

# INTERNATIONAL STANDARD



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

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Household and similar electrical appliances – Test code for the determination of  
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ELECTROTECHNICAL  
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## 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.
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**This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 60704-2-2:2009. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.**

IEC 60704-2-2 has been prepared by subcommittee 59C: Electrical heating appliances for household and similar purposes, 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 2009. This edition constitutes a technical revision.

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

- alignment with the latest edition of IEC 60704-1:2021,
- addition of several ISO standards,
- revision of built-in-conditions,
- addition of requirements on climatic conditions and on background noise.

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

Draft	Report on voting
59C/284/CDV	59C/286/RVC

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 part 2-2 is intended to be used in conjunction with the fourth edition of 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 publication establishes the test code for fan heaters.

This part 2-2 supplements or modifies the corresponding clauses in IEC 60704-1:2021.

When a particular subclause of IEC 60704-1:2021 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 IEC 60704-1:2021 shall be adapted accordingly.

Subclauses or figures which are additional to those in IEC 60704-1:2021 are numbered starting from 101.

Additional annexes are lettered AA, BB, etc.

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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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 document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
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## INTRODUCTION

The measuring conditions specified in this part 2-2 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 fan heaters.

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 fan heaters.

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

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

## Part 2-2: Particular requirements for fan heaters

### 1 ~~Scope and object~~

~~This clause of part 1 is applicable except as follows:~~

#### ~~1.1 Scope~~

##### ~~1.1.1 General~~

*Replacement:*

This part of IEC 60704 applies to electric fan heaters, designed for placing on the floor, table or counter, etc., or for ~~wall~~ mounting.

This document does not apply to

- electric storage room heaters;
- room humidifiers;
- room dehumidifiers;
- air cleaners;
- heaters designed exclusively for industrial purposes.

##### ~~1.1.2 Types of noise~~

*Replacement:*

~~ISO 3743-1, ISO 3743-2 and ISO 3744 can be used for measuring noise emitted by fan heaters.~~

##### ~~1.1.3 Size of the 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 appliance under test fulfils the requirements specified in Subclause 1.3 of ISO 3743-1 and ISO 3743-2.~~

### 1.2 ~~Object~~

*Addition:*

~~The frequency range of interest for sound power determination on fan heaters includes at least the octave bands with centre frequencies from 63 Hz to 8000 Hz.~~

~~NOTE 1—In many cases, the 63 Hz octave band level does not participate significantly to the A-weighted level.~~

~~NOTE 2—When measuring this 63 Hz octave band, a special attention should be paid to the room effect.~~

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

~~NOTE 3~~ For determining and verifying noise emission values, declared in product specifications, refer to IEC 60704-3:2019.

**1.3 Measurement uncertainty**

*Replacement:*

The estimated values of standard deviations of sound power levels, determined according to this standard, are as follows:

Standard deviation, dB	
$\sigma_F$ (repeatability)	$\sigma_R$ (reproducibility)
0,4	1,0

**1.101 Standard deviation for declaration and verification**

For the purpose of determining and verifying declared noise emission values according to IEC 60704-3, the following values apply:

Standard deviation, dB		
$\sigma_P$ (production)	$\sigma_L$ (total)	$\sigma_M$ (reference)
0,3 – 1,1	1,0 – 1,6	1,5

**2 Normative references**

This clause of IEC 60704-1:2021 is applicable.

**3 Terms and definitions**

This clause of IEC 60704-1:2021 is applicable.

**4 Measurement methods and acoustical environments**

This clause IEC 60704-1:2021 is applicable except as follows:

**4.2 Direct method**

*Addition:*

NOTE If pure tone components are present in the noise emitted, proper precautions ~~should~~ need to be taken as specified in ISO 3743-2.

**4.3 Comparison method**

*Addition:*

NOTE If pure tone components are present in the noise emitted, proper precautions ~~should~~ need to be taken as specified in ISO 3743-1 and 3743-2.

## 4.4 Acoustical environments

### 4.4.1 General requirements and criterion for adequacy of the test environment

*Replacement:*

ISO 3743-1, ISO 3743-2 and ISO 3744 can be used for measuring noise emitted by fan heaters.

