

VÄIKELAEVAD. ELEKTRISEADMED. KAITSE
ÜMBRITSEVATE PÕLEVGAASIDE SÜTTIMISE EEST

Small craft - Electrical devices - Protection against
ignition of surrounding flammable gases (ISO
8846:2025)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 8846:2026 sisaldab Euroopa standardi EN ISO 8846:2026 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 25.02.2026.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 8846:2026 consists of the English text of the European standard EN ISO 8846:2026.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 25.02.2026.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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ICS 47.080

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EUROPEAN STANDARD

EN ISO 8846

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2026

ICS 47.080

Supersedes EN ISO 8846:2017

English Version

Small craft - Electrical devices - Protection against ignition of surrounding flammable gases (ISO 8846:2025)

Petits navires - Appareils électriques - Protection
contre l'inflammation des gaz inflammables
environnants (ISO 8846:2025)

Kleine Wasserfahrzeuge - Elektrische Geräte -
Zündschutz gegenüber entflammaren Gasen (ISO
8846:2025)

This European Standard was approved by CEN on 28 August 2025.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN 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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

European foreword

This document (EN ISO 8846:2026) has been prepared by Technical Committee ISO/TC 188 "Small craft" in collaboration with Technical Committee CEN/TC 464 "Small Craft" the secretariat of which is held by SIS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2026, and conflicting national standards shall be withdrawn at the latest by August 2026.

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

This document supersedes EN ISO 8846:2017.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 8846:2025 has been approved by CEN as EN ISO 8846:2026 without any modification.



**International
Standard**

ISO 8846

**Small craft — Electrical devices
— Protection against ignition of
surrounding flammable gases**

*Petits navires — Appareils électriques — Protection contre
l'inflammation des gaz inflammables environnants*

**Second edition
2025-12**

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 188, *Small craft*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 464, *Small Craft*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 8846:1990), which has been technically revised.

The main changes are as follows:

- the Scope has been updated for clarity;
- the definitions have been updated in [Clause 3](#);
- throughout the text, requirements have been updated to meet the state of the art;
- the former 6.4.3 on intrinsically safe devices has been removed;
- [7.5.3](#) for alternators has been added;
- [Clause 8](#) on marking has been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Small craft — Electrical devices — Protection against ignition of surrounding flammable gases

1 Scope

This document specifies test methods and requirements for the design of electrical devices, when under normal operating conditions, on small craft so that they can be operated without igniting a surrounding flammable gas atmosphere.

This document does not apply to ignition protection procedures for:

- devices or components that can operate in hydrogen and air mixtures;
- devices with dysfunctional issues;
- mechanisms of ignition from external sources, such as static electricity, lightning or other factors not related to the equipment under test.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

flammable hydrocarbon mixture

mixture of propane and air (per cent by volume) between the lower flammable limit (LFL) and upper flammable limit (UFL) that will explode if ignited by any means

Note 1 to entry: Tests using propane and air cover marine fuel and air mixtures between the LFL and UFL.

3.2

ignition-protected device

device that cannot ignite a *flammable hydrocarbon mixture* (3.1) by excessive external surface temperature or by an internally generated arc

3.3

normal operating conditions

operating conditions of the device, including the maximum achievable overload up to 400 % of the rated current (circuit breakers, switches, etc.) and a stalled rotor condition for any motor with the circuit protected by an overcurrent protective device specified by the product manufacturer