



**SLOVENSKI STANDARD
SIST EN 60335-2-6:2000**

01-april-2000

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SIST EN 60335-2-6:1995

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iTeh STANDARD PREVIEW

Safety of household and similar electrical appliances -- Part 2-6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances for household use

[SIST EN 60335-2-6:2000](http://standards.iteh.ai/SIST/EN/60335-2-6:2000)

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-6: Besondere Anforderungen für ortsfeste Herde, Kochmülden, Backöfen und ähnliche Geräte

Sécurité des appareils électrodomestiques et analogues -- Partie 2-6: Règles particulières pour les cuisinières, les tables de cuisson, les fours et appareils fixes analogues

Ta slovenski standard je istoveten z: EN 60335-2-6:1999

ICS:

13.120	Varnost na domu	Domestic safety
97.040.20	Varstvenstvo in varnost pri delu	Cooking ranges, working tables, ovens and similar appliances

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EUROPEAN STANDARD

EN 60335-2-6

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 1999

ICS 13.120; 97.040.20

Supersedes EN 60335-2-6:1990 and its amendments

English version

Safety of household and similar electrical appliances
Part 2: Particular requirements for stationary cooking ranges, hobs,
ovens and similar appliances
 (IEC 60335-2-6:1997 + corrigendum 1998, modified)

Sécurité des appareils
 électrodomestiques et analogues
 Partie 2: Règles particulières pour les
 cuisinières, les tables de cuisson, les
 fours et appareils fixes analogues
 (CEI 60335-2-6:1997 +
 corrigendum 1998, modifiée)

Sicherheit elektrischer Geräte für den
 Hausgebrauch und ähnliche Zwecke
 Teil 2: Besondere Anforderungen für
 ortsfeste Herde, Kochmulden, Backöfen
 und ähnliche Geräte
 (IEC 60335-2-6:1997 +
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[SIST EN 60335-2-6:2000](https://standards.iteh.ai/catalog/standards/sist/be72bb99-4ecc-4aa6-a4a9-a1984a8d234e/sist-en-60335-2-6-2000)

<https://standards.iteh.ai/catalog/standards/sist/be72bb99-4ecc-4aa6-a4a9-a1984a8d234e/sist-en-60335-2-6-2000>

This European Standard was approved by CENELEC on 1999-04-01. 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, Czech Republic, 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 61/1073/FDIS, future fourth edition of IEC 60335-2-6 prepared by the IEC Technical Committee 61, was submitted to the IEC-CENELEC parallel vote in December 1996 but the draft did not receive sufficient support in CENELEC. The comments were discussed during the Edinburgh meeting in May 1997 and during the Fehraltorf meeting in October 1997, when it was decided to submit a new draft for EN 60335-2-6 to the formal vote.

This draft was circulated in August 1998 and was ratified by CENELEC as EN 60335-2-6 on 1999-04-01.

This European Standard replaces EN 60335-2-6:1990 + corrigendum June 1991 and its amendments A2:1992, A51:1993 + corrigendum May 1993, A3:1993, A52:1995, A53:1995 and A54:1997.

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) 2000-01-01
- date on which national standards conflicting with the EN have to be withdrawn (dow) 2006-04-01

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 stationary cooking ranges, hobs, ovens and similar appliances.

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.

Subclauses, figures and tables which are additional to those in part 1 are numbered starting with 101.

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

National deviations from this European Standard are listed in annex ZB and are in addition to those in 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.

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

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.

Endorsement notice

The text of the International Standard IEC 60335-2-6:1997, including its corrigendum March 1998, was approved by CENELEC as a European Standard with agreed modifications as given below.

COMMON MODIFICATIONS**1 Scope**

- p 1.1 Add:

NOTE Z1 - For appliances which are supplied with gas, EN 30 is also applicable.

7 Marking and instructions

- p 7.12 Replace the eighth paragraph by:

The reference number of the part and information on how to obtain it shall be given. The instructions for installing the part shall be supplied with it.

8 Protection against access to live parts

- p 8.1.2 Add:

NOTE Z1 - Appliance outlets for grill heating elements are considered to be socket-outlets.

11 Heating

- p 11.2 Replace the fourth paragraph by:

Appliances intended to stand on the floor are placed in the test corner, taking into account the instructions for installation regarding the minimum distances to the walls. A rectangular box is placed as close as possible to the free side of the appliance. The box has a closed construction and is made of dull black painted plywood 10 mm thick. It has a width of 150 mm, its top being level with the **hob surface** and its front flush with the front surface of the appliance. If the instructions state that the appliance is to be placed away from the wall, boxes are placed on both sides of the appliance.

