1. Product Overview

Product Scope

Integrated RCBO

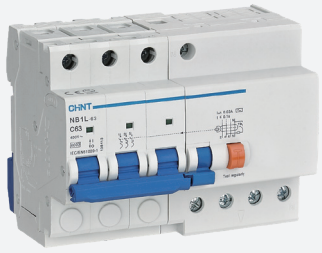
NB1L N left
1PN
1~25A
6kA

NB1L N right
1PN
2~40A
6kA/10kA

NB1L
2P
6~40A
10kA

Add on type RCBO

NB1L-40
1P+N, 2P, 3P, 3P+N, 4P
1~40A
10kA



NB1L-63
1P+N, 2P, 3P, 3P+N, 4P
50A, 63A
6kA

Slim RCBO

NB1L-20
1P+N
6-20A
6kA

NB3L-40 Residual Current Circuit Breaker (ELM)

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

IΔn = 30mA,100mA,300mA: additional protection in the case of direct contact.

Tripping class

A and AC class

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.

AC class tripping is ensured for sinusoidal, alternating residual currents, whether they be quickly or slowly increase.

Tripping curve

B curve (I1=1.13In; I2=1.45In; I4=3In; I5=5In) 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 (I1=1.13In; I2=1.45In; I4=5In; I5=10In) protection and control of the circuits against overloads and short-circuits; protection for resistive and inductive loads with low inrush current.

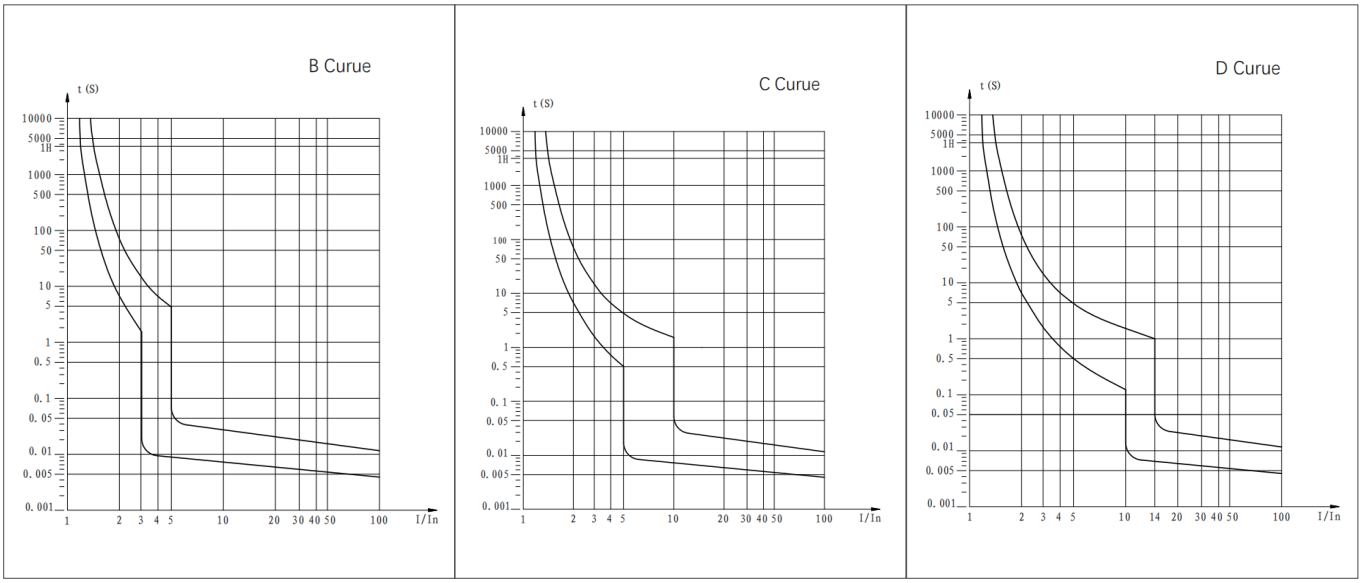
D curve (I1=1.13In; I2=1.45In; I4=10In; I5=20In) protection and control of the circuits against overloads and short-circuits; Suitable for systems with high inductive load and large

