Irish Standard
I.S. EN 60282-1:2009&A1:2014

High-voltage fuses -- Part 1: Current-limiting fuses

I.S. EN 60282-1:2009&A1:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

EN 60282-1:2009/A1:2014

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60282-1:2009/A1

October 2014

ICS 29.120.50

English Version

High-voltage fuses - Part 1: Current-limiting fuses (IEC 60282-1:2009/A1:2014)

Fusibles à haute tension - Partie 1: Fusibles limiteurs de courant
(CEI 60282-1:2009/A1:2014)

Hochspannungssicherungen - Teil 1: Strombegrenzende Sicherungen
(IEC 60282-1:2009/A1:2014)

This amendment A1 modifies the European Standard EN 60282-1:2009; it was approved by CENELEC on 2014-08-26. 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.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

The text of document 32A/311/FDIS, future IEC 60282-1:2009/A1, prepared by SC 32A "High-voltage fuses", of IEC/TC 32 "Fuses" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60282-1:2009/A1:2014.

The following dates are fixed:

– latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2015-05-26
– latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-08-26

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The text of the International Standard IEC 60282-1:2009/A1:2014 was approved by CENELEC as a European Standard without any modification.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60282-1

December 2009

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Supersedes EN 60282-1:2006

English version

High-voltage fuses - Part 1: Current-limiting fuses

(IEC 60282-1:2009)

Fusibles à haute tension - Partie 1: Fusibles limiteurs de courant (CEI 60282-1:2009)

Hochspannungssicherungen - Teil 1: Strombegrenzende Sicherungen (IEC 60282-1:2009)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 60282-1:2009 E

Foreword

The text of document 32A/274/FDIS, future edition 7 of IEC 60282-1, prepared by SC 32A, High-voltage fuses, of IEC TC 32, Fuses, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60282-1 on 2009-11-01.

This European Standard supersedes EN 60282-1:2006.

The changes introduced by this new edition are only editorial.

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)	2010-08-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2012-11-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60282-1:2009 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/TR 60890	NOTE	Harmonized as CLC/TR 60890:2002 (not modified).
IEC 62271-1	NOTE	Harmonized as EN 62271-1:2008 (not modified).
IEC 62271-100	NOTE	Harmonized as EN 62271-100:2009 (not modified).

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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.

Publication	Year	Title	EN/HD	Year
IEC 60060-1	1989	High-voltage test techniques - Part 1: General definitions and test requirements	HD 588.1 S1	1991
IEC 60071-1	2006	Insulation co-ordination - Part 1: Definitions, principles and rules	EN 60071-1	2006
IEC 60085	2007	Electrical insulation - Thermal evaluation and designation	EN 60085	2008
IEC 60265-1	1998	High-voltage switches - Part 1: Switches for rated voltages above 1 kV and less than 52 kV	EN 60265-1	1998
IEC 60549	1976	High-voltage fuses for the external protection of shunt power capacitors	-	-
IEC 60644	1979	Specification for high-voltage fuse-links for motor circuit applications	EN 60644	1993
IEC/TR 60787	2007	Application guide for the selection of high-voltage current-limiting fuse-links for transformer circuits	-	-
IEC 62271-105	2002	High-voltage switchgear and controlgear - Part 105: Alternating current switch-fuse combinations	EN 62271-105	2003
ISO 148-2	-[1)]	Metallic materials - Charpy pendulum impact test - Part 2: Verification of test machines	EN ISO 148-2	2008[2)]
ISO 179	Series	Plastics - Determination of Charpy impact properties	EN ISO 179	Series

[1)] Undated reference.

[2)] Valid edition at date of issue.

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IEC 60282-1

Edition 7.0 2009-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

High-voltage fuses – Part 1: Current-limiting fuses

Fusibles à haute tension – Partie 1: Fusibles limiteurs de courant

IEC 60282-1:2009

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

High-voltage fuses – Part 1: Current-limiting fuses

Fusibles à haute tension – Partie 1: Fusibles limiteurs de courant

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH-VOLTAGE FUSES –

Part 1: Current-limiting fuses

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60282-1 has been prepared by subcommittee 32A: High-voltage fuses, of IEC technical committee 32: Fuses.

This seventh edition cancels and replaces the sixth edition published in 2005. The changes introduced by this new edition are only editorial.

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

FDIS	Report on voting
32A/274/FDIS	32A/277/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of IEC 60282 series, under the general title *High-voltage fuses,* can be found on the IEC website.

The committee has decided that the contents of this 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.

HIGH-VOLTAGE FUSES –

Part 1: Current-limiting fuses

1 General

1.1 Scope

This part of IEC 60282 applies to all types of high-voltage current-limiting fuses designed for use outdoors or indoors on alternating current systems of 50 Hz and 60 Hz and of rated voltages exceeding 1 000 V.

Some fuses are provided with fuse-links equipped with an indicating device or a striker. These fuses come within the scope of this standard, but the correct operation of the striker in combination with the tripping mechanism of the switching device is outside the scope of this standard; see IEC 62271-105.

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 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60071-1:2006, *Insulation co-ordination – Part 1: Definitions, principles and rules*

IEC 60085:2007, *Electrical insulation – Thermal evaluation and designation*

IEC 60265-1:1998, *High-voltage switches – Part 1: Switches for rated voltages above 1 kV and less than 52 kV*

IEC 60549:1976, *High-voltage fuses for the external protection of shunt power capacitors*

IEC 60644:1979, *Specification for high-voltage fuse-links for motor circuit applications*

IEC/TR 60787:2007, *Application guide for the selection of high-voltage current-limiting fuse-links for transformer circuits*

IEC 62271-105:2002, *High-voltage switchgear and controlgear – Part 105: Alternating current switch-fuse combinations*

ISO 148-2*, Metallic materials – Charpy pendulum impact test – Part 2: Verification of test machines*

ISO 179 (all parts), *Plastics – Determination of Charpy impact properties*

2 Normal and special service conditions

2.1 Normal service conditions

Fuses complying with this standard are designed to be used under the following conditions.