



Edition 1.0 2024-09

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

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ICS 17.140.20; 97.040.50

ISBN 978-2-8322-9643-1

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOF	REWORD	3	
INT	RODUCTION	6	
1	Scope	7	
2	Normative references	7	
3	Terms and definitions	7	
4	Measurement methods and acoustical environment	7	
6	Operation and location of appliances under test	8	
7	Measurement of sound pressure levels	12	
8	Calculation of sound pressure and sound power levels	14	
9	Information to be recorded	14	
10	Information to be reported	14	
Annex A (normative) Standard test table		15	
Ann	ex B (informative) Test enclosure	16	
Figu	ıre 101 – Food waste disposer	10	
Figure 102 – Test enclosure – Mandatory characteristics drawing		12	
	re 103 – Six-microphone geometric setup with four optional microphones on the measurement plane	13	
Figu	re B.1 – Detail drawing of recommended design	16	
Figu	Figure B.2 – ISO view without front panel and with hardware		
	Figure B.3 – Front view without front panel and with hardware, sink disposer and mounting assembly		

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 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) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at https://patents.iec.ch. IEC shall not be held responsible for identifying any or all such patent rights.

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. The main document types developed by IEC are described in greater detail at 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 in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The noise of food waste disposers has been measured up to now by making use of IEC/PAS 60704-2-15¹.

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.

¹ 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