

Circuit Breaker for Equipment thermal, 2 pole, Rocker actuation



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

Technical Data

Rated Voltage AC	240 V
Rated Voltage DC	60 V
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 IP 40 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
Ambient temperature	-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	30 - 35g

Approvals and Compliances

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

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
	CQC Approvals	CQC	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.

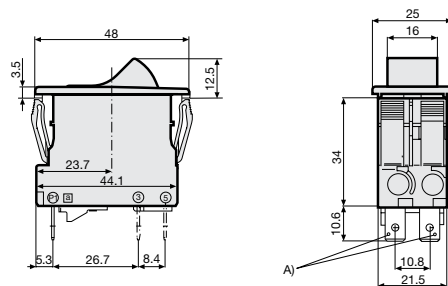
Compliances

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	EU Directive RoHS 2011/65/EU
	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.

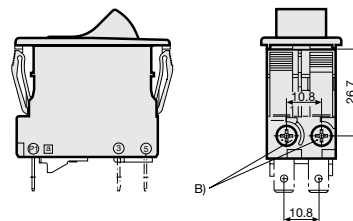
Dimension [mm]

Quick connect terminal



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

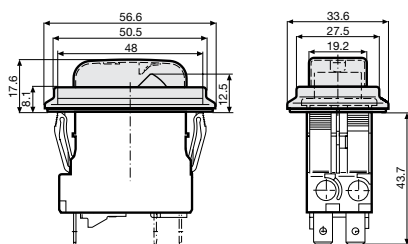
Screw clamp terminal



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

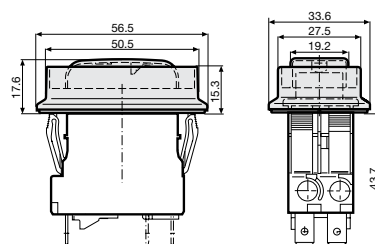
Accessories / factory mounted

AZM01 / Collar with cover, IP 54

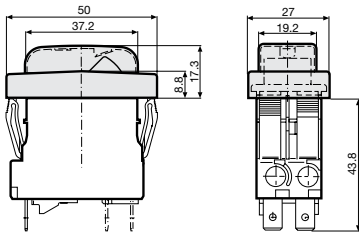


AZM02 / Raised collar with cover, narrow, IP 54

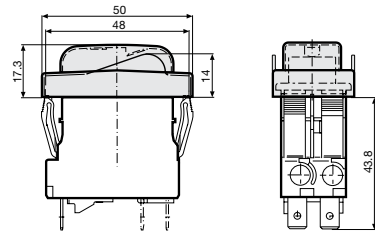
AZM03 / Raised collar, IP 40



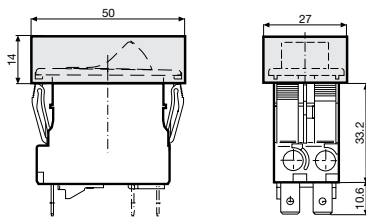
AZM10 / Collar with cover, narrow, IP 54



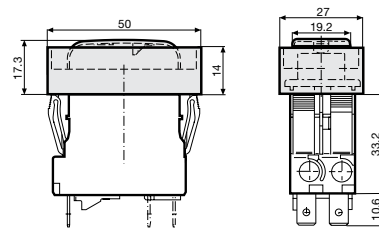
AZM11 / Partially raised collar with cover, narrow, IP 54
 AZM12 / Partially raised collar without cover, narrow, IP 40



AZM13 / Raised collar narrow, IP40



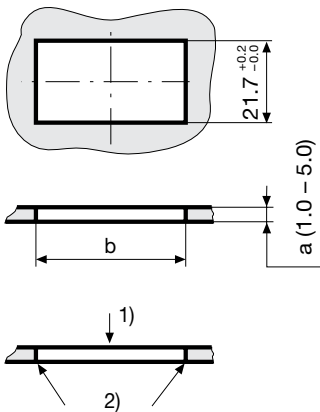
AZM14 / Raised collar with cover narrow, IP 54



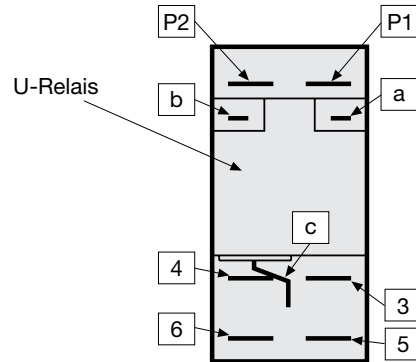
Cut-out and pin-out

Cut-out snap-in type

Pin-out



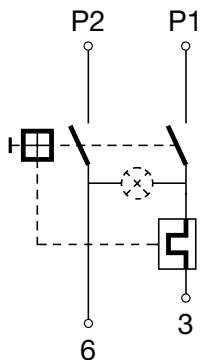
a	b
1.0	44,5...45,0
1.5	44,5...45,0
2.0	44,7...45,2
2.5	44,7...45,2
3.0	44,8...45,3
4.0	44,9...45,4
5.0	45,0...45,5