The method specified in ISO 3744 is applicable to noise sources of any size. When applying ISO 3743-1 and ISO 3743-2, care shall be taken that the maximum size of the appliance under test fulfils the requirements specified in ISO 3743-1:2010, 1.3 and ISO 3743-2.

## 4.5 Measurement uncertainties

### 4.5.2 Standard deviations on repeatability and reproducibility and standard deviations related to declaration and verification

*Replacement:*

The estimated values of standard deviations of sound power levels determined according to this document are given in Table 1:

**Table 1 – Standard deviations of sound power levels**

Standard deviation dB	
$\sigma_r$ (repeatability)	$\sigma_R$ (reproducibility)
0,4	1,0

For the purpose of determining and verifying declared noise emission values according to IEC 60704-3, the values given in Table 2 apply:

**Table 2 – Standard deviations for declaration and verification**

Standard deviation dB		
$\sigma_p$ (production)	$\sigma_t$ (total)	$\sigma_M$ (reference)
0,3 to 1,1	1,0 to 1,6	1,5

## 5 Instrumentation

This clause of IEC 60704-1:2021 is applicable except as follows:

### 5.1 Instrumentation for measuring acoustical data

*Addition:*

Windscreens should be used and the relevant corrections for changes in the microphone sensitivity shall be added to the observed sound pressure levels.

## 6 Operation and location of appliances under test

This clause of IEC 60704-1:2021 is applicable except as follows:

### 6.1 Equipping and pre-conditioning of appliances

#### 6.1.1 Addition:

Air filters, if any, shall be clean.

#### 6.1.3 Replacement:

Prior to noise measurements, the appliance, equipped in accordance with 6.1.1, shall have been in operation for a total period of at least 2 h for running-in at the highest speed setting with the maximum heating switched on for normal permanent use.

Oscillating function if available shall be switched on.

During the running-in procedure, air filters, if any, ~~may~~ shall be removed, if possible. If filters remain in the appliances during this running-in period, they shall be cleaned or renewed after this period.

#### 6.1.4 Replacement:

Immediately before each series of noise measurements, the appliance equipped in accordance with 6.1.1 shall be operated for stabilizing at the highest speed setting and maximum heating switched on for normal permanent use for 5 min.

### 6.2 Supply of electric energy and of water or gas

#### 6.2.1 Modification:

The voltage tolerance shall be  $\pm 0,5$  %.

#### 6.2.2 Not applicable.

#### 6.2.3 Replacement:

The appliance shall be operated with the heating elements switched on.

Special attention is required to be given to the possible effect of the temperature rise on the acoustical behaviour of the test room.

#### 6.2.4 Not applicable.

### 6.4 Loading and operating of appliances during tests

#### 6.4.2 Replacement:

The appliance shall be equipped according to 6.1.1.

The noise emission shall be determined with the appliance at the highest speed setting and maximum heating for normal permanent use. Oscillating ~~mechanism~~ function, if any, shall be switched on.

NOTE Other possible speed settings (minimum heat output, boost position, etc.) can be measured in addition. The respective noise levels ~~should~~ need to be linked to the relevant heat output.

Appropriate adjustment of air intake or exhaust openings shall be done taking into account manufacturer's instructions if any, or otherwise selecting the configuration that gives the highest noise emission.

**6.4.3** Not applicable.

## **6.5 Location and mounting of appliances**

### **6.5.12** Addition:

The tests under the conditions stated in 6.5.34 shall be repeated for floor-standing appliances which may be placed either against or away from the wall.

For such appliances, both sets of results shall be recorded and the measurement that gives highest noise is then chosen.

**6.5.23** Not applicable.

### **6.5.34** Replacement:

For measurements on floor-standing appliances intended for placing against a wall, including those for building-in into a cabinet, a vertical reflecting plane having an acoustic absorption coefficient of less than 0,06 ~~must~~ shall be used.

When measurements are made in a reverberation test room, a part of the wall of the room will serve for this purpose. The minimum area of this part of the wall should be determined by the projection of the appliance extended by at least 0,5 m upwards and to both sides. The minimum distance between any surface of the appliance or its cabinet and the nearest corner of the room shall be 1 m.

