EU	Sweden	Finland	Ukrain	Russia

NB1L Residual Current Operated Circuit Breaker with over-current protection(Magnetic)

1. General

1.1 Application

Personnel and fire protection

Cable and line protection against overload and short-circuits

1.2 General rules for choosing RCBO:

a.Rated residual operating current

IΔn ⩽ 30 mA: additional protection in the case of direct contact

IΔn ⩽300 mA: preventative fire protection in the case of ground fault currents

b.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.

c.Tripping curve

B curve (3-5 In) 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 In) protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

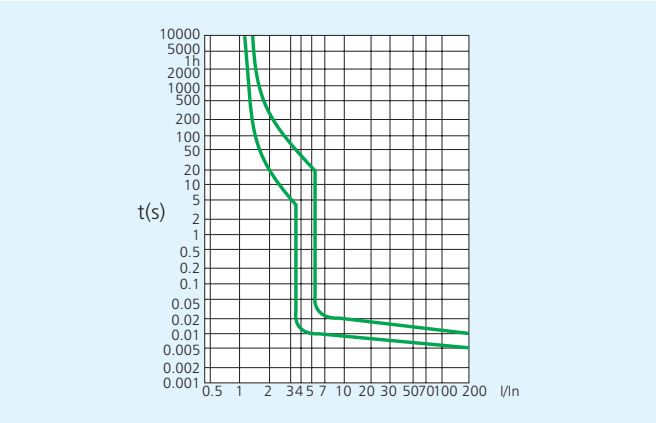
1.3 Detailed certificates information,please refer to Certificates Table on P153.

2. Ordering Information

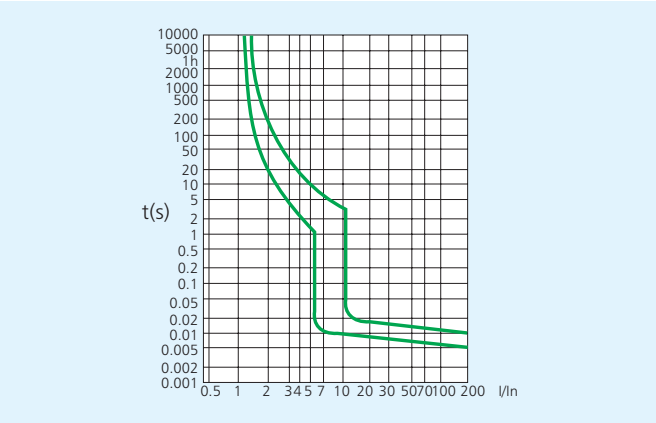
3. Technical Data

3.1 Curves

B Curve



C Curve



3.2

	Standard		IEC/EN 60898-1	
Electrical features	Type (wave form of the earth leakage sensed)		AC, A	
	Thermo-magnetic release characteristic		B, C	
	Rated current In	A	MCB+add-on RCD block	1, 2, 3, 4, 6, 10, 13, 16, 20, 25, 32, 40, 50, 63
			Combined	1, 2, 3, 4, 6, 10, 13, 16, 20, 25, 32, 40
	Poles		MCB+add-on RCD block	1P+N, 2P, 3P, 3P+N, 4P
			Combined	1P+N, 2P
	Rated voltage Ue	V	230/400	
	Rated sensitivity I△n	A	MCB+add-on RCD block	0.03, 0.1, 0.3
			Combined	0.03
	Rated residual making and breaking capacity	A	500 (In≤40A)	
			630 (In>40A)	
	I△m			
	Rated short-circuit capacity Icn	A	6,000/10,000	
	Break time under I△n	s	≤0.1	
	Rated frequency	Hz	50/60	
	Rated impulse withstand voltage (1.2/50)Uimp	V	6,000	
	Dielectric TEST voltage at ind. Freq. for 1min	kV	2	
	Insulation voltage Ui		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℃)	℃	-5...+40 (Special application please refer to P62 for temperature compensation correction)	
	Storage temperature	℃	-25...+70	

