

Circuit Breaker for Equipment thermal, Rocker actuation, 2 pole



illuminated  
 Green transparent  
 White, lettered



non-illuminated  
 white



illuminated  
 Red transparent

See below:

**Approvals and Compliances**

**Description**

- Thermal circuit breaker
- 2-pole
- Snap-in version
- Positively trip-free release
- Method of operation acc. to IEC: S-type
- Different rocker colours
- Wide current range

**Unique Selling Proposition**

- Unique UL rating of 277 VAC
- Finely graded rated currents
- High configurability (rocker colours, lettering, illumination)
- IP65 with optional cover

**Applications**

- Power tools
- Medical and laboratory equipment
- Industrial appliances
- Equipment for construction
- Cleaning equipment
- Commercial and household kitchen appliances
- Industrial Power
- Industrial lighting arrays

**Other versions on request**

- White front cover

**Weblinks**

[pdf data sheet](#), [html datasheet](#), [General Product Information](#), [Distributor-Stock-Check](#), [Detailed request for product](#), [Product News](#)

**Technical Data**

Rated Voltage AC	IEC: 240 VAC UL/CSA : 277 VAC
Rated Voltage DC	60 VDC
Rated current range AC	0.05 - 20 A
Conditional short circuit capacity Inc	IEC 60934: 0.05...20 A: 2 kA, SC (C1) @ 240 VAC
Degree of Protection	from front side IP40 acc. to IEC 60529
Dielectric Strength	50Hz: > 2.5 kV Impulse 1.2/50 µs: > 4 kV
Insulation Resistance	500VDC > 100 MΩ
Lifetime	mechanical: 50'000 switching cycles AC: 1 x I <sub>r</sub> , cos φ 0.6: 50'000 switching cycles DC: 1 x I <sub>r</sub> , L/R = 2 - 3 ms: 50'000 switching cycles

Overload	IEC: min. 40 trips @ 6 x I <sub>r</sub> , cos φ 0.6 UL / CSA: min. 50 trips @ 1.5 x I <sub>r</sub> , cos φ 0.75
Allowable Operation Temp.	-30°C to 60°C
Vibration Resistance	± 0.75 mm @ 10 - 60 Hz acc. to IEC 60068-2-6, test Tc 10 G @ 60 - 500 Hz acc. to IEC 60068-2-6, test Tc
Shock Resistance	30 G / 18ms acc. to IEC 60068-2-27, test Ea
Tripping Type	Thermal
Actuation Type	Rocker
Weight	29.0 - 31.5 g




**Approvals and Compliances**

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [Details about Approvals](#)

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

## Approvals

The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products.  
 Approval Reference Type: TA35

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 40019754
	UL Approvals	UL	UL File Number: E71572
	CCC Approvals	CCC	CCC Certificate Number: 2020970307001846

## Product standards

Product standards that are referenced

Organization	Design	Standard	Description
	Designed according to	IEC 60934	Circuit-breakers for equipment (CBE)
	Designed according to	UL 1077	Standard for Supplementary Protectors for Use in Electrical Equipment
	Designed according to	CSA C22.2 No. 235	Supplementary Protectors
	Designed according to	GB 17701	Circuit-breaker for equipment





## Application standards

Application standards where the product can be used

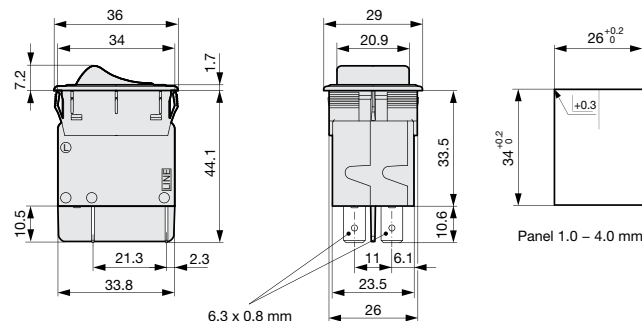
Organization	Design	Standard	Description
	Designed for applications acc.	IEC/UL 62368-1	IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment.

