

UT 6-TMC M 0,5A - Thermal-magnetic device circuit breaker



0916603

<https://www.phoenixcontact.com/us/products/0916603>

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Thermal-magnetic circuit breaker, 1-pos., for DIN rail mounting



Your advantages

- Simple feed-in due to bridging capability using CLIPLINE complete accessories
- High system availability, thanks to easy resetting
- Quick and easy identification with large-area marking options
- The right device for every application, thanks to a nominal current range of 0.5 to 16 A
- Space savings of 30 % compared to miniature circuit breakers owing to the compact width of 12.3 mm

Commercial data

Item number	0916603
Packing unit	6 pc
Minimum order quantity	6 pc
Sales key	CL16
Product key	CLA122
GTIN	4046356448994
Weight per piece (including packing)	63.883 g
Weight per piece (excluding packing)	63.883 g
Customs tariff number	85362010
Country of origin	CZ

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Technical data

Product properties

Product type	Thermomagnetic device circuit breakers
Product family	UT 6-TMC
Type	DIN rail module, one-piece
Number of positions	1
Number of connections	2
Number of rows	1
No. of channels	1
Potentials	1

Insulation characteristics

Overvoltage category	II
Degree of pollution	2

Electrical properties

Fuse type	Automatic device
Maximum power dissipation for nominal condition	$\leq 1.1 \text{ VA}$

General

Operating voltage	50 V AC ... 264 V AC (48 - 62 Hz)
	5 V DC ... 30.8 V DC
Rated voltage	240 V AC (50/60 Hz)
	28 V DC
	240 V AC (50/60 Hz)
	28 V DC
Rated insulation voltage U_i	440 V AC
Rated current I_N	0.5 A
Rated surge voltage	2.8 kV
Insulation resistance R_{iso}	$> 100 \text{ M}\Omega$ (main contact)
Type of actuation	S type
Tripping method	TM (thermal-magnetic)
Tripping level	Trip-free mechanism (positive)
Device resistance	4.4 Ω
Required backup fuse	16 A
Rated short-circuit switching capacity I_{cn}	200 A (240 V AC)
	400 A (28 V DC)
Dielectric strength	2000 V
Switching cycles, max.	6000 (at $1 \times I_N$)
	50 (at $1.5 \times I_N$)
	40 (at $6 \times I_N$)
Fuse	M1 (normal blow)
Power dissipation	$\leq 1.1 \text{ VA}$

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Temperature derating	0.39 A DC (at -30 °C)
	0.41 A DC (at -20 °C)
	0.42 A DC (at -10 °C)
	0.44 A DC (at 0 °C)
	0.45 A DC (at 10 °C)
	0.5 A DC (at 23 °C)
	0.52 A DC (at 30 °C)
	0.54 A DC (at 40 °C)
	0.58 A DC (at 50 °C)
	0.61 A DC (at 60 °C)
Contact switching type	none

Indicator/remote signaling

Connection name	Auxiliary contact
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Connection data

Nominal cross section	6.00 mm ²
Rated cross section AWG	8
Connection method	Screw connection

Level 1 above 1 below 1

Connection method	Screw connection
Screw thread	M4
Tightening torque	1.5 ... 1.8 Nm
Stripping length	12 mm
Conductor cross-section rigid	0.2 mm ² ... 10 mm ²
Cross section AWG	24 ... 8 (converted acc. to IEC)
Conductor cross-section flexible	0.2 mm ² ... 10 mm ²
Conductor cross-section, flexible [AWG]	24 ... 8 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm ² ... 6 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.25 mm ² ... 6 mm ²
2 conductors with same cross section, solid	0.2 mm ² ... 2.5 mm ²
2 conductors with same cross section, flexible	0.2 mm ² ... 2.5 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 4 mm ²
Nominal current	0.5 A
Nominal voltage	240 V AC
	28 V DC
Nominal cross section	6 mm ²

Main contact

Connection method	Screw connection
Screw thread	M4
Tightening torque	1.5 Nm ... 1.8 Nm

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Stripping length	12 mm
Conductor cross-section flexible	0.2 mm ² ... 10 mm ²
Conductor cross-section rigid	0.2 mm ² ... 10 mm ²
Conductor cross-section AWG	24 ... 8
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 4 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 6 mm ²
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 6 mm ²

Dimensions

Width	12.3 mm
Height	85.5 mm
Depth	89.5 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V-0
Insulating material	PA66

Mechanical properties

Mechanical data

Open side panel	No
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP40 (Actuation area)
	IP20 (Connection area)
Ambient temperature (operation)	-30 °C ... 60 °C
Altitude	2000 m (acc. to EN 60934)

Standards and regulations

Standards/specifications	EN 60934
Standards/specifications	UL 1077
Standards/specifications	CSA 22.2
Note	No. 235

