

## 1. Product Overview

### Product Scope

<b>Smart MCB</b>	 <b>NB2-40ZT</b> The RS485 communication address can be configured automatically via SMG	  <b>NB2-80ZT</b> The RS485 communication address can be configured automatically via SMG
<b>Smart RCBO</b>	 <b>NB2LE-40ZT</b> The RS485 communication address can only be configured manually	 <b>NB2LE-40ZT Auto</b> The RS485 communication address can be configured automatically via SMG
<b>Gateway</b>	 <b>SMG-WL1SR</b>	<b>Power Module</b>  <b>PSU-3</b>

### Protection Mark



OVP: Over-voltage Protection

UVP: Under-voltage Protection

OPF: Over-frequency Protection

UFP: Under-frequency Protection

OPP: Open-phase Protection

## Values and Highlights



**Safe**

**Feature:** With overload, short circuit, over/under voltage, over/under frequency, phase open, leakage and other protection functions

**Advantage:** Multiple protection

**Benefit:** Diagnose different faults to ensure safety

**Feature:** Automatic fault alarm and early warning

**Advantage:** Maintenance personnel can deal with line faults faster

**Benefit:** Solve line faults in time and reduce safety hazards

**Feature:** With the automatic leakage self-check function

**Advantage:** Ensure that leakage protection is effective

**Benefit:** Avoid safety hazards caused by leakage failure



**Efficient**

**Feature:** Built-in electric operation mechanism, can do remote controlling

**Advantage:** Remote on-off function, reduce on-site manual operation

**Benefit:** Ideal for remote and scattered scenarios, saving labor and time

**Feature:** Real-time monitoring can be performed on smart platform, and statistical results can be displayed in charts

**Advantage:** Visualize the system status and energy consumption analysis results

**Benefit:** Provide users with visual data and more efficient system management

**Feature:** Electrical parameter measurement and energy metering functions, accuracy up to 0.5 degree

**Advantage:** Monitoring circuit status and energy consumption accurately

**Benefit:** Can replace electric meters for energy management



**Convenient**

**Feature:** The width of 1P NB2 is only 18mm

**Advantage:** Compact size, integrated intelligent functions

**Benefit:** Can be used to replace traditional MCB, ideal for renovation projects

**Feature:** NB2 communicates via RS485, WL1SR gateway communicates via RS485/WIFI/4G

**Advantage:** Different communication modes and easy networking

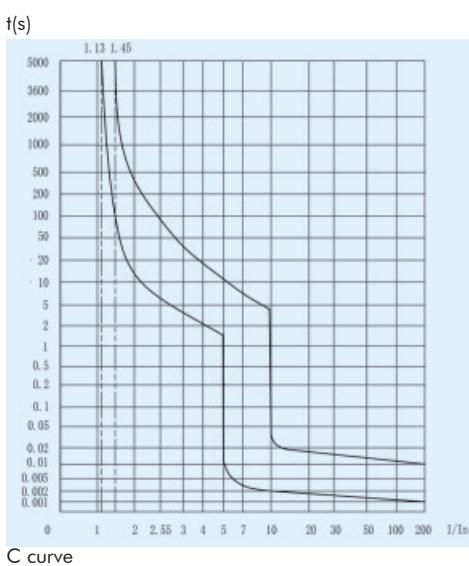
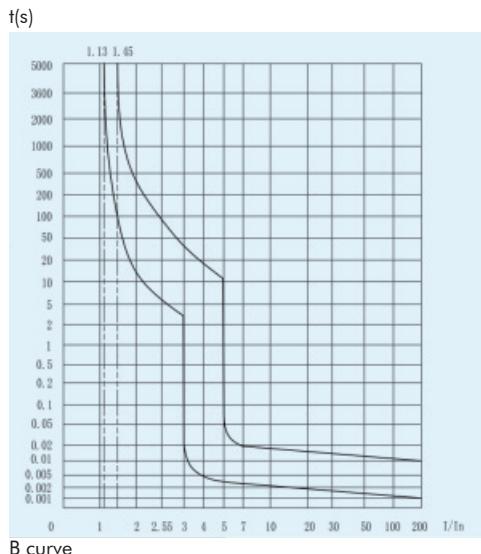
**Benefit:** Can be widely used in various networking scenarios





## 2. Technical data

### 2.1 curve



## NB2LE-40ZT Smart Residual Current Operated Circuit Breaker with Over-current Protection (Electronic)

### 1. General

#### 1.1 function

This product is mainly suitable for AC 50Hz, rated voltage 230V, rated current to 40A line, overload, short circuit, overvoltage, undervoltage protection and leakage protection, can also be used as infrequent line on and off under normal circumstances.

The product also features remote control, electrical parameter (voltage, current, power) measurement, and networking with external devices via RS485 communication interface or Bluetooth

Main functions: overload protection, short circuit protection, overvoltage protection, undervoltage protection, leakage protection, electrical parameter measurement, remote opening and closing.

