



SLOVENSKI STANDARD

SIST EN 60127-6:1995

01-december-1995

Miniature fuses - Part 6: Fuse-holders for miniature cartridge fuse-links (IEC 127-6:1994)

Miniature fuses -- Part 6: Fuse-holders for miniature fuse-links

Geräteschutzsicherungen -- Teil 6: G-Sicherungshalter für G-Sicherungseinsätze

Coupe-circuit miniatures -- Partie 6: Ensembles-porteurs pour éléments de remplacement miniatures

STANDARD PREVIEW
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Ta slovenski standard je istoveten z: **EN 60127-6:1994**

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ICS:

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Varovalke in druga
medtokovna zaščita

Fuses and other overcurrent
protection devices

SIST EN 60127-6:1995

en

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EUROPEAN STANDARD

EN 60127-6

NORME EUROPEENNE

EUROPÄISCHE NORM

May 1994

UDC 621.316.923-218

Supersedes EN 60257:1990

Descriptors: Fuse-holders for miniature cartridge fuse-links,
requirements, tests, samples

ENGLISH VERSION

Miniature fuses
Part 6: Fuse-holders for miniature cartridge
fuse-links
(IEC 127-6:1994)

Coupe-circuit miniatures
Partie 6: Ensembles-porteurs
pour cartouches de coupe-circuit
miniatures
(CEI 127-6:1994)

Geräteschutzsicherungen
Teil 6: G-Sicherungshalter für
G-Sicherungseinsätze
(IEC 127-6:1994)

iTeh STANDARD PREVIEW

This European Standard was approved by CENELEC on 1993-07-06.
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 text of documents 32C(CO)71 and 71A, as prepared by Sub-Committee 32C: Miniature fuses, of IEC Technical Committee 32: Fuses, was submitted to the IEC-CENELEC parallel vote in August 1992.

The reference document was approved by CENELEC as EN 60127-6 on 6 July 1993.

This European Standard replaces EN 60257:1990.

The following dates were fixed:

- latest date of publication of
an identical national standard (dop) 1995-04-01
- latest date of withdrawal of
conflicting national standards (dow) 1995-04-01

For products which have complied with EN 60257:1990 before 1995-04-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2000-04-01.

Annexes designated "normative" are part of the body of the standard. Annexes designated "informative" are given only for information. In this standard, annexes A, B and ZA are normative and annexes C, D and E are informative.

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ENDORSEMENT NOTICE

The text of the International Standard IEC 127-6:1994 was approved by CENELEC as a European Standard without any modification.

ANNEX ZA (normative)

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

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

IEC Publication	Date	Title	EN/HD	Date
-----	----	-----	-----	----
50(441)	1984	International Electrotechnical Vocabulary (IEV) Chapter 441: Switchgear, controlgear and fuses	-	-
50(581)	1978	Chapter 581: Electromechanical components for electronic equipment	-	-
60-1	1989	High-voltage test techniques Part 1: General definitions and test requirements (+ corrigenda March 1990 and March 1992)	HD 588.1 S1	1991
60-3	1976	Part 3: Measuring devices	-	-
60-4	1977	Part 4: Application guide for measuring devices	-	-
68-1	1988	Environmental testing - Part 1: General and guidance	HD 323.1 S2	1988
68-2-1	1990	Part 2: Tests - Tests A: Cold	EN 60068-2-1	1993
68-2-2	1974	Tests B: Dry heat	EN 60068-2-2	1993
68-2-3	1969	Test Ca: Damp heat, steady state	HD 323.2.3 S2*	1987
68-2-6	1982	Test Fc and guidance: Vibration (sinusoidal)	HD 323.2.6 S2*	1988
68-2-20	1979	Test T: Soldering	HD 323.2.20 S3*	1988
68-2-21	1983	Test U: Robustness of terminations terminations and integral mounting devices (Corrigendum 1991)	HD 323.2.21 S3*	1988

- * HD 323.2.3 S2 includes A1:1984 to IEC 68-2-3
 HD 323.2.6 S2 includes A1:1983 + A2:1985 to IEC 68-2-6
 HD 323.2.20 S3 includes A1:1986 + A2:1987 to IEC 68-2-20
 HD 323.2.21 S3 includes A1:1985 to IEC 68-2-21

