



SLOVENSKI STANDARD
oSIST prEN IEC 60335-2-2:2021/oprA11:2021
01-januar-2021

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

<https://standards.iteh.ai/catalog/standards/sist/404b897a-7dad-42fa-8b5f-f52f1156882/osist-pr-en-iec-60335-2-2:2021-oprA11:2021>

Ta slovenski standard je istoveten z: prEN IEC 60335-2-2:2020/prA11:2020

ICS:

13.120	Varnost na domu	Domestic safety
97.080	Aparati za čiščenje	Cleaning appliances

oSIST prEN IEC 60335-2-2:2021/oprA11:2021 **en,fr**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN IEC 60335-2-2:2020
prA11

November 2020

ICS

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

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

This draft amendment prA11, if approved, will modify the European Standard prEN IEC 60335-2-2:2020; it is submitted to CENELEC members for enquiry.

Deadline for CENELEC: 2021-02-12.

It has been drawn up by CLC/TC 61.

If this draft becomes an amendment, 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.

This draft amendment was established by CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

prEN IEC 60335-2-2:2020/prA11:2020 (E)

1 **European foreword**

2 This document (prEN IEC 60335-2-2:2020/prA11:2020) consists of the text prepared by CLC/TC 61
3 "Safety of household and similar electrical appliances".

4 This document is currently submitted to CENELEC Enquiry.

5 The following dates are proposed:

- latest date by which the existence of this document has to be announced at national level (doa) dor + 6 months
- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) dor + 12 months
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) dor + 36 months (to be confirmed or modified when voting)

6 This document will supersede EN 60335-2-2:2010+A11:2010+A1:2013+A2:2020.

7 This amendment supplements or modifies the corresponding clauses of the standards below:

- 8 – EN 60335-1:2012+A11:2014+ A13:2017+A1:2019+A14:2019+A2:2019 (Part 1)
- 9 – EN IEC 60335-2-2:2020 (Part 2)

10 **Secretary Note:** EN IEC 60335-2-2/A11:2020(PR=71358) shall be read in conjunction with
11 EN IEC 60335-2-2:2020(PR=71357)

12

13 The numbering system for European clauses, subclauses, notes, tables, figures and annexes that are
14 additional to those in the IEC standard are prefixed with the letter "Z".

15 This document has been prepared under a mandate given to CENELEC by the European Commission
16 and the European Free Trade Association, and supports essential requirements of EU Directive(s).
17 For the relationship with EU Directive see informative Annex ZZA, which is an integral part of this
18 document.

19

20 **FOR CCMC: THE RATIONAL TEXT of IM SHALL REMAIN DURING THE PUBLIC ENQUIRY and FORMAL**
21 **VOTE and then the CCMC can remove the box before publication**

22 **Rational Issue manager related the CMs in previous/new version of EN/IEC 60335-2-2:**

- 23 a. Scope: added the Battery-operated appliances to align the EN replaced scope with the actual
24 IEC scope
- 25 b. Clause 11.8. The text of EN 60335-2-2:2020/A11:2012 has been inserted inside the new
26 version of IEC text. So, the actual text of scl 11.8 of EN version, shall not be present in EN IEC
27 60335-2-2:2020/A11:2020
- 28 c. The text of other clauses of EN 60335-2-2/A11:2012 shall remain because it is linked to ERs

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TEXT of A11 of EN IEC 60335-2-2**31 1 Modification to the Scope**32 *Replacement:*

33 This clause of Part 1 and Part 2 is replaced by the following.

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

38 This document also applies to **motorized cleaning heads** and current-carrying hoses associated with
 39 a particular vacuum cleaner.

40 **Battery-operated appliances** and other DC supplied appliances are within the scope of this
 41 document. Dual supply appliances, either mains-supplied or battery-operated, are regarded as
 42 **battery-operated appliances** when operated in the battery mode.

