



BSI Standards Publication

Household and similar electrical appliances - Safety

Part 2-66: Particular requirements for water-bed heaters

National foreword

This British Standard is the UK implementation of EN 60335-2-66:2003+A11:2019. It is derived from IEC 60335-2-66:2002, incorporating corrigendum July 2004 and amendments 1:2008 and 2:2011. It supersedes BS EN 60335-2-66:2003+A2:2012, which will be withdrawn on 16 April 2022.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment A1 is indicated by A1 A1.

Text altered by CENELEC amendment A11 is indicated by A11 A11.

The UK participation in its preparation was entrusted to Technical Committee CPL/61/7, Safety of electrical appliances - Heated appliance group.

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.

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

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Amendments/corrigenda issued since publication

Date	Text affected
24 August 2004	Implementation of IEC corrigendum July 2004: correction to Subclause 3.1.9
30 November 2008	Implementation of IEC amendment 1:2008 with CENELEC endorsement A1:2008
30 April 2012	Implementation of IEC amendment 2:2011 with CENELEC endorsement A2:2012
31 October 2019	Implementation of CENELEC amendment A11:2019

EUROPEAN STANDARD

EN 60335-2-66:2003+A11

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2019

ICS 97.100.10

Supersedes EN 60335-2-66:1995 + A1:2001

English version

**Household and similar electrical appliances -
Safety
Part 2-66: Particular requirements for water-bed heaters
(IEC 60335-2-66:2002)**

Appareils électrodomestiques
et analogues -
Sécurité
Partie 2-66: Règles particulières
pour les dispositifs de chauffage
pour matelas à eau
(CEI 60335-2-66:2002)

Sicherheit elektrischer Geräte für den
Hausgebrauch und ähnliche Zwecke
Teil 2-66: Besondere Anforderungen
für Wasserbett-Beheizungen
(IEC 60335-2-66:2002)

This European Standard was approved by CENELEC on 2003-03-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

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EN 60335-2-66:2003+A11:2019 (E)

European foreword

The text of the International Standard IEC 60335-2-66:2002 (61/2175/FDIS), prepared by the IEC Technical Committee 61, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 60335-2-66 on 2003-03-01.

This European Standard replaces EN 60335-2-66:1995 + A1:2001.

The following dates are applicable:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2004-03-01
- date on which national standards conflicting with the EN have to be withdrawn (dow) 2006-03-01

This part 2 has to be used in conjunction with EN 60335-1, Household and similar electrical appliances – Safety – Part 1: General requirements. It was established on the basis of the 2002 edition of that standard. Amendments and revisions of Part 1 have also to be taken into account and the dates when such changes become applicable will be stated in the relevant amendment or revision of Part 1.

This part 2 supplements or modifies the corresponding clauses of EN 60335-1, so as to convert it into the European Standard: Safety requirements for electric water-bed heaters.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

NOTE 1 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- 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;
- additional annexes are lettered AA, BB, etc.;
- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letter Z.

NOTE 2 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

There are no special national conditions causing a deviation from this European Standard, other than those listed in Annex ZA to EN 60335-1.

There are no national deviations from this European Standard, other than those listed in Annex ZB to EN 60335-1.

p NOTE In this document, p is used in the margin to indicate instructions for preparing the printed version.

Introduction

p Add:

An investigation by CENELEC TC 61 has shown that all risks from products within the scope of this standard are fully covered by the Low Voltage Directive, 73/23/EEC. For products having mechanical moving parts, a risk assessment in accordance with the Machinery Directive, 98/37/EC, has shown that the risks are mainly of electrical origin and consequently this directive is not applicable. However, the relevant essential safety requirements of the Machinery Directive are covered by this standard together with the principal objectives of the Low Voltage Directive.

Endorsement notice

The text of the International Standard IEC 60335-2-66:2002 was approved by CENELEC as a European Standard without any modification.

Foreword to amendment A1

The text of document 61/3534/FDIS, future amendment 1 to IEC 60335-2-66:2002, prepared by IEC Technical Committee 61, Safety of household and similar electrical appliances, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60335-2-66:2003 on 2008-05-01.

The following dates are applicable:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2009-02-01
- date on which national standards conflicting with the amendment have to be withdrawn (dow) 2013-05-01

This amendment supplements or modifies the corresponding clauses of EN 60335-2-66:2003.

