TA45 3 pole Rocker

Circuit Breaker for Equipment thermal, 3 pole, Rocker actuation

Basic type

With auxiliary contact

With undervoltage protection

See below:
Approvals and Compliances

Description

- Thermal circuit breaker
- 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
- Equipment for construction
- Cleaning equipment

Weblinks

pdf data sheet, html datasheet, General Product Information, Distributor-Stock-Check, Detailed request for product, Product News

Technical Data

Rated Voltage AC	AC 400 VAC
Rated current range AC	0.05 - 12 A
Conditional short circuit capacity Inc	IEC 60934: PC1, AC 400 V: 1kA
Short circuit capacity Icn	IEC 60934: 400 VAC: 10x In (max. 3 Zykl.)
Degree of Protection	front side IP40 acc. to IEC 60529
Dielectric Strength	4 kVAC
Insulation Resistance	500 VDC > 100 MΩ
Lifetime	mechanical: 50'000 switching cycles AC: 1 x Ir: 50'000 switching cycles

Overload	AC: min. 40 trips @ 6 x Ir
Allowable Operation Temp.	-10 °C to 55 °C
Storage Temperature	-10 °C to 55 °C
Vibration Resistance	± 0.75 mm @ 10 - 60 Hzacc. to IEC 60068-2-6, test Tc10 G @ 60 - 500 Hzacc. to IEC 60068-2-6, test Tc
Shock Resistance	30 G / 18 msacc. to IEC 60068-2-27, test Ea
Tripping Type	Thermal
Actuation Type	Rocker
Weight	45 g - 50 g

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	UR File Number: E71572
	CCC Approvals	CCC	CCC Certificate Number: 2024010307710411

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 Group	Designed according to	CSA C22.2 No. 235	Supplementary Protectors
CCC	Designed according to	GB 17701	Circuit-breaker for equipment

Application standards

Application standards where the product can be used

Organization	Design	Standard	Description
IEC	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

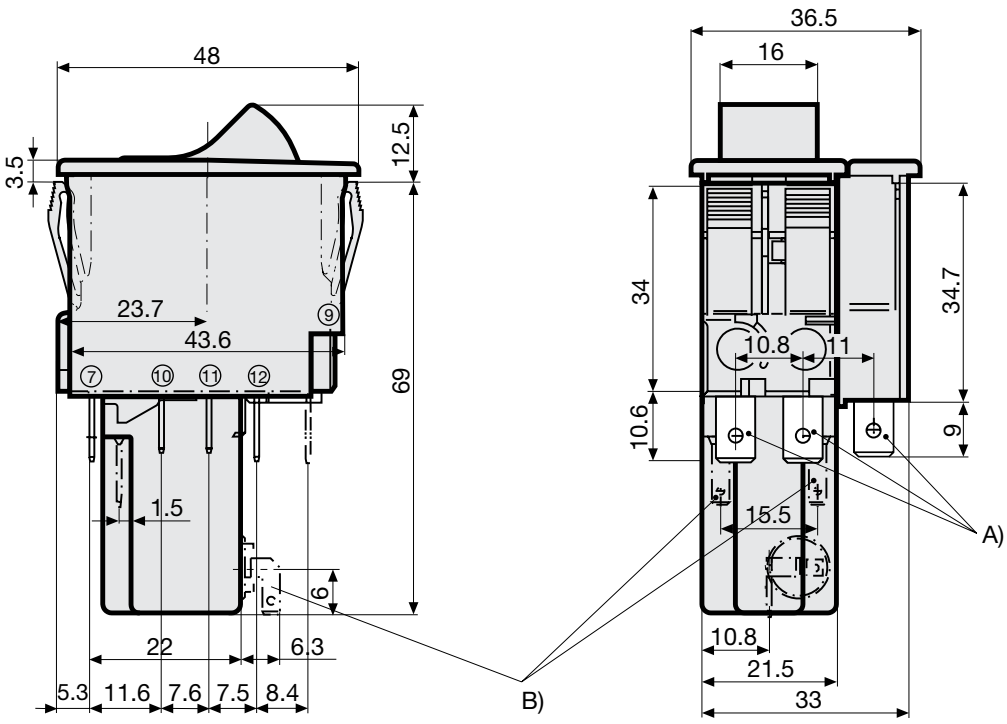
Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
CE	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.
UKCA	UKCA declaration of conformity	SCHURTER AG	The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008.
RoHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
China RoHS	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	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.

