

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 μ s: > 4 kV
Insulation Resistance	500 VDC > 100 M Ω
Lifetime	mechanical: 50'000 switching cycles AC: 1 x Ir, cos ϕ 0.6: 50'000 switching cycles DC: 1 x Ir, L/R = 2 - 3 ms: 50'000 switching cycles

Overload	IEC: min. 40 trips @ 6 x Ir, cos ϕ 0.6 UL / CSA: min. 50 trips @ 1.5 x Ir, 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 - 31.5g

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: 2013010307598660

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

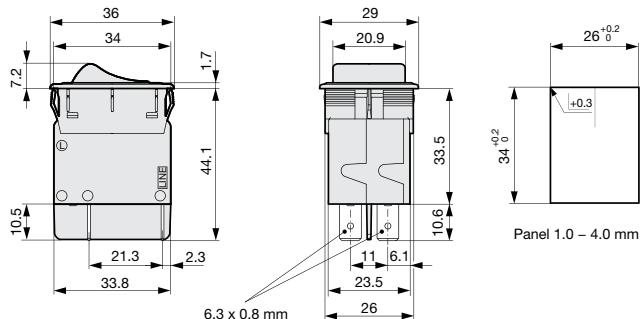
Application standards where the product can be used

Organization	Design	Standard	Description
	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technology equipment.

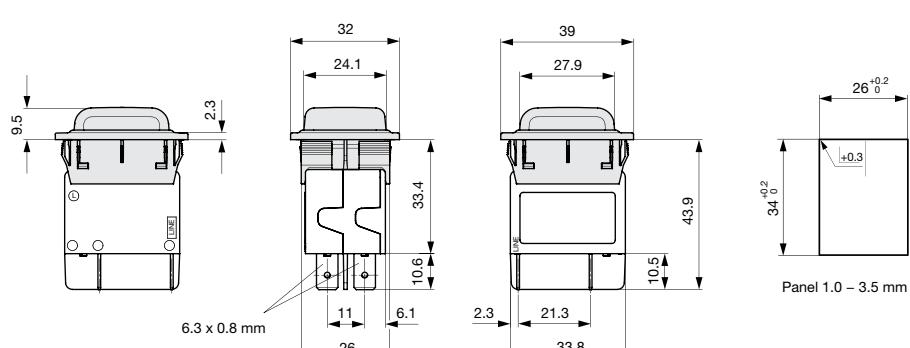
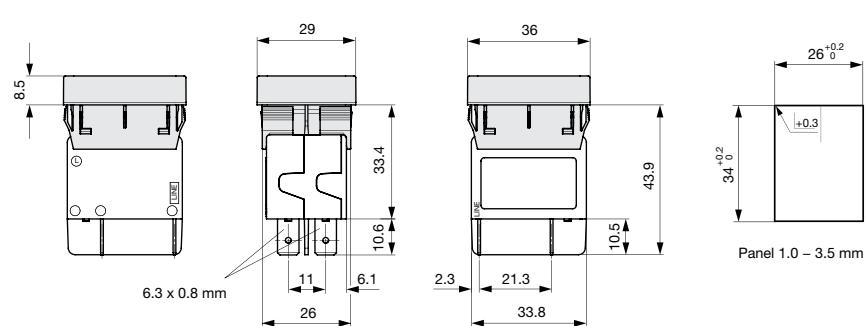
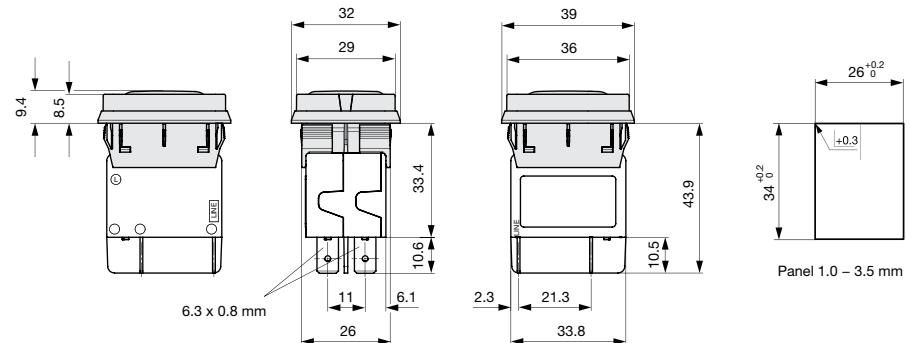
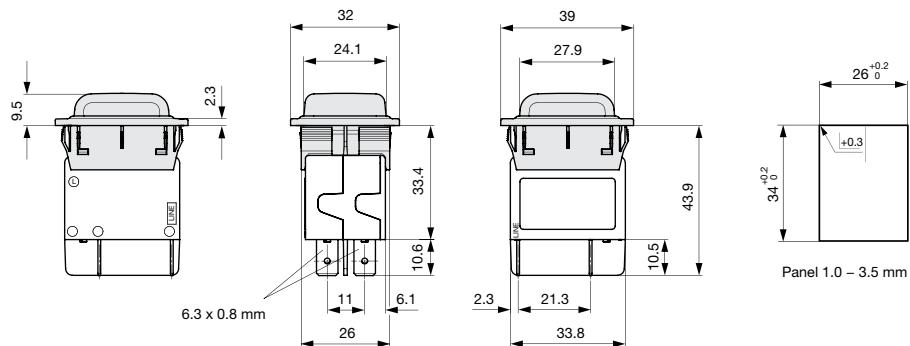
Compliances

