

Australian/New Zealand Standard™

**Household and similar electrical
appliances—Safety**

**Part 2.14: Particular requirements for
kitchen machines
(IEC 60335-2-14 Ed 5.2, MOD)**



AS/NZS 60335.2.14:2013

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-002, Safety of Household and Similar Electrical Appliances and Small Power Transformers. It was approved on behalf of the Council of Standards Australia on 2 October 2013 and on behalf of the Council of Standards New Zealand on 20 September 2013.

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The following are represented on Committee EL-002:

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Australian Retailers Association
Business New Zealand
Consumer Electronic Suppliers Association, Australia
Consumers' Federation of Australia
Electrical Regulatory Authorities, Australia
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Australian/New Zealand Standard™

Household and similar electrical appliances—Safety

Part 2.14: Particular requirements for kitchen machines (IEC 60335-2-14 Ed 5.2, MOD)

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

AS/NZS 60335.2.14:2013**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –
SAFETY –****Part 2.14: Particular requirements for kitchen machines****Foreword**

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002- Safety of Household and Similar Electrical Appliances and Small Power Transformers to supersede AS/NZS 60335.2.14:2007 three years from the date of publication. During this period it is anticipated that regulatory authorities will approve kitchen machines to either standard.

The principal changes in this edition as compared with the edition 5.1 of IEC 60335-2-14 are as follows (minor changes are not listed).

- converted note 103 to normative text (3.1.9);
- added additional instructions (7.12);
- clarified the test time for the heating test (11.7);
- clarified the test method for food processors (11.7.111);
- added EMP tests for appliances with a stand-by mode or an electronic disconnection (19);
- added requirements for electronic circuits including software requirements that provide safety (20.101);
- added requirements for knife sharpener construction (22.104).

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with safety requirements designed to give the user protection against hazards that might occur during normal operation and abnormal operation of the appliance and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand

The text of IEC 60335-2-14 Ed 5.2, prepared by IEC Technical Committee TC 61, was submitted to the Standards Australia/Standards New Zealand Combined Procedure (dual public comment and committee vote) for adoption of the IEC standard as a Standards Australia/Standards New Zealand joint standard.

This Standard is an adoption with national modifications of the fifth edition of IEC 60335-2-14, *Household and similar electrical appliances – Safety – Part 2-14: Particular requirements for kitchen machines* including its amendment 1 (2008) and amendment 2 (2012). It has been varied as indicated to take account of Australian and New Zealand conditions.

This part 2 has to be used in conjunction with the latest edition of AS/NZS 60335.1 Household and similar electrical appliances – Safety – Part 1: General requirements and its Amendments. It was established on the basis of AS/NZS 60335.1:2011.

This part 2 supplements or modifies the corresponding clauses of AS/NZS 60335.1 so as to convert it into the Australian/New Zealand Standard: Safety requirements for 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 letters AZ.

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.

p NOTE 3 In this document, p is used in the margin to indicate instructions for preparing a consolidated version.

The essential safety requirements in AS/NZS 3820¹ that could be applicable to requirements for kitchen machines are covered by this standard.

The national variations to IEC 60335-2-14 Ed 5.2 form the Australian and New Zealand national variations for purposes of the IECEE scheme for recognition of results of testing to standards for safety of electrical equipment (the CB scheme).

¹ AS/NZS 3820 *Essential safety requirements for electrical equipment*

The text of the International Standard IEC 60335-2-14 Ed 5.2 was approved as a joint Australia/New Zealand Standard with the agreed national variations as given below.

AUSTRALIAN NATIONAL VARIATIONS

The following national variations to this Part 2 are additional to those listed in the national variations of AS/NZS 60335.1:2011.

6 Classification

6.1 *Replace* the text of the addition by the following variation:

Hand-held kitchen machines shall be **class II** or **class III**. However, they may be **class I** if their **rated voltage** does not exceed 150 V

NEW ZEALAND NATIONAL VARIATIONS

The following national variations to this Part 2 are additional to those listed in the national variations of AS/NZS 60335.1:2011.

6 Classification

6.1 *Replace* the text of the addition by the following variation:

Hand-held kitchen machines shall be **class II** or **class III**. However, they may be **class I** if their **rated voltage** does not exceed 150 V

Annex ANZ (normative)

Normative references to international publications with their corresponding joint Australia/New Zealand publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by national variations the relevant joint Australia/New Zealand publications applies if the national variations are needed to ensure the safety of the appliance for Australia/New Zealand conditions. These international publications are indicated by (mod). If an international publication is not so indicated, then either it or the listed Australia/New Zealand publication may be used.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>AS/NZS</u>	<u>Year</u>
IEC 60811-1-4	1985	<i>Common test methods for insulating and sheathing materials of electric cables – Part 1: Methods for general application – Section Four – Tests at low temperature</i> Amendment 1 (1993) Amendment 2 (2001)		

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INTERNATIONAL ELECTROTECHNICAL COMMISSION**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –
SAFETY –****Part 2-14: Particular requirements for kitchen machines****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.
- 2) The formal decisions or agreements of 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 IEC National Committees.
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- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60335-2-14 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

This consolidated version of IEC 60335-2-14 consists of the fifth edition (2006) [documents 61/2995/FDIS and 61/3050/RVD], its amendment 1 (2008) [documents 61/3649/FDIS and 61/3689/RVD] and its amendment 2 (2012) [documents 61/4449/FDIS and 61/4502/RVD].

The technical content is therefore identical to the base edition and its amendments and has been prepared for user convenience.

It bears the edition number 5.2.

A vertical line in the margin shows where the base publication has been modified by amendments 1 and 2.

The principal changes in this edition as compared with the fourth edition of IEC 60335-2-14 are as follows (minor changes are not listed):

- clarifies criteria for determining "normal household and similar use" (Scope);
- adds definitions, marking and test criteria for blenders and cordless blenders (3.105, 3.106, 7.1, 7.12, 11.7.103, 15.2, 15.101, 20.103, 20.104, 20.118, 20.119, 22.103, Figure 103)
- clarifies the "class" rating for hand-held kitchen machines (6.1);
- adds tests for sieves of centrifugal juicers (20.117, Annex AA);
- clarifies criteria for determining "accidental operation" (20.103, 20.109, 20.115).

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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.

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 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).

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

NOTE 4 The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may 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.

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.

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 may 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 and generic standards 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. For example, in the case of temperature requirements for surfaces on many appliances, generic standards, such as ISO 13732-1 for hot surfaces, are not applicable in addition to Part 1 or part 2 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 that 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 may 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.

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-14: Particular requirements for kitchen machines

1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electric kitchen machines for household and similar purposes, their **rated voltage** being not more than 250 V.

NOTE 101 Examples of appliances that are within the scope of this standard are

- bean slicers;
- berry-juice extractors;
- **blenders**;
- can openers;
- centrifugal juicers;
- churns;
- citrus-fruit squeezers;
- coffee mills not exceeding 500 g hopper capacity;
- cream whippers;
- egg beaters;
- **food mixers**;
- **food processors**;
- grain grinders not exceeding 3 l hopper capacity;
- graters;
- ice-cream machines, including those for use in refrigerators and freezers;
- knife sharpeners;
- knives;
- **mincers**;
- noodle makers;
- potato peelers;
- shredders;
- sieving machines;
- slicing machines.

Appliances intended for normal household and similar use and that may also 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 consumption, the appliance is not considered to be for household and similar use only.

NOTE 102 Use of a kitchen machine in a bed and breakfast premises, for example, is considered to be household use.