IEC Publication -----	Date -----	Title -----	EN/HD -----	Date -----
68-2-27	1987	Test Ea and guidance: Shock	EN 60068-2-27	1993
68-2-45	1980	Test XA and guidance: Immersion Immersion in cleaning solvents	EN 60068-2-45	1992
68-2-47	1982	Mounting of components, equipment and other articles for dynamic tests including shock (Ea), bump (Eb), vibration (Fc and Fd) and steady-state acceleration (Ga) and guidance	EN 60068-2-47	1993
112	1979	Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions	HD 214 S2	1980
216-1	1990	Guide for the determination of thermal endurance properties of electrical insulating materials - Part 1: General guidelines for ageing procedures and evaluation of test results	HD 611.1 S1	1992
260	1968	Test enclosures of non-injection type constant relative humidity	HD 98 S1	1977
291 291A	1969 1975	Fuse definitions	-	-
364-4-443	1990	Electrical installations of buildings Part 4: Protection for safety Chapter 44: Protection against overvoltages - Section 443 - Protection against overvoltages of atmospheric origin or due to switching (Corrigendum 1990)	-	-
512-8	1993	Electromechanical components for electronic equipment; basic testing procedures and measuring methods Part 8: Connector tests (mechanical) and mechanical tests on contacts and terminations	-	-
529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
536	1976	Classification of electrical and electronic equipment with regard to protection against electric shock	HD 366 S1	1977
664-1	1992	Insulation coordination for equipment within low-voltage systems, Part 1: Principles, requirements and tests	-	-

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IEC Publication	Date	Title	EN/HD	Date
695-2-2	1991	Fire hazard testing - Part 2: Test methods - Section 2: Needle-flame test	EN 60695-2-2 + corr. Feb. 1994	1994
760	1989	Flat, quick-connect terminations	-	-
817	1984	Spring-operated impact-test apparatus and its calibration	HD 495 S1	1987
998-2-1, mod	1990	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units	EN 60998-2-1	1993

Other publications quoted:

ISO 3	1973	Preferred numbers - Series of preferred numbers
ISO 1302	1992	Technical drawings - Method of indicating surface texture

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC
127-6**

Première édition
First edition
1994-04

Coupe-circuit miniatures –

Partie 6:

**Ensembles-porteurs pour cartouches
de coupe-circuit miniatures**

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Miniature fuses –

SIST EN 60127-6:1995

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Part 6:

**Fuse-holders for miniature
cartridge fuse-links**

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MINIATURE FUSES –

Part 6: Fuse-holders for miniature 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 cooperation 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, 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.
- 3) They have the form of recommendations for international use published in the form of standards, 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.

International Standard IEC 127-6 has been prepared by sub-committee 32C: Miniature fuses, of IEC technical committee 32: Fuses.

This first edition of IEC 127-6 cancels and replaces the first edition of IEC 257 published in 1968 and amendment 2 to IEC 257 published in 1989.

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

DIS	Report on voting
32C(CO)71 32C(CO)71A	32C(CO)72

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

Annexes A and B form an integral part of this standard.

Annexes C, D and E are for information only.

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 and subclauses containing general requirements need not be repeated.

The new IEC 127 series is thus subdivided 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 (UMF)

IEC 127-5, Part 5: Guidelines for quality assessment of miniature fuse-links

IEC 127-6, Part 6: Fuse-holders for miniature cartridge fuse-links

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

This part of IEC 127 covers requirements, test equipment and test methods for fuse-holders. It is a self-standing document, which refers back to Part 1 with regard to certain definitions and the atmospheric conditions for test. It also makes reference to other parts of IEC 127 with regard to dimensions and maximum power losses of fuse-links.

MINIATURE FUSES –

Part 6: Fuse-holders for miniature cartridge fuse-links

1 Scope and object

1.1 This part of IEC 127 is applicable to fuse-holders for miniature cartridge fuse-links according to IEC 127-2 and sub-miniature fuse-links according to IEC 127-3 for the protection of electric appliances, electronic equipment and component parts thereof, normally intended for use indoors. Examples of fuse-holder types with different features are given in table 1.

Table 1 – Features of unexposed or exposed fuse-holders

1	<i>Types of mounting</i>
1.1	Panel and base mounting
1.2	Printed circuit board mounting
2	<i>Methods of fastening</i>
2.1	Methods of fastening on panel:
2.1.1	Fixing nut fastening (threaded nut)
2.1.2	Snap-in fastening:
2.1.2.1	Fuse-base with an integral spring system
2.1.2.2	Fuse-base with a separate spring nut (a nut fabricated, e.g. from thin spring steel having an impression designed to accommodate the mating part)
2.2	Methods of fastening on printed circuit (PC) board:
2.2.1	Solder fastening
2.2.2	Plug-in fastening
3	<i>Methods of insertion of the fuse-carrier into the fuse base</i>
3.1	Screw insertion
3.2	Bayonet insertion
3.3	Plug-in insertion
4	<i>Types of terminals</i>
4.1	Screw terminals
4.2	Solder terminals
4.3	Quick connect terminals
4.4	Other solderless terminals: – crimp terminals – wire wrap terminals
5	<i>Protection against electric shock</i>
5.1	Fuse-holder without integral protection against electric shock
5.2	Fuse-holder with integral protection against electric shock
5.3	Fuse-holder with enhanced integral protection against electric shock
NOTE – This list is not intended to be comprehensive and fuse-holders which are not listed are not necessarily excluded from the scope.	

