

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

- 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

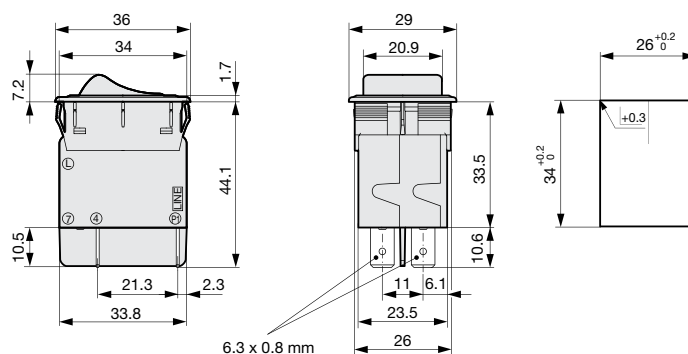
[pdf-datasheet](#), [html-datasheet](#), [General Product Information](#), [Approvals](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [e-Shop](#), [SCHURTER-Stock-Check](#), [Distributor-Stock-Check](#), [Detailed request for product](#)

Technical Data

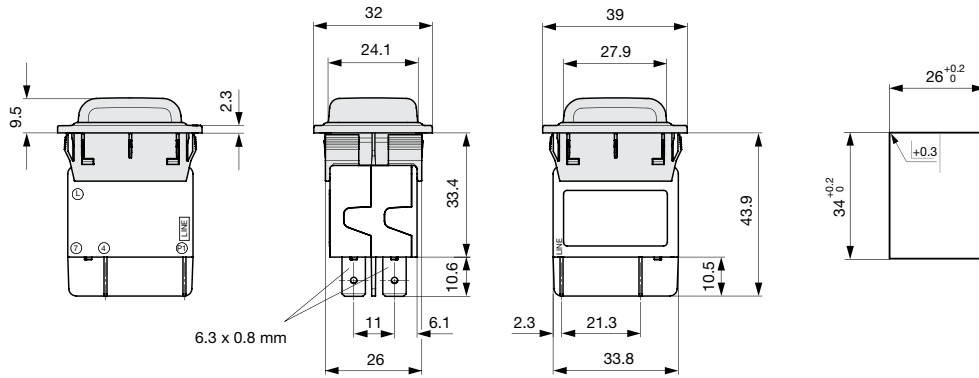
Rated Voltage AC	240 V; 50/60 Hz
Rated Voltage DC	60 V
Rated current	0.05 - 20 A
Conditional short circuit capacity	0.05...20 A; 2 kA, SC (C1) @ 240 VAC
Degree of Protection	from front side IP 40 acc. to IEC 60529
Dielectric Strength	50Hz: > 2.5 kV Impulse 1.2/50 μ s: > 4 kV
Insulation resistance	500VDC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

Overload	IEC: min. 40 trips @ 6 x I _r , cos ϕ 0.6 UL / CSA: min. 50 trips @ 1.5 x I _r , cos ϕ 0.75
Ambient temperature	-30 °C to 60 °C
Vibration Resistance	\pm 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 / 18 ms acc. to IEC 60068-2-27, test Ea
Tripping Type	Thermal positively trip free
Weight	29.0 - 31.5 g

