



NB3LE Residual Current Operated Circuit Breaker with Over-current Protection (Electronic)

1. General

1.1 Selection

Rated residual operating current

$I_{\Delta n} = 30 \text{ mA}$: additional protection in the case of direct contact.

Tripping class

AC class – Tripping is ensured for sinusoidal, alternating currents, whether they be quickly applied or slowly increase.

Tripping curve

B curve ($3-5 I_n$) protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems.

C curve ($5-10 I_n$) protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

1.2 Approvals and certificates

Detailed information, please refer to Certificates Table on the last page.

2. Ordering Information

NB3LE Curve B; 6KA; AC Type

★ NB3LE, 1P+N



| In (A) | Un (V) | I Δ n (mA) | Code |
|--------|--------|-------------------|--------|
| 6 | 240 | 30 | 984636 |
| 10 | 240 | 30 | 984637 |
| 13 | 240 | 30 | 984638 |
| 16 | 240 | 30 | 984639 |
| 20 | 240 | 30 | 984640 |
| 25 | 240 | 30 | 984641 |
| 32 | 240 | 30 | 984642 |

NB3LE Curve C; 6KA; AC Type

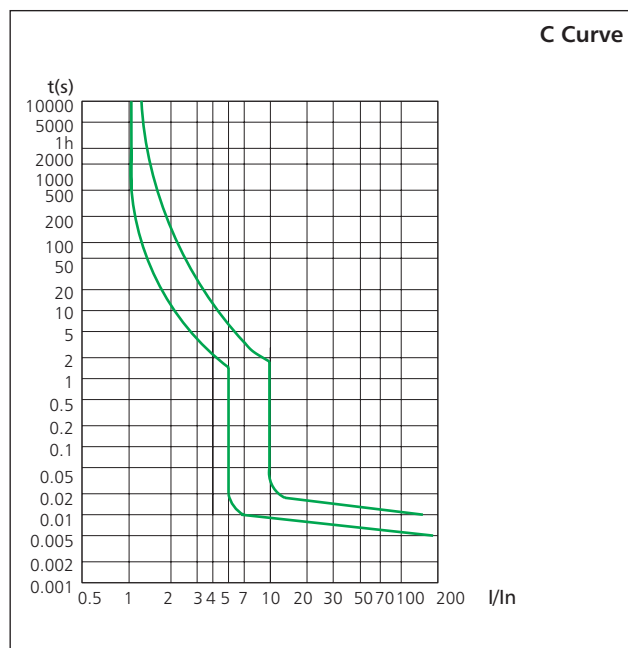
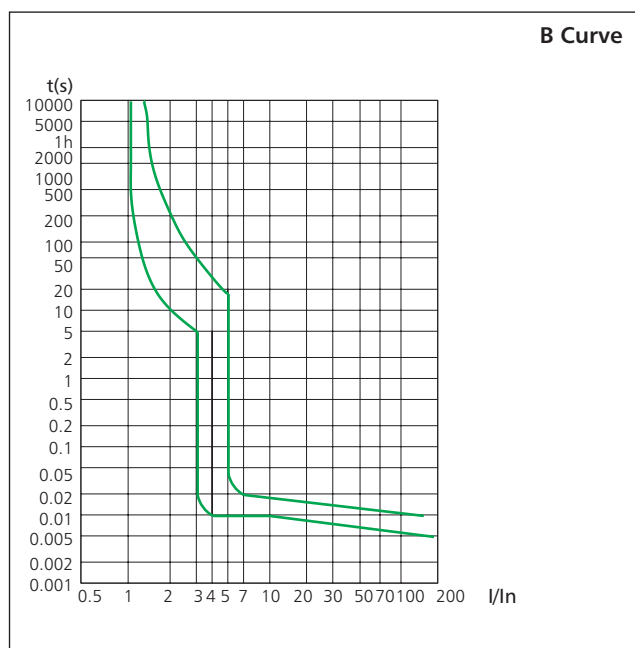
★ NB3LE, 1P+N



| In (A) | Un (V) | I Δ n (mA) | Code |
|--------|--------|-------------------|--------|
| 6 | 240 | 30 | 984643 |
| 10 | 240 | 30 | 984644 |
| 13 | 240 | 30 | 984645 |
| 16 | 240 | 30 | 984646 |
| 20 | 240 | 30 | 984647 |
| 25 | 240 | 30 | 984648 |
| 32 | 240 | 30 | 984649 |

3. Technical data

3.1 Curves



3.2

| | Standard | | IEC/EN 61009-1 |
|--|---|-----------------|--|
| Electrical features | Type (wave form of the earth leakage sensed) | | AC |
| | Thermo-magnetic release characteristic | | B, C |
| | Rated current I _n | A | 6, 10, 16, 20, 25, 32 |
| | Poles | | 1P+N |
| | Rated voltage U _e | V | 240 |
| | Rated sensitivity I _{Δn} | A | 0.03 |
| | Rated residual making and breaking capacity I _{Δm} | A | 500 |
| | Rated short-circuit capacity I _{cn} | A | 6,000 |
| | Break time under I _{Δn} | s | ≤0.1 |
| | Rated frequency | Hz | 50/60 |
| | Rated impulse withstand voltage (1.2/50)U _{imp} | V | 4,000 |
| | Dielectric TEST voltage at ind. Freq. for 1min | kV | 2 |
| | Insulation voltage U _i | | 500 |
| | Pollution degree | | 2 |
| | Mechanical features | Electrical life | |
| Mechanical life | | | 2,000 |
| Contact position indicator | | | Yes |
| Protection degree | | | IP20 |
| Ambient temperature (with daily average ≤35°C) | | °C | -5...+40 (Special application please refer to P58 for temperature compensation correction) |
| Storage temperature | | °C | -25...+70 |
| Installation | Terminal connection type | | Cable/U-type busbar/Pin-type busbar |
| | Terminal size top/bottom for cable | mm ² | 16 |
| | | AWG | 18-5 |
| | Terminal size top/bottom for busbar | mm ² | 10 |
| | | AWG | 18-8 |
| | Tightening torque | N*m | 2 |
| | | In-lbs. | 18 |
| | Mounting | | On DIN rail EN 60715 (35mm) by means of fast clip device |
| Connection | | From top | |

3.3 Temperature derating

The maximum permissible current in a circuit breaker depends on the ambient temperature where the circuit breaker is placed. Ambient temperature is the temperature inside the enclosure or switchboard in which the circuit breakers are installed.

The reference temperature is 30°C Ambient temperature: -5°C ~ +40°C.

| Temperature | -10°C | 0°C | 10°C | 20°C | 30°C | 40°C | 50°C | 60°C |
|---|-------|------|------|------|------|------|------|------|
| Temperature compensation coefficient of rated current | 1.20 | 1.15 | 1.10 | 1.05 | 1.00 | 0.95 | 0.90 | 0.85 |

4. Overall and mounting dimensions (mm)