When measurements are made in a free-field environment, the size of the vertical reflecting plane (supported by the horizontal reflecting plane) shall be at least equal to the size of the projection of the measurement surface.

For both types of test environment, the following requirements shall be complied with:

- the appliance shall be placed in the test environment without any resilient means of support other than those incorporated in the appliance;
- care should be taken to avoid any direct contact between the appliance (including protruding parts, worktops, spacers, etc.) and the vertical reflecting wall;
- the distance between the wall and the appliance shall be established by placing the appliance in direct contact with the wall and moving it away for a distance not exceeding 10 cm ± 1 cm.

### **6.5.45** Modification:

The height of the lowest edge of the appliance from the floor shall be 25 cm ± 1 cm.

NOTE For appliances intended for mounting close to the ceiling with the air stream directed towards the floor, measurements problems ~~may~~ can be caused when the appliance is mounted as specified in 6.5.45. It ~~may~~ can be necessary to mount such an appliance in an inverted position, with the top of the appliance facing towards the floor at a height of 0,25 m, or at the distance specified by the manufacturer for mounting close to the ceiling. The manufacturer's approval ~~must~~ needs to be obtained before operating the appliance under the proposed test conditions.

### **6.5.56** Modification:

Built-in heaters such as plinth heaters shall be installed according to manufacturer's instructions.

## 7 Measurement of sound pressure levels

This clause of IEC 60704-1:2021 is applicable except as follows:

### 7.1 Microphone array, measurement surface and RSS location for essentially freefield conditions over reflecting plane(s)

*Addition:*

During measurements, care shall be taken to prevent direct blowing to the microphones.

7.1.34 Not applicable.

7.1.56 to 7.1.67 Not applicable.

### 7.4 Measurements

7.4.1 *Addition:*

The time-averaged A-weighted sound pressure levels shall be measured during at least 30 s and including complete cycles (at least two cycles) of the oscillating ~~mechanism~~ function, if any.

The frequency range of interest for sound power determination on fan heaters includes at least the octave bands with centre frequencies from 63 Hz to 8 000 Hz.

NOTE 2 In many cases, the 63 Hz octave band level does not participate significantly to the A-weighted level.

NOTE 3 When measuring this 63 Hz octave band, a special attention needs to be paid to the room effect.

7.4.4 Not applicable.

## 8 Calculation of sound pressure and of sound power levels

This clause of IEC 60704-1:2021 is applicable.

## 9 Information to be recorded

This clause of IEC 60704-1:2021 is applicable except as follows:

### 9.7 Electric supply, water supply, etc.

9.7.2 to 9.7.4 Not applicable.

### 9.12 Measurement data

9.12.5 Not applicable.

## 10 Information to be reported

This clause of IEC 60704-1:2021 is applicable except as follows:

### 10.3 Test conditions for the appliance

10.3.3 to 10.3.5 Not applicable.

10.3.11 Not applicable.

### 10.4 Acoustical data

10.4.10 Not applicable.

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## Annexes

The annexes of IEC 60704-1:2021 are applicable.

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## Bibliography

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

**Appareils électrodomestiques et analogues – Code d'essai pour la détermination du bruit aérien –  
Partie 2-2: Exigences particulières pour les appareils de chauffage soufflants**

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Additional annexes are lettered AA, BB, etc.

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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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

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

## Part 2-2: Particular requirements for fan heaters

### 1 Scope

#### *Replacement:*

This part of IEC 60704 applies to electric fan heaters, designed for placing on the floor, table or counter, etc., or for mounting.

This document does not apply to

- electric storage room heaters;
- room humidifiers;
- room dehumidifiers;
- air cleaners;
- heaters designed exclusively for industrial purposes.

For determining and verifying noise emission values declared in product specifications, refer to IEC 60704-3:2019.

### 2 Normative references

This clause of IEC 60704-1:2021 is applicable.

### 3 Terms and definitions

This clause of IEC 60704-1:2021 is applicable.

### 4 Measurement methods and acoustical environments

This clause IEC 60704-1:2021 is applicable except as follows:

#### 4.2 Direct method

##### *Addition:*

NOTE If pure tone components are present in the noise emitted, proper precautions need to be taken as specified in ISO 3743-2.

