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Household and similar electrical appliances - Test code for the determination of airborne acoustical noise -
Part 2-19: Particular requirements for air cleaners

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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 2-19: Particular requirements for air cleaners

FOREWORD

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

IEC 60704-2-19:2026 EXV includes the content of IEC 60704-2-19:2026 and the references made to IEC 60704-1:2021.

The specific content of IEC 60704-2-19:2026 is displayed on a blue background.

IEC 60704-2-19 has been prepared by subcommittee 59N: Electrical air cleaners for household and similar purposes, of IEC technical committee 59: Performance of household and similar electrical appliances. It is an International Standard.

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

Draft	Report on voting
59N/87/FDIS	59N/89/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 2-19 is intended to be used in conjunction with 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 air cleaners.

This Part 2-19 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 should be adapted accordingly.

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

Unless notes are in a new subclause or involve notes in IEC 60704-1, 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 60704-2-19:2026

The measuring conditions specified in this document provide for sufficient steadiness in the noise emitted and reproducibility in different laboratories, whilst simulating as far as possible the practical use of **air cleaners**.

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 **air cleaners**.

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

1 Scope

This part of IEC 60704 applies to stationary freestanding and wall-mounted **air cleaners** for domestic and similar use, supplied from mains, d.c. voltage not exceeding 48 V or batteries.

This document includes **combination products**, where air cleaning is combined with for example humidification, but can be used only for the air cleaning function.

Fresh-air air cleaners and air cleaners that change their physical location autonomously without user intervention, are excluded from this document.

By similar use is understood the use in hotels, hospitals, shops, offices, etc.

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

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 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 3741:2010, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Precision methods for reverberation test rooms*

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*

Bibliography

IEC 60038:2009, *IEC standard voltages*

IEC 63086-1:2020, *Household and similar electrical air cleaning appliances - Methods for measuring the performance - Part 1: General requirements*

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ISO 3745:2012, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Precision method for anechoic and hemi-anechoic rooms*
ISO 3745:2012/AMD:2017

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