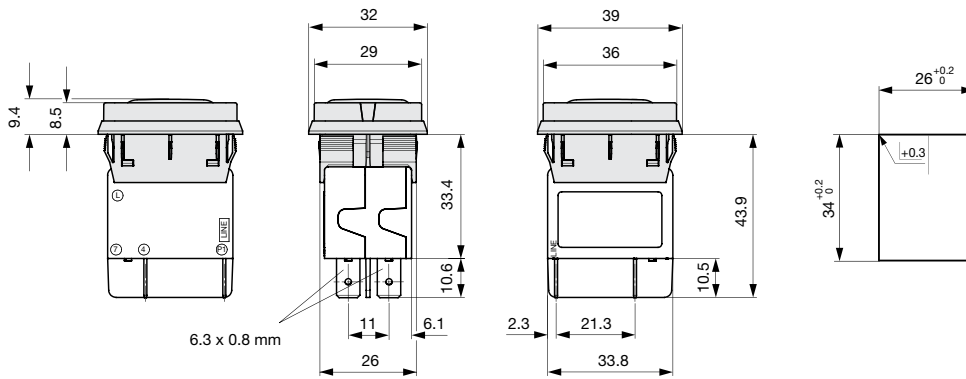
Dimensions



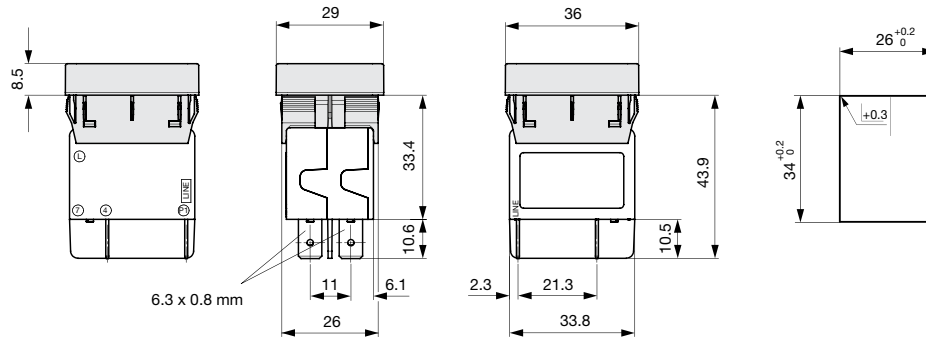
Accessories / CZM21, factory mounted transparent cover, IP65



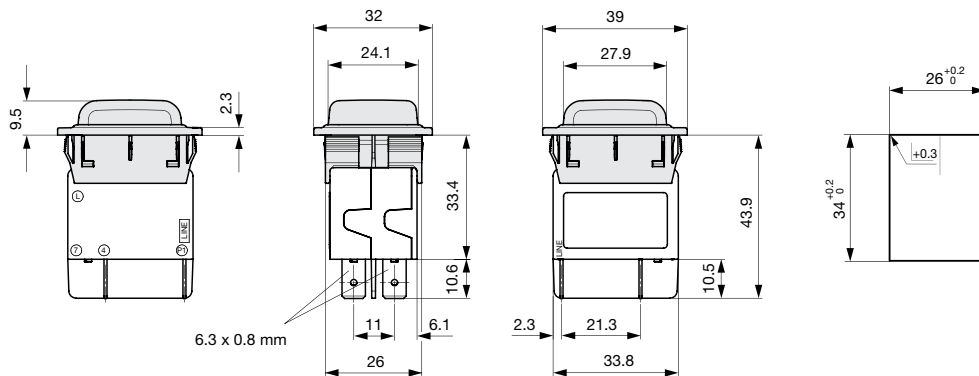
Accessories / CZM23, factory mounted raised collar with transparent cover, IP65



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

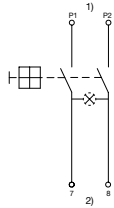


Accessories / CZM25, factory mounted transparent cover, antibacterial, IP65



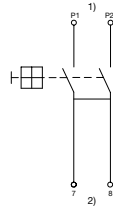
Diagrams

2-pole, 0 bimetal, illuminated



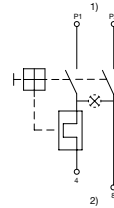
1) Line, 2) Load
Codepos AAA = C02, C04, C07, C08, C09

2-pole, 0 bimetal, non illuminated



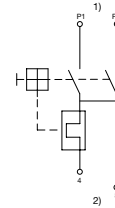
1) Line, 2) Load
Codepos AAA = CBC, CEC

2-pole, 1 bimetal, illuminated



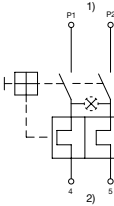
1) Line, 2) Load
Codepos AAA = C12, C14, C17, C18, C19

2-pole, 1 bimetal, non illuminated



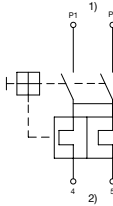
1) Line, 2) Load
Codepos AAA = CBT, CET

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.

