

Circuit Breaker for Equipment thermal, Rocker actuation, 2 pole



## Description

- Thermal circuit breaker
- 2-pole
- Snap-in version
- Positively trip-free release
- Different rocker colours
- High configurability
- Wide current range

## Standards

- Approval Reference Type: TA35
- IEC 60934
- UL 1077
- CSA C22.2 No. 235
- GB 17701

## Applications

- Power tools
- Industrial appliances
- Equipment for construction
- Cleaning equipment
- Commercial and household kitchen appliances

## Weblinks

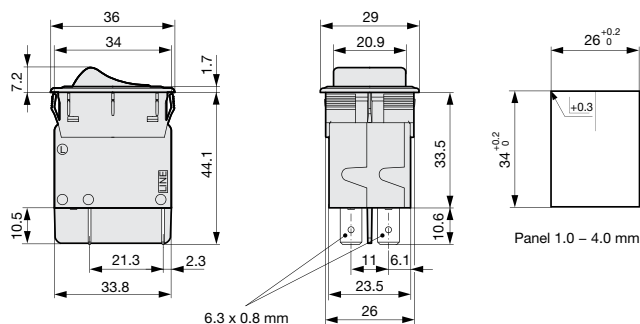
[pdf-datasheet](#), [html-datasheet](#), [General Product Information](#), [Approvals](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [REACH](#), [Distributor-Stock-Check](#), [Detailed request for product](#), [Product News](#)

## Technical Data

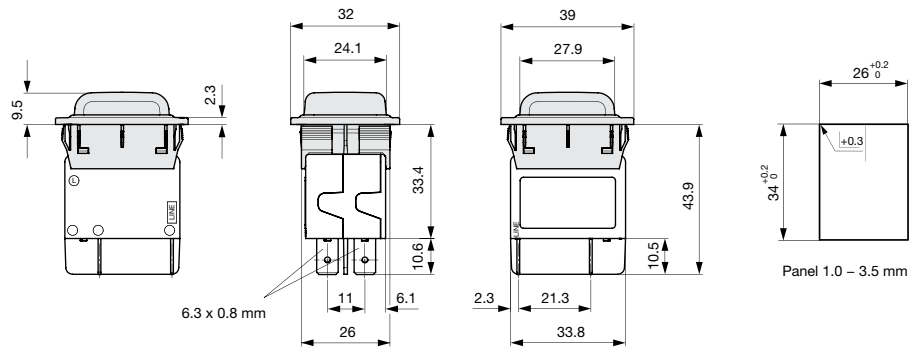
|                                    |                                                                                                                                                         |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Voltage AC                   | 240 V; 50/60 Hz                                                                                                                                         |
| Rated Voltage DC                   | 60 V                                                                                                                                                    |
| Rated current range AC             | 0.05 - 20 A                                                                                                                                             |
| Conditional short circuit capacity | 0.05...20 A: 2 kA, SC (C1) @ 240 VAC                                                                                                                    |
| Degree of Protection               | from front side IP 40 acc. to IEC 60529                                                                                                                 |
| Dielectric Strength                | 50Hz: > 2.5 kV<br>Impulse 1.2/50 $\mu$ s: > 4 kV                                                                                                        |
| Insulation resistance              | 500 VDC > 100 M $\Omega$                                                                                                                                |
| Endurance typical                  | mechanical: 50'000 switching cycles<br>AC: 1 x Ir, cos $\phi$ 0.6:<br>50'000 switching cycles<br>DC: 1 x Ir, L/R = 2 - 3 ms:<br>50'000 switching cycles |

|                      |                                                                                                                      |
|----------------------|----------------------------------------------------------------------------------------------------------------------|
| Overload             | IEC: min. 40 trips<br>@ 6 x Ir, cos $\phi$ 0.6<br>UL / CSA: min. 50 trips<br>@ 1.5 x Ir, cos $\phi$ 0.75             |
| Ambient temperature  | -30 °C to 60 °C                                                                                                      |
| Vibration Resistance | $\pm$ 0.75 mm @ 10 - 60 Hz<br>acc. to IEC 60068-2-6, test Tc<br>10 G @ 60 - 500 Hz<br>acc. to IEC 60068-2-6, test Tc |
| Shock Resistance     | 30 G / 18 ms<br>acc. to IEC 60068-2-27, test Ea                                                                      |
| Tripping Type        | Thermal                                                                                                              |
| Actuation type       | Rocker                                                                                                               |
| Weight               | 29.0 - 31.5 g                                                                                                        |

