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Standards

Irish Standard  
I.S. EN 60704-2-14:2013&A11:2015

Household and similar electrical appliances -  
Test code for the determination of airborne  
acoustical noise - Part 2-14: Particular  
requirements for refrigerators, frozen-food  
storage cabinets and food freezers

**I.S. EN 60704-2-14:2013&A11:2015**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

EN 60704-2-14:2013/A11:2015

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EUROPEAN STANDARD

**EN 60704-2-14:2013/A11**

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2015

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ICS 17.140.20; 97.040.20

English Version

**Household and similar electrical appliances - Test code for the  
determination of airborne acoustical noise -  
Part 2-14: Particular requirements for refrigerators, frozen-food  
storage cabinets and food freezers**

Appareils électrodomestiques et analogues - code d'essai  
pour la détermination du bruit aérien -  
Partie 2-14: Exigences particulières pour les réfrigérateurs,  
conservateurs et congélateurs

Elektrische Geräte für den Hausgebrauch und ähnliche  
Zwecke - Prüfvorschrift für die Bestimmung der  
Luftschallemission -  
Teil 2-14: Besondere Anforderungen an Kühlgeräte,  
Tiefkühlgeräte und Gefriergeräte

This amendment A11 modifies the European Standard EN 60704-2-14:2013; it was approved by CENELEC on 2014-12-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Foreword

This document (EN 60704-2-14:2013/A11:2015) has been prepared by CLC/TC 59X "Performance of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to (dop) 2015-12-01  
be implemented at national level by  
publication of an identical national  
standard or by endorsement
- latest date by which the national standards (dow) 2017-12-01  
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This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60704-2-14**

May 2013

ICS 17.140.20; 97.040.20

Supersedes EN 28960:1993

English version

**Household and similar electrical appliances -  
Test code for the determination of airborne acoustical noise -  
Part 2-14: Particular requirements for refrigerators, frozen-food storage  
cabinets and food freezers  
(IEC 60704-2-14:2013)**

Appareils électrodomestiques  
et analogues - code d'essai pour la  
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les réfrigérateurs, conservateurs  
et congélateurs  
(CEI 60704-2-14:2013)

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und ähnliche Zwecke -  
Prüfvorschrift für die Bestimmung  
der Luftschallemission -  
Teil 2-14: Besondere Anforderungen an  
Kühlgeräte, Tiefkühlgeräte und  
Gefriergeräte  
(IEC 60704-2-14:2013)

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
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## Foreword

The text of document 59/590/FDIS, future edition 2 of IEC 60704-2-14, prepared by IEC/TC 59 "Performance of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60704-2-14:2013.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-12-06
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-03-06

This document supersedes EN 28960:1993.

This Part 2 -14 is intended to be used in conjunction with EN 60704-1:2010, *Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 1: General requirements*.

NOTE When "Part 1" is mentioned in this standard, it refers to EN 60704-1.

The relevant text of Part 1 as amended by this publication establishes the test code for refrigerators, frozen-food storage cabinets and food freezers.

This Part 2-14 supplements or modifies the corresponding clauses in EN 60704-1. When a particular subclause of Part 1 is not mentioned in this Part 2-14, 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 Part 1 are to be adapted accordingly.

Subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1. Additional annexes are lettered AA, BB, etc.

Unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause.

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## Endorsement notice

The text of the International Standard IEC 60704-2-14:2013 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 62552            NOTE            Harmonised as EN 62552.



