BS EN ISO 9097:2017

BSI Standards Publication

Small craft - Electric fans (ISO 9097:1991)

National foreword

This British Standard is the UK implementation of EN ISO 9097:2017. It is identical to ISO 9097:1991. It supersedes BS EN ISO 9097:1995, which is withdrawn.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.

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

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English Version

Small craft - Electric fans (ISO 9097:1991)

Navires de plaisance - Ventilateurs électriques (ISO 9097:1991)

Kleine Wasserfahrzeuge - Elektrische Ventilatoren (ISO 9097:1991)

This European Standard was approved by CEN on 10 July 2017.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

The text of ISO 9097:1991 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 9097:2017.

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of an identical text or by endorsement, at the latest by February 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

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 9097:1994.

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 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 9097:1991 has been approved by CEN as EN ISO 9097:2017 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2013/53/EU

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 2013/53/EU.

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 relevant Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Directive 2013/53/EU

Clauses/sub-clauses of this standard	Corresponding annexes/paragraphs of Directive 2013/53/EU	Comments
All Clauses less 5 (Electrical requirements)	I.A.5.1.2. Ventilation of engine compartments only. I.A.5.2.2. Ventilation of petrol fuel tank spaces and ignition protection only. I.A.5.3 – Electrical system: Ventilation to prevent the build-up of explosive gases emitted from batteries	This standard is applicable for fans intended for use where mechanical ventilation is desirable. Application of this standard alone will not protect the craft from ingress of water through ventilation openings and into ventilated engine compartments. In place of Clause 5 of this standard, electrical requirements, installation and overcurrent protection shall comply with EN ISO 10133; Fan rating may be determined in accordance with EN ISO 5801 (See note to clause 6.2) where this has replaced national standards stated in clause 6.
4.2	Annex II, Components, (1) Ignition-protected equipment for inboard and stern drive petrol engines and petrol tank spaces	Electric fans shall be ignition-protected in accordance with the requirements of ISO 8846. The text of ISO 8846 quoted in clause 4.2 of this standard has been approved by CEN as EN 28846:1993 without modification.

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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.

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.

International Standard ISO 9097 was prepared by Technical Committee ISO/TC 188, *Small craft.*

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INTERNATIONAL STANDARD **ISO 9097:1991(E)**

Small craft - Electric fans

1 Scope

This International Standard specifies requirements and describes test methods for measuring the airflow of fans intended for use in engine compartments, galley areas and other spaces on small craft in which mechanical ventilation is desirable.

It applies to electrically operated fans rated for less than 50 volts direct current (d.c.). Fans may be of the centrifugal or axial flow type.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

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

AMCA Standard 210-85/ASHRAE Standard 51-1985, *Laboratory Methods of Testing Fans for Rating,* [1)]

BS 848-1:1980, *Fans for general purposes — Part 1: Methods of testing performance.*

DIN 24163-1:1985, *Ventilatoren — Leistungsmessung — Normkennlinien.*

DIN 24163-2:1985, *Ventilatoren — Leistungsmessung — Normprüfstände.*

NF X 10-200:1986, *Règles d'essais aérauuques en plateforme des ventilateurs à enveloppe refoulants*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1
ignition-protected device
Device that complies with the requirements of ISO 8846. (ISO 8846 describes appropriate test programmes.)

3.2
nominal voltage
Commonly used direct current (d.c.) voltages on boats such as 6 V, 12 V, 24 V, 32 V.

4 General requirements

4.1 Fans shall be designed to operate continuously at 120 % of nominal voltage.

4.2 Fans shall be ignition-protected in accordance with the requirements ofISO 8846.

1) Published by Air Movement and Control Assn., Inc. 30 West University Drive, Arlington Heights, IL 60004, USA.

