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INTERNATIONAL STANDARD

This full version of IEC 60704-2-11:2025 includes the content of the references made to IEC 60704-1:2021

Household and similar electrical appliances – Test code for the determination of airborne acoustical noise –
Part 2-11: Particular requirements for electrically-operated food preparation appliances
Appareils électrodomestiques et analogues – Code d'essai pour la détermination du bruit aérien –
Partie 2-11: Exigences particulières pour les appareils électriques destinés à la préparation des aliments

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-11: Particular requirements for electrically-operated food preparation appliances

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.
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This extended version (EXV) of the official IEC Standard provides the user with the full content of the Standard.

IEC 60704-2-11:2025 EXV includes the content of IEC 60704-2-11:2025, and the references made to IEC 60704-1:2021.

The specific content of IEC 60704-2-11:2025 is displayed on a blue background.

IEC 60704-2-11 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 second edition cancels and replaces the first edition published in 1998. This edition constitutes a technical revision.

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

a) definition of various kind of food preparation appliances added;

b) revision of the test conditions;

c) coffee mills and coffee grinders are removed from the scope.

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

Draft	Report on voting
59L/285/FDIS	59L/289/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 2-11 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 electrically-operated food preparation appliances.

This Part 2-11 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 document, that subclause is applicable as far as reasonable. Where this standard states "addition", "modification", "replacement" or "deletion", the relevant requirements, test specifications or explanatory matter in IEC 60704-1:2021 should be adapted accordingly.

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

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.

In this standard, the following print types are used:

- terms defined in Clause 3: **bold type**.

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 in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION to IEC 60704-1:2021

Although the noise emitted by household appliances does not generally present a hazard to the hearing of the operator and other exposed persons, the need for standardization procedures for the determination of the noise emitted has been recognized for a long time. Such procedures should be specified, not only for special types of appliances, but also the principles should be applicable to the majority of appliances in general use.

Generally, the determination of noise levels is only part of a comprehensive testing procedure covering many aspects of the properties and performances of the appliance. It is therefore important that the requirements for noise measurements (such as test environment, instrumentation, and amount of labour involved) be kept at a modest level.

The results of noise measurements are used for many purposes, for example for noise declaration, as well as for comparing the noise emitted by a specific appliance to the noise emitted by other appliances of the same family. In other cases, the results are taken as a basis for engineering action in the development stages of new pieces of equipment, or in deciding on means for sound insulation. For all purposes, it is important to specify procedures with known accuracy so that the results of measurements taken by different laboratories can be compared.

These conditions have, as far as possible, been taken into account in the preparation of this test code. The acoustic measuring methods are based on those described in ISO 3743-1:2010, ISO 3743-2:2018 and ISO 3744:2010.

The adoption of these methods permits the use of hemi-anechoic rooms, special reverberation test rooms and hard-walled test rooms. The result of the measurements is the sound power level of the appliance. Within the measuring uncertainty specific to these methods, the results from the determination under free field conditions over a reflecting plane are equal to those obtained in reverberant fields.

The use of intensity methods as described in ISO 9614-1:1993, ISO 9614-2:1996, and ISO 9614-3:2002 is applicable under special conditions, which are described in specific parts of the IEC 60704-2 series.

This test code is concerned with airborne noise only. In some cases, structure-borne noise, for example transmitted to the adjoining room, can be of importance.

INTRODUCTION to IEC 60704-2-11:2025

The measuring conditions specified in this Part 2-11 provide for sufficient steadiness in the noise emitted and reproducibility in different laboratories, whilst simulating as far as possible the practical use of electrically-operated food preparation appliances.

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 electrically-operated food preparation appliances.

NOTE As stated in the introduction to IEC 60704-1:2021, this test code is concerned with airborne noise only.

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

Part 2-11: Particular requirements for electrically-operated food preparation appliances

1 Scope

This part of IEC 60704 applies to electric appliances (including their accessories or components) for household and similar use, supplied from mains or from batteries.

By "similar use" is understood the use in conditions similar to those found in households, for example in inns, coffee houses, tea rooms, hotels, barber or hairdresser shops, launderettes, etc., if not otherwise specified in the IEC 60704-2 series.