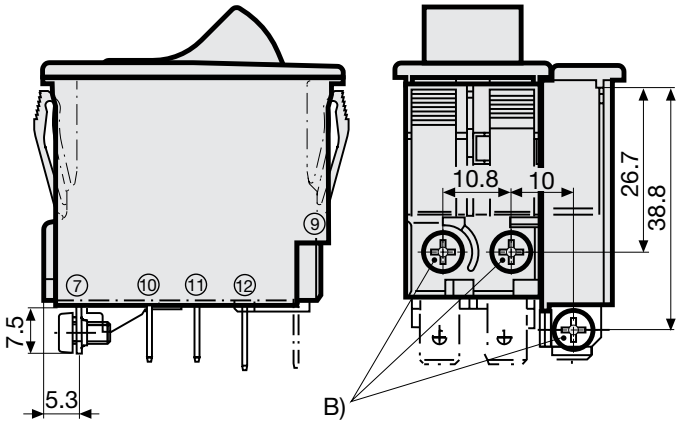
Dimension [mm]

Undervoltage release, remote trip release, auxiliary contact



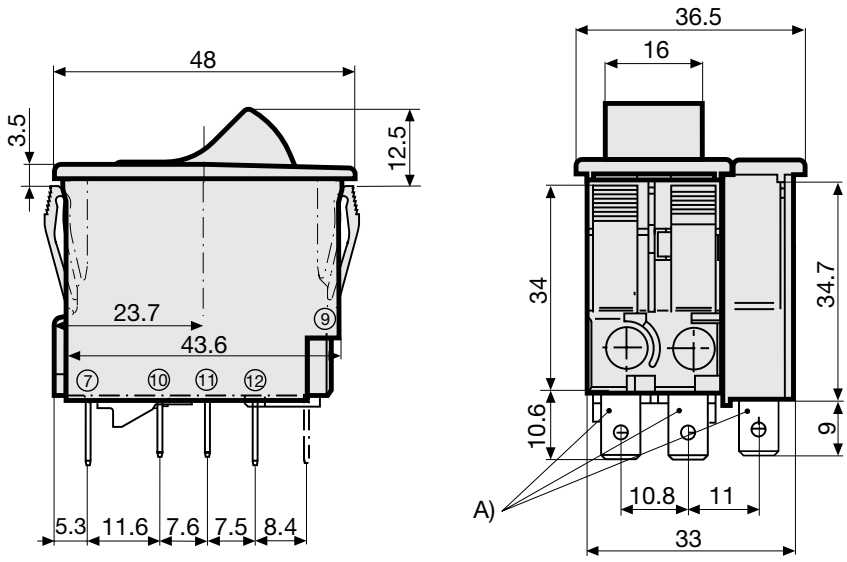
A) Quick connect terminal, IEC 61210, A6.3-0.8 mm
B) Quick connect terminal, IEC 61210, A2.8-0.8 mm

Screw clamp terminal with auxiliary contact



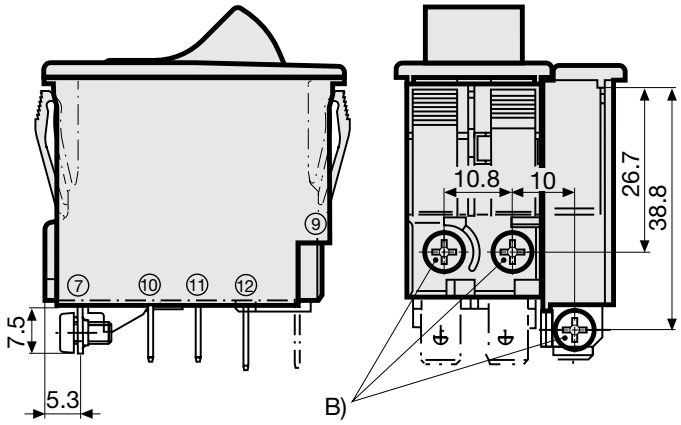
B) Screw type M3, 5x6 (Philips Form H), maximum torque 1 Nm

Quick connect terminal with auxiliary contact



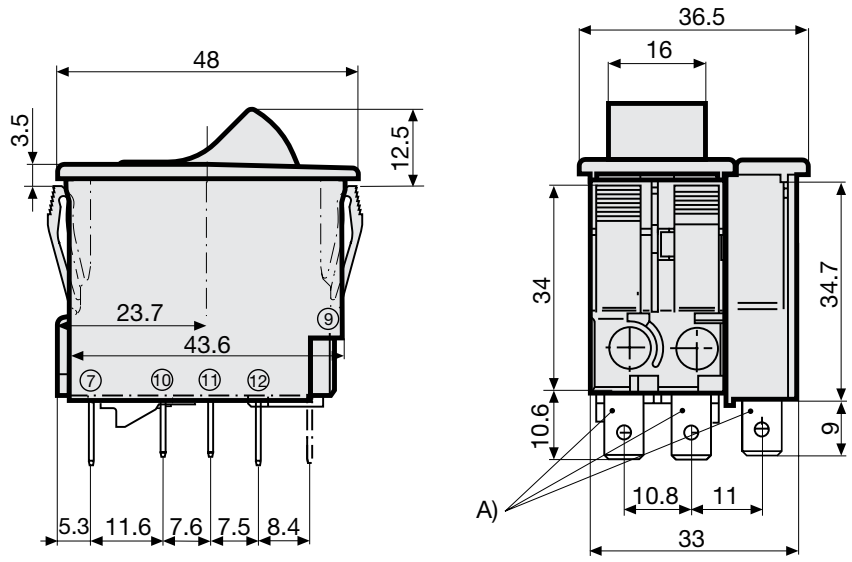
A) Quick connect terminal, IEC 61210, A6.3-0.8 mm

Screw terminal



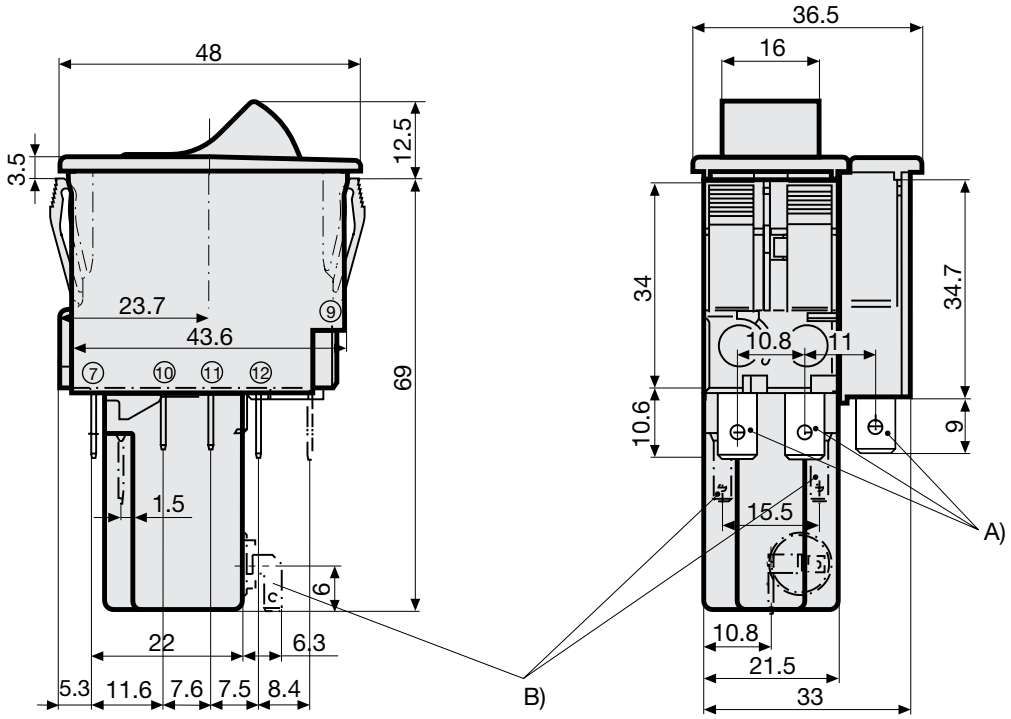
B) Screw type M3, 5x6 (Philips Form H), maximum torque 1 Nm

Quick connect terminal



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

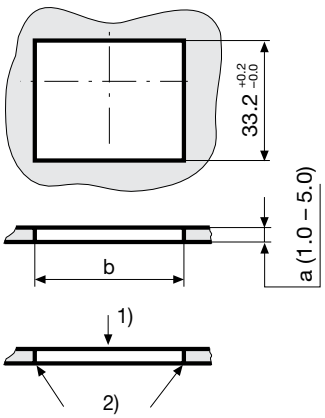
Undervoltage release, remote trip release



A) Quick connect terminal, IEC 61210, A6.3-0.8 mm
B) Quick connect terminal, IEC 61210, A2.8-0.8 mm

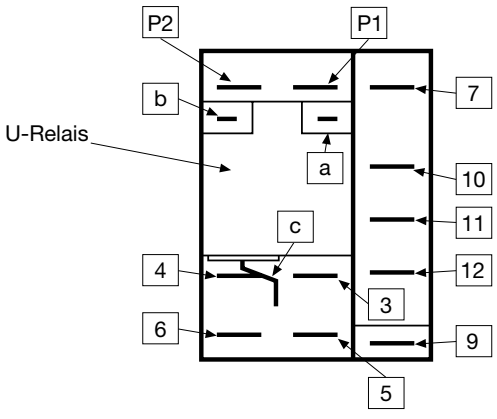
Cut-out and pin-out

Cut-out snap-in type
With auxiliary contact



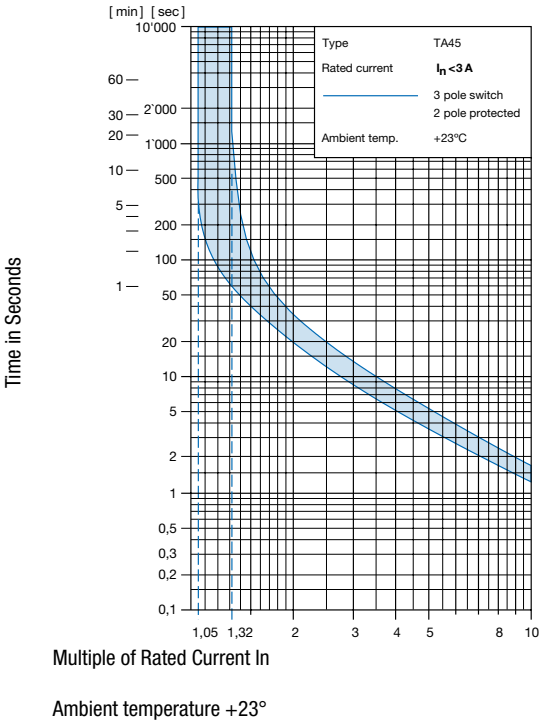
a	b
1.0	44,5...45,0
1.5	44,5...45,0
2.0	44,7...45,2
2.5	44,7...45,2
3.0	44,8...45,3
4.0	44,9...45,4
5.0	45,0...45,5

