

INTERNATIONAL STANDARD



This extended version of IEC 60335-2-95:2023 includes the content of the references made to IEC 60335-1:2020

**Household and similar electrical appliances – Safety –
Part 2-95: Particular requirements for drives for vertically moving garage doors
for residential use**

Document Preview

[IEC 60335-2-95:2023](#)

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IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 1: General requirements

INTERPRETATION SHEET 1

This interpretation sheet has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

The text of this Interpretation Sheet is based on the following documents:

Draft	Report on voting
61/5999/DISH	61/6009/RVDISH

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

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INTRODUCTION

Edition 6 of IEC 60335-1:2020 defines and introduces requirements for a detachable power supply part of an appliance. In the document, 24.2 prohibits the use of a power supply in a flexible cord.

QUESTION:

Does Subclause 24.2 prohibit the use of a detachable power supply part?

ANSWER

No, a "detachable power supply part" is a defined term and is not captured by the term "power supply" as used in Subclause 24.2.

NOTE A detachable power supply part is captured by the defined term when the output of the power supply part is detachable from the class III construction part of the appliance at:

- the power supply part, or
- the class III construction part of the appliance.

However, the supply cord (if any) does not have to be detachable from the detachable power supply part.

CONTENTS

FOREWORD.....	6
INTRODUCTION.....	9
1 Scope.....	10
2 Normative references	10
3 Terms and definitions	15
4 General requirement.....	27
5 General conditions for the tests	27
6 Classification.....	31
7 Marking and instructions.....	32
8 Protection against access to live parts.....	42
9 Starting of motor-operated appliances	44
10 Power input and current.....	45
11 Heating.....	47
12 Charging of metal-ion batteries.....	54
13 Leakage current and electric strength at operating temperature.....	55
14 Transient overvoltages	58
15 Moisture resistance	59
16 Leakage current and electric strength.....	61
17 Overload protection of transformers and associated circuits	63
18 Endurance	64
19 Abnormal operation	64
20 Stability and mechanical hazards.....	75
21 Mechanical strength	80
22 Construction	82
23 Internal wiring.....	96
24 Components	98
25 Supply connection and external flexible cords	103
26 Terminals for external conductors.....	111
27 Provision for earthing	114
28 Screws and connections	116
29 Clearances, creepage distances and solid insulation	118
30 Resistance to heat and fire	126
31 Resistance to rusting.....	130
32 Radiation, toxicity and similar hazards.....	130
Annex A (informative) Routine tests	146
Annex B (normative) Battery-operated appliances, separable batteries and detachable batteries for battery-operated appliances	148
Annex C (normative) Ageing test on motors	169
Annex D (normative) Thermal motor protectors	170
Annex E (normative) Needle-flame test.....	171
Annex F (normative) Capacitors.....	172
Annex G (normative) Safety isolating transformers	174

Annex H (normative) Switches	175
Annex I (normative) Motors having basic insulation that is inadequate for the rated voltage of the appliance	177
Annex J (normative) Coated printed circuit boards	179
Annex K (informative) Overvoltage categories	180
Annex L (informative) Guidance for the measurement of clearances and creepage distances	181
Annex M (informative) Pollution degree	184
Annex N (normative) Proof tracking test.....	185
Annex O (informative) Selection and sequence of the tests of Clause 30	186
Annex P (informative) Guidance for the application of this standard to appliances used in tropical climates	191
Annex Q (informative) Sequence of tests for the evaluation of electronic circuits	193
Annex R (normative) Software evaluation	196
Annex S (informative) Guidance for the application of this standard on measurement of power input and current based on the requirements of 10.1 and 10.2 concerning the representative period	210
Annex T (normative) UV-C radiation effect on non-metallic materials	211
Annex U (normative) Appliances intended for remote communication through public networks	214
Bibliography.....	218
Index of defined terms	221
Figure 1 – Circuit diagram for leakage current measurement at operating temperature for single-phase connection of class II appliances and for parts of class II construction	131
Figure 2 – Circuit diagram for leakage current measurement at operating temperature for single-phase connection of other than class II appliances or parts of class II construction	132
Figure 3 – Circuit diagram for leakage current measurement at operating temperature for three-phase with neutral class II appliances and for parts of class II construction	133
Figure 4 – Circuit diagram for leakage current measurement at operating temperature for three-phase with neutral appliances other than those of class II or parts of class II construction	134
Figure 5 – Small part	135
Figure 6 – Example of an electronic circuit with low-power points	135
Figure 7 – Test finger nail	136
Figure 8 – Flexing test apparatus.....	137
Figure 9 – Constructions of cord anchorages	138
Figure 10 – An example of parts of an earthing terminal	139
Figure 11 – Examples of clearances	140
Figure 12 – Example of the placement of the cylinder	141
Figure 13 – Small parts cylinder.....	142
Figure 14 – Example of a specified operating region of a lithium-ion cell during charging	143
Figure 101 – Examples of types of garage doors	144
Figure 102 – Example of pictogram warning against child entrapment.....	145
Figure 103 – Probe for measuring surface temperatures	145

