
Niskonapetostne varovalke – 1. del: Splošne zahteve (IEC 60269-1:1998/A1:2005)

(istoveten EN 60269-1:1998/A1:2005)

Low-voltage fuses - Part 1: General requirements (IEC 60269-1:1998/A1:2005)

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[SIST EN 60269-1:2000/A1:2006](https://standards.iteh.ai/catalog/standards/sist/af469093-aaa4-4a2c-b2a4-582094a7e788/sist-en-60269-1-2000-a1-2006)

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EUROPEAN STANDARD

EN 60269-1/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2005

ICS 29.120.50

English version

Low-voltage fuses
Part 1: General requirements
(IEC 60269-1:1998/A1:2005)

Fusibles basse tension
Partie 1: Règles générales
(CEI 60269-1:1998/A1:2005)

Niederspannungssicherungen
Teil 1: Allgemeine Anforderungen
(IEC 60269-1:1998/A1:2005)

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This amendment A1 modifies the European Standard EN 60269-1:1998; it was approved by CENELEC on 2005-03-01. 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.

<https://standards.iteh.ai/catalog/standards/sist/af469093-aaa4-4a2c-b2a4-582094e7e788/sist-en-60269-1-2000-a1-2006>

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 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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 document 32B/456/FDIS, future amendment 1 to IEC 60269-1:1998, prepared by SC 32B, Low-voltage fuses, of IEC TC 32, Fuses, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60269-1:1998 on 2005-03-01.

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) 2005-12-01
- latest date by which the national standards conflicting
with the amendment have to be withdrawn (dow) 2008-03-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of amendment 1:2005 to the International Standard IEC 60269-1:1998 was approved by CENELEC as an amendment to the European Standard without any modification.

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[SIST EN 60269-1:2000/A1:2006](https://standards.iteh.ai/catalog/standards/sist/af469093-aaa4-4a2c-b2a4-582094a7e788/sist-en-60269-1-2000-a1-2006)

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Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

Delete the references to IEC 60291 and IEC 60291A.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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Replace the reference to IEC 60364-5-523 by the following:

IEC 60364-5-52	2001	Electrical installations of buildings Part 5-52: Selection and erection of electrical equipment - Wiring systems	-	-
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Add:

IEC 60617	database	Graphical symbols for diagrams	-	-
IEC 60664-1	1992	Insulation coordination for equipment		
A1	2000	within low-voltage systems		
A2	2002	Part 1: Principles, requirements and tests	EN 60664-1	2003

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[SIST EN 60269-1:2000/A1:2006](https://standards.iteh.ai/catalog/standards/sist/af469093-aaa4-4a2c-b2a4-582094a7e788/sist-en-60269-1-2000-a1-2006)

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
60269-1

1998

AMENDEMENT 1
AMENDMENT 1
2005-01

Amendement 1

Fusibles basse tension –

**Partie 1:
Règles générales**

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Amendment 1

[SIST EN 60269-1:2000/A1:2006](https://standards.iteh.ai/SIST/EN/60269-1:2000/A1:2006)

<https://standards.iteh.ai/SIST/EN/60269-1:2000/A1:2006>
<https://standards.iteh.ai/SIST/EN/60269-1:2000/A1:2006>

Low-voltage fuses –

**Part 1:
General requirements**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

Q

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

FOREWORD

This amendment has been prepared by subcommittee 32B: Low-voltage fuses, of IEC technical committee 32: Fuses.

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

FDIS	Report on voting
32B/456/FDIS	32B/460/RVD

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

The committee has decided that the contents of this amendment and the base 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.

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[SIST EN 60269-1:2000/A1:2006](https://standards.iteh.ai/catalog/standards/sist/af469093-aaa4-4a2c-b2a4-582094a7e788/sist-en-60269-1-2000-a1-2006)

1.2 Normative references

Delete the references to IEC 60291 and IEC 60291A.

Add the following new references:

IEC 60617 (all parts) [DB]¹, *Graphical symbols for diagrams*

IEC 60664-1:2002, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

Replace the reference to IEC 60364-5-523 by the following:

IEC 60364-5-52:2001, *Electrical installations of buildings – Part 5-52: Selection and erection of electrical equipment – Wiring systems*

Replace "IEC 60692-2-1/3:1994" by "IEC 60695-2-1/3:1994"

Replace "ISO 3-1973:" by "ISO 3:1973,"

Replace "ISO 478:1974:" by "ISO 478:1974,"

Replace "ISO 593:1974:" by "ISO 593:1974,"

¹ "DB" refers to the IEC on-line database.

