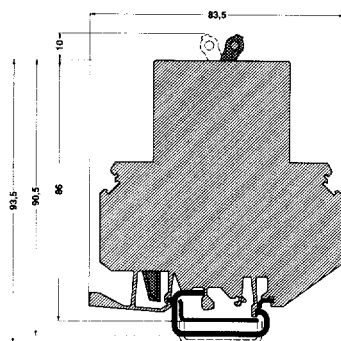
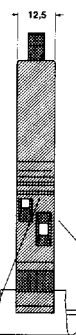


Thermomagnetic Circuit Breaker, TMC



G-profile rail
EN 50 035 - G32

Top hat rail
EN 50 022-35x7,5
EN 50 022-35x15



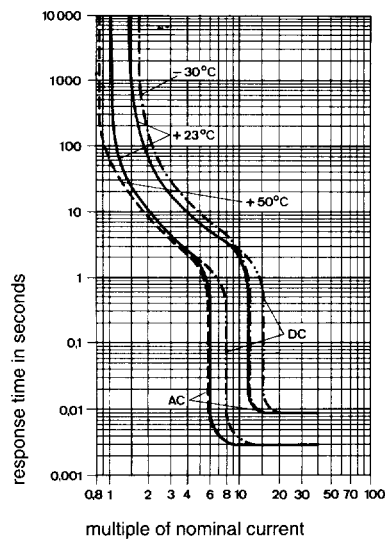
Signal contact
connecting terminal
block: max. 2.5 mm²
solid

Main contact
connecting terminal
block: max. 6 mm²
solid

Characteristic curve for F1 and M1

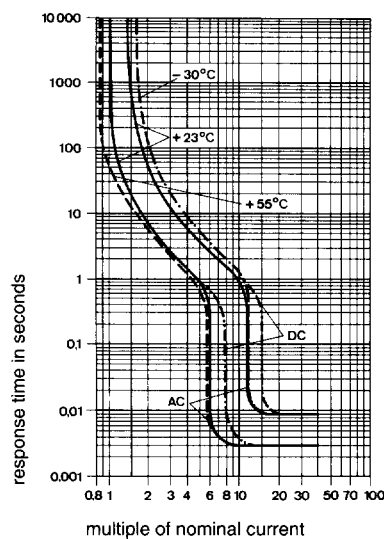
M1: nominal value 0.2-6 A

lower tripping limit: 1.05 I_N
upper tripping limit: 1.4 I_N



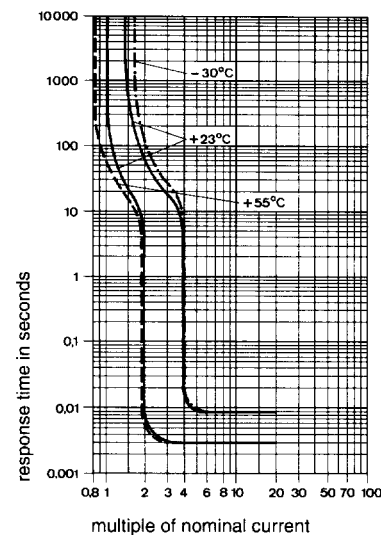
M1: nominal value 8-16 A

lower tripping limit: 1.05 I_N
upper tripping limit: 1.4 I_N



F1: nominal value 0.2-16 A

lower tripping limit: 1.05 I_N
upper tripping limit: 1.4 I_N



TMC nominal currents and internal resistances

Nominal current (A)	Internal resistance (OHM)		Nominal current (A)	Internal resistance (OHM)	
	F1 (fast blow) for DC	M1 (normal blow) for DC/AC		F1 (fast blow) for DC	M1 (normal blow) for DC/AC
0.2	39.3	26.1	2.5	0.26	0.183
0.3	17.5	11.6	3	0.18	0.124
0.4	9.2	6.6	4	0.12	0.077
0.5	6.8	4.1	5	0.092	0.063
0.6	4.2	3	6	0.054	0.045
0.8	2.8	1.65	8	0.025	≤ 0.02
1	1.6	1.10	10	0.022	≤ 0.02
1.5	0.78	0.47	12	≤ 0.02	≤ 0.02
2	0.42	0.28	16	≤ 0.02	≤ 0.02

Thermomagnetic Circuit Breaker, TMC

The TMC circuit breaker is available for 18 different rated current values, with a fast or normal blow characteristic curve and a 1-position, 2-position or 3-position main current path. The auxiliary contacts are available in the following variants:

- 1-position main current path with 1 N/O or 1 N/C auxiliary contact
- 2-position main current path with 1 N/O and 1 N/C auxiliary contact
- 3-position main current path with 1 N/O and 2 N/C auxiliary contacts

Ordering example acc. to TMC type key:

One TMC with 1-position main current path, one N/O auxiliary contact, normal blow characteristic curve and a nominal current of 2 A has the following type designation:

TMC 1 M1 100 2A

Note:

When mounted in serial with simultaneous load, mutual thermal interference occurs. This is equivalent to a rise in the ambient temperature. It depends on the nominal current, the ambient temperature, the number of devices and the distance between devices. The nominal current of the devices can either be transmitted over-dimensioned (see multiplication factor for temperature behavior) or at only > 80%. Please enquire about the max. permissible current for the planned serial assembly.

