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**Gospodinjski in podobni električni aparati - Varnost - 2-86. del: Posebne zahteve za električne ribiške naprave - Dopolnilo A11**

Household and similar electrical appliances - Safety - Part 2-86: Particular requirements for electric fishing machines

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-86: Besondere Anforderungen für elektrische Fischereigeräte

Appareils électrodomestiques et analogues - Sécurité - Partie 2-86: Règles particulières pour les équipements électriques de pêche

**Ta slovenski standard je istoveten z: EN IEC 60335-2-86:2023/A11:2023**

[SIST EN 60335-2-86:2024/A11:2024](https://standards.sist.net/catalog/standards/sist/6536d343-ae56-4126-ba5d-6b1938699456/sist-en-60335-2-86-2024-a11-2024)

**ICS:**

65.150	Ribolov in ribogojstvo	Fishing and fish breeding
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**SIST EN 60335-2-86:2024/A11:2024 en**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN IEC 60335-2-86:2023/A11

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ICS 65.150

English Version

Household and similar electrical appliances - Safety - Part 2-86:  
Particular requirements for electric fishing machines

Appareils électrodomestiques et analogues - Sécurité -  
Partie 2-86: Exigences particulières pour les équipements  
électriques de pêche

Sicherheit elektrischer Geräte für den Hausgebrauch und  
ähnliche Zwecke - Teil 2-86: Besondere Anforderungen für  
elektrische Fischereigeräte

This amendment A11 modifies the European Standard EN IEC 60335-2-86:2023; it was approved by CENELEC on 2023-11-22. 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.

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[SIST EN 60335-2-86:2024/A11:2024](https://standards.iteh.ai/catalog/standards/sist/d55cd343-ac56-4f26-ba5d-6b193809945b/sist-en-60335-2-86-2024-a11-2024)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

**EN IEC 60335-2-86:2023/A11:2023 (E)****European foreword**

This document (EN IEC 60335-2-86:2023/A11:2023) has been prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2024-11-22
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2026-11-22

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

This document is read in conjunction with EN IEC 60335-2-86:2023

The numbering system for European clauses, subclauses, notes, tables, figures and annexes that are additional to those in the IEC standard are prefixed with the letter "Z".

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Itih Standards  
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[SIST EN 60335-2-86:2024/A11:2024](https://standards.itih.ai/catalog/standards/sist/d55cd343-ac56-4f26-ba5d-6b193809945b/sist-en-60335-2-86-2024-a11-2023)

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## 1 Modification to the Introduction

*Addition:*

With European Amendment A11, EN 60335-2-86:2003+A1:2005+A2:2016+A11:2016+A12:2017 is superseded.

This European Amendment A11 supplements or modifies the corresponding clauses of the standards below:

- EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2022+A16:2023 (Part 1)
- EN IEC 60335-2-86:2023 (Part 2)

## 2 Modification to Clause 1, “Scope”

*Add the following after the fifth paragraph:*

“Additional requirements for **electric fishing machines** with an internal combustion engine are given in Annex ZE.”

*Add the following to Note 102:*

“— in some countries the use of **portable electric fishing machines** for catching fish is only allowed for research purposes.”

## 3 Modification to Clause 2, “Normative references”

*Add the following standards:*

EN ISO 3744:2010, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

EN ISO 4871:2009, *Acoustics - Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 11203:2009,<sup>1</sup> *Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions from the sound power level*

IEC 60417:2002, *Graphical Symbols for Use on Equipment*

## 4 Modifications to Clause 3, “Terms and definitions”

### 3.6.3 Modification

*Delete in Part 1 the words “and probe 18”.*

## 5 Modifications to Clause 7, “Marking and instructions”

### 7.12 Modification

*Replace the third paragraph of Part 1 starting with “This appliance can be used by children aged from 8 years...” up to “...maintenance shall not be made by children without supervision” with the following:*

This appliance is for scientific and commercial use and should not be used by **children** and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge unless they have been

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<sup>1</sup> As amended by EN ISO 11203:2009/A1:2020.

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given supervision or instruction concerning the use of the appliance in a safe way and understand the hazards involved.”

*Add the following:*

The front cover of the instruction manual shall include the substance of the following warning:

**CAUTION** Read the instruction manual before using the appliance.

This wording may be replaced with symbols 0434 and 1641 of ISO 7000.

Add the following dashes to the dashed list:

- the intended use of the appliance and the auxiliary equipment as covered by the scope of this standard;
- the essential characteristics of the auxiliary equipment which may be fitted to the appliance;
- the meaning of the symbols used on the appliance and in the instruction manual;
- information regarding personal protective equipment to be used when operating the appliance. If the A-weighted emission sound pressure level is exceeding 80 dB(A), the manufacturer shall provide the information for the correct wear of hearing protection. In particular, instruction shall contain information how to select protectors to reduce noise and avoid overprotection.
- the operating method to be followed in the event of accident.

If applicable, the instructions shall indicate the parts subject to wear and the criteria for replacement if they affect the health and safety of the **operator**.

**7.12.1**

*Add the following after the warning:*

The instructions for **battery-operated electric fishing machines** shall give instructions how to charge safely the battery.

For **electric fishing machines**, except **stationary electric fishing machines**, the instruction shall state that the operators shall wear waistcoats, printed with symbol 5036 of IEC 60417:2002 and the following text “caution electro fishing”. The symbol and the text on the waistcoat shall be clearly visible for fishermen and observers. The height of this symbol shall be at least 250 mm and the height of the letters shall be at least 50 mm.

The operator of the catching electrode (anode) shall wear a waistcoat in such a manner that the warning is clearly visible. If the operator of the catching electrode is fishing out of sight of the return electrode (cathode), the return electrode (cathode) shall be supervised by a further person wearing a waistcoat. This further person shall be able to communicate with the operator of the catching electrode.

NOTE Z101 The communication between the operator and the further person can be done by using mobile phones or similar means.

Unless there are national or local regulations, the instructions of **stationary electric fishing machines** and electric fish barriers shall state that the dangerous area shall be marked with signs printed with symbol 5036 of IEC 60417:2002 with a height of at least 250 mm and the following text “Caution electric fishing machine/electric fish barrier – Keep away!”. For fish barriers, additional signs with the following text shall be placed near the water: “Before work in contact with water is carried out, switch off the electric fish barrier”. The height of the letters shall be at least 100 mm.

The colour of the background of the sign shall be yellow and the text shall be in black.

The instructions shall explain how to determine the extent of the dangerous area.

NOTE Z102 The dangerous area depends on the topology of the system, the conductivity of the water, the waveform and value of the used voltage. Recommendations of the manufacturer are needed to define the dangerous area.

**7.12.9 Not applicable**