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**Gospodinjski in podobni električni aparati - Varnost - 2-25. del: Posebne zahteve za mikrovalovne pečice, vključno s kombiniranimi mikrovalovnimi pečicami**

Household and similar electrical appliances - Safety - Part 2-25: Particular requirements for microwave ovens, including combination microwave ovens

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-25: Besondere Anforderungen für Mikrowellenkochgeräte und kombinierte Mikrowellenkochgeräte

Appareils électrodomestiques et analogues - Sécurité - Partie 2-25: Exigences particulières pour les fours à micro-ondes, y compris les fours à micro-ondes combinés

**Ta slovenski standard je istoveten z: prEN IEC 60335-2-25:2026**

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13.120	Varnost na domu	Domestic safety
97.040.20	Štedilniki, delovni pulti, pečice in podobni aparati	Cooking ranges, working tables, ovens and similar appliances

**oSIST prEN IEC 60335-2-25:2026**      **en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN IEC 60335-2-25**

April 2026

ICS 13.120; 97.040.20

Will supersede EN IEC 60335-2-25:2021; EN IEC 60335-2-25:2021/A11:2021

English Version

**Household and similar electrical appliances - Safety - Part 2-25:  
Particular requirements for microwave ovens, including  
combination microwave ovens  
(IEC 60335-2-25:2024)**

Appareils électrodomestiques et analogues - Sécurité -  
Partie 2-25: Exigences particulières pour les fours à micro-  
ondes, y compris les fours à micro-ondes combinés  
(IEC 60335-2-25:2024)

Sicherheit elektrischer Geräte für den Hausgebrauch und  
ähnliche Zwecke - Teil 2-25: Besondere Anforderungen für  
Mikrowellenkochgeräte und kombinierte  
Mikrowellenkochgeräte  
(IEC 60335-2-25:2024)

This draft European Standard is submitted to CENELEC members for enquiry.  
Deadline for CENELEC: 2026-07-03.

The text of this draft consists of the text of IEC 60335-2-25:2024.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CENELEC in three official versions (English, French, German).  
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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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Ref. No. prEN IEC 60335-2-25:2026 E

**prEN IEC 60335-2-25:2026 (E)****European foreword**

This document (prEN IEC 60335-2-25:2026) consists of the text of document IEC 60335-2-25:2024, prepared by IEC/TC 61 "Safety of household and similar electrical appliances".

This document is currently submitted to the Enquiry.

The following dates are proposed:

- latest date by which the existence of this document (doa) dav + 6 months has to be announced at national level
- latest date by which this document has to be (dop) dav + 12 months implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards (dow) dav + 36 months conflicting with this document have to be withdrawn (to be confirmed or modified when voting)

This document is read in conjunction with prEN IEC 60335-2-25:2026/prAA:2026.

This document has been prepared under a standardisation request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annexes ZZA and ZZC, which are an integral part of prEN IEC 60335-2-25:2026/prAA:2026.

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IEC 60335-2-25

Edition 8.0 2024-07

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Household and similar electrical appliances – Safety –  
Part 2-25: Particular requirements for microwave ovens, including combination  
microwave ovens**

**Appareils électrodomestiques et analogues – Sécurité –  
Partie 2-25: Exigences particulières pour les fours à micro-ondes, y compris les  
fours à micro-ondes combinés**

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# INTERNATIONAL ELECTROTECHNICAL COMMISSION

## HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

### Part 2-25: Particular requirements for microwave ovens, including combination microwave ovens

#### 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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IEC 60335-2-25 has been prepared by subcommittee 61B: Safety of microwave appliances for household and commercial use, of IEC technical committee 61: Safety of household and similar electrical appliances. It is an International Standard.

This eighth edition cancels and replaces the seventh edition published in 2020. This edition constitutes a technical revision.

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

- a) some subclauses have been modified for the appliance outlets and socket-outlets;
- b) Subclause 7.12 has been improved in clarity;

- c) Subclauses 8.1.1 and 20.2 have been modified to adopt test probe 19;
- d) Subclauses 10.1 and 10.2 have been improved in clarity for inverter type microwave ovens;
- e) maximum temperature rises of external accessible surfaces have been added in Subclause 11.8;
- f) test criterion has been modified in Subclause 15.101;
- g) Subclause 15.102 has been modified for harmonization with IEC 60335-2-6;
- h) Subclauses 8.1.3, 15.103, 19.11.2, 19.13, 22.105, 22.106, 22.111 and Figure 101 have been improved in clarity;
- i) Subclauses 22.103.2, 22.105 and 22.120 have been modified to adopt test probe 18;
- j) Subclause 16.101 has been modified to move the content of 16.101.1, 16.101.2 directly under 16.101;
- k) Subclause 22.119 has been modified to move the content of 22.119.1, 22.119.2 and 22.119.3 directly under 22.119.

