

Solid State, Thin Film, SMD 3220 Fuse for High Current Application



IEC 60127-7 · 125VAC · 125VDC · Quick-Acting F

See below:  
[Approvals and Compliances](#)

**Description**

- IEC Approved
- For high current applications
- Max. ambient temperature 125 °C
- Impermeable to potting compound used to achieve hermetic seal for use in intrinsically safe applications according to ATEX and IECEx requirements.

**Unique Selling Proposition**

- Sealed and robust construction
- High breaking capacity up to 1000 A
- Smallest size

**Applications**

- Applications where high reliability and availability is needed
- Avionics
- Medical Equipment
- Offshore
- Defense

**References**

Alternative: Space version

**Weblinks**

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

**Technical Data**

Rated Voltage	125VAC, 125VDC
Rated current	5 - 15 A
Breaking Capacity	200A - 1000A
Characteristic	Quick-Acting F
Mounting	PCB,SMT
Admissible Ambient Air Temp.	-50 °C to 125 °C
Climatic Category	55/125/56 acc. to IEC 60068-1
Material: Housing	Ceramics
Material: Terminals	Copper alloy, tin-plated
Unit Weight	0.8 g
Storage Conditions	0 °C to 60 °C, max. 70% r.h.
Product Marking	Variant Code, Certification marks

Soldering Methods	Reflow, Wave <a href="#">Soldering Profile</a>
Solderability	245 °C / 3 sec acc. to IEC 60068-2-58
Resistance to Soldering Heat	260 °C / 10sec acc. to IEC 60068-2-58, Test Td
Damp heat, steady state	IEC 60068-2-78 (40°C, 93% RH, 56 days)
Thermal Shock	IEC 60068-2-14 (200 air-to-air cycles from -55 to +150°C)
Operational Life	MIL-STD-202, Method 108 Condition F 2000h @ 0.8 x In @ 125°C
Vibration, High Frequency	IEC 60068-2-6 Shock 20 g, 20 min, 10-2000 Hz, 12 cyc.
Mechanical Shock	IEC 60068-2-27 (12 shocks, 1600 g, 0.5 ms)
Board Flex	EIA/IS-722, Test 4.5.5

**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: HCF

Approval Logo	Certificates	Certification Body	Description
	<a href="#">VDE Approvals</a>	VDE	VDE Certificate Number: 40046597
	<a href="#">UL Approvals</a>	UL	UR File Number: E41599


**Product standards**

Product standards that are referenced

Organization	Design	Standard	Description
	Designed according to	IEC 60127-7	Miniature fuses - Part 7: Miniature fuse-links for special applications
	Designed according to	UL 248-14	Low voltage fuses - Part 14: Additional fuses
	Designed according to	CSA22.2 No. 248.14	Low-Voltage Fuses - Part 14: Supplemental Fuses







**Application standards**

Application standards where the product can be used

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

**Compliances**

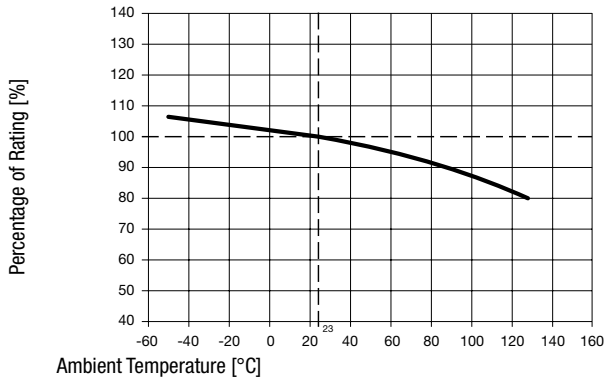
The product complies with following Guide Lines

Identification	Details	Initiator	Description
	<a href="#">CE declaration of conformity</a>	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.
	<a href="#">UKCA declaration of conformity</a>	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	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.
	Halogen Free	SCHURTER AG	SCHURTER strives to offer our customers halogen free products.
	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]**



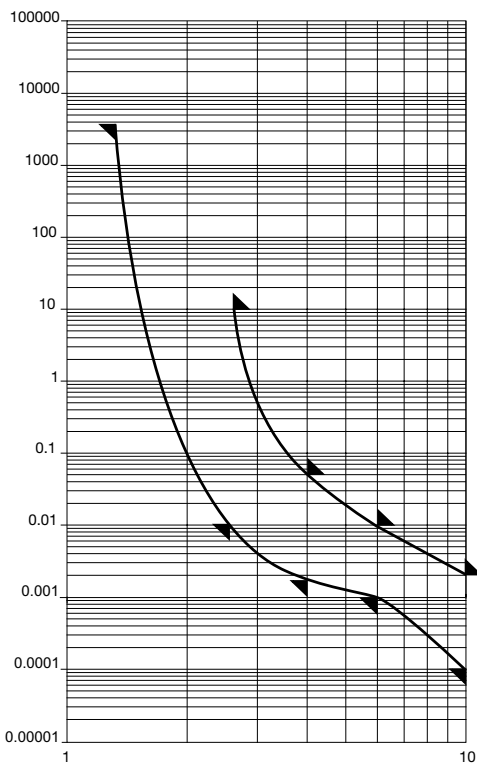
### Derating Curves



### Pre-Arcing Time

Rated Current I <sub>n</sub>	1.25 x I <sub>n</sub> min.	2.5 x I <sub>n</sub> min.	2.5 x I <sub>n</sub> max.	4.0 x I <sub>n</sub> min.	4.0 x I <sub>n</sub> max.	6.0 x I <sub>n</sub> min.	6.0 x I <sub>n</sub> max.	10.0 x I <sub>n</sub> min.	10.0 x I <sub>n</sub> max.
5 A - 15 A	> 1 h	10 ms	10 s	2 ms	50 ms	1 ms	10 ms	0.1 ms	2 ms

### Time-Current-Curves




### All Variants

Rated Current [A]	Rated Voltage [VAC]	Rated Voltage [VDC]	Breaking Capacity	Voltage Drop 1.0 I <sub>n</sub> typ. [mV]	Cold Resistance typ. [mΩ]	Melting I <sup>2</sup> t 10.0 I <sub>n</sub> typ. [A <sup>2</sup> s]		Order Number
5	125	125	1)	90	14.2	1.75	● ●	3-101-056
7.5	125	125	1)	90	9.5	5.6	● ●	3-101-050
10	125	125	1)	105	8.2	11	● ●	3-101-051
15	125	125	2)	86	4.3	28	● ●	3-101-062

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

1) 200 A @ 125 VAC, p.f. > 0.999 / 1000 A @ 125 VDC, L/R < 1 ms

Rated Current [A]	Rated Voltage [VAC]	Rated Voltage [VDC]	Breaking Capacity	Voltage Drop 1.0 I <sub>n</sub> typ. [mV]	Cold Resistance typ. [mΩ]	Melting I <sup>2</sup> t 10.0 I <sub>n</sub> typ. [A <sup>2</sup> s]		Order Number
-------------------	---------------------	---------------------	-------------------	---	------------------------------	--	---	--------------

2) 200 A @ 125 VAC, p.f. > 0.999 / 500 A @ 125 VDC, L/R < 1 ms

**Packaging Unit**

acc. IEC 60286-3 Type 2a

100 pcs. in Blister Tape [W: 16mm and P1: 8mm] on Reel [A: 18cm] in ESD Plastic Bag