

# SLOVENSKI STANDARD SIST EN 60335-2-60:2003/A1:2005

01-november-2005

Gospodinjski in podobni električni aparati - Varnost - 2-60. del: Posebne zahteve za masažne kadi in masažne bazene (IEC 60335-2-60:2002/A1:2004)

Household and similar electrical appliances - Safety -- Part 2-60: Particular requirements for whirlpool baths and whirlpool spas

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-60: Besondere Anforderungen für Sprudelbadgeräte und Sprudelbäder/

(standards.iteh.ai)
Appareils électrodomestiques et analogues - Sécurité -- Partie 2-60: Règles particulières pour les spas et les baignoires à système de brassage d'eau

https://standards.iteh.ai/catalog/standards/sist/fe67e53f-9cc7-4b6d-adbe-

Ta slovenski standard je istoveten z: EN 60335-2-60-2003-a1-2005

ICS:

13.120 Varnost na domu Domestic safety

91.140.70 Sanitarne naprave Sanitary installations

SIST EN 60335-2-60:2003/A1:2005 en

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# iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 60335-2-60:2003/A1:2005</u> https://standards.iteh.ai/catalog/standards/sist/fe67e53f-9cc7-4b6d-adbe-b3d79bad6933/sist-en-60335-2-60-2003-a1-2005

# **EUROPEAN STANDARD**

# EN 60335-2-60/A1

# NORME EUROPÉENNE

# **EUROPÄISCHE NORM**

April 2005

ICS 13.120: 97.170

**English version** 

# Household and similar electrical appliances – Safety

Part 2-60: Particular requirements for whirlpool baths and whirlpool spas

(IEC 60335-2-60:2002/A1:2004)

Appareils électrodomestiques et analogues -Sécurité

Partie 2-60: Règles particulières pour les spas et les baignoires

à système de brassage d'eau (CEI 60335-2-60:2002/A1:2004) and ards.iteh.ai)

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke Teil 2-60: Besondere Anforderungen für Sprudelbadgeräte und Sprudelbäder (IEC 60335-2-60:2002/A1:2004)

SIST EN 60335-2-60:2003/A1:2005

https://standards.iteh.ai/catalog/standards/sist/fe67e53f-9cc7-4b6d-adbeb3d79bad6933/sist-en-60335-2-60-2003-a1-2005

This amendment A1 modifies the European Standard EN 60335-2-60:2003; it was approved by CENELEC on 2005-02-01. 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, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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

EN 60335-2-60:2003/A1:2005

# - 2 -Foreword

The text of document 61/2742/FDIS, future amendment 1 to IEC 60335-2-60:2002, prepared by the 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 60335-2-60:2003 on 2005-02-01.

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) 2005-11-01

 date on which national standards conflicting with the amendment have to be withdrawn

(dow) 2008-02-01

This amendment supplements or modifies the corresponding clauses of EN 60335-2-60:2003.

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

There are no national deviations from this amendment.

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(StaEndorsement notice.ai)

The text of amendment 1:2004 to the International Standard IEC 60335-2-60:2002 was approved by CENELEC as an amendment to the European Standard without any modification.

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# NORME INTERNATIONALE INTERNATIONAL STANDARD

CEI IEC 60335-2-60

> AMENDEMENT 1 AMENDMENT 1 2004-11

# Amendement 1

Appareils électrodomestiques et analogues – Sécurité –

Règles particulières pour les baignoires à système de brassage d'eau

SIST EN 60335-2-60:2003/A1:2005
https://catalog/standards/sist/fe67e53f-9cc7-4b6d-adbe-b3d/9bad6933/sist-en-60335-2-60-2003-a1-2005

Household and similar electrical appliances – Safety –

Part 2-60: Particular requirements for whirlpool baths

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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 Web: www.iec.ch



CODE PRIX PRICE CODE 60335-2-60 Amend. 1 © IEC:2005

– 3 –

### **FOREWORD**

This amendment has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

This bilingual version (2005-09) replaces the English version.

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

FDIS	Report on voting
61/2742/FDIS	61/2799/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 French version of this amendment has not been voted upon.