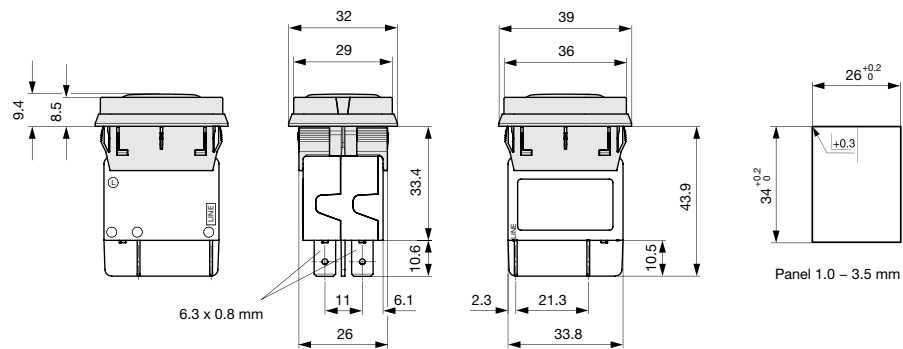
## Dimension



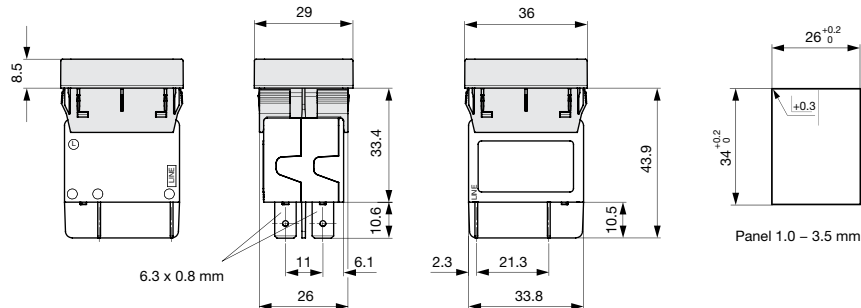
## Accessories / CZM21, factory mounted transparent cover, IP65



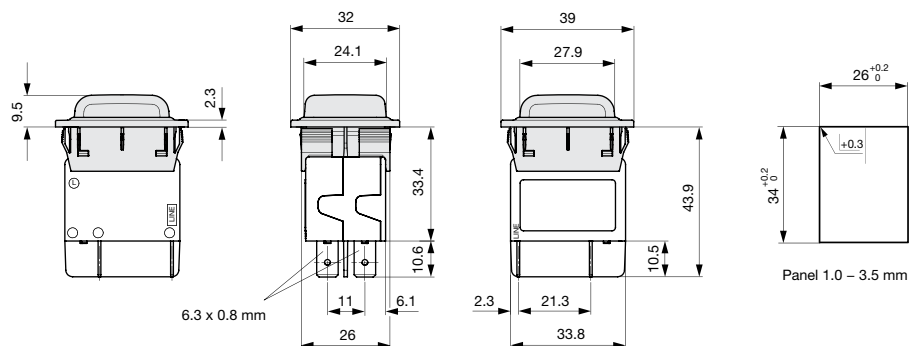
## Accessories / CZM23, factory mounted raised collar with transparent cover, IP65



