

Circuit Breaker for Equipment thermal, Rotary knob actuation, 2 pole



Thermal circuit breaker
Rotary Switch, 2-pole
Standard version

See below:

Approvals and Compliances

Description

- Thermal circuit breaker ,
- 2-pole
- Supplementary protector for general industrial use
- Positively trip-free release
- Method of operation acc. to IEC: S-type
- Bezel / knob snap-on

Unique Selling Proposition

- Easy actuation with gloves

Applications

- Power tools
- Industrial appliances
- Equipment for construction
- Cleaning equipment
- Commercial and household kitchen appliances

References

Available without bezel/knob for customized front panel design

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	60 VDC
Rated current range AC	0.05 20 A
Conditional short circuit capacity Inc	IEC 60934: 0.05...20 A: 2 kA, SC (C1) @ 240 VAC
Degree of Protection	from front side IP40 from rear-side acc. to IEC 60529
Dielectric Strength	50Hz: > 2.5 kV Impulse 1.2/50 μ s: > 4 kV
Insulation Resistance	500VDC > 100 M Ω
Lifetime	mechanical 50'000 switching cycles AC: 1 x I _r , cos ϕ 0.6: 50'000 switching cycles DC: 1 x I _r : 50'000 switching cycles

Overload	IEC: min. 40 trips @ 6 x I _r , cos ϕ 0.6 : min. 50 trips @ 1.5 x I _r , cos ϕ 0.75
Allowable Operation Temp.	-30 °C to 60 °C
Vibration Resistance	$\pm$ 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 / 18 ms acc. to IEC 60068-2-27, test Ea
Tripping Type	Thermal
Actuation Type	Rotary Knob
Weight	60 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: TA35

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 40019754
	UL Approvals	UL	UL File Number: E71572
	CCC Approvals	CCC	CCC Certificate Number: 2020970307001846

Product standards

Product standards that are referenced

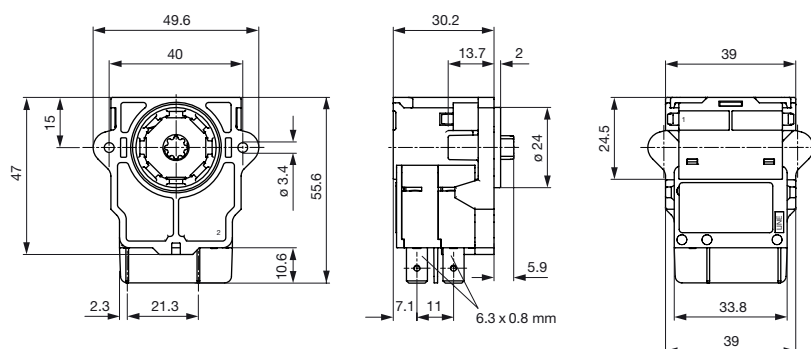
Organization	Design	Standard	Description
	Designed according to	IEC 60934	Circuit-breakers for equipment (CBE)
	Designed according to	UL 1077	Standard for Supplementary Protectors for Use in Electrical Equipment
	Designed according to	CSA C22.2 No. 235	Supplementary Protectors
	Designed according to	GB 17701	Circuit-breaker for equipment

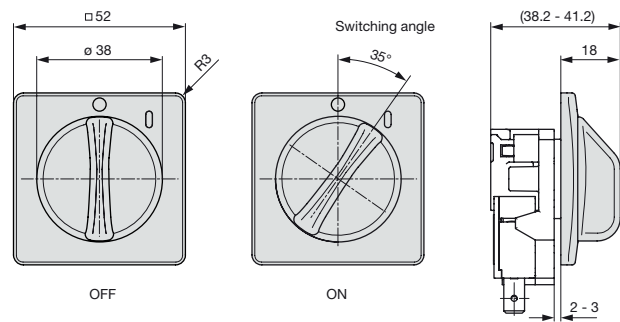
Compliances

The product complies with following Guide Lines

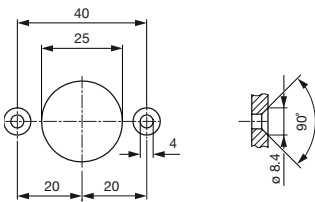
Identification	Details	Initiator	Description
	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
	RoHS	SCHURTER AG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