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,

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- withdrawn.
- (standards.iteh.ai)
- replaced by a revised edition, or
- amended.

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https://standards.iteh.ai/catalog/standards/sist/fe67e53f-9cc7-4b6d-adbe-b3d79bad6933/<del>sist\_en\_60335\_2\_60</del>-2003-a1-2005

#### **TITLE**

Replace the existing title by the following:

# HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

# Part 2-60: Particular requirements for whirlpool baths and whirlpool spas

#### **FOREWORD**

In the third paragraph after the table, replace "whirlpool baths" by "whirlpool baths and whirlpool spas".

### 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.

- 5 -

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#### 1 Scope

In the first paragraph, replace "whirlpool baths for indoor use" by "whirlpool baths for indoor use and whirlpool spas".

#### **Definitions**

# 3.1.9 Replace "Whirlpool baths" by "Whirlpool baths and whirlpool spas".

Add the following new definitions:

#### 3.101

#### whirlpool bath

appliance used by persons to immerse themselves in water and which incorporates provisions for blowing air or water circulation and which may have provisions for water heating, the appliance intended to be drained after use

#### 3.102

#### whirlpool spa

appliance used by one or more persons at the same time to immerse themselves in water and which incorporates provisions for blowing air or water circulation and provisions for water heating, the appliance not intended to be drained after use ITEN STANDARD PREVIEW

#### Classification

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# 6.2 Replace "Whirlpool baths" by "Whirlpool baths and whirlpool spas".

https://standards.iteh.ai/catalog/standards/sist/fe67e53f-9cc7-4b6d-adbe-Marking and instructions had 193d79bad6933/sist-en-60335-2-60-2003-a1-2005

## 7.12 Add the following new paragraph:

The instructions for whirlpool spas shall provide information concerning

- maintenance of water purity, especially pH values and chlorine concentrations;
- cleaning and disinfection;
- use and installation of a cover;
- disposal of water;
- precautions to avoid damage due to water freezing;
- precautions to avoid damage when the appliance is left empty for an extended period.

#### **7.12.1** Add the following new paragraph:

The installation instructions for whirlpool spas shall state that

- the floor has to be capable of supporting the expected load;
- an adequate drainage system has to be provided to deal with overflow water.

#### 11 Heating

### 11.8 Replace "bath" by "bath or spa".

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**-7-**

#### 15 Moisture resistance

Add the following:

#### 15.1 Addition:

Traces of water on the insulation of parts supplied at **safety extra-low voltage** not exceeding 12 V are ignored.

#### **15.1.2** Replace the text of the addition by the following:

**Whirlpool baths** and **whirlpool spas** are tested without side panels fitted unless they are an integral part of the appliance.

### 17 Overload protection of transformers and associated circuits

Replace the existing text by the following:

This clause of Part 1 is applicable except as follows.

Addition:

The test is repeated with chlorinator cells loaded so that the current is 95 % of the lowest current that causes a protective device to operate. The test is continued until steady conditions are established.

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### 19 Abnormal operation

SIST EN 60335-2-60:2003/A1:2005

https://standards.iteh.ai/catalog/standards/sist/fe67e53f-9cc7-4b6d-adbe-19.2 In the first paragraph, replace, bath by bath or spa in two places).

19.7 Replace "bath" by "bath or spa".

Add the following:

## **19.13** Addition:

The temperature at the inlet of **whirlpool baths** that have provisions for water heating and **whirlpool spas** shall not exceed 55 °C when measured in accordance with Clause 11.

### 21 Mechanical strength

Replace the existing text by the following:

This clause of Part 1 is applicable except as follows.

### 21.1 Addition:

**Whirlpool spas** are also subjected to the impact test after the appliance has been maintained at a temperature of -10 °C for 24 h, unless they are intended for indoor use only.

NOTE 101 If the appliance is too large for the conditioning room, parts of the appliance may be tested separately. In this case, the impact test is carried out immediately after the conditioning without reassembly.

For water containers that provide protection against access to **live parts**, the value of the impact energy is 1 J.