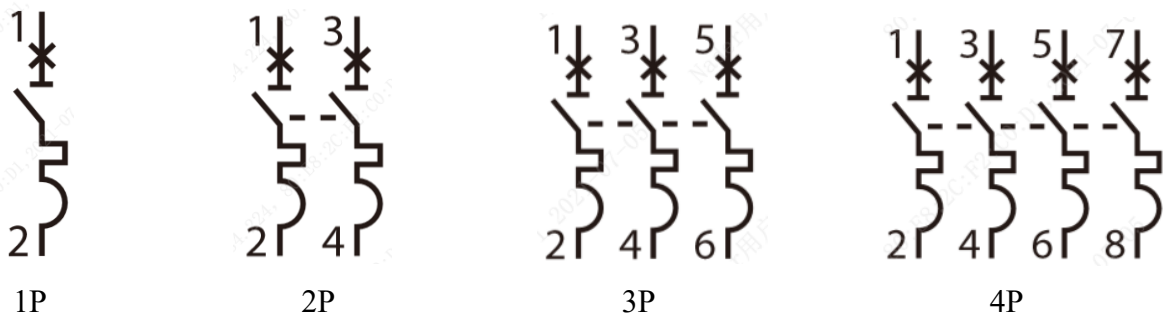
- Electrical parameters
  - The number of: 1P, 2P, 3P, 4P
  - Rated working voltage: DC60/80V(1P), AC230/240V(1P, 2P), AC400/415V(3P, 4P)
  - Rated current: 80A, 100A, 125A
  - Rated insulation voltage: 500V
  - Rated impulse withstand voltage: 4kV
  - Power frequency withstand voltage: AC 2500V 50Hz 1min
  - Ultimate short-circuit breaking capacity (Icu): AC Icu :4.5kA, DC Icu :10kA
  - Service short-circuit Breaking Capacity(Ics): AC Ics :4.5kA, DC Ics :10kA
  - Instantaneous release characteristics : Type C
- Mechanical and electrical life:
  - Mechanical life: 8500 times
  - Electrical life: 1500 times
- Isolating function
  - Indication of real breaking
  - Green color in the indication window indicates the contacts are open
- Wiring
  - Adopt tunnel type wiring
  - Connection capability: 1mm<sup>2</sup> to 50mm<sup>2</sup>
  - Connection screw M6, Twisting moment 3.0N.m
- Protection grade
  - Protection grade: IP20
  - Protection grade for device which is installed in distribution box: IP40
- Pinto the way of line: Up and down into the line
- Use classes: Class A
- Installation category: II、III

- Standards and Certificates
  - CCC、CB、CE、TUV
  - GB/T14048.2、IEC 60947-2
- Environmental requirements: RoHS

