



SLOVENSKI STANDARD SIST EN 60335-2-4:1997

01-junij-1997

Nadomešča:
SIST EN 60335-2-4:1995

Safety of household and similar electrical appliances - Part 2: Particular requirements for spin extractors (IEC 335-2-4:1993)

Safety of household and similar electrical appliances -- Part 2-4: Particular requirements for spin extractors

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-4: Besondere Anforderungen für Wäscheschleudern

Sécurité des appareils électrodomestiques et analogues -- Partie 2-4: Règles particulières pour les essoreuses centrifuges

Ta slovenski standard je istoveten z: EN 60335-2-4:1995

ICS:

13.120	Varnost na domu	Domestic safety
97.060	Aparati za nego perila	Laundry appliances

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EUROPEAN STANDARD

EN 60335-2-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 1995

ICS 97.060

Supersedes EN 60335-2-4:1989 and its amendments

Descriptors: Household electrical appliances, spin extractors, 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 spin extractors
 (IEC 335-2-4:1993)

Sécurité des appareils
 électrodomestiques et analogues
 Partie 2: Règles particulières pour les
 essoreuses centrifuges
 (CEI 335-2-4:1993)

Sicherheit elektrischer Geräte für den
 Hausgebrauch und ähnliche Zwecke
 Teil 2: Besondere Anforderungen für
 Wäscheschleudern
 (IEC 335-2-4:1993)

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This European Standard was approved by CENELEC on 1995-05-15. 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 335-2-4:1993, document CLC/TC 61 (SEC) 913, was circulated under the enquiry procedure in September 1993. This proposal was discussed during the Oslo meeting in April 1994, when it was decided to submit a draft for EN 60335-2-4 to the formal vote.

This draft was circulated in November 1994 and was ratified by CENELEC as EN 60335-2-4 on 1995-05-15.

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- latest date by which national standards conflicting with the EN have to be withdrawn (dow) 1998-01-01

For products which have complied with EN 60335-2-4:1989 including its amendments A51:1991 and A2:1992 before 1998-01-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2003-01-01.

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 electric spin extractors.

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 from 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 335-2-4:1993 was approved by CENELEC as a European Standard without any modification.

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
335-2-4

Quatrième édition
Fourth edition
1993-06

Sécurité des appareils électrodomestiques
et analogues

Partie 2:

Règles particulières pour les essoreuses centrifuges

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Safety of household and similar electrical
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Part 2:

Particular requirements for spin extractors

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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 spin extractors

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 IEC technical committee No. 61: Safety of household and similar electrical appliances.

It forms the fourth edition of IEC 335-2-4 and replaces the third edition and its amendments.

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

DIS	Report on voting
61(CO)764	61(CO)778

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

This part 2 supplements or modifies the corresponding clauses of IEC 335-1, so as to convert it into the IEC standard: Safety requirements for electric spin extractors.

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

The following additional differences exist in some countries:

- 2.2.9: As an alternative to the test material specified, pieces of cloth having an area between 4 800 cm² and 5 000 cm², with one side at least 55 cm, may be used for the tests (U.S.A.).
- clause 3: The allowable d.c. component in the appliance neutral is limited (Australia).
- 6.2: IPX0 appliances are permitted (U.S.A.).
- 15.2: The test is conducted differently (U.S.A.).
- 18.101: 6 000 cycles are required (Canada and U.S.A.).
- 19.7: This subclause is applicable (U.S.A.).
- clause 20: Different criteria are used (U.S.A.).
- 21.101, 21.102: Construction specifications are used for metal lids and different tests are used for thermoplastic lids (U.S.A.).

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SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part 2: Particular requirements for spin extractors

1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of electric spin extractors for household and similar purposes, having a capacity not exceeding 10 kg of dry cloth and a drum peripheral speed not exceeding 50 m/s, their **rated voltages** being not more than 250 V for single-phase appliances and 480 V for other appliances.

NOTE 1 - Spin extractors incorporated in washing machines are within the scope of this standard, irrespective of their capacity.

Appliances not intended for normal household use but which nevertheless may 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.

NOTE 2 - Examples of such appliances are spin extractors for communal use in blocks of flats or in launderettes.

So far as practicable, this standard deals with the common hazard 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

3 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.

4 This standard does not apply to:

- appliances for use in commercial laundries;
- appliances intended to be used where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas).

2 Definitions

This clause of part 1 is applicable except as follows:

2.2.9 Replacement:

normal operation: Appliances are operated with the drum filled with a quantity of cloth having a mass in the dry condition equal to the maximum mass specified in the instructions for use.

The cloth is pre-washed double-hemmed cotton sheets having dimensions of approximately 70 cm x 70 cm and a mass between 140 g/m² and 175 g/m² in the dry condition. It is saturated with cold water before being evenly distributed in the drum.

2.7.2 Addition

NOTE - When reference is made to lids, doors are included.

3 General requirement

This clause of part 1 is applicable.

4 General conditions for the tests

This clause of part 1 is applicable except as follows:

4.2 Addition:

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The test of 22.101 is carried out before the tests of clause 20.

4.101 Spin extractors are tested as portable appliances, unless they are fixed appliances or are incorporated in another appliance.

5 Void

6 Classification

This clause of part 1 is applicable except as follows:

6.1 Replacement:

Appliances shall be of **class I, class II, or class III** with respect to protection against electric shock.

Compliance is checked by inspection and by the relevant tests.

6.2 Addition:

Appliances shall be at least IPX4.

7 Marking and Instructions

This clause of part 1 is applicable except as follows:

7.10 Addition:

If the **off position** is indicated only by a word, this word shall be "off" in the official language of the country in which the appliance is to be sold.

7.12 Addition:

The instructions for use shall specify the maximum mass of dry cloth in kg, for which the appliance is designed.

7.12.1 Addition:

For appliances intended for communal use in blocks of flats and which are provided with an interlock system which has to be energized in order to release the lid, the substance of the following shall be stated:

This spin extractor has to be connected to the supply before the lid can be opened. Do not force it open.

This instruction shall be on a permanent notice for fixing to the wall close to the appliance unless it is marked on the appliance.

For appliances intended for communal use in blocks of flats and which are provided with an interlock system which has to be energized in order to release the lid, the installation instructions shall state that a timer or similar device that switches off the appliance automatically is not to be installed in the supply circuit.

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8 Protection against access to live parts

This clause of part 1 is applicable.

9 Starting of motor-operated appliances

This clause of part 1 is not applicable.

10 Power Input and current

This clause of part 1 is applicable.

11 Heating

This clause of part 1 is applicable except as follows:

11.7 Replacement:

Appliances are operated for five periods of water extraction, the periods being separated by a rest period. Each rest period, which includes the braking time, has a duration of 1 min for each kg of dry cloth or 4 min, whichever is the longer. During the rest period, the cloth is re-saturated with cold water.