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**Modular Din Rail Products**  
Perfect Reliable choice



## 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.

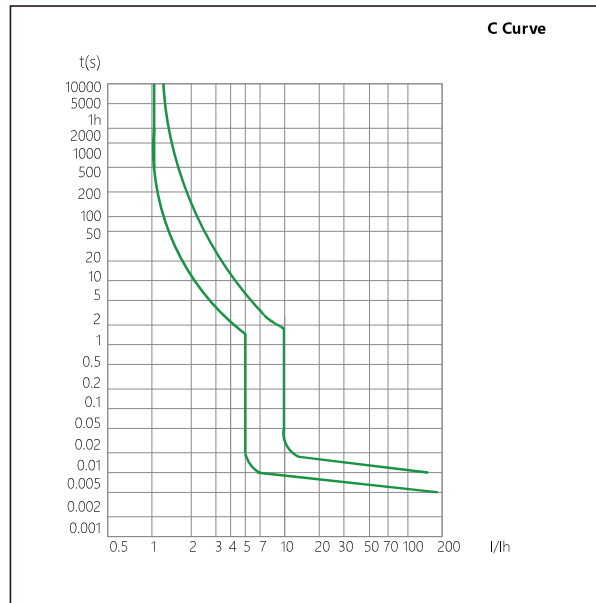
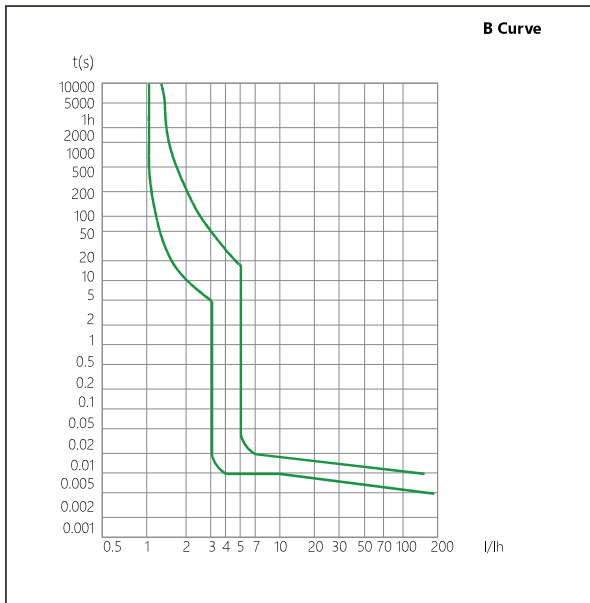
#### 1.2 Approvals and certificates

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

CE SAA

## 2. Technical data

### 2.1 Curves





2.2

	Standard		IEC/EN 61009-1
Electrical features	Type (wave form of the earth leakage sensed)		AC,A
	Thermo-magnetic release characteristic		B, C
	Rated current I <sub>n</sub>	A	6, 10, 16, 20, 25, 32
	Poles		1P+N
	Rated voltage U <sub>e</sub>	V	240
	Rated sensitivity I <sub>Δn</sub>	A	0.03
	Rated residual making and breaking capacity I <sub>Δm</sub>	A	2000
	Rated short-circuit capacity I <sub>cn</sub>	A	6,000
	Break time under I <sub>Δn</sub>	s	≤ 0.1
	Rated frequency	Hz	50/60
	Rated impulse withstand voltage (1.2/50)U <sub>imp</sub>	V	4,000
	Dielectric TEST voltage at ind. Freq. for 1min	kV	2
	Insulation voltage U <sub>i</sub>		500
Pollution degree		2	
Mechanical features	Electrical life		2,000
	Mechanical life		2,000
	Contact position indicator		Yes
	Protection degree		IP20
	Ambient temperature (with daily average ≤ 35°C)	°C	-5...+40
	Storage temperature	°C	-25...+70
Installation	Terminal connection type		Cable/U-type busbar/Pin-type busbar
	Terminal size top/bottom for cable	mm <sup>2</sup>	16
		AWG	18-5
	Terminal size top/bottom for busbar	mm <sup>2</sup>	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	

