

# INTERNATIONAL STANDARD

**IEC**  
**60335-2-100**

First edition  
2002-09

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**Household and similar electrical appliances –  
Safety –**

**Part 2-100:  
Particular requirements for hand-held mains-  
operated garden blowers, vacuums and blower  
vacuums**

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## CONTENTS

FOREWORD .....	3
INTRODUCTION .....	5
1 Scope .....	6
2 Normative references .....	6
3 Definitions .....	6
4 General requirement .....	7
5 General conditions for the tests .....	7
6 Classification .....	8
7 Marking and instructions .....	8
8 Protection against access to live parts .....	10
9 Starting of motor-operated appliances .....	11
10 Power input and current .....	11
11 Heating .....	11
12 Void .....	11
13 Leakage current and electric strength at operating temperature .....	11
14 Transient Overvoltages .....	11
15 Moisture resistance .....	11
16 Leakage current and electric strength .....	11
17 Overload protection of transformers and associated circuits .....	11
18 Endurance .....	11
19 Abnormal operation .....	11
20 Stability and mechanical hazards .....	12
21 Mechanical strength .....	12
22 Construction .....	13
23 Internal wiring .....	13
24 Components .....	13
25 Supply connection and external flexible cords .....	13
26 Terminals for external conductors .....	14
27 Provision for earthing .....	14
28 Screws and connections .....	14
29 Clearances, creepage distances, and solid insulation .....	14
30 Resistance to heat and fire .....	14
31 Resistance to rusting .....	14
32 Radiation, toxicity and similar hazards .....	14
Annexes .....	15
Bibliography .....	15

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –  
SAFETY –**
**Part 2-100: Particular requirements for hand-held mains-operated  
garden blowers, vacuums and blower vacuums**

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

This part of International Standard IEC 60335 has been prepared by subcommittee 61F: Safety of hand-held motor-operated electric tools, of IEC technical committee 61: Safety of household and similar electrical appliances.

It forms the first edition of IEC 60335-2-100.

The text of this part of IEC 60335 is based on the following documents:

FDIS	Report on voting
61F/481/FDIS	61F/497/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.

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 hand-held mains-operated garden blowers, vacuums and blower vacuums.

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 of 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 associated noun are also in bold.

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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A bilingual version of this publication may be issued at a later date.

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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.

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.

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.

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.

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## HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

### Part 2-100: Particular requirements for hand-held mains-operated garden blowers, vacuums and blower vacuums

#### 1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of **hand-held** mains-operated electrical **garden vacuums** and **garden blower/vacuums** with or without shredding means and **garden blowers** for use at and around the home or for similar purposes, their **rated voltage** being not more than 250 V single phase.

This standard does not in general take into account:

- the use of appliances by young children or infirm persons without supervision;
- playing with the appliance by young children.

NOTE 101 Attention is drawn to the fact that:

- in many countries additional requirements are specified by the national authorities responsible for the protection of labour.

NOTE 102 This standard does not apply to [IEC 60335-2-100:2002](https://standards.iteh.ai/catalog/standards/sist/dab64971-f6a9-4852-b0b2-04f554d7574f/iec-60335-2-100-2002)

- vacuum cleaners intended primarily for use indoors, for water suction cleaning or animal grooming (IEC 60335-2-2).

#### 2 Normative references

This clause of Part 1 is applicable except as follows.

*Addition:*

ISO 13852:1996, *Safety of machinery – Safety distances to prevent danger zones being reached by the upper limbs*

ISO/TR 12100-1:1992, *Safety of machinery – Basic concepts, general principles for design – Basic terminology, methodology*

#### 3 Definitions

This clause of Part 1 is applicable except as follows.

##### 3.1.9

##### **normal operation**

the appliance is operated at **rated voltage** when fully assembled in the most onerous operating conditions



**3.101****debris collector**

part or combination of parts that provides a means for collecting debris

**3.102****discharge opening**

gap or opening through which debris may be discharged

**3.103****guard**

part of the appliance or component incorporated to provide protection for the operator and/or bystander

**3.104****hand held garden blower**

appliance supported by hand, possibly assisted by a harness, etc., which blows debris (subsequently referred to as **blower**)

**3.105****hand held garden blower/vacuum**

appliance supported by hand, possibly assisted by a harness, etc., which may perform as a **garden blower**, or, as a **garden vacuum** for picking up debris into a debris collector

NOTE In the **vacuum** mode there may also be a facility for shredding material.

**3.106****hand held garden vacuum**

appliance supported by hand, possibly assisted by a harness, etc., which collects debris into a debris collector

NOTE This may also have a facility for shredding material.

**3.107****handle**

any part likely to be hand-held for guiding the appliance in normal use

**3.108****intended use**

any use of the appliance which is reasonably foreseeable, as described in the user instructions, and which is consistent with such activities as operating, starting, stopping or connecting to (or disconnecting from) a power source

**3.109****operator control**

any **control** requiring operator actuation to perform specific functions

**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.