Cut out



Assembly Instructions



Approval		Rated current	Rated Voltage AC	Rated Voltage DC
	UL 1077	0.05...20 A	277 V	60 V
	CSA C22.2 235	0.05...20 A	277 V	60 V
	IEC 60934	0.05...20 A	240 V	60 V
	GB 17701	0.05...20 A	240 V	60 V

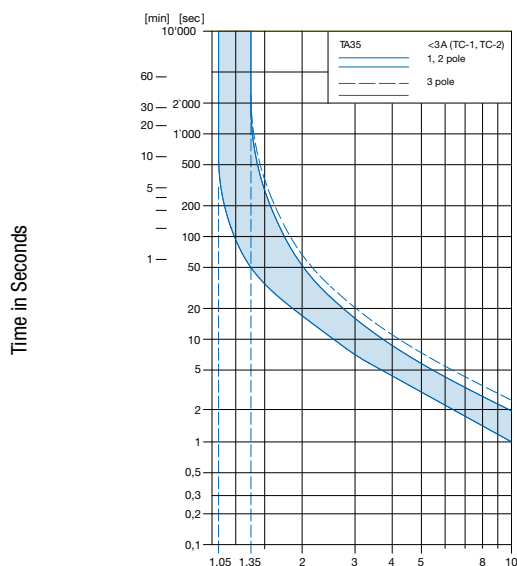
Typical internal resistance per pole

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

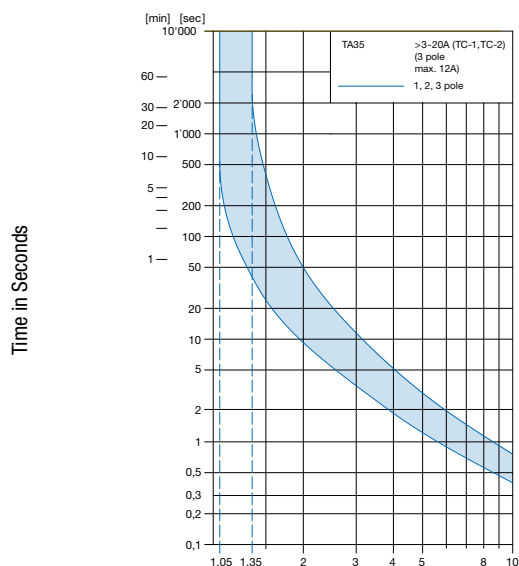
* 3-Pole max. 12 A

Time-Current-Curves

Tripping Characteristics $I_n < 3$ A



Tripping Characteristics $I_n 3 - 20$ A



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
-30	0.76
-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 °C --> Correction factor = 1.04, Resulting current = 5.2 A --> Fount to next higher rated current: 6 A

Configurations code

Number of switched poles Number of protected poles	1-pole 1	2-pole 1 2	3-pole 3	
Basic type	EFT	EBT	EBD	EKD

Other versions on request

TA35- **EBT** **T** **F** **120** **C0**

No other features

Frontbezel and actuation knob		
	Bezel	Knob
T	black	black
N	without bezel	without knob

Bezel marking		
	Surface	Symbol
F	relief recessed	I 0
N	no marking	no marking

With thermal overload protection: rated current I_n (A)

I_n	Code	I_n	Code	I_n	Code	I_n	Code
0.05	Z05	1.0	J10	4.0	040	14.0	140
0.1	J01	1.2	J12	5.0	050	15.0	150
0.2	J02	1.5	J15	6.0	060	16.0	160
0.3	J03	2.0	J20	7.0	070	18.0	180
0.4	J04	2.5	J25	8.0	080	20.0	200
0.5	J05	3.0	030	10.0	100		
0.8	J08	3.5	035	12.0	120		

Other rated currents on request.

All Variants

Designation	Order Number
TA35 Drehknopf 2Pol, 20 A, Snap-in version, Quick connect terminals 6.3 x 0.8 mm, 240 VAC, 2-pole, Circuit Breakers	4435.0074
TA35 Drehknopf 2Pol, 10 A, Snap-in version, Quick connect terminals 6.3 x 0.8 mm, 240 VAC, 2-pole, Circuit Breakers	4435.0086

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



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- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
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- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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