TMC 1 F1 100 2,5A - Thermal-magnetic device circuit breaker

0914109

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Thermal-magnetic device circuit breaker, 1-position, connection method: Screw connection, nominal current: 2.5 A, tripping characteristic: F1 (fast blow), fuse type: Automatic device, mounting type: DIN rail: 35 mm, rated current: 2.5 A

Commercial data

Item number	0914109
Packing unit	6 pc
Minimum order quantity	1 pc
Sales key	CL04
Product key	CLA121
GTIN	4017918008789
Weight per piece (including packing)	67.95 g
Weight per piece (excluding packing)	67.283 g
Customs tariff number	85362010
Country of origin	DE

Technical data

Product properties

Product type	Thermomagnetic device circuit breakers
Product family	TMC
Type	DIN rail module, one-piece
Number of positions	1
Number of connections	4
Number of rows	2
No. of channels	1

Insulation characteristics

Overvoltage category	II
Degree of pollution	2

Electrical properties

Fuse type	Automatic device

General

Rated voltage	65 V DC
Rated current I_N	2.5 A
Rated surge voltage	2.5 kV
Insulation resistance R_{iso}	> 100 MΩ (500 V DC)
Auxiliary circuit	240 V AC / 1 A (Low-induction)
	65 V AC / 1 A (Low-induction)
Tripping method	TM (thermal-magnetic)
Device resistance	0.26 Ω
Rated short-circuit switching capacity I_{cn}	2500 A (32 V DC)
Short-circuit switching capacity	2000 A (UL 1077: 65 V DC)
Dielectric strength	3000 V AC (Actuation area)
	3000 V AC (Main to auxiliary circuit)
Switching cycles, max.	10000 (At 1 x I_n, inductive)
Fuse	F1 (fast blow)
Contact switching type	1 N/O contact

Indicator/remote signaling

Connection name	Auxiliary contact
Operating voltage	250 V AC
	65 V DC
Operating current	2.5 A AC (Low-induction)

Connection data

Main contact

Connection method	Screw connection

Screw thread	M3
Tightening torque	0.6 ... 0.8 Nm
Stripping length	12 mm
Internal cylindrical gage	A3
Conductor cross-section rigid	0.2 mm² ... 6 mm²
Cross section AWG	24 ... 10 (converted acc. to IEC)
Conductor cross-section flexible	0.2 mm² ... 4 mm²
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm² ... 4 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.25 mm² ... 2.5 mm²
2 conductors with same cross section, rigid	0.2 mm² ... 0.75 mm²
2 conductors with same cross section, flexible	0.2 mm² ... 0.75 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² ... 1 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 2.5 mm²
Nominal current	2.5 A

Auxiliary contact

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.6 ... 0.8 Nm
Stripping length	12 mm
Internal cylindrical gage	A1
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Cross section AWG	24 ... 14 (converted acc. to IEC)
Conductor cross-section flexible	0.2 mm² ... 1.5 mm²
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm² ... 2.5 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.25 mm² ... 1.5 mm²
2 conductors with same cross section, rigid	0.2 m² ... 0.75 m²
2 conductors with same cross section, flexible	0.2 m² ... 0.75 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² ... 0.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 0.75 mm²

Main contact

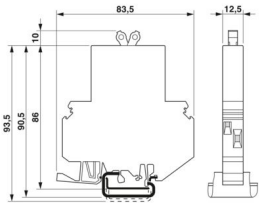
Connection method	Screw connection
Screw thread	M3
Tightening torque	0.6 Nm ... 0.8 Nm
Stripping length	12 mm
Conductor cross-section flexible	0.2 mm² ... 4 mm²
Conductor cross-section rigid	0.2 mm² ... 6 mm²
Conductor cross-section AWG	24 ... 10
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 2.5 mm²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²

Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm² ... 4 mm²

Auxiliary contact

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.6 Nm ... 0.8 Nm
Stripping length	12 mm
Conductor cross-section flexible	0.2 mm² ... 1.5 mm²
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 14
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm² ... 2.5 mm²