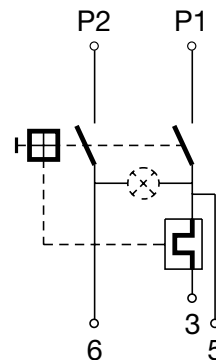
- 1) Assemble
- 2) edge must be sharp

Diagrams

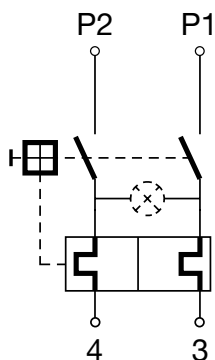
1 pole thermal overload protection



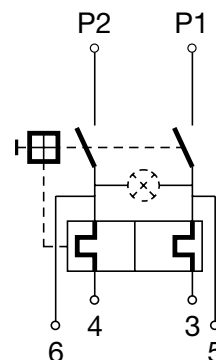
1 pole thermal overload protection, Shunt terminal



2 pole thermal overload protection



2 pole thermal overload protection, Shunt terminal



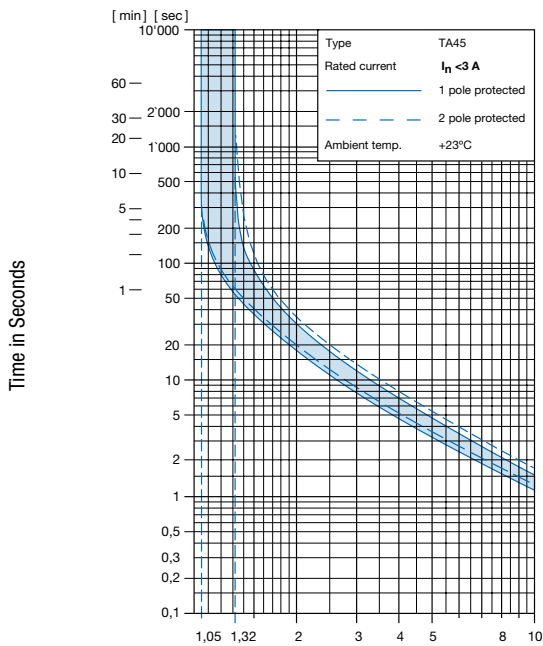
Effect of ambient temperature

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

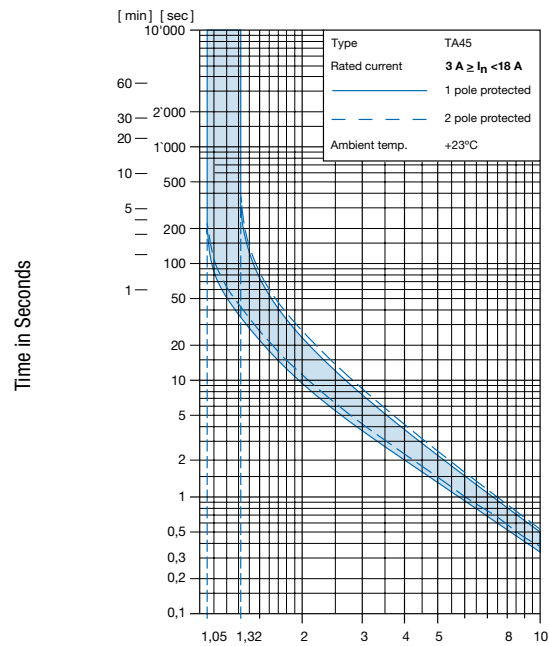
Example: Rated current = 5 A; Environmental temperature = 40 °C; --> Correction factor = 1.08; Resulting current = 5.5 A --> Fount to next higher rated current: 6 A

