

# TMC 1 F1 100 6,0A - Thermal-magnetic device circuit breaker



0914141

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Thermal-magnetic device circuit breaker, 1-position, connection method: Screw connection, nominal current: 6 A, tripping characteristic: F1 (fast blow), fuse type: Automatic device, mounting type: DIN rail: 35 mm, rated current: 6 A

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 0914141       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | CL04          |
| Product key                          | CLA121        |
| GTIN                                 | 4017918008826 |
| Weight per piece (including packing) | 69.74 g       |
| Weight per piece (excluding packing) | 69.66 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                                   | 65 V DC                               |
| Rated current $I_N$                             | 6 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 (thermal-magnetic)                 |
| Device resistance                               | 0.42 $\Omega$                         |
| 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 | 6 A AC (Low-induction) |

### Connection data

#### Main contact

|                   |                  |
|-------------------|------------------|
| Connection method | Screw connection |
|-------------------|------------------|

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|                                                                                           |                                   |
|-------------------------------------------------------------------------------------------|-----------------------------------|
| 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, solid                                               | 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                                                                           | 6 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, solid                                               | 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 ... 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 |

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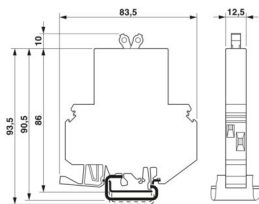


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|                                                                       |                                              |
|-----------------------------------------------------------------------|----------------------------------------------|
| Conductor 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)<br>IP20 (Connection area) |
| Ambient temperature (operation) | -30 °C ... 60 °C                                |
| Humidity test                   | 240 h, 95 % RH, 40 °C                           |

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## 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



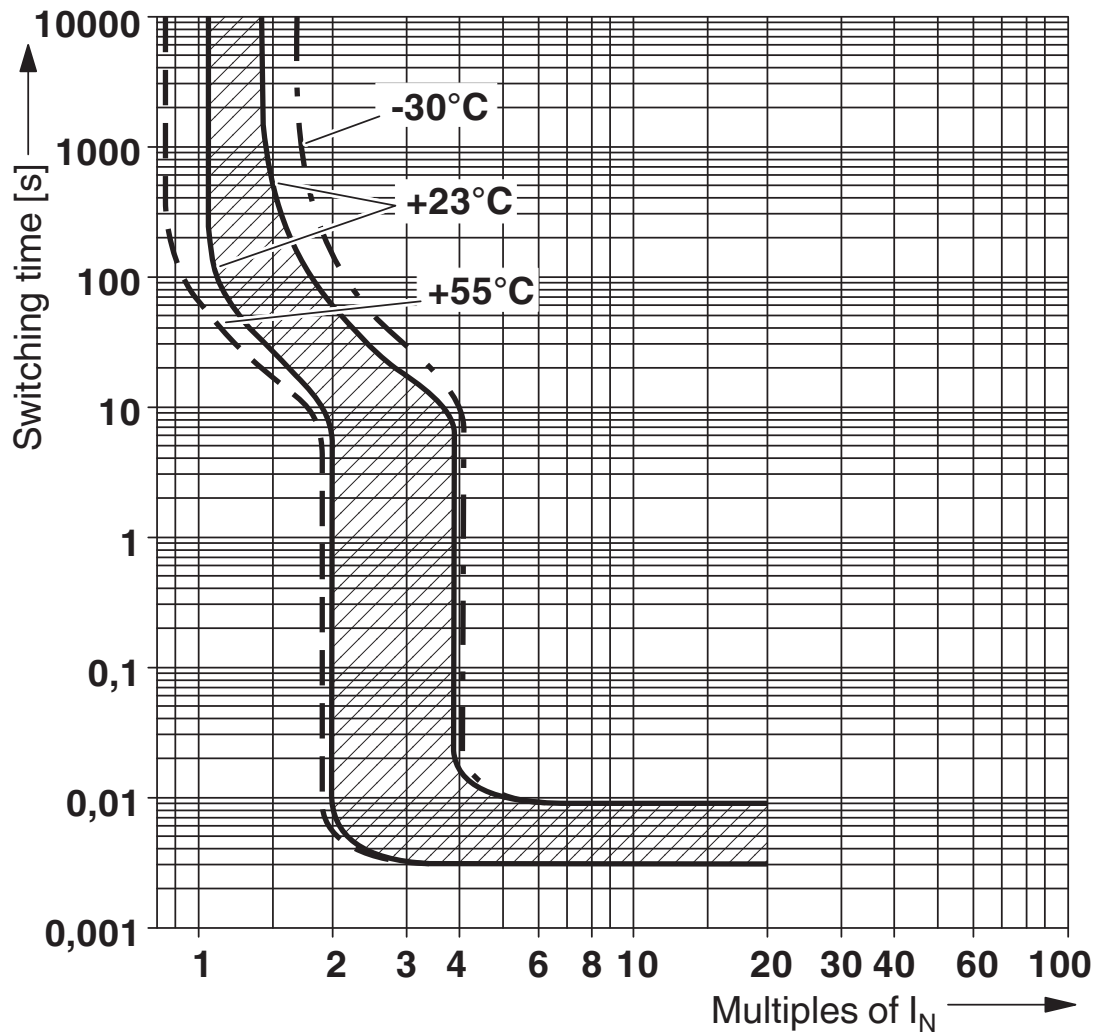
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Diagram



# TMC 1 F1 100 6,0A - Thermal-magnetic device circuit breaker



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/0914141>



**CSA**

Approval ID: 074317



**UL Recognized**

Approval ID: FILE E 140459



**VDE Zeichengenehmigung**

Approval ID: 40029348

**UAE-RoHS**

Approval ID: 23-10-88786

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27140401 |
| ECLASS-15.0 | 27140401 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC003538 |
|----------|----------|

### 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                                | e992490d-36c8-4798-970d-7a32f6e98c7a |

### EF3.0 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 3.786 kg CO2e |
|---------|---------------|

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