

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Household and similar electrical appliances – Safety –  
Part 2-85: Particular requirements for fabric steamers**

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**Appareils électrodomestiques et analogues – Sécurité –  
Partie 2-85: Exigences particulières pour les appareils à vapeur pour tissus**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –  
SAFETY –****Part 2-85: Particular requirements for fabric steamers**

## FOREWORD

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IEC 60335-2-85 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances. It is an International Standard.

This third edition cancels and replaces the second edition published in 2002, Amendment 1:2008 and Amendment 2:2017. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) alignment with IEC 60335-1:2020;
- b) conversion of some notes to normative text (Clause 1);
- c) introduction of pressurized fabric steamer.

The text of this International Standard is based on the following documents:

Draft	Report on voting
61/6673/FDIS	61/6748/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

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.

This part 2 is to be used in conjunction with the latest edition of IEC 60335-1 and its amendments unless that edition precludes it; in that case, the latest edition that does not preclude it is used. It was established on the basis of the sixth edition (2020) 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: Particular requirements for fabric steamers.

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: <https://da9-29a3-4702-8b7f-d2f0ba2a74ed/iec-60335-2-85-2022>

- 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 document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

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

NOTE 4 The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

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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.

Guidance documents concerning the application of the safety requirements for appliances can be accessed via TC 61 supporting documents on the IEC website

<https://www.iec.ch/tc61/supportingdocuments>

This information is given for the convenience of users of this International Standard and does not constitute a replacement for the normative text in this standard.

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 can 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 publications, basic safety publications and group safety publications 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.

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.

NOTE 3 Standards dealing with non-safety aspects of household appliances are:

- IEC standards published by TC 59 concerning methods of measuring performance;
- CISPR 11, CISPR 14-1 and relevant IEC 61000-3 series standards concerning electromagnetic emissions;
- CISPR 14-2 concerning electromagnetic immunity;
- IEC standards published by TC 111 concerning environmental matters.



## HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

### Part 2-85: Particular requirements for fabric steamers

#### 1 Scope

This clause of Part 1 is replaced by the following.

This part of IEC 60335 deals with the safety of electric **fabric steamers** intended for household and similar purposes, their **rated voltage** being not more than 250 V including direct current (DC) supplied appliances and **battery-operated appliances**.

Appliances not intended for normal household use, but that nevertheless possibly pose a source of danger to the public, such as appliances intended to be used by laymen in shops, laundries and dry cleaners, are within the scope of this standard.

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

- persons (including children) whose
  - physical, sensory or mental capabilities; or
  - lack of experience and knowledgeprevents them from using the appliance safely without supervision or instruction;
- children playing with the appliance.

Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements can 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.

This standard does not apply to

- 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);
- electric irons (IEC 60335-2-3);
- ironers (IEC 60335-2-44);
- surface-cleaning appliances for household use employing liquids or steam (IEC 60335-2-54);
- appliances connected to the water mains.

#### 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 Definitions relating to physical characteristics

##### 3.1.6 Addition:

Note 101 to entry: For **electrode-type appliances**, if no current is assigned to the appliance, the **rated current** is calculated from the **rated voltage** and the mean value of the power input during the first 2 min of operation, the appliance being supplied at **rated voltage** and operated under **normal operation**.

##### 3.1.9 Addition:

###### **normal operation**

operation of the appliance in the normal position of use but away from any surface, with the container filled with water and with any lid closed

#### 3.5 Definitions relating to types of appliances

##### 3.5.101

###### **fabric steamer**

appliance for removing creases from garments and fabrics by directing steam at their surface

##### 3.5.102

###### **electrode-type appliance**

appliance in which a conductive liquid is heated by a current flowing through it

##### 3.5.103

###### **vented fabric steamer**

fabric steamer in which steam is produced when the water contacts the heated nozzle of the fabric steamer, the water reservoir being at atmospheric pressure

Note 1 to entry: The water reservoir can be incorporated in the fabric steamer or connected to the fabric steamer by a hose.