#### 1.2 approvals and certificate

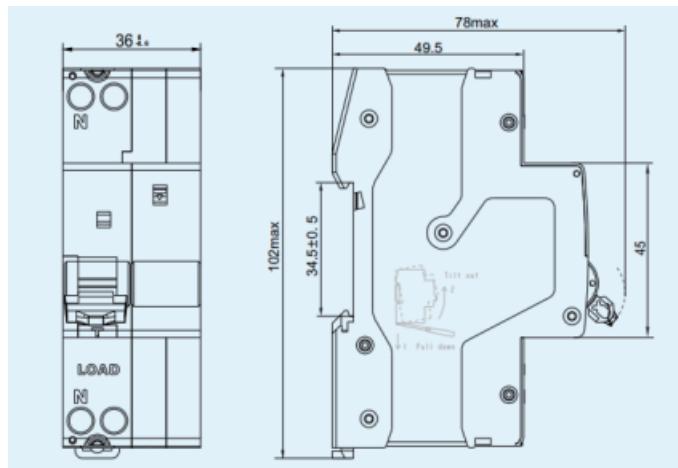
Standard: IEC/EN 61009-1

Certification: CE, RoHS, REACH

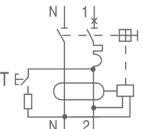
## 2.2 Technical parameter

Product	NB2LE-40ZT	
Rated current(A)	6,10,16,20,25,32,40	
Rated sensitivity I Δ n(A)	0.03	
Type (wave form of the earth leakage sensed)	AC, A	
Rated voltage	AC230	
Rated frequency (Hz)	50	
Poles	1P+N	
Thermo-magnetic release characteristic	B, C	
Mechanical life	10,000	
Electrical life	4,000	
Rated breaking capacity (KA)	6	
Rated insulation voltage (V)	500	
Rated impulse withstand voltage (kV)	4	
Dielectric test voltage (kV)	2	
Installation	Terminal connection type	Cable/Pin type busbar
	Minimum cross-sectional area of the wiring(mm <sup>2</sup> )	1
	Maximum cross-sectional area of the wiring (mm <sup>2</sup> )	16
	Tightening torque(N·m)	2
	Connection	From top
	Mounting	Type TH35-7.5 Standard DIN rails
Reference temperature(°C)	30	
Working ambient temperature (°C)	-25-70	
Storage temperature (° C)	-40-70	
Applicable altitude (m)	<=1500	
Overvoltage and undervoltage protection (parameters can be set, and the factory default values are in the table)		
overvoltage action threshold range 280V±5V		
overvoltage recovery threshold range 250V±5V		
overvoltage minimum no-drive time 2s		
undervoltage action threshold range 165V±5V		
undervoltage recovery threshold range 190V±5V		
undervoltage minimum non-driving time		
overvoltage recovery time >=10s		
Communication function		
Electrical parameter measurement function	Current	±1.0%
	Voltage	±1.0%
	Power	±2.0%
Pollution degree	2	
Protection degree	IP20	
Assembled accessories	None	

## 3. Overall and mounting dimensions (mm)



NB2LE-40ZT	1P+N	C	16	30mA	AC	Auto
Frame	Poles	Curve	Current(In)	Rated sensitivity ( $I\Delta n$ )	Leakage curve	Notes mark
NB2LE-40ZT	1P+N	C	6A~40A	30mA	A AC	Auto: Supports automatic networking through SMG Blank: The RS485 communication address can only be configured manually

Diagram	Curve	Poles	In(A)	Icu(kA)	Ue(V)	$I\Delta n$ (mA)	Leakage curve	Description	Code
	C	1P+N	6	6	AC230	30	AC	NB2LE-40ZT 1P+N C6 30mA AC Auto	533735
	C	1P+N	10	6	AC230	30	AC	NB2LE-40ZT 1P+N C10 30mA AC Auto	533736
	C	1P+N	16	6	AC230	30	AC	NB2LE-40ZT 1P+N C16 30mA AC Auto	533737
	C	1P+N	20	6	AC230	30	AC	NB2LE-40ZT 1P+N C20 30mA AC Auto	533738
	C	1P+N	25	6	AC230	30	AC	NB2LE-40ZT 1P+N C25 30mA AC Auto	533739
	C	1P+N	32	6	AC230	30	AC	NB2LE-40ZT 1P+N C32 30mA AC Auto	533740
	C	1P+N	40	6	AC230	30	AC	NB2LE-40ZT 1P+N C40 30mA AC Auto	533741
	C	1P+N	6	6	AC230	30	A	NB2LE-40ZT 1P+N C6 30mA A Auto	533742
	C	1P+N	10	6	AC230	30	A	NB2LE-40ZT 1P+N C10 30mA A Auto	533743
	C	1P+N	16	6	AC230	30	A	NB2LE-40ZT 1P+N C16 30mA A Auto	533744
	C	1P+N	20	6	AC230	30	A	NB2LE-40ZT 1P+N C20 30mA A Auto	533745
	C	1P+N	25	6	AC230	30	A	NB2LE-40ZT 1P+N C25 30mA A Auto	533746
	C	1P+N	32	6	AC230	30	A	NB2LE-40ZT 1P+N C32 30mA A Auto	533747
	C	1P+N	40	6	AC230	30	A	NB2LE-40ZT 1P+N C40 30mA A Auto	533748
	C	1P+N	6	6	AC230	30	AC	NB2LE-40ZT 1P+N C6 30mA AC	448135
	C	1P+N	10	6	AC230	30	AC	NB2LE-40ZT 1P+N C10 30mA AC	448129
C	1P+N	16	6	AC230	30	AC	NB2LE-40ZT 1P+N C16 30mA AC	448130	
C	1P+N	20	6	AC230	30	AC	NB2LE-40ZT 1P+N C20 30mA AC	448131	
C	1P+N	25	6	AC230	30	AC	NB2LE-40ZT 1P+N C25 30mA AC	448132	
C	1P+N	32	6	AC230	30	AC	NB2LE-40ZT 1P+N C32 30mA AC	448133	
C	1P+N	40	6	AC230	30	AC	NB2LE-40ZT 1P+N C40 30mA AC	448134	