#### 4.3 Comparison method

##### *Addition:*

NOTE If pure tone components are present in the noise emitted, proper precautions need to be taken as specified in ISO 3743-1 and 3743-2.

#### 4.4 Acoustical environments

##### 4.4.1 General requirements and criterion for adequacy of the test environment

*Replacement:*

ISO 3743-1, ISO 3743-2 and ISO 3744 can be used for measuring noise emitted by fan heaters.

The method specified in ISO 3744 is applicable to noise sources of any size. When applying ISO 3743-1 and ISO 3743-2, care shall be taken that the maximum size of the appliance under test fulfils the requirements specified in ISO 3743-1:2010, 1.3 and ISO 3743-2.

#### 4.5 Measurement uncertainties

##### 4.5.2 Standard deviations on repeatability and reproducibility and standard deviations related to declaration and verification

*Replacement:*

The estimated values of standard deviations of sound power levels determined according to this document are given in Table 1:

**Table 1 – Standard deviations of sound power levels**

Standard deviation dB	
$\sigma_r$ (repeatability)	$\sigma_R$ (reproducibility)
0,4	1,0

For the purpose of determining and verifying declared noise emission values according to IEC 60704-3, the values given in Table 2 apply:

**Table 2 – Standard deviations for declaration and verification**

Standard deviation dB		
$\sigma_p$ (production)	$\sigma_t$ (total)	$\sigma_M$ (reference)
0,3 to 1,1	1,0 to 1,6	1,5

## 5 Instrumentation

This clause of IEC 60704-1:2021 is applicable except as follows:

### 5.1 Instrumentation for measuring acoustical data

*Addition:*

Windscreens should be used and the relevant corrections for changes in the microphone sensitivity shall be added to the observed sound pressure levels.

## 6 Operation and location of appliances under test

This clause of IEC 60704-1:2021 is applicable except as follows:

### 6.1 Equipping and pre-conditioning of appliances

#### 6.1.1 *Addition:*

Air filters, if any, shall be clean.

#### 6.1.3 *Replacement:*

Prior to noise measurements, the appliance, equipped in accordance with 6.1.1, shall have been in operation for a total period of at least 2 h for running-in at the highest speed setting with the maximum heating switched on for normal permanent use.

Oscillating function if available shall be switched on.

During the running-in procedure, air filters, if any, shall be removed, if possible. If filters remain in the appliances during this running-in period, they shall be cleaned or renewed after this period.

#### 6.1.4 *Replacement:*

Immediately before each series of noise measurements, the appliance equipped in accordance with 6.1.1 shall be operated for stabilizing at the highest speed setting and maximum heating switched on for normal permanent use for 5 min.

### 6.2 Supply of electric energy and of water or gas

#### 6.2.1 *Modification:*

The voltage tolerance shall be  $\pm 0,5$  %.

#### 6.2.2 Not applicable.

#### 6.2.3 *Replacement:*

The appliance shall be operated with the heating elements switched on.

Special attention is required to be given to the possible effect of the temperature rise on the acoustical behaviour of the test room.

#### 6.2.4 Not applicable.

### 6.4 Loading and operating of appliances during tests

#### 6.4.2 *Replacement:*

The appliance shall be equipped according to 6.1.1.

The noise emission shall be determined with the appliance at the highest speed setting and maximum heating for normal permanent use. Oscillating function, if any, shall be switched on.

NOTE Other possible speed settings (minimum heat output, boost position, etc.) can be measured in addition. The respective noise levels need to be linked to the relevant heat output.

Appropriate adjustment of air intake or exhaust openings shall be done taking into account manufacturer's instructions if any, or otherwise selecting the configuration that gives the highest noise emission.

**6.4.3** Not applicable.

## **6.5 Location and mounting of appliances**

### **6.5.2 Addition:**

The tests under the conditions stated in 6.5.4 shall be repeated for floor-standing appliances which may be placed either against or away from the wall.

For such appliances, both sets of results shall be recorded and the measurement that gives highest noise is then chosen.

**6.5.3** Not applicable.

### **6.5.4 Replacement:**

For measurements on floor-standing appliances intended for placing against a wall, including those for building-in into a cabinet, a vertical reflecting plane having an acoustic absorption coefficient of less than 0,06 shall be used.

