



## DATA SHEET

Article number : 09945105



# residual current operated circuit-breakers with integral overcurrent protection

## DRCBO 4 B20/0,03/3N-A

sensitive to pulsating and alternating currents Type  
A, characteristic B

### 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 DRCBO 4 have a rated switching capacity of 6 kA. They provide a labelling area in addition to the tripping indicator. Type A residual current circuit-breakers are sensitive to pulsating and alternating currents. This function is independent of the mains voltage. RCBOs with characteristic B ensure standard protection for lighting and socket circuits. As their short-circuit trip is three to five times the rated current, they should not be used to fuse-protect load circuits with high inrush currents. Devices in standard design are intended for monitoring circuits with a rated voltage of 230 V or 400 V and a rated frequency of 50 Hz.

### Features

pulsating current-sensitive and AC current-sensitive, mains-voltage-independent tripping, compact design for all rated currents, switch position indicator, separate indication of tripping cause, strain-relief clamps with a wide terminal cross-section range on both connection sides, neutral conductor right, labelling area

### Mounting

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

### Applications

Protection of circuits in residential and purpose-built buildings as well as industrial facilities with TN-S, TT and TN-C-S networks. In IT networks, the RCCB/MCBs can be set to switch off in the event of a second earth fault, Not permitted for use in systems with TN-C networks; not permitted for protecting circuits in which the power electronics equipment may cause smooth DC residual currents or residual currents with frequencies not equal to 50/60 Hz.

### Accessories

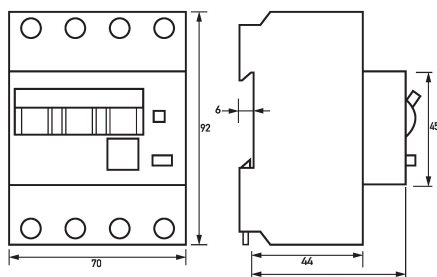
auxiliary switches DRCBO 4 Hi 2, wiring components RCCB and MCB busbars 4-pole

### Technical data

Series	DRCBO 4
Number of poles	3+N
Residual current type	A
Rated current (AC)	20 A
Rated residual current $I_{\Delta n}$	0.03 A
Short-time delayed	false
Selective	false
min. Operating voltage range of test circuit	170 V
max. Operating voltage range of test circuit	250 V
Tripping characteristic	B
Operating voltage (AC)	max. 440 V
Specification	load circuit
Rated voltage (AC)	load disconnect contact
Rated current (AC)	230 V, 400 V
Rated short-circuit current	20 A
Surge current strength	6 kA
max. Total rated switching capacity	0.25 kA
Rated insulation voltage	6 kA
	440 V

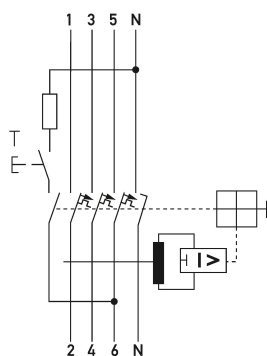
Rated impulse withstand voltage	4 kV
Rated frequency	50 Hz, 60 Hz
Current heat loss per current path	3.1 W
Back-up fuse type	gG
Overvoltage class	III
	<b>screw-type terminal top, bottom (load circuit)</b>
Neutral conductor position	right
Connection C1 Maximum number of conductors per terminal	2 (conductors of same type and cross-section)
Cross section solid	1-wire: 1 mm <sup>2</sup> ... 35 mm <sup>2</sup> ; 2-wire: 1 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Connecting capacity flexible	1-wire: 1 mm <sup>2</sup> ... 25 mm <sup>2</sup> ; 2-wire: 1 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Cross section stranded	1-wire: 1 mm <sup>2</sup> ... 25 mm <sup>2</sup> ; 2-wire: 1 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Tightening torque	2 Nm ... 2.4 Nm
	<b>General data</b>
Operating position	optional
Electrical endurance	min. 2000 switching cycles
Storage temperature	-40 °C ... 70 °C
Ambient temperature	-25 °C ... 40 °C
Housing type	distribution board housing
Installation type	Mounting rail (35 mm)
Housing material	thermoplastic
Protection class	IP20 (installed: IP40)
Width	70 mm
Height	92 mm
Depth	74 mm
Installation depth	68 mm
Module widths	4
Weight	0.508 kg
Design requirements/Standards	EN 61009-1, EN 61009-2-1, VDE 0664-20
Power limitation category	3
Degree of pollution	2

### Dimensions



Dimensioned drawing residual current operated circuit-breakers with integral overcurrent protection DRCBO 4 B20/0,03/3N-A

### Wiring example



Wiring example residual current operated circuit-breakers with integral overcurrent protection DRCBO 4 B20/0,03/3N-A