

# TMC 1 M1 100 5,0A - Thermomagnetic device circuit breaker



0914497

<https://www.phoenixcontact.com/pc/products/0914497>

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Thermal-magnetic circuit breaker, 1-pos., normal blow, 1 N/O contact, with universal foot for mounting on NS 32 or NS 35

## Commercial data

|                                      |                    |
|--------------------------------------|--------------------|
| Item number                          | 0914497            |
| Packing unit                         | 6 pc               |
| Minimum order quantity               | 1 pc               |
| Sales key                            | 04                 |
| Product key                          | CLA121             |
| Catalog page                         | Page 282 (CL-2002) |
| GTIN                                 | 4017918009175      |
| Weight per piece (including packing) | 62.05 g            |
| Weight per piece (excluding packing) | 62.05 g            |
| Customs tariff number                | 85362010           |
| Country of origin                    | DE                 |

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## 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                                   | 250 V AC                              |
|   | 65 V DC                               |
| Rated current $I_N$                             | 5 A                                   |
| Rated surge voltage                             | 2.5 kV                                |
| Insulation resistance $R_{iso}$                 | > 100 M $\Omega$ (500 V DC)           |
| Auxiliary circuit                               | 240 V AC / 1 A (Low-induction)        |
|   | 65 V AC / 1 A (Low-induction)         |
| Tripping method                                 | TM (thermomagnetic)                   |
| Device resistance                               | 0.063 $\Omega$                        |
| Rated short-circuit switching capacity $I_{cn}$ | 400 A                                 |
|   | 2500 A (32 V DC)                      |
| Short-circuit switching capacity                | 5000 A (UL 1077: 277 V AC)            |
|   | 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 $1 \times I_n$ , inductive) |
| Fuse  | M1 (normal blow)                      |

### Indicator/remote signaling

|                   |                        |
|-------------------|------------------------|
| Connection name   | Auxiliary contact      |
| Operating voltage | 240 V AC               |
|                   | 65 V DC                |
| Operating current | 5 A AC (Low-induction) |

### Connection data

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0914497

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## Main contact

|   |  |
|---|--|
| Screw thread  | M3   |
| Tightening torque   | 0.6 ... 0.8 Nm                               |
| Stripping length  | 12 mm  |
| Internal cylindrical gage   | A3   |
| Conductor cross section rigid   | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>    |
| Cross section AWG   | 24 ... 10 (converted acc. to IEC)            |
| Conductor cross section flexible  | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>    |
| Conductor cross-section flexible (ferrule without plastic sleeve)                         | 0.25 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Flexible conductor cross section (ferrule with plastic sleeve)                            | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| 2 conductors with same cross section, solid   | 0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> |
| 2 conductors with same cross section, flexible  | 0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve       | 0.25 mm <sup>2</sup> ... 1 mm <sup>2</sup>   |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| Nominal current   | 5 A  |
| Nominal voltage   | 250 V AC                                     |
|   | 65 V DC                                      |

## Auxiliary contact

|   |  |
|---|--|
| Screw thread  | M3   |
| Tightening torque   | 0.6 ... 0.8 Nm                               |
| Stripping length  | 12 mm  |
| Internal cylindrical gage   | A1   |
| Conductor cross section rigid   | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| Cross section AWG   | 24 ... 14 (converted acc. to IEC)            |
| Conductor cross section flexible  | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| Conductor cross-section flexible (ferrule without plastic sleeve)                         | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Flexible conductor cross section (ferrule with plastic sleeve)                            | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| 2 conductors with same cross section, solid   | 0.2 m <sup>2</sup> ... 0.75 m <sup>2</sup>   |
| 2 conductors with same cross section, flexible  | 0.2 m <sup>2</sup> ... 0.75 mm <sup>2</sup>  |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve       | 0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> |
| Nominal current   | 5 A  |
| Nominal voltage   | 250 V AC                                     |
|   | 65 V DC                                      |

## Main contact

|                   |                   |
|-------------------|-------------------|
| Connection method | Screw connection  |
| Screw thread      | M3                |
| Tightening torque | 0.6 Nm ... 0.8 Nm |
| Stripping length  | 12 mm             |