Time-Current-Curves



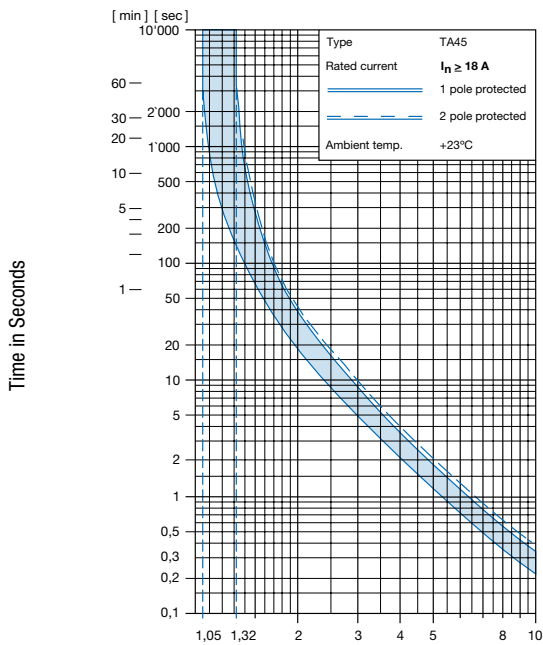
Multiple of Rated Current I_n

Reference Temperature +23°



Multiple of Rated Current I_n

Reference Temperature +23°



Multiple of Rated Current I_n

Reference Temperature +23°

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
2-pole, rocker, 1pole overload protection, flat connection, illuminated 220 V...240 V	A12
2-pole, rocker, 1pole overload protection, flat connection, illuminated 110 V...120 V	A14
2-pole, rocker, 1pole overload protection, flat connection, illuminated 20 V...26 V	A17
2-pole, rocker, 1pole overload protection, flat connection, illuminated 10 V...13 V	A18
2-pole, rocker, 1pole overload protection, flat connection, illuminated 4 V...7 V	A19
2-pole, rocker, 1pole overload protection, shunt terminal, flat connection, illuminated 220 V...240 V	A22
2-pole, rocker, 1pole overload protection, shunt terminal, flat connection, illuminated 110 V...120 V	A24
2-pole, rocker, 1pole overload protection, shunt terminal, flat connection, illuminated 20 V...26 V	A27
2-pole, rocker, 1pole overload protection, shunt terminal, flat connection, illuminated 10 V...13 V	A28
2-pole, rocker, 1pole overload protection, shunt terminal, flat connection, illuminated 4 V...7 V	A29
2-pole, rocker, 2pole overload protection, flat connection, illuminated 220 V...240 V	A32
2-pole, rocker, 2pole overload protection, flat connection, illuminated 110 V...120 V	A34
2-pole, rocker, 2pole overload protection, flat connection, illuminated 20 V...26 V	A37
2-pole, rocker, 2pole overload protection, flat connection, illuminated 10 V...13 V	A38
2-pole, rocker, 2pole overload protection, flat connection, illuminated 4 V...7 V	A39
2-pole, rocker, 2pole overload protection, shunt terminal, flat connection, illuminated 220 V...240 V	A42
2-pole, rocker, 2pole overload protection, shunt terminal, flat connection, illuminated 110 V...120 V	A44
2-pole, rocker, 2pole overload protection, shunt terminal, flat connection, illuminated 20 V...26 V	A47
2-pole, rocker, 2pole overload protection, shunt terminal, flat connection, illuminated 10 V...13 V	A48
2-pole, rocker, 2pole overload protection, shunt terminal, flat connection, illuminated 4 V...7 V	A49
2-pole, rocker, 1pole overload protection, screw connection, illuminated 220 V...240 V	A62
2-pole, rocker, 1pole overload protection, screw connection, illuminated 110 V...120 V	A64
2-pole, rocker, 1pole overload protection, screw connection, illuminated 20 V...26 V	A67
2-pole, rocker, 1pole overload protection, screw connection, illuminated 10 V...13 V	A68
2-pole, rocker, 1pole overload protection, screw connection, illuminated 4 V...7 V	A69
2-pole, rocker, 1pole overload protection, shunt terminal, screw connection, illuminated 220 V...240 V	A72
2-pole, rocker, 1pole overload protection, shunt terminal, screw connection, illuminated 110 V...120 V	A74
2-pole, rocker, 1pole overload protection, shunt terminal, screw connection, illuminated 20 V...26 V	A77
2-pole, rocker, 1pole overload protection, shunt terminal, screw connection, illuminated 10 V...13 V	A78
2-pole, rocker, 1pole overload protection, shunt terminal, screw connection, illuminated 4 V...7 V	A79
2-pole, rocker, 2pole overload protection, screw connection, illuminated 220 V...240 V	A82
2-pole, rocker, 2pole overload protection, screw connection, illuminated 110 V...120 V	A84
2-pole, rocker, 2pole overload protection, screw connection, illuminated 20 V...26 V	A87
2-pole, rocker, 2pole overload protection, screw connection, illuminated 10 V...13 V	A88

