



## NB3LEU-63 Residual Current Operated Circuit Breaker with Over-current Protection (Electronic)

### 1. General

#### 1.1 Selection

##### Rated residual operating current

$I_{\Delta n} = 10\text{mA}, 30\text{mA}, 100\text{mA}, 300\text{mA}$ : 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.

A class tripping is ensured for sinusoidal, alternating residual currents as well as for pulsed DC residual currents, whether they be quickly 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.

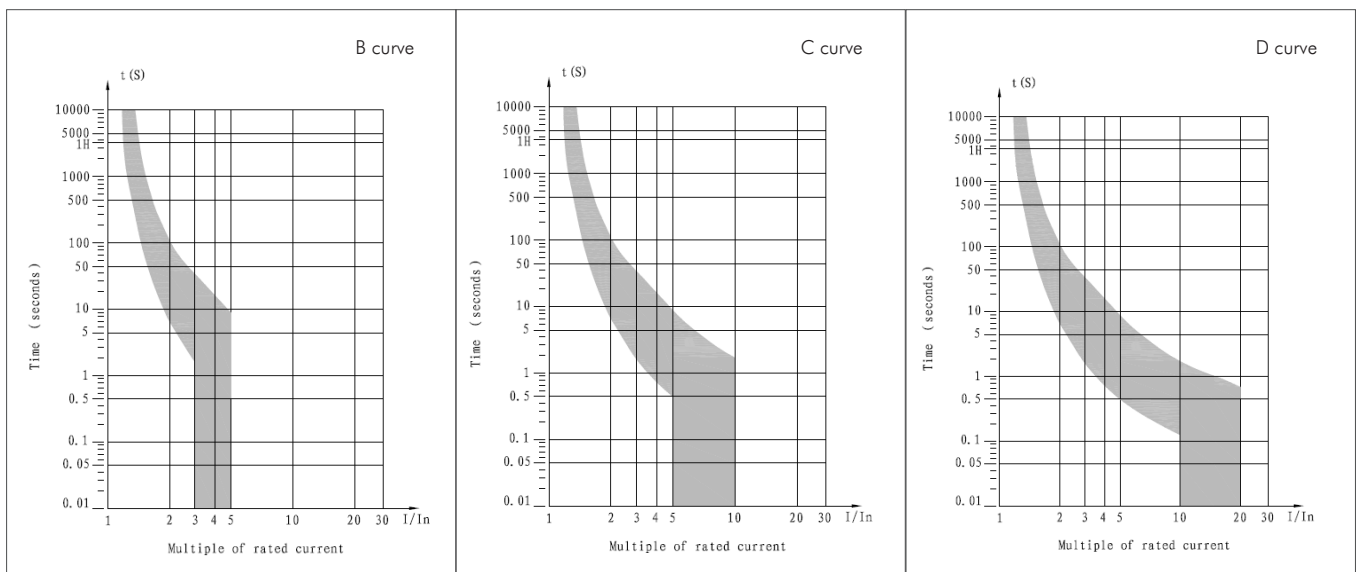
C curve (5-10  $I_n$ ) protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

D curve (10-20  $I_n$ ) protection and control of the circuits against overloads and short-circuits; Suitable for systems with high inductive load and large impulse current



## 2. Technical data

### 2.1 curves



2.2

	Standard		IEC/EN 61009-1
Electrical features	Type (waveform of the earth leakage sensed)		A, AC
	Thermo-magnetic release characteristic		B, C, D
	Rated current I <sub>n</sub>	A	6, 10, 13, 16, 20, 25, 32, 40, 50, 63
	Poles		3P+N
	Rated voltage U <sub>e</sub>	V	400/415
	Rated sensitivity I <sub>Δn</sub>	A	0.01, 0.03, 0.1, 0.3
	Rated residual making and breaking capacity I <sub>Δm</sub>	A	6000
	Rated short-circuit capacity I <sub>cn</sub>	A	10000
	Break time under I <sub>Δn</sub>	KV	≤0.1
	Rated frequency		50/60
	Rated impulse withstand voltage (1.2/50)U <sub>imp</sub>		4,000
	Dielectric TEST voltage at ind. Freq. for 1 min		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		25
		mm <sup>2</sup>	18-3
	Terminal size top/bottom for busbar	AWG	16
		mm <sup>2</sup>	18-5
	Tightening torque	AWG	2
		N·m	18
Mounting	In-lbs.	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

2. Overall and mounting dimensions (mm)

