BS EN ISO 10133:2012

BSI Standards Publication

Small craft - Electrical systems - Extra-low-voltage d.c. installations

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National foreword

This British Standard is the UK implementation of EN ISO 10133:2012. It supersedes BS EN ISO 10133:2001 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GME/33, Small craft.

A list of organizations represented on this committee can be obtained on request to its secretary.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 10133

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Supersedes EN ISO 10133:2000

English Version

Small craft - Electrical systems - Extra-low-voltage d.c. installations (ISO 10133:2012)

Petits navires - Systèmes électriques - Installations à très basse tension à courant continu (ISO 10133:2012)

Kleine Wasserfahrzeuge - Elektrische Systeme - Kleinspannungs-Gleichstrom-(DC-)Anlagen (ISO 10133:2012)

This European Standard was approved by CEN on 14 December 2012.

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Foreword

This document (EN ISO 10133:2012) has been prepared by Technical Committee ISO/TC 188 "Small craft".

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of an identical text or by endorsement, at the latest by June 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

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

This document supersedes EN ISO 10133:2000.

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(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organisations 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 10133:2012 has been approved by CEN as a EN ISO 10133:2012 without any modification.

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Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 94/25/EC as amended by Directive 2003/44/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission to provide one means of conforming to Essential Requirements of the New Approach Directive 94/25/EC as amended by 2003/44/EC.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, 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 Directive 94/25/EC as amended by Directive 2003/44/EC

Clauses/subclauses of this European Standard	Essential requirements (ERs) of EU Directive 94/25/EC as amended by Directive 2003/44/EC	Qualifying remarks/Notes
5	Annex 1 A, 5.1.1	Relevant to battery stowage
4, 5, 6, 7, 8, 9, 10, 11, 12, Annex A	Annex 1 A, 5.3	Electrical system Excludes d.c. power generation and d.c. propulsion systems
12.1	Annex 1 A, 5.2.2 (a)	Ignition protection
7.11	Annex 1 A, 5.6.1	Fire protection
Annex B	Annex 1 A, 2.5	Owner's manual

WARNING: Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

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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 10133 was prepared by Technical Committee ISO/TC 188, *Small craft*.

This third edition cancels and replaces the second edition (ISO 10133:2000), which has been technically revised.

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INTERNATIONAL STANDARD ISO 10133:2012(E)

Small craft — Electrical systems — Extra-low-voltage d.c. installations

1 Scope

This International Standard establishes the requirements for the design, construction and installation of extra-low-voltage direct current (d.c.) electrical systems which operate at nominal potentials of 50 V d.c. or less on small craft of hull length up to 24 m. Conductors that are part of an outboard engine assembly and that do not extend beyond the outboard engine manufacturer's supplied cowling are not included.

Additional information to be included in the owner's manual is listed in Annex B.

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

ISO 10239, *Small craft — Liquefied petroleum gas (LPG) systems*

ISO 10240, *Small craft — Owner's manual*

IEC 60529, *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
equipotential bonding conductor
normally non-current-carrying conductor used to put various exposed conductive parts of electrical devices and extraneous conductive parts at a substantially equal potential

3.2
engine negative terminal
terminal on the engine, starter or solenoid to which the negative battery cable is connected

3.3
main grounding
earthing point
main point or bus that provides connection to the common ground for the d.c. negative conductor, for a.c. protective grounding conductors and neutral, where relevant, and where necessary functional grounding

NOTE It may include any conductive part of the wetted surface of the hull in permanent contact with the water, depending on the overall system design.

3.4
ignition-protected equipment
equipment designed and constructed to give protection against ignition of surrounding flammable gases

NOTE See ISO 8846.

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