

CHNT

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Modular Din Rail Products
Perfect Reliable choice



NL1 Residual Current Operated Circuit Breaker without over-current protection (Magnetic)

1. General

1.1 Function

- Control electric circuits.
- Protect people against indirect contacts and additional protection against direct contacts.
- Protect installations against fire hazard due to insulation faults.
- Residual current circuit breakers are used in housing, tertiary sector and industry.

1.2 Selection

Detectable wave form

AC class

Tripping is ensured for slowly increasing sinusoidal AC residual currents.

A class

Tripping is ensured for sinusoidal AC residual currents and for pulsed DC residual currents, whether applied suddenly or increasing slowly.

S, G/SI class

Tripping is ensured not only for sinusoidal AC residual currents but also for pulsed DC residual currents whether applied suddenly or increasing slowly. S, G/SI type with filters against spurious tripping caused by harmonics and transient surges. With the impact of 8/20us surge 3000A, this high immunity RCCB will still be in stable status.

Tripping sensitivity

- 10mA - precision instrument leakage protection and bathroom use.
- 30mA - additional protection against direct contact.
- 100mA - co-ordinated with the earth system according to the formula $I\Delta n < 50/R$, to provide protection against indirect contacts;
- 300mA/500mA - protection against indirect contacts, as well as fire hazard.

Tripping time

Instantaneous

It ensures instantaneous tripping (without time-delay).

Short time delay G/SI

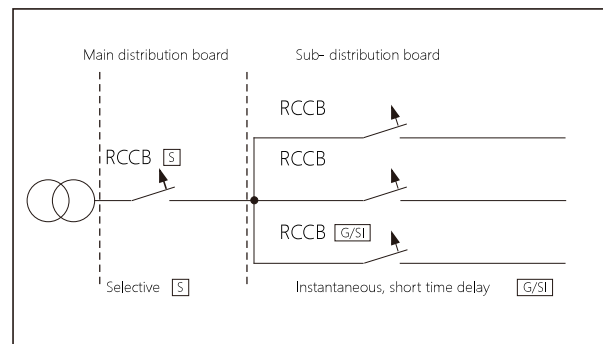
It ensures any tripping at least 10ms.

Selective S

It ensures total discrimination with a nonselective RCCB placed downstream.

1.3 Approvals and certificates

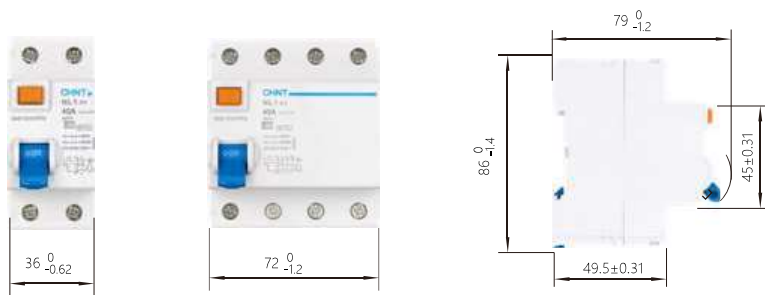
Detailed information, please refer to Certificates Table on the last page.



2. Technical data

	Standard	IEC/EN 61008-1					IEC/EN 62423 & IEC/EN 61008-1	
Electrical features	Type (wave form of the earth leakage sensed)	AC, A	AC-G,A-G,A-SI	AC,A	AC-S,A-S	F		
	Rated current I _n	A	25, 40, 63	25, 40, 63	80,100	63,80,100	25,40,63	
	Poles		1P+N, 3P+N					
	Rated voltage U _e	V	230/400~240/415					
	Rated sensitivity I _{Δn}	A	0.01for1P+N 25A, 0.03, 0.1, 0.3, 0.5	0.03, 0.1, 0.3	0.03, 0.1, 0.3	0.1, 0.3	0.03, 0.1, 0.3	
	Insulation voltage U _i	V	500					
	Rated residual making and breaking capacity I _{Δm}	A	500 (I _n =25A/40A)	500 (I _n =25A/40A)	1000 (I _n =80A/100A)	1000(I _n =63A/80A/100A)	500 (I _n =25A/40A) 630 (I _n =63A)	
	Short-circuit current I _{nc} =I _{Δc}	A	6000/10000					10000
	SCPD fuse	A	10000					
	break time under I _{Δn}	s	≤ 0.1 (Normal type), 10ms~300ms(G type). 150ms~500ms(S type)					
	Rated frequency	Hz	50/60					
	Rated impulse withstand voltage(1.2/50) U _{imp}	V	6000					
	Dielectric test voltage at ind. Freq. for 1 min	kV	2					
	Pollution degree		2					
Mechanical features	Electrical life		2, 000					
	Mechanical life		2, 000					
	Fault current indicator		Yes					
	Protection degree		IP20					
	Ambient temperature (with daily average ≤ 35°C)	°C	-5...+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	25/35					
		AWG	18-3/18-2					
	Terminal size top/bottom for busbar	mm ²	10/16					
		AWG	18-8/18-5					
	Tightening torque	N·m	2.5					
		In-lbs.	22					
Mounting		On DIN rail EN 60715 (35mm) by means of fast clip device						
Connection		From top and bottom						

