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Project No. 2024/01566

Responsible committee: CPL/61 Safety of household and similar electrical appliances

Interested committees:

Title: BS EN IEC 60335-2-30 Household and similar electrical appliances - Safety

Part 2-30: Particular requirements for room heaters

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

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THIS DRAFT IS NOT CURRENT BEYOND 4 September 2024

This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



61/7255/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER: IEC 60335-2-30 ED6	
DATE OF CIRCULATION: 2024-07-12	CLOSING DATE FOR VOTING: 2024-10-04
SUPERSEDES DOCUMENTS: 61/7185/RR	

IEC TC 61 : SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES	
SECRETARIAT: United States of America	SECRETARY: Ms Randi Myers
OF INTEREST TO THE FOLLOWING COMMITTEES:	PROPOSED HORIZONTAL STANDARD: ☐ Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.
FUNCTIONS CONCERNED: ☐ EMC ☐ ENVIRONMENT ☐ QUALITY ASSURANCE ☒ SAFETY	
☐ SUBMITTED FOR CENELEC PARALLEL VOTING	☒ NOT SUBMITTED FOR CENELEC PARALLEL VOTING

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Recipients of this document are invited to submit, with their comments, notification of any relevant "In Some Countries" clauses to be included should this proposal proceed. Recipients are reminded that the CDV stage is the final stage for submitting ISC clauses. (SEE [AC/22/2007](#) OR [NEW GUIDANCE DOC](#)).

TITLE: Household and similar electrical appliances - Safety -Part 2-30: Particular requirements for room heaters
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PROPOSED STABILITY DATE: 2027

NOTE FROM TC/SC OFFICERS:

This document is circulated according to the decisions taken at the TC 61 meetings in the 2021 Web Series-I – see 61/6306/RM, 2022 Web Series-I – see 61/6665/RM, San Francisco – see 61/6755/RM and Venice – see 61/7093/RM

History refer to:

61/6205/DC and 61/6266A/INF in 61/6306/RM, item 21a

61/6206/DC and 61/6267A/INF in 61/6306/RM, item 21b

61/6501/DC and 61/6591A/INF in 61/6665/RM, item 38

61/6648/DC and 61/6703A/INF in 61/6755/RM, item 10b

61/6836/DC and 61/6884A/INF in 61/7093/RM, item 38a

61/6996/DC and 61/7032B/INF in 61/7093/RM, item 38b

61/6995/DC and 61/7033B/INF in 61/7093/RM, item 38c

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Note of the Secretary: The following notations are used to identify the source of the changes in this document.

Blue means: guidance document for updating Part 2 standards (61/6361B/INF:2022-12)

Yellow means: 61/6205/DC + 61/6266A/INF

Grey means: 61/6206/DC + 61/6267A/INF

Green means: 61/6501/DC + 61/6591A/INF

Brown text means: 61/6648/DC + 61/6703A/INF

Blue text means: 61/6836/DC + 61/6884A/INF

Orange text means 61/6996/DC + 61/7032B/INF

Green text means 61/6995/DC + 61/7033B/INF

Pink means: 02g-AG28 Report (Venice), CN-01

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –
SAFETY –****Part 2-30: Particular requirements for room heaters****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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IEC 60335-2-30 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 2009, Amendment 1: 2016 and Amendment 2:2021. This edition constitutes a technical revision.

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

- a) the text has been aligned with IEC 60335-1:2020;
- b) some notes have been converted to normative text (Clause 1, 5.2, 19.1, 22.104, 22.107);
- c) requirements for caravan heaters has been introduced (Clause 1, 3.5, 7.1, 11.8)

d) requirements for heating appliances with suspension means for ceiling mounting has been introduced (Clause 7.12.1, 21.103)

e) application of test probe 19 has been introduced (8.1.1, 20.2)

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

Draft	Report on voting
61/XX/FDIS	61/XX/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. The main document types developed by IEC are described in greater detail at 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: Safety requirements for room heaters.

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 document will remain unchanged until the stability date indicated on the IEC website under 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.

The National Committees are requested to note that for this publication the stability date is 2027. THIS TEXT IS INCLUDED FOR THE INFORMATION OF THE NATIONAL COMMITTEES AND WILL BE DELETED AT THE PUBLICATION STAGE.

NOTE 4 The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations **can** 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.

The following differences exist in the countries indicated below.

- 3.105: The immediate surround of a fireguard is extended to 50 mm (Austria, Germany and United Kingdom).
- 7.1: All heaters, except those for mounting at high level, are to be marked with a warning against covering (Norway).
- 7.1: All heaters, except those for permanent connection to fixed wiring, are to be marked with the minimum distances to combustible surfaces (Norway).
- 7.1: Appliances are not required to be marked "Do not cover" (USA).
- 7.12: Some of the instructions specified are to be marked on the heater (Norway and USA).
- Clause 11: The test methods are different (USA).
- 11.8: For all fixed heaters, other than those for mounting at high level, the limit is 115 K for metallic air-outlet grilles and their surrounds (France).
- 11.8: For heaters used in hygiene rooms of dwellings, nurseries or after-school centres, the temperatures of surfaces accessible to test probe B of IEC 61032 are not to exceed 60 °C (Sweden).
- Clause 19: The tests are different (Canada and USA).
- 19.103: Visibly glowing radiant heaters, other than those for mounting at high level, have to withstand the test of this subclause (Sweden).
- 20.1: The test is different (USA).
- 22.7: The test is different (USA).
- 22.24: The test is different (USA).
- 22.101: The requirement is different (Canada and USA).
- 22.102: The requirement is different (Canada and USA).
- 22.103: The requirement is different (Canada and USA).
- 22.105: The requirement is different (USA).
- 22.108: The requirement is different (USA).
- 24.1.3: The number of cycles of operation is 6 000 (USA).
- 24.1.4: Thermal cut-outs that protect heating elements against overheating, incorporated in fan heaters and in stationary heaters intended to be mounted on or near to a wall, other than those for mounting at high level, are to be of the non-self-resetting type (Sweden).
- 25.3: Fixed appliances are to be appliances intended to be permanently connected to fixed wiring (France).

Note of the Secretary: National Committees are asked to reconfirm their in some countries notes. They will be deleted unless reconfirmed.

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 2-30: Particular requirements for room heaters

1 Scope

This clause of Part 1 is replaced by the following.

This **part of IEC 60335** deals with the safety of electric room heaters for household and similar purposes, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances **including direct current (DC) supplied appliances and battery-operated appliances.**

NOTE 101 Examples of appliances that are within the scope of this standard are

- convector heaters;
- **fan heaters;**
- heaters for use in greenhouses;
- liquid-filled radiators;
- panel heaters;
- radiant heaters;
- **ceiling recessed radiant heaters;**
- tubular heaters;
- **ceiling mounted heat lamp appliances;**
- **cab heaters caravan heaters.**

This standard also deals with the safety of electric heaters intended for the heating of driver and passenger compartments of motor vehicles when they are stationary **and** their **rated voltage** being not more than 250 V **including direct current (DC) supplied appliances and battery-operated appliances.**

For extraction fans of **ceiling mounted heat lamp appliances**, IEC 60335-2-80 is applicable as far as is reasonable.

Appliances not intended for normal household use but which nevertheless **can** be a source of danger to the public, such as appliances intended to be used by laymen in the shops, in light industry and on farms, are within the scope of this standard.

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.

Attention is drawn to the fact that

- 266 – for appliances intended to be used in moving vehicles or on board ships or aircraft, additional
267 requirements **can** be necessary;
- 268 – in many countries, additional requirements are specified by the national health authorities, the
269 national authorities responsible for the protection of labour and similar authorities;
- 270 – for appliances intended to be used in the presence of combustible dust, for example in barns
271 or stables, additional requirements **can** be necessary
- 272 – heaters with pins for insertion into socket outlets have not been considered while drafting this
273 standard and additional requirements can be applicable.
- 274 This standard does not apply to
 - 275 – appliances intended exclusively for industrial purposes;
 - 276 – appliances intended to be used where special conditions prevail, such as the presence of a
277 corrosive or explosive atmosphere (dust, vapour or gas);
 - 278 – heaters that are built into air conditioners (IEC 60335-2-40);
 - 279 – clothes dryers and towel rails (IEC 60335-2-43);
 - 280 – heaters for saunas (IEC 60335-2-53);
 - 281 – thermal-storage room heaters (IEC 60335-2-61);
 - 282 – heating appliances for breeding and rearing animals (IEC 60335-2-71);
 - 283 – foot warmers and heating mats (IEC 60335-2-81);
 - 284 – flexible sheet heating elements for room heating (IEC 60335-2-96);
 - 285 – recessed luminaires (IEC 60598-2-2);
 - 286 – heated carpets;
 - 287 – central heating systems;
 - 288 – heating cables (IEC 60800).
 - 289 ~~– heaters intended for the heating of caravans.~~

