

Edition 2.0 2009-07

INTERNATIONAL STANDARD





THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2009 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 Central Office 3, rue de Varembé CH-1211 Geneva 20 Switzerland Email: inmail@iec.ch

Email: inmail@iec.ch
Web: 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. Rease make sure that you have the latest edition, a corrigenda or an amendment might have been published.

■ Catalogue of IEC publications: <u>www.iec.ch/searchpub</u>

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 It also gives information on projects, withdrawn and replaced publications.

■ IEC Just Published: www.iec.ch/online news/justpub

Stay up to date on all new IEC publications. Just Published details twice a month all new publications released. Available on-line and also by email.

■ Electropedia: <u>www.electropedia.org</u>

The world's leading online dictionary of electronic and electrical terms containing more than 20 000 terms and definitions in English and French, with equivalent terms in additional languages. Also known as the International Electrotechnical Vocabulary online.

■ Customer Service Centre: www.ies.ch/webstore/custserv

If you wish to give us your feedback on this publication of need further assistance, please visit the Customer Service Centre FAQ or contact us:

Email: csc@iec.ch

Tel.: +41 22 919 02 11

Fax: +41 22 919 03 00



Edition 2.0 2009-07

INTERNATIONAL STANDARD



Household and similar electrical appliances – Test code for the determination of airborne acoustical noise –

Part 2-2: Particular requirements for fan heaters 1161.21



INTERNATIONAL ELECTROTECHNICAL COMMISSION

PRICE CODE

M

ICS 17.140.20; 97.100.10

ISBN 978-2-88910-256-3

CONTENTS

FOREWORD3
INTRODUCTION5
1 Scope and object6
1.1 Scope6
1.1.1 General6
1.1.2 Types of noise6
1.1.3 Size of the source6
1.2 Object
1.3 Measurement uncertainty
2 Normative references
3 Terms and definitions
4 Measurement methods and acoustical environments
5 Instrumentation7
6 Operation and location of appliances under test
6.1 Equipping and pre-conditioning of appliances
6.2 Supply of electric energy and of water or gas8
7 Measurement of sound pressure levels
8 Calculation of sound pressure and of sound power levels 10
9 Information to be recorded
10 Information to be reported
Annexes12
//standards itch av

INTERNATIONAL ELECTROTECHNICAL COMMISSION

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – TEST CODE FOR THE DETERMINATION OF AIRBORNE ACOUSTICAL NOISE –

Part 2-2: Particular requirements for fan heaters

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 provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC publication.
- 6) All users should ensure that they have the latest edition of this publication. 8-89cc83fa4b53/iec-60704-2-2-2009
 - 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 60704-2-2 has been prepared by subcommittee 59C: Heating appliances, of IEC technical committee 59: Performance of household and similar electrical appliances.

This second edition cancels and replaces the first edition published in 1985 and constitutes a technical revision. The main changes from the previous edition are as follows: provisions with regard to measurement uncertainty and standard deviation for declaration and verification have been included in the scope.

The text of this standard is based on the following documents:

CDV	Result on voting
59C/134/CDV	59C/140/RVC

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

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

This part 2-2 is intended to be used in conjunction with IEC 60704-1 2nd edition 1997: Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 1: General requirements.

The relevant text of part 1 as amended by this publication establishes the test code for fan heaters.

This part 2-2 supplements or modifies the corresponding clauses in EC 60704-1:1997. When a particular subclause of part 1 is not mentioned in this part 2-2, that subclause applies as far as reasonable. Where this standard states "addition", "modification" or "replacement", the relevant requirement, test specifications or explanatory matter in part 1 shall be adapted accordingly.

Subclauses or figures which are additional to those in part 1 are numbered starting from 101.

Additional annexes are lettered AA, BB, etc.

A list of all the parts in the IEC 60704 series, 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 publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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

A bilingual version of this publication may be issued at a later date.