When measurements are made in a reverberation test room, a part of the wall of the room will serve for this purpose. The minimum area of this part of the wall should be determined by the projection of the appliance extended by at least 0,5 m upwards and to both sides. The minimum distance between any surface of the appliance or its cabinet and the nearest corner of the room shall be 1 m.

When measurements are made in a free-field environment, the size of the vertical reflecting plane (supported by the horizontal reflecting plane) shall be at least equal to the size of the projection of the measurement surface.

For both types of test environment, the following requirements shall be complied with:

- the appliance shall be placed in the test environment without any resilient means of support other than those incorporated in the appliance;
- care should be taken to avoid any direct contact between the appliance (including protruding parts, worktops, spacers, etc.) and the vertical reflecting wall;
- the distance between the wall and the appliance shall be established by placing the appliance in direct contact with the wall and moving it away for a distance not exceeding  $10\text{ cm} \pm 1\text{ cm}$ .

### **6.5.5 Modification:**

The height of the lowest edge of the appliance from the floor shall be  $25\text{ cm} \pm 1\text{ cm}$ .

**NOTE** For appliances intended for mounting close to the ceiling with the air stream directed towards the floor, measurements problems can be caused when the appliance is mounted as specified in 6.5.5. It can be necessary to mount such an appliance in an inverted position, with the top of the appliance facing towards the floor at a height of 0,25 m, or at the distance specified by the manufacturer for mounting close to the ceiling. The manufacturer's approval needs to be obtained before operating the appliance under the proposed test conditions.

### **6.5.6 Modification:**

Built-in heaters such as plinth heaters shall be installed according to manufacturer's instructions.

## 7 Measurement of sound pressure levels

This clause of IEC 60704-1:2021 is applicable except as follows:

### 7.1 Microphone array, measurement surface and RSS location for essentially freefield conditions over reflecting plane(s)

*Addition:*

During measurements, care shall be taken to prevent direct blowing to the microphones.

7.1.4 Not applicable.

7.1.6 to 7.1.7 Not applicable.

### 7.4 Measurements

7.4.1 *Addition:*

The time-averaged A-weighted sound pressure levels shall be measured during at least 30 s and including complete cycles (at least two cycles) of the oscillating function, if any.

The frequency range of interest for sound power determination on fan heaters includes at least the octave bands with centre frequencies from 63 Hz to 8 000 Hz.

NOTE 2 In many cases, the 63 Hz octave band level does not participate significantly to the A-weighted level.

NOTE 3 When measuring this 63 Hz octave band, a special attention needs to be paid to the room effect.

7.4.4 Not applicable.

## 8 Calculation of sound pressure and of sound power levels

This clause of IEC 60704-1:2021 is applicable.

## 9 Information to be recorded

This clause of IEC 60704-1:2021 is applicable except as follows:

### 9.7 Electric supply, water supply, etc.

9.7.2 to 9.7.4 Not applicable.

### 9.12 Measurement data

9.12.5 Not applicable.

## **10 Information to be reported**

This clause of IEC 60704-1:2021 is applicable except as follows:

### **10.3 Test conditions for the appliance**

**10.3.3** to **10.3.5** Not applicable.

**10.3.11** Not applicable.

### **10.4 Acoustical data**

**10.4.10** Not applicable.

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## Annexes

The annexes of IEC 60704-1:2021 are applicable.

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## Bibliography

The Bibliography of IEC 60704-1:2021 is applicable.

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## COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

**APPAREILS ÉLECTRODOMESTIQUES ET ANALOGUES –  
CODE D'ESSAI POUR LA DÉTERMINATION DU BRUIT AÉRIEN –****Partie 2-2: Exigences particulières pour  
les appareils de chauffage soufflants**

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L'IEC 60704-2-2 a été établie par le sous-comité 59C: Appareils de chauffage électrique à usage domestique et similaire, du comité d'études 59 de l'IEC: Aptitude à la fonction des appareils électrodomestiques et analogues. Il s'agit d'une Norme internationale.

