10000 -25

DATA SHEET

Article number : 09114624

residual current circuit-breaker DFS 2 016-2/0,03-AC Hz60

sensitive to residual currents Type AC, for frequencies ≠ 50 Hz

Function

Residual current circuit-breakers (RCCBs) are components for implementing protective measure "Automatic disconnection of the power supply" as per IEC 60364-4-41 or corresponding national 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 with residual current characteristic AC only detect AC residual currents. They cannot detect pulsating DC residual currents so are not permitted for use as residual current operated protective devices in Germany. They are therefore only available as export models. 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

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", Neutral conductor position left or right

Mounting

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

Applications

Power supplies to TT, TN-S and TN-C-S networks with mains frequencies > 50 Hz, 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+.

Accessories

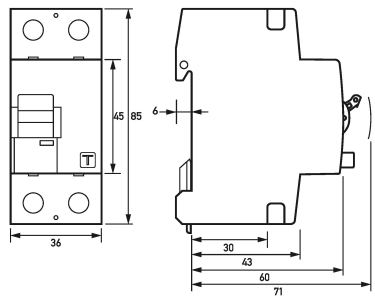
automatic reclosing devices DFA, terminal caps KA, information stickers HAS, auxiliary switches DHi, restart locks DFS WES, software DBS

Technical data

Series	DFS 2 AC Hz
Number of poles	2
Residual current type	AC
Rated current (AC)	16 A
Rated residual current IΔn	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 · IΔn: ≤ 300 ms; 5 · IΔn: ≤ 40 ms
	load circuit
Specification	load disconnect contact
min. Contact opening	4 mm
Rated voltage (AC)	230 V
Rated current (AC)	16 A
Rated short-circuit current	10 kA
Surge current strength	0.25 kA

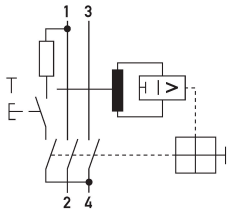
max. Total rated switching capacity	500 A
Rated insulation voltage	400 V
Rated impulse withstand voltage	4 kV
Rated frequency	60 Hz
Current heat loss per current path	0.18 W
Thermal Backup-fuse OCPD	16 A
Short-circuit backup-fuse SCPD	100 A
Back-up fuse type	gG
I^2t strength	48 kA^2s
Dynamic current strength I_p	6 kA
	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 mm² ... 50 mm²; 2-wire: 1.5 mm² ... 16 mm²
Connecting capacity flexible	1-wire: 1.5 mm² ... 50 mm²; 2-wire: 1.5 mm² ... 16 mm²
Cross section stranded	1-wire: 1.5 mm² ... 50 mm²; 2-wire: 1.5 mm² ... 16 mm²
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	-40 °C ... 70 °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
Module widths	2
Weight	0.259 kg
Design requirements/Standards	VDE 0664-10, DIN EN 61008-1
Degree of pollution	2

Dimensions



Dimensioned drawing residual current circuit-breaker DFS 2 016-2/0,03-AC Hz60

Wiring example



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