
Varnost gospodinjskih in podobnih električnih aparatov - 2-54. del: Posebne zahteve za aparate za čiščenje površin s tekočinami (IEC 60335-2-54:1995/A1:1999)

Safety of household and similar electrical appliances -- Part 2-54: Particular requirements for surface-cleaning appliances for household use employing liquids or steam

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-54: Besondere Anforderungen für Geräte zur Oberflächenreinigung mit Flüssigkeiten oder Dampf

Sécurité des appareils électrodomestiques et analogues -- Partie 2-54: Règles particulières pour les appareils de nettoyage des surfaces à usage domestique, utilisant des liquides ou de la vapeur

Ta slovenski standard je istoveten z: EN 60335-2-54:1997/A1:1999

ICS:

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

SIST EN 60335-2-54:1998/A1:2000 en

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SIST EN 60335-2-54:1998/A1:2000

<https://standards.iteh.ai/catalog/standards/sist/f094f9e2-7bf5-4a19-9f25-9e67c929b6c6/sist-en-60335-2-54-1998-a1-2000>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60335-2-54/A1

August 1999

ICS 13.120; 97.180

English version

Safety of household and similar electrical appliances
Part 2: Particular requirements for surface-cleaning appliances for
household use employing liquids or steam
(IEC 60335-2-54:1995/A1:1999)

Sécurité des appareils
électrodomestiques et analogues
Partie 2: Règles particulières pour
les appareils de nettoyage des surfaces
à usage domestique, utilisant des
liquides ou de la vapeur
(CEI 60335-2-54:1995/A1:1999)

Sicherheit elektrischer Geräte für den
Hausgebrauch und ähnliche Zwecke
Teil 2: Besondere Anforderungen für
Geräte zur Oberflächenreinigung mit
Flüssigkeiten oder Dampf
(IEC 60335-2-54:1995/A1:1999)

[SIST EN 60335-2-54:1998/A1:2000](https://standards.iteh.ai/catalog/standards/sist/f094f9e2-7bf5-4a19-9f25-9e67c929b6c6/sist-en-60335-2-54-1998-a1-2000)

<https://standards.iteh.ai/catalog/standards/sist/f094f9e2-7bf5-4a19-9f25-9e67c929b6c6/sist-en-60335-2-54-1998-a1-2000>

This amendment A1 modifies the European Standard EN 60335-2-54:1997; it was approved by CENELEC on 1999-08-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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 61/1564/FDIS, future amendment to IEC 60335-2-54:1995 prepared by the IEC Technical Committee 61, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60335-2-54 on 1999-08-01.

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) 2000-05-01
- date on which national standards conflicting with the amendment have to be withdrawn (dow) 2002-08-01

This amendment supplements or modifies the corresponding clauses of EN 60335-2-54:1997.

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

There are no national deviations from this amendment.

Introduction

An investigation by CENELEC TC 61 has shown that all risks from products within the scope of this standard are fully covered by the Low Voltage Directive, 73/23/EEC. If the product has mechanical moving parts, a risk assessment in accordance with the Machinery Directive, 89/392/EEC, has shown that the risks are mainly of electrical origin and consequently this directive is not applicable. However, the relevant essential safety requirements of the Machinery Directive are covered by this standard together with the principal objectives of the Low Voltage Directive.

Endorsement notice

The text of amendment 1:1999 to the International Standard IEC 60335-2-54:1995 was approved by CENELEC as an amendment to the European Standard without any modification.

INTERNATIONAL STANDARD

IEC 60335-2-54

1995

 AMENDMENT 1
1999-05

Amendment 1

**Safety of household and similar electrical
appliances –**

Part 2-54:

**Particular requirements for surface-cleaning
appliances employing liquids**

Amendement 1
<https://standards.itec.ai/catalog/standards/sist/f094f9e2-7bf5-4a19-9f25-2e67f79b4651/sist-en-60335-2-54-1998-a1-2000>

Sécurité des appareils électrodomestiques et analogues –

Partie 2-54:

*Règles particulières pour les appareils de nettoyage
des surfaces, utilisant des liquides*

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Международная Электротехническая Комиссия

PRICE CODE

F

For price, see current catalogue

FOREWORD

This amendment has been prepared by 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
61/1564/FDIS	61/1607/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.

FOREWORD

In note 2 add "and figures" after "subclauses".

Add after the last line:

- 22.104: Smaller sizes are acceptable based on additional tests (USA).

Title

Replace the title by: <https://standards.iteh.ai/catalog/standards/sist/f094f9e2-7bf5-4a19-9f25-9e67c929b6c6/sist-en-60335-2-54-1998-a1-2000>

**Particular requirements for surface-cleaning appliances
for household use employing liquids or steam**

1 Scope

Add in the last line of the first paragraph:

"or steam" after "cleansing agents"

Replace the third dashed item of note 3 by:

- cleaning appliances covered by IEC 60335-2-79, namely those having a
 - pressure exceeding 2,5 MPa;
 - liquid temperature exceeding 160 °C;
 - rated power input exceeding 3 500 W;
 - pressurized volume over 5 l.

