

3-102-329 Datasheet



DiGi Electronics Part Number Manufacturer Manufacturer Product Number Description Detailed Description

3-102-329-DG SCHURTER Inc. 3-102-329 TA45 CIRCUIT BREAKER 2P RO 3.5A Circuit Breaker AC DC

https://www.DiGi-Electronics.com



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RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.



Purchase and inquiry

Manufacturer Product Number: 3-102-329 Series:

Manufacturer:
SCHURTER Inc.
Product Status:
Active

Environmental & Export classification

RoHS Status:

-

ROHS3 Compliant

Moisture Sensitivity Level (MSL): Not Applicable Thermal (T- and TA-Line) https://www.schurter.com /PG17_20

TA45 2 pole Rocker

Circuit Breaker for Equipment thermal, 2 pole, Rocker actuation



Basic type

Description

- Thermal circuit breaker

- High configurability

- Snap-in version

- Positively trip-free release

6 mm (lineside P1, P2)

- 1 or 2 pole thermal overload protection

- Rocker non-illuminated or illuminated





With undervoltage protection

See below: Approvals and Compliances

Applications

- Power tools
- Industrial appliances
- Power supplies
- Equipment for constructionCleaning equipment

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 capa- city Inc	IEC 60934: PC1, AC 240 V: 1 kA
Short circuit capacity Icn	IEC 60934:
	At In < 3 A/ 240 VAC: 10xIn (max. 3 cycles)
	At In ≥ 3 A/ 240 VAC: 300A (max. 3 cycles)
	At In < 3 A/ 60 VDC: 10xln (max. 3 cycles)
	At In ≥ 3 A/ 48 VDC: 120A (max. 3 cycles)
Degree of Protection	front side IP40 acc. to IEC 60529 With factory mounted protection cover IP54
Dielectric Strength	4 kVAC
Insulation Resistance	$500 \text{ VDC} > 100 \text{ M}\Omega$
Lifetime	mechanical: 50'000 switching cycles
	AC: 1 x lr:
	50'000 switching cycles
	DC: 1 x lr:
	50'000 switching cycles

- Quick connect terminal 6.3 x 0.8 mm or screw clamp terminal M3.5 x

Overload	AC: min. 40 trips		
	@ 6 x lr		
	DC: min. 40 trips		
	@ 4 x lr		
Allowable Operation Temp.	-10 °C to 55 °C		
Storage 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	30g - 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.

TA45 2 pole Rocker 3-102-329 SCHURTER Inc. TA45 CIRCUIT BREAKER 2P RO 3.5A

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
NE NE	VDE Approvals	VDE	VDE Certificate Number: 40019880
c FN us	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)	
(Y)	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	
	Designed according to	GB 17701	Circuit-breaker for equipment	

Application standards

Application standards where the product can be used

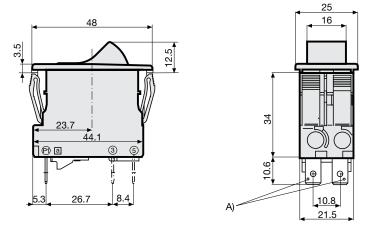
Organization	Design	Standard	Description
IEC	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

Compliances

The product complies with following Guide Lines

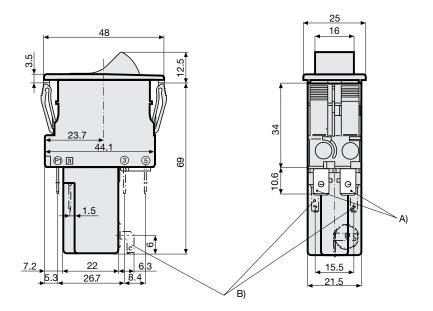
Identification	Details	Initiator	Description	
CE	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.	
Rolls	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863	
©	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] Quick connect terminal



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

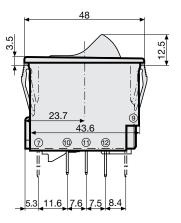
Undervoltage release, remote trip release