	Standard		IEC/EN 60898-1
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	25
		AWG	18-3
	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 (for combined type)
			From top (MCB+add-on RCD block)

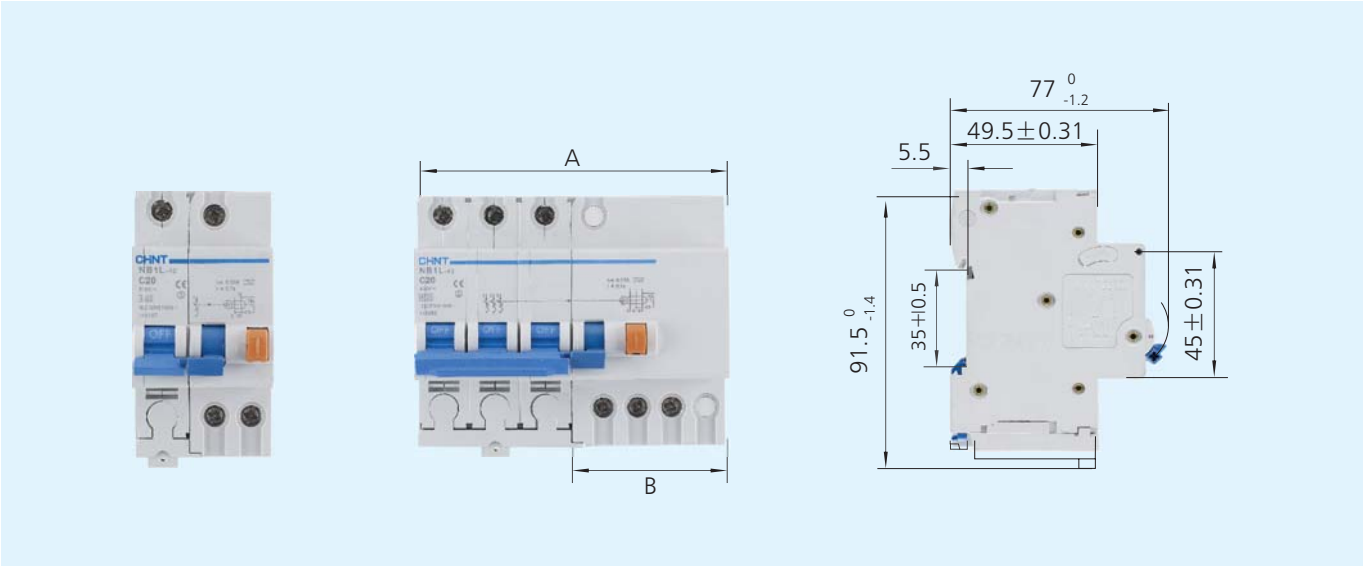
3.3 Temperature derating

Temperature	-10℃	0℃	10℃	20℃	30℃	40℃	50℃	60℃
Temperature compensation coefficient of rated current	1.20	1.15	1.10	1.05	1.00	0.95	0.90	0.85

4. Overall and Mounting Dimensions (mm)

4.1 MCB+add-on RCD block

Overall and Mounting Dimensions



Number of poles	Overall dimensions A (mm)	
	1~40A	50~63A
1P+N	$45^{0}_{-0.62}$	$54^{0}_{-0.74}$
2P	$63^{0}_{-0.74}$	$72^{0}_{-0.74}$
3P	$108^{0}_{-1.4}$	$117^{0}_{-1.4}$
3P+N	$108^{0}_{-1.4}$	$117^{0}_{-1.4}$
4P	$126^{0}_{-1.6}$	$135^{0}_{-1.6}$
	B(mm)	
1P+N	$27^{0}_{-0.52}$	$36^{0}_{-0.62}$
2P	$27^{0}_{-0.52}$	$36^{0}_{-0.62}$
3P	$54^{0}_{-1.20}$	$63^{0}_{-1.2}$
3P+N	$54^{0}_{-1.20}$	$63^{0}_{-1.2}$
4P	$54^{0}_{-1.20}$	$63^{0}_{-1.2}$

NEW

Combined