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.

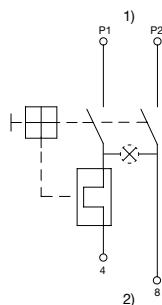
Dimension [mm]

TA35 without protection cover



Diagrams

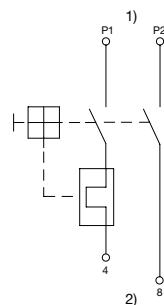
2-pole, 1 bimetal, illuminated



1) Line, 2) Load

Codepos AAA = C12, C14, C17, C18, C19

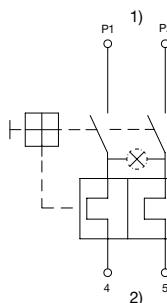
2-pole, 1 bimetal, non illuminated



1) Line, 2) Load

Codepos AAA = CBT, CET

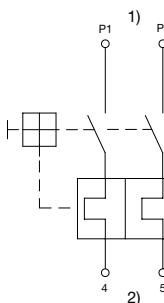
2-pole, 2 bimetal, illuminated



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
	UL 1077	0.05...20 A	277 V	60 V
	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 [Ω]
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

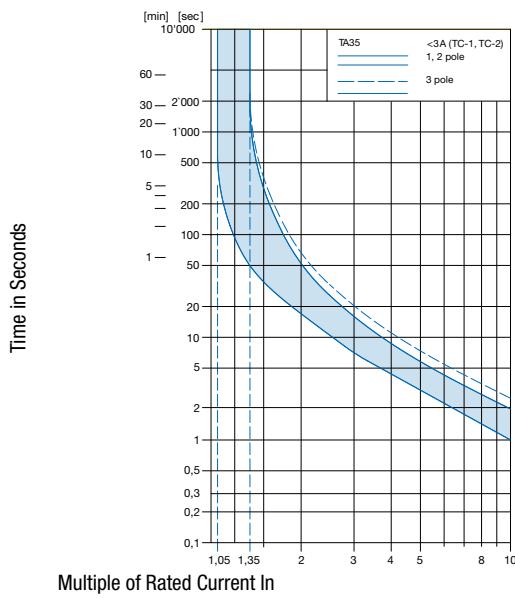
Effect of ambient temperature

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

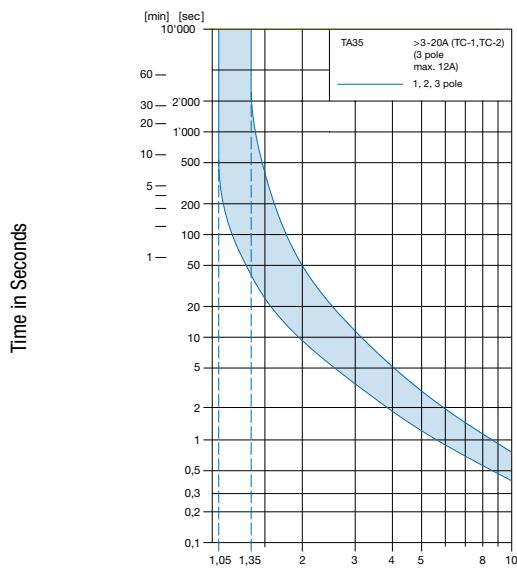
Example: Rated current = 5 A, Environmental temperature = 50 °C --> Correction factor = 1.04, Resulting current = 5.2 A --> Round to next higher rated current: 6 A

Time-Current-Curves

Tripping Characteristics $I_n < 3$ A

Multiple of Rated Current In

Reference Temperature +23°

Tripping Characteristics $I_n 3 - 20$ A

Multiple of Rated Current In

Reference Temperature +23°

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
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

Rocker colour

Configuration key

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
black printed	M

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

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

Rated current	Configuration key	Rated current	Configuration key		
0.05 A	Z05	15.0 A	150		
0.1 A	J01	16.0 A	160		
0.2 A	J02	18.0 A	180		
0.3 A	J03	20.0 A	200		
0.4 A	J04	Other rated currents on request			
0.5 A	J05				
0.8 A	J08	TA35 - CBD B F 120 C0 - CZMXX = Reserve			
1.0 A	J10				
1.2 A	J12	Reserve			
1.5 A	J15				