290 2 Normative references

291 This clause of Part 1 is applicable except as follows.

292 *Addition:*

293 IEC 60068-2-6, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

294 IEC 60335-2-43, *Household and similar electrical appliances – Safety – Part 2-43: Particular*
295 *requirements for clothes dryers and towel rails*

296 IEC 60335-2-80, *Household and similar electrical appliances – Safety – Part 2-80: Particular*
297 *requirements for fans*

298 IEC 60584-1 *Thermocouples – Part 1: EMF specifications and tolerances*

299 ISO 2758, *Paper – Determination of bursting strength*

300 ISO 3864-1, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for*
301 *safety signs in workplaces and public areas*

302 3 Terms and definitions

303 This clause of Part 1 is applicable except as follows.

1.1 3.5 Definitions relating to types of appliances

3.5.101

visibly glowing radiant heater

heater incorporating at least one **visibly glowing heating element**

3.5.102

fan heater

heater in which the movement of the air over the heating element is assisted by a fan

3.5.103

heater for mounting at high level

heater intended to be fixed at a height of at least 1,8 m above the floor

3.5.104

ceiling mounted heat lamp appliance

heater for recessed mounting at high level into a ceiling and incorporating one or more heat lamps

Note 1 to entry: It **can** also incorporate an extraction fan and an illumination lamp. The fan **can** be installed separately in ducting or **can** be an integral part of the heater.

NOTE 2 to entry: The heat lamp is not considered to be a **visibly glowing heating element**.

NOTE 3 to entry: A **ceiling mounted heat lamp appliance** is not considered to be a **ceiling recessed radiant heater**.

3.5.105

cab heater

fan heater for the heating of driver and passenger compartments of motor vehicles when the vehicle is stationary

3.5.106

caravan heater

fan heater for the heating of the dwelling compartment of caravans when the vehicle is stationary

3.5.107

ceiling recessed radiant heater

heater for recessed mounting at a high level into a ceiling and incorporating one or more heating elements

1.2 3.6 Definitions relating to parts of an appliance

3.6.101

fireguard

that part of the enclosure of a **visibly glowing radiant heater** through which the heating element **can be** visible and which is intended to guard against direct access to the heating element

1.3 3.8 Definitions relating to miscellaneous matters

3.8.101

immediate surround

any surface within 25 mm of the boundary of an air-outlet grille or within 50 mm of the boundary of a **fireguard**

NOTE 1 to entry: Details of the way in which this distance is determined are shown in Figure 101 for air-outlet grilles and Figure 102 for **fireguards**.

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.

5.2 Addition:

If heaters are intended to be installed adjacent to each other, additional samples are required in order to determine the effects of adjacent heaters on the appliance under test.

Three additional samples are needed for the test of 19.113. The test of 19.117 is carried out on one of these samples.

The test of 21.104 is carried out on a separate appliance.

The test of 21.106 is carried out on a separate appliance.

5.3 Addition:

The appliance that is used for the tests of Clause 19 is also used for the test of 22.24. The test of 22.24 is carried out after the tests of Clause 29 if it is carried out on the same appliance.

5.5 Addition:

Heaters are operated with any oscillating mechanism in operation.

Note of the Secretary: This was added based on 3.1.9 of IEC 60335-2-80. Since -2-30 does not have a 3.1.9 Modification, this was introduced as an Addition to 5.5 because it is related to movable parts. See Comment 15 of 6884A/INF. However, national committees are asked to comment on whether the testing should be done with the oscillating mechanism in operation or with the oscillating head set in the most unfavourable position, whichever is more unfavourable.

5.6 Addition:

Thermostats sensitive to the **ambient** air temperature, such as those having a sensing element located in the air inlet, are short-circuited. However, if the **thermostat** can be set so that it does not cycle, it is not short-circuited.

NOTE 101 For electronic controls, it **can** be necessary to render the sensing element inoperative instead of short-circuiting the **thermostat**.

5.10 Addition:

Heaters intended to be installed adjacent to each other are installed in accordance with the instructions.

5.101 Heaters intended to be used as both **portable appliances** and **fixed appliances** are subjected to the tests applicable to both types of appliances.

5.102 If the heater is a combination of two or more types, it is subjected to the tests relevant for each type, **unless** the tests for one type cover the other.

Heaters for wall-mounting are tested both as **heaters for mounting at high level** and as heaters for mounting other than at high level, **unless** the installation instructions state that the heater has to be installed at least 1,8 m above the floor.