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0914497

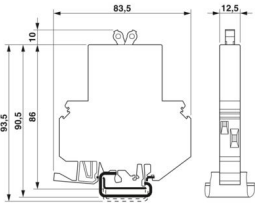
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|   |  |
|---|--|
| Conductor cross section flexible                                      | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>    |
| Conductor cross section rigid   | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>    |
| Conductor cross section AWG   | 24 ... 10                                    |
| Conductor cross section, flexible, with ferrule, with plastic sleeve  | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |

## 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 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| Conductor cross section rigid   | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| Conductor cross section AWG   | 24 ... 14                                    |
| Conductor cross section, flexible, with ferrule, with plastic sleeve  | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |

## 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) |
|----------------------|-----------------------|

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|                                 |                        |
|---------------------------------|------------------------|
|                                 | 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 |
|---------------|-----------------|

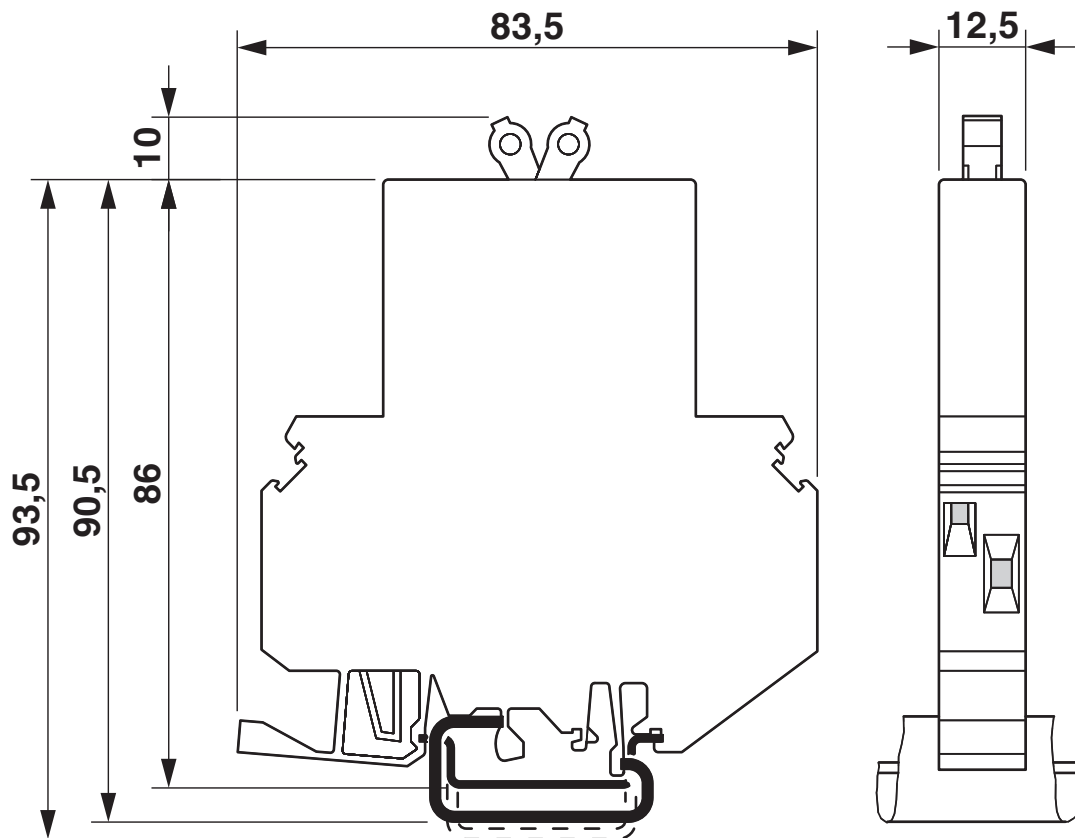
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## Drawings

