#### Circuit Breaker for Equipment thermal, Rocker actuation, 3 poles



#### Description

- Thermal circuit breaker
- 3-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
- 1-, 2- or 3-pole versions
- Finely graded rated currents
- High configurability (rocker colours, lettering, illumination)
- IP65 with optional cover

### Technical Data

#### See below: Approvals and Compliances

#### 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	415 Y VAC / 240 VAC	Overload	IEC: min. 40 trips
Rated current range AC	0.05 - 12 A		@ 6 x lr, cos φ 0.6
Conditional short circuit capa- city Inc	IEC 60934: 0.0512 A: 2 kA @ 415 VAC		UL / CSA: min. 50trips @ 1.5 x lr, cos <b>φ</b> 0.75
Degree of Protection	from front side IP40 acc. to IEC 60529	Allowable Operation Temp.	-30 °C to 60 °C
Dielectric Strength	50Hz: > 2.5kV Impulse 1.2/50 µs: > 4kV	Vibration Resistance	± 0.75 mm @ 10 - 60 Hz acc. to IEC 60068-2-6, test Tc
Insulation Resistance	$500 \text{ VDC} > 100 \text{ M}\Omega$ mechanical: 50'000 switching cycles		10 G @ 60 - 500 Hz acc. to IEC 60068-2-6, test Tc
	AC: 1 x lr, $\cos \varphi$ 0.6: 50'000 switching cycles	Shock Resistance	30 G / 18ms acc. to IEC 60068-2-27, test Ea
	DC: $1 \times Ir$ , $L/R = 2 - 3 \text{ ms:}$	Tripping Type	Thermal
	50'000 switching cycles	Actuation Type	Rocker
		Weight	43.0 - 45.0g

#### **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
c <b>FL</b> us	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
IEC	Designed according to	IEC 60934	Circuit-breakers for equipment (CBE)
(UL)	Designed according to	UL 1077	Standard for Supplementary Protectors for Use in Electrical Equipment
CSA Broup	Designed according to	CSA C22.2 No. 235	Supplementary Protectors
	Designed according to	GB 17701	Circuit-breaker for equipment
	Designed according to	GB 17701	Circuit-breaker for equipment

#### **Application standards**

Application standards where the product can be used

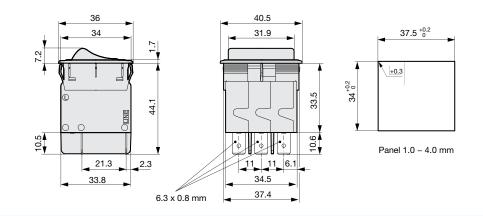
Organization	Design	Standard	Description
IEC.	Designed for applications acc.	IEC/UL 62368-1	IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment.

### Compliances

The product complies with following Guide Lines

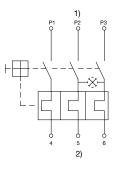
es with the applicable ommunity legislation on /2008.
5/863
en in force since 1 March
n the Registration, icals 1 (abbreviated as
/200 5/8 en in en th

### **Dimension** [mm]



# Diagrams

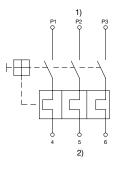
3-pole, 3 bimetal, illuminated



1) Line, 2) Load Codepos AAA = CD1

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

# 3-pole, 3 bimetal, non illuminated



1) Line, 2) Load Codepos AAA = CKD, CLD

Approvals				
Approval		Rated current	Rated Voltage AC	Rated Voltage DC
c <b>FN</b> ° us	UL 1077	0.0512 A	415 Y / 240 V	-
c <b>FL</b> <sup>°</sup> us	CSA C22.2 235	0.0512 A	415 Y / 240 V	-
	IEC 60934	0.0512 A	415 Y / 240 V	-
	GB 17701	0.0512 A	415 Y / 240 V	-

#### Typical internal resistance per pole

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			

TA35 Rocker 3-poles max. 12 A

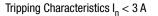
#### Effect of ambient temperature

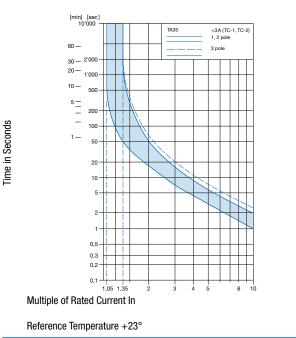
The units are calibrated for an ambient temperature of +23°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor (typical value) from the table below:

Ambient Temperature [°C]	Correction factor
-30	0.76
-20	0.81
0	0.90
+23	1.00
+40	1.06
+50	1.10
+60	1.14

Example: Rated current = 5 A, Environmental temperature = 50 °C, --> Correction factor = 1.10, Resulting current = 5.2 A --> Fount to next higher rated current: 6 A

#### **Time-Current-Curves**





#### [min] [sec] 10'000 ->3-20A (TC-1,TC-2) (3 pole max. 12A) 1, 2, 3 pole TA35 60 -30- 2`000 20 — 1`000 10 — 500 5 200 \_ 100 1— 50 20 10 5 0.5 0,3 0.2 0,1 1,05 1,35 Multiple of Rated Current In

Reference Temperature +23°

Rocker colour

# 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
3-pole, 3 bimetal, illuminated 415 V	CD1
3-pole, 3 bimetal, without illumination	CKD
3-pole, 3 bimetal, momentary switch, without illumination	CLD

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

Rocker colour	Configuration key
Clear transparent	1
Red transparent	3
Green transparent	4

	key
Orange transparent	6
Blue transparent	7
Black	В
Green	G
Red	R
White	W
Orange	х
Yellow	Y

Configuration



# Tripping Characteristics In 3 -20 A

Time in Seconds

Legend		Configuration key
embossed	- 0	F
white printed	OFF	Н
black printed	OFF	К
white printed	- 0	L
black printed	- 0	М

Rated current	Configuration key
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

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
1.2 A	J12

Other rated currents on request

# TA35 - CBD B F 120 CO - CZMXX = Reserve

Reserve	Configuration key
reserve	CO
TA35 - CBD B F 120 C0 - CZMXX = Accessories	
Factory mounted accessories	Configuration key
Without cover	

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
3-pole, 3 bimetal, without illumination	Black	white printed	2.5 A	Without cover	TA35-CKDBHJ25C0	4435.0229
3-pole, 3 bimetal, without illumination	White	embossed	3.0 A	Without cover	TA35-CKDWF030C0	4435.0025
3-pole, 3 bimetal, without illumination	Black	white printed	4.0 A	Without cover	TA35-CKDBH040C0	4435.0232
3-pole, 3 bimetal, without illumination	White	embossed	5.0 A	Without cover	TA35-CKDWF050C0	4435.0044
3-pole, 3 bimetal, without illumination	Black	white printed	5.0 A	Without cover	TA35-CKDBH050C0	4435.0048
3-pole, 3 bimetal, without illumination	Black	white printed	6.0 A	Without cover	TA35-CKDBH060C0	4435.0233
3-pole, 3 bimetal, without illumination	White	embossed	10.0 A	Without cover	TA35-CKDWF100C0	4435.0050
3-pole, 3 bimetal, without illumination	Black	white printed	10.0 A	Without cover	TA35-CKDBH100C0	4435.0235
3-pole, 3 bimetal, without illumination	White	embossed	12.0 A	Without cover	TA35-CKDWF120C0	4435.0017
3-pole, 3 bimetal, illuminated 415 V	Red transparent	white printed	12.0 A	Without cover	TA35-CD13L120C0	4435.0414

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

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Description

TA35 Accessories Screw-on collar with cover, IP65

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