# MR050 Residual Current Circuit Breaker With Overload Protection (RCB0)

## matis



#### Advantages

- ◆Operating mechanism adopt double contact with DPN form, N pole opening first, then breaking.
- ◆Leakage protection adopt electronic type integrated circuit, Contact ON/OFF state display;
- ◆Trigger has middle–position function and a clamshell to put tags in and characteristic strips on both sides.
- ◆Provides protection against earth fault/leakage current, short-circuit, overload, and function of isolation.



#### MR050-32

#### **Technical Data**

- ◆Residual current characteristics: AC, A
- ◆Pole No.: 1P+N
- ◆Rated current (A): 6, 10, 16, 20, 25, 32
- ◆Tripping curve: B, C
- ◆Rated making and breaking capacity:
- ◆Rated voltage: 240V AC
- ◆Rated frequency: 50Hz
- ◆Rated residual operating current I△n(mA): 30
- ◆Tripping duration: instantaneous tripping ≤ 0.1s
- ◆ Electro-mechanical endurance: 4000 cycles
- ◆Connection capacity: Rigid conductor 25mm²



MR050-40

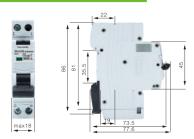
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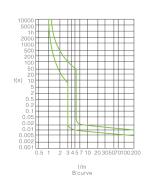


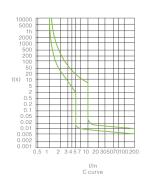
#### Overall & installation dimensions





#### Characteristic Curve





#### Wiring Diagram



### Overload Current Protection Characteristics

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

## Residual Current Action Breaking Time

type	In/A	I∆n/A	Residual Current(I△) Is Corresponding To The Following Breaking Time(S)						
AC type	any value	any value	In	2ln	5ln				
A type	any value	> 0.01	1.14ln	2.8ln	7ln	5A,10A,20A,50A 100A,200A,500A			
A type	any value	≤0.01	2ln	4ln	10ln				
			0.3	0.15	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  $5I\triangle n$ .