

# **SLOVENSKI STANDARD**

## **SIST EN 60335-2-76:2000/A1:2002**

**01-maj-2002**

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**Varnost gospodinjskih in podobnih električnih aparatov - 2-76. del: Posebne zahteve za generatorje impulzov za električne ograje (IEC 60335-2-76:1997/A1:1999; spremenjen)**

Safety of household and similar electrical appliances -- 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

Sécurité des appareils électrodomestiques et analogues -- Partie 2-76: Règles particulières pour les électrificateurs de clôture

**Ta slovenski standard je istoveten z: EN 60335-2-76:1999/A1:2001**

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**ICS:**

65.040.10	Poslopja, naprave in oprema za živino	Livestock buildings, installations and equipment
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**SIST EN 60335-2-76:2000/A1:2002** en



EUROPEAN STANDARD

**EN 60335-2-76/A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2001

ICS 65.040.99

English version

**Safety of household and similar electrical appliances**  
**Part 2-76: Particular requirements for electric fence energizers**  
(IEC 60335-2-76:1997/A1:1999, modified)

Sécurité des appareils  
électrodomestiques et analogues  
Partie 2-76: Règles particulières pour les  
électrificateurs de clôture  
(CEI 60335-2-76:1997/A1:1999, modifiée)

Sicherheit elektrischer Geräte für den  
Hausgebrauch und ähnliche Zwecke  
Teil 2-76: Besondere Anforderungen für  
Elektrozaungeräte  
(IEC 60335-2-76:1997/A1:1999,  
modifiziert)

iTeh STANDARD PREVIEW  
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This amendment A1 modifies the European Standard EN 60335-2-76:1999; it was approved by CENELEC on 2001-09-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of amendment 1:1999 to IEC 60335-2-76:1997, prepared by SC 61H of the IEC Technical Committee 61, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A1 to EN 60335-2-76 on 2000-08-01.

During the Brussels meeting of CENELEC TC 61 in October 2000, it was decided to modify the text of the amendment in view of the common modifications in the European Standard. As a consequence, amendment A1:2000 to EN 60335-2-76:1999 was withdrawn and a new draft submitted to the formal vote (2MV).

This draft was circulated in March 2001 and was approved by CENELEC as amendment A1 to EN 60335-2-76 on 2001-09-01.

The following dates are applicable:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2002-09-01
- date on which national standards conflicting with the amendment have to be withdrawn (dow) 2006-08-01

EN 60335-2-76 replaces EN 61011:1992, EN 61011-1:1992, EN 61011-2:1992 and their amendments.

This amendment supplements or modifies the corresponding clauses of EN 60335-2-76:1999.

As a consequence of endorsing amendment 1:1999 to IEC 60335-2-76, the common modifications in EN 60335-2-76 are replaced by new common modifications.

There are no special national conditions causing a deviation from this amendment.

There are no national deviations from this amendment.

p NOTE - In this document p is used in the margin to indicate instructions for preparing the printed version.

## Introduction

Delete the introduction from EN 60335-2-76:1999.

### Endorsement notice

The text of amendment 1:1999 to the International Standard IEC 60335-2-76:1997 was approved by CENELEC as an amendment to the European Standard with common modifications as given below.

#### COMMON MODIFICATIONS

##### 5 Output characteristics

- p 5.101 In the third dashed item, delete “for energy limited energizers”.
- p Delete the fourth dashed item.

##### 6 Classification

- p 6.101 Delete the subclause.

##### 7 Marking and instructions

- p 7.1 Replace “Energy limited energizers” by “**Energizers**”.

- p Add:

###### 7.12.1 Addition:

The installation instructions for **energizers** fitted with polyvinyl chloride sheathed cords shall state that the **energizer** has to be located in a shelter and must not to be handled when the ambient temperature is below +5 °C.

##### 10 Power input and current

- p 10.101 Replace “energy limited energizers” by “**energizers**”.

##### Figures

- p Figure 103 Delete.



# NORME INTERNATIONALE INTERNATIONAL STANDARD

**CEI  
IEC**

**60335-2-76**

1997

AMENDEMENT 1  
AMENDMENT 1  
1999-03

## Amendement 1

### **Sécurité des appareils électrodomestiques et analogues –**

#### **Partie 2-76: Règles particulières pour les électrificateurs de clôture**

## Amendment 1

### **Safety of household and similar electrical appliances –**

#### **Part 2-76: Particular requirements for electric fence energizers**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE

**H**

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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/131/FDIS	61H/134/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.

Page 7

## FOREWORD

*Replace the last paragraph by the following:*

*The following additional difference exists in some countries:*

– 6.101: Only energy limited energizers are allowed (Austria, Denmark, France, Germany, Netherlands, Norway, and Switzerland).

Page 9

**2 Definitions**

**2.4.8** *Delete, on page 11, the addition.*

**2.118** *Delete, on page 15, the definition.*

**2.119** *Replace the subclause number by 2.118.*

Page 17

**5 Output characteristics**

**5.101** *Replace the requirement by the following:*

The **energizer** output characteristics shall be such that

- the impulse repetition rate shall not exceed 1 Hz;
- the **impulse duration** of the impulse in the 500  $\Omega$  component of the **standard load** shall not exceed 10 ms;
- for **energy limited energizers** the energy/impulse in the 500  $\Omega$  component of the **standard load** shall not exceed 5 J;
- for **current limited energizers** the **output current** in the 500  $\Omega$  component of the **standard load** shall not exceed
  - the value specified by the characteristic limit line detailed in figure 103;
  - for an **impulse duration** of less than 0,1 ms, 15 700 mA.



