BS EN 60704-2-2:2010



BSI Standards Publication

Household and similar appliances — Test code for the determination of airborne acoustical noise

Part 2-2: Particular requirements for fan heaters

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



This British Standard is the UK implementation of EN 60704-2-2:2010. It is identical to IEC 60704-2-2:2009. It supersedes BS EN 60704-2-2:1995 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CPL/59, Performance of household electrical appliances.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© BSI 2010

ISBN 978 0 580 65252 3

ICS 17.140.20; 97.100.10

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2010.

Amendments issued since publication

Amd. No.

Date

Text affected

EUROPÄISCHE NORM

April 2010

ICS 17.140.20; 97.100.10

Supersedes EN 60704-2-2:1994

English version

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

(IEC 60704-2-2:2009)

Appareils électrodomestiques et analogues -Code d'essai pour la détermination du bruit aérien -Partie 2-2: Règles particulières pour les ventilo-convecteurs (CEI 60704-2-2:2009) Elektrische Geräte für den Hausgebrauch und ähnliche Zwecke - Prüfvorschrift für die Bestimmung der Luftschallemission - Teil 2-2: Besondere Anforderungen an Konvektionsheizgeräte mit erzwungener Konvektion (IEC 60704-2-2:2009)

This European Standard was approved by CENELEC on 2010-04-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 59C/134/CDV, future edition 2 of IEC 60704-2-2, prepared by SC 59C, Heating appliances, of IEC TC 59, Performance of household electrical appliances, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60704-2-2 on 2010-04-01.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

This European Standard supersedes EN 60704-2-2:1994.

The main changes from the previous edition are as follows: provisions with regard to measurement uncertainty and standard deviation for declaration and verification have been included in the scope.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

The following dates were fixed:

 latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement

(dop) 2011-01-01

 latest date by which the national standards conflicting with the EN have to be withdrawn

(dow) 2013-04-01

This Part 2-2 is intended to be used in conjunction with EN 60704-1:1997, Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 1: General requirements.

The relevant text of Part 1 as amended by this document establishes the test code for electric thermal storage room heaters.

This Part 2-2 supplements or modifies the corresponding clauses of EN 60704-1. When a particular subclause of Part 1 is not mentioned in this Part 2-2, that subclause applies as far as is reasonable. Where this Part 2-2 states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

Subclauses or figures which are additional to those in Part 1 are numbered starting from 101.

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.

Endorsement notice

The text of the International Standard IEC 60704-2-2:2009 was approved by CENELEC as a European Standard without any modification.

CONTENTS

INT	ROD	UCTION		5
1	Scope and object			6
	1.1 Scope			6
		1.1.1	General	
		1.1.2	Types of noise	6
		1.1.3	Size of the source	6
	1.2	Object		6
	1.3 Measurement uncertainty			7
2	Normative references			7
3	Terms and definitions			7
4	Measurement methods and acoustical environments			
5	Instrumentation			7
6	Operation and location of appliances under test			8
	6.1 Equipping and pre-conditioning of appliances			8
	6.2 Supply of electric energy and of water or gas			
7	Measurement of sound pressure levels			10
8	Calculation of sound pressure and of sound power levels			10
9	Information to be recorded			10
10	0 Information to be reported			10
Anr	nexes			12
	. 5/1.00			

INTRODUCTION

The measuring conditions specified in this part 2-2 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 fan 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 fan heaters.

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 2-2: Particular requirements for fan heaters

1 Scope and object

This clause of part 1 is applicable except as follows:

1.1 Scope

1.1.1 General

Replacement:

This standard applies to electric fan heaters, designed for placing on the floor, table or counter, etc., or for wall-mounting.

This standard does not apply to

- electric storage room heaters;
- room humidifiers;
- room dehumidifiers;
- air cleaners;
- heaters designed exclusively for industrial purposes.

1.1.2 Types of noise

Replacement:

ISO 3743-1, ISO 3743-2 and ISO 3744 can be used for measuring noise emitted by fan heaters.

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 appliance under test fulfils the requirements specified in Subclause 1.3 of ISO 3743-1 and ISO 3743-2.

1.2 Object

Addition:

The frequency range of interest for sound power determination on fan heaters includes at least the octave bands with centre frequencies from 63 Hz to 8000 Hz.

- NOTE 1 In many cases, the 63 Hz octave band level does not participate significantly to the A-weighted level.
- NOTE 2 When measuring this 63 Hz octave band, a special attention should be paid to the room effect.