

4435.0483 Datasheet



DiGi Electronics Part Number

4435.0483-DG

Manufacturer

SCHURTER Inc.

Manufacturer Product Number

4435.0483

Description

TA35 CIRCUIT BREAKER 2P RO 8A

Detailed Description

Circuit Breaker Thermal 8A 240 V AC 60 V DC Rocke

r Panel Mount

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DiGi is a global authorized distributor of electronic components.



Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
4435.0483	SCHURTER Inc.
Series:	Product Status:
TA35	Active
Mounting Type:	Breaker Type:
Panel Mount	Thermal
Current Rating (Amps):	Voltage Rating - AC:
8A	240 V
Voltage Rating - DC:	Actuator Type:
60 V	Rocker
Number of Poles:	Illumination:
2	Blue
Illumination Voltage (Nominal):	Approval Agency:
240V	CSA C22.2 No 235, GB 17701, IEC 60934, UL1077

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	Not Applicable
ECCN:	HTSUS:
EAR99	8536.20.0020

Circuit Breaker for Equipment thermal, Rocker actuation, 1 pole



Non-illuminated black



illuminated Green transparent

See below:

Approvals and Compliances

Description

- Thermal circuit breaker
- 1-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

- Unique UL rating of 277 VAC
- Finely graded rated currents
- High configurability (rocker colours, lettering, illumination)
- IP65 with optional cover

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

References

Weblinks

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

Technical Data		
Rated Voltage AC	IEC: 240 VAC	
	UL/CSA: 277 VAC	
Rated Voltage DC	32 VDC	
Rated current range AC	0.05 - 20 A	
Conditional short circuit capa-	IEC 60934: 0.0520 A: 2 kA, SC (C1)	
city Inc	@ 240 VAC	
Degree of Protection	front side IP40 acc. to IEC 60529	
Dielectric Strength	50 Hz: > 2.5 kV	
	Impulse 1.2/50 µs: > 4 kV	
Insulation Resistance	$500 \text{VDC} > 100 \text{ M}\Omega$	
Lifetime	mechanical: 50'000 switching cycles	
	AC: 1 x lr, cos φ 0.6:	
	30'000 switching cycles	
	DC: 1 x lr, $L/R = 2 - 3$ ms:	
	50'000 switching cycles	

Overload	IEC: min. 40 trips
	@ 6 x lr, cos φ 0.6
	UL / CSA: min. 50 trips
	@ 1.5 x lr, cos φ 0.75
Allowable Operation Temp.	-30°C to 60°C
Storage Temperature	-40 °C to 60 °C
Vibration Resistance	± 0.75 mm @ 10 - 60 Hz
	acc. to IEC 60068-2-6, test Tc
	10 G @ 60 - 500 Hz
	acc. to IEC 60068-2-6, test Tc
Shock Resistance	30 G / 18ms
	acc. to IEC 60068-2-27, test Ea
Tripping Type	Thermal
Actuation Type	Rocker
Weight	16.5 - 18.5g

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
_DVE	VDE Approvals	VDE	VDE Certificate Number: 40019754
c FL °us	UL Approvals	UL	UR File Number: E71572
(W)	CCC Approvals	ccc	CCC Certificate Number: 2024010307676639

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
<u>IEC</u>	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
(W)	Designed according to	GB 17701	Circuit-breaker for equipment

Application standards

Application standards where the product can be used

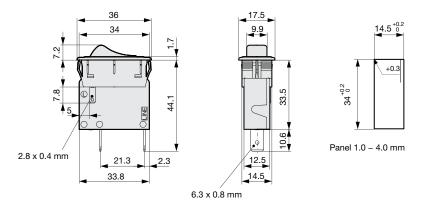
Organization	Design	Standard	Description
<u>IEC</u>	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

Compliances

The product complies with following Guide Lines

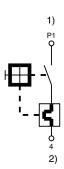
Identification	Details	Initiator	Description
C€	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
UK CA	UKCA declaration 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
5 1)	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]

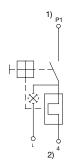


Diagrams

1-pole, 1 bimetal



1-pole, 1 bimetal, illuminated



1) Line, 2) Load Codepos AAA = CFT, CGT 1) Line, 2) Load Codepos AAA = C2F, C4F, C7F, C8F, C9F