Page 19

## 6 Classification

*Add, on page 21, the following subclause:*

**6.101 Energizers** are classified as being either **energy limited energizers** or **current limited energizers**.

*Compliance is checked by the appropriate tests.*

Page 21

## 7 Marking and instructions

**7.1** *Replace the last paragraph by the following:*

**Energy limited energizers** which are marked with a maximum energy/impulse exceeding 5 J shall also be marked with the corresponding load resistance at which maximum energy/impulse is obtained.

*Add, page 23, the following new subclause:*

**7.103 Energizers** shall be supplied with instructions which contain information regarding the construction of electric **fences** and the means of connecting the **energizer** to the electric **fence**. Such information shall contain the substance of the wording given in annex BB.

*Compliance is checked by inspection.*

Page 23

## 10 Power input and current

**10.101** *Replace the requirement by the following:*

For **energy limited energizers** which are marked with a maximum energy/impulse exceeding 5 J, the value so marked shall not deviate from that delivered by more than  $\pm 10\%$  and the load resistance at which it is obtained shall not deviate from the value marked on the **energizer** by more than  $\pm 5\%$ .

*Delete the note.*

Page 51

## 27 Provision for earthing

*Replace the existing text by the following:*

This clause of part 1 is applicable except as follows:

**27.1** *Addition:*

NOTE – In **class II energizers** provision may be made for connecting at least one of the output terminals to the **earth electrode**.

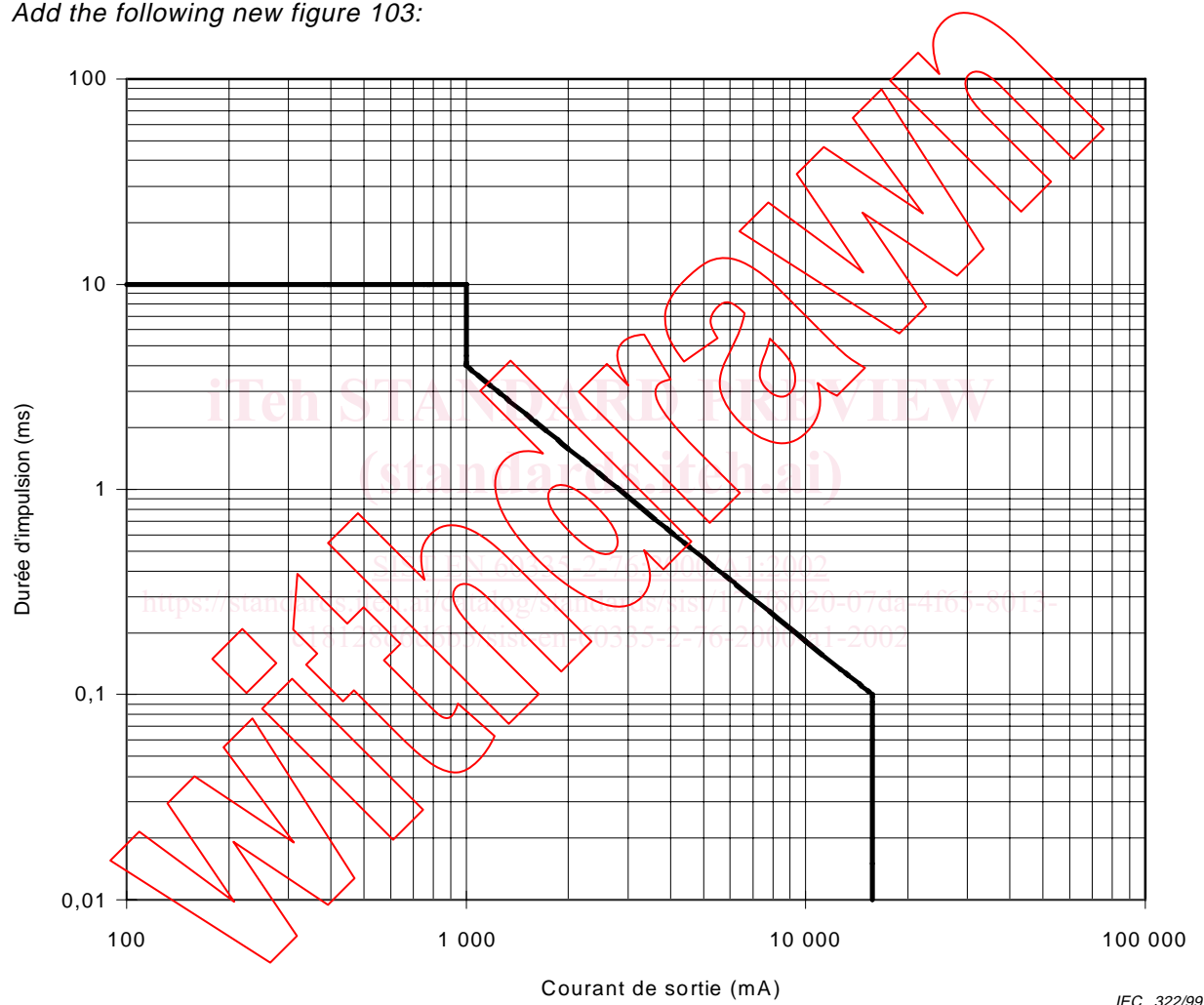
## Figures

Page 59

Replace the existing title of figure 102 by the following new title:

**Figure 102 – Scratch test for coated enclosures**

Add the following new figure 103:



NOTE – The equation of the line relating **impulse duration** (ms) to **output current** (mA) for  $1\,000\text{ mA} < \text{output current} < 15\,700\text{ mA}$ , is given by

$$\text{impulse duration} = 41,885 \times 10^3 \times (\text{output current})^{-1,34}$$

**Figure 103 – Current limited energizer characteristic limit line**