1. Product Overview

Product Scope

Smart MCB



NB2-40ZT
The RS485 communication address can be configured automatically via SMG



NB2-80ZT
The RS485 communication address can be configured automatically via SMG

Smart RCBO



NB2LE-40ZT
The RS485 communication address can only be configured manually



NB2LE-40ZT Auto
The RS485 communication address can be configured automatically via SMG



NB2LE-80ZT
The RS485 communication address can be configured automatically via SMG

Gateway



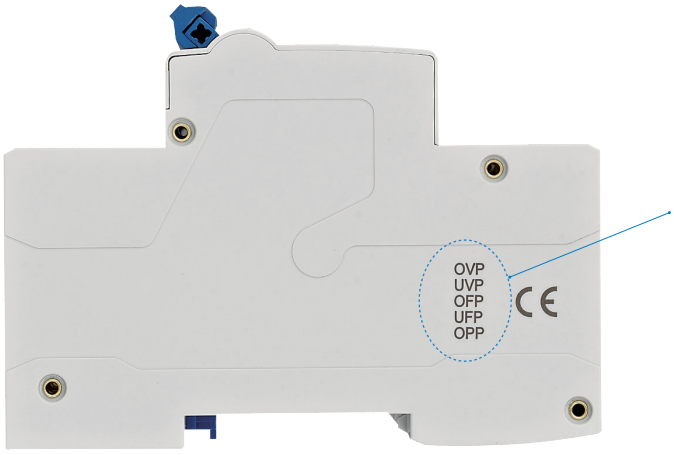
SMG-WL1SR

Power Module



PSU-3

Protection Mark



OVP: Over-voltage Protection
UVP: Under-voltage Protection
OFP: 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 controling
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



NB2-80ZT Smart Miniature Circuit Breaker

1. General

1.1 function

This product is mainly suitable for AC 50Hz, rated voltage 230/400V, rated current to 80A line, overload, short circuit, overvoltage, undervoltage 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, electrical parameter measurement, remote opening and closing.

1.2 approvals and certificate

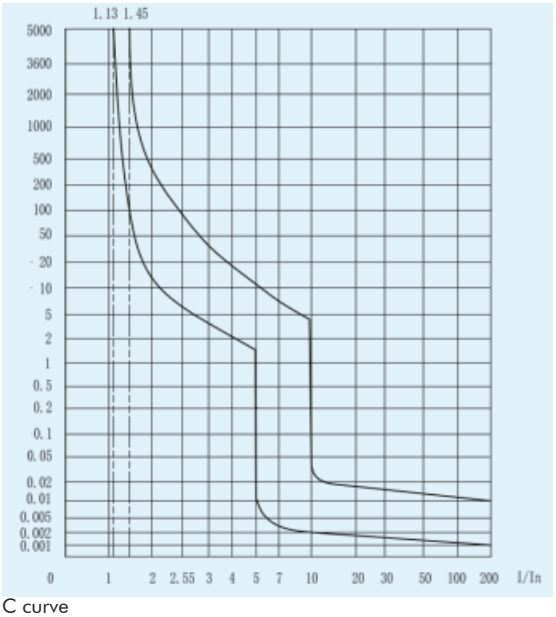
Standard: IEC/EN 60898-1

Certification: CE, RoHS

2. Technical data

2.1 curve

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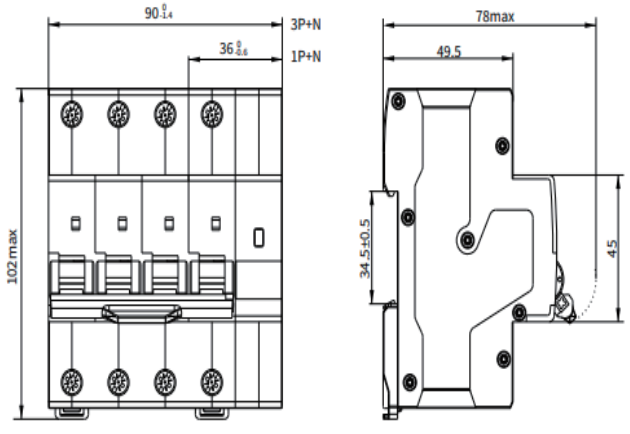


