

# INTERNATIONAL STANDARD

COMMENTED VERSION

**Surface cleaning appliances -  
Part 2: Dry vacuum cleaners for household or similar use - Methods for  
measuring the performance**

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## Surface cleaning appliances - Part 2: Dry vacuum cleaners for household or similar use - Methods for measuring the performance

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This commented version (CMV) of the official standard IEC 62885-2:2026 edition 3.0 allows the user to identify the changes made to the previous IEC 62885-2:2021 edition 2.0. Furthermore, comments from IEC SC 59F experts are provided to explain the reasons of the most relevant changes, or to clarify any part of the content.

A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text. Experts' comments are identified by a blue-background number. Mouse over a number to display a pop-up note with the comment.

This publication contains the CMV and the official standard. The full list of comments is available at the end of the CMV.

IEC 62885-2 has been prepared by subcommittee 59F: Surface cleaning appliances, of IEC technical committee 59: Performance of household and similar electrical appliances. It is an International Standard.

This third edition of IEC 62885-2 cancels and replaces the second edition published in 2021. This edition constitutes a technical revision.

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

- a) relocation of RSB annexes to [IEC TS 62885-1 \[1\]](#);
- b) relocation of remaining test materials, test dust, and equipment to [IEC TS 62885-1 \[1\]](#);
- c) reduced number of test strokes from 5 double strokes to 3 double strokes except as specifically required;
- d) relocated requirements for cordless products, except for battery-related items, from [IEC 62885-4 \[2\]](#) to a new [Annex D](#);
- e) added definition and instructions for a universal dry nozzle;
- f) relocated air data equipment to [IEC TS 62885-1 \[1\]](#), relocated formulae to [5.11](#), and made revisions to air data requirements;
- g) relocated dust re-emission equipment to [IEC TS 62885-1 \[1\]](#).

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

| Draft        | Report on voting |
|--------------|------------------|
| 59F/569/FDIS | 59F/576/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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- reconfirmed,
- withdrawn, or
- revised.

## 1 Scope

This part of IEC 62885 is applicable for measurements of the performance of mains-operated and cordless dry vacuum cleaners, including water filter vacuum cleaners for household or similar use.

Table D.1 of Annex D is applicable to measurements of the performance of cordless dry vacuum cleaners for household use or under conditions similar to those in households. The results obtained under this annex are intended to be comparable to the results obtained for mains-operated vacuum cleaners. The purpose of Annex D is to specify additional requirements for measurements of cordless dry vacuum cleaners. **1**

NOTE 1 Annex D is not intended for mains-operated vacuum cleaners or cleaning robots.

NOTE 2 Cleaning robots are evaluated to IEC/ASTM 62885-7 [3].

NOTE 3 Handheld dry vacuum cleaners are excluded, except for 5.10.2 and 5.11.

NOTE 4 Measurements of the performance of mains-operated commercial dry vacuum cleaners are found in IEC 62885-8 [4].

The purpose of this document is to specify essential performance characteristics of dry vacuum cleaners which are of interest to users and to describe methods for measuring these characteristics.

NOTE 5 Due to the influence of environmental conditions, variations in time, origin of test materials and proficiency of the operator, some of the described test methods will give more reliable results when applied for comparative testing of a number of appliances at the same time, in the same laboratory and by the same operator.

NOTE 6 The methods here can be applied with modifications for surface-cleaning product types or technologies not currently covered within the scope.

For safety requirements, reference is made to IEC 60335-1:2020 [5] and IEC 60335-2-2 [6].

A recommendation on information for the consumer at the point of sale is given in Annex B.