Dimensions

Dimensional drawing	
Width	12.5 mm
Height	82.5 mm
Depth	96 mm

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V-2
Insulating material group	II
Insulating material	PA66

Mechanical properties

Mechanical data

Open side panel	No

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP30 (Actuation area)
	IP20 (Connection area)
Ambient temperature (operation)	-30 °C ... 60 °C
Humidity test	240 h, 95 % RH, 40 °C

Standards and regulations

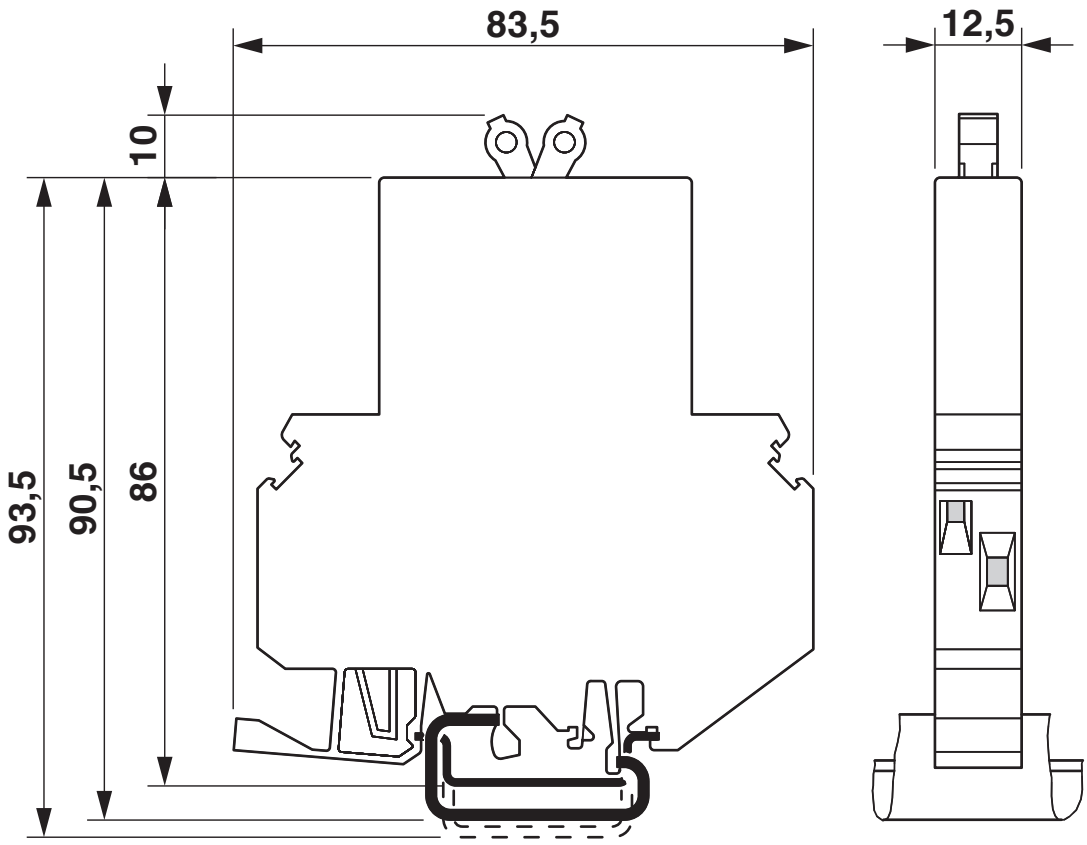
Standards/specifications	EN 60934
Standards/specifications	UL 1077

