Irish Standard
I.S. EN 60127-7:2016

Miniature fuses - Part 7: Miniature fuse-links for special applications

I.S. EN 60127-7:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

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This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

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Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 60127-7:2016 is the adopted Irish version of the European Document EN 60127-7:2016, Miniature fuses - Part 7: Miniature fuse-links for special applications

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60127-7

January 2016

ICS 29.120.50

Supersedes EN 60127-7:2013

English Version

Miniature fuses - Part 7: Miniature fuse-links for special applications (IEC 60127-7:2015)

Coupe-circuit miniatures - Partie 7: Eléments de remplacement miniatures pour applications spéciales (IEC 60127-7:2015)

Geräteschutzsicherungen - Teil 7: G-Sicherungseinsätze für besondere Anwendungen (IEC 60127-7:2015)

This European Standard was approved by CENELEC on 2015-10-27. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

Ref. No. EN 60127-7:2016 E

European foreword

The text of document 32C/507/CDV, future edition 2 of IEC 60127-7, prepared by SC 32C "Miniature fuses" of IEC/TC 32 "Fuses" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60127-7:2016.

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)	2016-07-27
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2018-10-27

This document supersedes EN 60127-7:2013.

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

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

Endorsement notice

The text of the International Standard IEC 60127-7:2015 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 6269-1:2006	NOTE	Harmonized as EN 6269-1:2006.
IEC 6269-1:2006/AMD1:2009	NOTE	Harmonized as EN 6269-1:2006/AMD1:2009.
IEC 6269-1:2006/AMD2:2014	NOTE	Harmonized as EN 6269-1:2006/AMD1:2014.

Annex ZA
(normative)
Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60068-2-21	2006	Environmental testing -- Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices	EN 60068-2-21	2006
IEC 60127-1	2006	Miniature fuses -- Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links	EN 60127-1	2006
+ A1	2011		+ A1	2011
+ A2	2015		+ A2	2015
IEC 60127-4	2005	Miniature fuses -- Part 4: Universal modular fuse-links (UMF) - Through-hole and surface mount types	EN 60127-4	2005
+ A1	2008		+ A1	2009
+ A2	2012		+ A2	2013
IEC 60127-6	2014	Miniature fuses - Part 6: Fuse-holders for miniature fuse-links	EN 60127-6	2014
IEC 60664-1	2007	Insulation coordination for equipment within low-voltage systems -- Part 1: Principles, requirements and tests	EN 60664-1	2007
IEC 60695-2-12	2010	Fire hazard testing -- Part 2-12: Glowing/hot-wire based test methods - Glow-wire flammability index (GWFI) test method for materials	EN 60695-2-12	2010
+ A1	2014		+ A1	2014
IEC 60695-2-13	2010	Fire hazard testing -- Part 2-13: Glowing/hot-wire based test methods - Glow-wire ignition temperature (GWIT) test method for materials	EN 60695-2-13	2010
+ A1	2014		+ A1	2014
IEC 60695-4	2012	Fire hazard testing -- Part 4: Terminology concerning fire tests for electrotechnical products	EN 60695-4	2012
IEC 61249-2-7	2002	Materials for printed boards and other interconnecting structures -- Part 2-7: Reinforced base materials, clad and unclad - Epoxide woven E-glass laminated sheet of defined flammability (vertical burning test), copper-clad	EN 61249-2-7	2002
-	-		+ corrigendum Sep.	2005
ISO 3	1973	Preferred numbers; Series of preferred numbers	-	-

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IEC 60127-7

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INTERNATIONAL STANDARD

Miniature fuses –
Part 7: Miniature fuse-links for special applications

IEC 60127-7:2015-09(en)

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INTERNATIONAL STANDARD

Miniature fuses –
Part 7: Miniature fuse-links for special applications

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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MINIATURE FUSES –

Part 7: Miniature fuse-links for special applications

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 60127-7 has been prepared by subcommittee 32C: Miniature fuses, of IEC technical committee 32: Fuses.

This second edition cancels and replaces the first edition published in 2013.

This edition includes the following significant technical changes with respect to the previous edition:

a) defining a test board for surface mount fuse-links, Figure 2;
b) defining test schedules for homogenous series.

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

CDV	Report on voting
32C/507/CDV	32C/513/RVC

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 in the IEC 60127 series, published under the general title *Miniature fuses*, can be found on the IEC website.

This International Standard is to be used in conjunction with IEC 60127-1:2006, *Miniature fuses – Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links* and its Amendment 1 (2011).

The clauses of this standard supplement, modify or replace the corresponding clauses in IEC 60127-1.

Where there is no corresponding clause or subclause in this standard, the clause or subclause of IEC 60127-1 applies without modification as far as is reasonable. When this standard states “addition” or “replacement”, the relevant text in IEC 60127-1 is to be adapted accordingly.

Subclauses which are additional to those in Part 1 are numbered starting from 101. Additional annexes are numbered AA, BB, etc.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

A bilingual version of this publication may be issued at a later date.

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 containing general requirements need not be repeated.

The IEC 60127 series, under the general heading *Miniature fuses*, is thus subdivided as follows:

IEC 60127-1, *Miniature fuses – Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links*

IEC 60127-2, *Miniature fuses – Part 2: Cartridge fuse-links*

IEC 60127-3, *Miniature fuses – Part 3: Sub-miniature fuse-links*

IEC 60127-4, *Miniature fuses – Part 4: Universal modular fuse-links (UMF) – Through-hole and surface mount types*

IEC 60127-5, *Miniature fuses – Part 5: Guidelines for quality assessment of miniature fuse-links*

IEC 60127-6, *Miniature fuses – Part 6: Fuse-holders for miniature fuse-links*

IEC 60127-7, *Miniature fuses – Part 7: Miniature fuse-links for special applications*

IEC 60127-8, (Free for further documents)

IEC 60127-9, (Free for further documents)

IEC 60127-10, *Miniature fuses – Part 10: User guide for miniature fuses*

MINIATURE FUSES –

Part 7: Miniature fuse-links for special applications

1 Scope

This part of IEC 60127 covers requirements for miniature fuse-links for special applications.

This part of IEC 60127 is applicable to fuse-links with a rated voltage not exceeding 1 000 V, a rated current not exceeding 20 A and a rated breaking capacity not exceeding 50 kA.

It does not apply to fuses completely covered by the subsequent parts of IEC 60269-1.

It does not apply to miniature fuse-links for appliances intended to be used under special conditions, such as in corrosive or explosive atmospheres.

This part of IEC 60127 applies in addition to the requirements of IEC 60127-1.

Miniature fuse-links for special applications are not intended to be replaced by the end-user of an electrical / electronic appliance.

The object of this part of IEC 60127 is to establish uniform test methods for miniature fuse-links for special applications, so as to allow verification of the values (for example melting time and breaking capacity values) specified by the manufacturer.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068-2-21:2006, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60127-1:2006, *Miniature fuses – Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links*
IEC 60127-1:2006/AMD1:2011
IEC 60127-1:2006/AMD2:2015

IEC 60127-4:2005, *Miniature fuses – Part 4: Universal modular fuse-links (UMF) – Through-hole and surface mount types*
IEC 60127-4:2005/AMD1:2008
IEC 60127-4:2005/AMD2:2012

IEC 60127-6:2014, *Miniature fuses – Part 6: Fuse-holders for miniature fuse-links*

IEC 60664-1:2007, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*