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JUUKSEHOOLDUSSEADMETELE**

**Household and similar electrical appliances - Safety -  
Part 2-23: Particular requirements for appliances for  
skin or hair care (IEC 60335-2-23:2016 +  
IEC 60335-2-23:2016/A1:2019)**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN IEC 60335-2-23:2023+A1+A11:2023 sisaldab Euroopa standardi EN IEC 60335-2-23:2023 ja selle muudatuste A1:2023 ja A11:2023 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 60335-2-23:2023+A1+A11:2023 consists of the English text of the European standard EN IEC 60335-2-23:2023 and its amendments A1:2023 and A11:2023.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.  Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 12.05.2023, muudatused A1 12.05.2023 ja A11 12.05.2023.	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 12.05.2023, for A1 12.05.2023 and A11 12.05.2023.
Muudatusega A1 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega $\boxed{A1}$ $\langle A1 \rangle$ .  Muudatusega A11 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega $\boxed{A11}$ $\langle A11 \rangle$ .  Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The start and finish of text introduced or altered by amendment A1 is indicated in the text by tags $\boxed{A1}$ $\langle A1 \rangle$ .  The start and finish of text introduced or altered by amendment A11 is indicated in the text by tags $\boxed{A11}$ $\langle A11 \rangle$ .  The standard is available from the Estonian Centre for Standardisation and Accreditation.

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ICS 13.120; 97.170

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English Version

**Household and similar electrical appliances - Safety - Part 2-23:  
Particular requirements for appliances for skin or hair care  
(IEC 60335-2-23:2016 + IEC 60335-2-23:2016/A1:2019)**

Appareils électrodomestiques et analogues - Sécurité -  
Partie 2-23: Exigences particulières pour les appareils  
destinés aux soins de la peau ou des cheveux  
(IEC 60335-2-23:2016 + IEC 60335-2-23:2016/A1:2019)

Sicherheit elektrischer Geräte für den Hausgebrauch und  
ähnliche Zwecke - Teil 2-23: Besondere Anforderungen für  
Geräte zur Behandlung von Haut und Haar  
(IEC 60335-2-23:2016 + IEC 60335-2-23:2016/A1:2019)

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European Committee for Electrotechnical Standardization  
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 IEC 60335-2-23:2023) consists of the text of IEC 60335-2-23:2016 prepared by IEC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2024-03-01
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2026-03-01

This document supersedes EN 60335-2-23:2003.

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EN IEC 60335-2-23:2023 is to be read in conjunction with EN IEC 60335-2-23:2023/A1:2023 and EN IEC 60335-2-23:2023/A11:2023.

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The text of the International Standard IEC 60335-2-23:2016 was approved by CENELEC as a European Standard without any modification.

## **A1** Amendment A1 European foreword

This document (EN IEC 60335-2-23:2023/A1:2023) consists of the text of IEC 60335-2-23:2016/A1:2019 prepared by IEC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be (dop) 2024-03-01 implemented at national level by publication of an identical national standard or by endorsement
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Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

This document is read in conjunction with EN IEC 60335-2-23:2023 and EN IEC 60335-2-23:2023/A11:2023.

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### **Endorsement notice**

The text of the International Standard IEC 60335-2-23:2016/A1:2019 was approved by CENELEC as a European Standard without any modification. **A1**

## **A11** Amendment A11 European foreword

This document (EN IEC 60335-2-23:2023/A11:2023) was prepared by the Technical Committee CENELEC TC 61, "Safety of household and similar electrical appliances".

The following dates are fixed:

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This document is read in conjunction with EN IEC 60335-2-23:2023 and EN IEC 60335-2-23:2023/A1:2023.

The numbering system for European clauses, subclauses, notes, tables, figures and annexes that are additional to those in the IEC standard are prefixed with the letter "Z".

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# CONSOLIDATED VERSION

# VERSION CONSOLIDÉE



**Household and similar electrical appliances – Safety –  
Part 2-23: Particular requirements for appliances for skin or hair care**

**Appareils électrodomestiques et analogues – Sécurité –  
Partie 2-23: Exigences particulières pour les appareils destinés aux soins de la  
peau ou des cheveux**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

#### Part 2-23: Particular requirements for appliances for skin or hair care

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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 2003 including its Amendment 1 (2008) and its Amendment 2 (2012). This edition constitutes a technical revision.

The principal changes in this edition as compared with the fourth edition of IEC 60335-2-23 are as follows (minor changes are not listed):

- added hair straighteners to the list of examples covered by the standard;
- modified 7.12 to apply to appliances, and not just to hairdryers.
- added new instructions in 7.12 for hair straighteners and curling irons
- exempted fixed hairdryers and fixed hand dryers from alternative format of instructions;
- excluded detachable curler surfaces from temperature rise requirement in Subclause 11.8;
- clarified in Subclause 19.7 that the appliance shall not emit flame after the test;
- clarified method of test and compliance criteria in Subclause 21.101;

- added requirement in 22.13 to delineate handles on curling irons and hair straighteners;
- in 22.103, added a requirement for protection against hair being pulled into hair dryer intake;
- revised Subclause 24.101 to indicate that protective devices shall not be self-resetting;
- reviewed and converted notes to normative text in Subclauses 19.7, 22.32, and 25.14.

