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Lågspänningssäkringar – Del 6: Tilläggssfordringar på säkringspatroner för skydd av solcellsanläggningar

Low-voltage fuses –

*Part 6: Supplementary requirements for fuse-links for the protection of
solar photovoltaic energy systems*

Som svensk standard gäller europastandarden EN 60269-6:2011. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60269-6:2011.

Nationellt förord

Europastandarden EN 60269-6:2011

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60269-6^{*)}, First edition, 2010 - Low-voltage fuses - Part 6: Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden ska användas tillsammans med SS-EN 60269-1, utgåva 3, 2008.

^{*)}Corrigendum December 2010 till IEC 60269-6:2010 är inarbetat i standarden.

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Low-voltage fuses -
Part 6: Supplementary requirements for fuse-links for the protection of
solar photovoltaic energy systems
(IEC 60269-6:2010 + corrigendum Dec. 2010)

Fusibles basse tension -
Partie 6: Exigences supplémentaires
concernant les éléments de remplacement
utilisés pour la protection des systèmes
d'énergie solaire photovoltaïque
(CEI 60269-6:2010 + corrigendum Dec.
2010)

Niederspannungssicherungen -
Teil 6: Zusätzliche Anforderungen an
Sicherungseinsätze für den Schutz von
solaren photovoltaischen
Energieerzeugungssystemen
(IEC 60269-6:2010 + corrigendum Dec.
2010)

This European Standard was approved by CENELEC on 2011-04-01. 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, 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

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Foreword

The text of document 32B/561/FDIS, future edition 1 of IEC 60269-6, prepared by IEC/SC 32B, Low-voltage fuses, of IEC TC 32, Fuses, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60269-6 on 2011-04-01.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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) | 2012-01-01 |
| – latest date by which the national standards conflicting
with the EN have to be withdrawn | (dow) | 2014-04-01 |

This part is to be used in conjunction with EN 60269-1:2007, Low-voltage fuses, Part 1: General requirements.

This Part 6 supplements or modifies the corresponding clauses or subclauses of Part 1.

Where no change is necessary, this Part 6 indicates that the relevant clause or subclause applies.

Tables and figures which are additional to those in Part 1 are numbered starting from 101.

Additional annexes are lettered AA, BB, etc.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60269-6:2010 + corrigendum December 2010 was approved by CENELEC as a European Standard without any modification.

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

IEC 60269 series	NOTE	Harmonized in EN 60269 series (partially modified).
IEC 60269-3	NOTE	Harmonized as HD 60269-3.
IEC 60269-4	NOTE	Harmonized as EN 60269-4.
IEC 60364-7-712	NOTE	Harmonized as HD 60364-7-712.
IEC 61215	NOTE	Harmonized as EN 61215.
IEC 61646	NOTE	Harmonized as EN 61646.
IEC/TS 61836:2007	NOTE	Harmonized as CLC/TS 61836:2009 (not modified).

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 60269-1 + A1	2006 2009	Low-voltage fuses - Part 1: General requirements	EN 60269-1 + A1	2007 2009
IEC 60269-2	-	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	HD 60269-2	-
ISO 3	-	Preferred numbers - Series of preferred numbers	-	-

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LOW-VOLTAGE FUSES –

Part 6: Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems

1 General

IEC 60269-1 applies with the following supplementary requirements.

Fuse-links for the protection of solar photovoltaic (PV) energy systems shall comply with all requirements of IEC 60269-1, if not otherwise indicated hereinafter, and shall also comply with the supplementary requirements laid down below.

NOTE The abbreviation “PV” (photovoltaic) is used in this document.

1.1 Scope and object

These supplementary requirements apply to fuse-links for protecting PV strings and PV arrays in equipment for circuits of nominal voltages up to 1 500 V d.c.

Their rated voltage may be up to 1 500 V d.c.

NOTE 1 Such fuse-links are commonly referred to as “PV fuse-links”.

NOTE 2 In most cases, a part of the associated equipment serves the purpose of a fuse-base. Owing to the great variety of equipment, no general rules can be given; the suitability of the associated equipment to serve as a fuse-base should be subject to agreement between the manufacturer and the user. However, if separate fuse-bases or fuse-holders are used, they should comply with the appropriate requirements of IEC 60269 series.

NOTE 3 PV fuse-links protect down stream inverter components such as capacitors or the discharge of capacitors back into the arrays or array wiring up to the rated breaking capacity.

The object of these supplementary requirements is to establish the characteristics of PV fuse-links in such a way that they can be replaced by other fuse-links having the same characteristics, provided that their dimensions are identical. For this purpose, this standard refers in particular to

a) the following characteristics of fuses:

- 1) their rated values;
- 2) their utilisation category;
- 3) their temperature rises in normal service;
- 4) their power dissipation;
- 4) their time-current characteristics;
- 6) their breaking capacity;
- 7) their dimensions or size (if applicable).

b) type tests for verification of the characteristics of fuses;

c) the markings on fuses.

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

IEC 60269-2, *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*

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

¹ There is a consolidated edition 4.1 (2009) that includes IEC 60269-1(2006) and its amendment 1 (2009).