IEC 60335-2-120

Edition 1.1 2026-07

INTERNATIONAL STANDARD

CONSOLIDATED VERSION

Household and similar electrical appliances - Safety -
Part 2-120: Particular requirements for the safety of appliances for the generation of directly inhalable aerosols

ICS 13.120; 97.180

ISBN 978-2-8327-1392-1

IEC 60335-2-120:2024-02+AMD1:2026-07 CSV(en)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Household and similar electrical appliances - Safety - Part 2-120: Particular requirements for the safety of appliances for the generation of directly inhalable aerosols

FOREWORD

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This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 60335-2-120 edition 1.1 contains the first edition (2024-02) [documents 61/7076/FDIS and 61/7099/RVD] and its amendment 1 (2026-07) [documents 61/7588/FDIS and 61/7602/RVD].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

IEC 60335-2-120 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliance. It is an International Standard.

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

Draft	Report on voting
61/7076/FDIS	61/7099/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/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 the safety of appliances for the generation of directly inhalable aerosols.

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 and its amendment 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, or
– revised.

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.

– Clause 1: These devices are considered medical devices and are separately regulated by the Therapeutic Goods Administration. (Australia).

– Clause 1: Nicotine using products are required to comply with TGO 110 order 2021 (Australia)

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 2-120: Particular requirements for the safety of appliances for the generation of directly inhalable aerosols

1 Scope

This clause of Part 1 is replaced by the following.

This part of IEC 60335 deals with the safety of appliances for generation of directly inhalable **aerosols**, their **rated voltage** being not more than 250 V for single-phase appliances, and other appliances including direct current (DC) supplied appliances and **battery-operated appliances**.

Examples of the appliances that are within the scope of this standard are:

– vapour and **aerosol** appliances;
– personal vaping appliances with or without nicotine;
– electronic cigarettes;
– electronic nicotine delivery systems (ENDS);
– electronic non-nicotine delivery systems (ENNDS);
– electronic tobacco **heating appliances** for heated tobacco products.

This standard does not apply to:

– medical ventilators,
– humidifiers (IEC 60335-2-98).

NOTE 101 Other safety aspects of appliances under the scope of this standard can be covered by standards developed by ISO/TC 126.

These requirements do not cover the **consumables**, such as **e-liquids** and other inhaled **aerosol** substances, wicks, and other particulate matter inhaled during use, nor do they cover substances in the emissions from the operation of the appliances.

NOTE 102 For example, heavy metal emissions in the **aerosol** and environmental exposure are not covered by this standard.

These requirements do not consider the physiological effects of any **consumable** used with the appliances.

This International Standard does not cover requirements or prohibitions of the labelling, packaging and contents of nicotine-containing or nicotine-consuming products that are strictly regulated by law of the relevant jurisdiction.

NOTE 103 In New Zealand, requirements relating to:

– **consumables**, such as **e-liquids** and other inhaled **aerosol** substances, wicks, and other particulate matter inhaled during use,
– substances in the emissions from the operation of a personal vaping appliance, and
– the labelling, packaging and contents of nicotine-containing or nicotine-consuming products

are regulated by application of the Smokefree Environments and Regulated Products Regulations 2021.

Disposable vaping appliances are prohibited under the Smokefree Environments and Regulated Products Act 1990.

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

3.1.9 *Modification:*

Replace the first paragraph with the following:

operation as specified in B.3.1.1

3.8 Definitions relating to miscellaneous matters

3.8.101
aerosol
suspension of particles in air or gas

Note 1 to entry: The particles can be comprised of only liquids or a mixture of liquids and solids.

3.8.102
consumable
substrate or receptacle containing a substrate, intended to be used in combination with an appliance to generate an inhalable **aerosol**, and which is consumed or depleted through single or multiple use

EXAMPLE 1 Sealed cartridge containing **e-liquid.**

EXAMPLE 2 Tobacco or non-tobacco stick.

EXAMPLE 3 Tobacco or non-tobacco capsule.

EXAMPLE 4 Tablets or similar solid formats that will be depleted during use.

EXAMPLE 5 Loose solid materials such as tobacco.

3.8.103
e-liquid
liquid or gel **consumable** that can contain nicotine

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 *Appliances, other than those with heating elements, are tested as* ***motor-operated appliances****.*