

Circuit Breaker for Equipment thermal, 2 pole, Rocker actuation, with auxiliary contact



See below:

Approvals and Compliances

Description

- Thermal circuit breaker
- 1 or 2 pole thermal overload protection
- Positively trip-free release
- High configurability
- Rocker non-illuminated or illuminated
- Snap-in version
- Quick connect terminal 6.3 x 0.8 mm or screw clamp terminal M3.5 x 6 mm (lineside P1, P2)

Applications

- Power tools
- Industrial appliances
- Power supplies

Weblinks

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

Technical Data

Rated Voltage AC	240 VAC
Rated Voltage DC	60 VDC
Rated current range AC	0.05 - 20 A
Conditional short circuit capacity	IEC: Inc, PC1, AC 240 V: 1 kA
Degree of Protection	from front side IP40 acc. to IEC 60529
Dielectric Strength	4 kVAC
Insulation Resistance	500VDC > 100 MΩ
Lifetime	mechanical: 50'000 switching cycles
	AC: 1 x Ir: 50'000 switching cycles
	DC: 1 x Ir: 50'000 switching cycles

Overload	AC: min. 40trips @ 6 x Ir DC: min. 40trips @ 4 x Ir
Allowable Operation Temp.	-10°C to 55°C
Vibration Resistance	± 0.75 mm @ 5 - 60 Hz acc. to IEC 60068-2-6, test Fc 10 G @ 60 - 500 Hz acc. to IEC 60068-2-6, test Fc
Shock Resistance	30 G / 18ms acc. to IEC 60068-2-27, test Ea
Tripping Type	Thermal
Actuation Type	Rocker
Weight	40 - 50g

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: TA45

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 40019880
	UL Approvals	UL	UL File Number: E71572
	CCC Approvals	CCC	CCC Certificate Number: 2013010307660082

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.

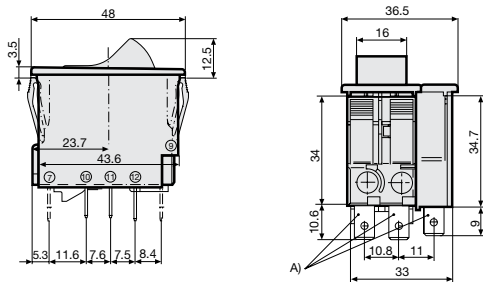
Compliances

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) 2015/836
	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.

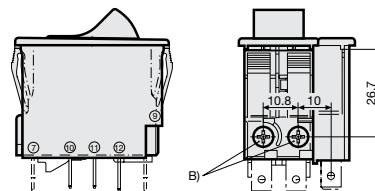
Dimension [mm]

Quick connect terminal with auxiliary contact



A) Quick connect terminal, IEC 61210, A6.3-0.8 mm

Screw clamp terminal with auxiliary contact

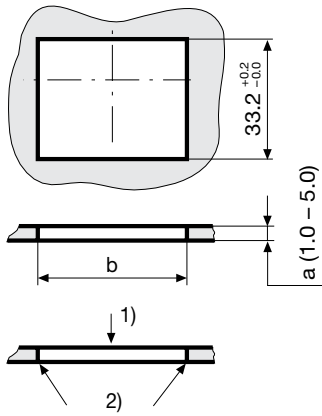


B) Screw type M3, 5x6 (Philips Form H), maximum torque 1 Nm

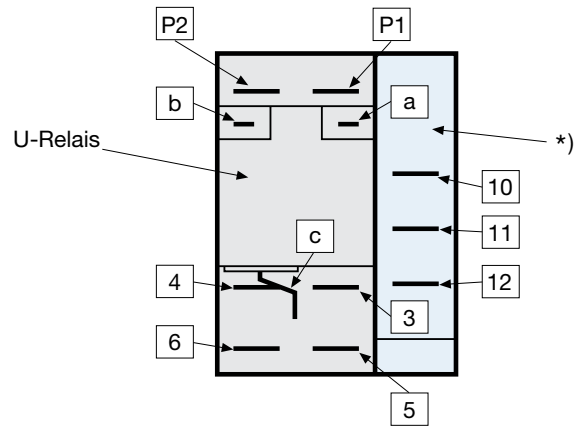
Cut-out and pin-out

Cut-out snap-in type

Pin-out



a	b
1.0	44,5...45,0
1.5	44,5...45,0
2.0	44,7...45,2
2.5	44,7...45,2
3.0	44,8...45,3
4.0	44,9...45,4
5.0	45,0...45,5