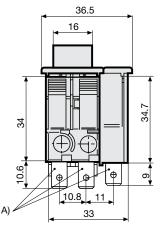


A) Quick connect terminal, IEC 61210, A6.3-0.8 mm

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

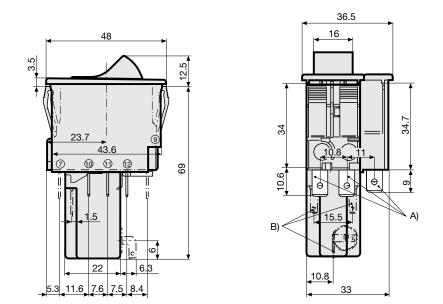
Quick connect terminal with auxiliary contact





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

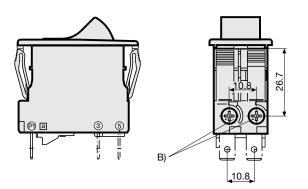
Undervoltage release, remote trip release, auxiliary contact



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

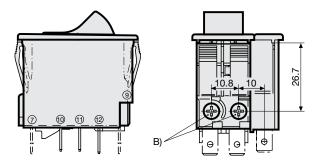
B) Quick connect terminal, IEC 61210, A2.8-0.8 mm

Screw terminal



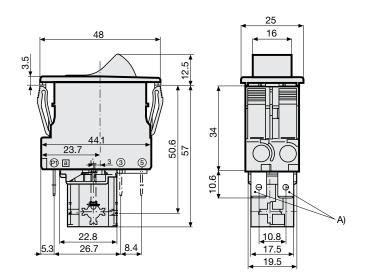
B) Screw type M3, 5x6 (Philips Form H), maximum torque 1 Nm

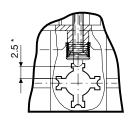
Screw clamp terminal with auxiliary contact

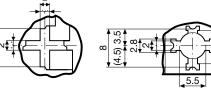


B) Screw type M3, 5x6 (Philips Form H), maximum torque 1 Nm

Mechanical lock-out latch





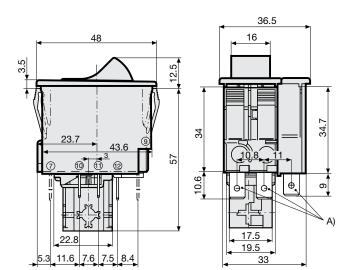


.5) 3.5

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A) Quick connect terminal, IEC 61210, A6.3-0.8 mm *) max. switching stroke

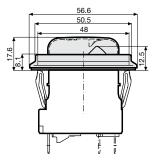
Mechanical lock-out latch with auxiliary contact

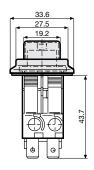


5.5

A) Quick connect terminal, IEC 61210, A6.3-0.8 mm *) max. switching stroke

Accessories / factory mounted AZM01 / Collar with cover, IP54

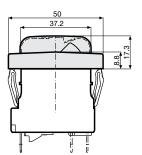




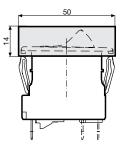
27

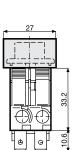
19.2

AZM10 / Collar with cover, narrow, IP54



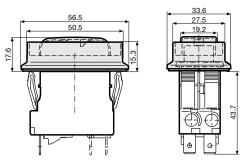
AZM13 / Raised collar narrow, IP40



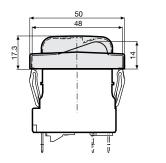


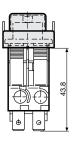
13.8

AZM02 / Raised collar with cover, narrow, IP54 AZM03 / Raised collar, IP40

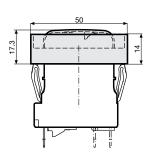


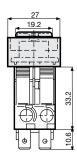
AZM11 / Partially raised collar with cover, narrow, IP54 AZM12 / Partially raised collar without cover, narrow, IP40