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

Draft	Report on voting
61B/701/FDIS	61B/705/RVD

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 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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

A list of all parts of the IEC 60335 series, under the general title: *Household and similar electrical appliances – Safety*, can be found on the IEC website.

This part 2 is to be used in conjunction with the latest edition of IEC 60335-1 and its amendments unless that edition precludes it; in that case, the latest edition that does not preclude it is used. It was established on the basis of the sixth edition (2020) of that standard.

NOTE 1 When "Part 1" is mentioned in this standard, it refers to IEC 60335-1.

This part 2 supplements or modifies the corresponding clauses in IEC 60335-1, so as to convert that publication into the IEC standard: Particular requirements for microwave ovens, including combination microwave ovens.

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 in Part 1 is to be adapted accordingly.

NOTE 2 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.

NOTE 3 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**.

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](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

NOTE 4 The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations can need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

The following differences exist in the countries indicated below.

- 5.3: Microwave leakage is not to exceed 10 W/m<sup>2</sup> during the initial test (Japan and USA).
- 6.1: Microwave ovens may be class 0I if the rated voltage does not exceed more than 150 V (Japan).
- 7.12: Specific instructions exist pertaining to using and servicing **microwave ovens** with respect to the risk of exposure to microwave energy (USA).
- 7.12: It is prohibited to place the appliance in a cabinet with a door (Japan).
- Clause 18: The test is carried out on two appliances (USA).
- 19.11.2: The input voltage variation is not applied (USA).
- 19.13: Microwave leakage is measured only at the end of each test (USA).
- 21.102: The applied force is 222 N (USA).
- 21.105: Microwave leakage is not to exceed 50 W/m<sup>2</sup> (Japan and USA).
- 22.111: Microwave leakage is measured only at the end of the test (USA).
- 22.112: Microwave leakage is not to exceed 50 W/m<sup>2</sup> (Japan and USA).
- 22.115: All access to the cavity has to be prevented (USA).

## 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.

Guidance documents concerning the application of the safety requirements for appliances can be accessed via TC 61 and SC 61B supporting documents on the IEC website

<https://www.iec.ch/tc61/supportingdocuments>  
<https://www.iec.ch/sc61b/supportingdocuments>

This information is given for the convenience of users of this International Standard and does not constitute a replacement for the normative text in this standard.

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 can 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 publications, basic safety publications and group safety publications 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.

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 which 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 can 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.

NOTE 3 Standards dealing with non-safety aspects of household appliances are:

- IEC standards published by TC 59 concerning methods of measuring performance;
- CISPR 11, CISPR 14-1 and relevant IEC 61000-3 series standards concerning electromagnetic emissions;
- CISPR 14-2 concerning electromagnetic immunity;
- IEC standards published by TC 111 concerning environmental matters.

## HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

### Part 2-25: Particular requirements for microwave ovens, including combination microwave ovens

#### 1 Scope

This clause of Part 1 is replaced by the following.

This part of IEC 60335 deals with the safety of **microwave ovens** for household and similar use, their **rated voltage** being not more than 250 V including direct current (DC) supplied appliances and **battery-operated appliances**.

This standard also deals with **combination microwave ovens**, for which normative Annex AA is applicable.

This standard also deals with **microwave ovens** intended to be used on board ships, for which normative Annex BB is applicable.

Appliances not intended for normal household use but which nevertheless can be a source of danger to the public, such as appliances intended to be used by laymen in shops, in light industry and on farms, are within the scope of this standard. However, if the appliance is intended to be used professionally to process food for commercial purposes, the appliance is not considered to be for household and similar use only.

As far as is practicable, this standard deals with the common hazards presented by appliances that are encountered by all persons in and around the home. However, in general, it does not take into account

- persons (including children) whose
  - physical, sensory or mental capabilities; or
  - lack of experience and knowledgeprevents them from using the appliance safely without supervision or instruction;
- children playing with the appliance.

Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements can 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.

This standard does not apply to

- commercial **microwave ovens** (IEC 60335-2-90);
- commercial microwave appliances with insertion or contacting applicators (IEC 60335-2-110);
- industrial microwave heating equipment (IEC 60519-6);
- appliances for medical purposes (IEC 60601);
- 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).