## Accessories / CZM24, factory mounted raised collar without cover, IP40

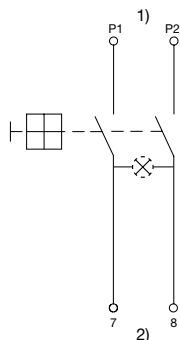


## Accessories / CZM25, factory mounted transparent cover, antibacterial, IP65



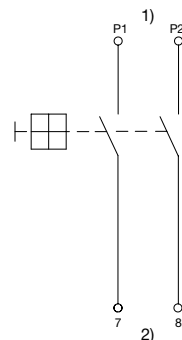
## Diagrams

2-pole, 0 bimetal, illuminated



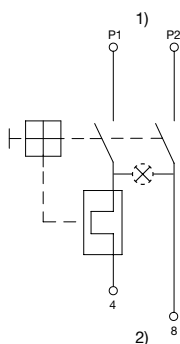
1) Line, 2) Load  
Codepos AAA = C02, C04, C07, C08, C09

2-pole, 0 bimetal, non illuminated



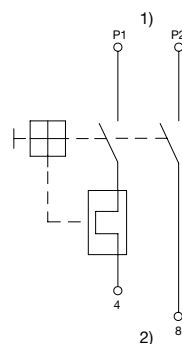
1) Line, 2) Load  
Codepos AAA = CBC, CEC

2-pole, 1 bimetal, illuminated



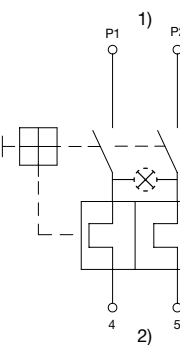
1) Line, 2) Load  
Codepos AAA = C12, C14, C17, C18, C19

2-pole, 1 bimetal, non illuminated



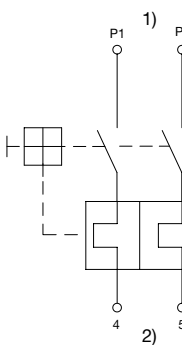
1) Line, 2) Load  
Codepos AAA = CBT, CET

2-pole, 2 bimetal, illuminated



1) Line, 2) Load  
Codepos AAA = C32, C34, C37, C38, C39

2-pole, 2 bimetal, non illuminated



1) Line, 2) Load  
Codepos AAA = CBD, CED

The keys / codepos are listed in the key table of the basic function for selection.

| Approval                                                                               |                  | Rated current | Rated voltage AC | Rated voltage DC |
|----------------------------------------------------------------------------------------|------------------|---------------|------------------|------------------|
|  US | UL 1077          | 0.05...20 A   | 240 V            | 60 V             |
|  US | CSA C22.2<br>235 | 0.05...20 A   | 240 V            | 60 V             |
|     | IEC 60934        | 0.05...20 A   | 240 V            | 60 V             |
|     | GB 17701         | 0.05...20 A   | 240 V            | 60 V             |

**Typical internal resistance**

| Rated Current [A] | Internal Resistance [ $\Omega$ ] |
|-------------------|----------------------------------|
| 0.05              | 200.000                          |
| 0.1               | 70.000                           |
| 0.5               | 2.750                            |
| 1.0               | 0.720                            |
| 1.5               | 0.340                            |
| 2.0               | 0.187                            |
| 2.5               | 0.115                            |
| 2.8               | 0.089                            |
| 3.0               | 0.059                            |
| 4.0               | 0.059                            |
| 5.0               | 0.044                            |
| 6.0               | 0.028                            |
| 7.0               | 0.0142                           |
| 8.0               | 0.0142                           |
| 10.0              | 0.0109                           |
| 12.0              | 0.0086                           |
| 13.0              | 0.0072                           |
| 14.0              | 0.0072                           |
| 15.0              | 0.0056                           |
| 16.0              | 0.0056                           |
| 18.0              | 0.0052                           |
| 20.0              | 0.0052                           |

