



# SLOVENSKI STANDARD SIST EN 60335-2-23:1997

01-junij-1997

Nadomešča:  
SIST EN 60335-2-23:1995

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**Varnost gospodinjskih in podobnih električnih aparatov - 2-23. del: Posebne zahteve za aparate za nego kože ali las (IEC 60335-2-23:1996)**

Safety of household and similar electrical appliances -- Part 2-23: Particular requirements for appliances for skin or hair care

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-23: Besondere Anforderungen für Geräte zur Behandlung von Haut oder Haar

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

**Ta slovenski standard je istoveten z: EN 60335-2-23:1996**

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**ICS:**

13.120	Varnost na domu	Domestic safety
97.170	Oprema za nego telesa	Body care equipment

**SIST EN 60335-2-23:1997** en

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60335-2-23**

April 1996

ICS 97.170

Supersedes EN 60335-2-23:1990 and its amendments

Descriptors: Household electrical appliances, hair-dryers, skin treatment appliances, 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 appliances for skin or hair care**  
**(IEC 335-2-23:1996)**

Sécurité des appareils  
électrodomestiques et analogues  
Partie 2: Règles particulières pour  
les appareils destinés aux soins de  
la peau ou des cheveux  
(CEI 335-2-23:1996)

Sicherheit elektrischer Geräte für den  
Hausgebrauch und ähnliche Zwecke  
Teil 2: Besondere Anforderungen für  
Geräte zur Behandlung von Haut  
oder Haar  
(IEC 335-2-23:1996)

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This European Standard was approved by CENELEC on 1996-03-05. 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 text of document 61/947/FDIS, future fourth edition of IEC 335-2-23, prepared by the IEC Technical Committee 61 was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60335-2-23 on 1996-03-05.

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) 1996-12-01
- date on which national standards conflicting with the EN have to be withdrawn (dow) 1998-12-01

For products which have complied with EN 60335-2-23:1990 and its amendments A1:1992 and A51:1992 before 1998-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2003-12-01.

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 electrical appliances for skin or hair care.

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. [SIST EN 60335-2-23:1997](https://standards.iteh.ai/catalog/standards/sist/31d3fb10-35a7-4580-a4e9-9e0000000000/sist-en-60335-2-23-1997)

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Subclauses and figures which are additional to those in part 1 are numbered starting with 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.

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## Endorsement notice

The text of the International Standard IEC 335-2-23:1996 was approved by CENELEC as a European Standard without any modification.

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NORME  
INTERNATIONALE

CEI  
IEC

INTERNATIONAL  
STANDARD

**335-2-23**

Quatrième édition  
Fourth edition  
1996-02

**Sécurité des appareils électrodomestiques  
et analogues –**

**Partie 2:**

Règles particulières pour les appareils destinés  
aux soins de la peau ou des cheveux

(standards.iteh.ai)

**Safety of household and similar  
electrical appliances –**

**Part 2:**

Particular requirements for appliances  
for skin or hair care

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part 2: Particular requirements for appliances  
for skin or hair care

## 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.  
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- 5) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.
- 6) The IEC has not laid down any procedure concerning marking as an indication of approval and has no responsibility when an item of equipment is declared to comply with one of its standards.

This part of International Standard IEC 335 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

It forms the fourth edition of IEC 335-2-23 and replaces the third edition published in 1986, and its amendment.

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

FDIS	Report on voting
61/947/FDIS	61/998/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 335-1 and its amendments. It was established on the basis of the third edition (1991) of that standard.

This part 2 supplements or modifies the corresponding clauses in IEC 335-1, so as to convert it into the IEC standard: Safety requirements for electric appliances for skin or hair care.

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. When a definition of part 1 concerns an adjective, the adjective and the associated noun are also in bold.

