

UK Technical Data 02

DFS 4 *-4/***-A 400V 50Hz**
sensitive to pulsating and alternating currents Type A



symbolic image



Function

Residual current circuit-breakers (RCCBs) for implementing the protective measure "Automatic disconnection of the power supply" as per BS 7671 - 411. Series DFS 2 devices are compact four-pole residual current circuit-breakers for three-phase networks. In the standard design, they only take up four 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, and a practical multi-functional switch toggle. Switches with residual current characteristic Type A, allow the mains voltage independent detection of sinusoidal AC currents and pulsating DC residual currents. Devices in the standard design are intended for monitoring circuits with a rated voltage of 400 V and a rated frequency of 50 Hz.

Features

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", also available in the "HD" design.

Mounting

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

Applications

Power supplies for 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 installed to switch off in the event of a second fault.

Not suitable for use in TN-C systems or for the protection of installations in which electronic equipment could generate smooth DC currents or residual currents with frequencies other than 50 Hz: Refer to BS 7671 - 531.3.3 Types of RCD

Accessories

Automatic re-closing devices DFA, Clamp covers KA, Auxiliary Switches DHi.

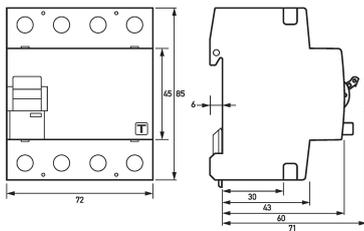
Technical Data

Technical Data	DFS 4 ***-4/***-A
Series	DFS 4 A
Number of poles	4
Residual current type	A
Rated current (AC)	Refer to the individual product reference, data sheet available on request
Rated residual current I Δ n	Refer to the individual product reference, data sheet available on request
Short-time delayed	false
Selective	false
min. Operating voltage range of test circuit	250 V Not suitable for use on 110V / 220 supply, order special voltage version

Technical Data	DFS 4 ***-4/***-A
max. Operating voltage range of test circuit	440 V
Maximum disconnection times	Refer to the individual product reference, data sheet available on request
Specification	Load circuit Load switch contact
min. Contact opening	4 mm
Rated voltage (AC)	400 V
Rated current (AC)	Refer to the individual product reference, data sheet available on request
Rated short-circuit current	10 kA
Surge current strength	0.25 kA
max. total rated switching capacity	Refer to the individual product reference, data sheet available on request
Rated insulation voltage	400 V
Rated impulse withstand voltage	4 kV
Rated frequency	50 Hz
Current heat loss per current path	Refer to the individual product reference, data sheet available on request
thermal Backup-fuse OCPD	Refer to the individual product reference, data sheet available on request
short-circuit backup-fuse SCPD	Refer to the individual product reference, data sheet available on request
Back-up fuse type	gG
Neutral conductor position	Screw-type terminal top and bottom (Load circuit) left
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 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
Tightening torque	2.5 Nm ... 3 Nm
	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 (35 mm)
Housing material	Thermoplastic resin
Protection class	IP20 (installed: IP40)
sealable	true
Width	72 mm
Height	85 mm
Depth	75 mm
Installation depth	69 mm

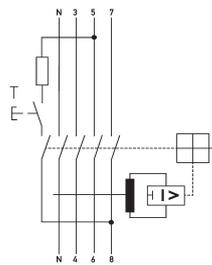
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Width (modules)	4
Design requirements/Standards	VDE 0664-10, EN 61008-1
Certifications	VDE
Degree of pollution according to EN 60664	2

Dimensions



Dimensional drawing Group view

Wiring example



Wiring diagram