This document does not apply to

– appliances, equipment, or machines designed exclusively for industrial or professional purposes;
– appliances that are integrated parts of a building or its installations, such as equipment for air conditioning, heating and ventilating (except household fans, cooker hoods, free-standing heating appliances, dehumidifiers, air cleaners, and stand-alone water heaters), oil burners for central heating, pumps for water supply and for sewage systems;
– separate motors or generators and
– appliances exclusively for outdoor use.

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

This part of IEC 60704 applies to electrically-operated food preparation appliances, either in the form of separate machines with a single function or in the form of multi-purpose machines with appropriate tools or attachments for several functions. These machines are intended for placing on counters, tables, work tops or sinks, for built-in, or for hand-held use, supplied from mains or from batteries and able to ensure the functions described in IEC 60619:1993, Clause 4 and IEC 60619:1993/AMD1:1995, Clause 4.

NOTE 1 A revised version of IEC 60619 is under preparation.

This document also applies to **multifunctional cooking food processors**.

This document does not apply to coffee mills and coffee grinders.

NOTE 2 Coffee mills and coffee grinders will be included in a separate standard, which is under preparation.

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 60619:1993, *Electrically operated food preparation appliances – Methods for measuring the performance*
IEC 60619:1993/AMD1:1995

IEC 60704-2 (all parts), *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise*

IEC 60704-3:2019, *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 3: Procedure for determining and verifying declared noise emission values*

IEC 61260-1:2014, *Electroacoustics – Octave-band and fractional-octave-band filters – Part 1: Specifications*

IEC 61672-1:2013, *Electroacoustics – Sound level meters – Part 1: Specifications*

ISO 3743-1:2010, *Acoustics – Determination of sound power levels of noise sources – Engineering methods for small, movable sources in reverberant fields – Part 1: Comparison method for hard-walled test rooms*

ISO 3743-2:2018, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Engineering methods for small, movable sources in reverberant fields – Part 2: Methods for special reverberation test rooms*

ISO 3744:2010, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Engineering method in an essentially free field over a reflecting plane*

ISO 9614-1:1993, *Acoustics – Determination of sound power levels of noise sources using sound intensity – Part 1: Measurement at discrete points*

ISO 9614-2:1996, *Acoustics – Determination of sound power levels of noise sources using sound intensity – Part 2: Measurement by scanning*

ISO 9614-3:2002, *Acoustics – Determination of sound power levels of noise sources using sound intensity – Part 3: Precision method for measurement by scanning*

ISO 6926:2016, *Acoustics – Requirements for the performance and calibration of reference sound sources used for the determination of sound power levels*

ISO 12001:1996, *Acoustics – Noise emitted by machinery and equipment – Rules for the drafting and presentation of a noise test code*

IEC 60704-2-11

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Household and similar electrical appliances – Test code for the determination of airborne acoustical noise –
Part 2-11: Particular requirements for electrically-operated food preparation appliances

Appareils électrodomestiques et analogues – Code d'essai pour la détermination du bruit aérien –
Partie 2-11: Exigences particulières pour les appareils électriques destinés à la préparation des aliments



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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b) revision of the test conditions;

c) coffee mills and coffee grinders are removed from the scope.

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59L/285/FDIS	59L/289/RVD

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- withdrawn, or
- revised.

INTRODUCTION

The measuring conditions specified in this Part 2-11 provide for sufficient steadiness in the noise emitted and reproducibility in different laboratories, whilst simulating as far as possible the practical use of electrically-operated food preparation appliances.

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 electrically-operated food preparation appliances.

NOTE As stated in the introduction to IEC 60704-1:2021, this test code is concerned with airborne noise only.

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

Part 2-11: Particular requirements for electrically-operated food preparation appliances

1 Scope

Addition:

This part of IEC 60704 applies to electrically-operated food preparation appliances, either in the form of separate machines with a single function or in the form of multi-purpose machines with appropriate tools or attachments for several functions. These machines are intended for placing on counters, tables, work tops or sinks, for built-in, or for hand-held use, supplied from mains or from batteries and able to ensure the functions described in IEC 60619:1993, Clause 4 and IEC 60619:1993/AMD1:1995, Clause 4.

NOTE 1 A revised version of IEC 60619 is under preparation.

This document also applies to **multifunctional cooking food processors**.

