



## DATA SHEET

Article number : 09146927

### residual current circuit-breaker DFS 4 063-4/0,30-A T

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



#### 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 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. Although DFS 4 devices for AC and pulsating DC residual currents are actually designed for three-phase networks, they can also be used in single-phase networks. However, in addition to these, special variants are also available for single or three-phase operation in the form of the AC/DC sensitive designs (type B, type B+). 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

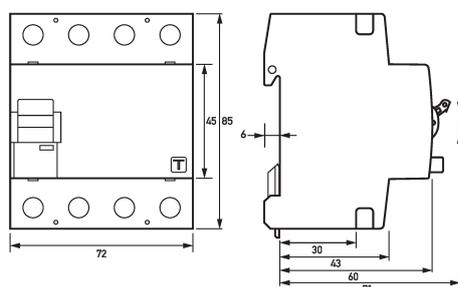
automatic reclosing devices DFA, terminal caps KA, information stickers HAS, auxiliary switches DHi, restart locks DFS WES, software DBS

#### Technical Data

Series	DFS 4 A T
Number of poles	4
Residual current type	A
Rated current (AC)	63 A
Rated residual current $I_{\Delta n}$	0.3 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
Maximum disconnection times	1 · $I_{\Delta n}$ : ≤ 100 ms; 5 · $I_{\Delta n}$ : ≤ 40 ms
	<b>load circuit</b>
Specification	load disconnect contact
min. Contact opening	4 mm
Rated voltage (AC)	230 V, 400 V
Rated current (AC)	63 A
Rated short-circuit current	10 kA
Surge current strength	0.25 kA
max. Total rated switching capacity	630 A
Rated insulation voltage	400 V
Rated impulse withstand voltage	4 kV
Rated frequency	50 Hz
Current heat loss per current path	3.1 W
Thermal Backup-fuse OCPD	63 A
Short-circuit backup-fuse SCPD	100 A
Back-up fuse type	gG
$I^2t$ strength	48 kA <sup>2</sup> s
Dynamic current strength $I_p$	6 kA
	<b>screw-type terminal top and bottom (load circuit)</b>
Neutral conductor position	left
Protection against direct contact	DGUV V3, VDE 0660-514, finger and back-of-hand proof

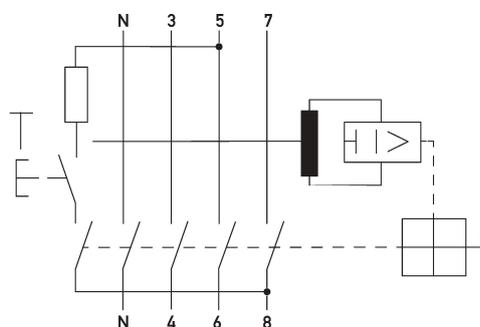
Connection C1 Maximum number of conductors per terminal	2 (conductors of same type and cross-section)
Cross section solid	1-wire: 1.5 mm <sup>2</sup> ... 50 mm <sup>2</sup> ; 2-wire: 1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Connecting capacity flexible	1-wire: 1.5 mm <sup>2</sup> ... 50 mm <sup>2</sup> ; 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>
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
<b>General data</b>	
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	-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	72 mm
Height	85 mm
Depth	75 mm
Installation depth	69 mm
Module widths	4
Weight	0.4 kg
Design requirements/Standards	VDE 0664-10, DIN EN 61008-1, DIN EN 50628 VDE 0118-10:2016-11
Degree of pollution	2

**Dimensions**



Dimensional drawing Group view

**Wiring example**



Wiring diagram