Pin-out
With auxiliary contact

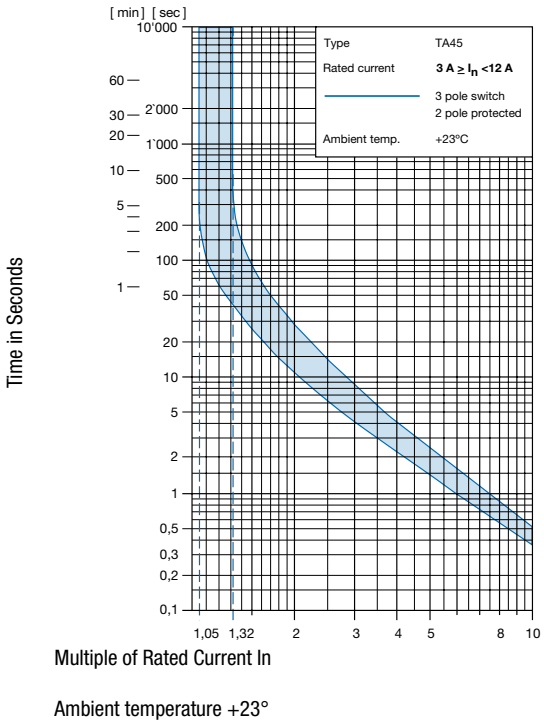


1) Assemble
2) edge must be sharp

Time-Current-Curves



Ambient temperature +23°



Ambient 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: With a nominal current of 5A and an ambient temperature of 40°C, a correction factor of 1.08 results. This results in a nominal current of 5.5 A, which is rounded up to the next higher nominal 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

Undervoltage release

Max. operating voltage							1.1 Ue
Rated operating voltage Ue	5 V	12 V	24 V	48 V	120 V	240 V	400 V
Current consumption (± 10%)	10.5 mA	16.5 mA	17.0 mA	3.2 mA	3.7 mA	3.1 mA	2.65 mA
Highest reset level	0.85 Ue	0.85 Ue	0.85 Ue	0.85 Ue	0.85 Ue	0.85 Ue	0.85 Ue
Lowest trip level	0.20 Ue	0.20 Ue	0.20 Ue	0.20 Ue	0.20 Ue	0.20 Ue	0.20 Ue
Trip delay	20 ms - 50 ms	20 ms - 50 ms	20 ms - 50 ms	20 ms - 50 ms	20 ms - 50 ms	20 ms - 50 ms	20 ms - 50 ms
Impulse withstand voltage (1.2 / 50 µs)	≥4 kV	≥4 kV	≥4 kV	≥4 kV	≥4 kV	≥4 kV	≥4 kV

Remote trip

Permissible impuls duration of the make contact (no)	Between terminal C and P1	unlimited
Electrical load of the make contact (no)	Current max. 12 mA / power max. 1.1 W	

TA45 3 pole Rocker

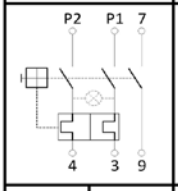
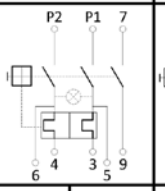
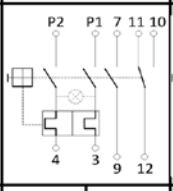
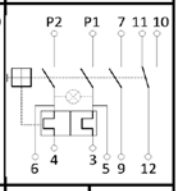
Order number key

T	A	4	5	-	A	B	T	W	F	2	0	0	U	2	-	7	0	1
					1			2	3		4			5			6*		

* These characters are omitted for standard products and serve as placeholder for customised

Basic function 1

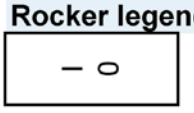
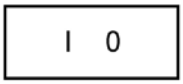
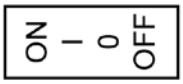
Auxiliary contact (changeover contact)		
Shunt terminal		
Schematic drawing		
Terminal type	Quick connect terminal	
	Screw terminal (lineside P1,P2)	
Snap-in type		
ON/OFF switch	Without illumination	
	With	220V…240V
Impulse switch		

