
Miniature fuses - Part 2: Cartridge fuse-links (IEC 60127-2:2003)

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EUROPEAN STANDARD

EN 60127-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2003

ICS 29.120.50

Supersedes EN 60127-2:1991 + A1:1995 + A2:2000

English version

Miniature fuses
Part 2: Cartridge fuse-links
(IEC 60127-2:2003)

Coupe-circuit miniatures
Partie 2: Cartouches
(CEI 60127-2:2003)

Geräteschutzsicherungen
Teil 2: Sicherungseinsätze
(IEC 60127-2:2003)

This European Standard was approved by CENELEC on 2003-03-18. 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 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 Central Secretariat has the same status as the official versions.

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

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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/326/FDIS, future edition 2 of IEC 60127-2, 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 60127-2 on 2003-03-18.

This European Standard should be read in conjunction with EN 60127-1:1991.

This European Standard supersedes EN 60127-2:1991 + A1:1995 + corrigendum May 1996 + A2:2000.

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) 2003-12-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2006-03-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annexes A and ZA are normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60127-2:2003 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60068-2-20	1979	Basic environmental testing procedures Part 2: Tests - Test T: Soldering	HD 323.2.20 S3 ¹⁾	1988
IEC 60068-2-21	1999	Environmental testing Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices	EN 60068-2-21	1999
IEC 60127-1 + corr. March	1988 1990	Miniature fuses Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links	EN 60127-1	1991
A1	1999		A1	1999
IEC 60249-2-5	1987	Base materials for printed circuits Part 2: Specifications - Specification No. 5: Epoxide woven glass fabric copper-clad laminated sheet of defined flammability (vertical burning test)	EN 60249-2-5 ²⁾ + corr. March	1994 1994
ISO 3	1973	Preferred numbers - Series of preferred numbers	-	-

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¹⁾ HD 323.2.20 S3 includes A2:1987 to IEC 60068-2-20.

²⁾ EN 60249-2-5 includes A2:1992 to IEC 60249-2-5.

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

60127-2

Deuxième édition
Second edition
2003-01

Coupe-circuit miniatures –

**Partie 2:
Cartouches**

Miniature fuses –

**Part 2:
Cartridge fuse-links**

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International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

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*Pour prix, voir catalogue en vigueur
For price, see current catalogue*

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MINIATURE FUSES –

Part 2: Cartridge fuse-links

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60127-2 has been prepared by subcommittee 32C: Miniature fuses, of IEC technical committee 32: Fuses.

This second edition cancels and replaces the first edition, published in 1989, together with amendment 1 (1995) and amendment 2 (2000) and constitutes a technical revision.

The major changes are as follows:

- Addition of Standard Sheet 6: Enhanced breaking capacity fuse-links 5 mm × 20 mm
- Addition of Annex A: Miniature (fuse-links with wire terminations)
- Addition of homogeneous series testing.

SIST EN 60127-2:2004

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

FDIS	Report on voting
32C/326/FDIS	32C/333/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 standard should be read in conjunction with IEC 60127-1 (hereinafter referred to as Part 1).

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

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2003. At this date, the publication will be

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

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INTRODUCTION

According to the wish expressed by the users of miniature fuses, all standards, recommendations and other documents relating to miniature fuses should have the same publication number in order to facilitate reference to fuses in other specifications, for example, equipment specifications.

Furthermore, a single publication number and subdivision into parts would facilitate the establishment of new standards, because Clauses containing general requirements need not be repeated.

The new IEC 60127 series, under the general heading *Miniature fuses*, is thus subdivided as follows:

IEC 60127-1:1988, *Miniature fuses – Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links*

IEC 60127-2:2002, *Miniature fuses – Part 2: Cartridge fuse-links*

IEC 60127-3, *Miniature fuses – Part 3: Sub-miniature fuse-links*

IEC 60127-4, *Miniature fuses – Part 4: Universal modular fuse-links*

IEC 60127-5, *Miniature fuses – Part 5: Guidelines for quality assessment of miniature fuse-links*

IEC 60127-6, *Miniature fuses – Part 6: Fuse-holders for miniature fuse-links*

IEC 60127-7, (Free for further documents)

IEC 60127-8, (Free for further documents)

IEC 60127-9, (Free for further documents)

IEC 60127-10, *Miniature fuses – Part 10: User guide*

This Part 2 covers additional requirements, test equipment and standard sheets.

The SI system of units is used throughout this standard.

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MINIATURE FUSES –

Part 2: Cartridge fuse-links

1 Scope and object

This part of IEC 60127 relates to special requirements applicable to cartridge fuse-links for miniature fuses with dimensions measuring 5 mm × 20 mm and 6,3 mm × 32 mm for the protection of electric appliances, electronic equipment and component parts thereof, normally intended for use indoors.

It does not apply to fuses for appliances intended to be used under special conditions, such as in corrosive or explosive atmospheres.

This standard applies in addition to the requirements of Part 1.

The object of this standard is to define special and additional test methods for cartridge fuse-links applying in addition to the requirements of Part 1.

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 60068-2-20:1979, *Environmental testing – Part 2: Tests – Test T: Soldering*

IEC 60068-2-21:1999, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60127-1:1988, *Miniature fuses – Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links*¹
Amendment 1 (1999)

IEC 60249-2-5:1987, *Base materials for printed circuits – Part 2: Specifications – Specification No. 5: Epoxide woven glass fabric copper-clad laminated sheet of defined flammability (vertical burning test)*

ISO 3:1973, *Preferred numbers – Series of preferred numbers*
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3 Definitions

For the purposes of this part of IEC 60127, the definitions contained in Clause 3 of Part 1 apply.

¹ There is a consolidated edition 1.1 (1999) including IEC 60127-1 (1988) and Amendment 1 (1999).