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IEC 60335-2-23

Edition 6.0 2016-06
REDLINE VERSION

INTERNATIONAL STANDARD

colour inside

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

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ICS 13.120; 97.040.50

ISBN 978-2-8322-3472-3

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

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

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.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
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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.

This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

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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.

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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,
- 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 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).

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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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.

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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 ~~with~~ for detachable curlers**;
– 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.

~~As far as is practicable,~~ This standard deals with the ~~common~~ reasonably foreseeable hazards presented by appliances that are encountered by all persons ~~in and around the home~~. However, in general, it does not take into account

– ~~the use of appliances by young~~ persons (including children) ~~or infirm persons~~ whose
  - physical, sensory or mental capabilities; or
  - lack of experience and knowledge

  prevents them from using the appliance safely without supervision or instruction;
– children playing with the appliance ~~by young children~~.

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);

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– shavers, hair clippers and similar appliances (IEC 60335-2-8);

– ~~UV and IR radiation appliances (IEC 60335-2-27);~~

– 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)

– appliances intended for medical purposes (IEC 60601).

2 Normative references

This clause of Part 1 is applicable except as follows:

Addition:

~~ISO 3864, *Safety colours and safety signs.*~~

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

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IEC 60335-2-23

Edition 6.0 2016-06

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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

IEC 60335-2-23:2016-06(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

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- excluded detachable curler surfaces from temperature rise requirement in Subclause 11.8;

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- 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;
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– 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).
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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.

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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.

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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**;
– 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.

This standard deals with the reasonably foreseeable hazards presented by appliances that are encountered by all persons. However, in general, it does not take into account

– persons (including children) whose
  - physical, sensory or mental capabilities; or
  - lack of experience and knowledge

  prevents them from using the appliance safely without supervision or instruction;
– children playing with the appliance.

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);

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– 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)
– appliances intended for medical purposes (IEC 60601).

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*

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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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La présente partie de la Norme internationale IEC 60335 a été établie par le comité d'études 61 de l'IEC: Sécurité des appareils électrodomestiques et analogues.

Cette sixième édition annule et remplace la cinquième édition parue en 2003, son Amendement 1 (2008) et son Amendement 2 (2012). Cette édition constitue une révision technique.

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Cette édition inclut les modifications majeures suivantes par rapport à la quatrième édition de l'IEC 60335-2-23 (les modifications mineures ne sont pas répertoriées):

- ajout des lisseurs à la liste d'exemples couverts par la norme;
- modification de 7.12 pour qu'il s'applique aux appareils, et non uniquement aux sèche-cheveux;
- ajout de nouvelles instructions en 7.12 relatives aux lisseurs et aux fers à friser;
- exemption des sèche-cheveux installés à poste fixe et des sèche-mains installés à poste fixe de la fourniture d'un autre format d'instructions;
- exclusion des surfaces des parties frisantes amovibles de l'exigence relative à l'échauffement au Paragraphe 11.8;
- clarification dans le Paragraphe 19.7 précisant que l'appareil ne doit pas émettre de flammes après l'essai;
- clarification de la méthode d'essai et des critères de conformité au Paragraphe 21.101;
- ajout d'une exigence en 22.13 visant à délimiter les poignées sur les fers à friser et les lisseurs;
- en 22.103, ajout d'une exigence relative à la protection contre l'aspiration des cheveux au niveau de l'arrivée d'air du sèche-cheveux;
- révision du Paragraphe 24.101 pour indiquer que les dispositifs de protection ne doivent pas être à réarmement automatique;
- révision et conversion de notes en texte normatif dans les Paragraphes 19.7, 22.32, et 25.14.

Le texte de cette norme est issu des documents suivants:

FDIS	Rapport de vote
61/5135/FDIS	61/5171/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette norme.

Cette publication a été rédigée selon les Directives ISO/IEC, Partie 2.

La présente partie 2 doit être utilisée conjointement avec la dernière édition de l'IEC 60335-1 et ses amendements. Elle a été établie sur la base de la cinquième édition (2010) de cette norme.

NOTE 1 L'expression "Partie 1" utilisée dans la présente norme fait référence à l'IEC 60335-1.

La présente partie 2 complète ou modifie les articles correspondants de l'IEC 60335-1, de façon à transformer cette publication en norme IEC: Exigences de sécurité pour les appareils destinés aux soins de la peau ou des cheveux.

Lorsqu'un paragraphe particulier de la Partie 1 n'est pas mentionné dans cette partie 2, ce paragraphe s'applique pour autant qu'il est raisonnable. Lorsque la présente norme spécifie "addition", "modification" ou "remplacement", le texte correspondant de la Partie 1 doit être adapté en conséquence.