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

FDIS	Report on voting
61/5135/FDIS	61/5171/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 skin or hair care.

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 committee has decided that the contents of this 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

- reconfirmed,
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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 the publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

The following differences exist in the countries indicated below.

- 3.1.9: Normal operation is different (USA).
- 6.1: Appliances fitted with a supply cord may be of class 0 (USA).
- 6.2: The addition does not apply (USA).
- Clause 7: Additional markings and instructions are required (USA).
- 11.7: Rest periods are not allowed (USA).
- 11.8: Surface temperature requirement is different (USA).
- 11.101: The test is not carried out (USA).
- 19.2: Different methods are used to restrict heat dissipation (USA).
- 19.101: The test is different (USA).
- 19.102: The test is different (USA).
- 21.101: The test is different (USA).
- Clause 22: Hand-held hairdryers are required to incorporate a protective device to comply with an immersion test (USA).
- 22.36: The requirement does not apply (USA).
- 22.102: The requirement does not apply (USA).
- 24.1.3: The number of cycles of operation is different (USA).
- 24.101: The requirement does not apply (USA).
- 25.7: PVC sheathed cords are not allowed if they could contact surfaces over 121 °C (USA).
- 25.14: The test is different (USA).
- 25.101: The test is different (USA).

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## **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
61/5757/FDIS	61/5794/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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NOTE 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. **A1**

## 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.

NOTE 1 For example, if appliances within the scope of this Part 2 include an ion generator, then IEC 60335-2-65 is applicable as far as is reasonable.

When a part 2 standard does not include additional requirements to cover hazards dealt with in Part 1, Part 1 applies.

NOTE 2 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 3 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.

**A11** With this European Amendment A11 the standard EN 60335-2-23:2003+A1:2008+A11:2010+A2:2015 is superseded.

This European Amendment A11 supplements or modifies the corresponding clauses of the standards below:

- EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021+A16:—<sup>1</sup>  
(Part 1)
- EN IEC 60335-2-23:2023+A1:2023 (Part 2) 

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<sup>1</sup> To be published in 2023. Stage at the time of publication: EN 60335-1:2012/FprA16:2021.

## HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

### Part 2-23: Particular requirements for appliances for skin or hair care

#### 1 Scope

This clause of Part 1 is replaced by the following.

This part of IEC 60335 deals with the safety of electric appliances for the care of skin or hair of persons or animals and intended 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

- curling combs;
- curling irons;
- curling rollers with separate heaters;
- facial saunas;
- hairdryers;
- hair straighteners;
- hand dryers;
- **heaters for detachable curlers**;
- **A1** water filled **foot care appliances** without massage function; **A1**
- permanent-wave appliances.

NOTE 102 Appliances covered by this standard may incorporate steam-producing or spray-producing devices.

Appliances not intended for normal household use but that 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 103 Examples are appliances for use in hairdressing salons.

**A11** This document deals with the reasonably foreseeable hazards presented by appliances and machines that are encountered by all persons.

However, in general, it does not take into account:

- **children** playing with the appliance;
- the use of the appliance by **very young children**;
- the use of the appliance by **young children** without supervision;
- **user maintenance** by **children**, including the necessary cleaning of the appliance.

It is recognized that **very vulnerable people** may have needs beyond the level addressed in this document. **A11**

NOTE 104 Attention is drawn to the fact that

- it is recognized that persons having very extensive and complex disabilities can have needs beyond the level addressed in this standard.

- 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 and similar authorities.

NOTE 105 This standard does not apply to

- 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);
- shavers, hair clippers and similar appliances (IEC 60335-2-8);
- blankets, pads, clothing and similar flexible heating appliances (IEC 60335-2-17);
- appliances for skin exposure to optical radiation (IEC 60335-2-27);
- sauna heating appliances (IEC 60335-2-53);
- cosmetic and beauty care appliances incorporating lasers and intense light sources (IEC 60335-2-113)
- **A1** water filled foot massagers (IEC 60335-2-32); **A1**
- appliances intended for medical purposes (IEC 60601).

**A1** NOTE 106 A water filled **foot care appliance** with water jets is not considered to have a massage function. **A1**

## 2 Normative references

This clause of Part 1 is applicable except as follows:

*Addition:*

ISO 7010:2011, *Graphical symbols – Safety colours and safety signs – Registered safety signs*

## 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:

**Helmet-type hairdryers** are operated with the axis of the hood inclined at an angle of 60° to the horizontal or the maximum angle allowed by the construction if this is less. A dull black-painted wooden sphere, 200 mm in diameter, is placed in the hood so that its centre coincides with the axis of the hood, the shortest distance between the sphere and the air-outlet grille being 50 mm.

Hairdryers having a flexible hood attachment are operated with the hood attachment placed over the wire frame of Figure 101, the frame being positioned over the wooden sphere.

**Helmet-type hairdryers** that are supported by the head are operated as hairdryers having a flexible hood attachment.

**Hand-held hairdryers** are operated with unrestricted airflow directed downwards.

Permanent-wave appliances are operated in the normal position of use, the curling rollers hanging freely.

**Heaters for detachable curlers** are operated in the normal position of use together with the curlers.

Curling irons, curling combs and similar appliances are operated with their major axis horizontal.