IEC 60704-2-14

Edition 2.0 2013-01

# INTERNATIONAL STANDARD

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

**Part 2-14: Particular requirements for refrigerators, frozen-food storage cabinets  
and food freezers**





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**IEC 60704-2-14**

Edition 2.0 2013-01

# **INTERNATIONAL STANDARD**

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

**Part 2-14: Particular requirements for refrigerators, frozen-food storage cabinets  
and food freezers**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope and object.....	6
1.1 Scope.....	6
1.2 Object .....	6
1.3 Measurement uncertainty .....	6
1.101 Standard deviation for declaration and verification .....	7
2 Normative references .....	7
3 Terms and definitions .....	7
4 Measurement methods and acoustical environments .....	7
4.2 Direct method.....	8
4.3 Comparison method .....	8
5 Instrumentation .....	8
6 Operation and location of appliances under test .....	8
6.1 Equipping and pre-conditioning of appliances.....	8
6.2 Supply of electrical energy and of water or gas .....	9
6.3 Climatic conditions .....	9
6.4 Loading and operating of appliances during test.....	9
6.5 Location and mounting of appliances.....	10
7 Measurement of sound pressure levels.....	10
7.1 Microphone array, measurement surface and RSS location for essentially free-field conditions over reflecting plane(s) .....	10
7.4 Measurements.....	11
8 Calculation of sound pressure and sound power levels.....	11
9 Information to be recorded.....	11
10 Information to be reported .....	11
Annexes .....	13
Annex A (normative) Standard test table.....	13
Bibliography.....	14
 Figure 101 – Measurement surface – parallelepiped – with key microphone positions for high floor-standing appliances placed against a wall.....	 12
 Table 101 – Standard deviations of sound power levels .....	 7
Table 102 – Standard deviations for declaration and verification .....	7

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

#### **Part 2-14: Particular requirements for refrigerators, frozen-food storage cabinets and food freezers**

#### 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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International Standard IEC 60704-2-14 has been prepared by IEC technical committee 59: Performance of household and similar electrical appliances.

This second edition cancels and replaces the first edition published in 2007. This edition constitutes a technical revision.

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

- a) the description of an appropriate test enclosure has been removed from this part of IEC 60704 and has been incorporated into Part 1 of IEC 60704-1;
- b) the values of standard deviations of sound power levels determined according to this part of IEC 60704 have been added.

The text of this standard is based on the following documents:

FDIS	Report on voting
59/590/FDIS	59/595/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This Part 2-14 is intended to be used in conjunction with the third edition (2010) of IEC 60704-1, *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 1: General requirements*.

NOTE When “Part 1” is mentioned in this standard, it refers to IEC 60704-1.

The relevant text of Part 1 as amended by this publication establishes the test code for refrigerators, frozen-food storage cabinets and food freezers.

This Part 2-14 supplements or modifies the corresponding clauses in IEC 60704-1. When a particular subclause of Part 1 is not mentioned in this Part 2-14, 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 Part 1 are to be adapted accordingly.

Subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1. Additional annexes are lettered AA, BB, etc.

Unless notes are in a new subclause or involve notes in Part 1, 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, 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 publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

A bilingual version of this publication may be issued at a later date.

## INTRODUCTION

The measuring conditions specified in this part of 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 refrigerators, frozen-food storage cabinets and food freezers.

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 refrigerators, frozen-food storage cabinets and food freezers.

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 2-14: Particular requirements for refrigerators, frozen-food storage cabinets and food freezers

#### 1 Scope and object

This clause of Part 1 is applicable except as follows:

##### 1.1 Scope

###### 1.1.1 General

*Addition:*

These particular requirements apply to refrigerators, frozen-food storage cabinets and food freezers (fitted with their accessories) for household and similar use, supplied from the mains or from batteries.

###### 1.1.2 Types of noise

*Replacement:*

The methods specified in ISO 3743-1, ISO 3743-2 and ISO 3744 can be used for measuring noise emitted by refrigerators, frozen-food storage cabinets and food freezers.

###### 1.1.3 Size of the source

*Replacement:*

The method specified in ISO 3744 is applicable to noise sources of any size. When applying ISO 3743-1 and ISO 3743-2, care should be taken that the maximum size of the refrigerator, frozen-food storage cabinet or food freezer under test fulfils the requirements specified in 1.3 of ISO 3743-1 and ISO 3743-2.

#### 1.2 Object

*Addition:*

These described methods are specified for appliances without an operator present.

Requirements for the declaration of noise emission values are not within the scope of this standard.

NOTE 101 For determining and verifying noise emission values declared in product specifications, see IEC 60704-3.

#### 1.3 Measurement uncertainty

*Replacement:*

The estimated values of standard deviations of sound power levels determined according to this standard are indicated in Table 101:

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