

DATA SHEET Article number : 09912074

miniature circuit-breakers DLS 6hdc B2,5-2

for DC circuits, B-characteristic, 6 kA



6000 (25)

Function

The task of miniature circuit breakers is to automatically disconnect circuits in order to protect lines and connected devices. After disconnection, they can be manually reactivated without the fuse sets having to be replaced, for example. Each of our miniature circuit breakers is equipped with a trip-free mechanism, which guarantees safe deactivation even if, for example, a switching knob is mechanically blocked. A key requirement in DIN VDE 0100 is to protect cables, lines and installation devices from overload and shortcircuit. This can be achieved using miniature circuit-breaker (MCBs). In industrial installations and also in commercial buildings, they often take on additional protection of equipment and devices where there are usually stricter requirements than when used in residential buildings. Miniature circuit-breakers utilise both the magnetic and heat effect of the electrical current. If the current jumps to a value that is too high when a short-circuit occurs, the MCB interrupts the circuit using the magnetic field of an energised coil. The heat that develops when there is continuous overload causes the bimetal to warp, which trips the breaker. The DLS 6 family of miniature circuit-breakers, characterised by a large selection of different types for broad application fields, are available for residential and purpose-built facilities, as well as for industrial applications. The compact design provides lots of space for wiring and large clamping area, as well as the option of using conventional wiring rails for easy processing. The variants also have a large, folding label window and a clearly labelled display for the operating status. A number of additional devices such as under-voltage and operating current trip, and auxiliary/fault sensor switches, render possible general-purpose use of the miniature circuit-breakers. The DLS 6hdc variant for DC networks features a rated switching capacity of 6 kA designed for distributor and final circuits, and a large selection of rated currents in characteristics B and C. Switches with tripping characteristic B ensure the standard protection for lighting and socket circuits.

Features

For use in DC networks, Rated switching capacity 6 kA, Strain-relief clamps with wide clamp cross section area for rail and cable wiring on both connector sides, special quick fastening for removal of multiple miniature circuit-breakers from the bottom or top interconnection, large, folding label window for a secure hold and protection of the label, use of conventional wiring rails, ON/OFF switch position indicator on the switch toggle, accessories retro-fittable on the right, labelling software free of charge

Mounting

quick fastening to mounting rail, any installation position

Applications

Suitable for use in DC power supplies for residential and purpose-built buildings or buildings for commercial use.

Notes

Bearing of the ambient temperature on thermal tripping: lowering of the current values for higher ambient temperature and increasing for lower temperatures by about 5% for every 10°C temperature difference, For 2-pole devices, note that the poles must be connected in series.

Accessories

terminal caps KA, software DBS, restart locks DEASS, auxiliary switches DHi, trip-indicating auxiliary contact DHi-S, operating current trip DASA, documentation

Technical data

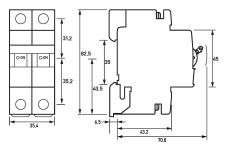
Series	DLS 6hdc
Number of poles	2
Tripping characteristic	В
Supply side	L or R (note the polarity)
Adjustment range of overload tripping	1.13 1.45
Adjustment range of short-circuit tripping	4 7
Test current factor tripping electromagnetic	7
Test current multiplier, trip, thermal	1.45
Test current factor retaining electromagnetic	4

Technical changes reserved 2025_10_14 doepke_09912074_dbl_en.pdf 1/3

Test current factor retaining thermal	1.13
Reference temperature thermal release	30 °C
,	load circuit
Specification	load disconnect contact
Rated voltage (DC)	250 V (for both poles connected in series)
ated current (DC)	2.5 A
ated short-circuit current	6 kA
ated insulation voltage	2 kV
ated impulse withstand voltage	4 kV
ated frequency	0 Hz
urrent heat loss per current path	2 W
hort-circuit backup-fuse SCPD	100 Å
ack-up fuse type	gL, gG
Back-up fuse (textual)	Safety fuse as per DIN EN 0636
	screw terminals with strain-relief clamp top (load circuit)
rotection against direct contact	DGUV V2, VDE 0660-514, finger and back-of-hand proof
onnection C1 Maximum number of	2 (conductors of same type and cross-section)
onductors per terminal	
ross section solid	1-wire: 0.5 mm² 25 mm²
onnecting capacity flexible	1-wire: 1 mm ² 16 mm ²
ross section flexible with ferrule	0.5 mm² 16 mm²
ross section stranded	1-wire: 1.5 mm ² 25 mm ²
ightening torque	max. 2.5 Nm
hickness busbar	max. 3 mm
hickness busbar cable lug (combined	2 mm
onductors, max)	2 111111
•	ar mm?
ross section (busbar / busbar fork combined,	25 mm²
nax)	
	screw terminals with strain-relief clamp bottom (load circuit)
rotection against direct contact	DGUV V2, VDE 0660-514, finger and back-of-hand proof
Connection C2 Maximum number of	2 (conductors of same type and cross-section)
onductors per terminal	
ross section solid	1-wire: 0.5 mm ² 35 mm ²
Connecting capacity flexible	1-wire: 1 mm ² 25 mm ²
ross section flexible with ferrule	0.5 mm ² 16 mm ²
cross section stranded	1-wire: 1.5 mm ² 35 mm ²
ightening torque	max. 2.5 Nm
hickness busbar cable lug (combined	2 mm
onductors, max)	<u></u>
Cross section (busbar / busbar fork combined,	35 mm²
nax)	35 111111
hickness busbar	may a mm
HIICKHESS NOSNAI	max. 3 mm
	General data
perating position	optional
lechanical endurance	min. 20000 switching cycles
torage temperature	-40 °C 70 °C
mbient temperature	-25 °C 55 °C
limate resistance	damp/heat: constant as per DIN EN 60068-2-78, cyclical as per DIN EN 60068-2-30
hock resistance	25 g / 11 ms Duration
ibration resistance	> 15 g acc. to DIN EN 60068-2-59 during a load with l1
ousing type	distribution board housing
nstallation type	Mounting rail (35 mm)
ousing material	thermoplastic
rotection class	IP20
ealable	true
Vidth	
	35.4 mm
leight	82.5 mm
Depth	74 mm
nstallation depth	68 mm
Module widths	2
Veight	0.24 kg
Design requirements/Standards	IEC 60898-3, VDE 0641-13

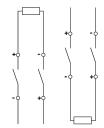
Degree of pollution

Dimensions



Dimensioned drawing miniature circuit-breakers DLS 6hdc B2,5-2

Wiring example



Wiring example miniature circuit-breakers DLS 6hdc B2,5-2

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