This standard applies to fuse-holders with

- a maximum rated current of 16 A and
- a maximum rated voltage of 1 500 V d.c. or 1 000 V a.c. and
- for use up to 2 000 m above sea-level, unless otherwise specified.

1.2 The object of this standard is to establish uniform requirements for safety and the assessment of electrical, mechanical, thermal and climatic properties of fuse-holders and the compatibility between fuse-holders and fuse-links.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 127. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 127 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 50(441): 1984, *International Electrotechnical Vocabulary (IEV) – Chapter 441: Switchgear, controlgear and fuses*

IEC 50(581): 1978, *International Electrotechnical Vocabulary (IEV) – Chapter 581: Electromechanical components for electronic equipment*

IEC 60-1: 1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60-3: 1976, *High-voltage test techniques – Part 3: Measuring devices*

IEC 60-4: 1977, *High-voltage test techniques – Part 4: Application guide for measuring devices*

IEC 68-1: 1988, *Environmental testing – Part 1: General and guidance*
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IEC 68-2: *Environmental testing – Part 2: Tests*

IEC 68-2-1: 1990, *Environmental testing – Part 2: Tests – Tests A: Cold*

IEC 68-2-2: 1974, *Environmental testing – Part 2: Tests – Tests B: Dry heat*

IEC 68-2-3: 1969, *Environmental testing – Part 2: Tests – Test Ca: Damp heat, steady state*

IEC 68-2-6: 1982, *Environmental testing – Part 2: Tests – Test Fc and guidance: Vibration (sinusoidal)*

IEC 68-2-20: 1979, *Environmental testing – Part 2: Tests – Test T: Soldering*

IEC 68-2-21: 1983, *Environmental testing – Part 2: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 68-2-27: 1987, *Environmental testing – Part 2: Tests – Test Ea and guidance: Shock*

IEC 68-2-45: 1980, *Environmental testing – Part 2: Tests – Test XA and guidance: Immersion in cleaning solvents*

IEC 68-2-47: 1982, *Environmental testing – Part 2: Tests – Mounting of components, equipment and other articles for dynamic tests including shock (Ea), bump (Eb), vibration (Fc and Fd) and steady-state acceleration and guidance*

IEC 112: 1979, *Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions*

IEC 216-1: 1990, *Guide for the determination of thermal endurance properties of electrical insulating materials – Part 1: General guidelines for ageing procedure and evaluation of test results*

IEC 260: 1968, *Test enclosures of non-injection type for constant relative humidity*

IEC 291: 1969, *Fuse definitions*

IEC 291A: 1975, *First supplement*

IEC 364-4-443: 1990, *Electrical installations of buildings – Part 4: Protection for safety – Chapter 44: Protection against overvoltages – Section 443: Protection against overvoltages of atmospheric origin or due to switching*

IEC 512-8: 1993, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods – Part 8: Connector tests (mechanical) and mechanical tests on contacts and terminations*

IEC 529: 1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 536: 1976, *Classification of electrical and electronic equipment with regard to protection against electric shock*

IEC 664-1: 1992, *Insulation co-ordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 695-2-2: 1991, *Fire hazard testing – Part 2: Test methods – Section 2: Needle-flame test*

IEC 760: 1989, *Flat, quick-connect terminations*

IEC 817: 1984, *Spring-operated impact-test apparatus and its calibration*

IEC 998-2-1: 1990, *Connecting devices for low voltage circuits for household and similar purposes – Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units*

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

ISO 1302: 1992, *Technical drawings – Method of indicating surface texture*

3 Definitions

For the definitions of general terms used in this standard, reference should be made to IEC 50(441) and IEC 50(581), International Electrotechnical Vocabulary (IEV), and to IEC 664-1.

For definitions of terms relating to fuse-links, reference is made to IEC 127-1, IEC 291 and IEC 291A.

For the purposes of this International Standard, the following definitions apply.