

**KODUMAJAPIDAMISES KASUTATAVAD TOLMUIMEJAD.
OSA 1: KUIVTOLMUIMEJAD. TOIMIVUSE
MÕÕTEMEETODID**

**Vacuum cleaners for household use - Part 1: Dry vacuum
cleaners - Methods for measuring the performance
(IEC 60312-1:2010 , modified + A1:2011 , modified)**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN 60312-1:2017+A11:2022 sisaldab Euroopa standardi EN 60312-1:2017 ja selle muudatuse A11:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 60312-1:2017+A11:2022 consists of the English text of the European standard EN 60312-1:2017 and its amendment A11:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 10.02.2017, muudatused A11 29.07.2022.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. Date of Availability of the European standard is 10.02.2017, for A11 29.07.2022.
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English Version

Vacuum cleaners for household use - Part 1: Dry vacuum
cleaners - Methods for measuring the performance
(IEC 60312-1:2010 , modified + A1:2011 , modified)

Aspirateurs de poussière à usage domestique - Partie 1:
Aspirateurs à sec - Méthodes de mesure de l'aptitude à la
fonction
(IEC 60312-1:2010 , modifiée + A1:2011 , modifiée)

Staubsauger für den Hausgebrauch - Teil 1: Trockensauger
- Prüfverfahren zur Bestimmung der
Gebrauchseigenschaften
(IEC 60312-1:2010 , modifiziert + A1:2011 , modifiziert)

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Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

This document (EN 60312-1:2017) consists of the text of IEC 60312-1:2010+A1:2011 prepared by SC 59F, "Surface cleaning appliances", of IEC/TC 59, "Performance of household and similar electrical appliances", together with the common modifications prepared by CLC/TC 59X, "Performance 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) 2018-01-02
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2020-01-02

The common modifications of EN 60312-1:2013 still apply. They are partly modified.

Clauses, subclauses, notes, tables and figures which are additional to those in IEC 60312-1:2010 are prefixed "Z".

This European Standard also specifies, as far as necessary, the test methods which shall be applied in accordance with the standardisation mandate M540 related to Council Directive 92/75 of the European Commission.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZA and ZZB, which are integral parts of this document.

Endorsement notice

The text of the International Standard IEC 60312-1:2010+A1:2011 was approved by CENELEC as a European Standard with agreed common modifications.

A11 Amendment A11 European foreword

This document (EN 60312-1:2017/A11:2022) has been prepared by CLC/TC 59X "Performance of household and similar electrical appliances".

The following dates are fixed:

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- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2025-03-21

This document modifies by common modifications EN 60312-1:2017, which consists of the text of IEC 60312-1:2010+A1:2011 prepared by IEC/SC 59F "Surface cleaning appliances" of IEC/TC 59 "Performance of household and similar electrical appliances".

Significant technical differences are:

- a) rephrased subclause 4.6 on the operation of the dry vacuum cleaner;
- b) new debris pick-up test for hard floor and carpet;
- c) improvement of test with loaded dust receptacle in subclause 5.9;
- d) inclusion of a new subclause 5.10 on total emissions while vacuum cleaning;
- e) new durability test for secondary hoses;
- f) two normative Annexes on the description and maintenance of the reference vacuum cleaner system RSB.

The addition of new tests has changed the structure of almost the entire Clause 5. Furthermore, changes have been made in numerous subclauses. Therefore, the entire Clause 5 has been inserted as an amendment.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a Standardization Request given to CENELEC by the European Commission and the European Free Trade Association.

This document is foreseen as a document for future Commission Delegated Regulation on labelling and future Commission Regulation on ecodesign for vacuum cleaners.

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. **A11**

INTERNATIONAL STANDARD



**Vacuum cleaners for household use –
Part 1: Dry vacuum cleaners – Methods for measuring the performance**



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

















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INTERNATIONAL ELECTROTECHNICAL COMMISSION

VACUUM CLEANERS FOR HOUSEHOLD USE –

Part 1: Dry vacuum cleaners –
Methods for measuring the performance

FOREWORD

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International Standard IEC 60312-1 has been prepared by subcommittee 59F: Floor treatment appliances, of IEC technical committee 59: Performance of household and similar electrical appliances.

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

FDIS	Report on voting
59F/195/FDIS	59F/199/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 publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 60312 series, under the general title *Vacuum cleaners for household use*, 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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Amendment A1 FOREWORD

This amendment has been prepared by subcommittee 59F: Floor treatment appliances, of IEC technical committee 59: Performance of household electrical appliances.

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

CDV	Report on voting
59F/206/CDV	59F/207/RVC

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

The committee has decided that the contents of this amendment and the base 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.

Amendment A1 INTRODUCTION

The following changes to IEC 60312-1 concern Subclauses 5.5 and 5.9 and the related specifications in Subclauses 7.2.2 and 7.2.6.

The reason for this is due to the tightening of the specification to the cotton linters used in the test dust. In order to reproduce the airflow restricting conditions expected during the development of this test it is necessary to use more test dust when Condition 3 is used as a stopping point. Further, it provides a specification for the cellulose dust.

In addition to this an updated specification of the cushion slip material is available.

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VACUUM CLEANERS FOR HOUSEHOLD USE –

Part 1: Dry vacuum cleaners – Methods for measuring the performance

1 Scope

A11 This document is applicable for measurements of the performance of mains-operated **dry vacuum cleaners**, including **water filter vacuum cleaners** for household or similar use.

NOTE 1 Measurements of the performance of mains-operated commercial **dry vacuum cleaners** are found in EN IEC 62885-8.

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 2 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 3 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 EN 60335-1 and EN 60335-2-2.

A recommendation on information for the consumer at the point of sale is given in Annex B. **A11**

2 Normative references

The following referenced documents are indispensable for the application 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. electrical quantities to analogue or digital signals*

A11 *deleted text* **A11**

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

A11 IEC/TS 62885-1:2020, *Surface cleaning machines – Part 1: General requirements on test material and test equipment* **A11**

A11 *deleted text* **A11**

ISO 2439, *Flexible cellular polymeric materials – Determination of hardness (indentation technique)*

ISO 3386-1, *Polymeric materials, cellular flexible – Determination of stress-strain characteristics in compression – Part 1: Low-density materials*

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*

☐A11☐ deleted text ☐A11☐

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

☐A11☐ EN IEC 60704-2-1:2020, *Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-1: Particular requirements for dry vacuum cleaners* ☐A11☐

3 Terms and definitions

For the purpose of this document, the following definitions apply:

3.1

dry vacuum cleaner

electrically operated appliance that removes dry material (e. g. dust, fibre, threads) from the surface to be cleaned by an airflow 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 ☐A11☐ ambient air ☐A11☐

3.2

upright cleaner

self-standing and floor-supported ☐A11☐ **dry vacuum cleaner** ☐A11☐ with the cleaning head forming an integral part of or permanently connected to the cleaner housing, the cleaning head 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

3.3

cleaning head

plain nozzle or a brush attached to a connecting tube, or a power nozzle, separate or part of the cleaner housing, and that part of a ☐A11☐ **dry vacuum cleaner** ☐A11☐ which is applied to a surface to be cleaned

3.4

active nozzle

cleaning head provided with a driven agitation device to assist dirt removal

☐A11☐ 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 **cleaning head** over the surface to be cleaned (mechanical nozzle). ☐A11☐

3.5

passive nozzle

cleaning head without any driven agitation devices

3.6

self-propelled cleaning head

cleaning head provided with a propulsion mechanism

3.7

cleaning head width

B

the external maximum width of the cleaning head in metres