



SLOVENSKI STANDARD

SIST EN 60335-2-37:1997

01-junij-1997

Nadomešča:

SIST EN 60335-2-37:1995

Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric deep fat fryers (IEC 335-2-37:1994)

Safety of household and similar electrical appliances -- Part 2-37: Particular requirements for commercial electric deep fat fryers

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-37: Besondere Anforderungen für elektrische Friteusen für den gewerblichen Gebrauch

Sécurité des appareils électrodomestiques et analogues -- Partie 2-37: Règles particulières pour les friteuses électriques à usage collectif

Ta slovenski standard je istoveten z: EN 60335-2-37:1995

ICS:

97.040.20	Štedilniki, delovni pulti, pečice in podobni aparati	Cooking ranges, working tables, ovens and similar appliances
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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60335-2-37

November 1995

UDC 64.06-83:641.542.75:620.1:614.8
ICS 97.040.20

Supersedes EN 60335-2-37:1989 and its amendments

Descriptors: Household electrical appliances, deep fat fryers, appliance for commercial use, safety requirements, protection against electric shock, fire protection, protection against mechanical hazard

English version

Safety of household and similar electrical appliances
Part 2: Particular requirements for commercial electric deep fat fryers
(IEC 335-2-37:1994)

Sécurité des appareils
électrodomestiques et analogues
Partie 2: Règles particulières pour les
friteuses électriques à usage collectif
(CEI 335-2-37:1994)

Sicherheit elektrischer Geräte für den
Hausgebrauch und ähnliche Zwecke
Teil 2: Besondere Anforderungen für
elektrische Friteusen für den
gewerblichen Gebrauch
(IEC 335-2-37:1994)

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This European Standard was approved by CENELEC on 1995-09-20. 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 proposal to endorse IEC 335-2-37:1994, document CLC/TC 61 (SEC) 954, was circulated under the enquiry procedure in April 1994. This proposal was discussed during the Paris meeting in November 1994, when it was decided to submit a draft for EN 60335-2-37 to the formal vote.

This draft was circulated in March 1995 and was ratified by CENELEC as EN 60335-2-37 on 1995-09-20.

This European Standard has been prepared by the secretariat of CENELEC Technical Committee TC 61.

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) 1996-04-01
- date on which national standards conflicting with the EN have to be withdrawn (dow) 1998-04-01

For products which have complied with EN 60335-2-37:1989 including its amendments A1:1992 and A51:1992 before 1998-04-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2003-04-01.

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 commercial electric deep fat fryers.

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 and figures 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.

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.

Endorsement notice

The text of the International Standard IEC 335-2-37:1994 was approved by CENELEC as a European Standard without any modification.

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
335-2-37

Troisième édition
Third edition
1994-03

Sécurité des appareils électrodomestiques
et analogues

Partie 2:

Règles particulières pour les friteuses électriques
à usage collectif

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Safety of household and similar electrical
appliances

Part 2:

Particular requirements for commercial electric
deep fat fryers

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International Electrotechnical Commission
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part 2: Particular requirements for commercial electric
deep fat fryers

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 cooperation 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, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use 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.

This part of International Standard IEC 335 has been prepared by sub-committee 61E: Safety of electrical commercial catering equipment, of IEC technical committee 61: Safety of household and similar electrical appliances.

It forms the third edition of IEC 335-2-37 cancels and replaces the second edition, published in 1986, and its amendment 1 (1990).

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

DIS	Report on voting
61E(CO)122	61E(CO)126

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 335-1 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 in IEC 335-1, so as to convert it into the IEC standard: Safety requirements for commercial electric deep fat fryers.

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.

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

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SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part 2: Particular requirements for commercial electric deep fat fryers

1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of electrically operated commercial **deep fat fryers** not intended 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 – These appliances are used for example in kitchens such as in restaurants, canteens, hospitals and commercial enterprises such as bakeries, butcheries, etc.

The electrical part of appliances making use of other forms of energy is also within the scope of this standard.

So far as is practicable, this standard deals with the common hazards presented by these types of appliances.

NOTE 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.

This standard does not apply to:

- appliances designed 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);
- continuous process appliances for the mass production of food;
- pressure appliances.

2 Definitions

This clause of part 1 is applicable except as follows:

2.2.4 Addition:

NOTE – The **rated power input** is the sum of the power inputs of all the individual elements in the appliance which can be on at one time; where there are several such combinations possible that giving the highest power input is used in determining the **rated power input**.

2.2.9 Replacement:

normal operation: Operation of the appliance under the following conditions:

The appliance is filled with oil to the minimum indicated level.

The thermal control is set at the maximum setting. Lids, if provided, are left in the open position or removed unless the manufacturer's instructions indicate that the appliance is designed for operation with the lid closed.

Motors incorporated in the appliance are operated in the intended manner under the most severe conditions which can be expected in normal use taking into account the manufacturer's instructions.

2.2.101 deep fat fryer: An appliance provided with one or more containers in which the food to be cooked is immersed in the frying medium. The container(s) may be fixed, removable, lifting, tilting, etc.

2.2.102 Indicated level: A mark on the appliance to indicate either the minimum or the maximum liquid level for correct operation.

3 General requirement

This clause of part 1 is applicable except as follows:

Addition:

NOTE 101 – The d.c. component in the appliance neutral is limited (Australia).
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4 General conditions for the tests

This clause of part 1 is applicable except as follows:

4.5 Addition:

Unless otherwise stated, the tests are carried out with the container in the position of normal use for frying.

4.101 Appliances are tested as heating appliances, even if they incorporate a motor.

4.102 Appliances, when assembled in combination with or incorporating other appliances, are tested in accordance with the requirements of this standard. The other appliances are operated simultaneously in accordance with the requirements of the relevant standards.

If a part of the appliance or the whole appliance is intended to be used for different functions covered by different standards, the relevant standard is applied to each function separately, so far as is reasonable.

4.103 *Appliances are initially filled with unused vegetable oil. The series of relevant tests are carried out with this oil, unused oil being added as necessary to maintain a constant level.*

5 Void

6 Classification

This clause of part 1 is applicable except as follows:

6.1 Replacement:

Appliances shall be of **class I** with respect to protection against electric shock.

Compliance is checked by inspection and by the relevant tests.

NOTE - **Class 0I appliances** are allowed (Japan).

6.2 Addition:

NOTE 101 - For appliances intended to be installed in a kitchen, an appropriate degree of protection against harmful ingress of water is required according to their height of installation (France).

6.101 With respect to protection against temperature rise due to installation conditions, appliances shall be classified as follows:

- appliances intended for installation in isolation;
- appliances intended for installation in a bank of other appliances.

NOTE - There are no additional requirements for appliances intended for installation in a bank of other appliances at present.

7 Marking and instructions

This clause of part 1 is applicable except as follows:

7.1 Addition:

In addition, appliances shall be marked with:

- the water pressure or range of pressures, in kilopascals (kPa), for appliances intended to be connected to a water supply, unless this is indicated in the instruction sheet.

7.6 Addition:

Add the following symbol:



..... equipotentiality (ref. 417 - IEC-5021-a)*

* See IEC 417: *Graphical symbols for use on equipment. Index, survey and compilation of the single sheets.*