## 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 60688, Electrical measuring transducers for converting A.C. and D.C. electrical quantities to analogue or digital signals~~

IEC 60704-2-1, Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-1: Particular requirements for dry vacuum cleaners

IEC 62301:2011, Household electrical appliances - Measurement of standby power

IEC TS 62885-1:20202026, Surface cleaning appliances - Part 1: General requirements on test material and test equipment

~~ISO 5167-1, Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full — Part 1: General principles and requirements~~

~~ISO 12103-1, Road vehicles — Test dust for filter evaluation — Part 1: Arizona test dust~~

ISO 29463-1, *High efficiency filters and filter media for removing particles in air — Part 1: Classification, performance, testing and marking*

EN 1822-1, *High efficiency air filters (EPA, HEPA, and ULPA) - Part 1: Classification, performance testing, marking.*

IEC 60335-2-2:2019, Household and similar electrical appliances - Safety - Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances

IEST-RP-CC001, HEPA and ULPA Filters

ISO 29643-1, *High efficiency filters and filter media for removing particles in air — Part 1: Classification, performance, testing and marking*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

#### 3.1

##### **active depth of the dry cleaning head**

distance from the front edge of the **dry cleaning head (3.3)** to its rear edge or a line 10 mm behind the rear edge of the suction opening on the underside of the **dry cleaning head (3.3)**, whichever is the shortest

#### 3.2

##### **active dry nozzle**

**dry cleaning head (3.3)** provided with a driven agitation device to assist dirt removal

Note 1 to entry: The agitation device can be driven by an incorporated electric motor (motorized nozzle), an incorporated turbine powered by the air flow (air-turbine nozzle), or an incorporated friction or gear mechanism actuated by moving the **dry cleaning head (3.3)** over the surface to be cleaned (mechanical nozzle).

#### 3.3

##### **dry cleaning head**

plain nozzle or brush attached to a connecting **tube (3.23)**, or a power nozzle, separate or part of the cleaner housing, and that part of a **dry vacuum cleaner (3.8)** which is applied to a surface to be cleaned

#### 3.4

##### **dry cleaning head width**

*B*

external maximum width of the **dry cleaning head (3.3)**, in metres

#### 3.5

##### **cordless active dry nozzle**

**dry cleaning head (3.3)** provided on a mains-operated machine with an agitation device to assist dirt removal driven by a battery-operated motor

#### 3.6

##### **cylinder dry vacuum cleaner**

portable **dry vacuum cleaner (3.8)** having a nozzle separated from the cleaner housing by a hose

Note 1 to entry: In use, only the nozzle is guided over the surface area to be cleaned. **3**

Note 2 to entry: These dry vacuum cleaners are generally floor-supported.

Note 3 to entry: The **dry vacuum cleaner** (3.8) can have detachable passive or **active** dry **nozzles** (3.2), attachments, and **tubes** (3.23) for both floor and above the floor cleaning.

### 3.7

#### **double stroke**

one forward and one backward movement of the **dry cleaning head** (3.3) performed according to the appropriate **stroke pattern** (3.19)

### 3.8

#### **dry vacuum cleaner**

electrically operated appliance that removes dry material (for example, dust, fibre, threads, and **debris**) from the surface to be cleaned by an air flow created by a vacuum developed within the unit, the removed material being separated in the appliance and the cleaned suction air being returned to the ambient air

### 3.9

#### **forward stroke**

forward movement of a **stroke pattern** (3.19)

Note 1 to entry: On **test** (3.21) carpets, forward strokes are carried out in the direction of the carpet pile.

### ~~3.10~~

#### ~~**hand-held cleaner** **4**~~

~~**dry vacuum cleaner** that will not be used on the floor by the user from an erect standing position~~

Note 1 to entry: ~~The hand-held **dry vacuum cleaner** can also be used on stairs from a standing position.~~

### ~~3.11~~

#### ~~**hybrid vacuum cleaner**~~

~~**dry vacuum cleaner** that can be either mains and/or battery operated~~

### 3.10

#### **in-house reference dry vacuum cleaner**

electrically operated laboratory equipment designated for internal comparison within a laboratory

### 3.11

#### **maximum operational power**

power level that the machine is not capable of exceeding in any operating condition set either by the user or automatically by the appliance

### 3.12

#### **maximum continuous airflow** **5**

airflow that occurs when the highest permanently adjustable power level of the dry vacuum cleaner (3.8) is selected

Note 1 to entry: A temporary power mode that does not exceed 5 min is not considered as continuous airflow.

