

# Thermomagnetic device circuit breaker - CB TM2 8A F1 P - 2800897

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Thermomagnetic device circuit breaker, 2-pos., tripping characteristic F1 (fast-blow), 2 PDT contacts, plug for base element.


The figure shows the CB TM2 0.5A F1 P version

## Product Description

Thermomagnetic device circuit breaker



## Key Commercial Data

|                      |   |
|----------------------|---|
| Packing unit         | 1 STK   |
| GTIN                 | <br>4 046356 690584 |
| GTIN                 | 4046356690584   |
| Custom tariff number | 85362010  |
| Note                 | Made to Order (non-returnable)  |

## Technical data

### Dimensions

|        |         |
|--------|---------|
| Height | 45 mm   |
| Width  | 24.6 mm |
| Depth  | 52 mm   |

### Ambient conditions

|   |                               |
|---|-------------------------------|
| Ambient temperature (operation)         | -30 °C ... 60 °C              |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C              |
| Humidity test                           | 240 h, 95% RH, 40°C           |
| Shock (operation)                       | 15g (IEC 60068-2-27, Test Ea) |
| Degree of protection                    | IP30 (Actuation area)         |

### General

|                           |   |
|---------------------------|---|
| Installation instructions | When mounted in rows, the nominal device current can be limited to just 80% or must be overdimensioned accordingly. |
|---------------------------|---|

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## Technical data

### General

|  |                 |
|--|-----------------|
| Flammability rating according to UL 94 | V0              |
| Mounting type                          | On base element |
| Color                                  | gray            |
| Number of positions                    | 2               |
| Insulating material group              | II              |
| Degree of pollution                    | 2               |

### Electrical data

|  |   |
|--|---|
| Fuse type                              | fast blow   |
| Rated surge voltage                    | 2.5 kV (Increased insulation in actuation area)                     |
|  | 80 V DC (IEC 60934)   |
|  | 80 V DC (UL 1077)   |
|  | 80 V DC (UL 508 - with plug-in base)                                |
| Rated current $I_N$                    | 8 A (IEC 60934)   |
|  | inductive load according to UL 1077                                 |
|  | 8 A DC (low-induction load according to UL 1077)                    |
|  | 8 A DC (inductive load according to UL 508 - with plug-in base)     |
|  | 8 A DC (low-induction load according to UL 508 - with plug-in base) |
| Rated insulation voltage $U_i$         | 277 V AC (UL 1077)  |
|  | 250 V AC (IEC 60934)  |
| Required backup fuse                   | $\geq 32$ A   |
| Power dissipation                      | 1.28 W (in nominal operation per channel)                           |
| Insulation resistance $R_{iso}$        | > 100 M $\Omega$ (500 V DC)   |
| Type of actuation                      | S type  |
| Tripping method                        | TM (thermomagnetic)   |
| Tripping level                         | Trip-free mechanism (positive)                                      |
|  | 600 A (80 V DC)   |
| Short-circuit switching capacity $I_k$ | 1000 A AC 277 V AC  |
|  | 1000 A DC 50 V DC   |
| Dielectric strength                    | 3000 V AC (Actuation area)  |
|  | 1500 V AC (Main to auxiliary circuit)                               |
|  | 1500 V AC (Open main circuit)                                       |
|  | 1000 V AC (Open auxiliary circuit)                                  |
|  | 1500 V AC (Position to position)                                    |
| Voltage drop                           | 0.14 V (at $1 \times I_N$ )   |
| Switching cycles, max.                 | 6000 (240 V AC/ $1 \times I_N$ )                                    |
|  | 3000 (80 V DC/ $1 \times I_N$ )                                     |
| Contact type                           | 2 PDT   |
| Auxiliary circuit                      | 277 V AC / 0.5 A (Low-induction)                                    |
|  | 277 V AC / 1 A (Low-induction, maximum of 2000 cycles)              |
|  | 50 V DC / 1 A (Low-induction)                                       |

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## Technical data

### Electrical data

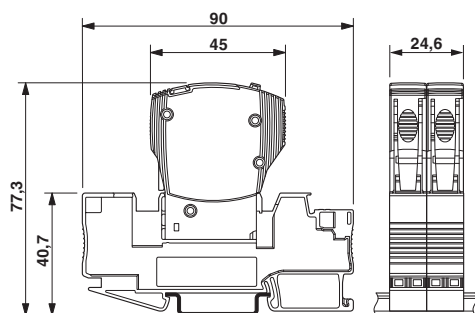
|   |                                |
|---|--------------------------------|
| Minimum auxiliary contact operating voltage | 10 V                           |
| Maximum auxiliary contact operating voltage | 240 V                          |
|   | 240 V                          |
| Minimum auxiliary contact operating current | 10 mA                          |
| Maximum auxiliary contact operating current | 1 A                            |
| Vibration resistance, frequency             | 57 Hz ... 500 Hz               |
| Vibration resistance, amplitude             | 0.38 mm (10 ... 57 Hz)         |
| Vibration resistance, acceleration          | 50 m/s <sup>2</sup>            |
| Vibration resistance, test duration         | 0 min. (Frequency cycles/axis) |

