

<b>STN</b>	<b>Malé plavidlá Elektrické ventilátory (ISO 9097: 1991)</b>	<b>STN EN ISO 9097</b>  32 0881
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Small craft - Electric fans (ISO 9097:1991)

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/18

Obsahuje: EN ISO 9097:2017, ISO 9097:1991

Oznámením tejto normy sa ruší  
STN EN ISO 9097 (32 0881) z júla 1997

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Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2018  
Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD

**EN ISO 9097**

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2017

ICS 47.080

Supersedes EN ISO 9097:1994

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.

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.

CEN members are the national standards bodies of 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 United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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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)	<p>I.A.5.1.2. Ventilation of engine compartments only.</p> <p>I.A.5.2.2. Ventilation of petrol fuel tank spaces and ignition protection only.</p> <p>I.A.5.3 - Electrical system: Ventilation to prevent the build-up of explosive gases emitted from batteries</p>	<p>This standard is applicable for fans intended for use where mechanical ventilation is desirable.</p> <p>Application of this standard alone will not protect the craft from ingress of water through ventilation openings and into ventilated engine compartments.</p> <p>In place of Clause 5 of this standard, electrical requirements, installation and overcurrent protection shall comply with EN ISO 10133;</p> <p>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.</p>
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.

# INTERNATIONAL STANDARD

**ISO**  
**9097**

First edition  
1991-09-15

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## **Small craft — Electric fans**

*Navires de plaisance — Ventilateurs électriques*



Reference number  
ISO 9097:1991(E)

**ISO 9097:1991(E)****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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## 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.

*et aspirants-refoulants — Méthode du caisson réduit au refoulement.*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

### 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.*<sup>1)</sup>

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 aérauliques en plateforme des ventilateurs à enveloppe refoulants*

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