## Compliances

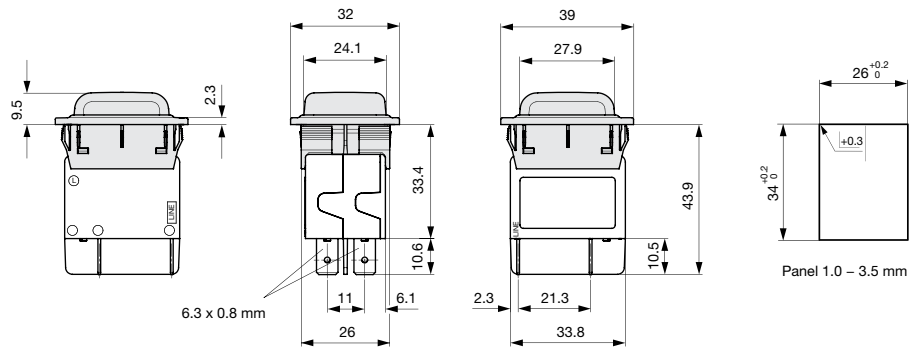
The product complies with following Guide Lines

Identification	Details	Initiator	Description
	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
	China RoHS	SCHURTER AG	The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.
	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

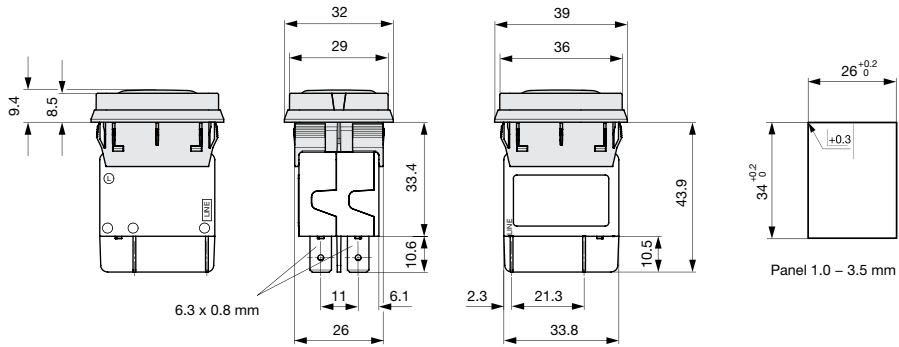
## Dimension [mm]



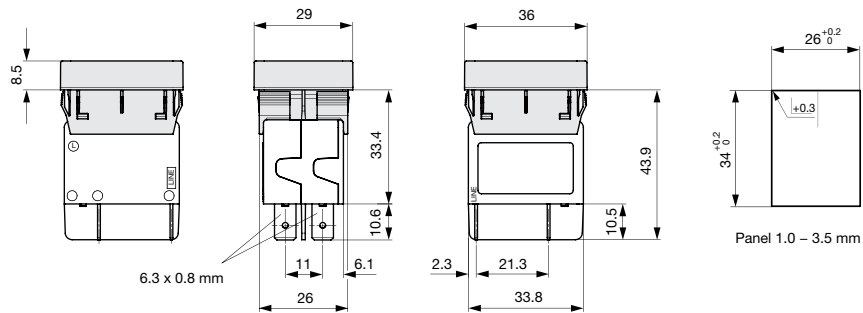
TA35 without protection cover



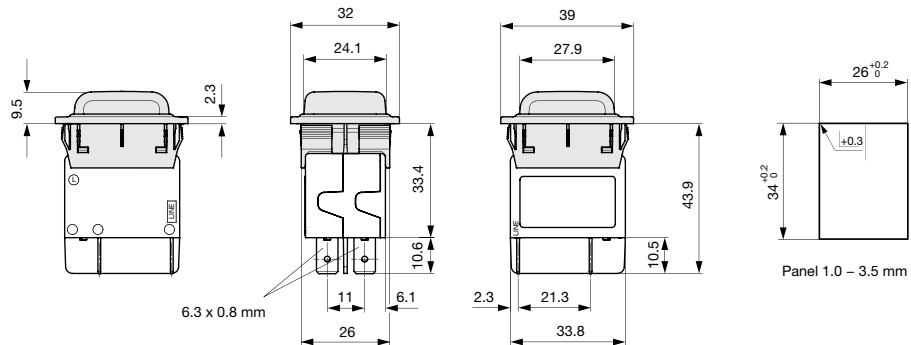
TA35 with factory mounted transparent protection cover CZM21, IP65



TA35 with factory mounted transparent protection cover and raised collar CZM23, IP65



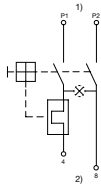
TA35 with factory mounted raised collar CZM24, IP40