2.0 A	J20	Configuration key			
2.5 A	J25	reserve			
3.0 A	030	C0			
3.5 A	035				
4.0 A	040				
5.0 A	050				
6.0 A	060				
7.0 A	070	TA35 - CBD B F 120 C0 - CZMXX = Accessories			
8.0 A	080				
10.0 A	100	Factory mounted accessories			
12.0 A	120	Configuration key			
13.0 A	130	Without cover			
14.0 A	140	Transparent cover, IP65			
Other rated currents on request					
TA35 - CBD B F 120 C0 - CZMXX = Accessories					
Without cover					
Raised collar with transparent cover, IP65					
Raised collar, IP40					
Transparent cover antibacterial, IP65					
For subsequent fitting accessories see:					
https://www.schurter.com/pdf/english/typ_TA35_Accessories.pdf					

Other rated currents on request

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	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.

Basic function	Rocker colour	Legend	Rated current	Accessories	Config. Code	Order Number
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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Schurter:

[4435.0002](#) [4435.0008](#) [4435.0009](#) [4435.0011](#) [4435.0012](#) [4435.0013](#) [4435.0014](#) [4435.0022](#) [4435.0023](#) [4435.0024](#)
[4435.0031](#) [4435.0032](#) [4435.0033](#) [4435.0038](#) [4435.0039](#) [4435.0041](#) [4435.0042](#) [4435.0046](#) [4435.0047](#) [4435.0051](#)
[4435.0055](#) [4435.0057](#) [4435.0067](#) [4435.0076](#) [4435.0077](#) [4435.0078](#) [4435.0088](#) [4435.0089](#) [4435.0090](#) [4435.0091](#)
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[CZZ31](#) [4435.0141](#) [4435.0273](#) [4435.0275](#) [4435.0276](#) [4435.0277](#) [4435.0289](#) [4435.0307](#) [4435.0314](#) [4435.0316](#)
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[4435.0125](#) [4435.0127](#) [4435.0128](#) [4435.0129](#) [4435.0131](#) [4435.0139](#) [4435.0143](#) [4435.0144](#) [4435.0145](#) [4435.0147](#)