



NB4LE Residual Current Operated Circuit Breaker (Electronic)

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

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

RCD Type

Type A

RCD Type A 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 ($I_1=1.13I_n$; $I_2=1.45I_n$; $I_4=3I_n$; $I_5=5I_n$) 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 ($I_1=1.13I_n$; $I_2=1.45I_n$; $I_4=5I_n$; $I_5=10I_n$) protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

BK curve ($I_1=1.05I_n$; $I_2=1.3I_n$; $I_4=3I_n$; $I_5=5I_n$) protection and control of the circuits against overloads and short-circuits; protection for people and big length cables in TN and IT systems.

CK curve ($I_1=1.05I_n$; $I_2=1.3I_n$; $I_4=5I_n$; $I_5=10I_n$) protection and control of the circuit against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

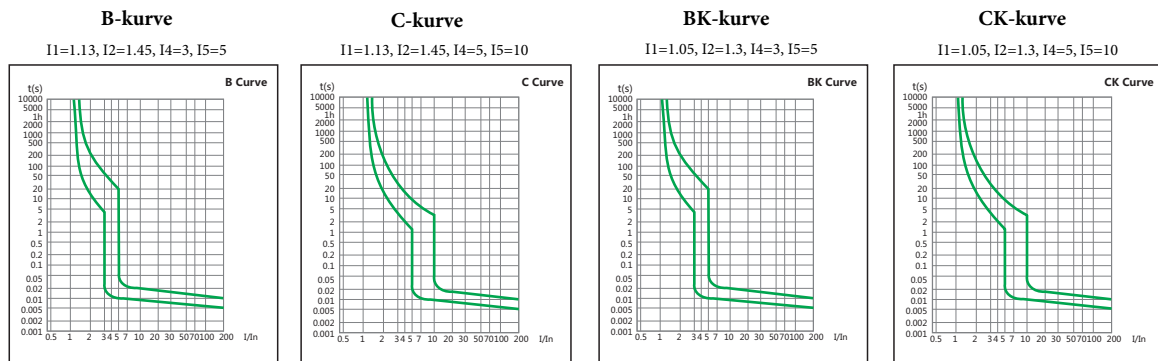
1.3 Approvals and certificates

CE/CB



2. Technical data

2.1 Curves



2.2

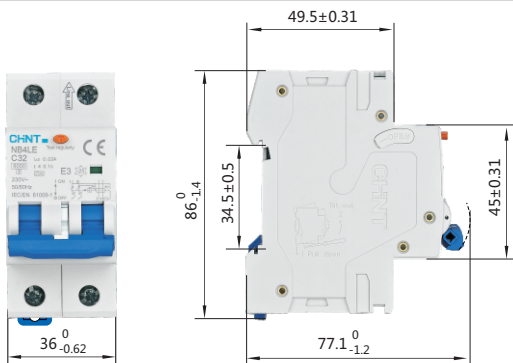
	Standard	IEC/EN 61009-1		
Electrical features	Type (wave form of the earth leakage sensed)		A	
	Thermo-magnetic release characteristic		B, C BK, CK	
	Rated current I _n	A	6, 10, 13, 16, 20, 25, 32	10, 13, 15, 20
	Poles		2P	
	Rated voltage U _e	V	230/240	
	Rated sensitivity I _{Δn}	A	0.03	
	Rated residual making and breaking capacity I _{Δm}	A	3,000	
	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}	kV	4	
	Dielectric TEST voltage at ind. Freq. for 1min	kV	2	
	Insulation voltage U _i	V	500	
	Pollution degree		2	
Mechanical features	Electrical life		2,000	
	Mechanical life		10,000	
	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		Bottom electrical feeding		

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	-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

3. Overall and mounting dimensions (mm)



2P