AZM14 / Raised collar with cover narrow, IP54



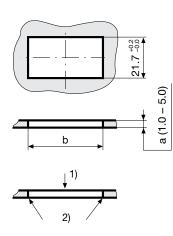


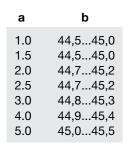
Cut-out snap-in type

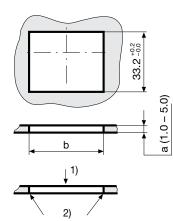
With auxiliary contact

Cut-out and pin-out

Cut-out snap-in type Basic type



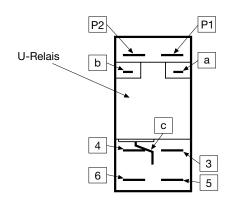




1.044,545,01.544,545,02.044,745,22.544,745,23.044,845,34.044,945,45.045,045,5

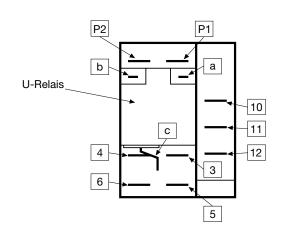
Assemble
edge must be sharp

Pin-out Basic type



Assemble
edge must be sharp

Pin-out With auxiliary contact



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.

Thermal (T- and TA-Line) https://www.schurter.com /PG17_20

Auxiliary contact (changeover)

Rated Voltage	28 VDC	60	O VDC	240 VA0)		
Rated current	max. 10 A resistive load	max. 2 A	resistive load	max. 2 A cos	φ 0.7		
Jndervoltage release							
Max. operating voltage							1.1 Ue
Rated operating voltage Ue		5 V	12 V	24 V	48 V	120 V	240 V
Current consumption (± 10%)		10.5 mA	16.5 mA	17.0 mA	3.2 mA	3.7 mA	3.1 mA
Highest reset level		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
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
Impulse withstand voltage (1.2 / 50 µs	5)	≥4 kV	≥4 kV	≥4 kV	≥4 kV	≥4 kV	≥4 kV

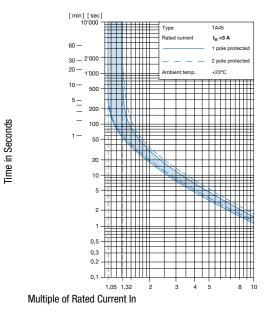
Remote trip

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	

Time in Seconds

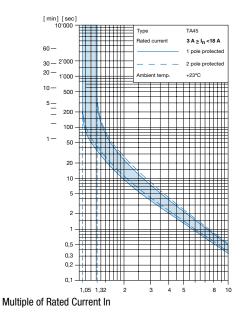
Time-Current-Curves

Rated Current In <3 A



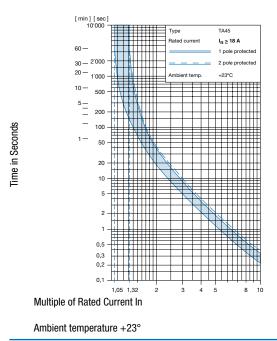
Ambient temperature +23°

Rated Current 3 A \geq In <18 A

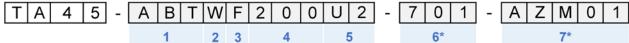


Ambient temperature +23°

Rated Current In ≥18 A



Order number key



* These characters are omitted for standard products and serve as placeholder for customised applications. 9 **Basic function**

Auxiliary contact	(changeover co	ontact)		
Shunt terminal				
Schematic drawi	ng			
Quick connect terminal				
reminal type	Terminal type Screw terminal (lineside P1,P2)			
Snap-in type				
	Without illumin	ation		
		220V240V		
ON/OFF switch	h With 110V120V			
ON/OFF SWIICH	illumination	20V26V		
	liumination	10V13V		
		4V7V		
Impulse switch				