### 3.13

#### **parallel pattern**

**stroke pattern** (3.19) where the forward strokes and the return strokes are congruent and are carried out in the direction of the carpet pile (direction of manufacture) unless otherwise specified

**3.14****passive dry nozzle**

dry cleaning head (3.3) without any driven agitation device

**3.15****return stroke**

backward movement of a stroke pattern (3.19)

**3.16****self-propelled dry cleaning head**

dry cleaning head (3.3) provided with a propulsion mechanism

**3.17****stroke**

single traverse of the dry cleaning head (3.3) over the test area

**3.18****stroke length**

distance between the two parallel lines defining the limits of a stroke pattern (3.19)

**3.19****stroke pattern**

arrangement of the forward strokes and return strokes on the surface to be cleaned

**3.20****stroke speed**

speed of the dry cleaning head (3.3), moved as uniformly as possible, during a forward stroke (3.9) or a return stroke (3.15)

**3.21****test**

entirety or superset of all trials and trial (3.22) batches of all samples to be measured for a single vacuum cleaner model

**3.22****trial**

single instance of a performance measurement carried out under identical conditions that can be repeated multiple times

**3.23****tube**

rigid length or lengths of hollow pipe that connect the end of the hose to various vacuum cleaner accessories

Note 1 to entry: The tube ~~may~~ can be of fixed length, in multiple parts or telescopic, passive or energized.

**3.24****upright vacuum cleaner**

self-standing and floor-supported dry vacuum cleaner (3.8) with the dry cleaning head (3.3) forming an integral part of, or permanently connected to, the cleaner housing, the dry cleaning head (3.3) normally being provided with an agitation device to assist dirt removal and the complete cleaner housing being moved over the surface to be cleaned by means of an attached handle

**3.25****water filter vacuum cleaner**

dry vacuum cleaner (3.8) that uses water as the main filter medium, whereby the suction air is forced through the water entrapping the removed dry material as it passes through

**3.26****water filter system**

removable water filter components that are in contact with the water

**3.27****side brush 6**

peripheral brush whose main function is to relocate the dust and debris along the floor and extend the cleaning reach beyond the dry cleaning head width (3.4)

**3.28****universal dry nozzle 7**

active dry nozzle (3.2) or passive dry nozzle (3.14) that is used for cleaning hard floor and carpet, where any adaptation for the floor surface can be made automatically or by means of a mechanical adjusting mechanism

**3.29****cordless dry vacuum cleaner 8**

dry vacuum cleaner (3.8) that is not mains-operated

Note 1 to entry: The term "cordless" is equivalent to "battery-operated" throughout the document.

**3.30****reference vacuum cleaner system RSB**

electrically operated laboratory equipment intended to provide different laboratories with a similarly constructed vacuum cleaner to measure the reference dust removal ability on carpets for passive and active dry nozzles (3.2) to improve the reproducibility of results

Note 1 to entry: The reference vacuum cleaner system RSB may be used with active or passive dry nozzles (3.14).

Note 2 to entry: The reference vacuum cleaner system RSB is not intended for tests other than dust pick-up from Wilton test carpets.

Note 3 to entry: The reference vacuum cleaner system RSB is described in IEC TS 62885-1:2026 [7], Annex C. Maintenance of the RSB is described in IEC TS 62885-1:2026 [7], Annex D C.

Note 4 to entry: The reference vacuum cleaner system RSB is required for measurements in accordance with legislation in the European Union.

**4 General conditions for testing****4.1 Atmospheric conditions**

Unless otherwise specified, the test procedures and measurements shall be carried out under the following conditions:

Standard atmosphere 23/50

|                        |                       |
|------------------------|-----------------------|
| Temperature:           | (23 ± 2) °C           |
| Relative humidity:     | (50 ± 5) %            |
| Absolute air pressure: | 91,3 kPa to 106,3 kPa |

Temperature and humidity conditions shall be maintained within the specified ranges ~~are required for to ensure~~ good repeatability and reproducibility. ~~Care should be taken to avoid changes~~ during testing. 9

For test procedures and measurements carried out at other than standard atmospheric conditions, the ambient temperature shall be maintained at (23 ± 5) °C.