MCBs

MCB is a generic term for modular circuit-breakers designed to EN 60898-1. For use in domestic and similar installations under the control of "Ordinary Persons".*

BS7671 maximum Zs values for 0.4s (Table 41.3) and time/current characteristics (Apx 3) relate to circuit-breakers to EN 60898-1.

Standard characteristics for ratings < 63A

Instantaneous Tripping Range EN 60898-1

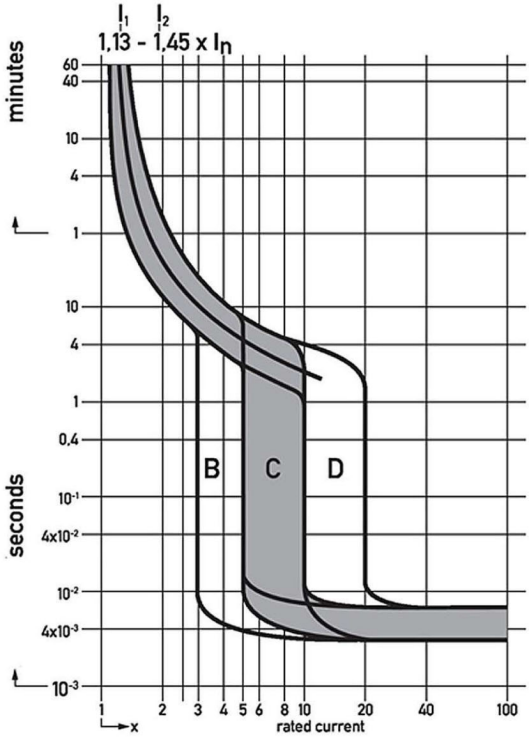
Characteristic	**Range**
B	>3 In < 5 In
C	>5 In < 10 In
D	>10 In < 20 In

Sustained overcurrent condition EIV60898-1:

In	**State**	**Time**	**Result**
1.13	Cold	t < 1 h	No Trip
1.45	Hot	t < 1 h	Trip

Note: Associated devices and cables must be rated to carry the total sustained overcurrent.
Refer to IET Guidance Note 6 - see below.

*Circuit-breakers designed to EN60947-2 are for use in installations under the control of skilled persons. For selection refer to Regulation 411.4.202.



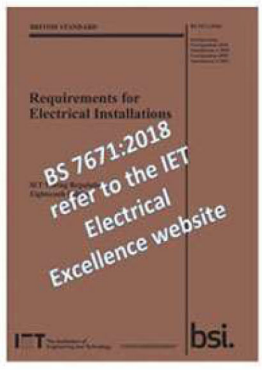
Tripping characteristic B-C-D In = 10 - 63 A

IET wiring regulations

IET Wiring Regulations (BS7671) specify where and when overcurrent protection must be provided – see Chapter 43:

IET Guidance Note 6 provides additional guidance and advice on the requirements for overcurrent protection.

Click for the IET Online Shop.



MCB Power Dissipation

Panel design verification to EN61439-1

10.10.2 Verification of temperature rise
Prototype design calcualtions before testing and actual assembly.

10.10.4 Verification by assessment
Calculation based on a reference design.

Doepke

TECHNICAL INFORMATION

Power dissipation per pole DLS 6 B/C/D -characteristic

Rated current A	power (W) B	C	D
1			
2		1,7	
3		1,8	
4	2,1	1,7	1,7
6	1,9	1,8	1,7
8	-	1,5	1,3
10	1,3	1,3	1,3
13	1,9	1,4	1,4
16	2,1	2,1	2,1
20	2,8	3,0	2,5
25	3,1	3,1	2,5
32	3,7	3,7	2,8
40	3,5	3,5	3,5
50	4,9	4,8	4,6
63	7,0	7,0	6,8

Ref doepke_09914019

MCB Temperature

EN60898-1 specifies the reference temperature for MCBs at 30 C.

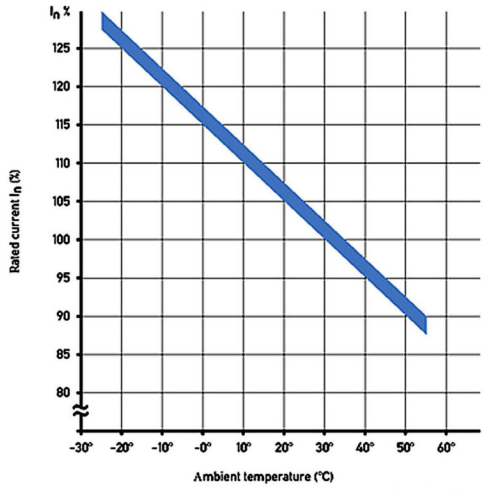
This is the ambient temperature immediately surrounding the MCB.

Increase or decrease in temperature results in a change to the tripping characteristics.

Doepke

TECHNICAL INFORMATION

Derating Graph for MCB Series DLS 6 B, C, D



Ref doepke_09914019