
Gospodinjski in podobni električni aparati - Varnost - 2-76. del: Posebne zahteve za generatorje impulzov za električne ograje - Dopolnilo A2

Household and similar electrical appliances - Safety -- Part 2-76: Particular requirements for electric fence energizers

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-76: Besondere Anforderungen für Elektrozaungeräte

Appareils électrodomestiques et analogues - Sécurité -- Partie 2-76: Règles particulières pour les électrificateurs de clôtures

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Ta slovenski standard je istoveten z: EN 60335-2-76:2005/A2:2015

ICS:

65.040.10	Poslopja, naprave in oprema za živino	Livestock buildings, installations and equipment
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SIST EN 60335-2-76:2005/A2:2015 **en**

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[SIST EN 60335-2-76:2005/A2:2015](https://standards.iteh.ai/catalog/standards/sist/04789a5f-80d0-4aa9-8d56-77ec979892fe/sist-en-60335-2-76-2005-a2-2015)

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60335-2-76:2005/A2

January 2015

ICS 65.040.99

English Version

**Household and similar electrical appliances - Safety - Part 2-76:
Particular requirements for electric fence energizers
(IEC 60335-2-76:2002/A2:2013 , modified)**

Appareils électrodomestiques et analogues - Sécurité -
Partie 2-76: Règles particulières pour les électrificateurs de
clôtures
(CEI 60335-2-76:2002/A2:2013 , modifiée)

Sicherheit elektrischer Geräte für den Hausgebrauch und
ähnliche Zwecke - Teil 2-76: Besondere Anforderungen für
Elektrozaungeräte
(IEC 60335-2-76:2002/A2:2013 , modifiziert)

This amendment A2 modifies the European Standard EN 60335-2-76:2005; it was approved by CENELEC on 2014-09-29. 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.

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 amendment 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

Foreword

The text of document 61H/287/FDIS, future IEC 60335-2-76:2002/A2, prepared by IEC/SC 61H "Safety of electrically-operated farm appliances" of IEC/TC 61 "Safety of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60335-2-76:2005/A2:2015.

A draft amendment, which covers common modifications to IEC 60335-2-76:2002/A2, was prepared by CLC/TC 61 "Safety of household and similar electrical appliances" and approved by CENELEC.

Additionally CLC/TC 61 prepared EN 60335-2-76:2005/FprAE:2014 that was approved by CENELEC.

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2015-09-29
at national level by publication of an identical
national standard or by endorsement
- latest date by which the national standards conflicting with (dow) 2017-09-29
this document have to be withdrawn

This European Standard modifies EN 60335-2-76:2005 + A1:2006 + A11:2008 + A12:2010.

This Part 2 is to be used in conjunction with EN 60335-1:2012 including its amendments.

NOTE 1 When "Part 1" is mentioned in this standard, it refers to EN 60335-1.

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When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

NOTE 2 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.;
- Clauses, subclauses, notes, tables, figures and annexes that are additional to those in the IEC standard are prefixed with the letter Z.

NOTE 3 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

There are no special national conditions causing a deviation from this European Standard, other than those listed in Annex ZA to EN 60335-1:2012.

There are no national deviations from this European Standard, other than those listed in Annex ZB to EN 60335-1:2012.

Annex AA is for information only.

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.

Endorsement notice

The text of the International Standard IEC 60335-2-76:2002/A2:2013 was approved by CENELEC as a European Standard with agreed common modifications.

COMMON MODIFICATIONS

19 Abnormal operation

19.1 *Delete the text of IEC 60335-2-76:2002/A2:2013.*

22 Construction

22.108 *Replace the third dashed item by:*

– the energy/impulse in the non-inductive resistor R1 of the **standard load** shall not exceed 5 J and the peak current in the non-inductive resistor R1 of the **standard load** shall not exceed 20 A for more than 200 μ s cumulated per impulse.

Annexes

Annex ZAA (normative) Time delayed electric fence energizers

22 Construction

22.108 *Replace the fifth dotted item by:*

- When the load at the output terminals exceeds 500 Ω , or was less than 500 Ω and then exceeds 500 Ω at least once within the **delay time**, the energy/impulse in the non-inductive resistor R1 of the **standard load** shall not exceed 5 J and the peak current in the non-inductive resistor R1 of the **standard load** shall not exceed 20 A for more than 200 μ s cumulated per impulse.

22.108 *Replace the seventh dotted item by:*

- When a load H with an impedance variable from 175 Ω to 1500 Ω is placed in parallel with a load X, having an impedance below 500 Ω , after X has stayed at the output terminals for more than the **delay time**, the energy/impulse into H shall not exceed 5 J

and the peak current into H shall not exceed 20 A for more than 200 µs cumulated per impulse, for the entire **delay time** after load H was applied."