### Standards and Regulations

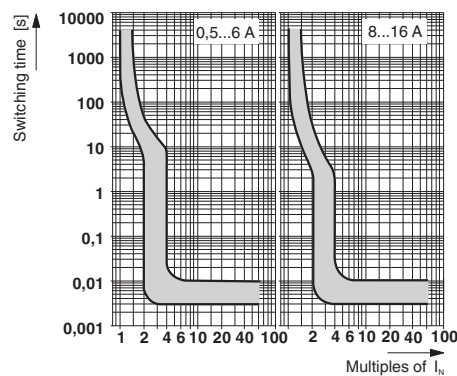
|                          |                            |
|--------------------------|----------------------------|
| Standards/specifications | EN 60934                   |
|                          | UL 1077 UL/C-UL recognized |
|                          | UL 508 UL/C - UL listed    |
|                          | CSA 22.2 No. 235-041       |

## Drawings

Dimensional drawing



Diagram

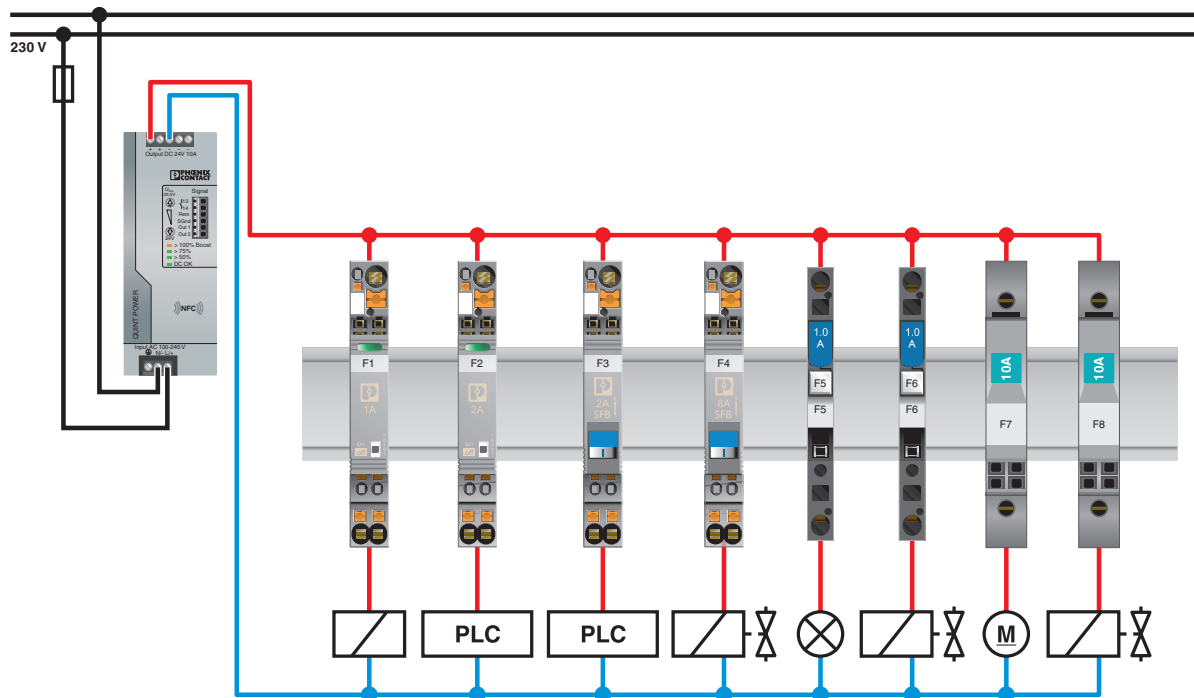


The figure shows the complete module consisting of a base element and connector

Trigger characteristic in the DC range

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Application drawing



The figure shows the single-position versions

## Approvals

Approvals

Approvals

VDE Zeichengenehmigung / UL Recognized / cUL Recognized / GL / EAC / CSA / KC / cULus Recognized

Ex Approvals

## Approval details

|                        |  |   |          |
|------------------------|--|---|----------|
| VDE Zeichengenehmigung |  | <a href="http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx">http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx</a> | 40034683 |
|------------------------|--|---|----------|

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## Approvals

|                  |  |   |                         |
|------------------|--|---|-------------------------|
| UL Recognized    |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>                                     | FILE E 140459           |
| cUL Recognized   |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>                                     | FILE E 140459           |
| GL               |  | <a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>   | 61419-13 HH             |
| EAC              |  |   | RU C-<br>DE.A*30.B01561 |
| CSA              |  | <a href="http://www.csagroup.org/services/testing-and-certification/certified-product-listing/">http://www.csagroup.org/services/testing-and-certification/certified-product-listing/</a> | 2786957                 |
| KC               |  | <a href="http://eng.kcc.go.kr/user/ehpMain.do">http://eng.kcc.go.kr/user/ehpMain.do</a>   | SW05012-15006           |
| cULus Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>                                     |                         |