



SLOVENSKI STANDARD
SIST EN 60879:2019

01-november-2019

**Prezračevalni ventilatorji in regulatorji za gospodinjstvo in podobno uporabo -
Metode za merjenje lastnosti**

Comfort fans and regulators for household and similar purposes - Methods for measuring performance

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: ~~SIST EN 60879:2019~~ EN 60879:2019
<https://standards.iteh.ai/catalog/standards/sist/e505f2f4-ee3e-4069-b18d-3467c4e8df6e/sist-en-60879-2019>

ICS:

23.120

Zračniki. Vetrniki. Klimatske
naprave

Ventilators. Fans. Air-
conditioners

SIST EN 60879:2019

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 60879:2019

<https://standards.iteh.ai/catalog/standards/sist/e505f2f4-ee3e-4069-b18d-3467c4e8dfec/sist-en-60879-2019>

EUROPEAN STANDARD

EN IEC 60879

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2019

ICS 23.120

English Version

Comfort fans and regulators for household and similar purposes
- Methods for measuring performance
(IEC 60879:2019)

Ventilateurs de confort et régulateurs de vitesse pour applications domestiques et analogues - Méthodes de mesure de l'aptitude à la fonction
(IEC 60879:2019)

Komfortventilatoren und Regler für den Hausgebrauch und ähnliche Zwecke - Verfahren zur Messung der Gebrauchseigenschaften
(IEC 60879:2019)

This European Standard was approved by CENELEC on 2019-06-26. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

SIST EN 60879:2019

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 60879:2019 (E)**European foreword**

The text of document 59L/171/FDIS, future edition 2 of IEC 60879, prepared by SC 59L "Small household appliances" of IEC/TC 59 "Performance of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60879:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-03-26
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-06-26

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

iTeh STANDARD PREVIEW
Endorsement notice
(standards.iteh.ai)

The text of the International Standard IEC 60879:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60335-2-80	NOTE	Harmonized as EN 60335-2-80
IEC 60665	NOTE	Harmonized as EN IEC 60665
IEC 61000-3-2	NOTE	Harmonized as EN IEC 61000-3-2
IEC 61000-3-3	NOTE	Harmonized as EN 61000-3-3
CISPR 14-1	NOTE	Harmonized as EN 55014-1
CISPR 14-2	NOTE	Harmonized as EN 55014-2

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60704-2-7	-	Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-7: Particular requirements for fans	EN 60704-2-7	-
IEC 62301	-	Household electrical appliances - Measurement of standby power	EN 50564	-

[SIST EN 60879:2019](https://standards.iteh.ai/catalog/standards/sist/e505f2f4-ee3e-4069-b18d-3467c4e8dfec/sist-en-60879-2019)

<https://standards.iteh.ai/catalog/standards/sist/e505f2f4-ee3e-4069-b18d-3467c4e8dfec/sist-en-60879-2019>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 60879:2019

<https://standards.iteh.ai/catalog/standards/sist/e505f2f4-ee3e-4069-b18d-3467c4e8dfec/sist-en-60879-2019>



IEC 60879

Edition 2.0 2019-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Comfort fans and regulators for household and similar purposes – Methods for measuring performance
(standards.iteh.ai)

Ventilateurs de confort et régulateurs de vitesse pour applications domestiques et analogues – Méthodes de mesure de l'aptitude à la fonction

3467c4e8dfec/sist-en-60879-2019

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 23.120

ISBN 978-2-8322-6957-2

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references	5
3 Terms and definitions	5
4 Information provision	7
5 Tests	7
5.1 General conditions for testing	7
5.1.1 Atmospheric conditions.....	7
5.1.2 Conditioning of test equipment	7
5.1.3 Voltage and frequency.....	7
5.1.4 Running-in of the fan	8
5.1.5 Operation of the fan.....	8
5.1.6 Conditioning prior to each test.....	8
5.2 Testing of air performance	8
5.2.1 Ceiling fans	8
5.2.2 Comfort fans other than ceiling fans	9
5.3 Measurement of regulator performance.....	12
5.3.1 Measurement of the regulation ratio for comfort fans other than bladeless fans	12
5.3.2 Measurement of the regulation ratio for bladeless fans	12
5.4 Measurement of fan power input	12
5.5 Measurement of sound power level.....	12
5.6 Measurement of standby power.....	13
Annex A (informative) Positioning of 4 anemometers in horizontal and vertical directions.....	16
Annex B (informative) Dimensions, measuring ranges and accuracies of some vane anemometers.....	17
Annex C (normative) Setting air flow direction for tower fans	18
Bibliography.....	19
Figure 1 – Arrangement of test chamber and outer screen for ceiling fans	13
Figure 2 – Plan of test chamber and outer screen for ceiling fans	14
Figure 3 – Measurement configuration for bladeless fans and tower fans.....	15
Figure A.1 – Configuration of 4 anemometers for conventional fans.....	16
Figure B.1 – Typical anemometers for use when testing bladeless fans and tower fans	17
Figure C.1 – Tower fan positioning	18

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**COMFORT FANS AND REGULATORS
FOR HOUSEHOLD AND SIMILAR PURPOSES –
METHODS FOR MEASURING PERFORMANCE**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60879 has been prepared by subcommittee 59L: Small household appliances, of IEC technical committee 59: Performance of household and similar electrical appliances

This second edition cancels and replaces the first edition published in 1986. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the definitions of fans have been revised;
- b) the test methods for the different types of fans have been revised to allow modern test instrumentation to be used;
- c) acoustic noise measurement and standby power measurement methods have been introduced.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
59L/171/FDIS	59L/172/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

ITeH STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60879:2019](#)

<https://standards.iteh.ai/catalog/standards/sist/e505f2f4-ec3e-4069-b18d-3467c4e8dfec/sist-en-60879-2019>

COMFORT FANS AND REGULATORS FOR HOUSEHOLD AND SIMILAR PURPOSES – METHODS FOR MEASURING PERFORMANCE

1 Scope

This International Standard specifies the performance-measuring methods of comfort fans and regulators for household and similar purposes, including conventional fans, tower fans and bladeless fans, their rated voltage being not more than 250 V for single-phase fans and 480 V for other fans, and their rated power input being less than 125 W.

NOTE 1 According to the testing method, the comfort fans are classified into two groups:

- pedestal fans, table fans, wall fans, louvre fans, tower fans, bladeless fans;
- ceiling fans.

Wherever applicable, the term "fan" used in this document includes its associated regulator, if any.

NOTE 2 This document does not apply to

- safety of electric fans for household and similar purposes (IEC 60335-2-80);
- performance of ventilating fans (IEC 60665);
- electromagnetic compatibility of fans (CISPR 14-1 and CISPR 14-2, IEC 61000-3-2, IEC 61000-3-3).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 60704-2-7, *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-7: Particular requirements for fans*

IEC 62301, *Household electrical appliances – Measurement of standby power*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

NOTE When the term "voltage" is used, it implies an RMS value unless otherwise specified.

3.1

comfort fan

fan primarily designed for creating air movement around or on part of a human body for personal cooling comfort, including fans that can perform additional functionalities such as lighting

Note 1 to entry: A comfort fan is hereinafter also referred to by the term "fan".

3.2

conventional fan

comfort fan with a propeller having two or more blades, with free inlet and outlet of air