

SLOVENSKI STANDARD

SIST EN 60335-2-2:2011/A11:2012

01-november-2012

Gospodinjski in podobni električni aparati - Varnost - 2-2. del: Posebne zahteve za sesalnike prahu in aparate za čiščenje s sesanjem vode - Dopolnilo A11

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

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-2: Besondere Anforderungen für Staubsauger und Wassersauger

Appareils électrodomestiques et analogues - Sécurité - Partie 2-2: Règles particulières pour les aspirateurs et les appareils de nettoyage à aspiration d'eau

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Ta slovenski standard je istoveten z: EN 60335-2-2:2010/A11:2012

ICS:

| | | |
|--------|---------------------|----------------------------|
| 13.120 | Varnost na domu | Domestic safety |
| 97.080 | Aparati za nego tal | Floor treatment appliances |

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60335-2-2/A11

September 2012

ICS 13.120; 97.080

English version

**Household and similar electrical appliances -
Safety -
Part 2-2: Particular requirements for vacuum cleaners and water-suction
cleaning appliances**

Appareils électrodomestiques et
analogues -
Sécurité -
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aspirateurs et les appareils de nettoyage à
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Sicherheit elektrischer Geräte für den
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This amendment A11 modifies the European Standard EN 60335-2-2:2010; it was approved by CENELEC on 2012-07-09. 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.

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

This document (EN 60335-2-2:2010/A11:2012) has been prepared by CLC/TC 61 "Safety 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) 2013-07-09
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2015-02-01

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

This amendment supplements or modifies the corresponding clauses of EN 60335-1:2012 and EN 60335-2-2:2010.

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

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1 Scope

Replacement:

This clause of Part 1 is replaced by the following.

This European Standard deals with the safety of electric vacuum cleaners and water suction cleaning appliances for household and similar purposes, including vacuum cleaners for animal grooming, their **rated voltage** being not more than 250 V. It also applies to centrally-sited vacuum cleaners and automatic battery-powered cleaners.

This European Standard also applies to motorized cleaning heads and current-carrying hoses associated with a particular vacuum cleaner.

Appliances intended to be used by laymen in shops and other premises for normal housekeeping purposes, are within the scope of this European Standard.

NOTE Z101 Examples of appliance for household environment are appliances for typical housekeeping functions used in the household environment that may also be used by non-expert users for typical housekeeping functions:

- in shops and other similar working environments;
- in farm houses;
- by clients in hotels, motels and other residential type environments;
- in bed and breakfast type environments.

NOTE Z102 Household environments include the dwelling and its associated buildings, the garden, etc.

As far as is practicable, this European Standard deals with the common hazards presented by appliances that are encountered by all persons in household and similar environments.

However, in general, it does not take into account

- **children** playing with the appliance,
- the use of the appliance by **very young children**,
- the use of the appliance by **young children** without supervision.

It is recognized that **very vulnerable people** may have needs beyond the level addressed in this European Standard.

This European Standard does not apply to

- appliances intended exclusively for industrial and commercial purposes,
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas),
- wet and dry vacuum cleaners, including power brush, for commercial use (EN 60335-2-69).

NOTE Z103 Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may 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.

7 Marking and instructions

7.12 Replace the text of 7.12 in Part 1 and the addition in Part 2-2 by:

7.12 Instructions for use shall be provided with the appliance so that the appliance can be used safely.

NOTE Instructions for use may be marked on the appliance as long as they are visible in normal use.

It is necessary to take precautions during **user maintenance**, appropriate details shall be given.

The instructions shall state the substance of the following:

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

If a vacuum cleaner can be equipped with a **hand-held accessory** with rotating parts a warning has to be given concerning entrapment.

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 suck up water (for vacuum cleaners only);
- do not immerse in water for cleaning;
- the hose should be checked regularly and must not be used if damaged.

The instructions for appliances having a part of **class III construction** supplied from a **detachable power supply unit** shall state that the appliance is only to be used with the power supply unit provided with the appliance.