1.3 Approvals and certificates

CE/CB/KEMA

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 In	A	6, 10, 13, 16, 20, 25, 32, 40
	Poles		3P+N
	Rated voltage Ue	V	400/415
	Rated sensitivity I △ n	A	0.03, 0.1, 0.3
	Rated residual making and breaking capacity I △ m	A	6000
	Rated short-circuit capacity Icn	A	10000
	Break time under I △ n	S	≤0.1
	Rated frequency	Hz	50/60
	Rated impulse withstand voltage (1.2/50)Uimp	V	4,000
	Dielectric TEST voltage at ind. Freq. for 1min	KV	2
	Insulation voltage Ui	V	500
	Pollution degree		2
Mechanical features	Electrical life		3000
	Mechanical life		10000
	Contact position indicator		Yes
	Protection degree		IP20
	Ambient temperature (with daily average≤35℃)	℃	-5 ~ +40
	Storage temperation	℃	-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

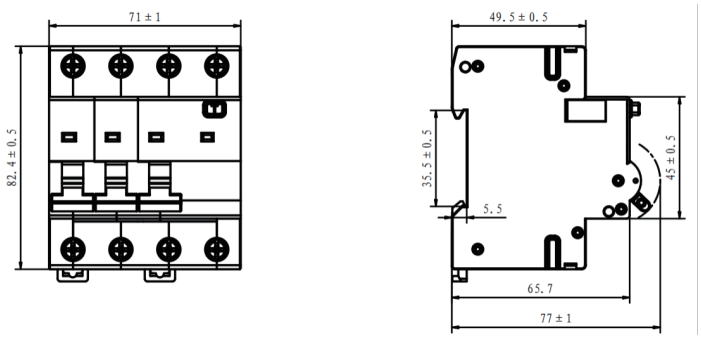
2.3 Temperature derating

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.

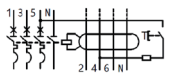
The reference temperature is 30℃

Temperature	-25℃	-20℃	-10℃	0℃	10℃	20℃	30℃	40℃	50℃	60℃	70℃
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	0.80

2. Overall and mounting dimensions (mm)



NB3L-40	3P+N	C	16	30mA	A	10kA
Frame	**Poles**	**Curve**	**Current(In)**	**Rated sensitivity (IΔn)**	**Leakage curve**	**Breaking capacity**
NB3L-40	3P+N	B C D	6A~40A	30mA	A AC	10kA

