

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Household and similar electrical appliances – Safety –
Part 2-83: Particular requirements for heated gullies for roof drainage
(standards.iteh.ai)

Appareils électrodomestiques et analogues – Sécurité –
Partie 2-83: Règles particulières pour les dispositifs électriques pour le
chauffage des gouttières



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –
SAFETY –****Part 2-83: Particular requirements for
heated gullies for roof drainage**

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.
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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 consolidated version of IEC 60335-2-83 consists of the first edition (2001) [documents 61/2056/FDIS and 61/2090/RVD] and its amendment 1 (2008) [documents 61/3536/FDIS and 61/3588/RVD].

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience.

It bears the edition number 1.1.

A vertical line in the margin shows where the base publication has been modified by amendment 1.

The French version of this standard has not been voted upon.

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 fourth edition (2001) 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 electric heated gullies for roof drainage.

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 the base publication and its amendments will remain unchanged until the maintenance result date indicated on the IEC web site 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 amendment 1 be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

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 which 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.

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-83: Particular requirements for heated gullies for roof drainage

1 Scope

This clause of part 1 is replaced by:

This international standard deals with the safety of electrically heated gullies for de-icing the inlet of the drainage system of flat roofs, balconies, and similar structures, their **rated voltage** being not more than 250 V.

As 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. 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.

NOTE 101 Attention is drawn to the fact that 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 102 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).

2 Normative references

This clause of part 1 is applicable except as follows.

Addition:

IEC 60068-2-52:1996, *Environmental testing – Part 2: Tests – Test Kb: Salt mist, cyclic (sodium, chloride solution)*

3 Definitions

This clause of part 1 is applicable except as follows.

3.1.9 Replacement:

normal operation

operation of the appliance with a layer of thermal insulation having a thermal resistance of $1,25 \text{ m}^2 \text{ K/W} \pm 0,3 \text{ m}^2 \text{ K/W}$ covering the top surface

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.

5.6 Addition:

Thermostats are short-circuited.

5.7 Addition:

The tests of clauses 10, 11, 13 and 19 are carried out at an ambient temperature of $40\text{ °C} \pm 2\text{ °C}$.

6 Classification

This clause of part 1 is applicable except as follows.

6.1 Modification:

Appliances shall be of **class I**, **class II** or **class III**.

6.2 Addition:

Appliances shall be at least IPX7.

7 Marking and instructions

This clause of part 1 is applicable.

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 applicable.

10 Power input and current

This clause of part 1 is applicable.

11 Heating

This clause of part 1 is applicable except as follows.

11.7 Replacement:

Appliances are operated until steady conditions are established.

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11.8 Addition:

The temperature rises given in table 3 are reduced by 15 K.

The temperature rise of the surface of the enclosure, including that which is inaccessible after installation, shall not exceed 60 K.

12 Void

13 Leakage current and electric strength at operating temperature

This clause of part 1 is applicable.

14 Transient overvoltages

This clause of part 1 is applicable.

15 Moisture resistance

This clause of part 1 is applicable except as follows.

15.1.2 Addition:

Parts of the appliance which are not intended to be exposed to drainage water are sealed before carrying out the test.

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16 Leakage current and electric strength

This clause of part 1 is applicable.

17 Overload protection of transformers and associated circuits

This clause of part 1 is applicable.

18 Endurance

This clause of part 1 is applicable.

19 Abnormal operation

This clause of part 1 is applicable.

20 Stability and mechanical hazards

This clause of part 1 is applicable.

21 Mechanical strength

This clause of part 1 is applicable except as follows.

21.1 Addition:

The test is also conducted at an ambient temperature of –25 °C.

22 Construction

This clause of part 1 is applicable except as follows.

22.101 Heating elements shall not be **detachable parts**.

Compliance is checked by inspection and by manual test.

23 Internal wiring

This clause of part 1 is applicable.

24 Components **iTeh STANDARD PREVIEW** (standards.iteh.ai)

This clause of part 1 is applicable except as follows.

24.101 Thermal cut-outs which are necessary for compliance with 19.4 shall be non-self-resetting.

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Compliance is checked by inspection and by the test of 19.4.

25 Supply connection and external flexible cords

This clause of part 1 is applicable except as follows.

25.1 Modification:

Appliances shall not be provided with an appliance inlet or pins for insertion into socket-outlets.

25.5 Addition:

Type Z attachment is allowed.

25.7 Modification:

Supply cords shall be polychloroprene sheathed.

26 Terminals for external conductors

This clause of part 1 is applicable.