



SLOVENSKI STANDARD
SIST EN 60335-2-86:2018/oprAA:2021

01-februar-2021

Gospodinjski in podobni električni aparati - Varnost - 2-86. del: Posebne zahteve za električne ribiške stroje - Dopolnilo AA

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

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Ta slovenski standard je istoveten z: EN 60335-2-86:2018/prAA:2020

ICS:

65.150 Ribolov in ribogojstvo Fishing and fish breeding

SIST EN 60335-2-86:2018/oprAA:2021 en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
FprEN 60335-2-86:2018
prAA

December 2020

ICS

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: Règles 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 draft amendment prAA, if approved, will modify the European Standard FprEN 60335-2-86:2018; it is submitted to CENELEC members for enquiry.

Deadline for CENELEC: 2021-03-05.

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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

European foreword

This document (EN 60335-2-86:2018/prAA:2020) consists of the text prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

This document is currently submitted to the CENELEC Enquiry.

The following dates are proposed:

- latest date by which the existence of this document has to be announced at national level (doa) dor + 6 months
- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) dor + 12 months
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) dor + 36 months (to be confirmed or modified when voting)

This document will supersede EN 60335-2-86:2003+A1:2005+A2:2016+A11:2016+A12:2017.

This amendment supplements or modifies the corresponding clauses of the standards below:

- EN 60335-1:2012+A11:2014+ A13:2017+A1:2019+A14:2019+A2:2019 (Part 1) or
- EN IEC 60335-2-86:2020 (Part 2)

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".

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive. For the relationship with EU Directives see informative Annexes ZZA and ZZB which are an integral part of this document.

Bibliography

Add the following notes for the standards indicated:

- IEC 60335-2-76 NOTE Harmonized as EN 60335-2-76.
- IEC 60335-2-87 NOTE Harmonized as EN 60335-2-87.

Secretary Note: This standard shall be read in conjunction with EN IEC 60335-2-86:2020.(PR=64878)

Secretary Note - ED GR:

- The Annex ZZA has been updated removing clause 9 and 18
- The clause 9 for ZZB is included because we have modification in annex ZE
- The annex ZC has been updated with correct references
- The annexes ZZB/ZE are needed because the standard is linked to MD
- Bibliography updated

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TEXT of A11 of EN IEC 60335-2-86

1 Modification to the Introduction

Replace the last paragraph:

The principle objectives of Low Voltage Directive 2014/35/EU are covered in this standard. The Essential Health and Safety Requirements of the Machinery Directive 2006/42/EC, which can be applicable to some appliances, covered by this part have also been taken into account.

2 Modification to the 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 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*

EN ISO 4871:2010, *Acoustics — Declaration and verification of noise emission values of machinery and equipment*

EN ISO 11203:2009+A1:2020, *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*

EN ISO 22867:2011, *Forestry and gardening machinery — Vibration test code for portable hand-held machines with internal combustion engine — Vibration at the handles*

ISO 7000:2019, Graphical symbols for use on equipment -- Registered symbols

4 Modification to clause 7, "Marking and instructions"

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.

Electric fishing machines, except **stationary electric fishing machines**, shall state that the operators have to wear waistcoats, printed with symbol 5036 of IEC 60417 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) has to 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.

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Unless there are national and local regulation, 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 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.

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

5 Modification to clause 22, "Construction"

22.112

Add the following in the first paragraph:

The **biased-off switch** may also be located separately from the electrodes; in this case, the **biased-off switch** shall be operated by foot or hand.

Add the following new subclause:

22.Z101 Machines with batteries shall be designed in such a way that electrolyte leakage from the battery shall not impair compliance with this standard; in particular, there shall be no possibility of the electrolyte coming in contact with insulation, which could result in a reduction of **clearances** and **creepage distances** below the values specified in Clause 29.

The battery housing shall be designed and constructed in such a way as to prevent the electrolyte being ejected on to the user and to avoid the accumulation of harmful fumes in places occupied by the user.

Compliance is checked by inspection and test.

6 Modification to the Annexes

[SIST EN 60335-2-86:2018/oprAA:2021](#)

The annexes of part 1 are applicable with following modifications and additions:

[6b193809945b/sist-en-60335-2-86-2018-opraa-2021](#)

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Annex ZA
(informative)**A-deviations**

<u>Clause</u>	<u>Deviation</u>
22.101	Germany (Landesfischereiverordnung (LFischVO))
22.101	The use of alternating current for catching fish is not allowed.
	Switzerland
	(Regulation to Swiss Federal Law SR 923.01, Fishery)
	Electric fishing machines shall be operated with direct current only and with a ripple less than 10% (periodic voltage variation in relation to the arithmetic mean value).

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Annex ZB (normative)

Normative references to international publications with their corresponding European publications

The Annex ZC of part 1 is applicable with following additions:

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-52	-	Environmental testing – Part 2-52: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution)	EN 60068-2-52	2018
IEC 61558-2-4	-	Safety of power transformers, power supply units and similar – Part 2-4: Particular requirements for isolating transformers for general use	EN 61558-2-4	2009

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NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

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Annex ZE (normative)

Specific additional requirement for electric fishing appliances including an internal combustion engine

Annex ZE of Part 1 is applicable with the following modifications:

Introduction

Replacement:

For the verification of compliance of appliances or machines intended for commercial use and that include a portable internal combustion engine with the Essential Health and Safety Requirements (EHSR) of the Directive 2006/42/EC, the requirements in this Annex ZE shall additionally apply.

1 Scope

Replacement:

Annex ZE deals with additional requirements concerning **electric fishing appliances** intended for commercial use and that include a portable internal combustion engine.

3 Terms and definitions

This clause of Annex ZE of Part 1 is applicable.

4 General requirement

This clause of Annex ZE of Part 1 is applicable with the following modification:

Addition of a new paragraph:

For the purpose of Annex ZE, the term 'appliance' as used in Part 1 is to be read as 'machine'.

7 Marking and instructions

This clause of Annex ZE of Part 1 is applicable with the following modifications:

7.1

Add a new dashed item:

- gross weight of the machine as ready for use in kilograms;

7.12

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 by 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;
- the operating method to be followed in the event of accident.