

symbolic image



## DATA SHEET

### DAFDD 1 C40/0,03/2-A

*Residual current operated circuit-breaker with integral overcurrent protection as Fire protection switch, sensitive to pulsating and alternating currents Type A*

Article number 09962702


[Internetlink](#)

### Function

Arc-fault detection devices (Fire protection switch, AFDD) are designed to protect serial and parallel fault arcs in accordance with DIN VDE 0100-420. They are commonly referred to as fire protection switches. They must be installed in permanently installed final circuits up to 16 A in, for example, facilities at risk of fire or public institutions. They are also recommended for bedrooms and for final circuits with high connection loads. The devices detect high-frequency arc faults, such as those that occur as a result of cabling defects. The early recognition and the switching off of the final circuit, which may occur as a result in case of emergency, prevent thermal effects of arc faults. The risk of fire resulting from incorrect electrical installation is significantly reduced. The reason for tripping is indicated by an LED colour code on the front of the device. DAFDD 1 are compact combination devices with a triple function: arc fault detection, line protection and residual current trip. They protect systems in the event of a short-circuit and overload as per the requirements of VDE 0100 Part 430, and protect persons, farm animals and material items in the event of earth leakage currents as per VDE 0100 Part 410. The RCBO component works independent of the mains voltage. Residual current type A allows the detection of sinusoidal AC currents and pulsating DC residual currents. The contact position indicators and the display tripped by residual current provide a quick overview of the operating status of the device. The devices up to 25 A also have a high rated switching capacity of 10 kA, and the 32 A and 40 A devices have a rated switching capacity of 6 kA. Line protection with characteristic C is primarily suitable for power circuits with high switch-on or peak currents. Devices in standard design are intended for monitoring circuits with a rated voltage of 230 V and a rated frequency of 50 Hz.

### Features

combination device with three functions, two-pole, Variable neutral-pole position, AFDD as per IEC/EN-62606, RCBO as per IEC/EN-61009, continuous self-monitoring, mains-voltage-independent tripping of the RCCB/MCB functions, Display AFDD reason for tripping, Contact position indicators, Residual current tripping indicator, compact design for all rated currents, high short-circuit resistance, strain-relief clamps with protection against wires being lodged behind them, tri-stable snap-in slider for easy mounting and removal

### Mounting

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

### Applications

Protection of circuits in residential and purpose-built buildings as well as industrial facilities with TN-S and TN-C-S networks, 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 Hz.

### Accessories

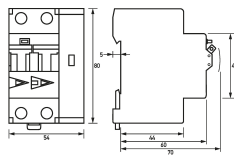
Wiring components DAFDD busbars, Auxiliary Switches DHi, Restart locking facilities RH-SS

### Technical Data

| Technical Data                      | DAFDD 1 C40/0,03/2-A |
|-------------------------------------|----------------------|
| Series                              | DAFDD 1              |
| Number of poles                     | 2                    |
| Residual current type               | A                    |
| Rated current (AC)                  | 40 A                 |
| Rated residual current I $\Delta$ n | 0.03 A               |
| Short-time delayed                  | false                |
| Selective                           | false                |

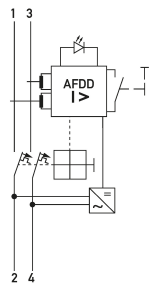
| Technical Data                               | DAFDD 1 C40/0,03/2-A                                       |
|----------------------------------------------|------------------------------------------------------------|
| min. Operating voltage range of test circuit | 196 V                                                      |
| max. Operating voltage range of test circuit | 253 V                                                      |
| Neutral conductor position                   | left, right                                                |
| Tripping characteristic                      | C                                                          |
| Operating voltage (AC)                       | 240 V (170 V ... 264 V)                                    |
| Operating frequency                          | 50 Hz                                                      |
| Rated impulse withstand voltage              | 4 kV                                                       |
|                                              | Load circuit                                               |
| Specification                                | Load switch contact                                        |
| Rated voltage (AC)                           | 240 V                                                      |
| Rated current (AC)                           | 40 A                                                       |
| Rated short-circuit current                  | 6 kA                                                       |
| Surge current strength                       | 0.25 kA                                                    |
| max. total rated switching capacity          | 6 kA                                                       |
| Rated insulation voltage                     | 250 V                                                      |
| Rated frequency                              | 50 Hz                                                      |
| Current heat loss per current path           | 3.85 W                                                     |
| short-circuit backup-fuse SCPD               | 100 A                                                      |
| Back-up fuse type                            | gG                                                         |
| Overvoltage class                            | III                                                        |
|                                              | Screw-type terminal top, bottom (Load circuit)             |
| Protection against direct contact            | DGUV V3, ÖVE-EN 6                                          |
| max. Connection C1 cable length              | 70 m (between the distribution board and the outer socket) |
| Clamping area                                | 1 mm <sup>2</sup> ... 25 mm <sup>2</sup>                   |
| Tightening torque                            | 2 Nm ... 2.4 Nm                                            |
|                                              | General data                                               |
| Mechanical endurance                         | min. 20000 switching cycles                                |
| Electrical endurance                         | min. 4000 switching cycles                                 |
| Storage temperature                          | -35 °C ... 60 °C                                           |
| Ambient temperature                          | -25 °C ... 40 °C                                           |
| Climate resistance                           | According to IEC/EN 61009                                  |
| Housing type                                 | Distributor housing                                        |
| Mounting type                                | Mounting rail                                              |
| Housing material                             | Thermoplastic resin                                        |
| Protection class                             | IP20 (installed: IP40)                                     |
| Width                                        | 54 mm                                                      |
| Height                                       | 80 mm                                                      |
| Depth                                        | 76 mm                                                      |
| Installation depth                           | 70 mm                                                      |
| Width (modules)                              | 3                                                          |
| Design requirements/Standards                | EN 62606, EN 61009                                         |
| Certifications                               | VDE                                                        |
| Power limitation category                    | 3                                                          |
| Degree of pollution according to EN 60664    | 2                                                          |

Dimensions



Dimensional drawing Group view

Wiring example



Wiring diagram