

TMC 81D 20A - Miniature Circuit Breaker



2907640

<https://www.phoenixcontact.com/us/products/2907640>

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Thermal-magnetic Miniature Circuit Breaker, 1-position, use: Branch Circuit Protection (UL 489), for protection against overload with a breaking capacity of 10 kA, tripping characteristic: D, mounting type: NS 35/..., rated current: 20 A

Product description

CCC marking on the product is only present on products purchased from Phoenix Contact China.

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 | 2907640 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | CL08 |
| Product key | CLA125 |
| GTIN | 4055626215075 |
| Weight per piece (including packing) | 222.222 g |
| Weight per piece (excluding packing) | 131 g |
| Customs tariff number | 85362010 |
| Country of origin | CN |

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Technical data

Product properties

| | |
|-------------------------|--|
| Product type | Circuit breakers |
| Product family | TMC 8 |
| Type | DIN rail module, one-piece |
| Number of positions | 1 |
| Mechanical service life | 20000 |
| Special properties | Branch Circuit Protection (UL 489), for protection against overload with a breaking capacity of 10 kA Thermal-magnetic |

Electrical properties

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

General

| | |
|---|-----------------------|
| Operating voltage | 277 V AC |
| | 60 V DC |
| Rated current I_N | 20 A |
| Tripping method | TM (thermal-magnetic) |
| Rated short-circuit switching capacity I_{cn} | 10 kA (IC) |
| Fuse | D |
| Contact switching type | none |

Connection data

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

Dimensions

| | |
|---------------------|---------------------------------|
| Dimensional drawing | |
| Width | 17.6 mm |
| Height | 116 mm |
| Depth | 75.9 mm (incl. DIN rail 7.5 mm) |

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Material specifications

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

Environmental and real-life conditions

Ambient conditions

| | |
|---------------------------------|---|
| 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) |
| Vibration (operation) | ±0,38 mm (10 Hz ... 57 Hz), 5g (57 Hz ... 500 Hz) (IEC 60068-2-6, Fc, sine) |

Standards and regulations

| | |
|--------------------------|-------------|
| Standards/specifications | UL 489 |
| | IEC 60947-2 |

Mounting

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

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Drawings



Diagram



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Approvals

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UL Listed

Approval ID: FILE E 320373



cUL Listed

Approval ID: FILE E 320373



TÜV Rheinland

Approval ID: R 50531587



CCC

Approval ID: 2024010307673885

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Classifications

ECLASS

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

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC003538 |
|-----------|----------|

UNSPSC

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

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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% |
|-------------------------------------|----------------------------|

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