



DATA SHEET

residual current circuit-breaker

DFS 2 016-2/0,03-A T

sensitive to pulsating and alternating currents Type A, for use in mining

Article number 09114627



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. Type A residual current circuit-breakers are sensitive to pulsating and alternating currents. This function is independent of the mains voltage. Devices in the T design are specially made for use in mining and meet the increased requirements for tripping time as per DIN EN 50628 VDE 0118-10:2016-11.

Mounting

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

Accessories

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

Technical Data

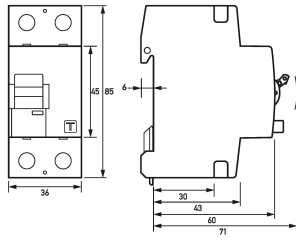
Technical Data	DFS 2 016-2/0,03-A T
Series	DFS 2 A T
Number of poles	2
Residual current type	A
Rated current (AC)	16 A
Rated residual current $I_{\Delta n}$	0.03 A
Short-time delayed	false
Selective	false
min. Operating voltage range of test circuit	150 V
max. Operating voltage range of test circuit	250 V
Maximum disconnection times	$1 \cdot I_{\Delta n}: \leq 100 \text{ ms}; 5 \cdot I_{\Delta n}: \leq 40 \text{ ms}$
	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

Subject to technical changes

Technical Data	DFS 2 016-2/0,03-A T
Rated impulse withstand voltage	4 kV
Rated frequency	50 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
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
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	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	0.253 kg
Design requirements/Standards	VDE 0664-10, DIN EN 61008-1, DIN EN 50628 VDE 0118-10:2016-11
Degree of pollution	2

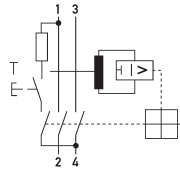
Subject to technical changes

Dimensions



Dimensional drawing Group view

Wiring example



Wiring diagram