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

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

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

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

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

54 However, in general, it does not take into account

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

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

60 This document does not apply to

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

65 NOTE Z103 Attention is drawn to the fact that

- 66 – for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be
 67 necessary,
- 68 – in many countries additional requirements are specified by the national health authorities, the national
 69 authorities responsible for the protection of labour, the national water supply authorities and similar
 70 authorities.

prEN IEC 60335-2-2:2020/prA11:2020 (E)

71 **2 Modification to clause 7, "Marking and instructions"**72 **7.12** *Replace the text in Part 1 and the addition in Part 2-2 of 7.12 by:*73 **7.12** Instructions for use shall be provided with the appliance so that the appliance can be used
74 safely.

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

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

77 The instructions shall state the substance of the following:

78 This appliance can be used by children aged from 8 years and above and persons with reduced
79 physical, sensory or mental capabilities or lack of experience and knowledge if they have been given
80 supervision or instruction concerning use of the appliance in a safe way and understand the hazards
81 involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made
82 by children without supervision.83 If a vacuum cleaner can be equipped with a **hand-held accessory** with rotating parts a warning has to
84 be given concerning entrapment.85 The instructions for appliances having a current-carrying hose operating at other than **safety extra-**
86 **low voltage** shall include the substance of the following:

87 CAUTION: This hose contains electrical connections:

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

91 The instructions for appliances having a part of **class III construction** supplied from a **detachable**
92 **power supply unit** shall state that the appliance is only to be used with the power supply unit
93 provided with the appliance.94 The instructions for **class III appliances** shall state that it must only be supplied at safety extra low
95 voltage corresponding to the marking on the appliance. This instruction is not necessary for battery-
96 operated appliances if the battery is a primary battery or secondary battery charged outside of the
97 appliance.98 The instructions for vacuum cleaners incorporating rotating brushes or similar devices, and **water-**
99 **suction cleaning appliances**, shall state that the plug must be removed from the socket-outlet before
100 cleaning or maintaining the appliance.

101 If symbol IEC 60417-5935 (2012-09) is used, its meaning shall be explained.

102 *Compliance is checked by inspection.*103 **3 Modification to clause 20, "Stability and mechanical hazards"**104 *Additional subclauses:*105 **20.Z101** Driven parts of an appliance shall not become accessible if the appliance is switched on by
106 overturning.107 *The appliance is fully assembled as in **normal operation** without any parts removed. The appliance*
108 *connected to the mains is overturned in the most unfavourable position. If the appliance is activated as*
109 *consequence of overturning, hazardous moving parts shall not be accessible according to 20.2.*110 *The test is made in the most unfavourable orientation.*

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

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

119 **4 Modification to clause 21, "Mechanical strength"**

120 **21.1** *Modification:*

121 *Replace the third paragraph with:*

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

124 *Add the following new subclause:*

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

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

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

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

133 **5 Modification to clause 22, "Construction"**

134 *Add the following new subclauses:*

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

137 *Compliance is checked by inspection.*

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

139 *The functional openings of power rotating brushes, driven by the main suction motor, shall not exceed*
140 *120 mm along the major dimension of the opening.*

141 *Compliance is checked by inspection and measurement.*

142

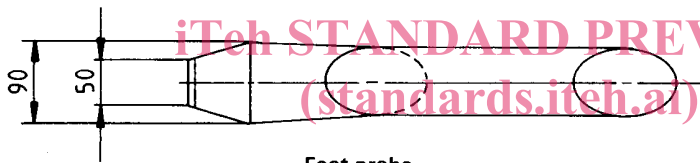
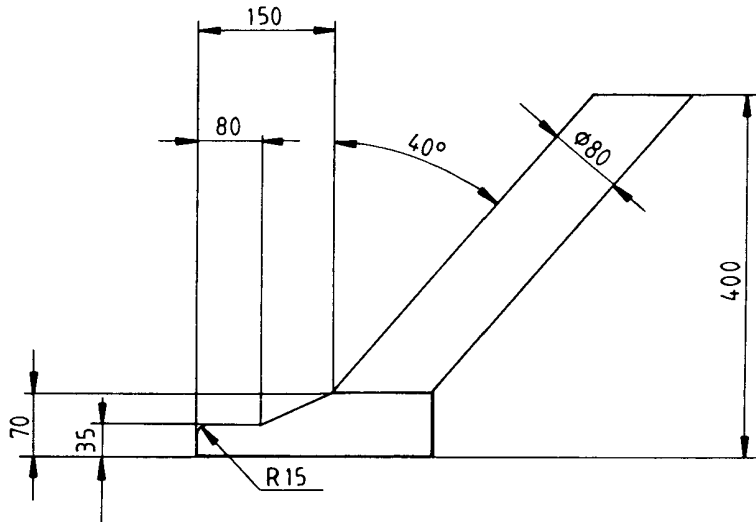
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143 **6 Modification to Figures**