Basic function	Configuration key
2-pole, rocker, 2pole overload protection, screw connection, illuminated 4 V...7 V	A89
2-pole, rocker, 2pole overload protection, shunt terminal, screw connection, illuminated 220 V...240 V	A92
2-pole, rocker, 2pole overload protection, shunt terminal, screw connection, illuminated 110 V...120 V	A94
2-pole, rocker, 2pole overload protection, shunt terminal, screw connection, illuminated 20 V...26 V	A97
2-pole, rocker, 2pole overload protection, shunt terminal, screw connection, illuminated 10 V...13 V	A98
2-pole, rocker, 2pole overload protection, shunt terminal, screw connection, illuminated 4 V...7 V	A99
2-pole, rocker, 2pole overload protection, flat connection, without illumination	ABD
2-pole, rocker, 1pole overload protection, shunt terminal, flat connection, without illumination	ABF
2-pole, rocker, 2pole overload protection, shunt terminal, flat connection, without illumination	ABG
2-pole, rocker, 1pole overload protection, flat connection, without illumination	ABT
2-pole, rocker, 2pole overload protection, flat connection, momentary switch, without illumination	AED
2-pole, rocker, 1pole overload protection, shunt terminal, flat connection, momentary switch, without illumination	AEF
2-pole, rocker, 2pole overload protection, shunt terminal, flat connection, momentary switch, without illumination	AEG
2-pole, rocker, 1pole overload protection, flat connection, momentary switch, without illumination	AET
2-pole, rocker, 2pole overload protection, screw connection, without illumination	AHD
2-pole, rocker, 1pole overload protection, shunt terminal, screw connection, without illumination	AHF
2-pole, rocker, 2pole overload protection, shunt terminal, screw connection, without illumination	AHG
2-pole, rocker, 1pole overload protection, screw connection, without illumination	AHT
2-pole, rocker, 2pole overload protection, screw connection, momentary switch, without illumination	AJD
2-pole, rocker, 1pole overload protection, shunt terminal, screw connection, momentary switch, without illumination	AJF
2-pole, rocker, 2pole overload protection, shunt terminal, screw connection, momentary switch, without illumination	AJG
2-pole, rocker, 1pole overload protection, screw connection, momentary switch, without illumination	AJT

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
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

Other rated currents on request

Rated current	Configuration key
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
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
whithout release / lock-out latch	C0

TA45 - AK2 W F 120 A2 - AZM11 = Accessories

Factory mounted accessories	Configuration key
Without cover	
Collar with cover, IP54	AZM01
Raised collar with cover, IP54	AZM02
Raised collar, IP40	AZM03
Raised collar with cover narrow, IP54	AZM10
Partially raised collar with cover, narrow, IP54	AZM11
Partially raised collarwithout cover, narrow, IP40	AZM12
Raised collar narrow, IP40	AZM13
Raised collar with cover narrow, IP54	AZM14

For subsequent fitting accessories see:

http://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
1-pole		Quick connect terminal	without illumination	White	embossed	10.0 A	Without cover	TA45-ABTWF100C0	4430.0022
2-pole		Quick connect terminal	without illumination	Black	white printed	15.0 A	Without cover	TA45-ABDBL150C0	4430.1089
2-pole		Quick connect terminal	without illumination	Black	white printed	15.0 A	Without cover	TA45-ABDBS150C0	4430.1328

Most Popular.

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

Mouser Electronics

Authorized Distributor

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

Schurter:

4430.0005	4430.0012	4430.0015	4430.0022	4430.0024	4430.0031	4430.0038	4430.0385	4430.0413	4430.0423
4430.0428	4430.0429	4430.0431	4430.0444	4430.0469	4430.0542	4430.0543	4430.0545	4430.0559	4430.0561
4430.0572	4430.0573	4430.0586	4430.0646	4430.0665	4430.0681	4430.0683	4430.0684	4430.0699	4430.0703
4430.0704	4430.0705	4430.0706	4430.0707	4430.0708	4430.0709	4430.0764	4430.0765	4430.0777	4430.0778
4430.0847	4430.0861	4430.0881	4430.0884	4430.0885	4430.0892	4430.0904	4430.0907	4430.0924	4430.0963
4430.0977	4430.0982	4430.0988	4430.0991	4430.1034	4430.1037	4430.1038	4430.1067	4430.1068	4430.1077
4430.1096	4430.1129	4430.1133	4430.1143	4430.1144	4430.1146	4430.1147	4430.1158	4430.1203	4430.1219
4430.1231	4430.1232	4430.1248	4430.1251	4430.1273	4430.1274	4430.1275	4430.1293	4430.1294	4430.1296
4430.1328	4430.1351	4430.1359	4430.1365	4430.1366	4430.1384	4430.1393	4430.1402	4430.1403	4430.1406
4430.1427	4430.1447	4430.1472	4430.1474	4430.1475	4430.1477	4430.1486	4430.1536	4430.1563	4430.1605