

Irish Standard I.S. EN IEC 60879:2019

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

© CENELEC 2019 No copying without NSAI permission except as permitted by copyright law.

I.S. EN IEC 60879:2019

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R.~xxx: Standard~Recommendation-recommendation~based~on~the~consensus~of~an~expert~panel~and~subject~to~public~consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

Published:

EN IEC 60879:2019

2019-07-12

This document was published under the authority of the NSAI and comes into effect on:

ICS number:

2019-08-07

NOTE: If blank see CEN/CENELEC cover page

NSAI T +353 1 807 3800 Sales:

 1 Swift Square,
 F +353 1 807 3838
 T +353 1 857 6730

 Northwood, Santry
 E standards@nsai.ie
 F +353 1 857 6729

 Dublin 9
 W NSAI.ie
 W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

National Foreword

I.S. EN IEC 60879:2019 is the adopted Irish version of the European Document EN IEC 60879:2019, Comfort fans and regulators for household and similar purposes - Methods for measuring performance

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

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This is a free page sample. Access the full version online.

This page is intentionally left blank

This is a free page sample. Access the full version online. I.S. EN IEC 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.

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 (dop) 2020-03-26 level by publication of an identical national standard or by endorsement
- 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.

Endorsement notice

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

EN IEC 60879:2019 (E)

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

This is a free page sample. Access the full version online.

This page is intentionally left blank



IEC 60879

Edition 2.0 2019-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE



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

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





THIS PUBLICATION IS COPYRIGHT PROTECTED Copyright © 2019 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Central Office Tel.: +41 22 919 02 11

3, rue de Varembé info@iec.ch CH-1211 Geneva 20 www.iec.ch

Switzerland

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 000 terminological entries in English and French, with equivalent terms in 16 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary

67 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Recherche de publications IEC - webstore.iec.ch/advsearchform

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études,...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et une fois par mois par email.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: sales@iec.ch.

Electropedia - www.electropedia.org

Le premier dictionnaire d'électrotechnologie en ligne au monde, avec plus de 22 000 articles terminologiques en anglais et en français, ainsi que les termes équivalents dans 16 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.

Glossaire IEC - std.iec.ch/glossary

67 000 entrées terminologiques électrotechniques, en anglais et en français, extraites des articles Termes et Définitions des publications IEC parues depuis 2002. Plus certaines entrées antérieures extraites des publications des CE 37, 77, 86 et CISPR de l'IEC.



IEC 60879

Edition 2.0 2019-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE



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

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

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.

- 2 - IEC 60879:2019 © IEC 2019

CONTENTS

FOREW	ORD	3
1 Sco	pe	5
2 Nor	mative references	5
3 Ter	ms and definitions	5
4 Info	ormation provision	7
	its	
5.1	General conditions for testing	
5.1	· ·	
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	3	
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		
5.4	Measurement of the regulation ratio for bladeless rans	
5.5	Measurement of sound power level	
5.6	Measurement of standby power	
	(informative) Positioning of 4 anemometers in horizontal and vertical	
	Is	16
Annex E	(informative) Dimensions, measuring ranges and accuracies of some vane	
	eters	
Annex C	(normative) Setting air flow direction for tower fans	18
Bibliogra	aphy	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
	1 – Configuration of 4 anemometers for conventional fans	
_	3.1 – Typical anemometers for use when testing bladeless fans and tower fans	
_	C.1 – Tower fan positioning	
٠ - ٠٠٠ ق	r	

IEC 60879:2019 © IEC 2019

- 3 -

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.

IEC 60879:2019 © IEC 2019

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.

– 4 –

IEC 60879:2019 © IEC 2019

- 5 -

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



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation