

**SLOVENSKI**  
**STANDARD**

**SIST EN 60335-2-  
67:2003/A1:2007**

januar 2007

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**Gospodinjski in podobni električni aparati - Varnost - 2-67. del: Posebne zahteve za industrijske in komercialne stroje za nego in čiščenje tal (IEC 60335-2-67:2002/A1:2005)**

**(istoveten EN 60335-2-67:2003/A1:2006)**

Household and similar electrical appliances - Safety - Part 2-67: Particular requirements for floor treatment and floor cleaning machines, for industrial and commercial use (IEC 60335-2-67:2002/A1:2005)

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[SIST EN 60335-2-67:2003/A1:2007](https://standards.iteh.ai/catalog/standards/sist/11420538-8ed6-4c2c-b799-e3aae3204beb/sist-en-60335-2-67-2003-a1-2007)

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ICS 97.080

Referenčna številka  
SIST EN 60335-2-67:2003/A1:2007(en)

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English version

**Household and similar electrical appliances -  
Safety  
Part 2-67: Particular requirements for floor treatment  
and floor cleaning machines,  
for industrial and commercial use  
(IEC 60335-2-67:2002/A1:2005)**

Appareils électrodomestiques  
et analogues -  
Sécurité  
Partie 2-67: Règles particulières  
pour les machines de traitement  
et de nettoyage des sols  
à usage industriel et commercial  
(CEI 60335-2-67:2002/A1:2005)

Sicherheit elektrischer Geräte für den  
Hausgebrauch und ähnliche Zwecke  
Teil 2-67: Besondere Anforderungen  
für Bodenbehandlungs- und  
Bodenreinigungsmaschinen  
für industrielle und gewerbliche Zwecke  
(IEC 60335-2-67:2002/A1:2005)

[SIST EN 60335-2-67:2003/A1:2007](https://standards.iteh.ai/catalog/standards/sist/11420538-8ed6-4c2c-b799-23033748b-european-60335-2-67-2005-2006)

[https://standards.iteh.ai/catalog/standards/sist/11420538-8ed6-4c2c-b799-](https://standards.iteh.ai/catalog/standards/sist/11420538-8ed6-4c2c-b799-23033748b-european-60335-2-67-2005-2006)

This amendment A1 modifies the European Standard EN 60335-2-67:2003; it was approved by CENELEC on 2005-12-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 61J/196/FDIS, future amendment 1 to IEC 60335-2-67:2002, prepared by SC 61J, Electrical motor-operated cleaning appliances for industrial use, of IEC Technical Committee 61, Safety of household and similar electrical appliances, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60335-2-67:2003 on 2005-12-01.

The following dates are applicable:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2006-10-01
- date on which national standards conflicting with the amendment have to be withdrawn (dow) 2008-12-01

This amendment supplements or modifies the corresponding clauses of EN 60335-2-67:2003.

As a consequence of endorsing amendment 1:2005 to IEC 60335-2-67:2002, the common modifications in EN 60335-2-67:2003 are replaced by IEC text and therefore withdrawn.

There are no special national conditions causing a deviation from this amendment.

There are no national deviations from this amendment.

The contents of the corrigendum of December 2006 have been included in this copy.

SIST EN 60335-2-67:2003/A1:2007  
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**Endorsement notice**

The text of amendment 1:2005 to the International Standard IEC 60335-2-67:2002 was approved by CENELEC as an amendment to the European Standard without any modification.

p Add:

## Annex ZC (normative)

### Normative references to international publications with their corresponding European publications

*Addition:*

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 6344-2	– <sup>1)</sup>	Coated abrasives - Grain size analysis Part 2: Determination of grain size distribution of macrogrits P12 to P220	–	–

<sup>1)</sup> Undated reference.

# INTERNATIONAL STANDARD

# IEC 60335-2-67

2002

AMENDMENT 1  
2005-09

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Amendment 1

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

**Part 2-67:  
Particular requirements for floor treatment  
and floor cleaning machines, for industrial  
and commercial use**

*SIST EN 60335-2-67:2003/A1:2007*

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e3aac3204beb/sist-en-60335-2-67-2003-a1-2007](https://standards.iteh.ai/catalog/standards/sist/11420538-8ed6-4c2c-b799-e3aac3204beb/sist-en-60335-2-67-2003-a1-2007)*

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International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland  
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: [inmail@iec.ch](mailto:inmail@iec.ch) Web: [www.iec.ch](http://www.iec.ch)



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## FOREWORD

This amendment has been prepared by subcommittee 61J: Electrical motor-operated cleaning appliances for industrial use, of IEC technical committee 61: Safety of household and similar electrical appliances.

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

FDIS	Report on voting
61J/196/FDIS	61J/209/RVD

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 maintenance result 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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## FOREWORD

*Add the following item to the list of differences existing in some countries:*

- Clause 7.12 No requirements for sound and vibration markings exist (USA)

## INTRODUCTION

*Replace the second sentence of the second paragraph by the following:*

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.

## 2 Normative references

*Add the following reference:*

ISO 6344-2, *Coated abrasives – Grain size analysis – Part 2: Determination of grain size distribution of macrogrits P12 to P220*

### 3 Definitions

**3.1.9** Add, after the 1<sup>st</sup> paragraph, the following paragraph:

Power outlets for accessories are loaded with a resistive load in accordance with the marking.

Add the following new definitions:

#### 3.101

##### **water-suction cleaning appliance**

appliance for aspirating an aqueous solution that may contain foaming detergent

#### 3.102

##### **motorized cleaning head**

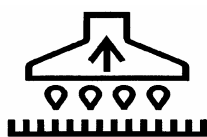
accessory containing a motor that is supplied from the appliance and which is attached to the end of a hand-held hose or tube

NOTE The main cleaning head permanently attached is not regarded as a motorized cleaning head.