Add the following dashed item to note 3:

- fabric steamers (IEC 60335-2-85).

2 Definitions

2.2.9 Add:

For steam cleaners, a vertical pane of stainless steel is used instead of glass, without additional wetting. However, if the steam outlet is not intended to be pressed against a surface, the appliance is operated with the outlet in free air pointing downwards under 45°.

4 General conditions for the tests

Replace the text by:

This clause of part 1 is applicable, except as follows:

4.2 Addition:

A new hose is used for each of the tests of 21.101 to 21.104.

Add the following subclause:

4.101 Appliances incorporating heating elements are tested as **heating appliances** even if they incorporate motors.

6 Classification

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6.2 Replace the text by:

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Hand-held appliances dispensing liquids shall be at least IPX7. Other appliances shall be at least IPX4. This does not apply to appliances of **class III construction** not exceeding 24 V.

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7 Marking and instructions

Add:

7.1 Modification:

Appliances shall be marked with their **rated power input** in watts.

Replace the second paragraph by:

Steam cleaners and appliances dispensing liquids having a temperature exceeding 50 °C shall be marked with symbol 5598 of IEC 60417, the rules for a warning sign specified in ISO 3864 being applicable, or the substance of the following warning:

WARNING – Danger of scalding

If a symbol is used, its meaning is to be explained in the instructions for use.

Add:

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.

The sum of the **rated power input** and the maximum load of the appliance outlet shall also be marked on the appliance.

Add:

7.12 Addition:

The instructions for use shall state that the liquid or steam must not be directed towards equipment containing electrical components, such as the interior of ovens.

For steam cleaners having a pressurized container, the instructions shall state that the filling aperture must not be opened during use. Instructions for the safe refilling of the water container shall be given.

11 Heating

Add:

11.4 Addition:

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If the temperature rise limits are exceeded in appliances incorporating motors, transformers or **electronic circuits** and the power input is lower than the **rated power input**, the test is repeated with the appliance supplied at **1,06 times rated voltage**.

11.7 Add:

Addition:

NOTE – Water is added as necessary to maintain the emission of liquid or steam.

Steam cleaners are also operated without emission of steam.

Appliances incorporating an automatic cord reel are operated with one-third of the total length of the cord unreeled for 30 min, after which the cord is completely unreeled.

Add:

11.8 Addition:

*The temperature rises of the **accessible surface** of hoses which supply steam to parts held in the hand shall comply with the temperature rise limits for handles which in normal use are held for short periods only. However, if a non-metallic hose is covered by textile material, the temperature rise of the surface of the textile material shall not exceed 80 K.*

*The temperature rise limits of motors, transformers, components of **electronic circuits** and parts directly influenced by them may be exceeded when the appliance is operated at 1,15 times **rated power input**.*

NOTE – The pressure in appliances having a pressurized container is measured so that the test of 22.7 can be carried out.

15 Moisture resistance

Add:

15.1.1 Addition:

Parts of liquid dispensing appliances which are held in the hand during normal use and which incorporate electrical components are subjected to the test specified for IPX7 appliances, unless they are of class III construction not exceeding 24 V.

19 Abnormal operation

Add:

19.4 Addition:

For steam cleaners, any control which limits the pressure during the test of clause 11 is rendered inoperative.

21 Mechanical strength

Add the following subclauses:

21.101 Current-carrying hoses containing **live parts** shall be resistant to crushing.

Compliance is checked by the following test.

The hose is placed between two parallel steel plates each having a length of 100 mm, a width of 50 mm and the edges of the longer sides rounded with a radius of 1 mm. The axis of the hose is positioned at right angles to the longer sides of the plates. The plates are placed at a distance of approximately 350 mm from one end of the hose. The steel plates are pressed together at a rate of 50 mm/min \pm 5 mm/min until the applied force is 1,5 kN.

The force is then released. The hose is filled with water containing approximately 1 % NaCl and the crushed section immersed in the saline solution. The electric strength test of 16.3 is carried out between the conductors and the saline solution, the test voltage however being 2 500 V.

21.102 Current-carrying hoses containing **live parts** shall be resistant to abrasion.

Compliance is checked by the following test.

One end of the hose is attached to the connecting rod of the crank mechanism shown in figure 101. The crank rotates at 30 rev/min which results in the end of the hose moving horizontally backwards and forwards over a distance of 300 mm. The hose is supported by a rotating smooth roller over which a belt of abrasive cloth moves at a speed of 0,1 m/min. The abrasive is corundum grit, size P 100 as specified in ISO FDIS 6344-2. A mass of 1 kg is suspended from the other end of the hose which is guided to avoid rotation. In the lowest position, the mass has a maximum distance of 600 mm from the centre of the roller.

The test is carried out for 100 revolutions of the crank.