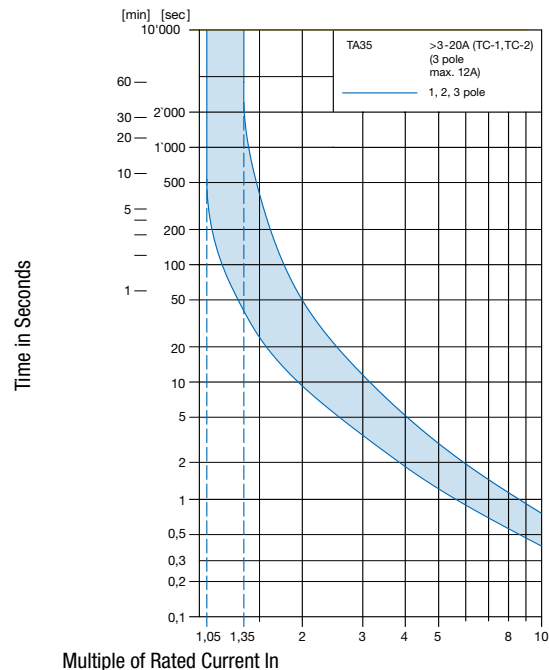
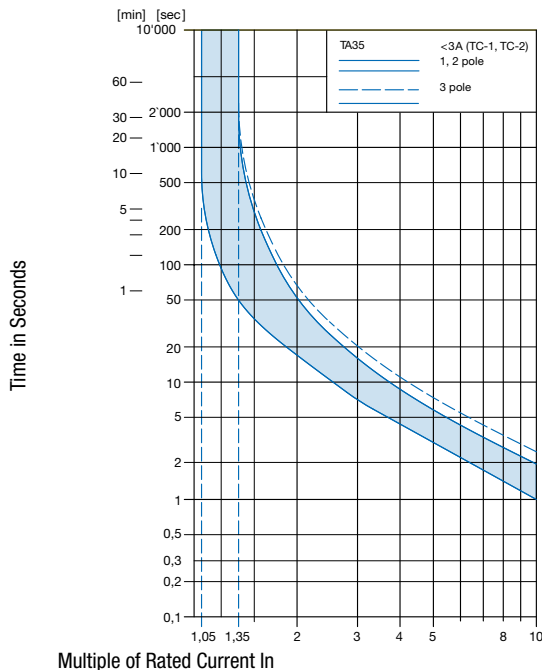
**Effect of ambient temperature**

The units are calibrated for an ambient temperature of +23°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor (typical value) from the table below:

| Ambient temperature [°C] | Correction factor |
|--------------------------|-------------------|
| -30                      | 0.76              |
| -20                      | 0.81              |
| 0                        | 0.90              |
| +23                      | 1.00              |
| +40                      | 1.03              |
| +50                      | 1.04              |
| +60                      | 1.06              |

Example: Rated current = 5 A; Environmental temperature = 50 °C; --> Correction factor = 1.04; Resulting current = 5.2 A --> Found to next higher rated current: 6 A

## Time-Current-Curves



## Config. Code

TA35 - CBD B F 120 C0 - CZMXX

The characters are placeholders for the correspondingly keys of selections from the key tables.

TA35 - **CBD B F 120 C0 - CZMXX** = Basic function

| Basic function                                                  | Configuration key |
|-----------------------------------------------------------------|-------------------|
| 2-pole, without bimetal, illuminated 240 V                      | C02               |
| 2-pole, without bimetal, illuminated 120 V                      | C04               |
| 2-pole, without bimetal, illuminated 24 V                       | C07               |
| 2-pole, without bimetal, illuminated 12 V                       | C08               |
| 2-pole, without bimetal, illuminated 5 V                        | C09               |
| 2-pole, 1 bimetal, illuminated 240 V                            | C12               |
| 2-pole, 1 bimetal, illuminated 120 V                            | C14               |
| 2-pole, 1 bimetal, illuminated 24 V                             | C17               |
| 2-pole, 1 bimetal, illuminated 12 V                             | C18               |
| 2-pole, 1 bimetal, illuminated 5 V                              | C19               |
| 2-pole, 2 bimetal, illuminated 240 V                            | C32               |
| 2-pole, 2 bimetal, illuminated 120 V                            | C34               |
| 2-pole, 2 bimetal, illuminated 24 V                             | C37               |
| 2-pole, 2 bimetal, illuminated 12 V                             | C38               |
| 2-pole, 2 bimetal, illuminated 5 V                              | C39               |
| 2-pole, without bimetal, without illumination                   | CBC               |
| 2-pole, 2 bimetal, without illumination                         | CBD               |
| 2-pole, 1 bimetal, without illumination                         | CBT               |
| 2-pole, without bimetal, momentary switch, without illumination | CEC               |
| 2-pole, 2 bimetal, momentary switch, without illumination       | CED               |
| 2-pole, 1 bimetal, momentary switch, without illumination       | CET               |