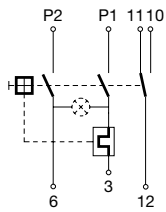


- 1) Assemble
- 2) edge must be sharp

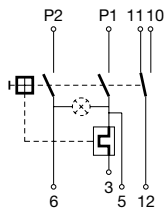
*) Auxiliary contact

Diagrams

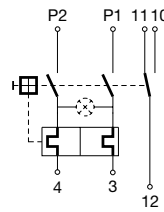
1pole thermal overload protection,
Auxiliary contact



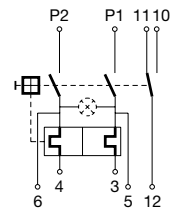
1pole thermal overload protection,
Auxiliary contact, Shunt terminal



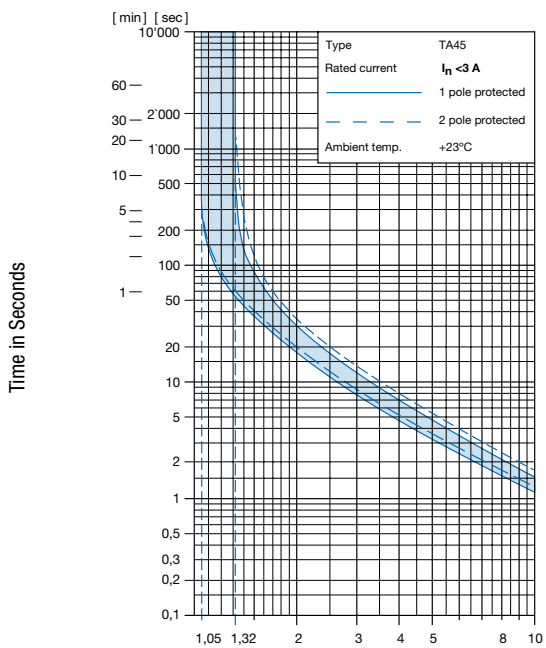
2pole thermal overload protection,
Auxiliary contact



2pole thermal overload protection,
Auxiliary contact, Shunt terminal

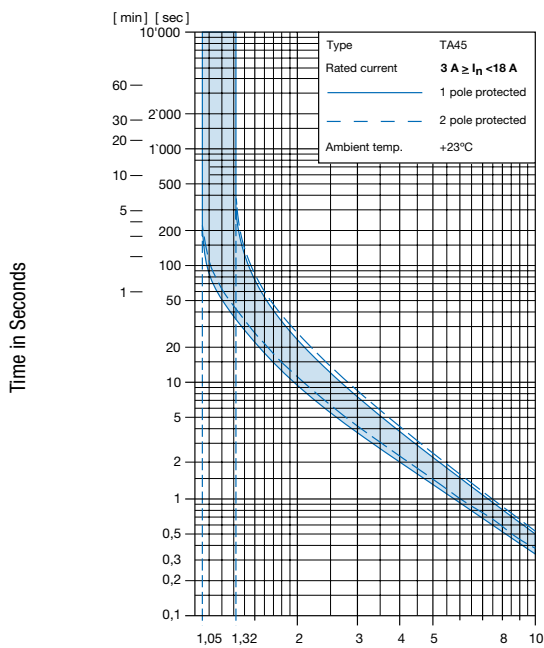


Time-Current-Curves



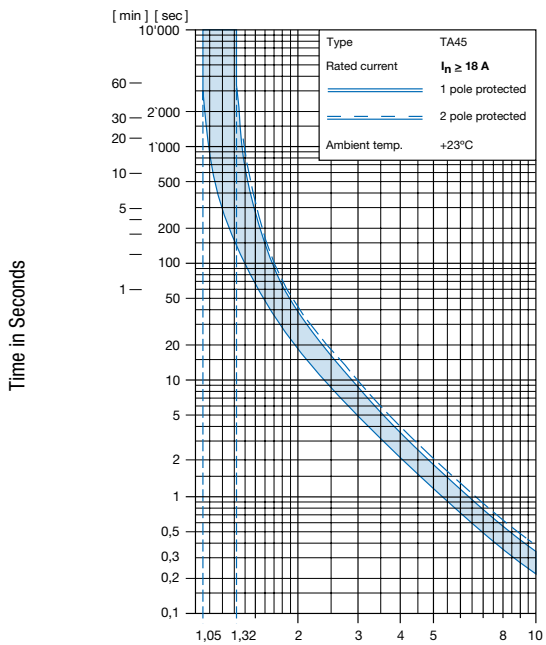
Multiple of Rated Current I_n

Reference Temperature +23°



Multiple of Rated Current I_n

Reference Temperature +23°



Multiple of Rated Current I_n

Reference Temperature +23°

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
-10	0.89
-5	0.91
0	0.92
+23	1.00
+30	1.03
+40	1.08
+55	1.16