## 2 Normative references

This clause of Part 1 is applicable except as follows.

*Addition:*

IEC 60068-2-6, *Environmental testing – Part 2: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-27, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60068-2-52, *Environmental testing – Part 2-52: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution)*

IEC 60335-2-6:—<sup>1</sup>, *Household and similar electrical appliances – Safety – Part 2-6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances*

IEC 60335-2-9, *Household and similar electrical appliances – Safety – Part 2-9: Particular requirements for grills, toasters and similar portable cooking appliances*

IEC 60584-1, *Thermocouples – Part 1: EMF specifications and tolerances*

## 3 Terms and definitions

This clause of Part 1 is applicable except as follows.

### 3.1 Definitions relating to physical characteristics

#### 3.1.7

Note 101 to entry: The **rated frequency** is the input frequency.

#### 3.1.9

##### **normal operation**

*Modification:*

*Replace the first paragraph by the following:*

operation of the appliance with 1 000 g ± 50 g of potable water at an initial temperature of 20 °C ± 2 °C in a cylindrical borosilicate glass vessel having a maximum thickness of 3 mm and an outside diameter of approximately 190 mm, the vessel being placed on the centre of the **shelf**

### 3.5 Definitions relating to types of appliances

#### 3.5.101

##### **microwave oven**

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

Note 1 to entry: ISM frequency bands are the electromagnetic frequencies established by the ITU and reproduced in CISPR 11.

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<sup>1</sup> Under preparation. Stage at the time of publication: IEC/FDIS 60335-2-6:2024.

**3.5.102****combination microwave oven**

**microwave oven** in which heat is also provided in the **cavity** by simultaneous or consecutive operation of resistive heating elements

Note 1 to entry: The resistive heating elements are used to provide radiant heat, convection heat or steam.

**3.6 Definitions relating to parts of an appliance****3.6.101****cavity**

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

**3.6.102****shelf**

horizontal support in the **cavity** on which the load is placed

**3.6.103****door interlock**

device or system that prevents the operation of the microwave generator(s), unless the oven door is closed

**3.6.104****monitored door interlock**

**door interlock** system that incorporates a supervision device

**3.6.105****temperature-sensing probe**

device that is inserted into the food to measure its temperature and is a part of an oven control

**3.8 Definitions relating to miscellaneous matters****3.8.101****open deck**

area that is exposed to marine environment

**3.8.102****dayroom**

area that can be exposed to marine environment from time to time

**4 General requirement**

This clause of Part 1 is applicable.

**5 General conditions for the tests**

This clause of Part 1 is applicable except as follows.

**5.2 Addition:**

*An additional sample can be required for the test of 19.104.*

*Six samples of the interlocks are required for the test of 24.1.4.*

### 5.3 Modification:

*Instead of carrying out the tests in the order of clauses, the following sequence of clauses and subclauses applies: 32.1, 22.113, 22.108, 22.115, 22.116, Clause 7 to 17, Clause 20, Clause 21 (except 21.101 to 21.105), Clause 18, Clause 19 (except 19.104), Clause 22 (except 22.108, 22.113, 22.115 and 22.116), Clause 23 to 31 and 32.2, 21.101 to 21.105 and 19.104.*

**5.101 Microwave ovens are tested as motor-operated appliances.**

**5.102 Class III temperature-sensing probes are only subjected to the tests of 22.112.**

## 6 Classification

This clause of Part 1 is applicable except as follows.

### 6.1 Modification:

**Microwave ovens shall be class I or class II.**

## 7 Marking and instructions

This clause of Part 1 is applicable except as follows.

### 7.1 Addition:

Appliances shall be marked with the nominal frequency in megahertz of the ISM band in which they operate.

If the removal of any cover results in microwave leakage exceeding the value specified in 32.1, the cover shall be marked with the substance of the following:

WARNING  
MICROWAVE ENERGY  
DO NOT REMOVE THIS COVER

When the exempted provisions of footnote b to Table 101 and/or Table 3 apply, the appliance shall be marked with the substance of "CAUTION: Hot surface", or symbol IEC 60417-5041 (2002-10).

### 7.6 Addition:



[symbol IEC 60417-5041  
(2002-10)]

caution, hot surface

### 7.12 Addition:

The instructions shall include the substance of the following warnings:

- WARNING: If the door or door seals are damaged, the oven must not be operated until it has been repaired by a competent person.