

Shanghai Liangxin Electrical Co., Ltd.

# Product Specification of NDB2T-63

(IPD-ENG-DEV-T22 A1 2016-09-23)

Product Name: Moulded Case Circuit Breaker

Product type: NDB2T-63

Date: 20241219

|          |                     |      |                   |
|----------|---------------------|------|-------------------|
| Prepared | <u>LiuXiangqian</u> | Date | <u>2024-12-19</u> |
| Reviewed | <u>WeiMingxian</u>  | Date | <u>2024-12-19</u> |
| Approved | <u>HuoZhiqiang</u>  | Date | <u>2024-12-19</u> |

| Revision information |                              |          |                  |               |                 |
|----------------------|------------------------------|----------|------------------|---------------|-----------------|
| Version              | Revised contents and reasons | Date     | Prepared         | Reviewed      | Approved        |
| 4                    | Parameter update             | 20190404 | XuRong           | HuoZhiqiang   | DuanHui         |
| 5                    | Parameter update             | 20201130 | XuRong           | ZhangJingyang | ZhangYang       |
| 6                    | Header trademark update      | 20241219 | LiuXian<br>gqian | WeiMingxian   | HuoZhiqi<br>ang |
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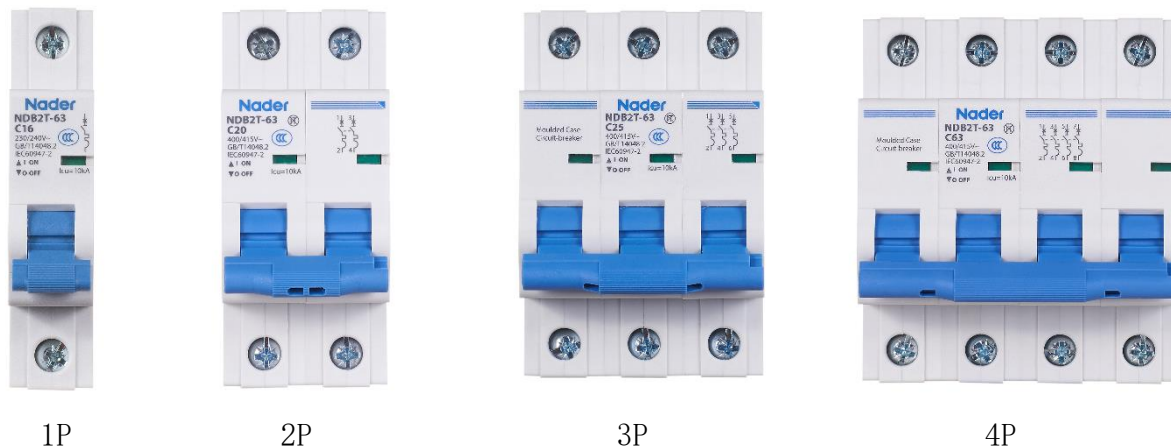
## 1、Applicable scope and purpose

Add: No.2000, South Shen Jiang Rd. Pudong District, Shanghai, 201315, PRC Tel:(021)68586699  
Fax:(021)23025796

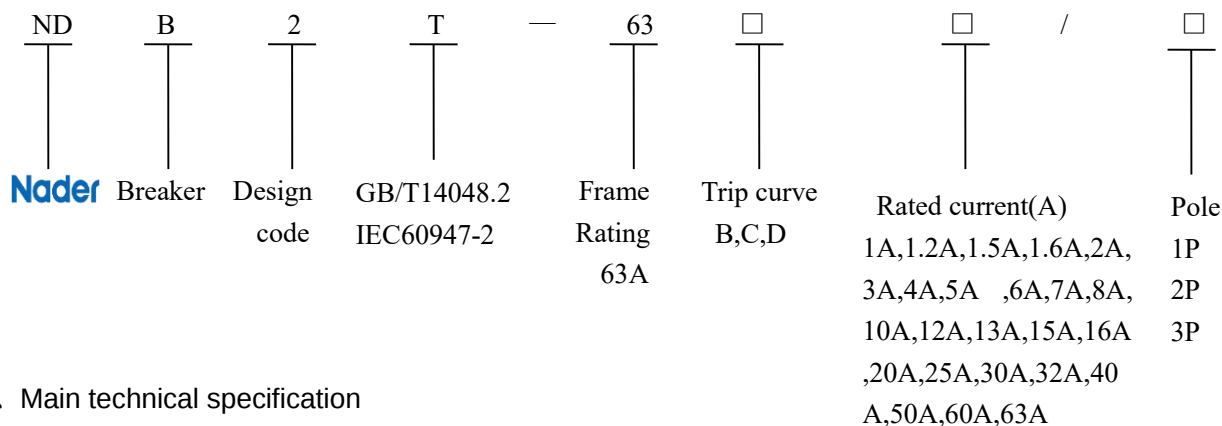
- Short -circuit protection
- Over-load protection
- Control
- Isolation
- DC system protection