NOTE Z1 - If the instructions specify a minimum distance less than 150 mm from the wall, the width of the box is reduced accordingly.

- p 11.102 Add to the first sentence of the second paragraph:

..., applied perpendicularly to it.

19 Abnormal operation

- p 19.2 Replace the penultimate paragraph by:

Induction hob elements are operated under normal operation but with empty vessels, the controls being adjusted to the highest setting.

- p 19.13 Add:

Modification:

The electric strength test is carried out on induction hobs immediately after they have been switched off.

Annex A:

p Replace by:

Annex A
(normative)**Normative references***Addition:*

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60584-1	1995	Thermocouples – Part 1: Reference tables	EN 60584-1	1995
IEC 60884	series	Plugs and socket outlets for household and similar purposes	-	-

p Add:

Annex ZB (informative)**A-deviations***Addition:*Clause Deviation

22

Sweden (Government Authority Regulation BFS 1995:17; building regulation)<https://standards.iteh.ai/catalog/standards/sist/be72bb99-4ecc-4aa6-a4a9-1b8481313131/iec-60335-2-6:1999>

Cooking ranges shall be constructed, or be provided with devices, so that the hob elements, with cooking utensils placed on them, are not or cannot be made easily accessible to children.

Ovens shall be constructed so that they are not or cannot be made easily accessible to children.

Compliance is checked by inspection.

NOTE - Cooking ranges having hob elements located at a distance from the front of the hob so that they are out of easy reach of children and cooking ranges, the hob of which is or can be provided with a protective guard reaching at least 10 cm above the hob and covering the front as well as the sides of the hob to a distance of at least 20 cm measured from the front, are considered to meet the first requirement.

Ovens intended to be placed at a height exceeding 80 cm above the floor and ovens having doors which cannot be opened by a simple operation are considered to meet the second requirement.

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

60335-2-6

Quatrième édition
Fourth edition
1997-05

**Sécurité des appareils électrodomestiques
et analogues –**

**Partie 2:
Règles particulières pour les cuisinières,
les tables de cuisson, les fours et appareils
fixes analogues**

(standards.iteh.ai)

**Safety of household and similar
electrical appliances –**

**Part 2:
Particular requirements for stationary
cooking ranges, hobs, ovens
and similar appliances**

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International Electrotechnical Commission
Telefax: +41 22 919 0300

e-mail: inmail@iec.ch

3, rue de Varembé Geneva, Switzerland
IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

X

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For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part 2: Particular requirements for stationary cooking ranges,
hobs, ovens and similar appliances

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

This part of International Standard IEC 60335 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

It forms the fourth edition of IEC 60335-2-6 and replaces the third edition published in 1986, and its amendments (1990 and 1992).

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

FDIS	Report on voting
61/1073/FDIS	61/1204/RVD

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

This part 2 is to be used in conjunction with the latest edition of IEC 60335-1 and its amendments. It was established on the basis of the third edition (1991) of that standard.

This part 2 supplements or modifies the corresponding clauses of IEC 60335-1, so as to convert that publication into the IEC standard: *Safety requirements for stationary cooking ranges, hobs, ovens and similar appliances*.

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 in part 1 is to be adapted accordingly.

NOTES

- 1 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.

- 2 Subclauses, figures and tables which are additional to those in part 1 are numbered starting from 101.

The following additional differences exist in some countries:

- 2.2.6: The diversity factor is not used (USA).
- 2.2.9: Other test conditions are used (USA).
- 6.1: Class 0I appliances are allowed (Japan).
- 7.1: Instructions for pyrolytic self-cleaning ovens are to be marked on the outside of the oven (USA).
- 7.1: Miniature fuse links are not to be used as socket-outlet protection (USA).
- 7.12: The minimum indicated water pressure is 10 bar (Norway).
- 7.12.4: The instructions shall state the name of the manufacturer and the model numbers of control panels to be used with built-in appliances (USA).
- 11.7: Test methods are different and steady conditions are required (Canada and USA).
- 11.8: 65 K applies for all wooden surfaces (Norway, Sweden and USA).
- 11.8: Lower temperature limits apply to handles, knobs and other surfaces accessible during the self-cleaning operation (USA).
- 11.101: Test conditions, measuring instruments and temperature limits are different (Australia, Canada and USA).
- 11.102: Separate accessories to prevent accessibility are not permitted (USA).
- 11.103: Different requirements apply for socket-outlets incorporated in the appliance (USA).
- Clause 13: Leakage current measurements are not carried out (USA).
- 13.3: The electric strength test is not carried out (USA).
- 15.2: Tests are only carried out on controls mounted in the hob surface (USA).
- Clause 16: Leakage current measurements are not carried out (USA).
- 19.4: A limit of 316 °C is used (USA).
- 19.101: Different disc sizes are used (USA).
- 20.101: Heavier loads are used (USA).
- 21.102: Different test loads and test methods are used (USA).
- Clause 22: Additional requirements for oven shelves are specified (Australia, New Zealand and USA).
- Clause 22: Ovens installed at a height below 80 cm above the floor shall be constructed so that the oven door cannot be opened by a simple operation (Sweden).
- Clause 22: Hob elements are required to be inaccessible to children (Sweden).
- 22.2: For appliances with more than one heating unit, each unit shall be provided with an all-pole disconnection (Norway).
- 22.106: The test is different (USA).
- 22.107: The requirement does not apply (USA).