C curve

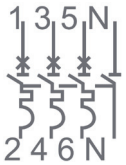
2.2 Technical parameter

Product		NB2-80ZT		
Rated current(A)		6,10,16,20,25,32,40,50,63,80		
Rated voltage (V)		AC 230 (1P+N), AC400 (3P+N)		
Rated frequency (Hz)		50		
Poles		1P+N, 3P+N		
Thermo-magnetic release characteristic		Type C		
Mechanical life		10,000		
Electrical life		6,000		
Rated breaking capacity (kA)		6		
Rated insulation voltage (V)		690		
Rated impulse withstand voltage (kV)		4(1P+N);6(3P+N)		
Dielectric test voltage (kV)		2		
Installation	Terminal connection type	Cable/Pin type busbar		
	Minimum cross-sectional area of the wiring(mm2)	1		
	Maximum cross-sectional area of the wiring (mm2)	25		
	Tightening torque(N·m)	2.5		
	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)		<=2000		
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 3s		
		undervoltage action threshold range 165V±5V		
		undervoltage recovery threshold range 190V±5V		
		undervoltage minimum non-driving time 3s		
		overvoltage recovery time>=10s		
Communication function		Communication protocols: Modbus-RTU		
		RS485 interface: A, B/Bluetooth BLE5.0, Backward compatible with BLE4.0, BLE4.1, BLE 4.2		
Electrical parameter measurement function	Current	1A<=I<0.1In		±1.0%
		0.1In≤I≤1.0In		±0.5%
	Voltage	0.9U ≤U≤1.1U		±0.5%
	Power	1A<=I<0.1In	0.9Ue<=U<=1.1Ue	±1.5%
		0.1In<=I<=1.0In		±1.0%
Flame retardant grade of shell		V-0		
Pollution degree		2		
Protection degree		IP20		
Assembled accessories		None		
Weight(kg)		1P+N:0.25, 3P+N:0.64		

3. Overall and mounting dimension (mm)



NB2-80ZT	1P+N	C	6	6kA	
↓	↓	↓	↓	↓	↓
Frame	**Poles**	**Curve**	**Current(In)**	**Breaking capacity**	**Notes mark**
NB2-80ZT	1P+N 3P+N	C	6A~80A	6kA	Blank: Supports automatic networking through SMG

Diagram	Curve	Poles	In(A)	Icu(kA)	Ue(V)	Description	Code
	C	1P+N	6	6	AC230	NB2-80ZT 1P+N C6 6kA	448258
	C	1P+N	10	6	AC230	NB2-80ZT 1P+N C10 6kA	448251
	C	1P+N	16	6	AC230	NB2-80ZT 1P+N C16 6kA	448252
	C	1P+N	20	6	AC230	NB2-80ZT 1P+N C20 6kA	448253
	C	1P+N	25	6	AC230	NB2-80ZT 1P+N C25 6kA	448254
	C	1P+N	32	6	AC230	NB2-80ZT 1P+N C32 6kA	448255
	C	1P+N	40	6	AC230	NB2-80ZT 1P+N C40 6kA	448256
	C	1P+N	50	6	AC230	NB2-80ZT 1P+N C50 6kA	448257
	C	1P+N	63	6	AC230	NB2-80ZT 1P+N C63 6kA	448259
	C	1P+N	80	6	AC230	NB2-80ZT 1P+N C80 6kA	448260
	C	3P+N	6	6	AC400	NB2-80ZT 3P+N C6 6kA	448268
	C	3P+N	10	6	AC400	NB2-80ZT 3P+N C10 6kA	448261
	C	3P+N	16	6	AC400	NB2-80ZT 3P+N C16 6kA	448262
	C	3P+N	20	6	AC400	NB2-80ZT 3P+N C20 6kA	448263
	C	3P+N	25	6	AC400	NB2-80ZT 3P+N C25 6kA	448264
	C	3P+N	32	6	AC400	NB2-80ZT 3P+N C32 6kA	448265
	C	3P+N	40	6	AC400	NB2-80ZT 3P+N C40 6kA	448266
	C	3P+N	50	6	AC400	NB2-80ZT 3P+N C50 6kA	448267
	C	3P+N	63	6	AC400	NB2-80ZT 3P+N C63 6kA	448269
	C	3P+N	80	6	AC400	NB2-80ZT 3P+N C80 6kA	448270