There are no special national conditions causing a deviation from this amendment.

There are no national deviations from this amendment.

p NOTE In this document, p is used in the margin to indicate instructions for preparing the printed version.

Endorsement notice

The text of amendment 1:2008 to the International Standard IEC 60335-2-66:2002 was approved by CENELEC as an amendment to the European Standard without any modification.

p In the Bibliography, add the following note to the standard mentioned:

ISO 13732-1

NOTE Harmonized as EN ISO 13732-1:2006 (not modified).

Foreword to amendment A2

The text of document 61/4101/CDV, future edition 2 of IEC 60335-2-66:2002/A2, prepared by IEC/TC 61 "Safety of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60335-2-66:2003/A2:2012.

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) 2012-09-02
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-10-04

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

Endorsement notice

The text of the International Standard IEC 60335-2-66:2002/A2:2011 was approved by CENELEC as a European Standard without any modification.

Foreword to amendment A11

This document (EN 60335-2-66:2003/A11:2019) has been prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-04-16
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2022-04-16

EN 60335-2-66:2003/A11:2019 is to be read in conjunction with EN 60335-1:2012 and its amendments, which is referred to in this text as "Part 1".

This amendment supplements or modifies the corresponding clauses of EN 60335-1:2012 including its amendments and EN 60335-2-66:2003 + A1:2008 + A2:2012.

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

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 ZZA, which is an integral part of this document.

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INTRODUCTION

It has been assumed in the drafting of this International Standard that the execution of its provisions is entrusted to appropriately qualified and experienced persons.

This standard recognizes the internationally accepted level of protection against hazards such as electrical, mechanical, thermal, fire and radiation of appliances when operated as in normal use taking into account the manufacturer's instructions. It also covers abnormal situations that can be expected in practice and takes into account the way in which electromagnetic phenomena can affect the safe operation of appliances.

This standard takes into account the requirements of IEC 60364 as far as possible so that there is compatibility with the wiring rules when the appliance is connected to the supply mains. However, national wiring rules may differ.

If an appliance within the scope of this standard also incorporates functions that are covered by another Part 2 of IEC 60335, the relevant Part 2 is applied to each function separately, as far as is reasonable. If applicable, the influence of one function on the other is taken into account.

When a Part 2 standard does not include additional requirements to cover hazards dealt with in Part 1, Part 1 applies.

NOTE 1 This means that the technical committees responsible for the Part 2 standards have determined that it is not necessary to specify particular requirements for the appliance in question over and above the general requirements.

This standard is a product family standard dealing with the safety of appliances and takes precedence over horizontal and generic standards covering the same subject.

NOTE 2 Horizontal and generic standards covering a hazard are not applicable since they have been taken into consideration when developing the general and particular requirements for the IEC 60335 series of standards. For example, in the case of temperature requirements for surfaces on many appliances, generic standards, such as ISO 13732-1 for hot surfaces, are not applicable in addition to Part 1 or Part 2 standards.

An appliance that complies with the text of this standard will not necessarily be considered to comply with the safety principles of the standard if, when examined and tested, it is found to have other features that impair the level of safety covered by these requirements.

An appliance employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be considered to comply with the standard.

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-66: Particular requirements for water-bed heaters

1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electric **water-bed heaters** and their associated control units, for household and similar purposes, their **rated voltage** being not more than 250 V.

Appliances not intended for normal household use, but that nevertheless may be a source of danger to the public, such as appliances intended to be used in hotels, are within the scope of this standard.

A11 This standard deals with the reasonably foreseeable hazards presented by appliances and machines that are encountered by all persons. However, in general, it does not take into account:

- **children** playing with the appliance;
- the use of the appliance by **very young children**;
- the use of the appliance by **young children** without supervision.

It is recognized that **very vulnerable people** may have needs beyond the level addressed in this standard. **A11**

NOTE 101 Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or in aircraft, additional requirements may be necessary;
- in many countries additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour, the national water supply authorities and similar authorities.

NOTE 102 This standard does not apply to appliances

- for medical purposes (IEC 60601);
- intended for immersion in water during use.

2 Normative references

This clause of Part 1 is applicable except as follows.

Addition:

ISO 2439, *Flexible cellular polymeric materials – Determination of hardness (indentation technique)*