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OHUTUS. OSA 2-15: ERINÕUDED VEDELIKE
KUUMUTAMISE SEADMETELE**

**Household and similar electrical appliances - Safety -
Part 2-15: Particular requirements for appliances for
heating liquids (IEC 60335-2-15:2012 , modified +
IEC 60335-2-15:2012/A1:2016 +
IEC 60335-2-15:2012/A2:2018)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 60335-2-15:2016+A11+A1+A2+A12:2021 sisaldab Euroopa standardi EN 60335-2-15:2016 ja selle muudatuste A11:2018, A1:2021, A2:2021 ja A12:2021 ingliskeelset teksti.	This Estonian standard EVS-EN 60335-2-15:2016+A11+A1+A2+A12:2021 consists of the English text of the European standard EN 60335-2-15:2016 and its amendments A11:2018, A1:2021, A2:2021 and A12:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 15.01.2016, muudatused A11 28.09.2018, A1 01.10.2021, A2 01.10.2021 ja A12 01.10.2021.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. Date of Availability of the European standard is 15.01.2016, for A11 28.09.2018, A1 01.10.2021, A2 01.10.2021 and A12 01.10.2021.
Muudatusega A11 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega A11 A11 . Muudatusega A1 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega A1 A1 . Muudatusega A2 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega A2 A2 . Muudatusega A12 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega A12 A12 . Selles standardis on rahvusvahelise standardi ühismuudatused tähistatud püstkriipsuga teksti vasakul veerisel. Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The start and finish of text introduced or altered by amendment A11 is indicated in the text by tags A11 A11 . The start and finish of text introduced or altered by amendment A1 is indicated in the text by tags A1 A1 . The start and finish of text introduced or altered by amendment A2 is indicated in the text by tags A2 A2 . The start and finish of text introduced or altered by amendment A12 is indicated in the text by tags A12 A12 . In this document, the common modifications to the International Standard are indicated by a vertical line in the left margin of the text. The standard is available from the Estonian Centre for Standardisation and Accreditation.

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English Version

**Household and similar electrical appliances - Safety - Part 2-15:
Particular requirements for appliances for heating liquids
(IEC 60335-2-15:2012 , modified + IEC 60335-2-
15:2012/A1:2016 + IEC 60335-2-15:2012/A2:2018)**

Appareils électrodomestiques et analogues - Sécurité -
Partie 2-15: Exigences particulières pour les appareils de
chauffage des liquides
(IEC 60335-2-15:2012 , modifiée + IEC 60335-2-
15:2012/A1:2016 + IEC 60335-2-15:2012/A2:2018)

Sicherheit elektrischer Geräte für den Hausgebrauch und
ähnliche Zwecke - Teil 2-15: Besondere Anforderungen für
Geräte zur Flüssigkeitserhitzung
(IEC 60335-2-15:2012 , modifiziert + IEC 60335-2-
15:2012/A1:2016 + IEC 60335-2-15:2012/A2:2018)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

This document (EN 60335-2-15:2016) consists of the text of IEC 60335-2-15:2012 prepared by IEC/TC 61 "Safety of household and similar electrical appliances", together with the common modifications prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2016-10-12
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2018-10-12

This document supersedes EN 60335-2-15:2002.

This Part 2-15 is to be used in conjunction with EN 60335-1:2012 and its amendments.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60335-2-15:2012 are prefixed "Z".

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A12 deleted text **A12**

Endorsement notice

The text of the International Standard IEC 60335-2-15:2012 was approved by CENELEC as a European Standard with agreed common modifications.

A11 Amendment A11 European foreword

This document (EN 60335-2-15:2016/A11:2018) has been prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document (dop) 2019-03-28
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For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document. A11

A1 Amendment A1 European foreword

This document (*EN 60335-2-15:2016/A1:2021*) consists of the text of IEC 60335-2-15:2012/A2:2016 prepared by IEC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-04-01
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A₂ Amendment A2 European foreword

This document EN 60335-2-15:2016/A2:2021 consists of the text of IEC 60335-2-15:2012/A2:2018 prepared by IEC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-02-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-08-20

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This European amendment A2 will supersede the standard EN 60335-2-15:2016+A11:2018 when EN 60335-2-15:2016/A12 is published.