Mounting

Mounting type	DIN rail: 35 mm
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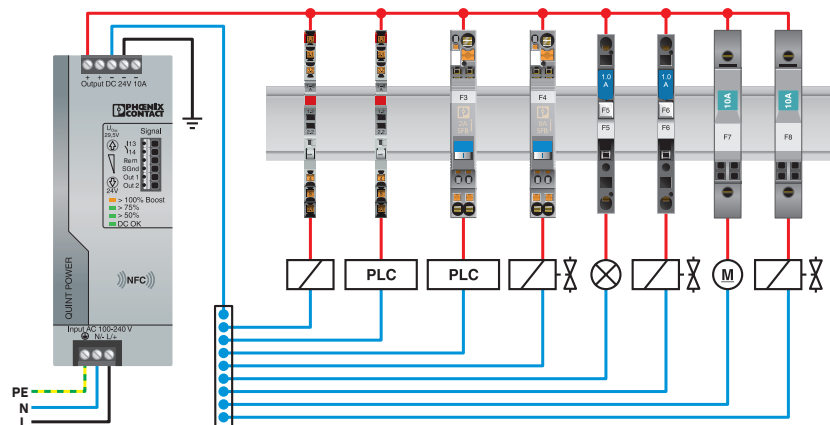
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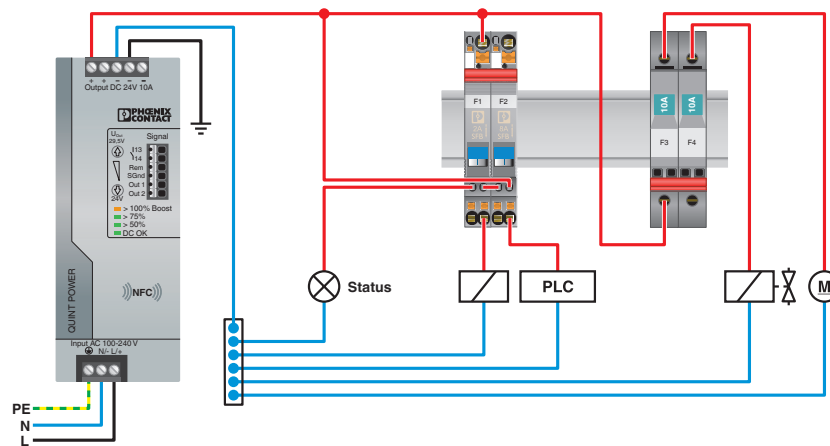
<https://www.phoenixcontact.com/us/products/0916603>

