## **Residual Current Circuit Breaker with Overcurrent Protection**



#### Construction and Feature

- ◆ Elegant appearance; cover and handle in arc shape make comfortable operation.
- Contact position indicating window
- ◆ Transparent cover designed to carry label.
- ◆ In case of overload to protected circuit, RCBO handle trips and stays at central position, which enables a quick solution to the faulty line. The handle cannot stay in such position when operated manually.
- RCBO handle can be locked either at "ON" position or at "OFF" position to prevent unwanted operation of the product.
- ◆ Provides protection against earth fault/leakage current, short-circuit and overload
- ♦ High short-circuit capacity
- Provides complementary protection against direct contact by human body.
- ◆ Effectively protects electric equipment against insulating failure
- Contact position indication
- ◆ Provides protection against over-voltage

### **Technical Data**

- ◆ Type: electronic type
- ◆ Residual current characteristics: A,AC
- Pole No.: 1P+N
- ◆ Tripping curve: B, C, D
- ◆ Rated short-circuit capacity: 10kA
- ◆ Rated current (A): 1, 2, 3, 4, 6, 10, 16, 20, 25, 32
- ◆ Rated voltage: 230V AC
- ◆ Rated frequency: 50/60Hz
- ◆ Rated residual operating current(mA): 0.03, 0.1, 0.3
- ◆ Tripping duration: Instantaneous < 0.1s</p>
- ◆ Terminal Connection Height:
  - H1=19mm H2=22mm H3=18mm

- ◆ Connection terminal: pillar terminal with clamp
- Connection capacity: Rigid conductor 10mm²
- ◆ Installation:

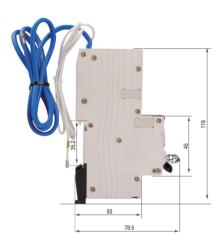
On symmetrical DIN rail 35mm

Panel mounting

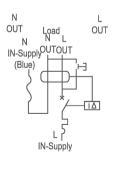
#### **Overall & Installation Dimensions**

◆ Electro-mechanical endurance: 4000 cycles

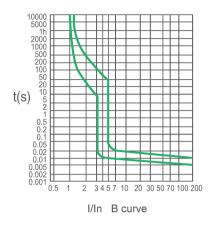


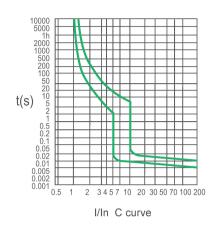


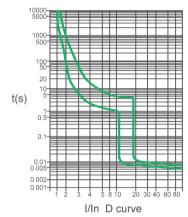
## Wiring Diagram



## Characteristic Curve







### **Overload Current Protection Characteristics**

Test Procedure	Туре	Test Current	Initial State	Tripping or Non-tripping Time Limit	Expected Result	Remark
А	B, C, D	1.13ln	cold	t≤1h	no tripping	
В	B, C, D	1.45In	after test a	t<1h	tripping	Current in the 5 s in the increase of stability
С	B, C, D	2.55In	cold	1s <t<60s< td=""><td>tripping</td><td></td></t<60s<>	tripping	
	В	3ln				Turn on the
D	С	5ln	cold	t≥0.1s	no tripping	auxiliary switch to close the
	D	10ln				current
E	В	5ln		t<0.1s	tripping	Turn on the
	С	10ln	cold			auxiliary switch to close the
	D	50In				current

The terminology "cold state" refes to that no load is carried before testing at the reference setting temperature.

# Residual Current Action Breaking Time

Type	In/A	I∆n/A	Residual Current (I $\Delta$ ) Is Corresponding To The Following Breaking Time (S)					
			l∆n	2 l∆n	5 l∆n	5A,10A,20A,50A,100A,200A,500A	I∆t	
General type	any value	any value	0.3	0.15	0.04	0.04	0.04	Max Break-time

The general type RCBO whose current I  $\triangle$  n is 0.03mA or less can use 0.25A instead of 5I  $\triangle$  n.

## Residual Current Operated Circuit Breaker Tripping Current Range

Tripping current I∆/A						
0.5l∆n <l∆<l∆n< th=""></l∆<l∆n<>						
Lagging Angle	IΔn>0.01A	I∆n≤0.01A				
0°	0.35l∆n					
90°	0.25l∆n	1.4I∆n				
135°	0.11I∆n					