# TMC 71D 50A - Miniature Circuit Breaker

1020057

https://www.phoenixcontact.com/us/products/1020057

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Thermal-magnetic Miniature Circuit Breaker, 1-position, use: Supplementary Protection (UL 1077), for protection against overload up to a short-circuit current of 7.5 kA, tripping characteristic: D, mounting type: NS 35/..., rated current: 50 A

## Your advantages

- Can be used worldwide due to international approvals
- Suitable for various grid types, as it is available in 1-, 2-, 3-pos. versions
- Ideally coordinated protection due to various tripping characteristics and a wide selection of nominal currents
- Reduced inventory because of suitability for AC and DC applications
- Optional accessories enable remote control and monitoring

## Commercial data

| | |
|---|---|
| Item number | 1020057 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | CL09 |
| Product key | CLA126 |
| GTIN | 4055626509402 |
| Weight per piece (including packing) | 120.275 g |
| Weight per piece (excluding packing) | 110 g |
| Customs tariff number | 85362010 |
| Country of origin | CN |

## Technical data

### Product properties

| | |
|---|---|
| Product type | Circuit breakers |
| Product family | TMC 7 |
| Type | DIN rail module, one-piece |
| Number of positions | 1 |
| Mechanical service life | 20000 |
| Special properties | Supplementary Protection (UL 1077), for protection against overload up to a short-circuit current of 7.5 kA Thermal-magnetic |

### Electrical properties

| | |
|---|---|
| Service life electrical | 6000 |

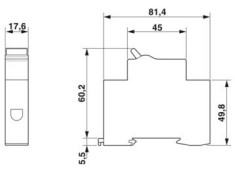
General

| | |
|---|---|
| Operating voltage | 277 V AC |
| | 60 V DC |
| Rated current $I_N$ | 50 A |
| Tripping method | TM (thermal-magnetic) |
| Rated short-circuit switching capacity $I_{cn}$ | 7.5 kA (240 V AC/ 60 V DC) |
| | 5 kA (277 V AC) |
| Fuse | D |
| Contact switching type | none |

### Connection data

| | |
|---|---|
| Conductor cross-section rigid | 1 mm² ... 35 mm² |
| Cross section AWG | 18 ... 2 (converted acc. to IEC) |
| Conductor cross-section flexible | 1 mm² ... 35 mm² |
| Connection method | Screw connection |
| Tightening torque, min | 2 Nm |
| Stripping length | 11 mm ... 12 mm |
| Conductor cross-section flexible max. | 35 mm² |
| Conductor cross-section, rigid max. | 35 mm² |

### Dimensions

| | |
|---|---|
| Dimensional drawing |   |
| Width | 17.6 mm |
| Height | 84.3 mm |
| Depth | 75.9 mm (incl. DIN rail 7.5 mm) |

## Material specifications

| | |
|---|---|
| Color | light gray (RAL 7035) |
| | gray (RAL 7042) |

## Environmental and real-life conditions

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -35 °C ... 70 °C |
| Humidity test | 48 h, 95% RH, 40°C (IEC 60068-2-78) |
| Shock (operation) | 30g (11 ms) (IEC 60068-2-11, test Ea) |
| Vibration (operation) | ±0.38 mm (10 Hz ... 57 Hz), 5g (57 Hz ... 500 Hz) (Sinusoidal test to IEC 60068-2-6, Test Fc. 10 frequency cycles per axis) |

## Standards and regulations

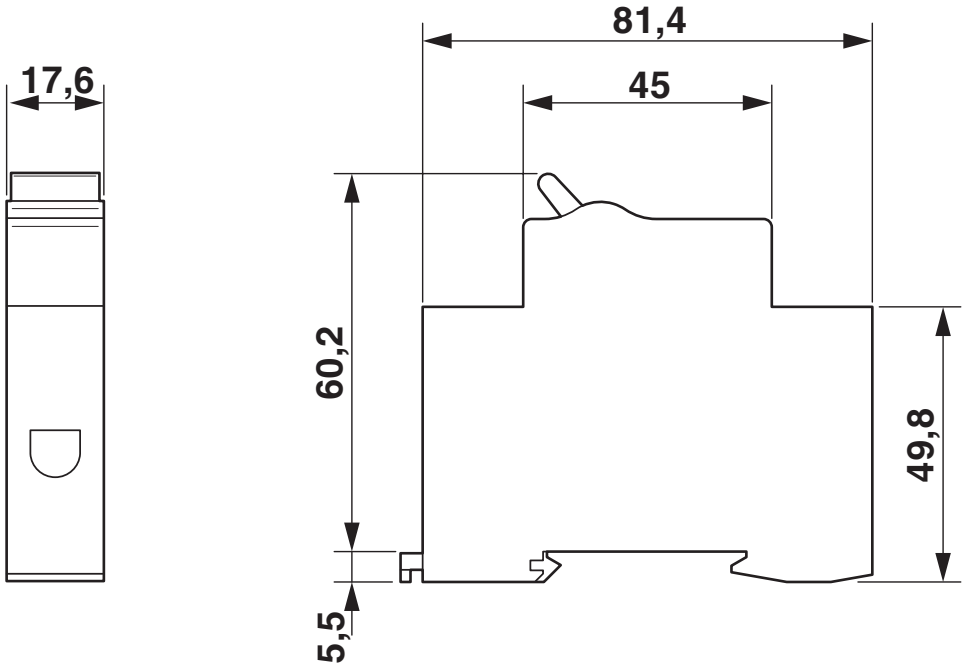
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|---|---|
| Standards/specifications | UL 1077 |

