

Expert line protection

- DLS 6 — low heat dissipation
- large terminals
- available with various characteristics and different current ratings
- including a wide range of accessories such as shunt trips, auxiliary / fault signaling blocks



Always safer with Doepke

Miniature circuit-breakers (MCBs) protect cable, line and installation devices against overload and short circuiting and therefore from damage and premature ageing.

DLS 6 The DLS 6 series provides a large selection of different types for use in residential and purpose-built buildings as well as the industrial sector. Its compact design leaves ample room for wiring. The DLS 6 MCBs are easy to install thanks to their large terminal clamps and have universal applications thanks to the wide range of accessories available.

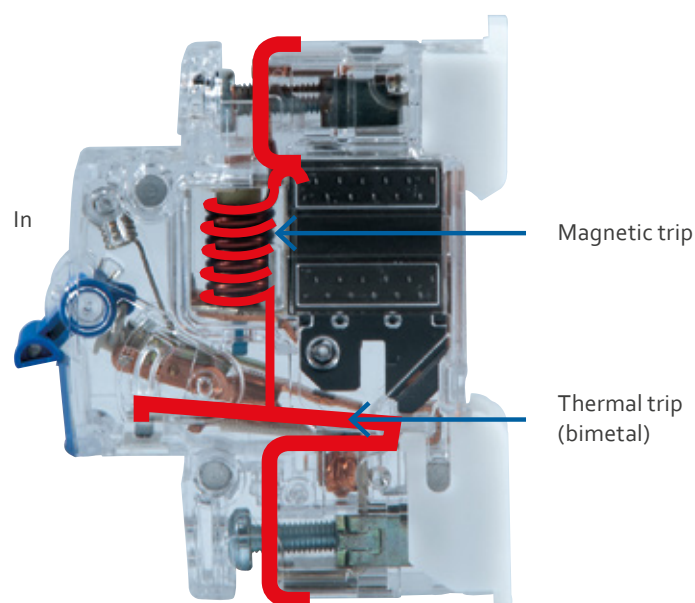
Protection elements The structure of the MCB consists of two protection elements:

Electromagnetic tripping

If the overcurrent increases to the point that it enters the short-circuit range (higher than or equal to the magnetic threshold), the magnet trip instantly reacts.

Thermal tripping

The circuit is interrupted if the rated current is exceeded for a prolonged period and is below the magnetic tripping threshold. The miniature circuit-breaker will not react in the event of brief, minor over currents.



Setup of overcurrent protection device (miniature circuit-breaker)



Switch-off mechanism

Tripping due to overload ——— If the prescribed nominal value of current flowing through the miniature circuit-breaker is exceeded for a prolonged period, the switch-off mechanism trips. The time it takes to trip depends on the extent of the overload.

Bimetal is used for tripping as it becomes deformed when heated by the current flowing through it and the switch-off mechanism trips (thermal tripping).

————— **B characteristic example:**

- The current of 1.13 times the nominal value must not be switched off within an hour.
- The current of 1.45 times the nominal value must be switched off within an hour at the latest.

Electromagnetic tripping through short-circuit ——— If a short circuit occurs within a system, the switch-off is triggered in just a few milliseconds by an electromagnet that has current flowing through it.

————— **B characteristic short-circuit trip time example:**

- | | | |
|----------------|-------------------|----------|
| $3 \times I_n$ | $> 0.1 \text{ s}$ | No trip |
| $5 \times I_n$ | $< 0.1 \text{ s}$ | Tripping |

Manual tripping ——— Electrical circuits can be manually switched off at the miniature circuit-breaker for maintenance work or for temporary decommissioning.

Tripping through additional modules — In addition to auxiliary switches, there are also plug-in undervoltage and operating current trips for our miniature circuit-breakers that can be used to switch them off.

Trip-free mechanism ——— Particularly notable is the positively trip-free mechanism. It ensures that in the event of a short-circuit a trip instantly occurs even when the switch lever is held or in the on position.



Product range

- DLS 6h** — The DLS 6h design for skilled trade applications and conventional residential buildings features a rated breaking capacity of 6 kA, making it ideal for distributor and final circuits.
- DLS 6h** — The DLS 6hsl screwless design for industrial / commercial applications features a rated breaking capacity of 6 kA, making it ideal for distributor and final circuits. It is particularly easy to handle thanks to its upper, screwless plug-in terminals.
- DLS 6hdc** — The DLS 6hdc design features a rated breaking capacity of 6 kA, making it ideal for applications in DC networks of up to 250 V DC.
- DLS 6i** — The DLS 6i design features a rated breaking capacity of 10 kA, making it perfect for industrial applications and manufacturing.

