



## NXBL-40Y Residual Current Operated Circuit Breaker with over-current protection (Magnetic)

### 1. General

#### 1.1 Function

Personnel and fire protection: Cable and line protection against overload and short-circuits.

#### 1.2 Selection

##### Rated residual operating current

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

$I_{\Delta n} \leq 300$  mA: preventative fire protection in the case of ground fault currents.

##### 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.

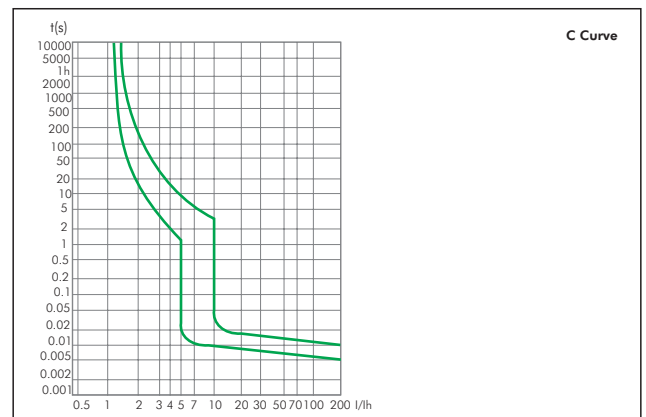
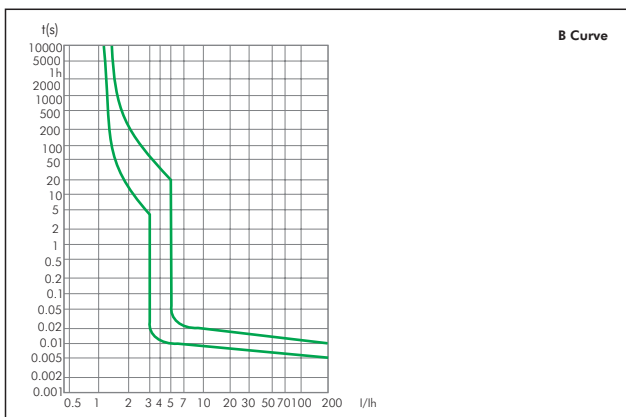
C curve (5-10  $I_n$ ) protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

#### 1.3 Approvals and certificates

CE

## 2. Technical data

### 2.1 Curves



2. Technical data

	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
	Poles	1P+N (N right)
	Rated voltage U <sub>e</sub>	V 220/230/240~
	Rated sensitivity I <sub>Δn</sub>	A 0.03, 0.1, 0.3
	Rated residual making and breaking capacity I <sub>Δm</sub>	A 3,000
	Rated short-circuit capacity I <sub>cn</sub>	A 4,500/6,000
	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 6,000
	Dielectric TEST voltage at ind. Freq. for 1 min	kV 2
	Insulation voltage U <sub>i</sub>	V 500
	Pollution degree	2
Mechanical features	Electrical life	2,000
	Mechanical life	20,000
	Contact position indicator	Yes
	Protection degree	IP20
	Ambient temperature (with daily averages ≤35°C)	°C -25~+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> 25
		AWG 18-3
	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 and 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	1.28	1.25	1.20	1.15	1.10	1.05	1.00	0.95	0.90	0.85	0.80

3. Overall and mounting dimensions (mm)

