

Miniature Fuse, 5 x 20 mm, Super-Time-Lag TT, NF, 220 VAC



NF C 93-435 · 220 VAC · Super-Time-Lag TT

See below:

[Approvals and Compliances](#)

### Description

- Low Breaking Capacity

### Weblinks

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

### Technical Data

|                              |                                           |
|------------------------------|-------------------------------------------|
| Rated Voltage                | 32 - 220 VAC                              |
| Rated current                | 0.031 - 15 A                              |
| Breaking Capacity            | 40 A - 100 A                              |
| Characteristic               | Super-Time-Lag TT                         |
| Mounting                     | Fuseholder / Clip                         |
| Admissible Ambient Air Temp. | -40 °C to 70 °C                           |
| Climatic Category            | 40/070/56 acc. to IEC 60068-1             |
| Material: Tube               | Glass                                     |
| Material: Endcaps            | Nickel-Plated Copper Alloy                |
| Unit Weight                  | 1.4 g                                     |
| Storage Conditions           | 0 °C to 60 °C, max. 70% r.h.              |
| Product Marking              | Type, HA20, Rated current, Characteristic |

|                         |                                              |
|-------------------------|----------------------------------------------|
| Resistance to Vibration | acc. to NF C 20-706 / IEC 60068-2-6, test Fc |
| Shocks                  | acc. to NF C 20-706 / IEC 60068-2-27         |
| Salt Mist               | acc. to NF C 20-711 / IEC 60068-2-11         |

### 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: D1TD

| Approval Logo                                                                       | Certificates                   | Certification Body | Description            |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------|------------------------|
|  | <a href="#">UL Approvals</a>   | UL                 | UL File Number: E42088 |
|  | <a href="#">LCIE Approvals</a> | LCIE               | Norme française        |

### Product standards

Product standards that are referenced

| Organization                                                                        | Design                | Standard  | Description                                   |
|-------------------------------------------------------------------------------------|-----------------------|-----------|-----------------------------------------------|
|  | Designed according to | UL 248-14 | Low voltage fuses - Part 14: Additional fuses |

Application standards

Application standards where the product can be used

| Organization                                                                     | Design                         | Standard       | Description                                                                                                          |
|----------------------------------------------------------------------------------|--------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------|
|  | Designed for applications acc. | IEC/UL 62368-1 | IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment. |

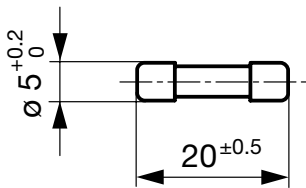
Compliances

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. |
|  | 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]

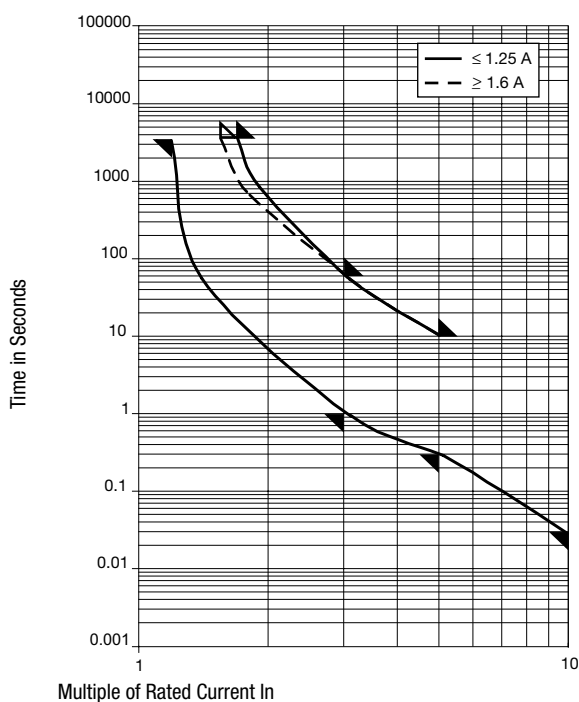
20 mm



Pre-Arcing Time

| Rated Current $I_n$ | $1.1 \times I_n$ min. | $2.0 \times I_n$ max. | $2.1 \times I_n$ max. | $3.0 \times I_n$ min. | $3.0 \times I_n$ max. | $5.0 \times I_n$ min. | $5.0 \times I_n$ max. | $10.0 \times I_n$ min. |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| 0.031 A - 1.25 A    | -                     | 10 min                | -                     | 1 s                   | 60 s                  | 300 ms                | 10 s                  | 30 ms                  |
| 1.6 A - 15 A        | -                     | -                     | 10 min                | 1 s                   | 60 s                  | 300 ms                | 10 s                  | 30 ms                  |

