

symbolic image

UK Technical Data

*DFS 4 ***-4/*** PV 230v, 400v 50Hz*

AC/DC sensitive, fire protection for PV installations

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. Devices in the DFS 4 series are compact four-pole residual current circuit-breakers for single-phase or three-phase networks. In the standard version, they only occupy four division units. The AC/DC-sensitive switches detect smooth DC residual currents and all other residual currents in accordance with DIN VDE 0664-400. Switches of the PV series have been specially developed for use in photovoltaic systems and offer the highest possible protection level for this purpose. With a PV-optimised short-time delay, the AC/DC sensitive residual current circuit breaker is resistant to surge currents. It thus offers higher system availability due to fewer false trippings. Devices in the standard design are intended for monitoring circuits with a rated voltage of 230 V, 400 V and a rated frequency of 50 Hz.

Features

AC/DC sensitive for residual currents with frequencies and mixed frequencies from 0 Hz to 20 kHz, fire protection according to VDE 0100-420, complete functionality with mains voltages from at least 50 V AC on any two active conductors, high short-circuit resistance, ouble-sided double-decker terminals for large conductor cross-section and busbar connection, switching position indicator, multifunction control toggle with three positions: "on", "off", "triggered", any neutral conductor position.

Mounting

quick fastening to mounting rail, any installation position, supply preferably from above.

Applications

RCCBs of the PV series are suitable for private, commercial and industrial installations with TN-S, TT and TN-C-S systems in which photovoltaic systems are installed.

Notes

suitable for use in 50 Hz AC networks, not intended for use on the output side of controlled electrical equipment such as frequency converters.

Accessories

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

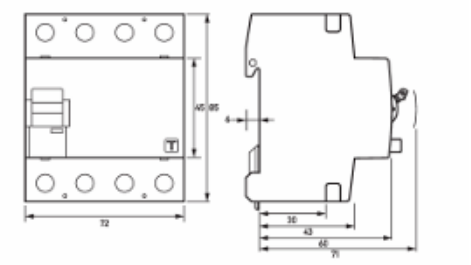
Technical Data

Technical Data	DFS 4 ***-4/***-PV
Series	DFS 4 PV
Number of poles	4
Residual current type	B
Rated current (AC)	Refer to the individual product reference, data sheet available on request
Rated residual current IΔn	Refer to the individual product reference, data sheet available on request
Short-time delayed	true
Selective	false
min. Operating voltage range of test circuit	200 V

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max. Operating voltage range of test circuit	440 V
Maximum disconnection times	Refer to the individual product reference, data sheet available on request
Internal consumption	Load circuit
Specification	Load disconnect contact
min. Contact opening	4 mm
Rated voltage (AC)	230 and 400 V
Rated current (AC)	Refer to the individual product reference, data sheet available on request
Rated short-circuit current	6 kA
Surge current strength	3 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
I2t	48 k'As
Dynamic current strength Ip	6 ka
	Screw-type terminal top and bottom (Load circuit)
Neutral conductor position	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 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, stranded, flexible or 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. 4000 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)
Housing type	Distribution board 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
Weight	0.452kg
Installation depth	69 mm

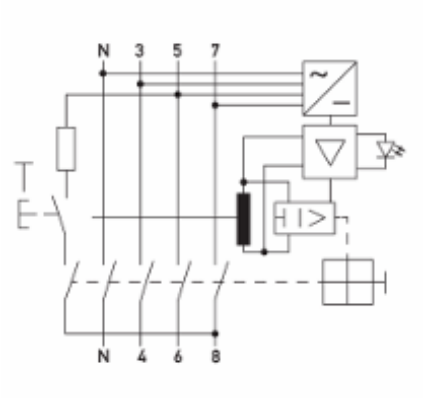
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Width (modules)	4
Design requirements/Standards	VDE 0664-10, VDE 0664-400, ÖVE/ÖNORM E 8601, EN 61008-1, EN 62423
Certifications	VDE
Degree of pollution according to EN 60664	2

Dimensions



Dimensional drawing Group view

Wiring example



Wiring diagram