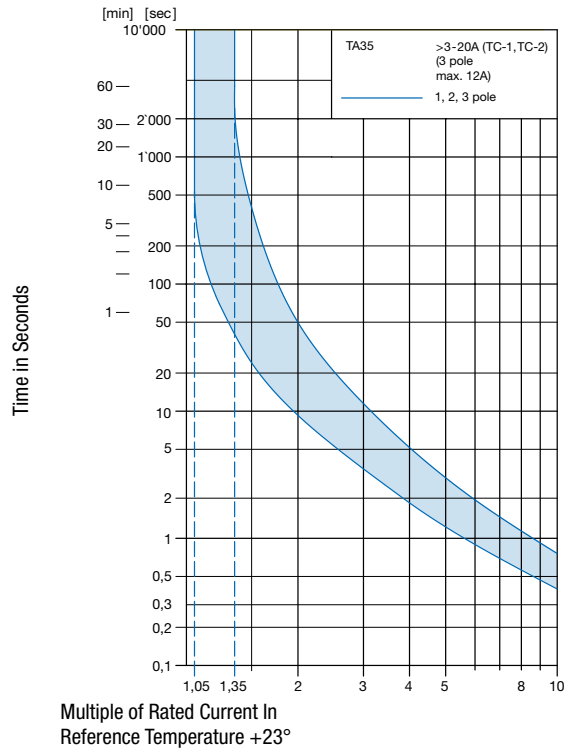
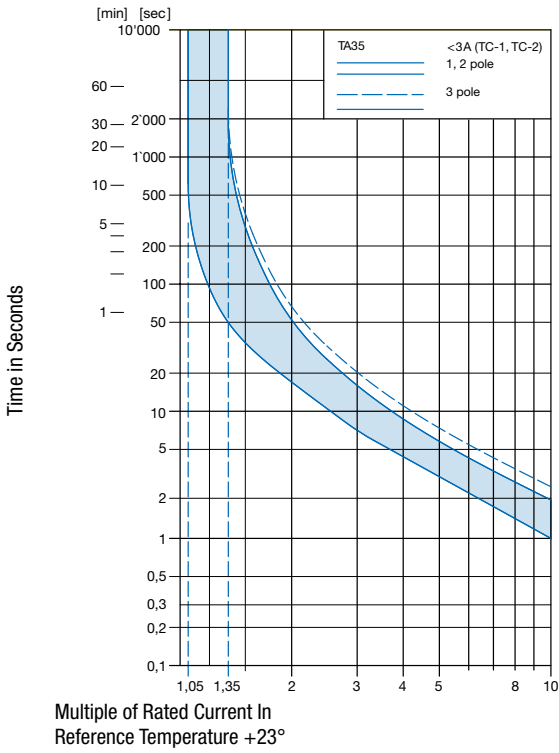
Approvals

Approval		Rated current	Rated voltage AC	Rated voltage DC
 US	UL 1077	0.05...20 A	240 V	60 V
 US	CSA C22.2 235	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 [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

Time-Current-Curves



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
2-pole, whithout bimetal, illuminated 240 V	C02
2-pole, whithout bimetal, illuminated 120 V	C04
2-pole, whithout bimetal, illuminated 24 V	C07
2-pole, whithout bimetal, illuminated 12 V	C08
2-pole, whithout 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, whithout bimetal, without illumination	CBC
2-pole, 2 bimetal, without illumination	CBD
2-pole, 1 bimetal, without illumination	CBT
2-pole, whithout 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 - 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
I / 0 embossed	F
ON/OFF white printed	H
ON/OFF black printed	K
I / 0 white printed	L
I / 0 black printed	M

TA35 - AAA B C 120 - 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
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
without thermal overload protection	C00