## Time-Current-Curves



## All Variants

| Rated Current [A] | Rated Voltage [VAC] | Breaking Capacity | Voltage Drop 1.0 $I_n$ typ. [mV] | Power Dissipation 1.1 $I_n$ typ. [mW] | Melting I <sup>2</sup> t 10.0 $I_n$ typ. [A <sup>2</sup> s] |   GAM T1 NNO | Order Number |
|-------------------|---------------------|-------------------|----------------------------------|---------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 0.031             | 220                 | 1)                | 3850                             | 145                                   | 0.079                                                       | ●                                                                                                                                                                                  | 7030.3110    |
| 0.04              | 220                 | 1)                | 3150                             | 155                                   | 0.2                                                         | ●                                                                                                                                                                                  | 7030.3120    |
| 0.05              | 220                 | 1)                | 2600                             | 160                                   | 0.22                                                        | ● ●                                                                                                                                                                                | 7030.3130    |
| 0.063             | 220                 | 1)                | 2000                             | 155                                   | 0.35                                                        | ● ●                                                                                                                                                                                | 7030.3140    |
| 0.08              | 220                 | 1)                | 1850                             | 180                                   | 0.26                                                        | ● ●                                                                                                                                                                                | 7030.3150    |
| 0.1               | 220                 | 1)                | 1600                             | 190                                   | 0.028                                                       | ● ●                                                                                                                                                                                | 7030.3210    |
| 0.16              | 220                 | 2)                | 745                              | 150                                   | 0.2                                                         | ● ●                                                                                                                                                                                | 7030.3230    |
| 0.2               | 220                 | 2)                | 715                              | 180                                   | 0.39                                                        | ● ●                                                                                                                                                                                | 7030.3240    |
| 0.25              | 220                 | 2)                | 480                              | 150                                   | 0.4                                                         | ● ●                                                                                                                                                                                | 7030.3250    |
| 0.31              | 220                 | 2)                | 870                              | 340                                   | 0.21                                                        | ● ●                                                                                                                                                                                | 7030.3260    |
| 0.4               | 220                 | 2)                | 665                              | 340                                   | 0.64                                                        | ● ●                                                                                                                                                                                | 7030.3270    |
| 0.5               | 220                 | 2)                | 555                              | 360                                   | 1                                                           | ● ●                                                                                                                                                                                | 7030.3280    |
| 0.63              | 220                 | 2)                | 460                              | 370                                   | 1.6                                                         | ● ●                                                                                                                                                                                | 7030.3290    |
| 0.8               | 220                 | 2)                | 365                              | 370                                   | 4.2                                                         | ● ●                                                                                                                                                                                | 7030.3310    |
| 1                 | 220                 | 2)                | 295                              | 365                                   | 9                                                           | ● ●                                                                                                                                                                                | 7030.3320    |
| 1.25              | 220                 | 2)                | 300                              | 465                                   | 7.1                                                         | ● ●                                                                                                                                                                                | 7030.3330    |
| 1.6               | 125                 | 3)                | 280                              | 535                                   | 22                                                          | ● ●                                                                                                                                                                                | 7040.3110    |
| 2                 | 125                 | 3)                | 245                              | 595                                   | 43                                                          | ● ●                                                                                                                                                                                | 7040.3120    |
| 2.5               | 125                 | 3)                | 210                              | 630                                   | 128                                                         | ● ●                                                                                                                                                                                | 7040.3130    |
| 3.15              | 125                 | 3)                | 160                              | 615                                   | 370                                                         | ● ●                                                                                                                                                                                | 7040.3140    |
| 4                 | 125                 | 4)                | 165                              | 790                                   | 260                                                         | ● ●                                                                                                                                                                                | 7040.3150    |
| 5                 | 125                 | 4)                | 175                              | 1100                                  | 440                                                         | ● ●                                                                                                                                                                                | 7040.3160    |
| 6.3               | 125                 | 4)                | 105                              | 775                                   | 800                                                         | ● ●                                                                                                                                                                                | 7040.3170    |
| 8                 | 125                 | 5)                | 105                              | 1000                                  | 1400                                                        | ●                                                                                                                                                                                  | 7040.3180    |
| 10                | 125                 | 5)                | 90                               | 1050                                  | 2200                                                        | ●                                                                                                                                                                                  | 7040.3190    |
| 12.5              | 32                  | 6)                | 55                               | 795                                   | 890                                                         |                                                                                                                                                                                    | 7040.3200    |
| 15                | 32                  | 6)                | 45                               | 745                                   | 3400                                                        |                                                                                                                                                                                    | 7040.3210    |

Most Popular.

| Rated Cur-<br>rent [A] | Rated Vol-<br>tage [VAC] | Breaking<br>Capacity | Voltage Drop<br>1.0 I <sub>n</sub> typ.<br>[mV] | Power Dissi-<br>pation 1.1 I <sub>n</sub><br>typ. [mW] | Melting I <sup>2</sup> t<br>10.0 I <sub>n</sub> typ.<br>[A <sup>2</sup> s] |   GAM<br>T1 NNO | Order Number |
|------------------------|--------------------------|----------------------|-------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|------------------------|--------------------------|----------------------|-------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|

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

- 1) NF: 60 A @ 220 VAC , p.f. = 1.0
- 1) UL: 4000 A @ 125 VAC , p.f. ≥ 0.9 / 4000 A @ 125 VDC , L/R = 5 ms
- 2) NF: 60 A @ 220 VAC , p.f. = 1.0
- 2) UL: 50 A @ 125 VAC , p.f. = 1.0 / 50 A @ 125 VDC , L/R = 5 ms
- 3) NF: 40 A @ 125 VAC , p.f. = 0.7 - 0.8
- 3) UL: 100 A @ 125 VAC , p.f. ≥ 0.9
- 4) NF: 40 A @ 125 VAC , p.f. = 0.7 - 0.8
- 4) UL: 50 A @ 125 VAC , p.f. ≥ 0.9
- 5) UL: 50 @ 125 VAC , p.f. ≥ 0.9
- 6) 100 A @ 32 VAC , p.f. ≥ 0.9

|                |                          |
|----------------|--------------------------|
| Packaging Unit | Small Box Pack (10 pcs.) |
|----------------|--------------------------|



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- 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;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- 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

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.