IEC 60704-2-7

Edition 3.0 2026-11

INTERNATIONAL STANDARD

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

ICS 17.140.20; 23.120

ISBN 978-2-8327-1570-3

IEC 60704-2-7:2026-11(en)

THIS PUBLICATION IS COPYRIGHT PROTECTED
Copyright © 2026 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.

IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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 It also gives information on projects, replaced and withdrawn publications.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.

IEC Products & Services Portal - products.iec.ch
Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org
The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD 2
INTRODUCTION 4
1 Scope 5
3 Terms and definitions 5
4 Measurement methods and acoustical environments 6
5 Instrumentation 7
6 Operation and location of appliances under test 7
7 Measurement of sound pressure levels 9
9 Information to be recorded 11
10 Information to be reported 11
Annex B (normative) Test enclosure 12
Bibliography 13

Figure 101 – Measurement surface – hemisphere – with 10 microphone positions, for wall bracket fans 10

Table 1 – Standard deviations of sound power levels 7
Table 2 – Standard deviations for declaration and verification 7

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

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

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) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at https://patents.iec.ch. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 60704-2-7 has been prepared by subcommittee 59L: Small household appliances, of IEC technical committee 59: Performance of household and similar electrical appliances. It is an International Standard.

This third edition cancels and replaces the second edition published in 2020. This edition constitutes a technical revision.

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

a) alignment with IEC 60704-1:2021;
b) scope has been expanded to handheld, neckband and embedded fans;
c) positioning and mounting have been reworked;

d) test concept of partition ventilating fans has changed to measure both inlet and outlet side together.

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

Draft	Report on voting
59L/322/FDIS	59L/324/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

This Part 2-7 is to be used in conjunction with IEC 60704-1:2021, *Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 1: General requirements.*

The relevant text of IEC 60704-1:2021 as amended by this standard establishes the test code for fans.

This Part 2-7 supplements or modifies the corresponding clauses in IEC 60704-1:2021, so as to establish the test code for fans. When a particular subclause of IEC 60704-1:2021 is not mentioned in this Part 2-7, that subclause is applicable as far as reasonable. Where this standard states "addition", "modification" or "replacement", the relevant requirements, test specifications or explanatory matter in IEC 60704-1:2021 shall be adapted accordingly.

Subclauses, tables and figures that are numbered starting from 101 are additional to those in IEC 60704-1:2021.

Unless notes are in a new subclause or involve notes in IEC 60704-1:2021, they are numbered starting from 101, including those in a replaced clause or subclause.

Additional annexes are lettered AA, BB, etc.

In this standard, the following print types are used:

– terms defined in Clause 3: bold type.

A list of all parts in the IEC 60704 series, published under the general title *Household and similar electrical appliances - Test code for the determination of airborne acoustical noise*, can be found on the IEC website.

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

– reconfirmed,

– withdrawn, or

– revised.

INTRODUCTION

The measuring conditions specified in this document provide for sufficient accuracy in determining the noise emitted and the comparison of the results of measurements taken by different laboratories, whilst simulating as far as possible the practical use of household fans.

It is recommended to consider the determination of noise levels as part of a comprehensive testing procedure covering many aspects of the properties and performance of household fans.

NOTE As stated in the introduction to IEC 60704-1, this test code is concerned with airborne noise only.

1 Scope

Addition:

This part of IEC 60704 applies to electrical fans (including their accessories and their component parts) for household and similar use, designed for AC or DC supply.

The motor, the impeller and their housing, if any, form a single unit.

These particular requirements apply to:

– **comfort fans** (conventional and bladeless),
– table fans,
– pedestal fans,
– ceiling fans,
– **wall bracket fans**,
– **ceiling bracket fans**,
– louvre fans,
– tower fans,
– **handheld fans**,
– **neckband fans**,
– embedded fans,
– **ventilating fans**.

This document does not apply to:

– fans that are part of a central ventilation system,
– fans that are part of an appliance (for example cooling fans),
– fans with additional functions (for example heating, humidifying).

3 Terms and definitions

Addition:

3.101
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

[SOURCE: IEC 60879:2019, 3.1, modified - Note to entry has been deleted.]

3.102
wall bracket fan
comfort fan for mounting on the wall

[SOURCE: IEC 60879:2019, 3.8]

3.103
ceiling bracket fan
comfort fan for mounting on the ceiling

Note 1 to entry: Ceiling fans and embedded fans are considered a kind of **ceiling bracket fans** in the sense of this document.