The instructions for **class III appliances** shall state that it must only be supplied at safety extra low voltage corresponding to the marking on the appliance. This instruction is not necessary for battery-operated appliances if the battery is a primary battery or secondary battery charged outside of the appliance.

The instructions for vacuum cleaners incorporating rotating brushes or similar devices, and **water-suction cleaning appliances**, shall state that the plug must be removed from the socket-outlet before cleaning or maintaining the appliance.

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

Compliance is checked by inspection.

11 Heating

11.8 Modification:

Replace the first paragraph of Part 1 by the following: "During the test, the temperature rises are monitored continuously and shall not exceed the values shown in Table 3 and Table Z101".

*In Table 3 delete the row "External enclosure of **motor-operated appliances**, except handles held in normal use" and the corresponding footnotes.*

Add the following Table Z101.

**Table Z101 – Maximum temperature rises
for external surfaces under normal operating conditions**

| Surface ^a | Temperature rise of external surfaces K | |
|---|---|---|
| | Surfaces of appliances situated up to 850 mm above the floor after installation and portable appliances ^d | Surfaces of appliances situated more than 850 mm above the floor after installation (e.g. central vacuum cleaners) ^e |
| Bare metal | 40 | 45 |
| Coated metal ^b | 45 | 55 |
| Glass and ceramic | 55 | 60 |
| Plastic and plastic coating > 0,3 mm ^c | 60 | 65 |
| ^a When the thickness of the plastic coating does not exceed 0,3 mm, the temperature rise limits of the coated metal or of glass and ceramic material apply. ^b Metal is considered coated when a coating having a minimum thickness of 80 µm made by enamel or non substantially plastic coating is used. ^c The temperature rise limit of plastic also applies for plastic material having a metal finish of thickness less than 0,1 mm. ^d For air outlets the above values can be increased by 10 K. ^e For air outlets the above values can be increased by 5 K. | | |

20 Stability and mechanical hazards

Additional subclauses:

20.Z101 Driven parts of an appliance shall not become accessible if the appliance is switched on by overturning.

*The appliance is fully assembled as in **normal operation** without any parts removed. The appliance connected to the mains is overturned in the most unfavourable position. If the appliance is activated as consequence of overturning, hazardous moving parts shall not be accessible according to 20.2.*

The test is made in the most unfavourable orientation.

20.Z102 Inadvertent access to hazardous rotating brushes and similar devices during **normal operation** shall be prevented, so far as is reasonably practicable.

*Appliances are fully assembled as in **normal operation** without any parts removed. Compliance is checked by using the foot probe as illustrated in Figure Z101. The appliance is placed on a hard flat surface, being in the normal operating position. Height adjustment components such as rollers or wheels are adjusted to the most unfavourable position. The base of the foot probe is held horizontally and applied to any point on the periphery of the cleaner in contact with the floor without appreciable force. The test is conducted under static conditions. The probe shall not touch rotating parts.*

21 Mechanical strength

21.1 Modification:

Replace the third paragraph with:

The appliance is rigidly supported and three blows, having an impact energy of 1,0 J, are applied to every point of the enclosure that is likely to be weak.

Add the following new subclause:

21.Z101 Hand-held appliances are subjected to the following test:

The appliance is put on an horizontal surface 700 mm above a rigidly supported hardwood board and operated while supplied at rated voltage until steady state conditions are reached.

It is then allowed to drop freely. The test is carried out five times, the appliance being held in different positions likely to occur.

The appliance shall not be damaged to such an extent that compliance with this European Standard is impaired. In particular, the appliance shall not emit flames or molten metal and the requirements of Clauses 8 and 29 shall be fulfilled.

22 Construction

Add the following new subclauses:

22.Z101 Hinged handles of vacuum cleaners intended to be free standing shall require a specific action to operate them, such as a lever, the handle release mechanism or similar.

Compliance is checked by inspection.

22.Z102 Supply cords of appliances shall not be damaged by the appliance running over them.

The functional openings of power rotating brushes, driven by the main suction motor, shall not exceed 120 mm along the major dimension of the opening.

Compliance is checked by inspection and measurement.