

MK SENTRY



Miniature Residual Current Breakers with Overcurrent Protection Bi-Directional (RCBOs)



Description

The MK Sentry range features neutral switched type double pole RCBOs in one module format. The one module MK Sentry RCBOs are a combination of a Type B/C MCB and a Residual Current Device. This enables both overcurrent protection and earth fault current protection to be provided by a single unit. Miniature RCBOs are bi-directional for PV and EV installations.

This combination allows earth fault protection to be restricted to a single circuit, thus ensuring that only the circuit with the fault is interrupted. (When groups of circuits are protected by an RCD, all circuits would be interrupted under fault conditions, which may cause unnecessary inconvenience).

PART NUMBER	RATING	MCB CURVE	RCD TYPE	TRIPPING CURRENT	BREAKING CAPACITY
H7732M	6A	B	A	30mA	6KA
H7733M	10A	B	A	30mA	6KA
H7734M	16A	B	A	30mA	6KA
H7735M	20A	B	A	30mA	6KA
H7725M	25A	B	A	30mA	6KA
H7736M	32A	B	A	30mA	6KA
H7737M	40A	B	A	30mA	6KA
H6532M	6A	C	A	30mA	6KA
H6533M	10A	C	A	30mA	6KA
H6534M	16A	C	A	30mA	6KA
H6535M	20A	C	A	30mA	6KA
H6525M	25A	C	A	30mA	6KA
H6536M	32A	C	A	30mA	6KA
H6537M	40A	C	A	30mA	6KA

The operating switch on all MK Sentry RCBOs may be locked in either the ON or OFF position without affecting the ability of the trip mechanism to operate.

MK Sentry RCBOs feature tunnel terminals of generous capacity, with 25mm² for live supply terminals and 10mm² for live and neutral load terminals. The neutral supply (blue) is provided via flying lead.

Mode of operation

As the RCBO is a combination of an MCB and RCD, reference should be made to the relevant technical information regarding these devices.

Features

- Single module
- Meet BS EN and IEE Wiring Regulation requirements
- Allows both overcurrent and earth fault protection and detection
- Available in a range of current ratings
- Tunnel type terminals
- Generous terminal capacity
- Positive contact status indication
- Double Pole
- Bi-directional

Operating Characteristics

RCD Type A

These are used to respond to AC and pulsating DC Currents

MCB Curve B/C

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TECHNICAL SPECIFICATION

ELECTRICAL

CURRENT RATING

6~40A

OPERATING VOLTAGE

230V a.c.

OPERATING FREQUENCY

50Hz

RATED SHORT CIRCUIT CAPACITY I_{cn}

6,000A

SERVICE SHORT CIRCUIT CAPACITY I_{cs}

6,000A

When backed up by a BS 1361, 100A fuse, then the breaking capacity of the RCBO is increased to 16,000A.

RCD Type A

MCB Curve B or C

PHYSICAL

AMBIENT OPERATING TEMPERATURE

-5°C to + 55°C

IP RATING

Front face IP4X, screw IP2X

TERMINAL CAPACITY

Line in 25mm²

Line and neutral out 10mm²

TIGHTENING TORQUE

2.5Nm

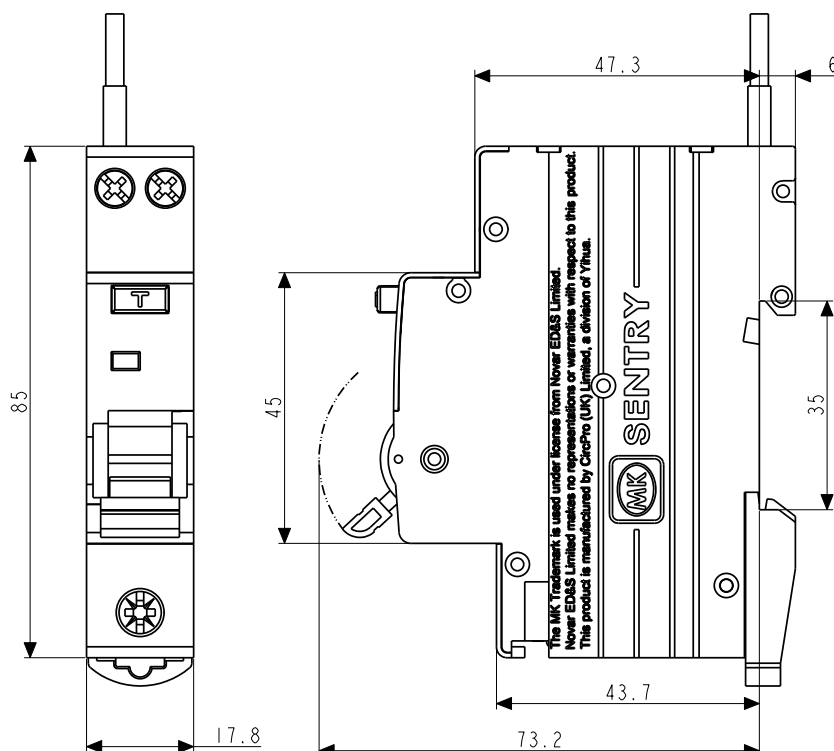
MAX. INSTALLATION ALTITUDE

2000 metres

Dimensions (mm)

(height) 85mm x (width) 18mm x (depth)

73.2mm weight 0.15Kg (0.2Kg packed)



Installation

MK Sentry RCBOs may be installed anywhere along the length of the busbar and will occupy one outgoing way.

Selection of the most suitable RCBO should take into account the following considerations:

1. Operating voltage and frequencies
2. Fault breaking capacity

For applications where the prospective fault current is in excess of this, a BS 1361, 100A (maximum) fuse should be used upstream of the RCBO to provide a system breaking capacity of 16,000A.

3. Cable protection

The current carrying capacity of the cable should always exceed the current rating of the RCBO, to prevent damage. However, should this not be the case, a further calculation may show that the RCBO can still interrupt the current in a sufficiently short time to prevent overheating of the cable insulation. Although this will prevent mechanical damage to the cables, further overload protection should be provided by a separate device, e.g. a motor overload relay.

Standards and approvals

Product Standard: BS EN 61009-1, BS IEC 61009-2-2, BS 61543 (EMC)

Product Certification: CE, UKCA

Degree of Pollution: 2

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