Example: Rated current = 5 A, Environmental temperature = 40 °C, --> Correction factor = 1.08, Resulting current = 5.5 A --> Fount to next higher rated current: 6 A

Auxiliary contact (changeover)

Rated Voltage	28 VDC	60 VDC	240 VAC
Rated current	max. 10 A resistive load	max. 2 A resistive load	max. 2 A cos φ 0.7

Config. Code

TA45 - AK2 W F 120 A2 - AZM11

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

TA45 - **AK2** W F 120 A2 - AZM11 = Basic function




Basic function	Configuration key	Basic function	Configuration key
2-pole, rocker, 1pole overload protection, auxiliary contact, screw connection, illuminated 220 V...240 V	A2L	2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, screw connection, illuminated 220 V...240 V	A9P
2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, screw connection, illuminated 220 V...240 V	A2M	2-pole, rocker, 1pole overload protection, auxiliary contact, quick connect terminal, illuminated 220 V...240 V	AL2
2-pole, rocker, 2pole overload protection, auxiliary contact, screw connection, illuminated 220 V...240 V	A2N	2-pole, rocker, 1pole overload protection, auxiliary contact, quick connect terminal, illuminated 110 V...120 V	AL4
2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, screw connection, illuminated 220 V...240 V	A2P	2-pole, rocker, 1pole overload protection, auxiliary contact, quick connect terminal, illuminated 20 V...26 V	AL7
2-pole, rocker, 1pole overload protection, auxiliary contact, screw connection, illuminated 110 V...120 V	A4L	2-pole, rocker, 1pole overload protection, auxiliary contact, quick connect terminal, illuminated 10 V...13 V	AL8
2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, screw connection, illuminated 110 V...120 V	A4M	2-pole, rocker, 1pole overload protection, auxiliary contact, quick connect terminal, illuminated 4 V...7 V	AL9
2-pole, rocker, 2pole overload protection, auxiliary contact, screw connection, illuminated 110 V...120 V	A4N	2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, illuminated 220 V...240 V	AM2
2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, screw connection, illuminated 110 V...120 V	A4P	2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, illuminated 110 V...120 V	AM4
2-pole, rocker, 1pole overload protection, auxiliary contact, screw connection, illuminated 20 V...26 V	A7L	2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, illuminated 110 V...120 V	AM7
2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, screw connection, illuminated 20 V...26 V	A7M	2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, illuminated 20 V...26 V	AM8
2-pole, rocker, 2pole overload protection, auxiliary contact, screw connection, illuminated 20 V...26 V	A7N	2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, illuminated 4 V...7 V	AM9
2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, screw connection, illuminated 20 V...26 V	A7P	2-pole, rocker, 2pole overload protection, auxiliary contact, quick connect terminal, illuminated 220 V...240 V	AN2
2-pole, rocker, 1pole overload protection, auxiliary contact, screw connection, illuminated 10 V...13 V	A8L	2-pole, rocker, 2pole overload protection, auxiliary contact, quick connect terminal, illuminated 110 V...120 V	AN4
2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, screw connection, illuminated 10 V...13 V	A8M	2-pole, rocker, 2pole overload protection, auxiliary contact, quick connect terminal, illuminated 20 V...26 V	AN7
2-pole, rocker, 2pole overload protection, auxiliary contact, screw connection, illuminated 10 V...13 V	A8N	2-pole, rocker, 2pole overload protection, auxiliary contact, quick connect terminal, illuminated 10 V...13 V	AN8
2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, screw connection, illuminated 10 V...13 V	A8P	2-pole, rocker, 2pole overload protection, auxiliary contact, quick connect terminal, illuminated 4 V...7 V	AN9
2-pole, rocker, 1pole overload protection, auxiliary contact, screw connection, illuminated 4 V...7 V	A9L	2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, illuminated 220 V...240 V	AP2
2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, screw connection, illuminated 4 V...7 V	A9M	2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, illuminated 110 V...120 V	AP4
2-pole, rocker, 2pole overload protection, auxiliary contact, screw connection, illuminated 4 V...7 V	A9N	2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, illuminated 20 V...26 V	AP7
		2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, illuminated 10 V...13 V	AP8