NDB2T-63 dedicated to the low voltage power distribution system of industrial, buildings, energy communications and infrastructure.

## 2、Picture:



## 3、Model and implication:



## 4、Main technical specification

### ●Electrical parameters

○Rated working voltage and relevant breaking capacity:

| Pole           |              | 1P                                                                                                                 | 2P   | 3P | 4P | certificate      |
|----------------|--------------|--------------------------------------------------------------------------------------------------------------------|------|----|----|------------------|
| Rating current |              | 1A, 1.2 A, 1.5 A, 1.6 A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 10A, 12A, 13A, 15A, 16A, 20A, 25A,30A,32A, 40A, 50A, 60A, 63A |      |    |    |                  |
| Item           |              | Icu                                                                                                                |      |    |    |                  |
| Voltage        | AC230V/240V  | 10kA                                                                                                               | /    | /  | /  | CCC<br>CE<br>TUV |
|                | AC400V/415V  | /                                                                                                                  | 10kA |    |    |                  |
|                | DC60/80V     | 10kA                                                                                                               | /    | /  | /  |                  |
|                | DC80V/DC125V | /                                                                                                                  | 10kA | /  | /  |                  |
| Voltage        | AC240V       | 7.5kA, U1                                                                                                          | /    | /  | /  | UL1077           |

|  |         |           |                                |   |   |  |
|--|---------|-----------|--------------------------------|---|---|--|
|  | AC277V  | 5kA, U1   | /                              | / | / |  |
|  | AC480V  | /         | 7.5kA, U1                      |   |   |  |
|  | DC60V   | 7.5kA, U1 | /                              | / | / |  |
|  | DC125 V | /         | 7.5 kA, U1<br>(2 IN<br>SERIES) | / | / |  |

○Impulse withstand test voltages: 4kV

○electrical endurance: 10000 times; Mechanical endurance: 20000 times

● Product certification and implementation standard.:

○Product certificate: CCC, CE, TUV, UL1077;

○Product certification standard: GB/T 14048.2, IEC60947-2, UL1077;

● Environmental requirements: RoHS

● Isolation function

○Practical breaking instructions

○View window within the green identification said contact in the off position

● Tripping characteristic

B type curve

○ Protection of short circuit current small load

○ rated current: 1A~63A

○ tripping characteristic: The instantaneous tripping range  $4I_n (1 \pm 20\%)$

C type curve

○ Protect normal load and distribution wire cable

○ rated current: 1A~63A

○ tripping characteristic: The instantaneous tripping range  $8I_n (1 \pm 20\%)$

D type curve

○ Protect starting current big impact load (Such as motor, transformer)