##### 3.5.104

###### **instantaneous fabric steamer**

fabric steamer in which small quantities of water are pumped from the water reservoir and in which steam is produced when the water contacts the walls of the boiler, the water reservoir and the boiler being at atmospheric pressure

Note 1 to entry: The water reservoir and the boiler are connected to the iron by a hose.

##### 3.5.105

###### **pressurized fabric steamer**

fabric steamer in which steam is produced in a boiler at a pressure exceeding 50 kPa

Note 1 to entry: The boiler can be incorporated in the fabric steamer or connected to the fabric steamer by a hose.

### 4 General requirement

This clause of Part 1 is applicable.

### 5 General conditions for the tests

This clause of Part 1 is applicable except as follows.

**5.101** *Fabric steamers are tested as heating appliances even if they incorporate a motor.*

**5.102** For **electrode-type appliances**, the water in the container has a resistivity of approximately 500  $\Omega\text{cm}$  at a temperature of 20 °C.

NOTE The appropriate resistivity can be obtained by adding sodium chloride to the water.

## 6 Classification

This clause of Part 1 is applicable except as follows.

**6.1** Modification:

**Electrode-type appliances** and appliances with bare heating elements shall be **class I**, **class II** or **class III**.

## 7 Marking and instructions

This clause of Part 1 is applicable except as follows.

**7.1** Modification:

**Electrode-type appliances** shall be marked with their **rated power input**.

**7.12** Addition:

The instructions shall include details regarding filling, cleaning and descaling.

The instructions shall state the substance of the following:

- care should be taken when using the appliance due to the emission of steam;
- unplug the appliance during filling and cleaning;
- the filling, or decalcifying, or rinsing, or inspection apertures that are under pressure shall not be opened during use (for fabric steamers with pressurized compartments only);
- the fabric steamer is not to be used if it has been dropped, if there are visible signs of damage or if it is leaking.

The instructions for **electrode-type appliances** shall include the substance of the following:

- the composition and quantity of solution to be used and advice not to use an excessive amount of salt;
- the appliance is not to be operated from a DC supply.

The instructions for appliances incorporating an appliance inlet, and intended to be partially or completely immersed in water for cleaning, shall state that the connector must be removed before the appliance is cleaned and the appliance inlet dried before the appliance is used again.

## 8 Protection against access to live parts

This clause of Part 1 is applicable.

## 9 Starting of motor-operated appliances

This clause of Part 1 is not applicable.

## 10 Power input and current

This clause of Part 1 is applicable except as follows.

### 10.1 Addition:

NOTE 101 For **electrode-type appliances**, the negative deviation is not limited.

## 11 Heating

This clause of Part 1 is applicable except as follows.

### 11.2 Addition:

**Fabric steamers** are tested with and without steam emission, the water reservoir or boiler being filled with water.

### 11.4 Modification:

**Electrode-type appliances** are supplied at the most unfavourable voltage between 0,94 and 1,06 times **rated voltage**.

### 11.7 Modification:

*Appliances are operated until steady conditions are established.*

NOTE 101 Water is added to maintain the generation of steam.

The container of **electrode-type appliances** is refilled as quickly as possible and as many times as necessary.

NOTE 102 The appliance is not cleaned between refilling.

### Addition:

For **instantaneous fabric steamers** with a manual steam actuator, steam is emitted in cycles, each cycle having a period of 10 s with steam emission and a period of 10 s with the steam emission interrupted.

### 11.8 Addition:

Temperature rises of **accessible surfaces** of hoses that supply steam to parts held in the hand shall comply with the temperature rise limits for handles that are held for short periods only in normal use. However, if a non-metallic hose is covered by textile material, the temperature rise of the surface of the textile material shall not exceed 80 K.

The temperature rise limits of motors, transformers and components of **electronic circuits**, including parts directly influenced by them, may be exceeded when the appliance is operated at 1,15 times **rated power input**.

NOTE 101 The pressure in **pressurized appliances** is measured so that the test of 22.7 can be carried out.

## 12 Charging of metal-ion batteries

This clause of Part 1 is applicable.