Other rated currents on request

TA35 - AAA B C 120 - 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

*CCC Approval pending

Variants

Basic function	Rocker colour	Legend	Rated current	Accessories	Config. Code	Order Number
2-pole, 2 bimetal, without illumination	White	I / O embossed	3.0 A	Without cover	TA35-CBDWF030C0	4435.0022
2-pole, 2 bimetal, without illumination	White	I / O black printed	3.0 A	Without cover	TA35-CBDWM030C0	4435.0374
2-pole, 2 bimetal, without illumination	Black	ON/OFF white printed	4.0 A	Without cover	TA35-CBDBH040C0	4435.0276
2-pole, 2 bimetal, without illumination	White	I / O embossed	5.0 A	Without cover	TA35-CBDWF050C0	4435.0039
2-pole, 1 bimetal, without illumination	White	I / O embossed	6.0 A	Without cover	TA35-CBTWF060C0	4435.0042
2-pole, 2 bimetal, illuminated 240 V	Green transparent	ON/OFF white printed	6.0 A	Without cover	TA35-C324H060C0	4435.0265
2-pole, 1 bimetal, without illumination	White	I / O embossed	8.0 A	Without cover	TA35-CBTWF080C0	4435.0046
2-pole, 1 bimetal, without illumination	Black	I / O white printed	8.0 A	Without cover	TA35-CBTBL080C0	4435.0067
2-pole, 2 bimetal, illuminated 240 V	Blue transparent	I / O white printed	8.0 A	Transparent cover, IP65	TA35-C327L080C0-CZM21	4435.0483
2-pole, 1 bimetal, without illumination	Black	I / O white printed	10.0 A	Without cover	TA35-CBTBL100C0	4435.0012
2-pole, 1 bimetal, without illumination	White	I / O embossed	10.0 A	Without cover	TA35-CBTWF100C0	4435.0047
2-pole, 2 bimetal, without illumination	White	I / O black printed	10.0 A	Without cover	TA35-CBDWM100C0	4435.0091
2-pole, 1 bimetal, illuminated 240 V	Green transparent	I / O embossed	10.0 A	Without cover	TA35-C124F100C0	4435.0187
2-pole, 2 bimetal, without illumination	White	I / O embossed	10.0 A	Without cover	TA35-CBDWF100C0	4435.0195
2-pole, 2 bimetal, without illumination	White	I / O embossed	12.0 A	Without cover	TA35-CBDWF120C0	4435.0304
2-pole, 2 bimetal, without illumination	White	I / O embossed	15.0 A	Without cover	TA35-CBDWF150C0	4435.0041
2-pole, 2 bimetal, without illumination	Black	I / O embossed	15.0 A	Without cover	TA35-CBDBF150C0	4435.0347
2-pole, 2 bimetal, without illumination	White	I / O black printed	15.0 A	Raised collar with transparent cover, IP65	TA35-CBDWM150C0-CZM23	4435.0423
2-pole, 1 bimetal, without illumination	White	I / O embossed	20.0 A	Without cover	TA35-CBTWF200C0	4435.0002
2-pole, 2 bimetal, without illumination	White	I / O embossed	20.0 A	Without cover	TA35-CBDWF200C0	4435.0013
2-pole, 2 bimetal, without illumination	Black	I / O white printed	20.0 A	Without cover	TA35-CBDBL200C0	4435.0321
2-pole, whitout bimetal, without illumination	White	I / O embossed	without thermal overload protection	Transparent cover anti-bacterial, IP65	TA35-CBCWFC00C0-CZM25	4435.0702

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	Example
-30	0.76	Rated current at +23°C: 5.0 A
-20	0.81	Ambient temperature [°C]: +50°C
0	0.90	Correction factor: 1.04
+23	1.00	Chosen rated current at +50°C ambient temperature: 5.0 A x 1.04 = 5.2 A
+40	1.03	
+50	1.04	
+60	1.06	

Accessories

Description



4435.0053
Screw-on collar with cover, IP65, 2 pole