Auxiliary contact	(changeover co	ontact)		
Shunt terminal				
Schematic drawi	ng			
Terminal type	Quick connect terminal			
reminar type	Screw terminal (lineside P1,P2)			
Snap-in type				
	Without illumin	ation		
		220V240V		
ON/OFF switch	With	110V120V		
	illumination	20V26V		
	linumination	10V13V		
		4V7V		
Impulse switch				

					•		•
			•				•
P2				P2 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓		₽2	P1 1110
•		•		•		•	
	•		•		•		•
•	•	•	•	•	•	•	•
ABT	AHT	ABF	AHF	APT	AST	APF	ASF
A12	A62	A22	A72	AL2	A2L	AM2	A2M
A14	A64	A24	A74	AL4	A4L	AM4	A4M
A17	A67	A27	A77	AL7	A7L	AM7	A7M
A18	A68	A28	A78	AL8	A8L	AM8	A8M
A19	A69	A29	A79	AL9	A9L	AM9	A9M
AET	AJT	AEF	AJF	ART	AUT	ARF	AUF

1 pole thermal overload protection

2 pole thermal overload protection								
					•	•		
			•				•	
P2							P1 1110 	
•		•		•		•		
	•		•		•		•	
•	•	•	•	•	•	•	•	
ABD	AHD	ABG	AHG	APD	ASD	APG	ASG	
A32	A82	A42	A92	AN2	A2N	AP2	A2P	
A34	A84	A44	A94	AN4	A4N	AP4	A4P	
A37	A87	A47	A97	AN7	A7N	AP7	A7P	
A38	A88	A48	A98	AN8	A8N	AP8	A8P	
A39	A89	A49	A99	AN9	A9N	AP9	A9P	
AED	AJD	AEG	AJG	ARD	AUD	ARG	AUG	

6* 7*

TA45 2 pole Rocker

1

T A 4	5 - A	BTW	F	2 0 0) U 2	- 7	7 0 1	- A Z	M	0 1
		1 2	3	4	5		6*		7*	
Front- & Act	uation color								Q	2
Front Beze		ker without	illumi	nation	Rocker v	with ill	umination		-10	_
black		-			clear	trans	parent	=	1	
black		-				transp		=	3	
black		-			-		parent	=	4	
black					orange	e trans	sparent	=	6	
black		black				-		=	В	
black black		greer	ו			-		=	G R	
black		red white				-		=	W	
black		orang				-		=	X	
black		yellov				_		=	Ŷ	
biddit		yenev	•						•	
Rocker leger	nd, marking								Q	3
- 0	Embo	ssed						=	F	
	Printe	d white						=	н	
OFF O		d black						=	ĸ	
- 0		d white						=	L	
	Printe	d black						=	М	
1 0		d white						=	Р	
	Printe	d black						=	R	
OFF O N		d white						=	S	
0 0	Printe	d black						=	Т	
Rated Curren	nt In [A]								0	4
Thermal over		n		-			-			
In	Q	In		Q	In		Q	In		9
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 Z25	1.7 A 1.8 A	=	J17 J18	4.5 A	=	045 047	10.5 A	=	105 110
0.25 A = 0.30 A =	Z25 J03	1.0 A 1.9 A	=	J18 J19	4.7 A 5.0 A	=	047	11.0 A 11.5 A	=	115
0.35 A =	Z35	2.0 A	=	J20	5.2 A	=	052	12.0 A	=	120
0.40 A =	J04	2.0 A 2.1 A	=	J21	5.5 A	=	055	12.0 A 12.5 A	=	125
0.45 A =	Z45	2.1 A	=	J22	5.7 A	=	057	13.0 A	=	130
0.50 A =	J05	2.3 A	=	J23	6.0 A	=	060	13.5 A	=	135
0.60 A =	J06	2.5 A	=	J25	6.2 A	=	062	14.0 A	=	140
0.70 A =	J07	2.8 A	=	J28	6.5 A	=	065	14.5 A	=	145
0.80 A =	J08	2.9 A	=	J29	7.0 A	=	070	15.0 A	=	150