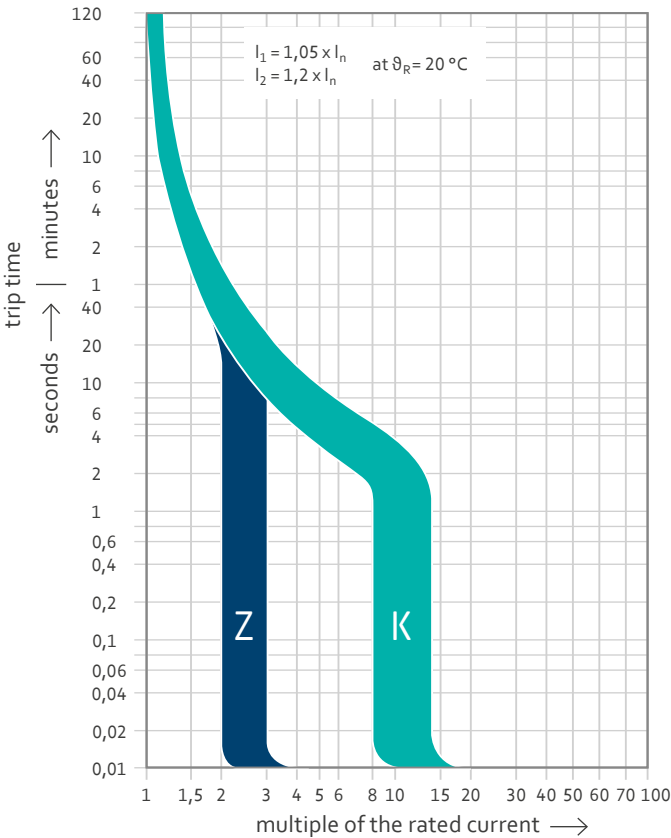
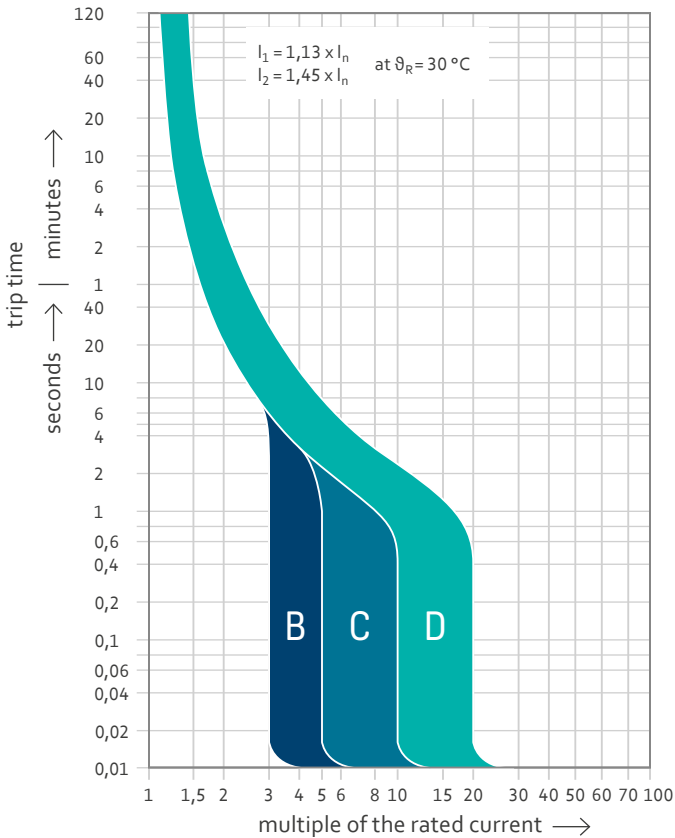
Comparison of the different variants

