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I.S. EN 60127-1:2006&A1:2011&A2:2015

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

I.S. EN 60127-1:2006&A1:2011&A2:2015

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EN 60127-1:2006/A2:2015

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EUROPEAN STANDARD

EN 60127-1:2006/A2

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2015

ICS 29.120.50

English Version

**Miniature fuses - Part 1: Definitions for miniature fuses and
general requirements for miniature fuse-links
(IEC 60127-1:2006/A2:2015)**

Coupe-circuit miniatures - Partie 1: Définitions pour coupe-circuit miniatures et prescriptions générales pour éléments de remplacement miniatures
(IEC 60127-1:2006/A2:2015)

Geräteschutzsicherungen - Teil 1: Begriffe für die Geräteschutzsicherungen und allgemeine Anforderungen an G-Sicherungseinsätze
(IEC 60127-1:2006/A2:2015)

This amendment A2 modifies the European Standard EN 60127-1:2006; it was approved by CENELEC on 2015-03-25. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

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This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

The text of document 32C/490/CDV, future IEC 60127-1:2006/A2, prepared by SC 32C "Miniature fuses" of IEC/TC 32 "Fuses" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60127-1:2006/A2:2015.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-12-25
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-03-25

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Endorsement notice

The text of the International Standard IEC 60127-1:2006/A2:2015 was approved by CENELEC as a European Standard without any modification.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60127-1/A1

June 2011

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English version

**Miniature fuses -
Part 1: Definitions for miniature fuses and general requirements for
miniature fuse-links
(IEC 60127-1:2006/A1:2011)**

Coupe-circuit miniatures -
Partie 1: Définitions pour coupe-circuit
miniatures et prescriptions générales pour
éléments de remplacement miniatures
(CEI 60127-1:2006/A1:2011)

Geräteschutzsicherungen -
Teil 1: Begriffe für
Geräteschutzsicherungen und allgemeine
Anforderungen an G-Sicherungseinsätze
(IEC 60127-1:2006/A1:2011)

This amendment A1 modifies the European Standard EN 60127-1:2006; it was approved by CENELEC on 2011-05-25. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 32C/436/CDV, future amendment 1 to IEC 60127-1:2006, prepared by SC 32C, Miniature fuses, of IEC TC 32, Fuses, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60127-1:2006 on 2011-05-25.

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The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-02-25
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2014-05-25

Endorsement notice

The text of amendment 1:2011 to the International Standard IEC 60127-1:2006 was approved by CENELEC as an amendment to the European Standard without any modification.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60127-1

July 2006

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Supersedes EN 60127-1:1991 + A1:1999 + A2:2003

English version

Miniature fuses
Part 1: Definitions for miniature fuses and
general requirements for miniature fuse-links
(IEC 60127-1:2006)

Coupe-circuit miniatures
Partie 1: Définitions pour coupe-circuit
miniatures et prescriptions générales pour
éléments de remplacement miniatures
(CEI 60127-1:2006)

Geräteschutzsicherungen
Teil 1: Begriffe für
Geräteschutzsicherungen und
allgemeine Anforderungen an
G-Sicherungseinsätze
(IEC 60127-1:2006)

This European Standard was approved by CENELEC on 2006-07-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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This European Standard exists in two official versions (English and German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 32C/387/FDIS, future edition 2 of IEC 60127-1, prepared by SC 32C, Miniature fuses, of IEC TC 32, Fuses, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60127-1 on 2006-07-01.

This European Standard supersedes EN 60127-1:1991 + A1:1999 + A2:2003.

The major technical changes 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.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2007-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-07-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60127-1:2006 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60062 NOTE Harmonized as EN 60062:2005 (not modified).

Annex ZA

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60038 (mod)	- ¹⁾	IEC standard voltages ²⁾	HD 472 S1 + corr. February + A1	1989 ³⁾ 2002 1995
IEC 60127-6 + A1 + A2	1994 1996 2002	Miniature fuses Part 6: Fuse-holders for miniature fuse-links	EN 60127-6 + A1 + A2	1994 1996 2003

¹⁾ Undated reference.

²⁾ The title of HD 472 S1 is: Nominal voltages for low voltage public electricity supply systems.

³⁾ Valid edition at date of issue.

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INTERNATIONAL STANDARD

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60127-1

Second edition
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Miniature fuses –

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



Reference number
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INTERNATIONAL STANDARD

IEC 60127-1

Second edition
2006-06

Miniature fuses –

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

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

This second edition cancels and replaces the first edition (1988), together with amendment 1 (1999) and amendment 2 (2002), and constitutes a technical revision.

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.

The text of this standard is based on the following documents:

FDIS	Report on voting
32C/387/FDIS	32C/390/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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 this publication will remain unchanged until the maintenance result 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.

A bilingual version of this publication may be issued at a later date.

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.

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)

3 Terms and definitions

For the purposes of this document, the following definitions apply.

3.1 fuse

device that, by the fusing of one or more of its specially designed and proportioned components, opens the circuit in which it is inserted by breaking the current when this exceeds a given value for a sufficient time

NOTE The fuse comprises all the parts that form the complete device.

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