



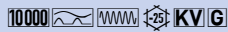
DATA SHEET

residual current circuit-breaker

DFS 2 025-2/0,03-F Hz60

sensitive to residual currents Type F, for frequencies \neq 50 Hz

Article number 09124028



Function

Residual current circuit-breakers (RCCBs) are components for implementing protective measure "Automatic disconnection of the power supply" as per VDE 0100 part 410 or corresponding international installation regulations. Series DFS 2 devices are compact two-pole residual current circuit-breakers for single-phase networks. In the standard design, they only take up two module-width units of space. In spite of the compact dimensions, a number of different tripping currents and characteristics are available at rated currents, depending on the design, up to 125 A. They also have large two-tier terminals for large conductor cross-sections, a practical multi-functional switch toggle and can be provided with labels using free-of-charge software. Switches for residual current type F are mains voltage-independent and record type A sinusoidal alternating and pulsating DC residual currents as well as residual currents with mixed frequencies that differ from 50 Hz. For example, these can arise when using single-phase frequency converters. Devices in the Hz design are intended for rated mains frequencies other than 50Hz. Common frequencies are 60 or 400 Hz; devices for other frequencies can be manufactured upon request. The frequency range for tripping current detection remains unaffected by this.

Features

sensitive to AC residual currents and pulsating DC residual currents at the mains frequency (type A) as well as AC residual currents with multiple frequency components not equal to 50 Hz, high immunity against surge currents and mains-voltage-operated secondary current impulses , compact design for all rated currents, high short-circuit resistance, double-sided two-tier terminals for large conductor cross-section and busbar, switch position indicator, viewing window for labels, multifunction switch toggle with three positions: "on", "off" and "tripped", Neutral conductor position left or right

Mounting

quick fastening to mounting rail, any installation position, supply from any direction

Accessories

automatic reclosing devices DFA, terminal caps KA, information stickers HAS, auxiliary switches DHi, restart locks DFS WES, software DBS

Technical Data

| Technical Data | DFS 2 025-2/0,03-F Hz60 |
|--|---|
| Series | DFS 2 F Hz |
| Number of poles | 2 |
| Residual current type | F |
| Rated current (AC) | 25 A |
| Rated residual current $I_{\Delta n}$ | 0.03 A |
| Short-time delayed | true |
| Selective | false |
| min. Operating voltage range of test circuit | 150 V |
| max. Operating voltage range of test circuit | 250 V |
| Non-trip time | 10 ms |
| Maximum disconnection times | $1 \cdot I_{\Delta n}: \leq 300 \text{ ms}; 5 \cdot I_{\Delta n}: \leq 40 \text{ ms}$ |
| | load circuit |
| Specification | load disconnect contact |

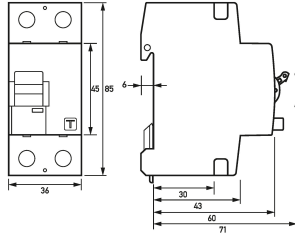
Subject to technical changes

| Technical Data | DFS 2 025-2/0,03-F Hz60 |
|---|---|
| min. Contact opening | 4 mm |
| Rated voltage (AC) | 230 V |
| Rated current (AC) | 25 A |
| Rated short-circuit current | 10 kA |
| Surge current strength | 3 kA |
| max. Total rated switching capacity | 500 A |
| Rated insulation voltage | 400 V |
| Rated impulse withstand voltage | 4 kV |
| Rated frequency | 60 Hz |
| Current heat loss per current path | 0.5 W |
| Thermal Backup-fuse OCPD | 25 A |
| Short-circuit backup-fuse SCPD | 100 A |
| Back-up fuse type | gG |
| | screw-type terminal top and bottom (load circuit) |
| Neutral conductor position | left or right |
| Protection against direct contact | DGUV V3, VDE 0660-514, finger and back-of-hand proof |
| Connection C1 Maximum number of conductors per terminal | 2 (conductors of same type and cross-section) |
| Cross section solid | 1-wire: 1.5 mm ² ... 50 mm ² ; 2-wire: 1.5 mm ² ... 16 mm ² |
| Connecting capacity flexible | 1-wire: 1.5 mm ² ... 50 mm ² ; 2-wire: 1.5 mm ² ... 16 mm ² |
| Cross section stranded | 1-wire: 1.5 mm ² ... 50 mm ² ; 2-wire: 1.5 mm ² ... 16 mm ² |
| Cross section AWG, solid | 15 ... 1 |
| Cross section AWG, stranded | 15 ... 1 |
| Cross section AWG, flexible | 15 ... 1 |
| Cross section AWG, flexible with ferrule | 15 ... 1 |
| Tightening torque | 2.5 Nm ... 3 Nm |
| | General data |
| Operating position | optional |
| max. Operating altitude above MSL | 2000 m |
| Mechanical endurance | min. 5000 cycles |
| Electrical endurance | min. 2000 cycles |
| Surrounding atmosphere | normal environmental conditions |
| Storage temperature | -35 °C ... 75 °C |
| Ambient temperature | -25 °C ... 40 °C |
| Climate resistance | according to IEC 60068-2-30: humid heat / cyclic (25 °C / 55 °C; 93 % / 97 % RH) |
| Shock resistance | 20 g / 20 ms Duration |
| Fatigue limit | > 5 g (f ≤ 80 Hz, duration > 30 min.) |
| Housing type | distribution board housing |
| Installation type | Mounting rail (35 mm) |
| Housing material | thermoplastic |
| Protection class | IP20 (installed: IP40) |
| sealable | true |
| Width | 36 mm |
| Height | 85 mm |
| Depth | 75 mm |
| Installation depth | 69 mm |

Subject to technical changes

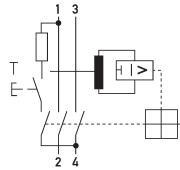
| Technical Data | DFS 2 025-2/0,03-F Hz60 |
|-------------------------------|---|
| Module widths | 2 |
| Weight | 0.266 kg |
| Design requirements/Standards | VDE 0664-10, DIN EN 61008-1, ÖVE/ÖNORM E 8601, EN 62423 |
| Degree of pollution | 2 |

Dimensions



Dimensional drawing Group view

Wiring example



Wiring diagram