TA35 with factory mounted transparent antibacterial protection cover CZM25, IP65

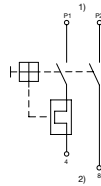
## Diagrams

2-pole, 1 bimetal, illuminated



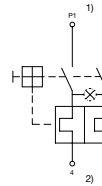
1) Line, 2) Load  
 Codepos AAA = C12, C14, C17, C18, C19

2-pole, 1 bimetal, non illuminated



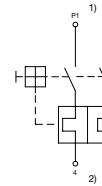
1) Line, 2) Load  
 Codepos AAA = CBT, CET

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	277 V	60 V
 US	CSA C22.2 235	0.05...20 A	277 V	60 V
	IEC 60934	0.05...20 A	240 V	60 V
	GB 17701	0.05...20 A	240 V	60 V

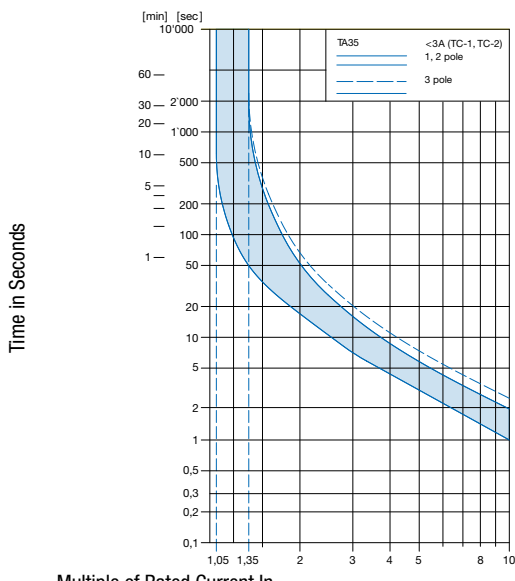
## Typical internal resistance per pole

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

\* 3-Pole max. 12 A

Time-Current-Curves

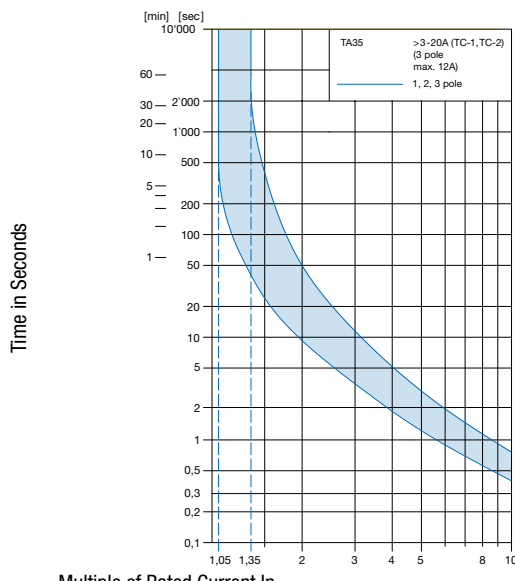
Tripping Characteristics  $I_n < 3 A$



Multiple of Rated Current  $I_n$

Reference Temperature  $+23^\circ$

Tripping Characteristics  $I_n 3 - 20 A$



Multiple of Rated Current  $I_n$

Reference Temperature  $+23^\circ$

Effect of ambient temperature

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

Ambient Temperature $^\circ C$	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 =  $50^\circ C$  --> Correction factor = 1.04, Resulting current = 5.2 A --> Fount to next higher rated current: 6 A

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, 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

Basic function	Configuration key
2-pole, 2 bimetal, without illumination	CBD
2-pole, 1 bimetal, without illumination	CBT
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

Rocker colour	Configuration key
Blue transparent	7
Black	B
Green	G
Red	R
White	W
Orange	X
Yellow	Y

Rated current	Configuration key
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 - CBD B F 120 C0 - CZMXX = Legend

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

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

Rated current	Configuration key
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

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, IP65	CZM21
Raised collar with transparent cover, IP65	CZM23
Raised collar, IP40	CZM24
Transparent cover antibacterial, IP65	CZM25

For subsequent fitting accessories see:

[https://www.schurter.com/pdf/english/typ\\_TA35\\_Accessories.pdf](https://www.schurter.com/pdf/english/typ_TA35_Accessories.pdf)

## 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

Basic function	Rocker colour	Legend	Rated current	Accessories	Config. Code	Order Number
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	Black	embossed	15.0 A	Without cover	TA35-CBDBF150C0	4435.0347
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

Most Popular.

Availability for all products can be searched real-time: <https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER>

**Packaging Unit** 10 Pcs

### Accessories

#### Description



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