

Circuit Breaker for Equipment thermal, Rocker actuation, 1 pole



## Description

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

## Standards

- IEC 60934
- UL 1077
- CSA C22.2 235
- GB 17701

## Characteristics

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

## Weblinks

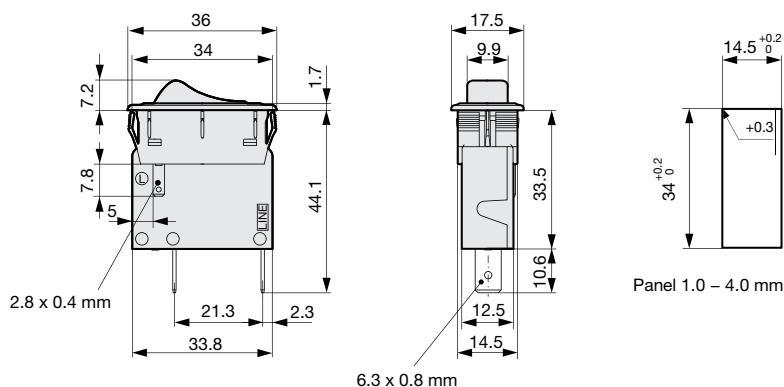
[pdf-datasheet](#), [html-datasheet](#), [General Product Information](#), [Approvals](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [e-Shop](#), [SCHURTER-Stock-Check](#), [Distributor-Stock-Check](#), [Detailed request for product](#)

## Technical Data

|                                    |                                                                                                                                                                              |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Voltage AC                   | 240 V; 50/60 Hz                                                                                                                                                              |
| Rated Voltage DC                   | 32 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                | 50 Hz: > 2.5 kV<br>Impulse 1.2/50 µs: > 4 kV                                                                                                                                 |
| Insulation resistance              | 500 VDC > 100 MΩ                                                                                                                                                             |
| Endurance typical                  | mechanical: 50'000 switching cycles<br>AC: 1 x I <sub>r</sub> , cos φ 0.6:<br>50'000 switching cycles<br>DC: 1 x I <sub>r</sub> , L/R = 2 - 3 ms:<br>50'000 switching cycles |

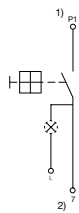
|                      |                                                                                                                          |
|----------------------|--------------------------------------------------------------------------------------------------------------------------|
| Overload             | IEC: min. 40 trips<br>@ 6 x I <sub>r</sub> , cos φ 0.6<br>UL / CSA: min. 50 trips<br>@ 1.5 x I <sub>r</sub> , cos φ 0.75 |
| Ambient temperature  | -30 °C to 60 °C                                                                                                          |
| Vibration Resistance | ± 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                                                                                                                  |
| Weight               | 16.5 - 18.5 g                                                                                                            |

## Dimension



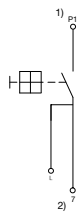
## Diagrams

1-pole, 0 bimetal, illuminated



1) Line, 2) Load  
Codepos AAA = CF2, CF4, CF7, CF8, CF9

1-pole, 0 bimetal, non illuminated



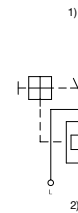
1) Line, 2) Load  
Codepos AAA = CFC, CGC

