



**SLOVENSKI STANDARD**  
**SIST EN 60127-1:1995**  
**01-december-1995**

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

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

Geräteschutzsicherungen -- Teil 1: Begriffe für Geräteschutzsicherungen und allgemeine Anforderungen an G-Sicherungseinsätze

Coupe-circuit miniatures -- Partie 1: Définitions pour coupe-circuit miniatures et prescriptions générales pour éléments de remplacement miniatures

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**Ta slovenski standard je istoveten z: EN 60127-1:1991**

**ICS:**

29.120.50	Xæ[ çæ\ ^Á\ Ái\ * æ { ^âç \ [ ç} æÁ æz ææ	Fuses and other overcurrent protection devices
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EUROPEAN STANDARD

EN 60127-1

NORME EUROPEENNE

EUROPÄISCHE NORM

March 1991

UDC 621.316.923-18

Supersedes HD 109.1 S1:1989

Descriptors: Miniature fuse, fuse-link, specification, rated characteristic, marking, construction, test, colour coding

## ENGLISH VERSION

## MINIATURE FUSES

PART 1: DEFINITIONS FOR MINIATURE FUSES AND  
GENERAL REQUIREMENTS FOR MINIATURE FUSE-LINKS  
(IEC 127-1:1988)

Coupe-circuit miniatures  
Première partie: Définitions pour  
coupe-circuit miniatures et  
prescriptions générales pour  
éléments de remplacement miniatures  
(CEI 127-1:1988)

Geräteschutzsicherungen  
Teil 1: Begriffe für die  
Geräteschutzsicherungen und  
allgemeine Anforderungen an  
G-Sicherungseinsätze  
(IEC 127-1:1988)

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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,  
Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg,  
Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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

### FOREWORD

The CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 127-1:1988, as corrected by corrigendum March 1990, could be accepted without textual changes, has shown that no CENELEC common modifications were necessary for the acceptance as European Standard. The reference document was submitted to the CENELEC members for formal vote and was approved by CENELEC as EN 60127-1 on 1 February 1991.

The following dates were fixed:

- latest date of announcement  
of the EN at national level (doa) 1991-09-01
- latest date of publication of  
an identical national standard (dop) 1992-03-01
- latest date of withdrawal of  
conflicting national standards (dow) 1992-03-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, annex ZA is normative.

For products which have complied with the HD 109.1 S1:1989 before 1992-03-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1997-03-01.

### ENDORSEMENT NOTICE

The text of the International Standard IEC 127-1:1988 with its corrigendum March 1990 was approved by CENELEC as a European Standard without any modification.

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## ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD  
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

<u>IEC Publication</u>	<u>Date</u>	<u>Title</u>	<u>EN/HD</u>	<u>Date</u>
62	1974	Marking codes for resistors and capacitors	HD 334 S1*	1977
257	1968	Fuse-holders for miniature cartridge fuse-links	HD 119 S1*	1974
425	1973	Guide for the choice of colours to be used for the marking of capacitors and resistors	-	-

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\* superseded by:

62:1974 + A1:1988	Marking codes for resistors and capacitors	HD 334 S2:1989
257:1968 + A1:1980 + A2:1989	Fuse-holders for miniature cartridge fuse-links	EN 60257:1990

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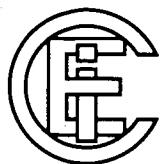
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# NORME INTERNATIONALE INTERNATIONAL STANDARD

CEI  
IEC  
127-1

Première édition  
First edition  
1988



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

## Coupe-circuit miniatures

Première partie: Définitions pour coupe-circuit  
miniatures et prescriptions générales pour éléments  
de remplacement miniatures

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## 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 formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.
- 4) The IEC has not laid down any procedure concerning marking as an indication of approval and has no responsibility when an item of equipment is declared to comply with one of its recommendations.

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 PREFACE

This standard has been prepared by Sub-Committee 32C: Miniature fuses, of IEC Technical Committee No. 32: Fuses. It forms Part 1 of IEC 127.

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

Six Months' Rule	Reports on Voting
32C(C0)43 32C(C0)46	32C(C0)54 32C(C0)56

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

The following IEC publications are quoted in this standard:

Publications Nos. 62 (1974): Marking codes for resistors and capacitors.

257 (1968): Fuse-holders for miniature cartridge fuse-links.

425 (1973): Guide for the choice of colours to be used for the marking of capacitors and resistors.

## MINIATURE FUSES

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

#### INTRODUCTION

The users of miniature fuses express the wish that 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 paragraphs containing general requirements need not be repeated.

The new IEC 127 series is thus divided as follows:

- IEC 127: Miniature fuses (general title).
- IEC 127-1, Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links.
- IEC 127-2, Part 2: Cartridge fuse-links.
- IEC 127-3, Part 3: Sub-miniature fuse-links.
- IEC 127-4, Part 4: Universal modular fuse-links.
- IEC 127-5, Part 5: Guidelines for quality assessment of miniature fuse-links.
- IEC 127-6, Part 6: Fuse-holders (until now IEC 257).
- IEC 127-7: (Free for further documents.)
- IEC 127-8: (Free for further documents.)
- IEC 127-9, Part 9: Test-holders and test-circuits.
- IEC 127-10, Part 10: User guide.

The first part of the complete standard covers the general requirements and tests applicable to all types of miniature fuses (e.g., cartridge fuse-links, sub-miniature fuses, universal modular fuses).

The SI system of units is used throughout this standard.

## 1. Scope

This standard relates to miniature fuses for the protection of electric appliances, electronic equipment and component parts thereof normally intended to be used indoors.

It relates to general requirements applicable to all fuses which fall under the category of miniature fuses. Specific details covering each major subdivision are given in subsequent parts.

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

## 2. Object

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 tests
- 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 127-6).

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## 3. Definitions

The following definitions apply for the purpose of this standard.

### 3.1 Fuse

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

### 3.2 Miniature fuse

A fuse in which the fuse-link is a miniature fuse-link.

### 3.3 Fuse-link

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

### 3.4 Enclosed fuse-link

A 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

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

*Note.* - Principal dimensions are length, width, height and diameter.

### 3.6 Sub-miniature fuse-link

A 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

A 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

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

### 3.9 Fuse-holder

The combination of a fuse-base with its fuse-carrier.

### 3.10 Fuse-base (fuse-mount)

The fixed part of a fuse provided with contacts and terminals for connection to the system.

### 3.11 Fuse-base contact (fuse-mount contact)

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