J09

J10

J11

J12

J13

=

=

=

=

=

3.0 A

3.2 A

3.5 A

3.7 A

3.8 A

=

=

=

=

=

030

032

035

037

038

7.1 A

7.2 A

7.5 A

8.0 A

8.5 A

=

=

=

=

=

071

072

075

080

085

16.0 A

17.0 A

18.0 A

19.0 A

20.0 A

160

170

180

190

200

=

=

=

=

=

0.90 A

1.00 A

1.10 A

1.20 A

1.30 A

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

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

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(empty)

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Rated voltage	Unde	ervoltage re	lease	Remote trip release	Mechanical lock-out latch	Without
AC (V)						release or mechanical lock-out latch
240	U2	E2	Z2	A2		
230	U3	E3	Z3	A3]	
120	U4	E4	Z4	A4]	
AC/DC (V)					S0	CO
48	U6	E6	Z6	A6] 30	0
24	U7	E7	Z 7	A7]	
12	U8	E8	Z8	A8]	
5	U9	E9	Z9			

* Schematic drawings: 1-pole protected version shown only

Special marking

Standard Special marking (XXX = placehoder)

TA45 2 pole Rocker³⁻¹⁰²⁻³²⁹ SCHURTER Inc. TA45 CIRCUIT BREAKER 2P RO 3.5A

T A 4 5 - A B T W F 2 0 0 U 2 - 1 2 3 4 5	- 7 0 1 - A Z M 6* 7*	0 1
Accessories, factory-mounted (optional) Please note: factory-mounted accessories are only available for c Without accessory	ې onfigurations without auxiliary co = (em	ntact.
Collar with cover, IP54	= AZN	101
Raised collar with cover, IP54	= AZN	102
Raised collar, IP40	= AZN	103
Raised collar with cover narrow, IP54	= AZN	110
Partially rasied collar with cover, narrow, IP54	= AZN	111
Partially raised collar without cover, narrow, IP40	= AZN	112
Raised collar narrow, IP40	= AZN	113
Raised collar with cover, narrow, IP54	= AZN	114

Accessories

Description



TA45-ACC Accessories to TA45

The specifications, descriptions and illustrations indicated in this document are based on current information. All content is subject to modifications and amendments. Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability and test each product selected for their own applications.



OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we striciy control the quality of products and services. Welcome your RFQ to Email: Info@DiGi-Electronics.com

DCI	DCI		
QUALITY MANAGEMENT SYSTEM CERTIFICATE	ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE	OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM CERTIFICATE	の可能可能可能 CERTIFICATE OF INCORPORATION
DIGI ELECTRONICS HK LIMITED	DIGI ELECTRONICS HK LIMITED	DIGI ELECTRONICS HK LIMITED	A. A. B. A. B. W. Hannelity and By that
RATINGS SHE IN HIS COMMERCIAL EXTREMENTAL AND STREET, MONGHO	PLATENTS 207, HO HOR COMMITTEE CALLES HAVE VER CHEET, MONORO	FLATENUE 267, HO HOUS CONVERTIGN AND AN AVEN STREET, MONGO	DELER.ASTRONOS.IRCLAMTRO 网络電子性者作用公司
GB/T 19001-2016 ktt ISO9001:2015	GB/T 24001-2016 idt ISO14001:2015	GB/T45001-2020 idt ISO45001:2018	$0 \rightarrow 0$ B, B $\rightarrow 0$ A, H B 122 B $\subset \odot$ G $\rightarrow H >$ 11 DN: Any Incorporated In Namy Early under the Comparise Ordinaria $A \rightarrow 0$, $A \rightarrow A \rightarrow B$, $A \rightarrow 0 \rightarrow 2$, $A \rightarrow 0$ (Tributor TeX of the Laws of Hearly Kong, and Bellik compare is
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