○ rated current: 1A~63A

○ tripping characteristic: The instantaneous tripping rang  $12I_n (1 \pm 20\%)$

5、Normal working environment

●Ambient temperature:  $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$

●Air relative humidity:  $\leq 95\%$

●Altitude:  $\leq 2000\text{m}$

●pollution degree: 3

●Service place without significant vibration and impact

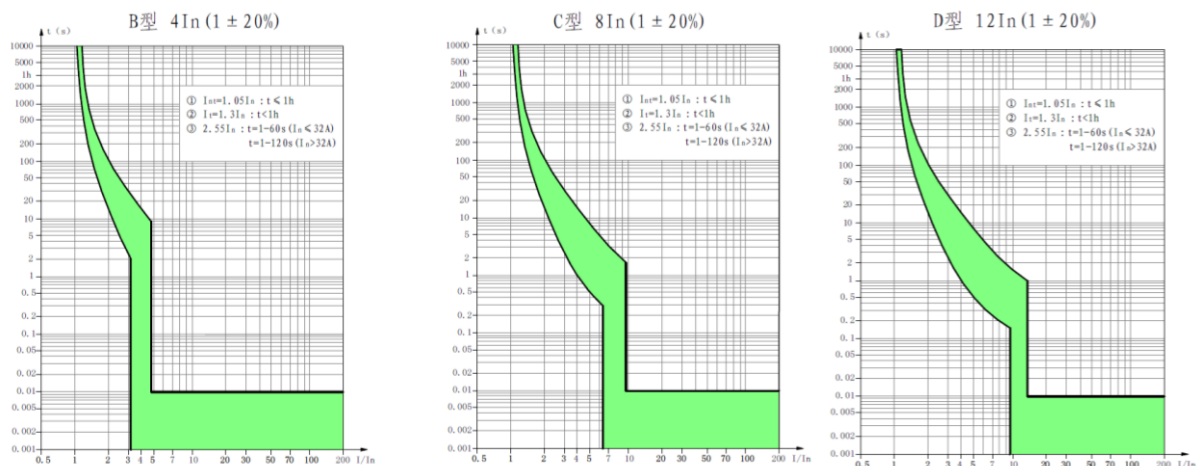
●Lower capacity coefficient table above 2000 meters above sealevel

| Height above sea level (km) | Rated current | Rated voltage | Rated frequency voltage tolerance | Breaking capacity | Breaking Capacity and Electrical life |
|-----------------------------|---------------|---------------|-----------------------------------|-------------------|---------------------------------------|
| 2                           | $I_n$         | $U_e$         | 1                                 | 1                 | 1                                     |
| 3                           | $0.97I_n$     | $U_e$         | 0.89                              | 0.89              | 0.83                                  |
| 4                           | $0.94I_n$     | $U_e$         | 0.8                               | 0.8               | 0.71                                  |
| 5                           | $0.90I_n$     | $U_e$         | 0.73                              | 0.73              | 0.63                                  |

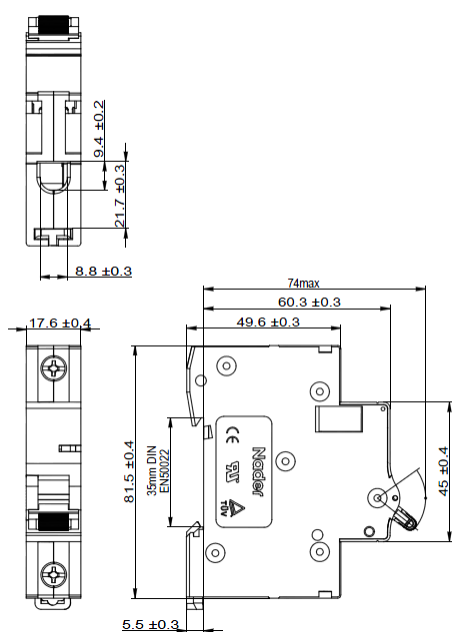
●Side-by-side volume reduction coefficient table