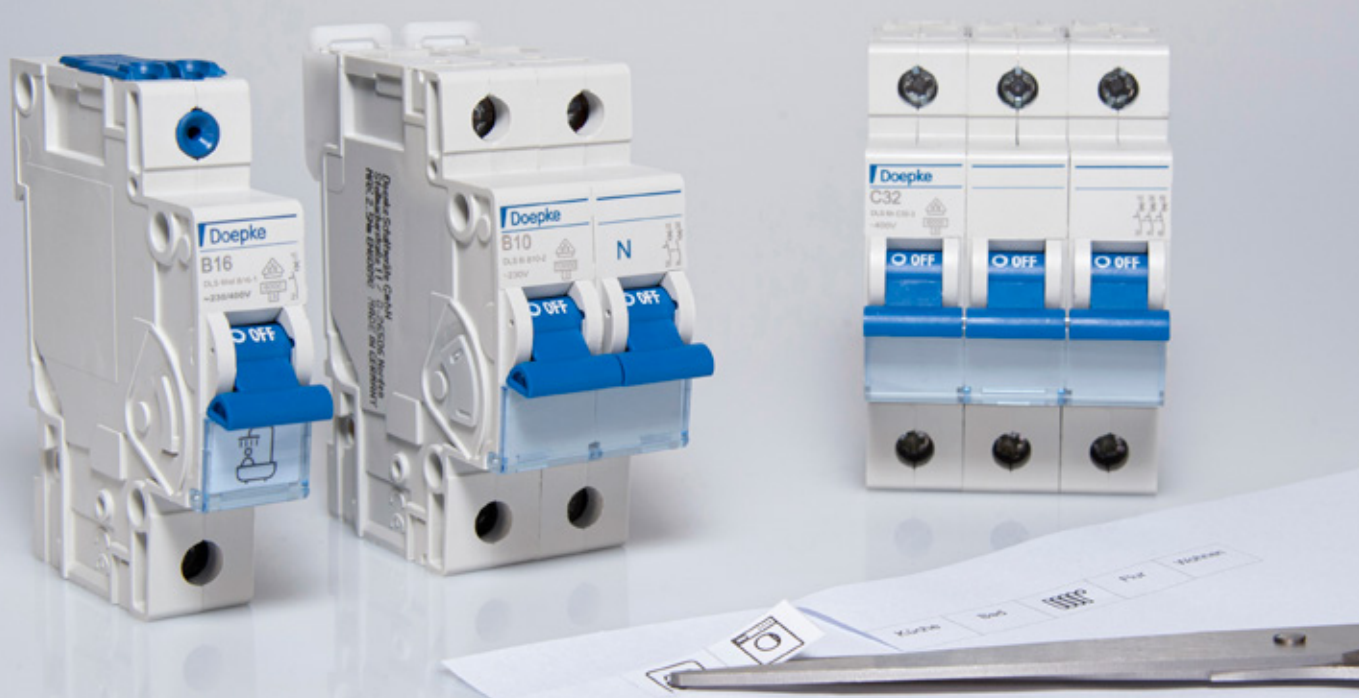
	DLS 6h	DLS 6hsl	DLS 6hdc	DLS 6i
Breaking capacity	6 kA	6 kA	6 kA	10 kA
Detachable from the din rail	only from the bottom	only from the bottom	only from the bottom	top and bottom
Eurovario from RCD to circuit-breaker	only from the bottom	only from the bottom	only from the bottom	only from the bottom
Protection against direct contact	yes	yes	yes	yes
Tripping characteristic	B, C	B, C	B, C	B, C, D, K, Z

Characteristics and current strengths

	DLS 6h				DLS 6hsl		DLS 6hdc		DLS 6i					
Ratings	6–32 A				6–20 A		B 1–63 A C 0.5–63 A		B 1–63 A C/D/K 0.3–63 A Z 0.3–32 A (only 1- and 3-pole)					
Number of poles	1	2	3	4	1	3	1	2	1	2	3	4	1+N	3+N
B characteristic	■	■	■	■	■	■	■	■	■	■	■	■	■	■
C characteristic	■	■	■	■	■	■	■	■	■	■	■	■	■	■
D characteristic									■	■	■	■	■	■
K characteristic									■	■	■	■	■	■
Z characteristic									■	■	■			

Tripping characteristic curves





Labelling software

Software BS DLS / DFS

Simple-to-use programs, easy-to-read documents and other tools make it easier to use our products.

The labelling software means that line and residual current circuit-breakers can be labelled in a standardised and easy-to-read way. It is compatible with Microsoft Windows operating systems, is simple to use and provides the option of producing your own designs on a standard A4 sheet. The labelling software can be downloaded from www.doepke.de.

Can choose from one module width up to four module widths

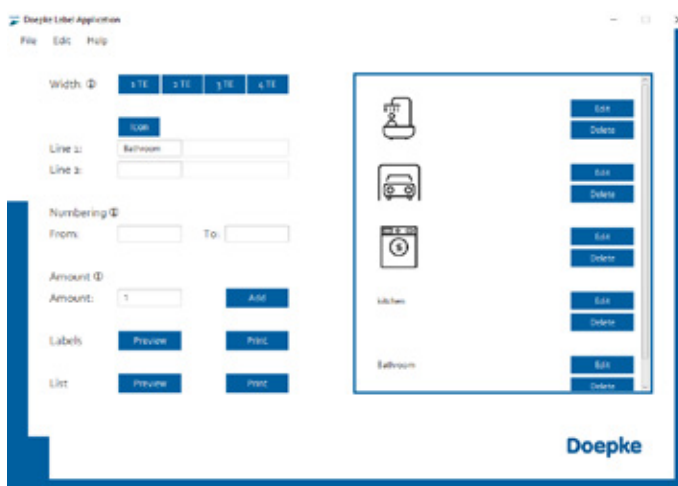
Icons (symbols) or custom lettering can be inserted

Labels and distribution lists can be printed from the preview

Icons and lettering available to be cut out

In the distribution list you can also:

- number the PE and N terminals
- enter company and address details
- insert comments.



D A4 preview



Kitchen

Hallway

Bathroom

Living room

Our solutions:
DLS 6i RT



Expert line protection
to keep you safe at all times



Quick overview

Our 'red' miniature circuit-breakers:
According to DIN VDE 0100-560 (Equipment for safety purposes)
switchgear and control gear must be clearly labelled.
This is used in final circuits such as
safety lighting
fire alarms
smoke and heat ventilation systems.



PREMIUM MARKEN
Partner



Doepke

Doepke Schaltgeräte GmbH
Stellmacherstraße 11
26506 Norden | Germany

@ — info@doepke.de
T — +49 (0) 49 31 18 06 - 0
F — +49 (0) 49 31 18 06 - 101

www — doepke.de