This document does not apply to coffee mills and coffee grinders.

NOTE 2 Coffee mills and coffee grinders will be included in a separate standard, which is under preparation.

2 Normative references

Addition:

IEC 60619:1993, *Electrically operated food preparation appliances – Methods for measuring the performance*
IEC 60619:1993/AMD1:1995

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

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

Partie 2-11: Exigences particulières pour les appareils électriques destinés à la préparation des aliments

AVANT-PROPOS

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La Norme internationale IEC 60704-2-11 a été établie par le sous-comité 59L: Petits appareils domestiques, du comité d'études 59 de l'IEC: Aptitude à la fonction des appareils électrodomestiques. Il s'agit d'une Norme internationale.

Cette deuxième édition annule et remplace la première édition parue en 1998. Cette édition constitue une révision technique.

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

a) ajout d'une définition des différents types d'appareils destinés à la préparation des aliments;

b) révision des conditions d'essai;

c) suppression des moulins à café et broyeurs à café du domaine d'application.

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

Projet	Rapport de vote
59L/285/FDIS	59L/289/RVD

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.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/publications.

Cette Partie 2-11 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 tel que modifié par la présente publication constitue le code d'essai des appareils électriques destinés à la préparation des aliments.

Cette Partie 2-11 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 le présent document, ce paragraphe s'applique pour autant que cela soit raisonnable. Lorsque la présente norme mentionne "addition", "modification", "remplacement" ou "suppression", il convient d'adapter les exigences, les modalités d'essai ou les commentaires correspondants de l'IEC 60704-1:2021 en conséquence.

Les paragraphes et tableaux complémentaires à ceux de l'IEC 60704-1:2021 sont numérotés à partir de 101.

À l'exception des notes figurant dans un nouveau paragraphe ou des notes de l'IEC 60704-1:2021, les notes sont numérotées à partir de 101, y compris celles figurant dans un article ou paragraphe remplacé.

Dans la présente norme, les caractères d'imprimerie suivants sont utilisés:

- termes définis à l'Article 3: **caractères gras**.

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*, se trouve sur le site web de l'IEC.

Le comité a décidé que le contenu de cette publication ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous webstore.iec.ch dans les données relatives à la publication recherchée. À cette date, le document sera

- reconduit,
- supprimé, ou
- révisé

INTRODUCTION

Les conditions de mesure spécifiées dans la présente Partie 2-11 assurent une stabilité suffisante du bruit émis et la reproductibilité dans différents laboratoires, tout en simulant autant que possible, l'usage réel des appareils électriques de préparation des aliments.

Il est recommandé de considérer la détermination des niveaux de bruit comme faisant partie d'une procédure d'essai d'ensemble couvrant de nombreux aspects des propriétés et de l'aptitude à la fonction des appareils électriques de préparation des aliments.

NOTE Comme cela est indiqué dans l'introduction à l'IEC 60704-1:2021, le présent code d'essai concerne uniquement le bruit aérien.

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

Partie 2-11: Exigences particulières pour les appareils électriques destinés à la préparation des aliments

1 Domaine d'application

Addition:

La présente partie de l'IEC 60704 s'applique aux appareils électriques destinés à la préparation des aliments, qu'ils se présentent comme des appareils séparés avec une seule fonction ou comme des appareils multi-usages avec des outils ou équipements appropriés à plusieurs fonctions. Ces appareils sont destinés à être placés sur des comptoirs, des tables, des plans de travail ou des éviers, à être encastrés, ou à être tenus à la main, alimentés par le secteur ou par batteries et capables d'assurer les fonctions décrites dans l'IEC 60619:1993, Article 4 et l'IEC 60619:1993/AMD1:1995, Article 4.

NOTE 1 Une version révisée de l'IEC 60619 est en cours d'élaboration.

Le présent document s'applique également aux **préparateurs culinaires multifonctions**.

Ce document ne s'applique pas aux moulins à café et broyeurs à café.

NOTE 2 Les moulins à café et broyeurs à café seront inclus dans une norme distincte, qui est en cours d'élaboration.

2 Références normatives

Addition:

IEC 60619:1993, *Appareils électriques pour la préparation des aliments – Méthodes de mesure de l'aptitude à la fonction*
IEC 60619:1993/AMD1:1995