*symbolic image*

# *DATA SHEET*

## *residual current operated circuit-breakers with integral overcurrent protection*

## *FIB 20/0,30/3+N-A*

***sensitive to pulsating and alternating currents Type A, characteristic B***

***Article number 09955115***

6000 ~ -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. FIB/FIC of this series 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*

mains-voltage-independent tripping, compact design for all rated currents, high short-circuit resistance, switch position indicator, separate indication of fault cause, strain-relief clamps with a wide terminal cross-section range on both connection sides, Neutral conductor right, high electromagnetic compatibility (immunity to interference for industrial applications)

### *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*

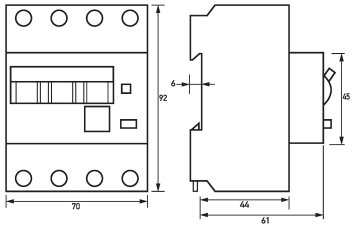
auxiliary switches DRCBO 4 Hi 1

### *Technical Data*

| Technical Data | FIB 20/0,30/3+N-A |
|---|---|
| Series | FIB |
| Number of poles | 3+N |
| Residual current type | A |
| Rated current (AC) | 20 A |
| Rated residual current IΔn | 0.3 A |
| Short-time delayed | false |
| Selective | false |
| min. Operating voltage range of test circuit | 100 V |
| max. Operating voltage range of test circuit | 254 V |
| Tripping characteristic | B |
| Operating voltage (AC) | max. 440 V |

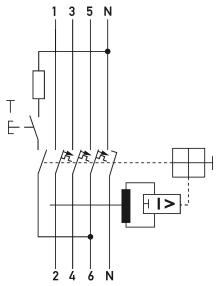
| Technical Data | FIB 20/0,30/3+N-A |
|---|---|
| | **load circuit** |
| Specification | load disconnect contact |
| Rated voltage (AC) | 230 V, 400 V |
| Rated current (AC) | 20 A |
| Rated short-circuit current | 6 kA |
| Surge current strength | 0.25 kA |
| max. Total rated switching capacity | 6 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 |
| Short-circuit backup-fuse SCPD | 100 A |
| 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 mm² ... 35 mm² |
| Connecting capacity flexible | 1-wire: 1 mm² ... 25 mm² |
| Cross section stranded | 1-wire: 1 mm² ... 25 mm²; 2-wire: 1 mm² ... 10 mm² |
| | **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 | 0.506 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*