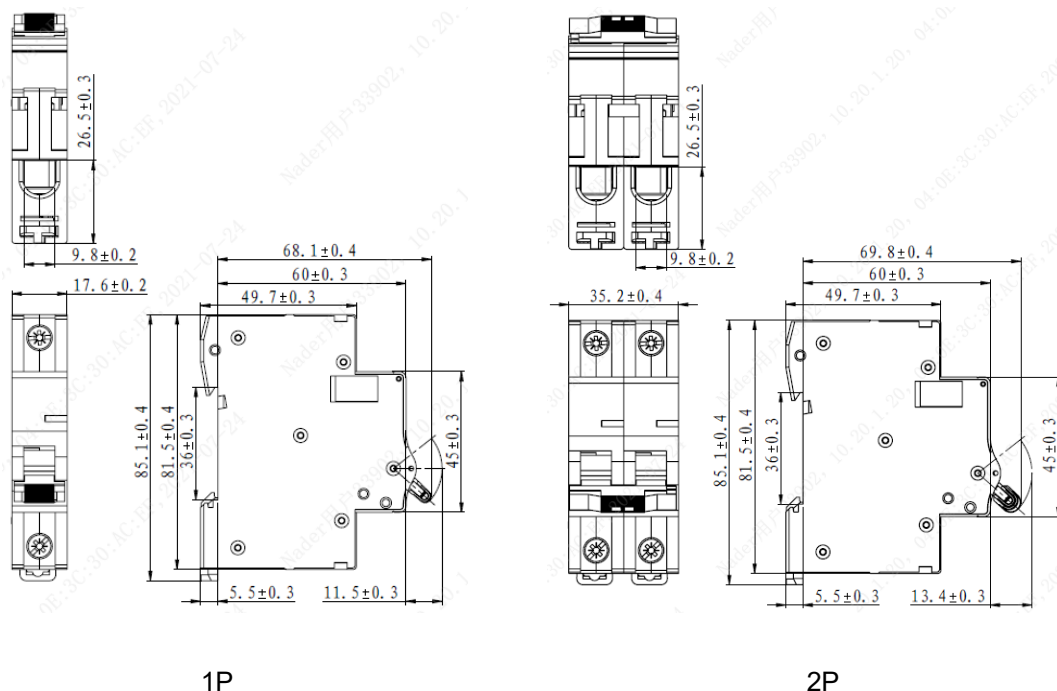
#### 4. Normal Working Environment

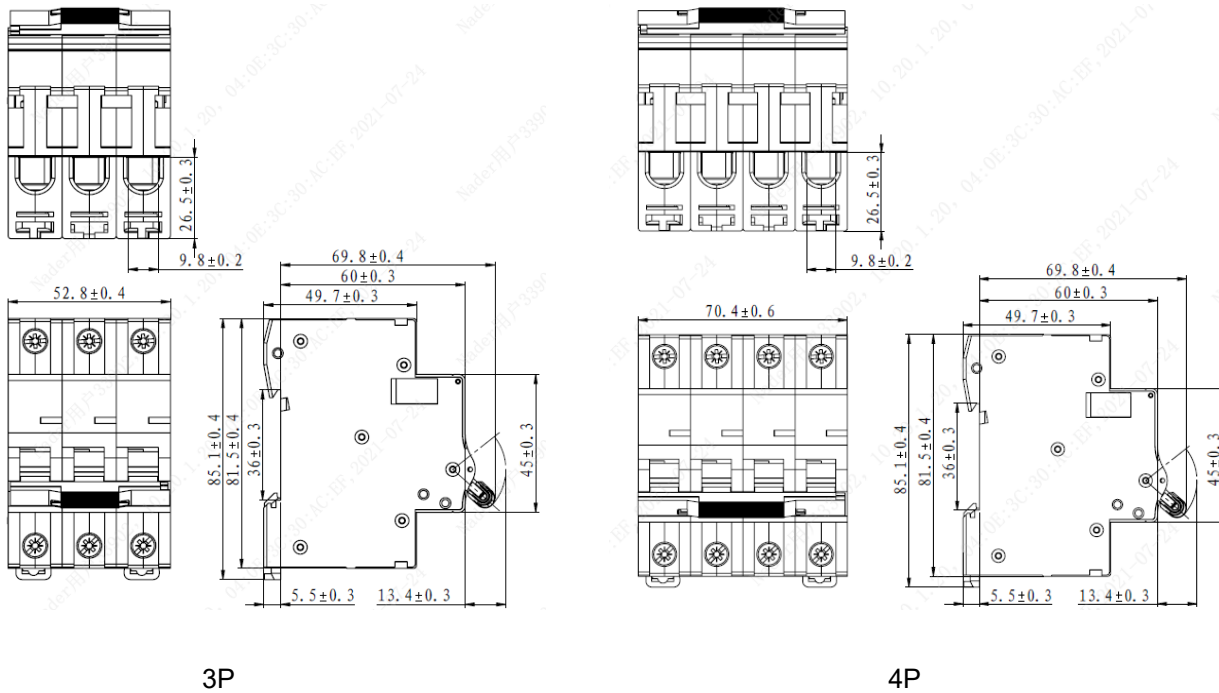
- Ambient temperature:  $-25^{\circ}\text{C} \sim +75^{\circ}\text{C}$
- Ambient temperature for storage:  $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
- Resistance to heat and humidity: in case of ambient temperature  $55^{\circ}\text{C}$ , the relative air humidity is  $\leq 95\%$
- Altitude:  $\leq 2000\text{m}$ . In case of use at higher altitude, it may be derated according to the requirements of small-sized circuit breaker of the company. Refer to GB/T 20645 Specific Environmental Condition - Technical Requirements of Low-voltage Apparatuses for Plateau.
- Environment with the pollution level of 3
- Working site without obvious vibration and shock

#### 5. Wiring Method



#### 6. Product Outline and Installation Dimensions





3P

4P

## 7. Mounting

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

## 8. Accessories

- OF2/OF2S auxiliary contact: Installed on the left hand of the NDB2N-125A MCCBs to indicate tripping status of the breaker.
- SD2 alarm contact: Installed on the left hand of the NDB2N-125A MCCBs to indicate failure tripping status of the breaker.
- MX+OF2 shunt release: Installed on the right hand of the NDB2N-125A MCCBs to control the breaker from a distance.

## 9. Application & Maintenance

The mounting and operation of MCB as below: The breaker should be vertical mounted, please notice the wiring in and out terminals. Handle indication I is for connecting position, the O is for breaking position.

## 10. Notices

- Manufacturer will take no responsibility for problems caused by disassembly privately.
- Attention to live part when the breaker is energized and avoid touching them.
- Manufacturer will take no responsibility for the quality problem caused by adjusting the characteristic of the breaker privately.
- Wiring properly to avoid mis-trip or terminal burn.
- Please open the cover when installing the accessory. Please refer to OF, SD MX+OF Instruction for details.

**11. Accessory list and installation**

please well indicate the exact model, including rated current, number of poles and quantity; if the shunt release need, please clearly indicate the working voltage and control supply voltage.