

# CCC, CB, CE, TUV

## Residual Current Breaker with Overload

NDB1LE-40 series



### 1、Application

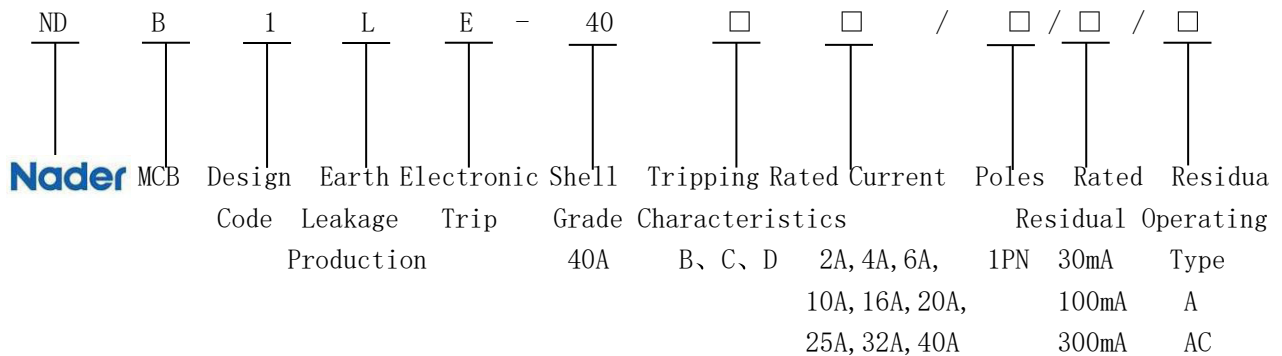
- Short-circuit protection
- Over-load protection
- Earth leakage protection
- Isolation protection

NDB1LE-40 series residual current unit is applied to protect direct or indirect earth leakage faults, which is used in low voltage terminal distribution in the industry, civil buildings, energy, telecom and infrastructure.

### 2、Product Pictures



### 3、Model and implication



### 4、Main technical parameters

- Electrical parameters
  - Frequency: 50/60Hz
  - Rated operating voltage: AC230/240V
  - Rated impulse withstand voltage: 4kV
  - Rated insulation voltage: 500V



- Residual operating current type: A, AC
- Instantaneous tripping characteristic: B, C, D
- Rated current: 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A
- Rated breaking capability: 6kA
- Rated residual operating current: 30mA, 100mA, 300mA
- Mechanical life: 20,000 times
- Electrical life: 10,000 times
- Isolation
- Visualization of leakage
- Wiring
- Tunnel-type terminal
- Terminal connection capability: For (1~10mm<sup>2</sup>) wires
- Terminal screw: M4; Maximum ultimate torque: 1.2N.m
- Protection grade
- Protection grade: IP20
- Protection grade for device which is installed in distribution box: IP40

#### 5、 Working conditions

- Altitude: ≤2000m
- Pollution degree: 2
- Ambient temperature: -25℃~+60℃
- Resistant to the humid air (moisture resistance): The humidity is less than equal 95% and 95%-100% at 55℃ and 25℃ respectively
- Stored ambient temperature: -40℃~+80℃
- Resistant to salt mist and oil mist
- Service place without explosive media, gas and dust which are corrosive and conductive
- A place free from rain and snow

#### 6、 Time-Current curves

- B-Type Curve
- Protect non-inductive or micro-inductive circuits
- Rated current: 2A~40A
- Tripping characteristics: Instantaneous tripping range 3In~5In
- C-Type Curve