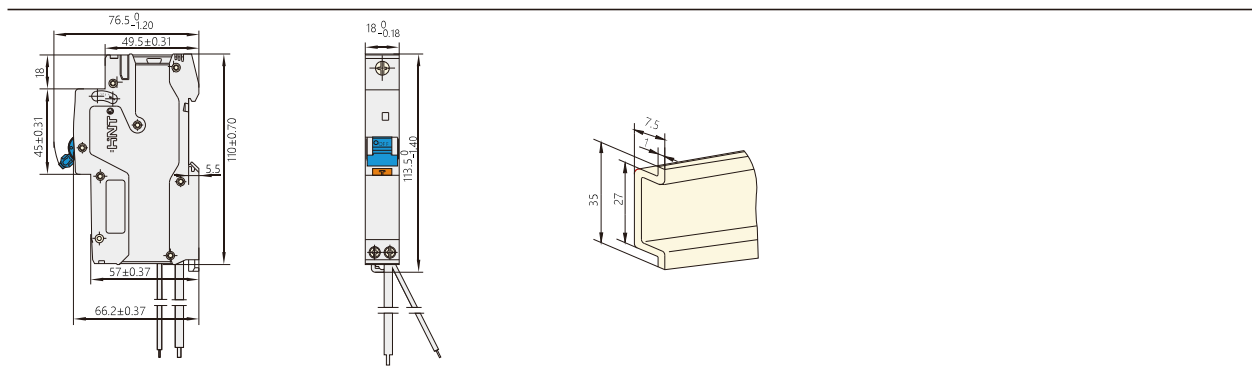
2.3 Temperature derating

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	-25°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
Temperature compensation coefficient of rated current	1.27	1.25	1.20	1.15	1.10	1.05	1.00	0.95	0.90	0.85	0.83

3. Overall and mounting dimensions (mm)





## NB3LEG-40 Residual Current Operated Circuit Breaker with Over-current Protection (Electronic)

### 1. General

#### 1.1 Selection

##### Rated residual operating current

$I_{\Delta n} \leq 30$  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.

##### A class

Tripping is ensured for sinusoidal, alternating residual currents as well as for pulsed DC residual currents, whether they be quickly applied or slowly increase.

##### Tripping curve

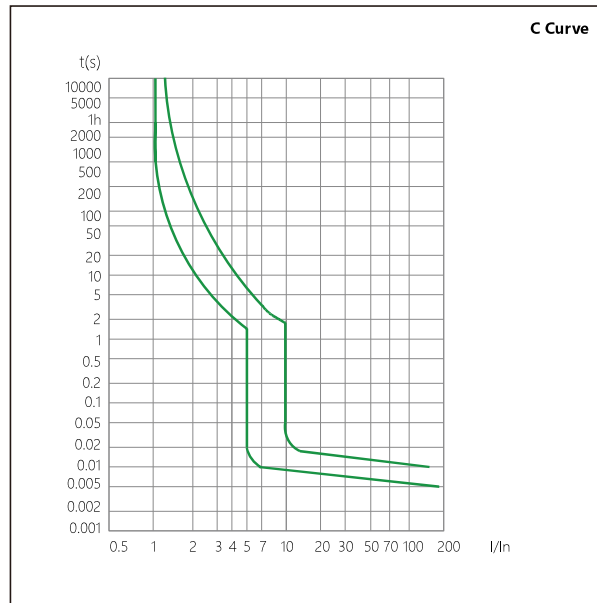
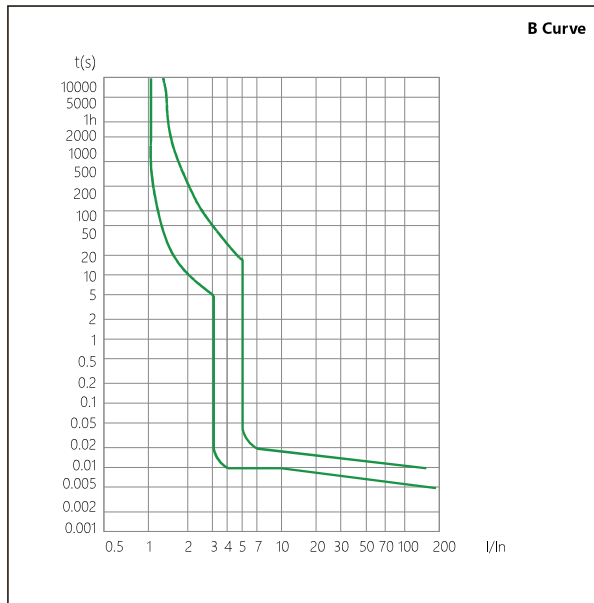
B curve (3-5  $I_n$ ) protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems.