| 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 |

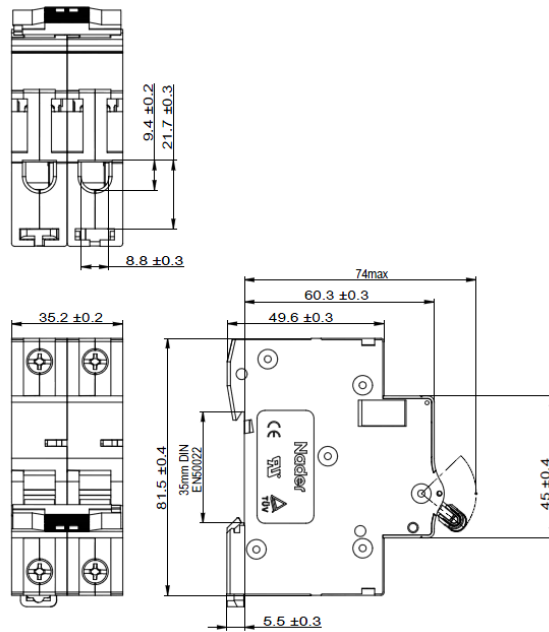
## 6. Tripping characteristic



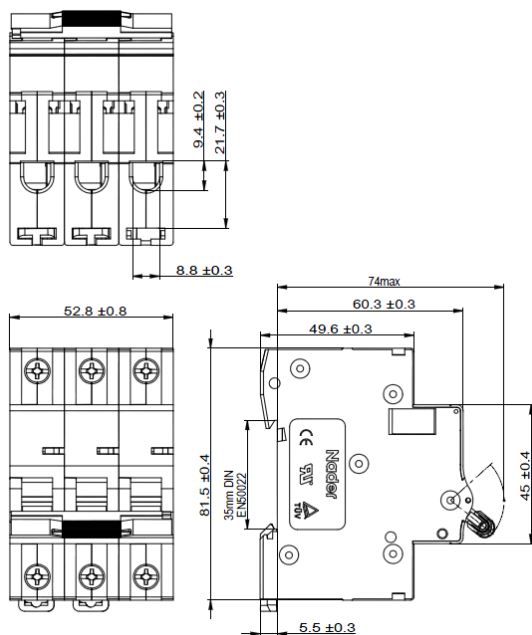
## 7、Outline dimensions



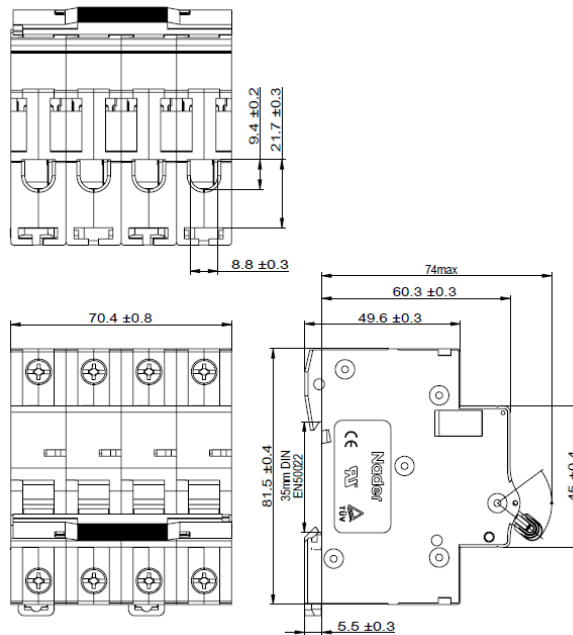
1P



2P



3P



4P

## 8、Mounting

Modular construction, can be installed in EN60715 TH 35mm x 7.5mm standard guide rail.

## 9、Connect line requirements

- Standard cross-sections of round copper conductors: 1~35mm<sup>2</sup>
- Terminal screw: M5 ,Rated torque : 2.0N.m

## 10、Packing storage

Quantity (1P product :12 PCS/box, 2P product :6PCS/box, 3P product :4 PCS/box, 4P product :3PCS/box), Packing boxes of products should be stored in the air circulation and relative humidity is not more than 80% and the temperature is not higher than + 70 °C, Not less than - 40 °C in the air around without acid, alkali or other corrosive gases stored in the warehouse. In the above conditions, the storage period since the production date not more than three years.

## 11、Accessories list and mounting

- OF2 auxiliary contacts Installed on the left hand of the NDB2T - 63 circuit breaker left, indication circuit breaker on-off state ;
- SD2 indicator contacts Installed on the left hand of NDB2T - 63 circuit breaker , indication failure tripping status of breaker;
- MX+OF2 shunt trip release Installed on the left hand of NDB2T - 63 circuit breaker, remote control of the circuit breaker's tripping;

## 12、 Notice

- 1、 Customers who disassemble the product without approval shall undertake relevant quality problems by themselves;
- 2、 Do not touch the naked part of conductive components when the product is power on;
- 3、 Don't test characteristics of the breaker optionally, the manufacturer is irresponsible for such quality problems;
- 4、 Keep wiring correct to prevent malfunction or damage of wiring terminals.
- 5、 Please open the cover when installing the accessory. Please refer to OF2, SD2, MX+OF2 Instruction for details.