NOTE 2 Le système de numérotation suivant est utilisé:

– paragraphes, tableaux et figures: ceux qui sont numérotés à partir de 101 sont complémentaires à ceux de la Partie 1;

– notes: à l'exception de celles qui sont dans un nouveau paragraphe ou de celles qui concernent des notes de la Partie 1, les notes sont numérotées à partir de 101, y compris celles des articles ou paragraphes qui sont modifiés ou remplacés;

– annexes: les annexes supplémentaires sont appelées AA, BB, etc.

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NOTE 3 Les caractères d'imprimerie suivants sont utilisés:

– exigences: caractères romains;

– *modalités d'essais: caractères italiques;*

– notes: petits caractères romains.

Les mots en **gras** dans le texte sont définis à l'Article 3. Lorsqu'une définition concerne un adjectif, l'adjectif et le nom associé figurent également en gras.

Le comité a décidé que le contenu de cette publication ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous "http://webstore.iec.ch" dans les données relatives à la publication recherchée. A cette date, la publication sera

- reconduite,
- supprimée,
- remplacée par une édition révisée, ou
- amendée.

NOTE 4 L'attention des Comités Nationaux est attirée sur le fait que les fabricants d'appareils et les organismes d'essai peuvent avoir besoin d'une période transitoire après la publication d'une nouvelle publication IEC, ou d'une publication amendée ou révisée, pour fabriquer des produits conformes aux nouvelles exigences et pour adapter leurs équipements aux nouveaux essais ou aux essais révisés.

Le comité recommande que le contenu de cette publication soit entériné au niveau national au plus tôt 12 mois et au plus tard 36 mois après la date de publication.

Les différences suivantes existent dans les pays indiqués ci-après.

– 3.1.9: Le fonctionnement normal est différent (États-Unis).

– 6.1: Les appareils comportant un câble d'alimentation peuvent être de la classe 0 (États-Unis).

– 6.2: L'addition n'est pas applicable (États-Unis).

– Article 7: Des marquages et des instructions supplémentaires sont exigés (États-Unis).

– 11.7: Des périodes de repos ne sont pas admises (États-Unis).

– 11.8: L'exigence relative à la température de surface est différente (États-Unis).

– 11.101: L'essai n'est pas effectué (États-Unis).

– 19.2: D'autres méthodes sont utilisées pour obtenir un dégagement de chaleur réduit (États-Unis).

– 19.101: L'essai est différent (États-Unis).

– 19.102: L'essai est différent (États-Unis).

– 21.101: L'essai est différent (États-Unis).

– Article 22: Les sèche-cheveux portatifs doivent comporter un dispositif de protection pour satisfaire à un essai d'immersion (États-Unis).

– 22.36: L'exigence n'est pas applicable (États-Unis).

– 22.102: L'exigence n'est pas applicable (États-Unis).

– 24.1.3: Le nombre de cycles de fonctionnement est différent (États-Unis).

– 24.101: L'exigence n'est pas applicable (États-Unis).

– 25.7: Les câbles sous gaine de PVC ne sont pas autorisés s'ils peuvent venir au contact de surfaces dont la température dépasse 121 °C (États-Unis).

– 25.14: L'essai est différent (États-Unis).

– 25.101: L'essai est différent (États-Unis).

IMPORTANT – Le logo *"colour inside"* qui se trouve sur la page de couverture de cette publication indique qu'elle contient des couleurs qui sont considérées comme utiles à une bonne compréhension de son contenu. Les utilisateurs devraient, par conséquent, imprimer cette publication en utilisant une imprimante couleur.

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INTRODUCTION

Il a été considéré en établissant la présente Norme internationale que l'exécution de ses dispositions était confiée à des personnes expérimentées et ayant une qualification appropriée.

La présente norme reconnaît le niveau de protection internationalement accepté contre les dangers tels que les dangers électriques, mécaniques, thermiques, liés au feu et au rayonnement des appareils, lorsqu'ils fonctionnent comme en usage normal en tenant compte des instructions du fabricant. Elle couvre également les situations anormales auxquelles on peut s'attendre dans la pratique et prend en considération les phénomènes électromagnétiques qui peuvent affecter le fonctionnement en toute sécurité des appareils.

Cette norme tient compte autant que possible des exigences de l'IEC 60364, de façon à rester compatible avec les règles d'installation quand l'appareil est raccordé au réseau d'alimentation. Cependant, des règles nationales d'installation peuvent être différentes.

Si un appareil compris dans le domaine d'application de cette norme comporte également des fonctions qui sont couvertes par une autre partie 2 de l'IEC 60335, la partie 2 correspondante est appliquée à chaque fonction séparément, dans la limite du raisonnable. Si cela est applicable, l'influence d'une fonction sur les autres fonctions est prise en compte.

NOTE 1 Par exemple, si les appareils compris dans le domaine d'application de la présente Partie 2 comportent un générateur d'ions, alors l'IEC 60335-2-65 est applicable dans la limite du raisonnable.

Lorsqu'une partie 2 ne comporte pas d'exigences complémentaires pour couvrir les dangers traités dans la Partie 1, la Partie 1 s'applique.