This European amendment A2 is not linked to European legislation unless it is used in conjunction with A12.

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Endorsement notice

The text of the International Standard IEC 60335-2-15:2012/A2:2018 was approved by CENELEC as a European Standard without any modification. A₂

A12 Amendment A12 European foreword

This document EN 60335-2-15:2016/A12:2021 consists of the text prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

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- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2024-08-20

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**Household and similar electrical appliances – Safety –
Part 2-15: Particular requirements for appliances for heating liquids**

**Appareils électrodomestiques et analogues – Sécurité –
Partie 2-15: Exigences particulières pour les appareils de chauffage des liquides**



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**Household and similar electrical appliances – Safety –
Part 2-15: Particular requirements for appliances for heating liquids**

**Appareils électrodomestiques et analogues – Sécurité –
Partie 2-15: Exigences particulières pour les appareils de chauffage des liquides**

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
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-15: Particular requirements for appliances for heating liquids

FOREWORD

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

This sixth edition cancels and replaces the fifth edition published in 2002 including its Amendment 1 (2005) and its Amendment 2 (2008). It constitutes a technical revision.

The principal changes in this edition as compared with the fifth edition of IEC 60335-2-15 are as follows (minor changes are not listed):

- added requirements for soy milk makers;
- added requirements for dynamic pressure cookers;
- expanded requirements for cordless kettles to cover cordless appliances throughout document;

- reorganized 7.12 so that instructions related to generic types of appliances covered by this part are listed first;
- converted notes to normative (5.2, 7.12, 19.101, 22.7, 22.106, 24.1.5, 24.4, 25.101) text;
- deleted Note in 19.102.

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

FDIS	Report on voting
61/4451/FDIS	61/4504/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 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 fifth edition (2010) 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 appliances for heating liquids.

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.

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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.

A list of all parts of the IEC 60335 series, under the general title: *Household and similar electrical appliances – Safety*, can be found on the IEC website.

The following differences exist in the countries indicated below.

- 19.101: The test is not applicable (Japan).
- 25.8: A supply cord having a cross-sectional area of 0,75 mm² is not allowed for appliances having a rated current exceeding 6 A (Japan).
- 25.8: Longer supply cords are allowed (Japan).

A1 AMENDMENT A1 FOREWORD

This amendment has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

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

FDIS	Report on voting
61/5109/FDIS	61/5131/RVD

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

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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. **A1**

A₂ AMENDMENT A2 FOREWORD

This amendment has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

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

FDIS	Report on voting
61/5709/FDIS	61/5725/RVD

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

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

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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. **A₂**

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.

A12 This European amendment A12 supplements or modifies the corresponding clauses of the standards below:

- EN 60335-1:2012+A11:2014+ A13:2017+A1:2019+A14:2019+A2:2019 (Part 1)
- EN 60335-2-15:2016+A11:2018+A1:2021+A2:2021 (Part 2) **A12**

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-15: Particular requirements for appliances for heating liquids

1 Scope

This clause of Part 1 is replaced by the following.

This European Standard deals with the safety of electrical appliances for heating liquids for household and similar purposes, their **rated voltage** being not more than 250 V.

NOTE Z101 Some appliances may be used for heating food.

NOTE Z102 Examples of appliances that are within the scope of this standard are

- coffee-makers,
- cooking pans,
- egg boilers,
- **feeding-bottle heaters**,
- kettles and other appliances for boiling water, having a **rated capacity** not exceeding 10 l,
- milk heaters,
- pressure cookers having a **rated cooking pressure** not exceeding 140 kPa and a **rated capacity** not exceeding 10 l,
- **rice cookers**,
- slow cookers,
- **steam cookers**,
- **soy milk makers**,
- tea makers,
- wash boilers,
- yoghurt makers.
- **A11** **Pot coffee-makers** **A11**

A12 Appliances can have more than one function **A12**

Appliances intended to be used by laymen in shops and other premises for normal housekeeping purposes, are within the scope of this standard.

NOTE Z103 Examples of such appliances are

- glue pots with a water jacket,
- livestock feed boilers,
- sterilizers.