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Replace the existing Clause 2 and its subclauses by the following:

2 Terms and definitions

NOTE For general definitions concerning fuses, see also IEC 60050-441².

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

2.1 Fuses and their component parts

2.1.1

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

[IEV 441-18-01]

2.1.2

fuse-holder

combination of the fuse-base with its fuse-carrier

NOTE Where, in this standard the term "fuse-holder" is used, it covers fuse-bases and/or fuse-carriers, if no clearer distinction is necessary.

[IEV 441-18-14]

2.1.2.1

fuse-base (fuse-mount)

fixed part of a fuse provided with contacts and terminals

[IEV 441-18-02]

NOTE Where applicable, covers are considered as part of the fuse-base.

2.1.2.2

fuse-carrier

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

[IEV 441-18-13]

2.1.3

fuse-link

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

[IEV 441-18-09]

2.1.4

fuse-contact

two or more conductive parts designed to ensure circuit continuity between a fuse-link and the corresponding fuse-holder

² IEC 60050-441:1984, *International Electrotechnical Vocabulary – Chapter 441: Switchgear, controlgear and fuses* Amendment 1 (2000)

2.1.5**fuse-element**

part of the fuse-link designed to melt under the action of current exceeding some definite value for a definite period of time

[IEV 441-18-08]

NOTE The fuse-link may comprise several fuse-elements in parallel.

2.1.6**indicating device
(indicator)**

part of a fuse provided to indicate whether the fuse has operated

[IEV 441-18-17]

2.1.7**striker**

mechanical device forming part of a fuse-link which, when the fuse operates, releases the energy required to cause operation of other apparatus or indicators or to provide interlocking

[IEV 441-18-18]

2.1.8**terminal**

conductive part of a fuse provided for electric connection to external circuits

NOTE Terminals may be distinguished according to the kind of circuits for which they are intended (e.g. main terminal, earth terminal, etc.) and also according to their design (e.g. screw terminal, plug terminal, etc.).

2.1.9

dummy fuse-link <https://standards.iteh.ai/catalog/standards/sist/af469093-aaa4-4a2c-b2a4-36294a308081/iec-60269-1-2005-am-1-2006>
test fuse-link with defined power dissipation and dimensions

2.1.10**test rig**

defined test fuse-base

2.1.11**gauge-piece**

additional part of a fuse-base intended to achieve a degree of non-interchangeability

2.2 General terms**2.2.1****enclosed fuse-link**

fuse-link in which the fuse-element(s) is (are) 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

[IEV 441-18-12]

2.2.2**current-limiting fuse-link**

fuse-link that during and by its operation in a specified current range, limits the current to a substantially lower value than the peak value of the prospective current

[IEV 441-18-10]

2.2.3

"g" fuse-link (full-range breaking-capacity fuse-link, formerly general purpose fuse-link) current-limiting fuse-link capable of breaking under specified conditions all currents, which cause melting of the fuse-element up to its rated breaking capacity

2.2.4

"a" fuse-link (partial-range breaking-capacity fuse-link, formerly back-up fuse-link) current-limiting fuse-link capable of breaking under specified conditions all currents between the lowest current indicated on its operating time-current characteristic ($k_2 I_n$ in Figure 2) and its rated breaking capacity

NOTE "a" fuse-links are generally used to provide short-circuit protection. Where protection is required against over-currents less than $k_2 I_n$ in Figure 2, they are used in conjunction with another suitable switching device designed to interrupt such small over-currents.

2.2.5**temperatures****2.2.5.1****ambient air temperature** T_a

temperature of the air surrounding the fuse (at a distance of about 1 m from the fuse or its enclosure, if any)

2.2.5.2**fluid environment temperature** T_e

temperature of the fluid cooling the fuse-components (contact, terminal, etc.). It is the sum of the ambient air temperature T_a and the temperature rise ΔT_e with respect to the ambient temperature of the internal fluid in contact with the fuse-components (contact, terminal, etc.) if the latter is in an enclosure. If it is not in an enclosure, it is assumed that T_e is equal to T_a

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2.2.5.3**fuse-component temperature** T

fuse-component (contact, terminal, etc.) temperature T is that of the relevant part

2.2.6**overcurrent discrimination**

co-ordination of the relevant characteristics of two or more overcurrent protective devices such that, on the occurrence of overcurrents within stated limits, the device intended to operate within these limits does so, while the other(s) do(es) not

2.2.7**fuse-system**

family of fuses following the same physical design principles with respect to the shape of the fuse-links, type of contact, etc.

2.2.8**size**

specified set of dimensions of fuses within a fuse-system. Each individual size covers a given range of rated currents for which the specified dimensions of the fuses remain unchanged