

# INTERNATIONAL STANDARD

**ISO  
8849**

Second edition  
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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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## 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.

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# 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