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DATA SHEET

residual current operated circuit-breakers with integral overcurrent protection

RCBO 1 C20/0,03/1-A

sensitive to pulsating and alternating currents Type A

Article number 09915815

10000 25

Function

RCCB/MCB combinations (RCBO) are residual current operated circuit-breakers with integral overcurrent protection for protecting systems in the event of a short-circuit and overload as per the requirements of VDE 0100 Part 430, and for protecting persons, farm animals and material items in the event of earth leakage currents as per VDE 0100 Part 410. Overload tripping occurs at currents in the overload range through a short-time delayed, heat-sensitive bimetal trip and at short-circuit currents through an electromagnetic instantaneous trip. The high-quality residual current operated circuit-breakers with integral overcurrent protection from series RCBO 1 are independent of the mains voltage and have a high switching capacity of 10 kA. They are especially suited for use in British standard distribution systems, and are particularly compact thanks to a module width of just one module width unit. Two features make mounting and removal easier: terminal protection against wires being lodged behind them and the bi-stable snap-in slider. Type A residual current circuit-breakers are sensitive to pulsating and alternating currents. This function is independent of the mains voltage. RCBOs with tripping characteristic C are primarily suitable for power circuits with high switch-on or peak currents, as their short-circuit trip value is five to ten times the rated current. Devices of this series have been designed in accordance with the requirements of the British Standards Institution. Due to their voltage dependance, they are not admitted for use in Germany.

Features

mains-voltage-dependent tripping, compact design for all rated currents, high short-circuit resistance, green/red switching position indicator, strain-relief clamps with protection against wires being lodged behind them , bi-stable snap-in slider for easy mounting and removal

Mounting

quick fastening to mounting rail, any installation position, supply as desired

Applications

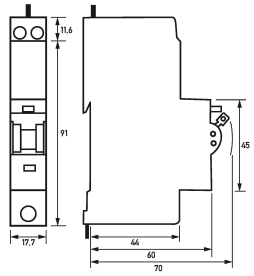
Power supplies to residential and purpose-built buildings as well as industrial facilities with TN-S, TT and TN-C-S networks. In IT networks, the RCBOs of this series can be set to switch off in the event of a second fault, Not permitted for use in TN-C networks and for protecting systems in which electronic equipment may cause pulsating or smooth DC residual currents or residual currents with frequencies not equal to 50 Hz. Comprehensive protection is not provided with an RCCB type AC. For these applications we recommend our residual current operated circuit-breakers with integral overcurrent protection Type A or our AC-DC sensitive RCBO Type B.

Technical Data

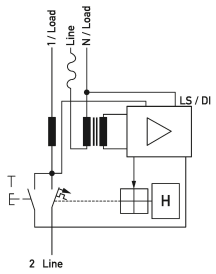
Technical Data	RCBO 1 C20/0,03/1-A
Series	RCBO 1
Number of poles	1
Residual current type	A
Rated current (AC)	20 A
Rated residual current IΔn	0.03 A
Short-time delayed	false
Selective	false
min. Operating voltage range of test circuit	184 V
max. Operating voltage range of test circuit	264 V
Tripping characteristic	C

Technical Data	RCBO 1 C20/0,03/1-A
Operating voltage (AC)	max. 253 V
	load circuit
Specification	load disconnect contact
Rated voltage (AC)	230 V
Rated current (AC)	20 A
Rated short-circuit current	10 kA
Surge current strength	0.25 kA
max. Total rated switching capacity	10 kA
Rated frequency	50 Hz
Current heat loss per current path	6.3 W
Short-circuit backup-fuse SCPD	100 A
Back-up fuse type	gG
	screw-type terminal top, bottom (load circuit)
Neutral conductor position	right
Clamping area	1 mm² ... 25 mm²
Connection C1 Maximum number of conductors per terminal	2 (conductors of same type and cross-section)
	General data
Operating position	optional
Mechanical endurance	min. 20000 switching cycles
Electrical endurance	min. 4000 switching cycles
Storage temperature	-25 °C ... 55 °C
Ambient temperature	-25 °C ... 40 °C
Climate resistance	according to IEC 60068-2 (90...95%)
Housing type	distribution board housing
Installation type	Mounting rail (35 mm)
Housing material	thermoplastic
Protection class	IP20 (installed: IP40)
Width	17.7 mm
Height	102.6 mm
Depth	75.2 mm
Installation depth	70.2 mm
Module widths	1
Weight	0.262 kg
Design requirements/Standards	EN 61009-1, EN 61009-2-1, EN 61543
Power limitation category	3

Dimensions



Wiring example



Dimensional drawing Group view

Wiring diagram