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.



## 2. Technical data

### 2.1 Curves



#### 1.2 Approvals and certificates

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



2.2

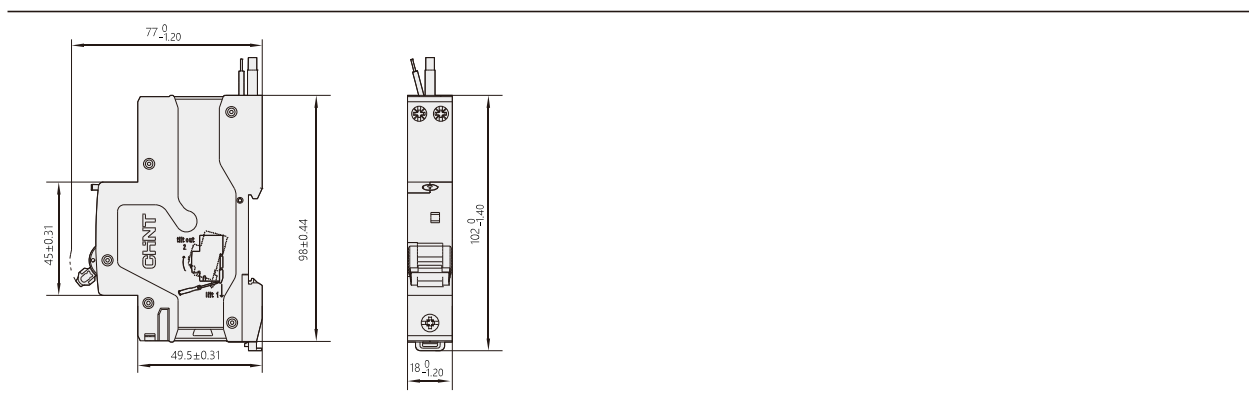
	Standard		BS EN61009-1
Electrical features	Type (wave form of the earth leakage sensed)		AC,A
	Thermo-magnetic release characteristic		B, C
	Rated current I <sub>n</sub>	A	6, 10, 13,16, 20, 25, 32, 40
	Poles		1P+N
	Rated voltage U <sub>e</sub>	V	240V AC
	Rated sensitivity I <sub>Δn</sub>	A	0.03
	Rated residual making and breaking capacity I <sub>Δm</sub>	A	3000
	Rated short-circuit capacity I <sub>cn</sub>	A	6,000
	Break time under I <sub>Δn</sub>	s	≤ 0.1
	Rated frequency	Hz	50
	Rated impulse withstand voltage (1.2/50)U <sub>imp</sub>	V	4,000
	Dielectric TEST voltage at ind. Freq. for 1min	kV	2
	Insulation voltage U <sub>i</sub>		500
	Pollution degree		2
Mechanical features	Electrical life		2,000
	Mechanical life		2,000
	Contact position indicator		Yes
	Protection degree		IP20
	Ambient temperature (with daily average ≤ 35°C)	°C	-5...+40
	Storage temperature	°C	-25...+70
Installation	Terminal connection type		Cable/U-type busbar/Pin-type busbar
	Terminal size top/bottom for cable	mm <sup>2</sup>	16
		AWG	18-5
	Terminal size top/bottom for busbar	mm <sup>2</sup>	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 bottom	

2.3 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	-25°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
Temperature compensation coefficient of rated current	1.27	1.25	1.20	1.15	1.10	1.05	1.00	0.95	0.90	0.85	0.83

