



DATA SHEET

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

Article number 09945105



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

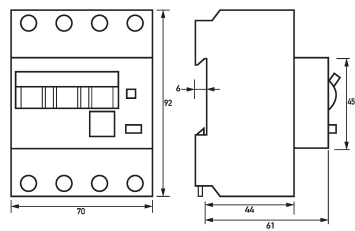
Technical Data

| Technical Data | DRCBO 4 B20/0,03/3N-A |
|--|-----------------------|
| 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 |

Subject to technical changes

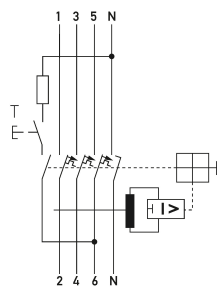
| Technical Data | DRCBO 4 B20/0,03/3N-A |
|---|---|
| | load circuit |
| Specification | load disconnect contact |
| Rated voltage (AC) | 230 V, 400 V |
| Rated current (AC) | 20 A |
| Rated short-circuit current | 6 kA |
| Surge current strength | 0.25 kA |
| max. Total rated switching capacity | 6 kA |
| Rated insulation voltage | 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 |
| | screw-type terminal top, bottom (load circuit) |
| 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 ² ... 35 mm ² ; 2-wire: 1 mm ² ... 10 mm ² |
| Connecting capacity flexible | 1-wire: 1 mm ² ... 25 mm ² ; 2-wire: 1 mm ² ... 10 mm ² |
| Cross section stranded | 1-wire: 1 mm ² ... 25 mm ² ; 2-wire: 1 mm ² ... 10 mm ² |
| Tightening torque | 2 Nm ... 2.4 Nm |
| | General data |
| Operating position | optional |
| Electrical endurance | min. 2000 switching cycles |
| 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



Dimensional drawing Group view

Wiring example



Wiring diagram