22.108 Add to the end of the first dashed item "*and the peak current in the non-inductive resistor R1 of the **standard load** shall not exceed 20 A for more than 200 µs cumulated per impulse.*"

22.108 Add to the end of the second dashed item "*and the peak current into the 500 Ω and subsequently the load X shall not exceed 20 A for more than 200 µs cumulated per impulse.*"

22.108 Add to the end of the third dashed item "and the peak current into H shall not exceed 20 A for more than 200 µs cumulated per impulse."

22. ZAA.1 In the first paragraph, replace "**normal operating conditions**" by "**test conditions according to Subclause 22.108**" (once).

Replace in the second dotted items "5 J limit" by "5 J and the peak current shall not exceed 20 A for more than 200 µs cumulated per impulse".

Replace in the third dotted items "the normal 5 J limit" by "5 J and the peak current shall not exceed 20 A for more than 200 µs cumulated per impulse".

Annex ZC

(normative)

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Normative references to international publications with their corresponding European publications

[SIST EN 60335-2-76:2005/A2:2015](https://standards.iteh.ai/catalog/standards/sist/04789a5f-80d0-4aa9-8d56-77ec979892fe/sist-en-60335-2-76-2005-a2-2015)

Addition:

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60335-2-29	-	Household and similar electrical appliances - Safety Part 2-29: Particular requirements for battery chargers	EN 60335-2-29	-
IEC 61204-7	-	Low-voltage power supplies, d.c. output Part 7: Safety requirements	EN 61204-7	-
IEC 61558-2-16	-	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V Part 2-16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units	EN 61558-2-16	-
ISO 3864-1	-	Graphical symbols - Safety colours and safety signs Part 1: Design principles for safety signs and safety markings	-	-



IEC 60335-2-76

Edition 2.0 2013-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 2
AMENDEMENT 2

Household and similar electrical appliances – Safety –
Part 2-76: Particular requirements for electric fence energizers

Appareils électrodomestiques et analogues – Sécurité –
Partie 2-76: Règles particulières pour les électrificateurs de clôtures

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

K

ICS 65.040.99

ISBN 978-2-83220-808-3

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FOREWORD

This amendment has been prepared by subcommittee 61H: Safety of electrically-operated farm appliances, of IEC technical committee 61: Safety of household and similar electrical appliances.

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

FDIS	Report on voting
61H/287/FDIS	61H/289/RVD

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability 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.

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NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

CONTENTS

Replace the title of Clause 3 but not the clause number, by the following:

Terms and definitions

Replace the title of Clause 28 but not the clause number, by the following:

Screws and connections

INTRODUCTION

Replace the fifth paragraph by the following:

When a part 2 standard does not include additional requirements to cover hazards dealt with in Part 1, Part 1 applies.

NOTE 1 This means that the technical committees responsible for the part 2 standards have determined that it is not necessary to specify particular requirements for the appliance in question over and above the general requirements.

This standard is a product family standard dealing with the safety of appliances and takes precedence over horizontal and generic standards covering the same subject.

NOTE 2 Horizontal and generic standards covering a hazard are not applicable since they have been taken into consideration when developing the general and particular requirements for the IEC 60335 series of standards. For example, in the case of temperature requirements for surfaces on many appliances, generic standards, such as ISO 13732-1 for hot surfaces, are not applicable in addition to Part 1 or part 2 standards.

2 Normative references

Add the following new references:

IEC 60335-2-29, *Household and similar electrical appliances – Safety – Part 2-29: Particular requirements for battery chargers*

IEC 61204-7, *Low-voltage power supplies, d.c. output – Part 7: Safety requirements*

IEC 61558-2-16, *Safety of transformers, reactors, power supply units and similar products for voltages up to 1 100 V – Part 2-16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units*

ISO 3864-1, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs and safety markings*

3 Definitions

[SIST EN 60335-2-76:2005/A2:2015](https://standards.iteh.ai/catalog/standards/sist/04789a5f-80d0-4aa9-8d56-7b0708931e3c/iec-60335-2-76-2005-a2-2015)

[https://standards.iteh.ai/catalog/standards/sist/04789a5f-80d0-4aa9-8d56-](https://standards.iteh.ai/catalog/standards/sist/04789a5f-80d0-4aa9-8d56-7b0708931e3c/iec-60335-2-76-2005-a2-2015)

Replace the title of Clause 3 but not the clause number, by the following:

Terms and definitions

3.1.6 Delete the addition to this subclause.

3.106 In the term definition, delete “separate”.

3.107 Replace the term definition by the following:

battery-operated energizer suitable for connection to the mains consisting of an impulse generating circuit intended to be powered by a battery, or a separate supply unit, when the **energizer** is in operation. The impulse generating circuit or the battery may be connected to a separate **battery charger** for recharging the battery when the **energizer** is in operation.

Note 1 to entry: Examples of separate supply units are power supply units and uninterruptible power supplies.

5 General conditions for the tests

5.8.1 Replace the first two paragraphs of the addition by the following:

For **energizers** where the supply terminals for connection of a battery have no indication of polarity, the more unfavourable polarity shall be applied.

Replace the third paragraph of the addition by the following: