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**Gospodinjski in podobni električni aparati - Varnost - 2-14. del: Posebne zahteve za električne kuhinjske stroje (IEC 60335-2-14:2002; spremenjen)**

Household and similar electrical appliances - Safety - Part 2-14: Particular requirements for kitchen machines

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EUROPEAN STANDARD

**EN 60335-2-14**

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2003

ICS 13.120; 97.040.50

Supersedes EN 60335-2-14:1996 + A11:1998 + A1:1998 + A2:2000

English version

**Household and similar electrical appliances –  
Safety**  
**Part 2-14: Particular requirements for kitchen machines**  
(IEC 60335-2-14:2002, modified)

Appareils électrodomestiques et  
analogues –  
Sécurité  
Partie 2-14: Règles particulières pour  
les machines de cuisine  
(CEI 60335-2-14:2002, modifiée)

Sicherheit elektrischer Geräte für den  
Hausgebrauch und ähnliche Zwecke  
Teil 2-14: Besondere Anforderungen für  
Küchenmaschinen  
(IEC 60335-2-14:2002, modifiziert)

This European Standard was approved by CENELEC on 2003-05-01. 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, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

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**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 the International Standard IEC 60335-2-14:2002 (61/2180/FDIS), prepared by the IEC Technical Committee 61, Safety of household and similar electrical appliances, together with the common modifications prepared by CENELEC TC 61, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 60335-2-14 on 2003-05-01.

This European Standard replaces EN 60335-2-14:1996 + A11:1998 + A1:1998 + A2:2000.

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) 2004-05-01
- date on which national standards conflicting with the EN have to be withdrawn (dow) 2006-05-01

This part 2 has to be used in conjunction with EN 60335-1, Household and similar electrical appliances - Safety - Part 1: General requirements. It was established on the basis of the 2002 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 kitchen machines.

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.

NOTE 1 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.;
- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letter Z.

NOTE 2 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.

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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.

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

## Introduction

p Add:

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. For products having mechanical moving parts, a risk assessment in accordance with the Machinery Directive, 98/37/EC, 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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## Endorsement notice

The text of the International Standard IEC 60335-2-14:2002 was approved by CENELEC as a European Standard with agreed common modifications as given below.

### COMMON MODIFICATIONS

p **Contents** Add:

Annex ZAA (normative) Tests on sieves of centrifugal juicers

#### 5 General conditions for the tests

p **5.2** Add:

NOTE Z101 Three additional centrifugal juicers are required if the test of 20.Z101 is carried out.

Three sieves of centrifugal juicers are required if the tests of Annex ZAA are carried out.

#### 6 Classification

p Replace the text by:

This clause of Part 1 is applicable except as follows.

**6.1** *Addition:*

**Hand-held kitchen machines** shall be **class II** or **class III**.

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#### 7 Marking and instructions

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p **7.12** Add: <https://standards.iteh.ai/catalog/standards/sist/ac403f04-1cf3-46d5-93c9-c04940e56079/sist-en-60335-2-14-2003>

The instructions shall include details on how to clean surfaces in contact with food.

The instructions for appliances incorporating a switch necessary for compliance with 22.40 shall include the substance of the following:

Switch off the appliance before changing accessories or approaching parts which move in use.

The instructions for centrifugal juicers shall include the substance of the following:

Do not use the appliance if the rotating sieve is damaged.

## 20 Stability and mechanical hazards

p Add:

**20.Z101** Centrifugal juicers shall withstand the stresses resulting from parts rotating at high speed.

*Compliance is checked by the following test which is carried out on three new appliances or by testing the sieve in accordance with Annex ZAA.*

*The rim of plastic material retaining the rotating sieve is cut. The appliance is supplied at **rated voltage** and operated with the sieve and lid placed as in normal use. Speed controls are set to the highest position.*

*If the sieve retains its structure, the rim is cut further and the test repeated until disintegration takes place.*

NOTE The damage to the rim, and if necessary the mesh, is increased gradually so that disintegration of the sieve takes place at high velocity.

*During the test, parts shall not be ejected from the appliance.*

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p Add:

**Annex ZC**  
(normative)

**Normative references to international publications  
with their corresponding European publications**

*Addition:*

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60811-1-4	1985	Common test methods for insulating sheathing materials of electric cables Part 1: Methods for general application Section Four: Tests at low temperature	EN 60811-1-4	1995

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**Annex ZAA**  
(normative)

**Tests on sieves of centrifugal juicers**

The purpose of these tests is to ensure that rotating sieves of centrifugal juicers are able to withstand the stresses to which they are subjected during the lifetime of the appliance.

These tests are an alternative means of complying with the requirement of 20.Z101 and are carried out on three sieves.

The tests are carried out in the order specified.