Diagram	Curve	Poles	In(A)	Icu(kA)	Ue(V)	IΔn(mA)	Leakage Type	Description	Code
	B	3P+N	6	10	AC400/415	30	A	NB3L-40 3P+N B6 30mA A 10kA	479977
	B	3P+N	10	10	AC400/415	30	A	NB3L-40 3P+N B10 30mA A 10kA	479978
	B	3P+N	16	10	AC400/415	30	A	NB3L-40 3P+N B16 30mA A 10kA	479979
	B	3P+N	20	10	AC400/415	30	A	NB3L-40 3P+N B20 30mA A 10kA	479980
	B	3P+N	25	10	AC400/415	30	A	NB3L-40 3P+N B25 30mA A 10kA	479981
	B	3P+N	32	10	AC400/415	30	A	NB3L-40 3P+N B32 30mA A 10kA	479982
	B	3P+N	40	10	AC400/415	30	A	NB3L-40 3P+N B40 30mA A 10kA	479983
	C	3P+N	6	10	AC400/415	30	A	NB3L-40 3P+N C6 30mA A 10kA	479970
	C	3P+N	10	10	AC400/415	30	A	NB3L-40 3P+N C10 30mA A 10kA	479971
	C	3P+N	16	10	AC400/415	30	A	NB3L-40 3P+N C16 30mA A 10kA	479972
	C	3P+N	20	10	AC400/415	30	A	NB3L-40 3P+N C20 30mA A 10kA	479973
	C	3P+N	25	10	AC400/415	30	A	NB3L-40 3P+N C25 30mA A 10kA	479974
	C	3P+N	32	10	AC400/415	30	A	NB3L-40 3P+N C32 30mA A 10kA	479975
	C	3P+N	40	10	AC400/415	30	A	NB3L-40 3P+N C40 30mA A 10kA	479976
	D	3P+N	6	10	AC400/415	30	A	NB3L-40 3P+N D6 30mA A 10kA	479984
	D	3P+N	10	10	AC400/415	30	A	NB3L-40 3P+N D10 30mA A 10kA	479985
	D	3P+N	16	10	AC400/415	30	A	NB3L-40 3P+N D16 30mA A 10kA	479986
	D	3P+N	20	10	AC400/415	30	A	NB3L-40 3P+N D20 30mA A 10kA	479987
	D	3P+N	25	10	AC400/415	30	A	NB3L-40 3P+N D25 30mA A 10kA	479988
	D	3P+N	32	10	AC400/415	30	A	NB3L-40 3P+N D32 30mA A 10kA	479989
	D	3P+N	40	10	AC400/415	30	A	NB3L-40 3P+N D40 30mA A 10kA	479990
	B	3P+N	6	10	AC400/415	30	AC	NB3L-40 3P+N B6 30mA AC 10kA	479998
	B	3P+N	10	10	AC400/415	30	AC	NB3L-40 3P+N B10 30mA AC 10kA	479999
	B	3P+N	16	10	AC400/415	30	AC	NB3L-40 3P+N B16 30mA AC 10kA	480002
	B	3P+N	20	10	AC400/415	30	AC	NB3L-40 3P+N B20 30mA AC 10kA	480003
	B	3P+N	25	10	AC400/415	30	AC	NB3L-40 3P+N B25 30mA AC 10kA	480004
	B	3P+N	32	10	AC400/415	30	AC	NB3L-40 3P+N B32 30mA AC 10kA	480005
	B	3P+N	40	10	AC400/415	30	AC	NB3L-40 3P+N B40 30mA AC 10kA	480006
	C	3P+N	6	10	AC400/415	30	AC	NB3L-40 3P+N C6 30mA AC 10kA	479991
	C	3P+N	10	10	AC400/415	30	AC	NB3L-40 3P+N C10 30mA AC 10kA	479992
	C	3P+N	16	10	AC400/415	30	AC	NB3L-40 3P+N C16 30mA AC 10kA	479993
	C	3P+N	20	10	AC400/415	30	AC	NB3L-40 3P+N C20 30mA AC 10kA	479994
	C	3P+N	25	10	AC400/415	30	AC	NB3L-40 3P+N C25 30mA AC 10kA	479995
	C	3P+N	32	10	AC400/415	30	AC	NB3L-40 3P+N C32 30mA AC 10kA	479996
	C	3P+N	40	10	AC400/415	30	AC	NB3L-40 3P+N C40 30mA AC 10kA	479997
	D	3P+N	6	10	AC400/415	30	AC	NB3L-40 3P+N D6 30mA AC 10kA	480007
	D	3P+N	10	10	AC400/415	30	AC	NB3L-40 3P+N D10 30mA AC 10kA	480008
	D	3P+N	16	10	AC400/415	30	AC	NB3L-40 3P+N D16 30mA AC 10kA	480009
	D	3P+N	20	10	AC400/415	30	AC	NB3L-40 3P+N D20 30mA AC 10kA	480010
	D	3P+N	25	10	AC400/415	30	AC	NB3L-40 3P+N D25 30mA AC 10kA	480011
	D	3P+N	32	10	AC400/415	30	AC	NB3L-40 3P+N D32 30mA AC 10kA	480012
	D	3P+N	40	10	AC400/415	30	AC	NB3L-40 3P+N D40 30mA AC 10kA	480013