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: Different test conditions and measurements are used (USA).
- 6.1: Appliances fitted with a supply cord may be of class 0 or class 0I (Japan and USA).
- 6.2: The addition does not apply (USA).
- 7.1: Additional warnings are required for hand-held hairdryers (USA).
- 11.7: Rest periods are not allowed (USA).
- 11.101: The test is not carried out (USA).
- 19.2: Different methods are used to restrict heat dissipation (USA).
- 19.101: The temperature rise limits are 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 (Japan and USA).
- 22.102: The requirement does not apply (USA).
- 24.1.3: A different number of cycles of operation are specified (USA).
- 25.7: The use of PVC sheathed cords is not restricted by the surface temperature of the enclosure (Australia).
- 25.7: The addition does not apply (Japan).
- 25.7: PVC sheathed cords are not allowed if they could contact surfaces over 121 °C (USA).
- 25.8: The addition does not apply (Japan).
- 25.14: The test is different (USA).
- 25.101: The test is different (USA).



## SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

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

#### 1 Scope

This clause of part 1 is replaced by:

This standard 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.

#### NOTES

1 Examples of appliances which are within the scope of this standard are:

- hairdryers;
- hand dryers;
- permanent-wave appliances;
- curling irons;
- curling combs;
- curling rollers with separate heaters;
- heaters with detachable curlers;
- facial saunas.

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

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 3 – Examples are appliances for use in hairdressing salons.

So far as is practicable, this standard deals with the common hazards 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

4 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 and similar authorities.

5 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 335-2-8);
- UV and IR radiation appliances (IEC 335-2-27);
- sauna heating appliances (IEC 335-2-53);
- appliances intended for medical purposes (IEC 601).

## 2 Definitions

This clause of part 1 is applicable except as follows:

### 2.2.9 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 provided with a flexible hood attachment are operated with the hood attachment placed over the metal-wire guard of figure 101, which is located over the sphere.

NOTE – **Helmet-type hairdryers** which are supported by the head are operated as hairdryers provided with a flexible hood attachment.

**Hand-held hairdryers** are operated with unrestricted air flow directed downward.

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.

Appliances provided with steam-producing or spray-producing devices are operated with the container empty or filled whichever is more unfavourable. However, if the appliance is marked to indicate that it is to be used with the container filled, the container is filled. Water is added, when necessary, to compensate for evaporation.

Hand dryers are operated in the normal position of use with unrestricted air flow.

Facial saunas are operated in the normal position of use and filled with water. Water is added, when necessary, to maintain the steam output.

**2.101 helmet-type hairdryer:** Hairdryer having a rigid hood which is placed over the head in normal use.

NOTE – The hood may be supported by a stand or have means for attaching to a support.

**2.102 heater for detachable curlers:** Heater intended to heat thermal storage devices, such as curling rollers and curling irons.

2.103 **swivel connection:** Means for connecting the **supply cord** so that the appliance can be rotated continuously without twisting the cord.

### 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:

NOTE – The additional test of 25.14 for **hand-held appliances** is carried out on a separate appliance.

### 5 Void

### 6 Classification

This clause of part 1 is applicable except as follows:

#### 6.1 Replacement:

Appliances shall be of one of the following classes with respect to protection against electric shock:

- hairdryers, curling irons, curling combs, facial saunas and other steam-producing or spray-producing appliances shall be of **class II** or **class III**. However, **fixed hairdryers** intended to be permanently connected to fixed wiring, **helmet-type hairdryers** for hairdressers and steam-producing or spray-producing appliances for hairdressers may be of **class I**;
- other appliances shall be of **class I**, **class II** or **class III**.

*Compliance is checked by inspection and by the relevant tests.*

#### 6.2 Addition:

Hand dryers shall be at least IPX1.

Curling rollers of permanent-wave appliances shall be at least IPX4.

### 7 Marking and instructions

This clause of part 1 is applicable except as follows:

#### 7.1 Addition:

**Portable hairdryers**, curling irons and similar appliances shall be marked with the substance of the following warning:

WARNING – Do not use this appliance near water contained in bath-tubs, basins or other vessels.

#### NOTES

- 1 This marking may be on a label which is permanently attached to the appliance.
- 2 An appropriate symbol may be used instead.