1-pole, 1 bimetal, illuminated



1) Line, 2) Load  
Codepos AAA = C2F, C4F, C7F, C8F, C9F

1-pole, 1 bimetal, non illuminated



1) Line, 2) Load  
Codepos AAA = CFT, CGT

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

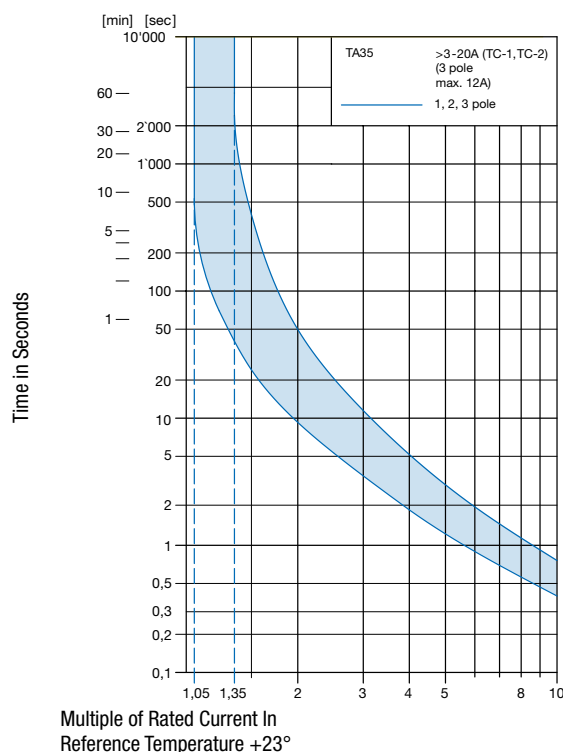
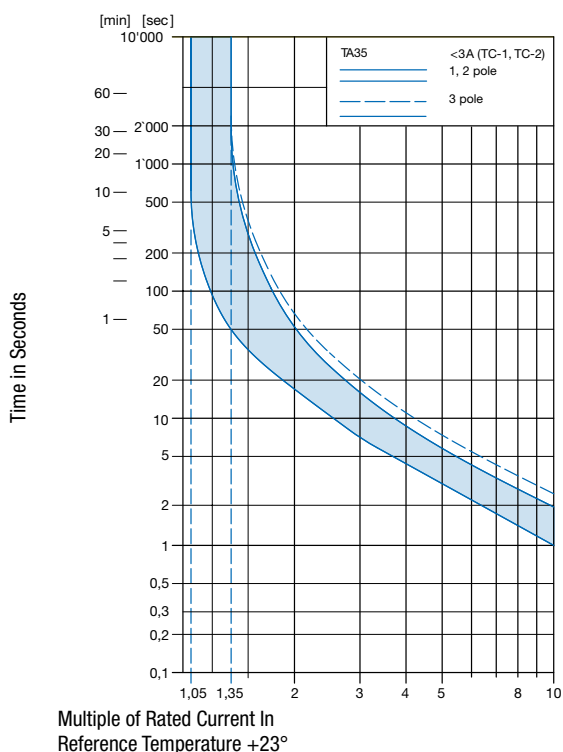
## Approvals

| Approval                                                                            |                  | Rated current | Rated voltage AC | Rated voltage DC |
|-------------------------------------------------------------------------------------|------------------|---------------|------------------|------------------|
|  US | UL 1077          | 0.05...20 A   | 240 V            | 32 V             |
|  US | CSA C22.2<br>235 | 0.05...20 A   | 240 V            | 32 V             |
|     | IEC 60934        | 0.05...20 A   | 240 V            | 32 V             |
|     | GB 17701         | 0.05...20 A   | 240 V            | 32 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                           |

## Time-Current-Curves



## 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                      | 0.77              |
| -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 --> Fount to next higher rated current: 6 A

## Config. Code

TA35 - AAA B C 120 - CZMXX

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

TA35 - **AAA** B C 120 - CZMXX = Basic function

| Basic function                             | Configuration key |
|--------------------------------------------|-------------------|
| 1-pole, 1 bimetal, illuminated 240 V       | C2F               |
| 1-pole, 1 bimetal, illuminated 120 V       | C4F               |
| 1-pole, 1 bimetal, illuminated 24 V        | C7F               |
| 1-pole, 1 bimetal, illuminated 12 V        | C8F               |
| 1-pole, 1 bimetal, illuminated 5 V         | C9F               |
| 1-pole, without bimetal, illuminated 240 V | CF2               |
| 1-pole, without bimetal, illuminated 120 V | CF4               |
| 1-pole, without bimetal, illuminated 24 V  | CF7               |

| Basic function                                                  | Configuration key |
|-----------------------------------------------------------------|-------------------|
| 1-pole, without bimetal, illuminated 12 V                       | CF8               |
| 1-pole, without bimetal, illuminated 5 V                        | CF9               |
| 1-pole, without bimetal, without illumination                   | CFC               |
| 1-pole, 1 bimetal, without illumination                         | CFT               |
| 1-pole, without bimetal, momentary switch, without illumination | CGC               |
| 1-pole, 1 bimetal, momentary switch, without illumination       | CGT               |

TA35 - AAA **B** C 120 - 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 - AAA B C 120 - CZMXX = Legend

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

## TA35 - AAA B C 120 - CZMXX = Rated current

| Rated current                       | Configuration key |
|-------------------------------------|-------------------|
| without thermal overload protection | C00               |
| 0.05 A                              | Z05               |
| 0.1 A                               | J01               |