Drawings

Application drawing



Application drawing



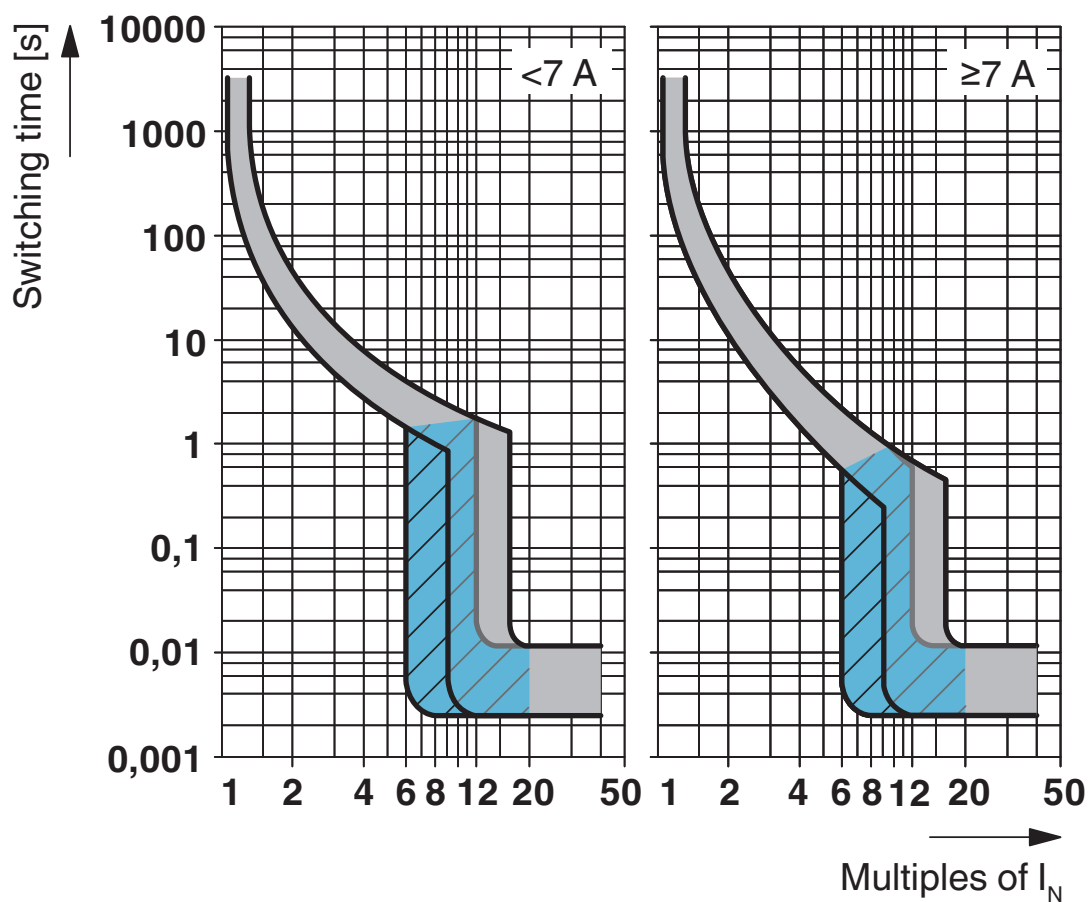
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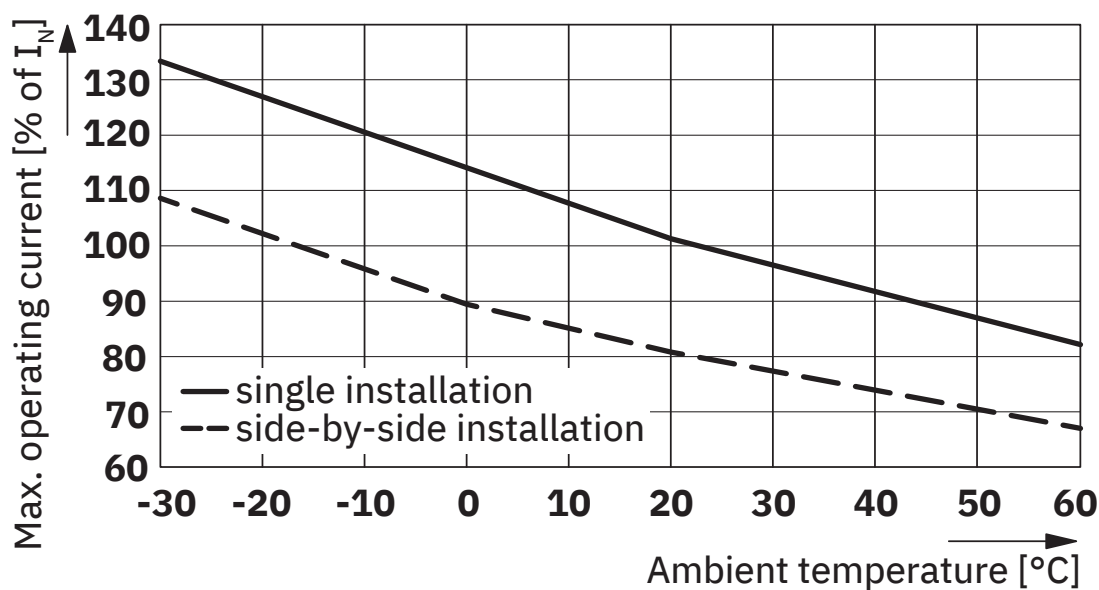
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Diagram



Trigger characteristic

Diagram



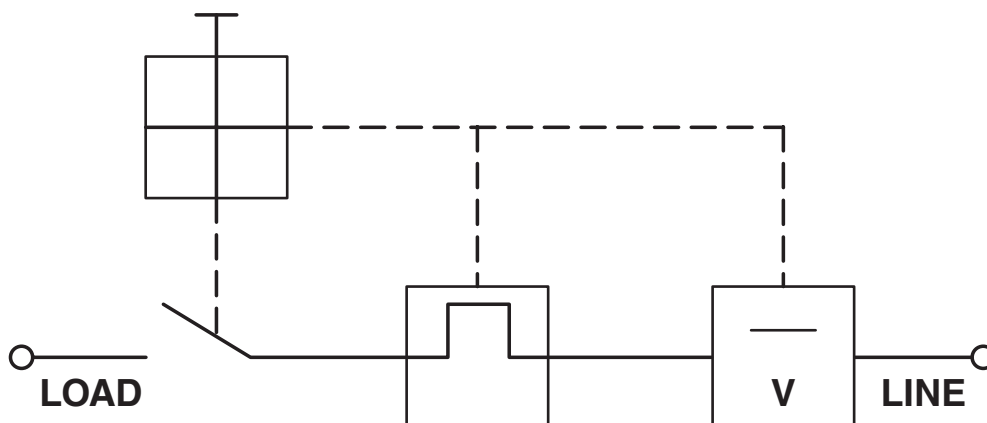
Operating current correction factor

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Block diagram



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Approvals

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cUL Recognized
Approval ID: FILE E 140459



UL Recognized
Approval ID: FILE E 140459



VDE Zeichengenehmigung
Approval ID: 40028127



CSA
Approval ID: 250505

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Classifications

ECLASS

ECLASS-13.0	27140401
ECLASS-15.0	27140401

ETIM

ETIM 9.0	EC003538
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%
EF3.0 Climate Change	
CO2e kg	1.115 kg CO2e

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com