If the appliance is intended to be used professionally to process food for commercial consumption, that appliance is not considered to be for household or similar use only.

NOTE Z104 Examples of appliance for household environment are appliances for typical housekeeping functions used in the household environment that may also be used by non expert users for typical housekeeping functions:

- in shops and other similar working environments;
- in farm houses;

- by clients in hotels, motels and other residential type environments;
- in bed and breakfast type environments.

NOTE Z105 Household environments include the dwelling and its associated buildings, the garden, etc.

As far as is practicable, this standard deals with the common hazards presented by appliances that are encountered by all persons in household and similar environments.

However, in general, it does not take into account **children** playing with appliances and their **use** by **very young children**.

It does not take into account the **use** of the following appliances by **children**:

- pressure cookers;
- glue pots with a water jacket;
- livestock feed boilers;
- sterilizers;
- **soy milk makers**;
- wash boilers.
- **A11** Pot coffee-makers **A11**

It does not take into account the **use** of the following appliances by **young children** without supervision:

- cooking pans;
- slow cookers;
- **steam cookers**;
- tea makers;
- **rice cookers**;
- coffee makers;
- kettles;
- egg boilers;
- milk heaters.

NOTE Z106 **Feeding bottle heaters** and yoghurt makers may be used by **young children**.

It is recognized that **very vulnerable people** may have needs beyond the level addressed in this standard.

NOTE Z107 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,
- 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.

NOTE Z108 This standard does not apply to

- frying pans and deep fat fryers (EN 60335-2-13),
- storage water heaters (EN 60335-2-21),
- instantaneous water heaters (EN 60335-2-35),
- surface-cleaning appliances employing liquids or steam (EN 60335-2-54),
- portable immersion heaters (EN 60335-2-74),
- commercial dispensing appliances and vending machines (EN 60335-2-75),
- appliances for medical purposes (EN 60601),

- 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),
- appliances for high-frequency heating,
- pressure sterilizers,
- humidifiers for household and similar use (EN 60335-2-98).

NOTE Z109 Attention is drawn to the fact that in many countries requirements for pressure vessels are applied to pressure cookers.

2 Normative references

This clause of Part 1 is applicable.

3 Terms and definitions

This clause of Part 1 is applicable except as follows.

3.1.9 Replacement:

normal operation

operation of the appliance under the following conditions

3.1.9.101 Kettles, thermal pots, urns and other appliances for boiling water, ~~A1~~ deleted text ~~A1~~ cooking pans, glue pots, milk heaters, slow cookers, sterilizers, wash boilers and yoghurt makers are operated with their container filled with the **rated capacity** of water, any lid being closed. The quantity of water in slow cookers is maintained above 50 % of their **rated capacity**.

~~A1~~ Coffee makers are operated in accordance with their instructions with the water container filled to its **rated capacity** and bean container, if any, filled with coffee beans. The warming plate and all other energy consuming functions, if any, are switched on. ~~A1~~

Appliances with a heated surface intended to keep the liquid warm are operated with or without the container, whichever is the more unfavourable.

3.1.9.102 Egg boilers and **steam cookers** are operated with their containers filled with the maximum quantity of water specified in the instructions.

3.1.9.103 Feeding-bottle heaters are operated with a bottle of heat-resistant glass, round or hexagonal in shape, having a mass between 190 g and 200 g and a capacity of approximately 225 ml, unless a particular bottle is specified, in which case that bottle is used. The bottle is filled to approximately its **rated capacity** of water or 200 ml, whichever is less, and is placed in the **feeding-bottle heater**. The heater is filled with water to the level specified in the instructions or, in the absence of instructions, to the maximum level.

3.1.9.104 Livestock feed boilers are operated with the lid closed, the container being filled with half its **rated capacity** of water.

3.1.9.105 Pressure cookers are operated in accordance with the instructions but with the container filled with water to a depth of 25 mm.

3.1.9.106 Rice cookers are operated with the rice container filled with water to the level of maximum rated capacity. Water is added to maintain the level during boiling.

When operated in the keep-warm mode, the **rice cooker** is operated with the rice container empty.