



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.

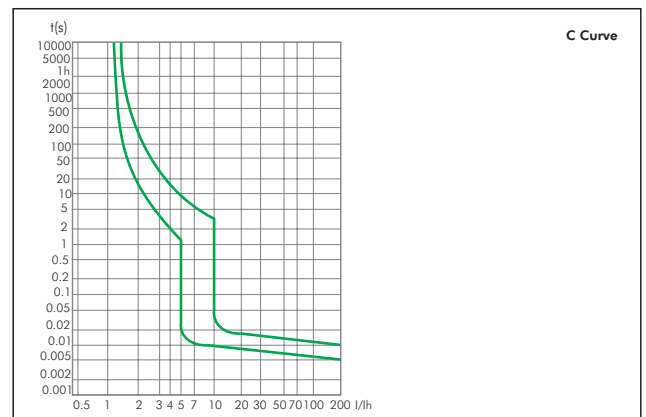
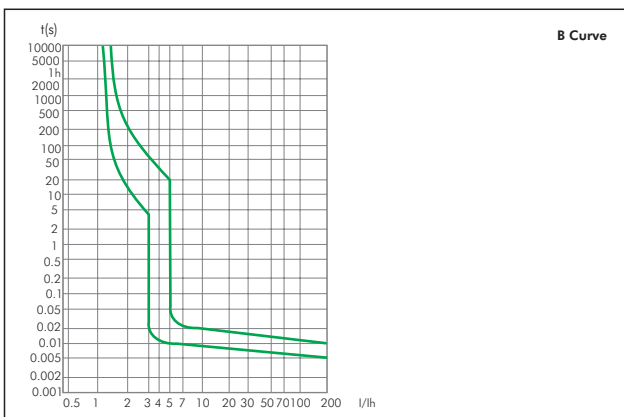
C curve (5-10 I_n) protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

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 _n	A 6, 10, 13, 16, 20, 25, 32, 40
	Poles	1P+N (N right)
	Rated voltage U _e	V 220/230/240~
	Rated sensitivity I _{Δn}	A 0.03, 0.1, 0.3
	Rated residual making and breaking capacity I _{Δm}	A 3,000
	Rated short-circuit capacity I _{cn}	A 4,500/6,000
	Break time under I _{Δn}	s ≤0.1
	Rated frequency	Hz 50/60
	Rated impulse withstand voltage (1.2/50)U _{imp}	V 6,000
	Dielectric TEST voltage at ind. Freq. for 1 min	kV 2
	Insulation voltage U _i	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 average ≤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 ² 25
		AWG 18-3
	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 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)

