

Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-18: Particular requirements for electric water heaters

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 60704-2-18:2022 sisaldab Euroopa standardi EN IEC 60704-2-18:2022 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 60704-2-18:2022 consists of the English text of the European standard EN IEC 60704-2-18:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
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English Version

Household and similar electrical appliances - Test code for the
determination of airborne acoustical noise - Part 2-18: Particular
requirements for electric water heaters
(IEC 60704-2-18:2022)

Appareils électrodomestiques et analogues - Code d'essai
pour la détermination du bruit aérien - Partie 2-18:
Exigences particulières pour les chauffe-eau électriques
(IEC 60704-2-18:2022)

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Zwecke - Prüfvorschrift für die Bestimmung der
Luftschallemission - Besondere Anforderungen an
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(IEC 60704-2-18:2022)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 59C/262/CDV, future edition 1 of IEC 60704-2-18, prepared by SC 59C "Electrical heating appliances for household and similar purposes" of IEC/TC 59 "Performance of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60704-2-18:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-12-03 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2025-03-03 document have to be withdrawn

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Endorsement notice

The text of the International Standard IEC 60704-2-18:2022 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60335-2-21:2012 NOTE Harmonized as EN 60335-2-21:2021 (modified)

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

The Annex ZA of EN IEC 60704-1:2021 applies with the following changes:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
<i>Add the following references:</i>				
IEC 60379 ¹	—	Methods for measuring the performance of prEN IEC 60379 electric storage water-heaters for household purposes		—
IEC 60704-1	2021	Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 1: General requirements	EN IEC 60704-1	2021
IEC 63159-1	-	Household electric instantaneous water heaters - Methods for measuring the performance - Part 1: General aspects	EN IEC 63159-1	-
IEC 63159-2-1	-	Household electric instantaneous water heaters - Methods for measuring the performance - Part 2-1: Multifunctional electric instantaneous water heaters	EN IEC 63159-2-1	-
IEC 63159-2-2	-	Household electric instantaneous water heaters - Methods for measuring the performance - Part 2-2: Efficiency of single point of use electric instantaneous water heaters	EN IEC 63159-2-2	-

¹ Under development. Stage at time of publication: IEC CDV 60379:2021.

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Household and similar electrical appliances – Test code for the determination of airborne acoustical noise –
Part 2-18: Particular requirements for electric water heaters**

**Appareils électrodomestiques et analogues – Code d'essai pour la détermination du bruit aérien –
Partie 2-18: Exigences particulières pour les chauffe-eau électriques**



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Household and similar electrical appliances – Test code for the determination of airborne acoustical noise –
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-18: Particular requirements for electric water heaters

FOREWORD

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IEC 60704-2-18 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.

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

Draft	Report on voting
59C/262/CDV	59C/266A/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 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 electrical water heaters.

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 document states "addition", "modification", "replacement" or "deletion", the relevant requirements, test specifications or explanatory matter in IEC 60704-1:2021 should be adapted accordingly.

Subclauses, figures 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.

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.

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.

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,
- replaced by a revised edition, or
- amended.

INTRODUCTION

The measuring conditions specified in this part of IEC 60704 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 household water 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 household water heaters.

Special forms of electric water heaters generate remarkable noise, which is not common for conventional electric water heaters. In order to capture these special products, this document was developed. It provides a noise measurement procedure, which serves as an instrument for realizing technical improvements on the products and prevents false declarations in regulatory systems (e.g. European regulation on energy labelling).

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

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

Part 2-18: Particular requirements for electric water heaters

1 Scope

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

Addition:

These particular requirements apply to single-unit electric water heaters for household and similar use intended for placing on the floor against a wall, for building-in or placing under a counter, a kitchen worktop or under a sink, for wall-mounting or on a counter.

NOTE 1 Conventional electric water heaters that make use of the Joule effect in electric resistance heating elements normally do not produce any noise emissions. However, there are products with noise-producing components on the market. Examples of such components are motors and pumps e.g. for increasing water pressure.

NOTE 2 Noise of control elements is disregarded because of the sporadic character and its normally very low sound level.

This document does not apply to:

- combustion water heaters;
- water kettles;
- heat pump water heaters;
- conventional electric storage water heaters as defined in IEC 60335-2-21:2012, Clause 1;
- instantaneous electric water heaters without any noise-producing components such as motors and pumps.

2 Normative references

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

Addition:

IEC 60379:—¹, *Methods for measuring the performance of electric storage water-heaters for household purposes*

IEC 60704-1:2021, *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 1: General requirements*

IEC 63159-1, *Electric instantaneous water heaters – Methods for measuring the performance – Part 1: General requirements*

IEC 63159-2-1, *Electric instantaneous water heaters – Methods for measuring the performance – Part 2-1: Multifunctional electric instantaneous water heaters*

¹ Under development. Stage at the time of publication: IEC CDV 60379:2021.