Cette troisième édition annule et remplace la deuxième édition parue en 2009. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

- alignement sur la dernière édition de l'IEC 60704-1:2021,
- ajout de plusieurs normes ISO,
- révision des conditions d'encastrement,
- ajout des exigences relatives aux conditions climatiques et au bruit de fond.

Le texte de cette Norme internationale est issu des documents suivants:

Projet	Rapport de vote
59C/284/CDV	59C/286/RVC

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

La présente partie 2-2 est destinée à être utilisée conjointement avec la quatrième édition de l'IEC 60704-1:2021, *Appareils électrodomestiques et analogues – Code d'essai pour la détermination du bruit aérien – Partie 1: Exigences générales*.

Le texte correspondant de l'IEC 60704-1:2021 modifié par la présente publication établit le code d'essai pour les appareils de chauffage soufflants.

La présente partie 2-2 complète ou modifie les articles correspondants de l'IEC 60704-1:2021.

Lorsqu'un paragraphe particulier de l'IEC 60704-1:2021 n'est pas mentionné dans la présente partie 2-2, ce paragraphe s'applique pour autant qu'il soit raisonnable. Lorsque la présente norme spécifie "addition", "modification" ou "remplacement", les exigences, modalités d'essai ou commentaires correspondants de l'IEC 60704-1:2021 doivent être adaptés en conséquence.

Les paragraphes ou les figures qui s'ajoutent à ceux de l'IEC 60704-1:2021 sont numérotés à partir de 101.

Les annexes qui sont ajoutées sont désignées AA, BB, etc.

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Une liste de toutes les parties de la série IEC 60704, publiées sous le titre général *Appareils électrodomestiques et analogues – Code d'essai pour la détermination du bruit aérien*, peut être consultée sur le site web de l'IEC.

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- reconduit,
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- révisé.

## INTRODUCTION

Les conditions de mesure spécifiées dans la présente partie 2-2 assurent une exactitude suffisante pour la mesure du bruit émis et la comparaison des résultats des mesures réalisées par différents laboratoires tout en reproduisant, dans la mesure du possible, l'utilisation pratique des appareils de chauffage soufflants.

Il est recommandé d'envisager la détermination des niveaux de bruit dans le cadre d'une procédure d'essai complète qui couvre de nombreux aspects des propriétés et caractéristiques d'aptitude à la fonction des appareils de chauffage soufflants.

NOTE Comme indiqué dans l'introduction de l'IEC 60704-1, le présent code d'essai concerne uniquement le bruit aérien.

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# APPAREILS ÉLECTRODOMESTIQUES ET ANALOGUES – CODE D'ESSAI POUR LA DÉTERMINATION DU BRUIT AÉRIEN –

## Partie 2-2: Exigences particulières pour les appareils de chauffage soufflants

### 1 Domaine d'application

*Remplacement:*

La présente partie de l'IEC 60704 s'applique aux appareils de chauffage soufflants électriques, conçus pour être placés sur le sol, sur une table ou sur un plan de travail, etc., ou pour être fixés.

Le présent document ne s'applique pas:

- aux appareils de chauffage électriques à accumulation;
- aux humidificateurs;
- aux déshumidificateurs;
- aux purificateurs d'air;
- aux appareils de chauffage prévus exclusivement pour des usages industriels.

Pour la détermination et la vérification des valeurs déclarées d'émission sonore dans les spécifications du produit, se référer à l'IEC 60704-3:2019.

### 2 Références normatives

L'article de l'IEC 60704-1:2021 s'applique.

### 3 Termes et définitions

L'article de l'IEC 60704-1:2021 s'applique.

### 4 Méthodes de mesure et environnements acoustiques

L'article de l'IEC 60704-1:2021 s'applique avec les exceptions suivantes:

#### 4.2 Méthode directe

*Addition:*

NOTE Si le bruit émis comporte des composantes de son pur, des précautions appropriées nécessitent d'être prises comme cela est spécifié dans l'ISO 3743-2.

#### 4.3 Méthode comparative

*Addition:*

NOTE Si le bruit émis comporte des composantes de son pur, des précautions appropriées nécessitent d'être prises comme cela est spécifié dans l'ISO 3743-1 et dans l'ISO 3743-2.