



symbolic image



## DATA SHEET

### DFS 4 100-4/0,50-AC FT

sensitive to residual currents Type AC, with remote-tripping function

Article number 09167922



[Internetlink](#)

#### Function

Residual current circuit-breakers (RCCBs) are components for implementing protective measure "Automatic switch-off of power supply" as per VDE 0100 part 410 or corresponding international installation regulations. Series DFS 4 devices are compact two or four-pole residual current circuit-breakers. In the standard design, they only take up four module width units of space. While DFS 4 devices are designed for AC and pulsating DC residual currents for three-phase networks but can also be used in single-phase networks, there are also special variants in the AC/DC sensitive designs (type B, type B+) for single or three-phase operation. 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 multifunctional switch toggle and can be provided with pre-prepared labels using free-of-charge software. Switches with residual current characteristic AC only detect AC residual currents. They cannot detect pulsating DC residual currents and are not permitted for use as residual current operated protective devices in Germany as a result. They are therefore only available as export models. With the FT design the connections of the internal test key are wired to two terminals in order to be able to activate the test device externally. An auxiliary contact also reports the switch-off of the safety switch. Devices in the 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

help function integrated, pin assignment 1 break contact/1 changeover contact, tripping not dependent on mains and auxiliary voltage, sensitive to AC residual currents (type AC), 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", auch in der Ausführung "HD" erhältlich, Neutral conductors with standard design left, for two-terminal-pair devices type A/AC/F up to 125 A and type B/B+ up to 80 A; N-right available at no extra charge.

#### 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, RCCBs from the FT series are especially suitable for the remote switch-off of systems and parts of systems and for being tripped by hazard alarms, amongst other devices, Not permitted for use in TN-C networks; not permitted for protecting systems in which electronic equipment may cause pulsating or smooth DC residual currents or residual currents with frequencies not equal to 50 Hz. Comprehensive protection is not provided with an RCCB type AC. For these applications we recommend our residual current circuit-breaker type A or our AC/DC sensitive residual current circuit-breaker type B/B+.

#### Notes

Devices for FT variants must not be used in emergency-stop positions. The type-A and type-B NA variants are available for this purpose, The contacts of the external command device must be designed for a rated residual current  $\geq 0.5$  A and for the rated voltage of the residual current circuit-breaker.

#### Accessories

Clamp covers KA, Information stickers HAS, Restart locking facilities WES, Software BS DLS/DFS

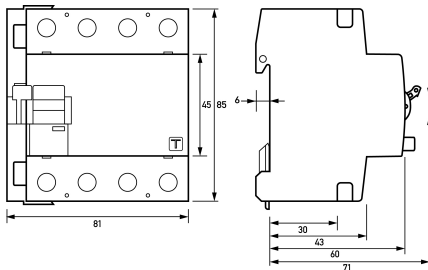
#### Technical Data

Technical Data	DFS 4 100-4/0,50-AC FT
Series	DFS 4 AC FT
Number of poles	4

Technical Data	DFS 4 100-4/0,50-AC FT
Residual current type	AC
Rated current (AC)	100 A
Rated residual current I $\Delta$ n	0.50 A
Short-time delayed	false
Selective	false
min. Operating voltage range of test circuit	200 V
max. Operating voltage range of test circuit	440 V
Neutral conductor position	left
Maximum disconnection times	1 · I $\Delta$ n: ≤ 300 ms; 5 · I $\Delta$ n: ≤ 40 ms
	Control input
Galvanically separated	false
Rated voltage (AC)	230 V, 400 V
	Load circuit
Specification	Load switch contact
min. Output O1 Contact opening	4 mm
Rated voltage (AC)	230 V, 400 V
Rated current (AC)	100 A
Rated short-circuit current	10 kA
Surge current strength	0.25 kA
max. Output O1 total rated switching capacity	1000 A
Rated insulation voltage	400 V
Rated impulse withstand voltage	4 kV
Rated frequency	50 Hz
Current heat loss per current path	7.5 W
thermal Backup-fuse OCPD	80 A
short-circuit backup-fuse SCPD	125 A
Back-up fuse type	gG
	Remote trip
Specification	Switching contact
number of poles (total)	1
contact assignment (detailed)	1 NC
Tolerance of rated voltage	max. 5 %
Rated current (AC)	6 A
Rated current (DC)	1 A
	Screw-type terminal top and bottom (Load circuit)
Protection against direct contact	DGUV V3, VDE 0660-514, finger-safe and safe for back-of-hand
Connection C1 Maximum number of conductors per terminal	2 (conductors of same type and cross-section)
Cross section solid	1-wire: 1.5 mm <sup>2</sup> ... 50 mm <sup>2</sup> ; 2-wire: 1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Connecting capacity flexible	1-wire: 1.5 mm <sup>2</sup> ... 50 mm <sup>2</sup> ; 2-wire: 1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Cross section stranded	1-wire: 1.5 mm <sup>2</sup> ... 50 mm <sup>2</sup> ; 2-wire: 1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Tightening torque	2.5 Nm ... 3 Nm
	Screw-type terminal top, bottom (Remote trip)
Protection against direct contact	DGUV V3, VDE 0660-514, finger-safe and safe for back-of-hand
Clamping area	1 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Tightening torque	max. 0.8 Nm

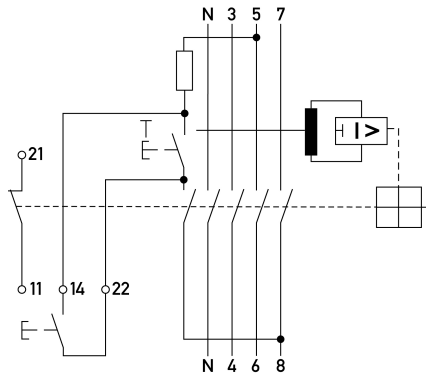
Technical Data	DFS 4 100-4/0,50-AC FT
General data description	General data
Operating position	any
max. Operating altitude above MSL	2000 m
Mechanical endurance	min. 5000 cycles
Electrical endurance	min. 2000 cycles
Surrounding atmosphere	normal environmental conditions
Storage temperature	-35 °C ... 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	Distributor housing
Mounting type	Mounting rail
Housing material	Thermoplastic resin
Protection class	IP20 (installed: IP40)
sealable	true
Width	81 mm
Height	85 mm
Depth	75 mm
Installation depth	69 mm
Width (modules)	4.5
Design requirements/Standards	VDE 0664-10, EN 61008-1
Degree of pollution according to EN 60664	2

### Dimensions



Dimensional drawing Group view

### Wiring example



Wiring diagram