IEC 60127-8

Edition 1.0 2024-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

Miniature fuses –
Part 8: Fuse resistors with particular overcurrent protection

Coupe-circuit miniatures –
Partie 8: Résistances de protection avec protection particulière contre les surintensités

IEC 60127-8:2018-06/AMD1:2024-07(en-fr)

IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC
The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications
The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform
The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, …). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished
Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc
If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch
Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org
The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

A propos de l'IEC
La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC
Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Recherche de publications IEC - webstore.iec.ch/advsearchform
La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études, …). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished
Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et une fois par mois par email.

Service Clients - webstore.iec.ch/csc
Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch
Découvrez notre puissant moteur de recherche et consultez gratuitement tous les aperçus des publications, symboles graphiques et le glossaire. Avec un abonnement, vous aurez toujours accès à un contenu à jour adapté à vos besoins.

Electropedia - www.electropedia.org
Le premier dictionnaire d'électrotechnologie en ligne au monde, avec plus de 22 500 articles terminologiques en anglais et en français, ainsi que les termes équivalents dans 25 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.

IEC 60127-8

Edition 1.0 2024-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

Miniature fuses –
Part 8: Fuse resistors with particular overcurrent protection

Coupe-circuit miniatures –
Partie 8: Résistances de protection avec protection particulière contre les surintensités

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 29.120.50

ISBN 978-2-8322-9298-3

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

MINIATURE FUSES –

Part 8: Fuse resistors with particular overcurrent protection

AMENDMENT 1

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.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at https://patents.iec.ch or www.iso.org/patents. IEC shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to IEC 60127-8:2018 has been prepared by subcommittee 32C: Miniature fuses, of IEC technical committee 32: Fuses.

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

Draft	Report on voting
32C/638/FDIS	32C/642/RVD

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

The language used for the development of this Amendment is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications/.

A list of all parts in the IEC 60127 series, published under the general title *Miniature fuses*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

_____

INTRODUCTION

Replace the existing third paragraph of the Introduction with the following new text:

Fuse resistors with particular overcurrent protection can safely interrupt short-circuit currents but are not capable of interrupting overload currents.

1 Scope

Replace the existing fourth paragraph of the Scope with the following new text:

With exceptions of 3.5 and 3.8 of IEC 60127-1:2023, manufacturers of fuse resistors with particular overcurrent protection shall ensure on their own responsibility that their products comply with the requirements of the resistor-related standards IEC 60115-1, IEC 60115-4-101[1] and IEC 60115-4-102[1].

Add the following new text before the existing last paragraph of the Scope:

Fuse resistors with particular overcurrent protection are not intended to be replaced by the end-user of an electrical / electronic appliance.

3 Terms and definitions

Replace the existing first paragraph of Clause 3 with the following text:

With the exceptions of 3.5 and 3.8 of IEC 60127-1:2023, for the purposes of this document, the terms and definitions given in Clause 3 of IEC 60127-1:2023 as well as resistor-related standards IEC 60115-1, IEC 60115-4-101 and IEC 60115-4-102, and the following apply.

_____

[1] IEC 60115-4-101 and IEC 60115-4-102 have been withdrawn.

3.1

Replace the existing Note 1 to entry with the following new text:

Note 1 to entry: Fuse resistors with particular overcurrent protection can safely interrupt short-circuit currents but are not capable of interrupting overload currents. They are therefore allowed to be used only in combination with an accompanying overload current protection device such as a miniature fuse according to IEC 60127-2, −3, −4 and −7, if overload currents cannot be excluded to occur in the respective application.

3.5

Replace the existing Note 1 to entry with the following new text:

Note 1 to entry: At an ambient temperature of (23±1) °C the maximum voltage which may be applied across the terminations of a fuse resistor with particular overcurrent protection is either the calculated rated voltage, if the resistance is less than the critical resistance, or the limiting element voltage, if the resistance is equal to or greater than the critical resistance. At temperatures other than (23±1) °C it is important that account be taken of the derating curve and of the limiting element voltage in the calculation of any voltage to be applied.

3.8

Delete the existing term, definition and notes of Subclause 3.8, ***rated dissipation****,* P_{70}.

3.9

Replace the existing Note 1 to entry with the following new text:

Note 1 to entry: The rated temperature has a value of (23±1) °C, unless otherwise prescribed in IEC 60115-1.

6 Marking

6.3

Replace the existing first paragraph of 6.3 with the following new text:

The marking according to 6.1 shall also be printed on the packing together with a reference to this document. The marking of the rated resistance on the packing shall include the abbreviation Ω or mΩ. In addition, the marking of the rated voltage, rated dissipation $P_{23\pm1\ °C}$ and minimum breaking dissipation shall be printed on the packing.

6.4

Replace the existing text of 6.4 with the following new text:

For colour coding, tests and requirements are under consideration.

7 General notes on tests

7.3.2 General requirements

Replace the existing text of the second bullet point of the second paragraph of 7.3.2 with the following new bullet point and text:

- The nominal thickness of copper layer shall be 0,035 mm for rated power dissipation below 5 W; 0,070 mm for rated dissipation 5 W up to 10 W.