3. Overall and mounting dimensions (mm)





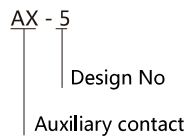
AX-5 Auxiliary Contact

1. Scope of Application

AX-5 auxiliary contact is mainly used in the circuit of AC 50/60Hz, rated heating current 6A, rated voltage AC 415V or DC 130V; assembled with NL1, it is used for distant circuit breaker on/off signal indication.

Conforming standard: GB/T 14048.5 , IEC 60947-5-1, accredited through CE certification.

2. Model and Meanings



3. Main Parameters and Technical Performance

3.1 Rated working current under different rated voltages

AC-12: AC415V/3A, AC240V/6A

DC-12: DC130V/1A, DC48V/2A, DC24V/6A

3.2 Life

The working life of auxiliary contact is not lower than 10,000 operations.

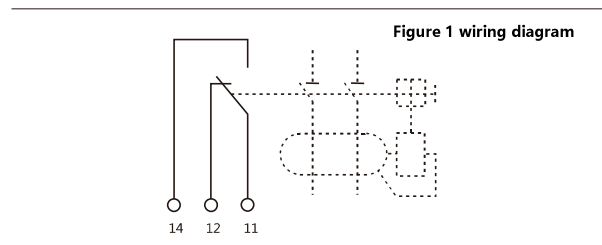
4. Main Parameters and Technical Performance

4.1 Ambient temperature: -35 °C ~ +70 °C

4.2 The atmosphere condition: ≤ 95%

4.3 Pollution degree: II

4.4 Altitude: ≤ 2000m



5. Product assembly and installation

5.1 AX-5 auxiliary contact is a kind of accessories, and can only function after being assembled with the NL1. The assembly and disassembly diagrams are shown below.

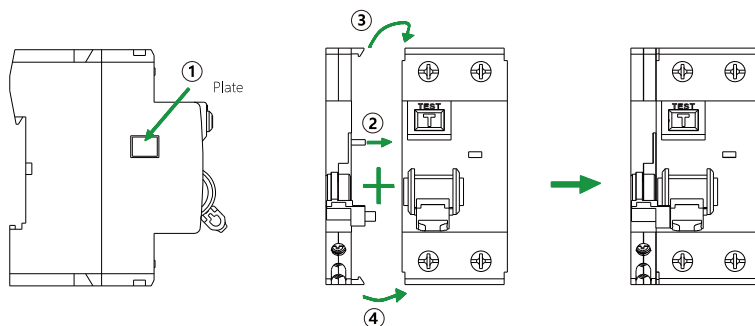
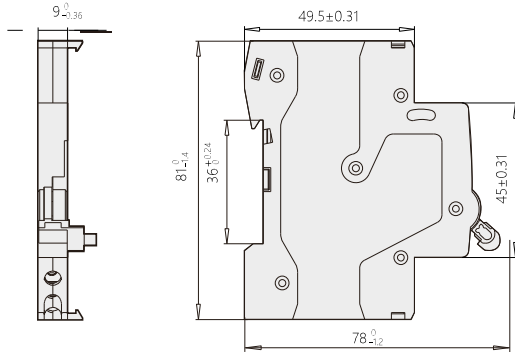


Figure 2

5.2 Remove left cover plate of circuit breaker

6. overall and mounting Dimensions (mm)

Figure 3



7. Ordering information

7.2 Types and names of product, for example, AX-5 auxiliary contact.

7.2 Quantity on order, for example, 50 units.

7.3 Example for ordering: AX-5 auxiliary contact, 50 units