Figure B.1 – Examples of battery-operated appliance constructions and application of normative Annex B (1 of 2)	167
Figure B.2 – Examples of correct polarity connection marking representing three batteries	168
Figure I.1 – Simulation of faults	178
Figure L.1 – Sequence for the determination of clearances	181
Figure L.2 – Sequence for the determination of creepage distances	182
Figure L.3 – Measurement of clearances	183
Figure O.1 – Tests for resistance to heat	186
Figure O.2 – Selection and sequence of tests for resistance to fire in hand-held appliances	187
Figure O.3 – Selection and sequence of tests for resistance to fire in attended appliances	187
Figure O.4 – Selection and sequence of tests for resistance to fire in unattended appliances	188
Figure O.5 – Some applications of the term "within a distance of 3 mm"	190
Figure Q.1 – Flowchart outlining the sequence of tests for the evaluation of electronic circuits (1 of 2).....	194
Figure S.1 – Flowchart giving guidance on measurement of power input and current concerning the representative period	210
Table 1 – Power input deviation	45
Table 2 – Current deviation	46
Table 101 – Maximum temperature rises for specified external accessible surfaces under normal operating conditions	50
Table 3 – Maximum normal temperature rises	50
Table 4 – Voltage for electric strength test	57
Table 5 – Characteristics of high-voltage sources	58
Table 6 – Impulse test voltage	58
Table 7 – Test voltages	63
Table 8 – Maximum winding temperature	67
Table 9 – Maximum abnormal temperature rise	72
Table 10 – Dimensions of cables and conduits	104
Table 11 – Minimum cross-sectional area of conductors	106
Table 12 – Pull force and torque	108
Table 13 – Nominal cross-sectional area of conductors	113
Table 14 – Torque for testing screws and nuts	117
Table 15 – Rated impulse voltage	119
Table 16 – Minimum clearances	119
Table 17 – Minimum creepage distances for basic insulation	123
Table 18 – Minimum creepage distances for functional insulation	124
Table 19 – Minimum thickness for accessible parts of reinforced insulation consisting of a single layer	126
Table A.1 – Test voltages	147
Table B.1 – Artificial source characteristics	150
Table B.2 – Total area of openings for metal-ion cells	158

Table B.3 – Volume of air injected at 2 070 kPa.....	158
Table C.1 – Test conditions	169
Table R.1 – General fault/error conditions.....	198
Table R.2 – Specific fault/error conditions.....	200
Table R.3 – Semi-formal methods	206
Table R.4 – Software architecture specification	206
Table R.5 – Module design specification	207
Table R.6 – Design and coding standards.....	208
Table R.7 – Software safety validation	208
Table T.1 – Minimum property retention limits after UV-C exposure	212
Table T.2 – Minimum electric strength for internal wiring after UV-C exposure	213
Table U.1 – Examples of acceptable measures against unauthorised access and transmission fault/error modes.....	216

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-95: Particular requirements for drives for vertically moving garage doors for residential use

FOREWORD

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This extended version (EXV) of the official IEC Standard provides the user with the comprehensive content of the Standard.

IEC 60335-2-95:2023 EXV includes the content of IEC 60335-2-95:2023, and the references made to IEC 60335-1:2020.

The specific content of IEC 60335-2-95:2023 is displayed on a blue background.

IEC 60335-2-95 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances. It is an International Standard.

This fifth edition cancels and replaces the fourth edition published in 2019. 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) scope includes DC-supplied appliances and battery-operated appliances (Clause 1);
- c) some notes have been converted to normative text (Clause 1, 7.12.1, 7.101, 20.103, 20.107, 22.104);
- d) application of test probe 19 has been introduced (8.1.1, 20.2);
- e) addition of surface temperatures for external accessible surfaces (11.3, 11.8);
- f) requirements are added for drives intended for permanent connection delivered with a connector to ease the installation (22.110, 24.1.101, 25.3);
- g) clarification for connectors that are non-detachable once engaged (24.1.5).

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

Draft	Report on voting
61/7015/FDIS	61/7080/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: Particular requirements for drives for vertically moving garage doors for residential use.

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.

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- 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.

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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 2-95: Particular requirements for drives for vertically moving garage doors for residential use

1 Scope

This part of IEC 60335 deals with the safety of electric **drives** for garage doors for residential use that open and close in a vertical direction, the **rated voltage** of the **drives** 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**. It also covers the hazards associated with the movement of these electrically driven garage doors.

Examples of garage doors are shown in Figure 101.

The **drive** can be supplied with a garage door.

This standard also applies to **entrapment protection devices** for use with **drives**. It does not cover hazards related to the mechanisms of the door itself.

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 playing with the appliance by young children, but recognizes that children can be in the vicinity of the garage door.

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, the national water supply authorities and similar authorities.

This standard does not apply to **drives**

- for shutters, awnings, blinds and similar equipment (IEC 60335-2-97);
- for gates, doors and windows (IEC 60335-2-103);
- for commercial and industrial purposes;
- 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

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60034-1, *Rotating electrical machines – Part 1: Rating and performance*

IEC 60061-1, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 1: Lamp caps*

IEC 60065:2014, *Audio, video and similar electronic apparatus – Safety requirements*