## Mounting

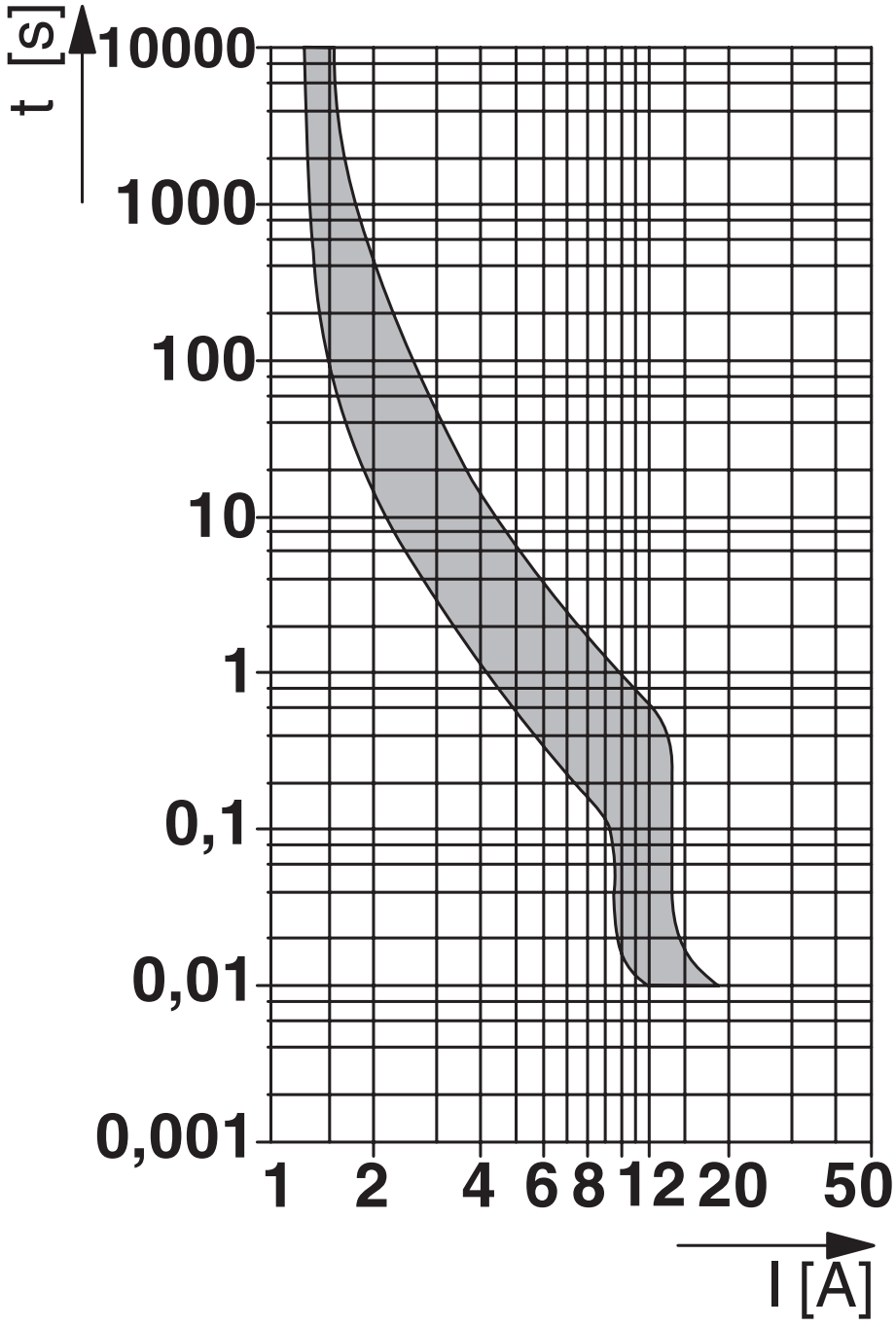
| | |
|---|---|
| Mounting type | NS 35/... |

## Drawings

Dimensional drawing



Diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1020057

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

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

**TÜV Rheinland**
Approval ID: R 50531587

**CCC**
Approval ID: 2024010307673885

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121410 |

## 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 | 1.856 kg CO2e |


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