

10.1

Technical data

Residual current circuit breakers – with overload (RCBOs)

Residual current circuit breakers – with overload protection (RCBOs) technical data

Eaton's range of residual current circuit breakers with integral overload protection (RCBOs), are manufactured to IEC EN 61009 and meet the latest European and International standards.

Trip Sensitivity

Provides a high degree of protection against electric shock due to direct contact. A 30mA RCD will trip within 40mS when a fault current of 150mA is detected.

This type of RCD is required to satisfy the requirements for "additional protection" in accordance with BS7671 (IET wiring regs.)

Single phase RCBO technical data

Specifications

Product standard IEC EN 61009

No of poles 1p & solid N

Mechanical specification

Device width 17.7 mm

Terminal type Lower-Box clamp Upper-Box clamp

Terminal capacity 1–25mm² 2-16mm²

Terminal Screw M5 combination M4 combination

Terminal torque 2.4Nm max 1.5Nm max

Mounting DIN rail

Degree of protection IP 20

Positive contact indication Yes (Red/Green flag)

Electrical specification

Rated voltage 230/240 V AC

Current ratings 6, 10, 16, 20, 25, 32, 40, 45A

Rated impulse and withstand voltage 4kV (1.2/50) u sec

Rated short circuit capacity 10kA

Sensitivity Type A

Tripping characteristic

Instantaneous Tripping current I_{mt} Type B: 3 I_n < I_{mt} < 5 I_n
Type C: 5 I_n < I_{mt} < 10 I_n

Conventional non tripping current I_{nt} = 1.13 I_n

Conventional tripping current I_t = 1.45 I_n

Ref/Calibration temp 40o C

Rated tripping currents 10, 30, 100mA

Tripping type Instantaneous

Number of operating cycles elec >400

Number of operating cycles mech >20000

Three phase RCBO technical data

Electrical

Design according to IEC/EN 61009

Tripping line voltage-independent instantaneous 250A (8/20μs)
surge current-proof

Rated voltage U_e 240/415V; 50Hz

Rated tripping current I_n 0, 100, 300 mA

Rated non-tripping current I_{no} 0.5 I_n

Sensitivity Type A (AC and pulsating DC)

Selectivity class 3

Rated breaking capacity 10 kA

Rated current 6 - 32 A

Rated peak withstand voltage U_{imp} 4 kV (1.2/50μs)

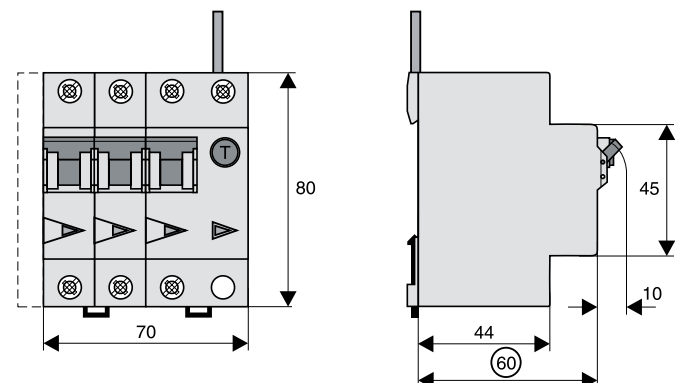
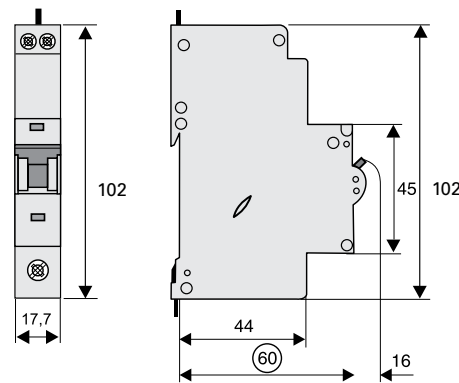
Characteristic B, C, D

Maximum back-up fuse (short circuit) 100 A gL (>10 kA)

Endurance electrical comp. ≥ 4,000 operating cycles

mechanical comp. ≥ 20,000 operating cycles

RCBOs dimensions (mm)



Mechanical

Frame size 45 mm

Device height 80 mm

Device width 70 mm

Upper and lower terminals open mouthed/lift terminals

Terminal capacity 1 - 25 mm²

Degree of protection IP20

Operating temperature -25°C to +40°C

Resistance to climatic conditions acc. to IEC/EN 61009