SLOVENSKI STANDARD

SIST EN 60127-1:2007

januar 2007

Miniaturne varovalke - 1. del: Definicije za miniaturne varovalke in splošne zahteve za miniaturne taljive vložke (IEC 60127-1:2006)

(istoveten EN 60127-1:2006)

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

ICS 29.120.50

Referenčna številka
SIST EN 60127-1:2007(en)

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60127-1

July 2006

ICS 29.120.50

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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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

Ref. No. EN 60127-1:2006 E

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.

Publication	Year	Title	EN/HD	Year
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.

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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Commission Electrotechnique Internationale
International Electrotechnical Commission
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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.

3.2
miniature fuse
fuse in which the fuse-link is a miniature fuse-link

3.3
fuse-link
part of a fuse including the fuse-element(s) intended to be replaced after the fuse has operated

3.4
enclosed fuse-link
fuse-link in which the fuse-element is totally enclosed, so that during operation within its rating it cannot produce any harmful external effects, e.g. due to development of an arc, the release of gas or the ejection of flame or metallic particles

3.5
miniature fuse-link
enclosed fuse-link of rated breaking capacity not exceeding 2 kA and which has at least one of its principal dimensions not exceeding 10 mm

NOTE Principal dimensions are length, width, height and diameter.

3.6
sub-miniature fuse-link
miniature fuse-link of which the case (body) has no principal dimension exceeding 10 mm

NOTE Principal dimensions are length, width, height and diameter.

3.7
universal modular fuse-link
miniature fuse-link primarily adapted for direct electrical connection to printed circuit boards or other conductive substrates, incorporating features designed to provide a degree of non-interchangeability where necessary

3.8
fuse-link contact
conductive part of a fuse-link designed to engage with a fuse-base contact or with a fuse-carrier contact

3.9
fuse-holder
combination of a fuse-base with its fuse-carrier

3.10
fuse-base
fuse-mount
fixed part of a fuse provided with contacts and terminals for connection to the system

3.11
fuse-base contact
fuse-mount contact
conductive part of a fuse-base, connected to a terminal designed to engage with a fuse-carrier contact or with a fuse-link contact

3.12
fuse-carrier
movable part of a fuse designed to carry a fuse-link