Mounting

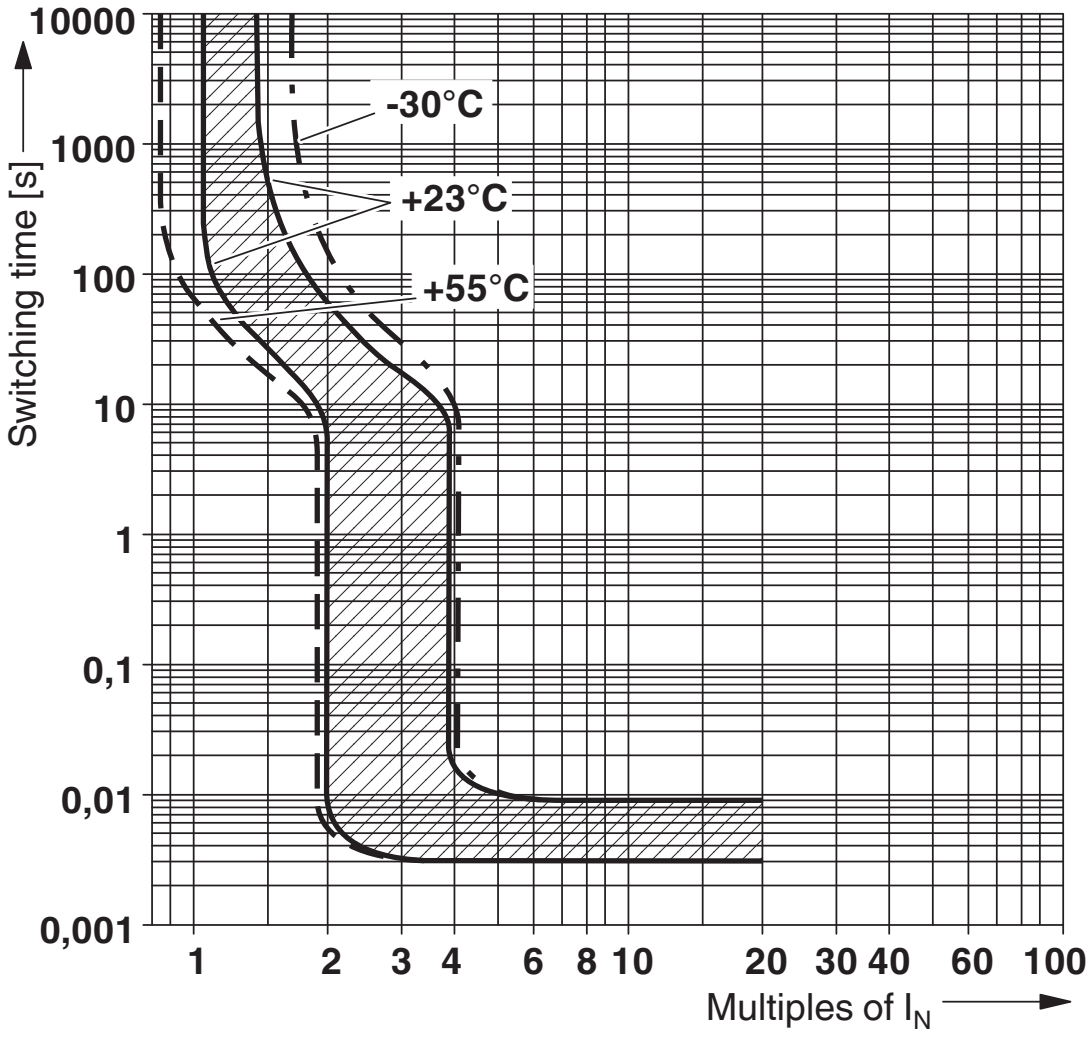
Mounting type	DIN rail: 35 mm

Drawings

Dimensional drawing



Diagram


10000
1000
100
10
1
0,1
0,01
0,001
Switching time [s]
-30°C
+23°C
+55°C
1
2
3
4
6
8
10
20
30
40
60
100
Multiples of I_N

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/0914109

CSA
Approval ID: 074317

UL Recognized
Approval ID: FILE E 140459

VDE Zeichengenehmigung
Approval ID: 40029348

UAE-RoHS
Approval ID: 23-10-88786

Classifications

ECLASS

ECLASS-13.0	27140401
ECLASS-15.0	27140401

ETIM

ETIM 10.0	EC003538

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

China RoHS

Environment friendly use period (EFUP)	EFUP-25
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	978abf00-dca1-45b0-b679-35866e17b2aa

EF3.1 Climate Change

CO2e kg	3.766 kg CO2e

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