Dimensional drawing



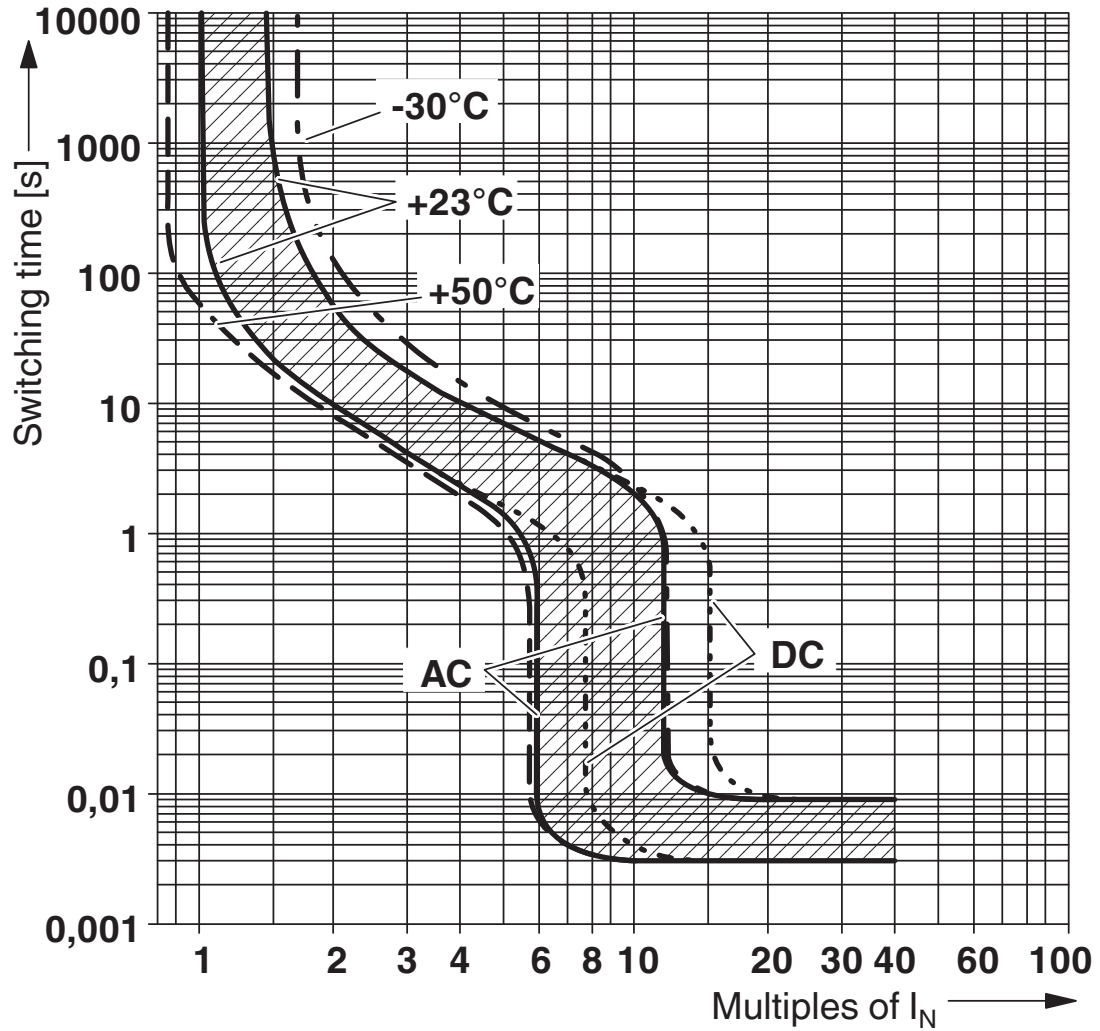
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Diagram



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## Approvals

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 **CSA**  
Approval ID: 074317

 **UL Recognized**  
Approval ID: FILE E 140459

 **EAC**  
Approval ID: EAC-Zulassung

 **EAC**  
Approval ID: RU C-DE.A\*30.B01546

 **VDE Zeichengenehmigung**  
Approval ID: 40029348

**UAE-RoHS**  
Approval ID: 23-10-88786



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27141116 |
| ECLASS-12.0 | 27141116 |
| ECLASS-13.0 | 27140401 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000899 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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## 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                                | 5cd71e98-3e9e-4cc2-8e8e-a1a8ec4e748c |

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