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

Approval		Rated current	Rated Voltage AC	Rated Voltage DC
	UL 1077	0.0520 A	277 V	32 V
	CSA C22.2 235	0.0520 A	277 V	32 V
	IEC 60934	0.0520 A	240 V	32 V
	GB 17701	0.0520 A	240 V	32 V

Typical internal resistance per pole

Rated Current [A]	Internal Resistance [Ω]
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	

Effect of ambient temperature

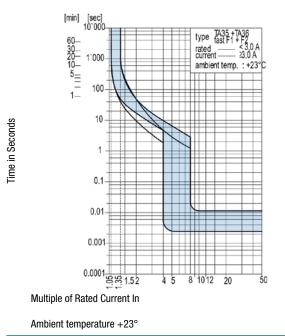
The units are calibrated for an ambient temperature of $+23^{\circ}$ C. To determine the rated current for a lower or higher ambient temperature, use a correction factor (typical value) from the table below:

Ambient Temperature [°C]	Correction factor
-30	0.77
-20	0.81
0	0.90
+23	1.00
+40	1.03
+50	1.04
+60	1.06

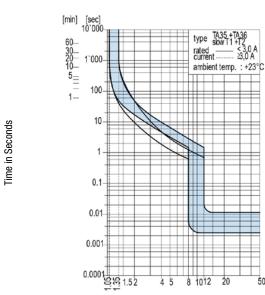
Example: Rated current = 5 A, Environmental temperature = $50 \, ^{\circ}\text{C}$ --> Correction factor = 1.04, Resulting current = $5.2 \, \text{A}$ --> Round to next higher rated current: $6 \, \text{A}$

Time-Current-Curves

Tripping Characteristics thermal magnetic fast acting



Tripping Characteristics thermal magnetic time lag



Multiple of Rated Current In

Ambient temperature +23°

Order number key



Basic function 3					Q 1
Poles	5	1	2	2	3
Thern	nal overload ction	P1	P1 P2	P1 P2	P1 P2 P3
Illumi	nation	F			4 5 6
Rock	er				
Witho	out illumination	CFT	CBT	CBD	CKD
	380400 V	-	-	-	CD1
	220240 V	C2F	C12	C32	-
$ \diamond \rangle$	110120 V	C4F	C14	C34	-
ΙY	2026 V	C7F	C17	C37	-
	1013 V	C8F	C18	C38	-
	47 V	C9F	C19	C39	-
Mom	entary				
Witho	out illumination	CGT	CET	CED	CLD

^{*} grey highlighted fields: configuration is not offered anymore

Front- & Actua	Q	2				
Front Bezel	ont 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	-	=	В		
black	green	-	=	G		
black	red	-	=	R		
black	white	-	=	W		
black	orange	-	=	Χ		
black	yellow	-	=	Υ		



Rocker legend, marking					
- 0	Embossed	=	F		
OPF	Printed white Printed black	= =	H K		
- 0	Printed white Printed black	= =	L M		

Rated o	urre	nt [A]						Q	4	,
Therma	hermal overload protection									
In		Q ₀	In	Q	In		Q	In	Q	
0.05 A	=	Z05	1.1 A	= J11	3.0 A	=	030	8.0 A	= 080	
0.10 A	=	J01	1.2 A	= J12	3.2 A	=	032	8.5 A =	= 085	
0.15 A	=	Z15	1.3 A	= J13	3.5 A	=	035	9.0 A =	= 090	
0.20 A	=	J02	1.4 A	= J14	3.7 A	=	037	10.0 A	= 100	
0.25 A	=	Z25	1.5 A	= J15	4.0 A	=	040	10.5 A =	= 105	
0.30 A	=	J03	1.6 A	= J16	4.2 A	=	042	11.0 A =	= 110	
0.35 A	=	Z35	1.7 A	= J17	4.5 A	=	045	11.5 A	= 115	
0.40 A	=	J04	1.8 A	= J18	4.7 A	=	047	12.0 A	= 120	
0.45 A	=	Z45	1.9 A	= J19	5.0 A	=	050	13.0 A* =	= 130	
0.50 A	=	J05	2.0 A	= J20	5.2 A	=	052	14.0 A* =	= 140	
0.60 A	=	J06	2.1 A	= J21	5.5 A	=	055	10.071	= 150	
0.70 A	=	J07	2.2 A	= J22	5.7 A	=	057	10.071	= 160	
0.80 A	=	J08	2.3 A	= J23	6.0 A	=	060	17.0 A* =	= 170	
0.90 A	=	J09	2.5 A	= J25	6.5 A	=	065	10.071	= 180	
1.00 A	=	J10	2.8 A	= J28	7.0 A	=	070	19.0 A* =	= 190	
					7.5 A	=	075	20.0 A* =	= 200	