**1) Chemical stress test**

*The sieves are placed in a solution of detergent having a concentration of 3 g/l and a temperature of 65 °C ± 1 °C. The detergent consists of :*

- trisodium citrate dihydrate 30,0 %
- sokalan CP5 compound (50 % active substance) 12,0 %
- plurafac LF403 2,0 %
- sodium disilicate 25,0 %
- sodium carbonate 23,0 %
- sodium perborate monohydrate 5,0 %
- TAED 2,0 %
- amylase 0,5 %
- protease 0,5 %

NOTE This detergent corresponds to the detergent type B specified in IEC 60436.

*The sieves are kept in the solution for 48 h after which they are removed and rinsed with water.*

*The sieves are stored at room temperature for 14 days.*

**2) Thermal stress test**

The sieves are placed for 1 h in a dry atmosphere at a temperature of  $83^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . They are then plunged into water having a temperature of  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ .

This test is carried out three times.

**3) Impact test**

The sieves are dropped from a height of 1 m onto a wooden floor in such a way that at the moment of impact the axis of rotation is horizontal.

This test is carried out 12 times, the sieves being rotated by  $30^{\circ}$  each time to obtain 12 different points of impact.

**4) Starting test**

A sieve is placed in the appliance which is supplied at 1,06 times rated voltage, speed controls being set at the highest position. The appliance is operated for 15 s followed by a rest period of 45 s.

This test is carried out 25 times on each sieve.

After the tests, there shall be no crack or other damage visible to the naked eye.

NOTE Dents in the mesh are disregarded.

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**Bibliography**

p Add:

IEC 60436, *Electric dishwashers for household use - Methods for measuring the performance*

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# INTERNATIONAL STANDARD

# IEC 60335-2-14

Fourth edition  
2002-10

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## Household and similar electrical appliances – Safety –

### Part 2-14: Particular requirements for kitchen machines

*Appareils électrodomestiques et analogues –  
Sécurité –*

*Partie 2-14:  
Règles particulières pour les machines de cuisine*

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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## CONTENTS

FOREWORD .....	3
INTRODUCTION .....	5
1 Scope .....	6
2 Normative references.....	7
3 Definitions .....	7
4 General requirement.....	10
5 General conditions for the tests .....	10
6 Classification .....	10
7 Marking and instructions.....	10
8 Protection against access to live parts.....	11
9 Starting of motor-operated appliances .....	11
10 Power input and current.....	11
11 Heating.....	11
12 Void .....	13
13 Leakage current and electric strength at operating temperature.....	13
14 Transient overvoltages.....	13
15 Moisture resistance.....	13
16 Leakage current and electric strength .....	14
17 Overload protection of transformers and associated circuits.....	14
18 Endurance .....	14
19 Abnormal operation.....	14
20 Stability and mechanical hazards.....	15
21 Mechanical strength.....	19
22 Construction .....	19
23 Internal wiring.....	20
24 Components .....	20
25 Supply connection and external flexible cords.....	20
26 Terminals for external conductors.....	21
27 Provision for earthing.....	21
28 Screws and connections .....	21
29 Clearances, creepage distances and solid insulation .....	21
30 Resistance to heat and fire.....	22
31 Resistance to rusting .....	22
32 Radiation, toxicity and similar hazards .....	22
Annexes.....	25
Annex C (normative) Aging test on motors .....	25
Bibliography .....	26
Figure 101 – Slicing machine .....	23
Figure 102 – Protecting devices for slicing machines .....	24

**INTERNATIONAL ELECTROTECHNICAL COMMISSION**

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**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –  
SAFETY –**

**Part 2-14: Particular requirements for kitchen machines**

**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 specifications, 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.

This fourth edition cancels and replaces the third edition published in 1994 and its amendments 1 (1999) and 2 (1999). It constitutes a technical revision.

The text of this part of IEC 60335 is based on the following documents:

FDIS	Report on voting
61/2180/FDIS	61/2261/RVD

Full information on the voting for the approval of this standard 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 fourth edition (2001) 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: Safety requirements for electric kitchen machines.

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- *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 publication will remain unchanged until 2004. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

The following differences exist in the countries indicated below.

- 3.1.9: Different loads are used (USA).
- 6.1: Hand-held kitchen machines shall be class II or class III. Other machines shall be class I, class II or class III (France, Netherlands and Norway).
- 11.7: The operating times are different (USA).
- 19.7: The test is applicable to all appliances and the tests of 19.101 and 19.102 are not applicable (USA).
- 20.108: The guarding requirements are different and warnings may be marked on the appliance instead (USA).
- 20.110 Larger openings are allowed but the cutting blades shall be located further away from the openings (USA).
- 20.112: The stopping time allowed is 4 s (Brazil, Canada and USA).
- 25.5: Type Z attachment is allowed for all appliances (USA).
- 25.7: PVC cords are not allowed for ice-cream machines in refrigerators (Norway).

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