Ambient temperature °C	Multiplication Factor
- 10	0.84
0	0.92
+ 10	1.00
+ 20	1.00
+ 30	1.00
+ 40	1.08
+ 50	1.16
+ 60	1.24

Description

Thermomagnetic circuit breaker,
with universal foot for
mounting on  or 

(1) **Insertion bridge,**
insulated, 80-position



(2) **Zack strip,** 10-section, white

(3) **Screwdriver**

Dimensions
Width / length [mm]
Height (NS 35:7.5 / NS 35:15 / NS 32) [mm]

Technical data in accordance with IEC / DIN VDE

Main contact: max. load current / cross section [A] / [mm²]
Auxiliary contact: max. load current / cross section [A] / [mm²]
Max. cross section with insertion bridge (solid / stranded) [mm²]
Rated surge voltage / contamination class [kV] / –
Surge voltage category / insulation material group – / –

Connection capacity of main contact

stranded with ferrule without / with plastic sleeve [mm²]

Connection capacity of auxiliary contact

stranded with ferrule without / with plastic sleeve [mm²]

Main contact: two conductors with the same cross section

solid / stranded [mm²]

stranded with ferrule without plastic sleeve [mm²]

stranded with TWIN ferrule with plastic sleeve [mm²]

Aux. contact: two conductors with the same cross section

solid / stranded [mm²]

stranded with ferrule without plastic sleeve [mm²]

stranded with TWIN ferrule with plastic sleeve [mm²]

Stripping length of main / auxiliary contact [mm]

Intern. cylindrical gage (IEC 947-1:1988) main / aux. contact

Main contact: thread / torque – / [Nm]

Auxiliary contact: thread / torque – / [Nm]

Insulation material

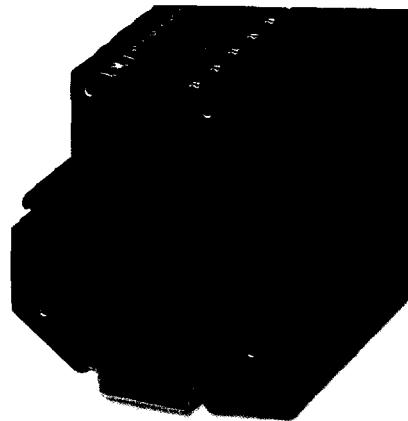
Inflammability class acc. to UL 94

Temperature indices RT1 / Ti

Approval data (UL and CSA)

Nom. voltage / nom. current / conduc. sizes UL: [V] / [A] / AWG

CSA: [V] / [A] / AWG



TMC ...

Housing width 12.5

(IEC) [mm²]	rigid solid	flexible stranded	AWG	I [A]	U [V]
Main current path					
Connection data	0.2-6	0.2-4	24-10	*	250/65
Auxiliary contacts					
Connection data	0.2-2.5	0.2-1.5	24-14	1	250/65

* For current, see order example



Type	Order No.	Pcs. Pkt.
TMC....(see order example below)		6
EB 80-12 $I_{max}: 50 A^2)$	30 09 33 8	1
ZB 6 (order data, see page 263)		
SZS 0,6 x 3,5	12 05 05 3	10

Back-up fuses for the line protection

Nominal current of the TMC circuit breaker [A]	max. back-up fuses [A]	selective up to...A switching current
0.2	as desired	380
0.3	as desired	380
0.4	as desired	380
0.5	as desired	380
0.6	as desired	380
0.8	as desired	380
1	as desired	380
1.5	25	380
2	25	380
2.5	25	380
3	25	380
4	25	380
5	25	380
6	50	800
8	50	800
10	50	800
12	50	800
16	50	800

TMC Type Key for Orders

All available TMC circuit breaker variants are listed in the index with their order numbers.

TMC 1 F1 100 1A

Nominal current: 0.2; 0.3; 0.4; 0.5; 0.6; 0.8; 1; 1.5
2; 2.5; 3; 4; 5; 6; 8; 10; 12; 16

Auxiliary contact variants: 100: 1-position: 1 N/O contact
200: 1-position: 1 N/C contact
120: 2-pos.: 1 N/O, 1 N/C contact
122: 3-pos.: 1 N/O, 2 N/C contact

Characteristic curve

F1: Therm. 1.05-1.4 I_N , magn. 2-4 I_N DC (fast), only for DC applications
M1: Therm. 1.05-1.4 I_N , magn. 6-12 I_N AC, 7.8-15.6 DC (normal blow)

Number of main current paths: 1: 1-position; 2: 2-position; 3: 3-position

Type designation: Thermomagnetic circuit breaker