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**Miniature fuses –
Part 1: Definitions for miniature fuses and general requirements for miniature
fuse-links**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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REDLINE VERSION



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MINIATURE FUSES –

Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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This consolidated version of the official IEC Standard and its amendments has been prepared for user convenience.

IEC 60127-1 edition 2.2 contains the second edition (2006-06) [documents 32C/387/FDIS and 32C/390/RVD], its amendment 1 (2011-04) [documents 32C/436/CDV and 32C/438/RVC] and its amendment 2 (2015-02) [documents 32C/490/CDV and 32C/505/RVC].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendments 1 and 2. Additions and deletions are displayed in red, with deletions being struck through. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 60127-1 has been prepared by subcommittee 32C: Miniature fuses, of IEC technical committee 32: Fuses.

The major technical changes with regard to the first edition concern subclause 9.2.3 where the nature of the current source has been clarified; in addition, IEC 60038: *IEC standard voltages*, has been added to the list of normative references.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This Part 1 of the IEC 60127 series covers definitions, general requirements and tests applicable to all types of miniature fuses (e.g. cartridge fuse-links, sub-miniature fuse-links and universal modular fuse-links). All subsequent parts of the complete series should be read in conjunction with this Part 1.

IEC 60127 consists of the following parts, under the general heading *Miniature fuses*:

- Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links
- Part 2: Cartridge fuse-links
- Part 3: Sub-miniature fuse-links
- Part 4: Universal modular fuse-links (UMF) – Through-hole and surface mount types
- Part 5: Guidelines for quality assessment of miniature fuse-links
- Part 6: Fuse-holders for miniature fuse-links
- Part 7: (Free for further documents)
- Part 8: (Free for further documents)
- Part 9: (Free for further documents)
- Part 10: User guide for miniature fuses

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

MINIATURE FUSES –

Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links

1 Scope and object

This part of IEC 60127 covers the general requirements and tests applicable to all types of miniature fuse-links (e.g. cartridge fuse-links, sub-miniature fuse-links and universal modular fuse-links) for the protection of electric appliances, electronic equipment and component parts thereof normally intended to be used indoors.

This standard does not apply to fuses intended for the protection of low-voltage electrical installations. These are covered by IEC 60269, *Low Voltage Fuses*.

Specific details covering each major subdivision are given in subsequent parts.

This standard does not apply to fuses for appliances intended to be used under special conditions, such as in a corrosive or explosive atmosphere.

The object of this standard is

- a) to establish uniform requirements for miniature fuses so as to protect appliances or parts of appliances in the most suitable way,
- b) to define the performance of the fuses, so as to give guidance to designers of electrical appliances and electronic equipment and to ensure replacement of fuse-links by those of similar dimensions and characteristics,
- c) to define methods of testing,
- d) to define maximum sustained dissipation of fuse-links to ensure good compatibility of stated power acceptance when used with fuse-holders according to this standard (see IEC 60127-6).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60038, *IEC standard voltages*

IEC 60127-6:1994, *Miniature fuses – Part 6: Fuse-holders for miniature fuse-links*
Amendment 1 (1996)
Amendment 2 (2003)

FINAL VERSION

**Miniature fuses –
Part 1: Definitions for miniature fuses and general requirements for miniature
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