### 7 Marking and instructions

Add the following subclause:

**7.6** Addition:



[symbol IEC 60417-5935 (DB:2002-10)] motorized cleaning head for water-suction cleaning  
<https://standards.iteh.ai/catalog/standards/sist/11420538-8ed6-4c2c-b799-e3aac3204beb/sist-en-60335-2-67-2003-a1-2007>

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**7.12** Replace the existing text by the following:

Addition:

The front cover of the instruction manual shall include the substance of the following:

CAUTION: Read the instruction manual before using the appliance.

This wording may be replaced by symbols 0434 and 1641 of ISO 7000. If these symbols are used, their meaning is to be explained in the instructions for use.

The instruction manual shall include the substance of the following warnings, as applicable.

- CAUTION: This appliance is not suitable for picking up hazardous dust.
- CAUTION: This appliance is for dry use only and is not to be used or stored outdoors in wet conditions.
- WARNING: Only use the brushes provided with the appliance or those specified in the instruction manual. The use of other brushes may impair safety.

The instruction manual shall give details regarding the following, as applicable:

- the precautions to be taken when using the appliance under specific conditions such as handling flammable liquids or dust, and dust hazardous to health;

- a statement that the appliance is to be disconnected from its power source during cleaning or maintenance and when replacing parts or converting the appliance to another function:
  - for mains operated appliances, the plug is to be removed from the socket-outlet;
  - for battery operated appliances, the key of the supply switch is to be removed or an equivalent disconnection is to be made;
- a statement that doors and covers are to be positioned as indicated in the instruction manual before using the appliance;
- the precautions to be taken when changing brushes or other attachments which require the appliance to be energized;
- the intended use of brushes which are specified for the appliance;
- a warning that large diameter brushes provided specifically for dry buffing are not intended for general polishing.

The instruction manual shall state

- the A-weighted sound pressure level  $L_{PA}$  in dB(A) emitted by the appliance. If the A-weighted sound pressure level exceeds 85 dB(A), it shall also state the sound power level  $L_{WA}$  in dB(A) and that appropriate ear protection has to be used.

NOTE 101 The sound level is measured in accordance with IEC 60704-1.

- the weighted r.m.s. acceleration value to which the operators' arms are subjected in  $m/s^2$ , separately for each arm (if applicable).

NOTE 102 The weighted r.m.s. acceleration value is measured in accordance with ISO 5349 for arm vibrations, the appliance being supplied at **rated voltage** or at the maximum **rated voltage** for machine with a range of voltages

The instruction manual shall include the substance of the following:

This appliance is suitable for commercial use, for example in hotels, schools, hospitals, factories, shops, offices and rental businesses.

The instruction manual for mains operated appliances shall include the substance of the following:

- do not allow the rotating brushes to come into contact with the supply cord;
- regularly examine the supply cord for damage, such as cracking or ageing. If damage is found, replace the cord before further use;
- only replace the supply cord with the type specified in the instruction manual;
- only use the socket outlet on the appliance for purposes specified in the instruction manual.

The instructions for appliances having a current-carrying hose operating at other than **safety extra-low voltage** shall include the substance of the following:

CAUTION: This hose contains electrical connections:

- do not use to collect water;
- do not immerse in water for cleaning;
- the hose should be checked regularly and must not be used if damaged.

If the symbol IEC 60417-5935 is used, its meaning shall be explained.

*Add the following subclause:*



#### 7.14 Addition:

The height of symbol IEC 60417-5935 shall be at least 15 mm.

*Compliance is checked by measurement.*

**7.101** Motorized cleaning heads shall be marked with

- **rated voltage** or **rated voltage range** in volts;
- **rated power input** in watts;
- name, trade mark or identification mark of the manufacturer or responsible vendor;
- model or type reference.

**Motorized cleaning heads for water-suction cleaning appliances**, except those of **class III construction** having a **working voltage** up to 24 V shall be marked with symbol IEC 60417-5935.

NOTE This symbol is an information sign and, except for the colours, the rules of ISO 3864-1 apply.

*Compliance is checked by inspection.*

**7.102** Appliance outlets for accessories shall be marked with the maximum load in watts.

NOTE This marking may be on the appliance close to the appliance outlet.

*Compliance is checked by inspection.*

## 10 Power input and current

*Replace the existing text of this clause by the following:*

This clause of Part 1 is applicable except as follows.

#### 10.1 Addition:

The power input of **motorized cleaning heads** is measured separately.

## 15 Moisture resistance

**15.2** *Replace the text after Note 101 by the following new text:*

**Motorized cleaning heads of water-suction cleaning appliances** are placed in a container, the base of which is level with the surface supporting the appliance. The container is filled with a detergent solution to a level of 5 mm above its base, this level being maintained throughout the test. The solution consists of 20 g of NaCl and 1 ml of a solution of 28 % by mass of dodecyl sodium sulphate in each 8 l of water.

*The appliance is operated until its liquid container is completely full and for a further 5 min.*

NOTE 102 The solution is to be stored in a cool atmosphere and used within seven days of its preparation.

NOTE 103 The chemical designation of dodecyl sodium sulphate is C<sub>12</sub>H<sub>25</sub>NaSO<sub>4</sub>.

*After each of these tests, the appliance shall withstand the electric strength test of 16.3.*

*Inspection shall show that there is no trace of liquid on insulation that could result in a reduction of **clearances** or **creepage distances** below the values specified in Clause 29.*