144 *Add:*

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Dimensions in millimetres



Foot probe

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<https://standards.iteh.ai/catalog/standards/sist/404b897a-7dad-42fa-8b5f-fc52fdb56882/sist/404b897a-7dad-42fa-8b5f-fc52fdb56882>

Figure Z1016 Foot probe

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150 **7 Modification to the Annexes**

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152 *The annexes of part 1 are applicable with the following modifications:*

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Annex ZC
(normative)**Normative references to international publications
with their corresponding European publications***The annex ZC of Part 1 is applicable with following modification:*

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60417	2002	Graphical symbols for use on equipment	-	-
IEC 60584-1	-	Thermocouples - Part 1: EMF specifications and tolerances	EN 60584-1	2013
IEC TS 62885-1	2018	Surface cleaning appliances – Part 1: General requirements on test material and test equipment	-	-
ISO 216	-	Writing paper and certain classes of printed matter - Trimmed sizes - A and B series, and indication of machine direction	EN ISO 216	2007
ISO 6344-2	1998	Coated abrasives – Grain size analysis – Part 2: Determination of grain size distribution of macrogrits P12 to P220	-	-
ISO 7010	2011	Graphical symbols - Safety colours and safety signs - Registered safety signs	EN ISO 7010	2012
ISO 14688-1	-	Geotechnical investigation and testing - Identification and classification of soil - Part 1: Identification and description	EN ISO 14688-1	2018

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prEN IEC 60335-2-2:2020/prA11:2020 (E)

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157**Annex ZZA**
(informative)158 *Replace Annex ZZA in the part 1 by the following:*159 **Relationship between this European Standard and the safety objectives of**
160 **Directive 2014/35/EU [2014 OJ L96] aimed to be covered**

161

162 This European Standard has been prepared under a Commission's standardization request relating to
163 harmonized standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means
164 of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the
165 Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the
166 making available on the market of electrical equipment designed for use within certain voltage limits
167 [2014 OJ L96].168 Once this standard is cited in the Official Journal of the European Union under that Directive,
169 compliance with the normative clauses of this standard given in Table ZZA.1 confers, within the limits
170 of the scope of this standard, a presumption of conformity with the corresponding safety objectives of
171 that Directive, and associated EFTA regulations.172 Compliance with this Part 2 when used together with the Part 1 provides one means of conformity with
173 the safety objectives.174
175**Table ZZA.1 – Correspondence between this European Standard
and Annex I of Directive 2014/35/EU [2014 OJ L96]**

Safety objectives of Directive 2014/35/EU	Clause(s) / sub-clause(s) of this EN	Remarks/ Notes
1 a)	Clauses 4, 7	None
1 b)	Clauses 4, 7	None
1 c)	Clauses 4, 7	None
2 a)	Clauses 6, 7, 8, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	None
2 b)	Clauses 6, 7, 8, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	None
2 c)	Clauses 6, 7, 11, 15, 17, 19, 20, 21, 22, 24, 25, 30, 32	None
2 d)	Clauses 6, 7, 8, 10, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	None
3 a)	Clauses 6, 7, 11, 17, 19, 20, 21, 22	None
3 b)	Clauses 7, 11, 15, 19, 22, 25, 32	None
3 c)	Clauses 6, 7, 10, 11, 14, 17, 19, 21, 22	None

176 **WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European
177 Standard is maintained in the list published in the Official Journal of the European Union. Users of this
178 standard should consult frequently the latest list published in the Official Journal of the European
179 Union.180 **WARNING 2** — Other Union legislation may be applicable to the product(s) falling within the scope of
181 this standard.

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