

Safety of household and similar electrical appliances —

Part 2-25: Particular requirements for microwave ovens

The European Standard EN 60335-2-25:1996, with the incorporation of amendment A1:2000, has the status of a British Standard

ICS 97.040.20

Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee CPL/61, Safety of electrical appliances, upon which the following bodies were represented:

Agricultural Engineers' Association
 Association of Consulting Scientists
 Association of Control Manufacturers (TACMA (BEAMA Ltd.))
 Association of Manufacturers of Domestic Electrical Appliances
 British Cable Makers Confederation
 British Electrotechnical Approvals Board
 British Pest Control Association
 British Retail Consortium
 Cesa (the Association of Catering Equipment Manufacturers and Importers)
 Consumer Policy Committee of BSI
 Consumers' Association
 Department of Trade and Industry (Consumer Safety Unit, CA Division)
 ERA Technology Ltd.
 Electrical Installation Equipment Manufacturers' Association (BEAMA Ltd.)
 Electricity Association
 Health and Safety Executive
 Industrial Cleaning Machine Manufacturers' Association (BEAMA Ltd.)
 Institute of Trading Standards Administration
 Institution of Electrical Engineers
 Loss Prevention Council
 Ministry of Defence
 Portable Electric Tool Manufacturers' Association
 Rotating Electrical Machines Association (BEAMA Ltd.)
 Royal Society for the Prevention of Accidents
 Small Electrical Appliances Marketing Association

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

British Bathroom Council
 British Warm Air Hand Dryer Association
 Institute of Dermatology
 Lighting Industry Federation Ltd.
 National Radiological Protection Board

This British Standard, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 January 1997

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13211 Corrigendum No. 1	June 2001	Correction to the title of Annex AA

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National foreword

This British Standard has been prepared by Technical Subcommittee CPL/61 and is the English language version of EN 60335-2-25:1996 *Safety of household and similar electrical appliances — Part 2-25: Particular requirements for microwave ovens*, including amendment A1:2000, published by the European Committee for Electrotechnical Standardization (CENELEC). It is identical with IEC 60335-2-25:1996, including amendment 1:1999, published by the International Electrotechnical Commission (IEC).

This British Standard is to be read in conjunction with BS EN 60335-1, *Safety of household and similar electrical appliances — Part 1: General requirements*. It was established on the basis of the 1994 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.

The foreword of EN 60335-2-25:1996 makes reference to the “date of withdrawal, (dow)”, of the relevant national standard. In this case the relevant national standard is BS EN 60335-2-25:1996 which will be withdrawn on 1 June 1999 in accordance with CENELEC Internal Regulations. Certificates and marks will not be awarded after this date with regard to the withdrawn British Standard. However, such certificates and marks, already awarded may continue to apply to production until 1 June 2004.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

Product approval. Attention is drawn to the fact that products conforming to this British Standard may be approved by the British Electrotechnical Approvals Board for the purposes of participation in the CENELEC Certification Agreement and in the CB Scheme of the IECEE. (Details of the BEAB Approval Scheme are given on the inside back cover.)

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 22, an inside back cover and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

Sidelining in this document indicates the most recent changes by amendment.

Descriptors: Household electrical appliances, microwave ovens, safety requirements, protection against electric shock, fire protection, protection against mechanical hazard

English version

Safety of household and similar electrical appliances — Part 2-25: Particular requirements for microwave ovens

(includes amendment A1:2000)
(IEC 60335-2-25:1996 + A1:1999)

Sécurité des appareils électrodomestiques et
analogues —
Partie 2-25: Règles particulières pour les fours à
micro-ondes
(inclut l'amendement A1:2000)
(CEI 60335-2-25:1996 + A1:1999)

Sicherheit elektrischer Geräte für den
Hausgebrauch und ähnliche Zwecke —
Teil 2-25: Besondere Anforderungen für
Mikrowellengeräte
(enthält Änderung A1:2000)
(IEC 60335-2-25:1996 + A1:1999)

This European Standard was approved by CENELEC on 1996-07-02. Amendment A1 was approved by CENELEC on 1999-12-01. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B-1050 Brussels

Foreword

The text of document 61/97/FDIS, future fourth edition of IEC 335-2-25, prepared by the IEC Technical Committee 61 was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60335-2-25 on 1996-07-02.

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) 1997-06-01
- date on which national standards conflicting with the EN have to be withdrawn (dow) 1999-06-01

For products which have complied with EN 60335-2-25:1995 before 1999-06-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2004-06-01.

This standard has to be used in conjunction with EN 60335-1, *Safety of household and similar electrical appliances — Part 1: General requirements*. It was established on the basis of the 1994 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 microwave ovens.

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

Subclauses, tables and figures which are additional to those in part 1 are numbered starting with 101. Annexes which are additional to those in Part 1 are lettered AA, BB, etc.

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.

NOTE 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 2. When a definition of Part 1 concerns an adjective, the adjective and the associated noun are also in bold.

Foreword to amendment A1

The text of document 61B/146/FDIS, future amendment to IEC 60335-2-25:1996 prepared by SC 61B of the IEC Technical Committee 61, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60335-2-25 on 1999-12-01.

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) 2000-09-01
- date on which national standards conflicting with the amendment have to be withdrawn (dow) 2002-12-01

This amendment supplements or modifies the corresponding clauses of EN 60335-2-25:1996.

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

There are no national deviations from this amendment.

Introduction

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. If the product has mechanical moving parts, a risk assessment in accordance with the Machinery Directive, 89/392/EEC, 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.

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1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of **microwave ovens** for household use, their **rated voltage** being not more than 250 V.

So far as is practicable, this standard deals with the common hazards presented by appliances which are encountered by all persons in and around the home.

This standard does not in general take into account:

- the use of appliances by young children or infirm persons without supervision;
- playing with the appliance by young children.

NOTE 1 Attention is drawn to the fact that:

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;
- for appliances intended to be used in tropical countries, special 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 and similar authorities.

NOTE 2 This standard does not apply to:

- commercial **microwave ovens** (IEC 335-2-90, under consideration);
- industrial microwave heating equipment (IEC 519-6)¹⁾;
- appliances for medical purposes (IEC 601)²⁾;
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas).

NOTE 3 This standard together with Annex BB is applicable to **combination microwave ovens** and **microwave ovens** incorporating a **browning function** until IEC 335-2-100 is published.

2 Definitions

This clause of part 1 is applicable except as follows:

2.2.7 Addition:

NOTE The **rated frequency** is the input frequency.

2.2.9 Replacement:

normal operation

the appliance is operated with $1\,000\text{ g} \pm 50\text{ g}$ of potable water at an initial temperature of $20\text{ °C} \pm 2\text{ °C}$ in a cylindrical borosilicate glass vessel having a maximum thickness of 3 mm and an outside diameter of approximately 190 mm. The vessel is placed on the centre of the **shelf**

2.101

microwave oven

appliance using electromagnetic energy in one or several of the ISM frequency bands³⁾ between 300 MHz and 30 GHz, for heating food and beverages in a **cavity**

2.102

rated microwave power output

microwave power output assigned to the appliance by the manufacturer

2.103

cavity

space enclosed by the inner walls and the door, and in which the load is placed

¹⁾ IEC 519-6: Specifications for safety in industrial microwave heating equipment.

²⁾ IEC 601: Medical electrical equipment.

³⁾ ISM frequency bands are the electromagnetic frequencies established by the ITU and reproduced in CISPR 11.