- 22.108: A centre oven temperature of 315 °C is specified (USA).
- 22.109: Larger quantities of different soils are used (USA).
- 22.110: Larger quantities of different soils are used (USA).
- 22.112: The test is not carried out (USA).
- 22.118: The test is not carried out (USA).
- 24.1.3: Number of cycles of operation is different (USA).
- 24.101: Socket-outlets have to be provided with residual current devices which may be combined with the overcurrent protective device (Australia).
- 24.102: Miniature fuses are not allowed (Norway).
- 24.102: Socket-outlets are required to be de-energized when the cooking elements are in use (USA).
- 24.102: Current rating limitations are different (USA).
- 25.3: Ranges which are not built in shall not be permanently connected to the fixed wiring (New Zealand and Norway).
- Clause 27: Earthing terminals are permitted to be connected to the neutral (USA).

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SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part 2: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances

1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of **stationary electric cooking ranges, hobs, ovens** and similar appliances for household use, their **rated voltage** being not more than 250 V for single-phase appliances connected between one phase and neutral, and 480 V for other appliances.

NOTE 1 – Examples of appliances which are within the scope of this standard:

- stationary grills;
- stationary griddles;
- pyrolytic self-cleaning ovens;
- induction hobs;
- steam ovens;
- the electrical part of appliances supplied with energy other than electricity.

So far as 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.

NOTES

2 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, the national water supply authorities and similar authorities.

3 This standard does not apply to

- appliances intended exclusively for industrial purposes;
- 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);
- portable cooking appliances (IEC 60335-2-9);
- microwave cooking appliances (IEC 60335-2-25);
- commercial electric ranges, ovens and hob elements (IEC 60335-2-36);
- commercial electric griddles and griddle grills (IEC 60335-2-38);
- commercial electric forced convection ovens, steam cookers and steam convection ovens (IEC 60335-2-42).

4 Requirements for combination microwave ovens are under consideration; meanwhile IEC 60335-2-25 may be used in conjunction with this standard.

2 Definitions

This clause of part 1 is applicable except as follows

2.2.6 Addition:

NOTE – For appliances having more than three **heating units** per phase, a diversity factor is applied to the **rated power input** when determining the current used to establish the size of the terminals and the nominal cross-sectional area of the **supply cord**. The diversity factor F is calculated from the following formula, where N is the number of **heating units** per phase which can be energized together:

$$F = 0,35 + \frac{0,65}{\sqrt{N}}$$

2.2.9 Replacement:

normal operation: Operation of the appliance as specified in 2.2.9.1 to 2.2.9.6.

2.2.9.1 **Hob elements**, other than **induction hob elements**, are operated with vessels containing cold water. The vessel is made of unpolished commercial quality aluminium, has a flat bottom and is covered with a lid. Thermal controls are adjusted to their highest setting until the water boils and then adjusted so that the water boils gently. Water is added to maintain the level during boiling.

NOTE 1 – The lid is positioned so that steam does not affect the test.

In case of doubt, vessels as specified in figure 101 are used

Induction hob elements are operated with vessels as specified in figure 102 which contain approximately half their capacity of cooking oil at room temperature. Thermal controls are adjusted to their highest setting until the oil temperature reaches $180\text{ °C} \pm 4\text{ °C}$ and then adjusted so that this temperature is maintained.

For all **hob elements** the diameter of the bottom of the vessel is approximately equal to the diameter of the **cooking zone** and the quantity of liquid is specified in table 101. The vessel is positioned centrally on the **cooking zone**.

NOTES

- 2 If several **cooking zones** are marked for one **hob element**, the most unfavourable zone is used for the test.
- 3 For non-circular **cooking zones**, the smallest non-circular vessel is used which will cover the **cooking zone** as far as possible, taking into account the **hob rim** and the other vessels. The quantity of liquid is determined on the basis of the minor diameter of the **cooking zone**.