2 pole thermal overload protection							
		•	•				
	•		•				
							
•		•		•		•	
	•		•		•		•
•	•	•	•	•	•	•	•
AKD	AMD	AKG	AMG	AVD	AXD	AVG	AXG
AD1	A1D	AG1	A1G	AW1	A1W	AX1	A1X
ALD	AND	ALG	ANG	AWD	AYD	AWG	AYG

Front- & Actuation color 2

Front Bezel	Rocker without illumination	Rocker with illumination		
black	-	clear transparent	=	1
black	-	red transparent	=	3
black	-	green transparent	=	4
black	-	orange transparent	=	6
black	black	-	=	B
black	red	-	=	R
black	white	-	=	W
black	orange	-	=	X
black	yellow	-	=	Y

Rocker legend, marking 3

	Embossed	=	F
	Printed white	=	H
	Printed black	=	K
	Printed white	=	L
	Printed black	=	M
	Printed white	=	P
	Printed black	=	R
	Printed white	=	S
	Printed black	=	T

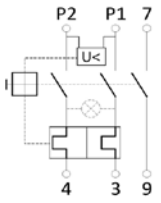
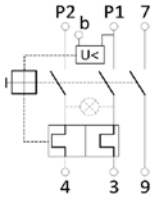
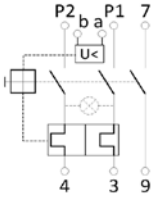
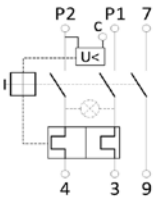
T	A	4	5	-	A	B	T	W	F	2	0	0	U	2	-	7	0	1
					1			2	3	4			5			6*		

Rated Current In [A] 4

Thermal overload protection

In			In			In			In		
0.05 A	=	Z05	1.4 A	=	J14	4.0 A	=	040	9.0 A	=	090
0.10 A	=	J01	1.5 A	=	J15	4.2 A	=	042	9.5 A	=	095
0.15 A	=	Z15	1.6 A	=	J16	4.4 A	=	044	10.0 A	=	100
0.20 A	=	J02	1.7 A	=	J17	4.5 A	=	045	10.5 A	=	105
0.25 A	=	Z25	1.8 A	=	J18	4.7 A	=	047	11.0 A	=	110
0.30 A	=	J03	1.9 A	=	J19	5.0 A	=	050	11.5 A	=	115
0.35 A	=	Z35	2.0 A	=	J20	5.2 A	=	052	12.0 A	=	120
0.40 A	=	J04	2.1 A	=	J21	5.5 A	=	055			
0.45 A	=	Z45	2.2 A	=	J22	5.7 A	=	057			
0.50 A	=	J05	2.3 A	=	J23	6.0 A	=	060			
0.60 A	=	J06	2.5 A	=	J25	6.2 A	=	062			
0.70 A	=	J07	2.8 A	=	J28	6.5 A	=	065			
0.80 A	=	J08	2.9 A	=	J29	7.0 A	=	070			
0.90 A	=	J09	3.0 A	=	030	7.1 A	=	071			
1.00 A	=	J10	3.2 A	=	032	7.2 A	=	072			
1.10 A	=	J11	3.5 A	=	035	7.5 A	=	075			
1.20 A	=	J12	3.7 A	=	037	8.0 A	=	080			
1.30 A	=	J13	3.8 A	=	038	8.5 A	=	085			

Undervoltage release, Remote trip release, Mechanical lock-out latch 5

Rated voltage	Undervoltage release			Remote trip release	Without release or mechanical lock-out latch
AC (V)					
400	U1	E1	Z1	A1	C0
240		E2	Z2		
230		E3	Z3		
120			Z4		
AC/DC (V)					
48			Z6		
24			Z7		
12			Z8		
5			Z9		

** Schematic drawings: 1-pole protected version shown only*

Special marking 6

Standard	=	(empty)
Special marking (XXX = placehoder)	=	XXX

Accessories

	Description
	TA45-ACC Accessories to TA45

08.04.2025