Other rated currents on request

| Rated current | Configuration key |
|---------------|-------------------|
| 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         | 030               |
| 3.5 A         | 035               |
| 4.0 A         | 040               |
| 5.0 A         | 050               |
| 6.0 A         | 060               |
| 7.0 A         | 070               |
| 8.0 A         | 080               |
| 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 - AAA B C 120 - CZMXX = Accessories

| Factory mounted accessories | Configuration key |
|-----------------------------|-------------------|
| Without cover               |                   |

For subsequent fitting accessories see:

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

## Variants

| Basic function                          | Rocker colour   | Legend        | Rated current | Accessories   | Config. Code    | Order Number |
|-----------------------------------------|-----------------|---------------|---------------|---------------|-----------------|--------------|
| 1-pole, 1 bimetal, without illumination | White           | black printed | 2.0 A         | Without cover | TA35-CFTWKJ20C0 | 4435.0029    |
| 1-pole, 1 bimetal, without illumination | White           | embossed      | 3.0 A         | Without cover | TA35-CFTWF030C0 | 4435.0019    |
| 1-pole, 1 bimetal, without illumination | White           | black printed | 3.0 A         | Without cover | TA35-CFTWM030C0 | 4435.0082    |
| 1-pole, 1 bimetal, illuminated 120 V    | Red transparent | white printed | 3.0 A         | Without cover | TA35-C4F3H030C0 | 4435.0431    |
| 1-pole, 1 bimetal, without illumination | Red             | black printed | 3.0 A         | Without cover | TA35-CFTRM030C0 | 4435.0481    |
| 1-pole, 1 bimetal, without illumination | Black           | embossed      | 4.0 A         | Without cover | TA35-CFTBF040C0 | 4435.0028    |
| 1-pole, 1 bimetal, without illumination | Black           | embossed      | 5.0 A         | Without cover | TA35-CFTBF050C0 | 4435.0173    |
| 1-pole, 1 bimetal, without illumination | Black           | white printed | 5.0 A         | Without cover | TA35-CFTBH050C0 | 4435.0204    |
| 1-pole, 1 bimetal, without illumination | Black           | white printed | 6.0 A         | Without cover | TA35-CFTBH060C0 | 4435.0205    |
| 1-pole, 1 bimetal, without illumination | Red             | embossed      | 10.0 A        | Without cover | TA35-CFTRF100C0 | 4435.0056    |

| Basic function                                            | Rocker colour | Legend        | Rated current                       | Accessories   | Config. Code    | Order Number |
|-----------------------------------------------------------|---------------|---------------|-------------------------------------|---------------|-----------------|--------------|
| 1-pole, 1 bimetal, without illumination                   | Black         | embossed      | 10.0 A                              | Without cover | TA35-CFTBF100C0 | 4435.0174    |
| 1-pole, 1 bimetal, momentary switch, without illumination | Black         | embossed      | 10.0 A                              | Without cover | TA35-CGTBF100C0 | 4435.0471    |
| 1-pole, 1 bimetal, without illumination                   | White         | embossed      | 13.0 A                              | Without cover | TA35-CFTWF130C0 | 4435.0049    |
| 1-pole, 1 bimetal, without illumination                   | White         | embossed      | 15.0 A                              | Without cover | TA35-CFTWF150C0 | 4435.0037    |
| 1-pole, 1 bimetal, without illumination                   | Black         | embossed      | 15.0 A                              | Without cover | TA35-CFTBF150C0 | 4435.0137    |
| 1-pole, 1 bimetal, without illumination                   | Black         | white printed | 16.0 A                              | Without cover | TA35-CFTBH160C0 | 4435.0209    |
| 1-pole, 1 bimetal, without illumination                   | Black         | embossed      | 16.0 A                              | Without cover | TA35-CFTBF160C0 | 4435.0300    |
| 1-pole, 1 bimetal, without illumination                   | Black         | white printed | 20.0 A                              | Without cover | TA35-CFTBL200C0 | 4435.0256    |
| 1-pole, without bimetal, without illumination             | Black         | white printed | without thermal overload protection | Without cover | TA35-CFCBLC00C0 | 4435.0007    |
| 1-pole, without bimetal, without illumination             | Black         | embossed      | without thermal overload protection | Without cover | TA35-CFCBFC00C0 | 4435.0456    |

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**Packaging Unit** 20 Pcs

## Accessories

### Description



TA35 Accessories  
Screw-on collar with cover, IP65