TA35 - CBD **B** F 120 C0 - CZMXX = Rocker colour

| Rocker colour      | Configuration key |
|--------------------|-------------------|
| Clear transparent  | 1                 |
| Red transparent    | 3                 |
| Green transparent  | 4                 |
| Orange transparent | 6                 |
| Blue transparent   | 7                 |
| Black              | B                 |
| Green              | G                 |
| Red                | R                 |
| White              | W                 |
| Orange             | X                 |
| Yellow             | Y                 |

TA35 - CBD B **F** 120 C0 - CZMXX = Legend

| Legend        | Configuration key |
|---------------|-------------------|
| embossed      | F                 |
| white printed | H                 |
| black printed | K                 |
| white printed | L                 |

| Legend        | Configuration key                                                                   |
|---------------|-------------------------------------------------------------------------------------|
| black printed |  M |

TA35 - CBD B F 120 C0 - CZMXX = Rated current

| Rated current                                                          | Configuration key |
|------------------------------------------------------------------------|-------------------|
| without thermal overload protection / temporarily without VDE approval | C00               |
| 0.05 A                                                                 | Z05               |
| 0.1 A                                                                  | J01               |
| 0.2 A                                                                  | J02               |
| 0.3 A                                                                  | J03               |
| 0.4 A                                                                  | J04               |
| 0.5 A                                                                  | J05               |
| 0.8 A                                                                  | J08               |
| 1.0 A                                                                  | J10               |
| 1.2 A                                                                  | J12               |
| 1.5 A                                                                  | J15               |
| 2.0 A                                                                  | J20               |
| 2.5 A                                                                  | J25               |
| 3.0 A                                                                  | O30               |
| 3.5 A                                                                  | O35               |
| 4.0 A                                                                  | O40               |
| 5.0 A                                                                  | O50               |
| 6.0 A                                                                  | O60               |
| 7.0 A                                                                  | O70               |
| 8.0 A                                                                  | O80               |

Other rated currents on request

| Rated current | Configuration key |
|---------------|-------------------|
| 10.0 A        | 100               |
| 12.0 A        | 120               |
| 13.0 A        | 130               |
| 14.0 A        | 140               |
| 15.0 A        | 150               |
| 16.0 A        | 160               |
| 18.0 A        | 180               |
| 20.0 A        | 200               |

Other rated currents on request

TA35 - CBD B F 120 C0 - CZMXX = Reserve

| Reserve | Configuration key |
|---------|-------------------|
| reserve | C0                |

TA35 - CBD B F 120 C0 - CZMXX = Accessories

| Factory mounted accessories                | Configuration key |
|--------------------------------------------|-------------------|
| Without cover                              |                   |
| Transparent cover antibacterial, IP65      | *CZM25            |
| Transparent cover, IP65                    | CZM21             |
| Raised collar with transparent cover, IP65 | CZM23             |
| Raised collar, IP65                        | CZM24             |

For subsequent fitting accessories see:

[http://www.schurter.ch/accessory\\_cbe](http://www.schurter.ch/accessory_cbe)

