DIN Rail Miniature Circuit Breakers - UL489

NOARK Miniature Circuit Breakers offer these advantages: high-performance, small size, excellent protection, easy DIN rail installation, fast wiring utilizing double terminal technology and ring tongue terminals. The integrated captive connecting screws simplify the connection process.

NOARK MCBs fulfill North American and global approval requirements. The NOARK B1H/B1N/B1D series is UL listed for 489 applications, as well as CSA C 22.2 No. 5.

Additionally, the NOARK B1E Series comply with UL 1077 for Supplemental Protector applications while also complying with both CSA 22.2 No. 235, IEC 60947-2 and UL 486 standards for connection terminals which allows the user to apply field wiring directly to the breaker. Inquire with ITC for more details on the B1E series.

Features and specifications:

- **Three Terminal Options:**
  - Box Lug
  - Ring Tongue Terminal
  - Quick Connect

- **Multiple Accessories**
  - Extended rotary handle
  - Electrical auxiliaries: auxiliary, shunt trip, under-voltage trip
  - Jumper combs
  - Locking device

- **Flexible Terminals**
  - Less physical demand
  - Detachable shield to make it faster and easier for installer

- **Status indicator** (red/green)

- **Module width:** 18mm (0.71”) per pole

- **No. of poles:** 1, 2, 3

- **Voltage Ratings:**
  - AC: 120, 240, 277, 480Y/277
  - DC: 60, 125, 250

- **Amperage ratings:** 0.5–63 A

- **Trip Curves:** B, C, D

- **Interrupting capacity:** 10 kA

- **Approvals:** cULus (UL 489, CSA 22.2 No. 5-16, IEC 60947-2); # E355392
## ITC Electrical Components

### Product Selection Guide

**NOARK Ex9 Series - B1**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Pole</th>
<th>Trip Curve</th>
<th>Rated Current</th>
<th>Terminal Option</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>H: 480Y/277 Vac</td>
<td>1</td>
<td>B: 3–5 In</td>
<td>B1H: 0.5–32 A</td>
<td>Blank: Box Lugs are Standard</td>
<td></td>
</tr>
<tr>
<td>UL 489 Listed</td>
<td>2</td>
<td>C: 5–10 In</td>
<td>B1N: 0.5–63 A</td>
<td>Ring Tongue Terminal</td>
<td></td>
</tr>
<tr>
<td>N: 240 Vac 60/125 Vdc</td>
<td>3</td>
<td>D: 10–20 In</td>
<td>B1D: 0.5–63 A</td>
<td>Quick Connection Terminal, Load Side (B1NQ 1 &amp; 2 Pole Only)</td>
<td></td>
</tr>
<tr>
<td>UL 489 Listed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Alarm Switch, Auxiliary Contact, DIN Rail, Extended Rotary Handle, Padlock, Quick Connection Terminal, Ring Tongue Terminal, Shunt Trip, Under-Voltage Trip</td>
</tr>
<tr>
<td>NQ: 120/240 Vac 1 &amp; 2 Pole Only</td>
<td>1</td>
<td>C: 5–10 In</td>
<td>B1N: 0.5–63 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UL 489 Listed</td>
<td>2</td>
<td>D: 10–20 In</td>
<td>B1D: 0.5–63 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D: 125 Vdc (1P)/250 Vdc (2P)</td>
<td>3</td>
<td>D: 10–20 In</td>
<td>B1D: 0.5–63 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UL 489 Listed</td>
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</tbody>
</table>

**Conformed Standard**

- B1H: UL 489
- B1N: UL 489
- B1ND: UL 489
- B1: UL 489

**Number of Poles**

- B1H: 1 Pole
- B1N: 2 Poles
- B1ND: 3 Poles
- B1: 3 Poles

**Rated Operational Voltage (V)**

- B1H: 240 Y/277 Vac, 60 Vdc
- B1N: 240 Y/277 Vac, 125 Vdc
- B1ND: 125 Vdc
- B1: 125 Vdc

**Rated Frequency (Hz)**

- B1H: 50/60
- B1N: 50/60
- B1ND: 50/60
- B1: 50/60

**Rated Current (A)**

- B1H: 0.5–32 A
- B1N: 0.5–32 A
- B1ND: 0.5–32 A
- B1: 0.5–32 A

**Instantaneous Tripping Type**

- B1H: B (3–5 In), C (5–10 In), D (10–20 In)
- B1N: C (7–15 In), D (12–22 In)
- B1ND: C (7–15 In), D (12–22 In)
- B1: C (7–15 In), D (12–22 In)

**Interrupting (kA)**

- B1H: 10
- B1N: 10
- B1ND: 10
- B1: 10

**Inverse Time-Delay Over-Current Release Type**

- Thermal-Magnetic

**Service Life**

- Electrical: 10,000
- Mechanical: 20,000

**Protection Degree**

- IP 20

**Wire AWG (mm²)**

- Single Wire: 18–4 (0.75–25)
- Two Wires: 18–6 (0.75–16 / 14–10 (2.5–6)

**Operating Temperature Range**

- -22 °F to 167 °F (-30 °C to +75 °C)

**Insulation Coordination**

- Rated Insulation Voltage (V): 500
- Rated Impulse Withstand Voltage (kV): 6

**Pollution Degree**

- Class III

**Over Voltage Category**

- Class III

**Mounting**

- 35 mm DIN rail / Flush and surface mount available on B1NQ with the use of additional mounting clips

**Altitude (ft/m)**

- Does not exceed 6,561 (2,000)

**Atmospheric Conditions**

- At 68°F (+20°C), the relative humidity does not exceed 90%
- At 104°F (+40°C), the relative humidity does not exceed 50%