

# INTERNATIONAL STANDARD



**Household and similar electrical appliances – Test code for the determination of airborne acoustical noise –  
Part 2-15: Particular requirements for household food waste disposers**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –  
TEST CODE FOR THE DETERMINATION  
OF AIRBORNE ACOUSTICAL NOISE –****Part 2-15: Particular requirements for household food waste disposers**

## 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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IEC 60704-2-15 has been prepared by IEC subcommittee 59L: Small household appliances, of IEC technical committee 59: Performance of household and similar electrical appliances. It is an International Standard.

This first edition cancels and replaces the first edition of IEC/PAS 60704-2-15, published in 2008. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC/PAS 60704-2-15:2008:

- a) measurement uncertainty and standard deviations have been reviewed;
- b) definitions of standard test programme and standard test load have been reviewed;
- c) definition of the test enclosure has been reviewed;

- d) additional microphone position for test in free field environment;
- e) information to be reported has been reviewed;
- f) aligned to IEC 60704-1:2021.

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

Draft	Report on voting
59L/252/CDV	59L/264/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 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).

This Part 2-15 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 household food waste disposers.

This document 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" or "replacement", the relevant requirements, test specifications or explanatory matter in IEC 60704-1:2021 are to be adapted accordingly.

Subclauses, tables and figures that are additional to those in IEC 60704-1:2021 are numbered starting from 101. Additional annexes are lettered AA, BB, etc.

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 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](https://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
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## INTRODUCTION

The noise of food waste disposers has been measured up to now by making use of IEC/PAS 60704-2-15<sup>1</sup>.

The measuring conditions specified in this document 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 food waste disposers.

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 food waste disposers.

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

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<sup>1</sup> This publication has been withdrawn.



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

## Part 2-15: Particular requirements for household food waste disposers

### 1 Scope

*Replacement:*

These particular requirements apply to single unit electric food waste disposers for household use, with or without automatic programme control, for cold water supply, for permanent connection to water supply and sewage systems, intended for connection to the kitchen sink drain and contained within a kitchen cabinet enclosure.

Food waste disposers for restaurants, hotels and industry purposes are excluded.

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

### 2 Normative references

*Addition:*

ANSI/ASME A112.19.3-2022, *Stainless Steel Plumbing Fixtures*

### 3 Terms and definitions

[IEC 60704-2-15:2024](https://standards.iteh.ai/catalog/standards/iec/72d9d3cf-4abf-4550-98fa-aec185772e6a/iec-60704-2-15-2024)

*Addition:*

#### 3.101

##### **batch feed operation**

method of operation in which the operator loads the food waste into the container body

#### 3.102

##### **standard hard test load**

rigid standard test load for noise measurements

### 4 Measurement methods and acoustical environment

#### 4.1 General

*Addition after the second paragraph:*

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

## 4.2 Direct method

*Addition:*

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

## 4.3 Comparison method

*Addition:*

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

## 4.4 Acoustical environments

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

*Replace the third paragraph with the following:*

The method specified in ISO 3744 is applicable to noise sources of any size. When applying ISO 3743-1 and ISO 3743-2, it shall be ensured that the maximum size of the cabinet enclosing the food waste disposer under test fulfils the requirements specified in ISO 3743-1:2010, 4.2, and ISO 3743-2:2018, Clause 5.

## 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 in accordance with this document are currently not available.

For the purpose of determining and verifying declared noise emission values for food waste disposers in accordance with IEC 60704-3, the value  $\sigma_M$  is 2,5 dB.

## 6 Operation and location of appliances under test

### 6.1.3 *Replacement:*

Prior to commencing measurements, the inside of the grind chamber shall be clean and free of any debris from prior operation. The food waste disposer shall be run through 10 complete operational cycles, of a 30 s duration, with a **standard hard test load** (3.102).

### 6.1.4 Not applicable.

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

### 6.2.1 *Replacement:*

The supply voltage is measured at the plug of a non-detachable cable or cord, at the appliance inlet if a detachable cord is provided or no cable is provided, but in no case at the entrance of extensions cables or cords.

### 6.2.2 Not applicable.