

This is a preview of "IEC 60704-2-13 Ed. 2...". [Click here to purchase the full version from the ANSI store.](#)



Edition 2.0 2011-01

# INTERNATIONAL STANDARD

---

**Household and similar electrical appliances – Test code for the determination of  
airborne acoustical noise –  
Part 2-13: Particular requirements for range hoods**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

PRICE CODE

T

---

ICS 17.140.20; 97.040.20

ISBN 978-2-88912-328-5

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

**Part 2-13: Particular requirements for range hoods**

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 60704-2-13 has been prepared by subcommittee 59K: Ovens and microwave ovens, cooking ranges and similar appliances, of IEC technical committee 59: Performance of household and similar electrical appliances.

This second edition cancels and replaces the first edition (2000) and constitutes an adaptation to the third edition of IEC 60704-1 (2010).

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

FDIS	Report on voting
59K/219/FDIS	59K/223/RVD

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 is a preview of "IEC 60704-2-13 Ed. 2...". [Click here to purchase the full version from the ANSI store.](#)

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

This Part 2-13 is intended to be used in conjunction with IEC 60704-1:2010 (3rd edition) *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 1: General requirements*.

NOTE 1 When "Part 1" is mentioned in this standard, it refers to IEC 60704-1.

This Part 2-13 supplements or modifies the corresponding clauses in IEC 60704-1, so as to establish the test code for range hoods. When a particular subclause of Part 1 is not mentioned in this Part 2-13, 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 Part 1 is to be adapted accordingly.

Subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1.

Unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause.

Additional annexes are lettered AA, BB, etc.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

## INTRODUCTION

The measuring conditions specified in this Part 2-13 provide for sufficient accuracy in determining the noise emitted and comparing the results of measurements taken by different laboratories, whilst simulating as far as possible the practical use of household range hoods.

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 range hoods.

Compared to the first edition (2000) of this Part 2-13, the second edition doesn't contain the description of an appropriate test enclosure which has now been incorporated in Part 1. The scope of this Part 2-13 has been extended to range hoods with an external fan. Furthermore the values of standard deviations of sound power levels determined according to this part are given.

In case of unavailability of an acoustical environment which is specified in Clause 4 of ISO 3743-1, ISO 3743-2 and ISO 3744 alternatively the sound power of range hoods can be determined according to Annex AA using the sound intensity method specified in ISO 9614-1 and ISO 9614-2. This method is not suitable if the source under test has significant noise over 4,0 kHz for octave band frequencies or 6,3 kHz for one-third octave band frequencies. Sound intensity method for the determination of sound power levels shall not be used for the purpose of verification.

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

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

### Part 2-13: Particular requirements for range hoods

#### 1 Scope and object

This clause of Part 1 is applicable except as follows:

##### 1.1 Scope

###### 1.1.1 General

*Addition:*

These particular requirements apply to electrical range hoods for household and similar use intended for filtering the air of a room or for exhausting the air out of a room, including their accessories and their component parts. It also applies to range hoods with an external fan which may be mounted inside or outside of the room where the range hood is located.

###### 1.1.2 Types of noise

*Replacement:*

The methods specified in ISO 3743-1, ISO 3743-2 and ISO 3744 can be used for measuring noise emitted by range hoods.

###### 1.1.3 Size of source

*Replacement:*

The method specified in ISO 3744 is applicable to noise sources of any size. When applying ISO 3743-1 and ISO 3743-2, care should be taken that the maximum size of the range hood under test fulfils the requirements specified in 1.3 of ISO 3743-1 and ISO 3743-2.

#### 1.2 Object

*Addition:*

This standard describes the determination of the noise emission of household range hoods under normal operating conditions and at the highest fan speed setting for normal use.

NOTE 101 If a boost position is incorporated, this is not taken into account (see 6.5 of IEC 61591).

NOTE 102 A boost position is a setting of a control for occasional use, which results in a higher temporary fan speed (see 6.5 of IEC 61591).

Requirements for the declaration of noise emission values are not within the scope of this standard.

NOTE 103 For determining and verifying noise emission values declared in product specifications, see IEC 60704-3.

#### 1.3 Measurement uncertainty

*Replacement:*

This is a preview of "IEC 60704-2-13 Ed. 2...". [Click here to purchase the full version from the ANSI store.](#)