Basic function	Configuration key
2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, illuminated 4 V...7 V	AP9
2-pole, rocker, 2pole overload protection, auxiliary contact, quick connect terminal, without illumination	APD
2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, without illumination	APF
2-pole, rocker, 2pole overload protection, auxiliary contact and shunt terminal, quick connect terminal, without illumination	APG
2-pole, rocker, 1pole overload protection, auxiliary contact, quick connect terminal, without illumination	APT
2-pole, rocker, 2pole overload protection, auxiliary contact, quick connect terminal, momentary switch, without illumination	ARD
2-pole, rocker, 1p overload protection, auxiliary contact and shunt terminal, quick connect terminal, momentary switch, without illumination	ARF
2-pole, rocker, 2p overload protection, auxiliary contact and shunt terminal, quick connect terminal, momentary switch, without illumination	ARG
2-pole, rocker, 1pole overload protection, auxiliary contact, quick connect terminal, momentary switch, without illumination	ART
2-pole, rocker, 2pole overload protection, auxiliary contact, screw connection, without illumination	ASD
2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, screw connection, without illumination	ASF
2-pole, rocker, 1pole overload protection, auxiliary contact and shunt terminal, screw connection, without illumination	ASG
2-pole, rocker, 1pole overload protection, auxiliary contact, screw connection, without illumination	AST
2-pole, rocker, 2pole overload protection, auxiliary contact, screw connection, momentary switch, without illumination	AUD
2-pole, rocker, 1p overload protection, auxiliary contact and shunt terminal, screw connection, momentary switch, without illumination	AUF
2-pole, rocker, 2p overload protection, auxiliary contact and shunt terminal, screw connection, momentary switch, without illumination	AUG
2-pole, rocker, 1pole overload protection, auxiliary contact, screw connection, momentary switch, without illumination	AUT

TA45 - AK2 **W** F 120 A2 - AZM11 = Actuator colour

Actuator colour	Configuration key
Clear transparent	1
Red transparent	3
Green transparent	4
Orange transparent	6
Black	B
Green	G
Red	R
White	W
Orange	X
Yellow	Y

TA45 - AK2 **W** **F** 120 A2 - AZM11 = Legend

Legend	Configuration key
embossed 	F
white printed 	H
black printed 	K

Legend	Configuration key
white printed 	L
black printed 	M
white printed 	P
black printed 	R
white printed 	S
black printed 	T

TA45 - AK2 **W** **F** 120 A2 - AZM11 = 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
0.6 A	J06
0.7 A	J07
0.8 A	J08
0.9 A	J09
1.0 A	J10
1.1 A	J11
1.2 A	J12
1.3 A	J13
1.4 A	J14
1.5 A	J15
1.6 A	J16
1.7 A	J17
1.8 A	J18
1.9 A	J19
2.0 A	J20
2.1 A	J21
2.2 A	J22
2.3 A	J23
2.5 A	J25
2.8 A	J28
3.0 A	030
3.5 A	035
4.0 A	040
4.5 A	045
5.0 A	050
6.0 A	060
6.5 A	065
7.0 A	070

Other rated currents on request

Rated current	Configuration key
7.5 A	075
8.0 A	080
9.0 A	090
10.0 A	100
11.0 A	110
12.0 A	120
13.0 A	130
14.0 A	140
15.0 A	150
16.0 A	160
17.0 A	170
18.0 A	180
19.0 A	190
20.0 A	200

Other rated currents on request

TA45 - AK2 W F 120 **A2** - AZM11 = Release / lock-out latch

Release / lock-out latch	Configuration key
without release / lock-out latch	C0

TA45 - AK2 W F 120 A2 - **AZM11** = Accessories

Factory mounted accessories	Configuration key
Without cover	

For subsequent fitting accessories see:

https://www.schurter.com/pdf/english/typ_TA45-ACC.pdf

Variants

Thermal overload protection	Addition	connection type	Illumination	Actuator colour	Legend	Rated current	Accessories	Config. Code	Order Number
2-pole	Auxiliary contact	Quick connect terminal	illumination 220 V...240 V	Clear transparent	embossed	12.0 A	Without cover	TA45-AN21F120C0	4430.3223

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

Packaging Unit 1 Pcs

Accessories

Description



TA45-ACC
 Accessories to TA45