(additional current ratings on request)

Q **Features** Standard, no other features C0

^{* 3-}Pole max. 12 A

CZM21



Special marking Standard	=	000	6
Special marking (XXX = placehoder)	=	XXX	
Accessories, factory-mounted (optional)		Q	7
No accessory	=	(blank)	

Transparent protection cover, 2-pole, IP65

Transparent protection cover with raised collar, 2-pole, IP65 CZM23

Raised collar, 2-pole, IP40 CZM24

Transparent antibacterial protection cover, 2-pole, IP65 CZM25

Variants

Basic function	Rocker colour	Legend	Rated current	Accessories	Config. Code	Order Number
1-pole, 1 bimetal, without illumination	White	black printed	2.0 A	Without cover	TA35-CFTWKJ20C0-000	4435.0029
1-pole, 1 bimetal, without illumination	White	embossed	3.0 A	Without cover	TA35-CFTWF030C0-000	4435.0019
1-pole, 1 bimetal, without illumination	White	black printed	3.0 A	Without cover	TA35-CFTWM030C0-000	4435.0082
1-pole, 1 bimetal, illuminated 120 V	Red transparent	white printed	3.0 A	Without cover	TA35-C4F3H030C0-000	4435.0431
1-pole, 1 bimetal, without illumination	Red	black printed	3.0 A	Without cover	TA35-CFTRM030C0-000	4435.0481
1-pole, 1 bimetal, without illumination	Black	embossed	4.0 A	Without cover	TA35-CFTBF040C0-000	4435.0028
1-pole, 1 bimetal, without illumination	Black	embossed	5.0 A	Without cover	TA35-CFTBF050C0-000	4435.0173
1-pole, 1 bimetal, without illumination	Black	white printed	5.0 A	Without cover	TA35-CFTBH050C0-000	4435.0204
1-pole, 1 bimetal, without illumination	Black	white printed	6.0 A	Without cover	TA35-CFTBH060C0-000	4435.0205
1-pole, 1 bimetal, without illumination	Red	embossed	10.0 A	Without cover	TA35-CFTRF100C0-000	4435.0056
1-pole, 1 bimetal, without illumination	Black	embossed	10.0 A	Without cover	TA35-CFTBF100C0-000	4435.0174
1-pole, 1 bimetal, momentary switch, without illumination	Black	embossed	10.0 A	Without cover	TA35-CGTBF100C0-000	4435.0471
1-pole, 1 bimetal, without illumination	White	embossed	13.0 A	Without cover	TA35-CFTWF130C0-000	4435.0049
1-pole, 1 bimetal, without illumination	White	embossed	15.0 A	Without cover	TA35-CFTWF150C0-000	4435.0037
1-pole, 1 bimetal, without illumination	Black	embossed	15.0 A	Without cover	TA35-CFTBF150C0-000	4435.0137
1-pole, 1 bimetal, without illumination	Black	white printed	16.0 A	Without cover	TA35-CFTBH160C0-000	4435.0209
1-pole, 1 bimetal, without illumination	Black	embossed	16.0 A	Without cover	TA35-CFTBF160C0-000	4435.0300
1-pole, 1 bimetal, without illumination	Black	white printed	20.0 A	Without cover	TA35-CFTBL200C0-000	4435.0256

Availability for all products can be searched real-time: https://www.schurter.com/en/info-center/support-tools/stock-check-distributors

Packaging Unit

20 Pcs

Accessories

Description



TA35_Accessories Screw-on collar with cover, IP65



OUR CERTIFICATE

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