\*CCC Approval pending

## All Variants

| Basic function                          | Rocker colour     | Legend        | Rated current | Accessories             | Config. Code          | Order Number |
|-----------------------------------------|-------------------|---------------|---------------|-------------------------|-----------------------|--------------|
| 2-pole, 2 bimetal, without illumination | White             | embossed      | 3.0 A         | Without cover           | TA35-CBDWF030C0       | 4435.0022    |
| 2-pole, 2 bimetal, without illumination | White             | black printed | 3.0 A         | Without cover           | TA35-CBDWM030C0       | 4435.0374    |
| 2-pole, 2 bimetal, without illumination | Black             | white printed | 4.0 A         | Without cover           | TA35-CBDBH040C0       | 4435.0276    |
| 2-pole, 2 bimetal, without illumination | White             | embossed      | 5.0 A         | Without cover           | TA35-CBDWF050C0       | 4435.0039    |
| 2-pole, 1 bimetal, without illumination | White             | embossed      | 6.0 A         | Without cover           | TA35-CBTWF060C0       | 4435.0042    |
| 2-pole, 2 bimetal, illuminated 240 V    | Green transparent | white printed | 6.0 A         | Without cover           | TA35-C324H060C0       | 4435.0265    |
| 2-pole, 1 bimetal, without illumination | White             | embossed      | 8.0 A         | Without cover           | TA35-CBTWF080C0       | 4435.0046    |
| 2-pole, 1 bimetal, without illumination | Black             | white printed | 8.0 A         | Without cover           | TA35-CBTBL080C0       | 4435.0067    |
| 2-pole, 2 bimetal, illuminated 240 V    | Blue transparent  | white printed | 8.0 A         | Transparent cover, IP65 | TA35-C327L080C0-CZM21 | 4435.0483    |
| 2-pole, 1 bimetal, without illumination | Black             | white printed | 10.0 A        | Without cover           | TA35-CBTBL100C0       | 4435.0012    |
| 2-pole, 1 bimetal, without illumination | White             | embossed      | 10.0 A        | Without cover           | TA35-CBTWF100C0       | 4435.0047    |
| 2-pole, 2 bimetal, without illumination | White             | black printed | 10.0 A        | Without cover           | TA35-CBDWM100C0       | 4435.0091    |
| 2-pole, 1 bimetal, illuminated 240 V    | Green transparent | embossed      | 10.0 A        | Without cover           | TA35-C124F100C0       | 4435.0187    |
| 2-pole, 2 bimetal, without illumination | White             | embossed      | 10.0 A        | Without cover           | TA35-CBDWF100C0       | 4435.0195    |
| 2-pole, 2 bimetal, without illumination | White             | embossed      | 12.0 A        | Without cover           | TA35-CBDWF120C0       | 4435.0304    |
| 2-pole, 2 bimetal, without illumination | White             | embossed      | 15.0 A        | Without cover           | TA35-CBDWF150C0       | 4435.0041    |
| 2-pole, 2 bimetal, without illumination | Black             | embossed      | 15.0 A        | Without cover           | TA35-CBDBF150C0       | 4435.0347    |

| Basic function                                | Rocker colour | Legend        | Rated current                                                          | Accessories                                | Config. Code          | Order Number |
|-----------------------------------------------|---------------|---------------|------------------------------------------------------------------------|--------------------------------------------|-----------------------|--------------|
| 2-pole, 2 bimetal, without illumination       | White         | black printed | 15.0 A                                                                 | Raised collar with transparent cover, IP65 | TA35-CBDWM150C0-CZM23 | 4435.0423    |
| 2-pole, 1 bimetal, without illumination       | White         | embossed      | 20.0 A                                                                 | Without cover                              | TA35-CBTWF200C0       | 4435.0002    |
| 2-pole, 2 bimetal, without illumination       | White         | embossed      | 20.0 A                                                                 | Without cover                              | TA35-CBDWF200C0       | 4435.0013    |
| 2-pole, 2 bimetal, without illumination       | Black         | white printed | 20.0 A                                                                 | Without cover                              | TA35-CBDBL200C0       | 4435.0321    |
| 2-pole, without bimetal, without illumination | White         | embossed      | without thermal overload protection / temporarily without VDE approval | Transparent cover anti-bacterial, IP65     | TA35-CBCWFC00C0-CZM25 | 4435.0702    |

Most Popular.

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**Packaging Unit** 10 Pcs

## Accessories

### Description



[TA35 Accessories](#)  
Screw-on collar with cover, IP65