

**Madalpingelised sulavkaitsmed. Osa 2: Lisanõuded
volitatud isikute poolt (peamiselt tööstusrakendustes)
kasutatavatele sulavkaitsmetele. Kaitsmete
standardsüsteemide A kuni J näited**

Low-voltage fuses - Part 2: Supplementary requirements for
fuses for use by authorized persons (fuses mainly for
industrial application) - Examples of standardized systems of
fuses A to J

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-HD 60269-2:2010 sisaldab Euroopa standardi HD 60269-2:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.10.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 17.09.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-HD 60269-2:2010 consists of the English text of the European standard HD 60269-2:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.10.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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The standard is available from Estonian standardisation organisation.

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Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
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English version

**Low-voltage fuses -
Part 2: Supplementary requirements for fuses for use by authorized
persons (fuses mainly for industrial application) -
Examples of standardized systems of fuses A to J
(IEC 60269-2:2010, modified)**

Fusibles basse tension -
Partie 2: Exigences supplémentaires pour
les fusibles destinés à être utilisés par
des personnes habilitées (fusibles pour
usages essentiellement industriels) -
Exemples de systèmes de fusibles
normalisés A à J
(CEI 60269-2:2010, modifiée)

Niederspannungssicherungen -
Teil 2: Zusätzliche Anforderungen
an Sicherungen zum Gebrauch durch
Elektrofachkräfte bzw. elektrotechnisch
unterwiesene Personen (Sicherungen
überwiegend für den industriellen
Gebrauch) - Beispiele für genormte
Sicherungssysteme A bis J
(IEC 60269-2:2010, modifiziert)

This Harmonization Document was approved by CENELEC on 2010-09-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document at national level.

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

This Harmonization Document exists in three official versions (English, French, German).

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, 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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 32B/552/FDIS, future edition 4 of IEC 60269-2, prepared by SC 32B, Low-voltage fuses, of IEC TC 32, Fuses, was submitted to the IEC-CENELEC parallel vote.

A draft amendment, containing common modifications to document 32B/552/FDIS was prepared by Reporting Secretariat CLC/SR 32B, Low-voltage fuses, and was submitted to the formal vote.

The combined texts were approved by CENELEC as HD 60269-2 on 2010-09-01.

This Harmonization Document supersedes HD 60269-2:2007

This document is to be used in conjunction with EN 60269-1:2007.

This Part 2 supplements or modifies the corresponding clauses or subclauses of Part 1.

Where no change is necessary, this Part 2 indicates that the relevant clause or subclause applies.

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) | 2011-09-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2013-09-01 |

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60269-2:2010 was approved by CENELEC as a Harmonization Document with agreed common modifications as given below.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60060-2	NOTE Harmonized as EN 60060-2.
IEC 60060-3	NOTE Harmonized as EN 60060-3.
IEC 60529	NOTE Harmonized as EN 60529.
ISO 898-1	NOTE Harmonized as EN ISO 898-1.
ISO 1207:1992	NOTE Harmonized as EN ISO 1207:1994 (not modified).

COMMON MODIFICATIONS

1 General scope

Replace the note by:

NOTE The following fuse systems are standardized systems in respect to their safety aspects. The National Committees shall select at least one complete fuse system of this standard for their national standards. The time current characteristics "gD" and "gN" are only relevant for the fuse system H.

Fuse system A – Fuses with fuse-links with blade contacts (NH fuse system)

6.2 Marking of fuse-links

Replace the first sentence after the table by the following:

Fuse-links with isolated gripping-lugs shall be marked in a place visible at the front with the graphical symbol of a gripping-lug in a square.

8.5.5.1 Verification of the peak withstand current of a fuse-base

Add at the end of the first sentence:

... or if the minimum withdrawal forces according to 8.11 are exceeded.

Annex ZA (normative)

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60060-1	-	High-voltage test techniques - Part 1: General definitions and test requirements	HD 588.1 S1	-
IEC 60112	-	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN 60112	-
IEC 60269-1 + A1	2006 2009	Low-voltage fuses - Part 1: General requirements	EN 60269-1 + A1	2007 2009
IEC 60664-1	-	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	-
IEC 60999	Series	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units	EN 60999	Series
IEC 60999-1	-	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm ² up to 35 mm ² (included)	EN 60999-1	-
IEC 60999-2	-	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 2: Particular requirements for clamping units for conductors above 35 mm ² up to 300 mm ² (included)	EN 60999-2	-
ISO 6988	-	Metallic and other non-organic coatings - Sulfur dioxide test with general condensation of moisture	EN ISO 6988	-

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INTRODUCTION

A reorganization of the different parts of the IEC 60269 series has been carried out, in order to simplify its use, especially by the laboratories which test the fuses.

This fourth edition is based on edition 3 of IEC 60269-2. Edition 3 was a result of a restructuring of the IEC 60269 series of standards in 2006. At this time IEC 60269-1, IEC 60269-2, IEC 60269-2-1, IEC 60269-3 and IEC 60269-3-1 have been integrated into either the new part 1 or the new parts 2 or 3, according to the subjects considered, so that the clauses which deal exclusively with “fuses for authorized persons” are separated from the clauses dealing with “fuses for unskilled persons”.

As far as IEC 60269-4 and IEC 60269-4-1 are concerned, they have been integrated into the new part 4 which deals with the fuse-links used for semiconductor protection.

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LOW-VOLTAGE FUSES –

Part 2: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) – Examples of standardized systems of fuses A to J

1 General scope

Fuses for use by authorized persons are generally designed to be used in installations where the fuse-links are accessible to, and may be replaced by, authorized persons only.

Fuses for use by authorized persons according to the following fuse systems also comply with the requirements of the corresponding subclauses of IEC 60269-1, unless otherwise defined in this standard.

This standard is divided into fuse systems, each dealing with a specific example of standardized fuses for use by authorized persons:

- Fuse system A: Fuses with fuse-links with blade contacts (NH fuse system)
- Fuse system B: Fuses with striker fuse links with blade contacts (NH fuse system)
- Fuse system C: Fuse-rails (NH fuse system)
- Fuse system D: Fuse-bases for busbar mounting (NH fuse system)
- Fuse system E: Fuses with fuse-links for bolted connections (BS bolted fuse system)
- Fuse system F: Fuses with fuse-links having cylindrical contact caps (NF cylindrical fuse system)
- Fuse system G: Fuses with fuse-links with offset blade contacts (BS clip-in fuse system)
- Fuse system H: Fuses with fuse-links having "gD" and "gN" characteristic (Class J and class L time delay and non time delay fuse types)
- Fuse system I: gU fuse-links with wedge tightening contacts
- Fuse system J: Fuses with fuse-links having "gD class CC" and "gN class CC" characteristics (Class CC time delay and non-time delay fuse types)

NOTE The above-mentioned fuse systems are standardized systems in respect to their safety aspects. The National Committees may select from the examples of standardized fuses one or more systems for their own standards.

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 60060-1: *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60112: *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

IEC 60269-1:2006, *Low-voltage fuses – Part 1: General requirements*
Amendment 1 (2009)

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

IEC 60999 (all parts), *Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units*

IEC 60999-1, *Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units – Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm² up to 35 mm² (included)*

IEC 60999-2, *Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units – Part 2: Particular requirements for clamping units for conductors above 35 mm² up to 300 mm² (included)*

ISO 6988: *Metallic and other non organic coatings – Sulfur dioxide test with general condensation of moisture*