BSI Standards Publication

Household and similar electrical appliances — Safety

Part 2-80: Particular requirements for fans

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National foreword

This British Standard is the UK implementation of EN IEC 60335-2-80:2024+A11:2024. It is derived from IEC 60335-2-80:2015. It supersedes BS EN 60335-2-80:2003+A2:2009, which will be withdrawn on 15 November 2027.

The start and finish of text introduced or altered by amendment A11 is indicated in the text by tags. Tags indicating changes to text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A11 is indicated by [A11⟩ ⟨A11].

The UK participation in its preparation was entrusted to Technical Committee CPL/61/1, Motorised appliance group.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Date	Text affected

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NORME EUROPÉENNE

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EN IEC 60335-2-80:2024+A11

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English Version

Household and similar electrical appliances - Safety - Part 2-80: Particular requirements for fans (IEC 60335-2-80:2015)

Appareils électrodomestiques et analogues - Sécurité - Partie 2-80: Exigences particulières pour les ventilateurs (IEC 60335-2-80:2015)

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-80: Besondere Anforderungen für Ventilatoren (IEC 60335-2-80:2015)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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European foreword

This document (EN IEC 60335-2-80:2024) consists of the text of document IEC 60335-2-80:2015, prepared by IEC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2025-05-15
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2027-11-15

This document supersedes EN 60335-2-80:2003 and all of its amendments and corrigenda (if any).

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This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60335-2-80:2015 was approved by CENELEC as a European Standard without any modification.

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European foreword to amendment A11

This document (EN IEC 60335-2-80:2024/A11:2024) has been prepared by CLC/TC 61 “Safety of household and similar electrical appliances”.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-80: Particular requirements for fans

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 bilingual version (2018-11) corresponds to the monolingual English version, published in 2015-04.

This third edition cancels and replaces the second edition published in 2002 including its Amendment 1 (2004) and its Amendment 2 (2008). It constitutes a technical revision.

The principal changes in this edition as compared with the second edition of IEC 60335-2-80 are as follows (minor changes are not listed):

– added definition for ceiling fan suspension system (3.102);
– added instructions for ceiling fan maintenance (7.12);
– added instructions for ceiling fan installation (7.12.1);

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– added entrapment assessment criteria for table and pedestal fan with a fan head that oscillates in the up-down direction (20.102);

– added requirements for insulation of pre-installed internal wiring used to supply attached luminaires (22.101);

– added suspension system failure protection requirements for ceiling fans (22.102);

– added motor brush wear requirements (27.3).

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

FDIS	Report on voting
61/4878/FDIS	61/4914/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.

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

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 fans.

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.

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.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

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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.

The following differences exist in the countries indicated below.

– 6.2: This requirement is not applicable (USA).
– 7.1: The "T" marking is not required (USA).
– 7.12.1: Other mounting heights are specified and have to be marked on the appliance (USA).
– 19.7: The addition is not applicable (USA).
– 20.2: The requirements are different (USA).
– 21.102: The loads are different (USA).
– 22.102.1: The requirement is not applicable (USA).
– 22.102.2: The requirement is not applicable (USA).
– Figure 101 Example 1: The requirement is not applicable (China, USA).
– Figure 101 Example 2: The requirement is not applicable (China, USA).
– Figure 101 Example 3: This requirement is not applicable (MY).
– Figure 101 Example 4: This requirement is not applicable (MY).
– Figure 101 Example 5: This requirement is not applicable (MY).
– Figure 101 Example 6: This requirement is not applicable (MY).
– 23.3: Different requirements apply (USA).
– 24.101: The requirement is not applicable (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.

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 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.

〚A11〉 With European Amendment A11, EN 60335-2-80:2003+A1:2004+A2:2009 is superseded.

This European Amendment A11, supplements or modifies the corresponding clauses of the standards below:

— EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021+A16:2023 (Part 1)

— EN IEC 60335-2-80:2023 (Part 2) 〈A11〚

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HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-80: Particular requirements for fans

1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electric fans for household [A11] and commercial purposes [A11], their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

[A11] NOTE Z101 Battery-operated appliances and other d.c. supplied appliances are within the scope of this document. Dual supply appliances, either mains-supplied or battery-operated, are regarded as battery-operated appliances when operated in the battery mode. [A11]

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

– ceiling fans;
– **duct fans**;
– partition fans;
– pedestal fans;
– table fans.

This standard also applies to separate controls supplied with fans.

[A11] NOTE Z102 Examples of appliances for household environment are appliances for typical housekeeping functions used in the household environment that may also be used by non-expert users for typical household functions:

— in shops, offices and other similar working environments;

— in farm houses;

— by clients in hotels, motels and other residential type environments;

— in bed and breakfast type environments.

NOTE Z103 Household environment includes dwelling and its associated buildings, the garden, etc.

Appliances and machines intended to be used by experts or trained users in shops, in light industry, on construction sites and on farms, and appliances and machines which are declared to be for commercial use by lay persons are within the scope of this document.

Additional requirements for such appliances are given in Annex ZE.

NOTE Z104 The statement from the manufacturer in the product information concerning the specific product is considered to determine the intended use of the appliance. The statement accurately reflects the reasonably foreseeable use of the product.

NOTE Z105 Examples of such appliances and machines are fans for drying purposes or the blower test on construction sites.

NOTE Z106 Criteria applied for the allocation of products covered by standards in the EN 60335 series under either the Low Voltage Directive (LVD) or the machinery Directive (MD) are given for information in Annex ZF of part 1.

NOTE Z107 Appliances built into building ventilation systems of dwellings and its associated buildings are also in the scope of this document. [A11]

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

〚A11〛 This document deals with the reasonably foreseeable hazards presented by appliances and machines that are encountered by all persons.

However, in general, it does not take into account

— **children** playing with the appliances;

— the use of the appliances by **very young children**;

— the use of the appliances by **young children** without supervision.

It is recognized that **very vulnerable people** can have needs beyond the level addressed in this document. 〚A11〛

NOTE 102 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;

– in many countries additional requirements are specified by the national health authorities, the national authorities responsible for the protection of 〚A11〛 labour, the national water supply authorities 〚A11〛 and similar authorities.

NOTE 103 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);

– fans incorporated in other appliances.

2 Normative references

This clause of Part 1 is applicable except as follows.

Addition:

IEC 60245-3, *Rubber insulated cables – Rated voltages up to and including 450/750 V – Part 3: Heat resistant silicone insulated cables*

3 Terms and definitions

This clause of Part 1 is applicable except as follows.

3.1.9 *Replacement:*

normal operation

operation of the appliance under the following conditions

Table and pedestal fans are operated with any oscillating mechanism in operation.

Ceiling fans are fixed to a ceiling.

〚A11〛 **Partition fans** 〚A11〛 are installed in the centre of a suitable partition having dimensions at least four times the diameter of the air inlet.

Duct fans are installed in a duct in accordance with the installation instructions, the length of the duct being approximately four times the diameter of the fan.

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