NOTE 2 Cela signifie que les comités d'études responsables pour les parties 2 ont déterminé qu'il n'était pas nécessaire de spécifier des exigences particulières pour l'appareil en question en plus des exigences générales.

Cette norme est une norme de famille de produits traitant de la sécurité des appareils et a préséance sur les normes horizontales et génériques couvrant le même sujet.

NOTE 3 Les normes horizontales et génériques couvrant un danger ne sont pas applicables parce qu'elles ont été prises en considération lorsque les exigences générales et particulières ont été étudiées pour la série de normes IEC 60335. Par exemple, dans le cas des exigences de température de surface pour de nombreux appareils, des normes génériques, comme l'ISO 13732-1 pour les surfaces chaudes, ne sont pas applicables en plus de la Partie 1 ou des parties 2.

Un appareil conforme au texte de la présente norme ne sera pas nécessairement jugé conforme aux principes de sécurité de la norme si, lorsqu'il est examiné et soumis aux essais, il apparaît qu'il présente d'autres caractéristiques qui compromettent le niveau de sécurité visé par ces exigences.

Un appareil utilisant des matériaux ou présentant des modes de construction différents de ceux décrits dans les exigences de cette norme peut être examiné et soumis à essai en fonction de l'objectif poursuivi par ces exigences et, s'il est jugé pratiquement équivalent, il peut être estimé conforme à la présente norme.

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Partie 2-23: Exigences particulières pour les appareils destinés aux soins de la peau ou des cheveux

1 Domaine d'application

L'article de la Partie 1 est remplacé par l'article ci-après.

La présente partie de l'IEC 60335 traite de la sécurité des appareils électriques pour les soins de la peau ou des cheveux des personnes ou des animaux, destinés aux usages domestiques et analogues et dont la **tension assignée** n'est pas supérieure à 250 V.

NOTE 101 Des exemples d'appareils compris dans le domaine d'application de la présente norme sont donnés ci-après:

– les peignes à friser;
– les fers à friser;
– les rouleaux à friser avec dispositif de chauffage séparé;
– les appareils de sauna facial;
– les sèche-cheveux;
– les lisseurs;
– les sèche-mains;
– les **dispositifs de chauffage pour parties frisantes amovibles**;
– les appareils à permanente.

NOTE 102 Les appareils couverts par la présente norme peuvent comporter des dispositifs à production de vapeur ou à aspersion.

Les appareils non destinés à un usage domestique normal, mais qui peuvent néanmoins constituer une source de danger pour le public, tels que les appareils destinés à être utilisés par des utilisateurs non avertis dans des magasins, chez des artisans et dans des fermes, sont compris dans le domaine d'application de la présente norme.

NOTE 103 Les appareils utilisés dans les salons de coiffure constituent des exemples de ce type d'appareils.

La présente norme traite des dangers raisonnablement prévisibles présentés par les appareils, encourus par tous les individus. Cependant, cette norme ne tient pas compte en général

– des personnes (y compris des enfants) dont
  - les capacités physiques, sensorielles ou mentales; ou
  - le manque d'expérience et de connaissance

  les empêchent d'utiliser l'appareil en toute sécurité sans surveillance ou instruction;
– de l'utilisation de l'appareil comme jouet par des enfants.

NOTE 104 L'attention est attirée sur le fait que

– il est reconnu que des personnes présentant des handicaps très importants et complexes sont susceptibles d'avoir des besoins supérieurs au niveau couvert dans la présente norme.
– pour les appareils destinés à être utilisés dans des véhicules ou à bord de navires ou d'avions, des exigences supplémentaires peuvent être nécessaires;
– dans de nombreux pays, des exigences supplémentaires sont spécifiées par les organismes nationaux de la santé, par les organismes nationaux responsables de la protection des travailleurs et par des organismes similaires.

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NOTE 105 La présente norme ne s'applique pas

– aux appareils prévus exclusivement pour des usages industriels;

– aux appareils destinés à être utilisés dans des locaux présentant des conditions particulières, telles que la présence d'une atmosphère corrosive ou explosive (poussière, vapeur ou gaz);

– aux rasoirs, tondeuses et appareils analogues (IEC 60335-2-8);

– aux couvertures, coussins, vêtements et appareils chauffants souples analogues (IEC 60335-2-17);

– aux appareils d'exposition de la peau au rayonnement optique (IEC 60335-2-27);

– aux appareils de chauffage des saunas (IEC 60335-2-53);

– appareils destinés aux soins cosmétiques et esthétiques comportant des lasers et des sources de lumière de forte intensité (IEC 60335-2-113)

– aux appareils à usage médical (IEC 60601).

2 Références normatives

L'article de la Partie 1 est applicable avec l'exception suivante:

Addition:

ISO 7010:2011, *Symboles graphiques – Couleurs de sécurité et signaux de sécurité – Signaux de sécurité enregistrés*