SLOVENSKI STANDARD
SIST EN 60335-2-76:2005/oprAF:2012

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

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

Ta slovenski standard je istoveten z: **EN 60335-2-76:2005/prAF:2012**

ICS:

65.040.10	Poslopja, naprave in oprema za živino	Livestock buildings, installations and equipment

SIST EN 60335-2-76:2005/oprAF:2012 **en**

EUROPEAN STANDARD

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English version

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

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

This draft amendment prAF, if approved, will modify the European Standard EN 60335-2-76:2005; it is submitted to CENELEC members for CENELEC enquiry.
Deadline for CENELEC: 2013-03-15.

It has been drawn up by CLC/TC 61.

If this draft becomes an amendment, 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.

This draft amendment was established by CENELEC 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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1 **Foreword**

2 This document [EN 60335-2-76:2005/prAF:2012] has been prepared by CLC/TC 61 "Safety of
3 household and similar electrical appliances".
4
5 This document is currently submitted to the Enquiry.

6 _____

Text of prAF to EN 60335-2-76:2005

Annexes

Add the following new Annex.

Annex ZBB (normative)

Additional requirements for cascading intelligent electric fence energizers

3 Definitions

3.ZBB.1
cascading intelligent electric fence energizer
electric fence energizer having one or more **measurement terminals** in addition to its output terminals

3.ZBB.2
measurement terminal
in a **cascading intelligent electric fence energizer** supplying its own **fence** with its own output terminals, additional terminal intended to be connected for monitoring reasons to a neighbouring other **fence**, that latter **fence** being supplied by its own energizer

Note 1 to entry: The **measurement terminal** only monitors the magnitude of the pulse on the neighbouring **fence**. It never supplies any impulse.

Note 2 to entry: Several **cascading intelligent fence energizers** can be linked via their **measurement terminal** to monitor the whole cascade.

7 Marking and instructions

7.12 *Addition:*

Instructions for **cascading intelligent electric fence energizer** shall indicate the substance of the following:

The connection from the **measurement terminals** to neighbouring **fences** shall only be made with the provided high voltage insulated **connecting leads** so that inadvertent contact cannot be made simultaneously with two independent **fences**.

Compliance is checked by inspection.

16 Leakage current and electric strength

16.3 *Addition:*

A test voltage at 2 U_o but not less than 10 000 V is applied between the contact part of each **measurement terminals** and the **fence circuit**.

In addition, for **main-operated energizers** or for **battery-operated energizers suitable for connection to the mains**, a test voltage at 2 U_o but not less than 10 000 V is applied between the contact part of each **measurement terminals** and the supply circuit.

22 Construction

22.1 *Addition:*

The **measurement terminals** shall not supply any impulse.

*Compliance is checked by measuring the voltage between each measurement terminals and, in turn, each output terminal. The measured peak voltage shall not exceed the **SELV** values.*

22.2 *Addition:*

Cascading intelligent electric fence energizers shall be provided with a high voltage insulated **connecting lead** for every **measurement terminal**. Each **connecting lead** shall have a length of at least 2,5 m. The insulation of the **connecting lead** shall withstand the electrical stress likely to occur in normal use.

Compliance is checked by inspection and the following test. A voltage of 20 000 V is applied for 15 min between the conductor and a metal foil wrapped around the insulation. There shall be no breakdown.

22.3 *Addition:*

Measurement terminals shall be constructed or enclosed so that when the high voltage **connecting lead** is connected to it according to the instructions for use, no electric path off the measurement terminal or the connecting lead shall be accessible.

Compliance is checked by inspection using the test probe B of EN 61032.

22.4 *Addition:*

Measurement terminals shall be located on a façade of the energizer opposite to the façade where the output terminals are positioned. The geometric shape and colour of the **measurement terminals** shall be different from the shape and colour of the output terminals.

Compliance is checked by inspection.

22.5 *Addition:*

If incoming electric pulses from another energizer abnormally arrive to any one of the output terminals of a functioning **cascading intelligent electric fence energizer**, then the **cascading intelligent electric fence energizers** shall stop immediately emitting its own pulses. It may eventually later resume emission of new pulses but only after at least 10 s have passed since the end of the incident.

Compliance is checked, successively for each of the output terminals of a functioning ***cascading intelligent electric fence energizer*** *connected to an impedance X representing a fence, by sending to that output terminal a train of six consecutive abnormal pulses. The time period between each of the six abnormal pulses shall be 1,5 s, with a relative tolerance of ± 10 %. The peak voltage of the abnormal pulses shall be 1 000 V, with a relative tolerance of ± 10 %. The output energy of the generator used to supply the abnormal pulses shall be at least 0,1 J but no more than 1 J at load resistances X ranging from 100 Ω to 10 000 Ω and at least 0,01 J but no more than 1 J in load resistance ranges from 10 Ω to 100 Ω and from 10 000 Ω to 100 000 Ω when energizer under test is not connected to the output of the abnormal pulse generator. During the whole period starting with the first abnormal pulse of the train and ending 10 s after the end of the train, no impulses emitted by the* ***cascading intelligent electric fence energizer*** *shall be observed. This verification is repeated for the following values:*

– *X = 100 Ω;*

– *X = 1 000 Ω;*

– *X = 10 000 Ω;*

– *a value for X randomly selected in the range between 10 Ω and 100 000 Ω.*

The test is repeated with voltage polarity of the abnormal pulses reversed.