



**NSAI**  
Standards

Irish Standard  
I.S. EN ISO 8849:2018

## Small craft - Electrically operated direct-current bilge pumps (ISO 8849:2003)

**I.S. EN ISO 8849:2018**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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*This document is based on:*

EN ISO 8849:2018

*Published:*

2018-09-26

*This document was published  
under the authority of the NSAI  
and comes into effect on:*

2018-10-15

ICS number:

47.080

NOTE: If blank see CEN/CENELEC cover page

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## National Foreword

I.S. EN ISO 8849:2018 is the adopted Irish version of the European Document EN ISO 8849:2018, Small craft - Electrically operated direct-current bilge pumps (ISO 8849:2003)

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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EUROPEAN STANDARD

EN ISO 8849

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2018

ICS 47.080

Supersedes EN ISO 8849:2003

English Version

## Small craft - Electrically operated direct-current bilge pumps (ISO 8849:2003)

Petits navires - Pompes de cale à moteur électrique en courant continu (ISO 8849:2003)

Kleine Wasserfahrzeuge - Elektrisch angetriebene Gleichstrom- Bilgepumpen (ISO 8849:2003)

This European Standard was approved by CEN on 16 April 2018.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 CEN member.

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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**EN ISO 8849:2018 (E)**

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## **European foreword**

The text of ISO 8849:2003 has been prepared by Technical Committee ISO/TC 188 “Small craft” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 8849:2018.

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 March 2019, and conflicting national standards shall be withdrawn at the latest by March 2019.

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 8849:2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2013/53/EU.

For relationship with EU Directive 2013/53/EU, see informative Annex ZA, which is an integral part of this document.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## **Endorsement notice**

The text of ISO 8849:2003 has been approved by CEN as EN ISO 8849:2018 without any modification.

## Annex ZA (informative)

### Relationship between this European Standard and the Essential Requirements of Directive 2013/53/EU aimed to be covered

This European standard has been prepared under a Commission's standardization request M/542 C(2015) 8736 final to provide one voluntary means of conforming to Essential Requirements of Directive 2013/53/EU.

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

**Table ZA.1 — Correspondence between this European Standard and Annex I and Annex II of  
Directive 2013/53/EU**

Essential Requirements of Directive 2013/53/EU	Clause(s)/sub- clause(s) of this EN	Remarks/Notes
Annex I, Part A, 3.5 (c) - Flooding, removal of water by pumps and other means.	4, 6	This International Standard does not cover pumps intended for damage control.
Annex I, Part A, 5.3 - Electrical system	4, 5, 6	This International Standard does not deal with the following elements of this essential requirement; — Electric shock; — Interaction with electric propulsion circuits;
Annex I, Part A, 5.6.1 - Fire protection, General	4.8, 4.9, 5.5	In respect of preventing a fire hazard.
Annex II, Components of Watercraft (1) - Ignition protected equipment for inboard and stern drive petrol engines and petrol tank spaces	4.2	This standard is relevant in respect of the requirements for ignition protection of electrically operated D.C. bilge pumps that are suitable for watercraft with inboard or stern drive petrol engines.  EN28846 is the European Endorsement of ISO 8846 in respect of ignition protection.

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.



# INTERNATIONAL STANDARD

**ISO  
8849**

Second edition  
2003-10-01

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## **Small craft — Electrically operated direct-current bilge pumps**

*Petits navires — Pompes de cale à moteur électrique en courant continu*



Reference number  
ISO 8849:2003(E)

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**ISO 8849:2003(E)**

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Published in Switzerland

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 8849 was prepared by Technical Committee ISO/TC 188, *Small craft*.

This second edition cancels and replaces the first edition (ISO 8849:1990), which has been technically revised.



# Small craft — Electrically operated direct-current bilge pumps

## 1 Scope

This International Standard specifies requirements for electrically operated direct-current bilge pumps intended for use in removing bilge water from small craft with a hull length up to 24 m. It applies to electrically operated bilge pumps rated for less than 50 V direct current (d.c.).

This International Standard does not cover pumps intended for damage control.

## 2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 8846:1990, *Small craft — Electrical devices — Protection against ignition of surrounding flammable gases*.

ISO 10133:2000, *Small craft — Electrical systems — Extra-low-voltage d.c. installations*

IEC 60529:2001, *Degrees of protection provided by enclosures (IP Code)*

## 3 Terms and definitions

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

### 3.1

#### **automatic pump**

pump that is equipped with a sensing means that activates and deactivates the pump at predetermined liquid levels

### 3.2

#### **ignition-protected device**

device that complies with the requirements of ISO 8846

### 3.3

#### **nominal voltages**

voltages that are commonly used on small craft with direct current, such as 6 V, 12 V and 24 V

### 3.4

#### **non-submersible pump**

pump designed to be operated above water

### 3.5

#### **submersible pump**

pump designed to be operated completely immersed in water

### 3.6

#### **design voltage**

113 % of nominal voltage

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