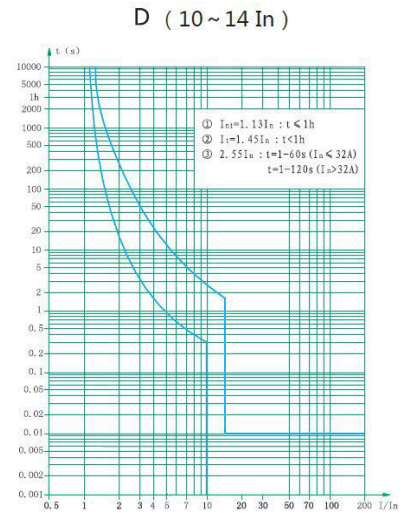
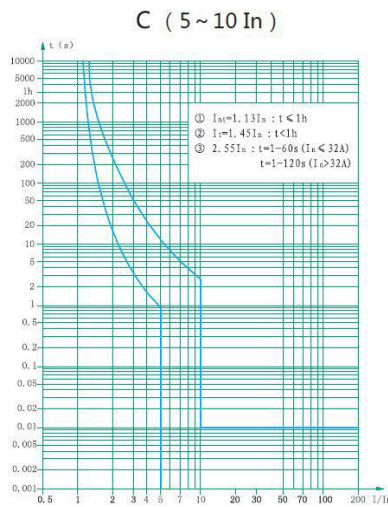
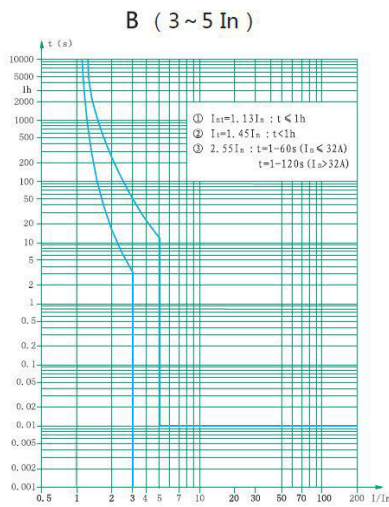
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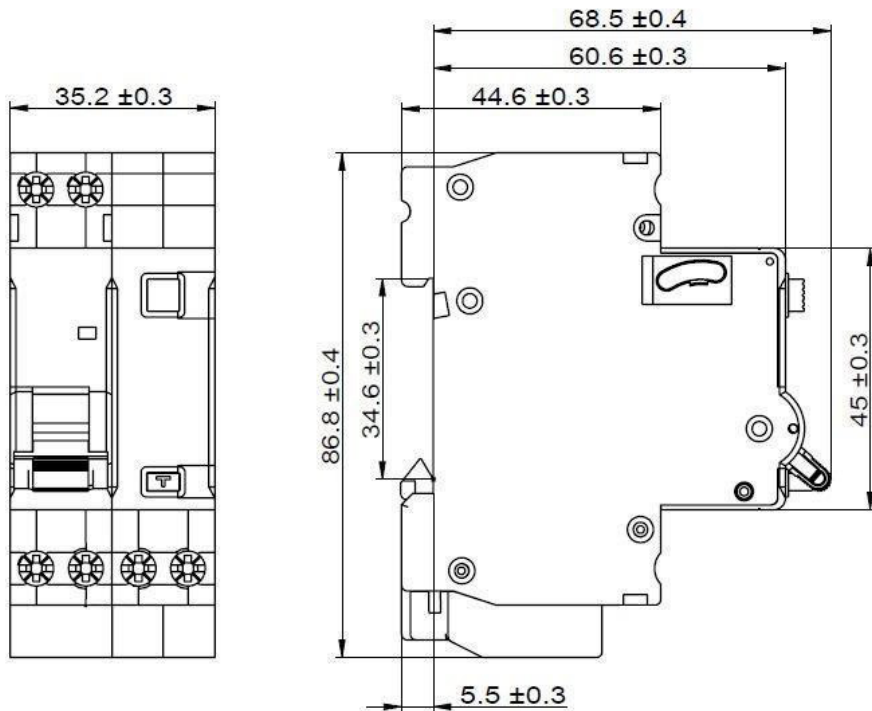
NDB1LE-40 series



- Protect normal loads and distribution cables
- Rated current: 2A~40A
- Tripping characteristics: Instantaneous tripping range  $5I_n \sim 10I_n$
- D-Type Curve
- Protect industrial distribution system
- Rated current: 2A~40A
- Tripping characteristics: Instantaneous tripping range  $10I_n \sim 14I_n$



### 7、Outline and installation dimensions





#### 8、 Installation method

To be easily installed in the TH35mm×7.5 standard guide rail.

#### 9、 Packaging and storage

Maximum packing quantity is 6pieces in a box. The packaged products shall be stored in a warehouse for proper ventilation with the relative humidity no more than 80%, and the ambient temperature between -40℃ to +80℃ as well as no acidic, alkaline and corrosive gases in the ambient air. The products shall not be stored above 3 years from the production date in the above mentioned conditions.

#### 10、 Environment

Conform to RoHS directive.

#### 11、 Accessory list and installation

●OF1 Auxiliary Contact Be installed to the left side of NDB1LE-40 RCBO to indicate the tripping status of the breaker

●SD1 Alarm Contact Be installed to the left side of NDB1LE-40 RCBO to indicate the fault tripping status of the breaker

●MX+OF1 Shunt Release Be installed to the left side of NDB1LE-40 RCBO, remotely controls the breaker opening and indicates the breaker tripping status

●GQ1A Over&Under Voltage Tripping Device Be installed to the left side of NDB1LE-40 RCBO, used for circuit of work voltage less than AV230V, which has defensive function such as over-voltage protection(G1A), low-voltage protection(Q1A), over&low-voltage protection(GQ1A), at the same time,no-tripping when power down

●FF1 Double Auxiliary Contact Be installed to the left side of NDB1LE-40 RCBO to indicate the tripping status of the breaker

●FS1 Auxiliary and Alarm Contact Be installed to the left side of NDB1LE-40 RCBO to indicate the fault tripping status of the breaker

#### 12、 Notices

●Take no responsibility for problems occurred by private disassembly

●It can't provide protection in case of electric shock caused by two phase lines to be contacted synchronously

●Please don't perform an insulation resistance test or power-frequency voltage-withstand test on the product directly or indirectly with a megohm meter or similar devices to avoid damage to the product. If required by the user, we can offer an effective certificate of the qualification test

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● In case of an insulating resistance test of the engineering line, the product must be disconnected to avoid the misunderstanding of the product quality or damage to the product line board

● The RCBO shall adopt the in-and-out connection. Don't connect it contrarily. Otherwise the product will be damaged when the test button is pressed or there is earth leakage in the circuit

● Please make sure reliable connection to avoid fault tripping or burnt damage of terminals caused by exceptional heat of the terminal

● The leakage simulation test shall be performed once a month by pressing the test button to check whether the circuit breaker works normally. Replace the product timely due to abnormal work

● In case of the automatic disconnection of the RCBO, analyze the reason of line or equipment failure timely