3. Overall and mounting dimensions (mm)





## NB3LEU 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.

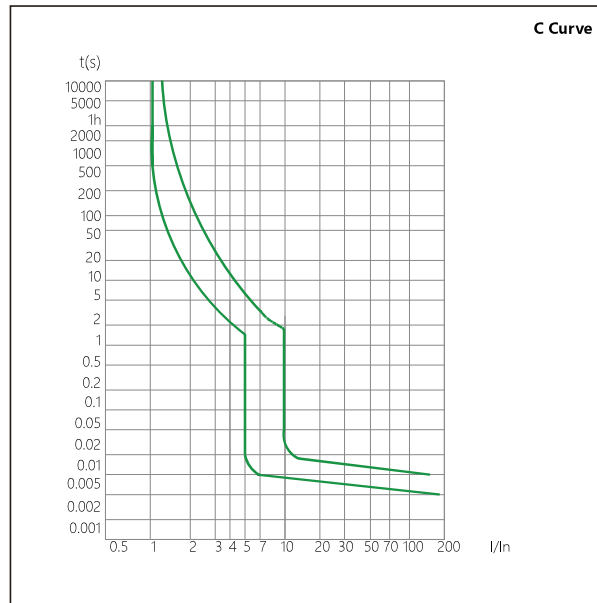
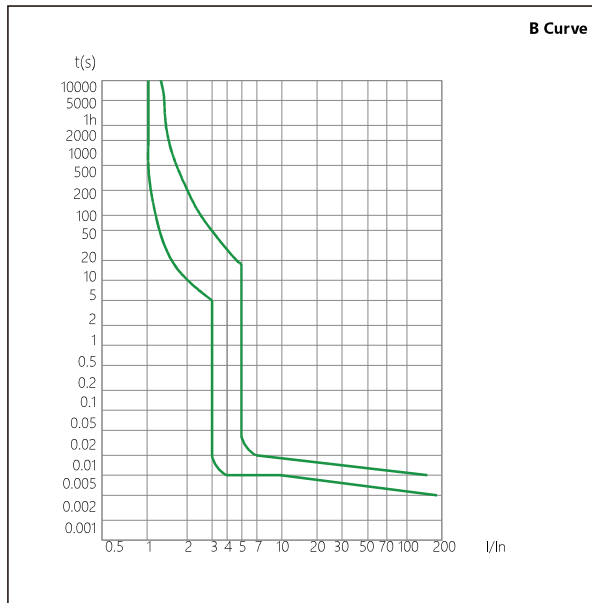
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## 2. Technical data

### 2.1 Curves





2.2

	Standard		IEC/EN 61009-1
Electrical features	Type (wave form of the earth leakage sensed)		AC,A
	Thermo-magnetic release characteristic		B, C
	Rated current I <sub>n</sub>	A	6, 10, 13, 16, 20, 25, 32, 40, 45, 50
	Poles		1P+N
	Rated voltage U <sub>e</sub>	V	240
	Rated sensitivity I <sub>Δn</sub>	A	0.03
	Rated residual making and breaking capacity I <sub>Δm</sub>	A	500
	Rated short-circuit capacity I <sub>cn</sub>	A	10,000
	Break time under I <sub>Δn</sub>	S	≤ 0.1
	Rated frequency	Hz	50/60
	Rated impulse withstand voltage (1.2/50)U <sub>imp</sub>	V	4,000
	Dielectric TEST voltage at ind. Freq. for 1min	kV	2
	Insulation voltage U <sub>i</sub>		500
	Pollution degree		2
Mechanical features	Electrical life		2,000
	Mechanical life		2,000
	Contact position indicator		Yes
	Protection degree		IP20
	Ambient temperature (with daily average ≤ 35°C)	°C	-5...+40
	Storage temperature	°C	-25...+70
Installation	Terminal connection type		Cable/U-type busbar/Pin-type busbar
	Terminal size top/bottom for cable	mm <sup>2</sup>	16
		AWG	18-5
	Terminal size top/bottom for busbar	mm <sup>2</sup>	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 bottom	

2.3 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**

Temperature	-25°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
Temperature compensation coefficient of rated current	1.27	1.25	1.20	1.15	1.10	1.05	1.00	0.95	0.90	0.85	0.83

3. Overall and mounting dimensions (mm)

