

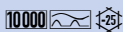
DATA SHEET

residual current circuit-breaker

DFS 2 063-2/0,03-A Twin

puls- und wechselstromsensitiv Typ A, unterbrechungsfreie Prüfung

Article number 09144010



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. The twin design is a combination of two complete RCCBs, which allows for a function test to be performed on every single sub-RCCB without switching off the load circuit. It provides complete residual current protection during the function test, in which each of the RCCBs working in parallel can carry the full rated short-circuit current. The continual flow of current during the test procedure is achieved through parallel switching of the switching contacts of both sub-RCCBs, i.e. when both RCCBs are switched on, one of the two sub-switches can be tripped using its test key, while the second switch takes on the power supply. If the function test shows that a faulty RCCB does not trip, the effectiveness of the protection can be restored by switching on the intact RCCB. A faulty device can be secured against switching on again in this case with the restart interlock WES 2 mounted at the factory. Type A residual current circuit-breakers are sensitive to pulsating and alternating currents. This function is independent of the mains voltage. Devices in the standard design are intended for monitoring circuits with a rated voltage of 230 V and a rated frequency of 50 Hz.

Features

function test for residual current circuit-breaker without interrupting power, residual current protection complies with standard even during testing procedure, no costs during system downtime, high system availability , tripping not dependent on mains and auxiliary voltage, sensitive to AC residual currents and pulsating DC residual currents (type A) , 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"

Mounting

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

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 residual current circuit-breakers of this series can be set to switch off in the event of a second fault, The twin design allows regularly prescribed function tests to be performed without disconnecting the power, Excluded is the application in TN-C systems and for the protection of installations in which electronic equipment could generate smooth DC currents or residual currents with frequencies other than 50 Hz.

Notes

WES 2 restart interlock mounted at factory

Accessories

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

Technical Data

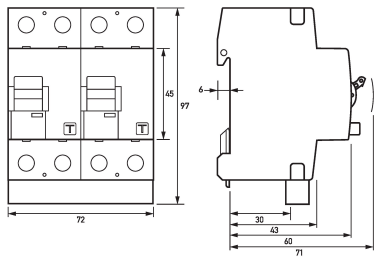
| Technical Data | DFS 2 063-2/0,03-A Twin |
|-----------------------|-------------------------|
| Series | DFS 2 A Twin |
| Number of poles | 2 |
| Residual current type | A |

| Technical Data | DFS 2 063-2/0,03-A Twin |
|---|---|
| Rated current (AC) | 63 A |
| Rated residual current $I_{\Delta n}$ | 0.03 A |
| Short-time delayed | false |
| Selective | false |
| min. Operating voltage range of test circuit | 150 V |
| max. Operating voltage range of test circuit | 250 V |
| 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 |
| Number | 2 |
| min. Contact opening | 4 mm |
| Rated voltage (AC) | 230 V |
| Rated current (AC) | 63 A |
| Rated short-circuit current | 10 kA |
| Surge current strength | 0.25 kA |
| max. Total rated switching capacity | 800 A |
| Rated insulation voltage | 400 V |
| Rated impulse withstand voltage | 4 kV |
| Rated frequency | 50 Hz |
| Current heat loss per current path | 2.8 W |
| Thermal Backup-fuse OCPD | 63 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 |
| 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 |

Subject to technical changes

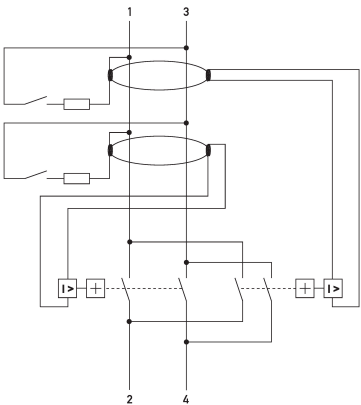
| Technical Data | DFS 2 063-2/0,03-A Twin |
|-------------------------------|---------------------------------------|
| Fatigue limit | > 5 g (f ≤ 80 Hz, duration > 30 min.) |
| Housing type | distribution board housing |
| Installation type | Mounting rail (35 mm) |
| Housing material | thermoplastic |
| Protection class | IP20 (installed: IP40) |
| sealable | true |
| Width | 72 mm |
| Height | 97 mm |
| Depth | 77 mm |
| Installation depth | 69 mm |
| Module widths | 4 |
| Weight | 0.544 kg |
| Design requirements/Standards | VDE 0664-10, DIN EN 61008-1 |
| Degree of pollution | 2 |

Dimensions



Dimensional drawing Group view

Wiring example



Wiring diagram