



SLOVENSKI STANDARD
SIST EN 60335-2-49:2003/A1:2009
01-januar-2009

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Household and similar electrical appliances - Safety -- Part 2-49: Particular requirements for commercial electric appliances for keeping food and crockery warm

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-49: Besondere Anforderungen für elektrische Geräte zum Warmhalten von Nahrungsmitteln und Geschirr für den gewerblichen Gebrauch

Appareils électrodomestiques et analogues - Sécurité -- Partie 2-49: Règles particulières pour les appareils électriques à usage collectif destinés à maintenir au chaud les aliments et la vaisselle

Ta slovenski standard je istoveten z: EN 60335-2-49:2003/A1:2008

ICS:

97.040.50 Majhni gospodinjski aparati Small kitchen appliances

SIST EN 60335-2-49:2003/A1:2009 en,fr,de

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SIST EN 60335-2-49:2003/A1:2009

<https://standards.iteh.ai/catalog/standards/sist/e8ad722a-c5ed-48e5-a1a1-a5ebfddbab9/sist-en-60335-2-49-2003-a1-2009>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60335-2-49/A1

September 2008

ICS 97.030

English version

**Household and similar electrical appliances -
Safety -
Part 2-49: Particular requirements for commercial electric appliances
for keeping food and crockery warm
(IEC 60335-2-49:2002/A1:2008)**

Appareils électrodomestiques
et analogues -
Sécurité -
Partie 2-49: Règles particulières
pour les appareils électriques
à usage collectif destinés à maintenir
au chaud les aliments et la vaisselle
(CEI 60335-2-49:2002/A1:2008)

Sicherheit elektrischer Geräte
für den Hausgebrauch
und ähnliche Zwecke -
Teil 2-49: Besondere Anforderungen
für elektrische Geräte zum Warmhalten
von Nahrungsmitteln und Geschirr
für den gewerblichen Gebrauch
(IEC 60335-2-49:2002/A1:2008)

[SIST EN 60335-2-49:2003/A1:2009](https://standards.iteh.ai/catalog/standards/sist/e8ad722a-c5ed-48e5-a1a1-a5ebfbdbab9/sist-en-60335-2-49-2003-a1-2009)

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This amendment A1 modifies the European Standard EN 60335-2-49:2003; it was approved by CENELEC on 2008-07-01. 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, Bulgaria, 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 61E/617/FDIS, future amendment 1 to IEC 60335-2-49:2002, prepared by SC 61E, Safety of electrical commercial catering equipment, 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 60335-2-49:2003 on 2008-07-01.

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) 2009-04-01
- date on which national standards conflicting with the amendment have to be withdrawn (dow) 2011-07-01

This amendment supplements or modifies the corresponding clauses of EN 60335-2-49:2003.

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

There are no national deviations from this amendment.

- p NOTE In this document, p is used in the margin to indicate instructions for preparing the printed version.

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Endorsement notice

The text of amendment 1:2008 to the International Standard IEC 60335-2-49:2002 was approved by CENELEC as an amendment to the European Standard without any modification.

[SIST EN 60335-2-49:2003/A1:2009](https://standards.iteh.ai/catalog/standards/sist/en-60335-2-49-2003-a1-2009)

- p In the Bibliography, add the following note to the standard mentioned:
<https://standards.iteh.ai/catalog/standards/sist/en-60335-2-49-2003-a1-2009>
[a5ebfbdhab9/sist-en-60335-2-49-2003-a1-2009](https://standards.iteh.ai/catalog/standards/sist/en-60335-2-49-2003-a1-2009)

ISO 13732-1

NOTE Harmonized as EN ISO 13732-1:2006 (not modified).



IEC 60335-2-49

Edition 4.0 2008-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

Household and similar electrical appliances – Safety –
Part 2-49: Particular requirements for commercial electric appliances for
keeping food and crockery warm

Appareils électrodomestiques et analogues – Sécurité –
Partie 2-49: Règles particulières pour les appareils électriques à usage collectif
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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX



FOREWORD

This amendment has been prepared by IEC subcommittee 61E: Safety of electrical commercial catering equipment, 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
61E/617/FDIS	61E/620/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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NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

[SIST EN 60335-2-49:2003/A1:2009](https://standards.iteh.ai/catalog/standards/sist/e8ad722a-c5ed-48e5-a1a1-03b1dbab1558/en-60335-2-49:2003/a1:2009)

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

Title

Replace the title by the following:

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-49: Particular requirements for commercial electric appliances for keeping food and crockery warm

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.

Replace the fifth paragraph by the following:

When a part 2 standard does not include additional requirements to cover hazards dealt with in Part 1, Part 1 applies.

NOTE 1 This means that the technical committees responsible for the part 2 standards have determined that it is not necessary to specify particular requirements for the appliance in question over and above the general requirements.

This standard is a product family standard dealing with the safety of appliances and takes precedence over horizontal and generic standards covering the same subject.

NOTE 2 Horizontal and generic standards covering a hazard are not applicable since they have been taken into consideration when developing the general and particular requirements for the IEC 60335 series of standards. For example, in the case of temperature requirements for surfaces on many appliances, generic standards, such as ISO 13732-1 for hot surfaces, are not applicable in addition to Part 1 or part 2 standards.

1 Scope

In the second paragraph, replace “hot cupboards” by “appliances for keeping food and crockery warm”.

Replace the third paragraph by the following:

Examples of appliances that are within the scope of this standard are:

- **hot cupboards**, with or without **heated tops**;
- **heated tops**;
- **heated display cases**;
- **heated crockery dispensers**;
- **heated tables**;
- **radiant heaters**.

3 Definitions

3.1.9 *Add the following:*

Appliances incorporating **induction heating sources** are operated with the **induction crockery** placed on **induction trays**. All tray supports are loaded, but partial up to full load shall be possible.

All controls are set to maximum, and the **induction crockery** is half-filled with initially cold water. Covers (cloches) are in their position.

The appliances consist of several units, which can form up to three separated modules; they are connected together during operation. These units are the heating module with the **induction heating source**, the rack with the **coil carriers** and the enclosure with the supports for the **induction trays** including the **induction crockery**.

Add the following new definitions:

3.106

heated table

appliance designed for warm-holding on the surface

3.107**radiant heater**

stationary appliance for keeping food and crockery warm by means of radiant heat

NOTE A part of the appliance can be swivelling.

3.108**heating unit**

any part of an appliance that fulfils an independent cooking or heating function

3.109**induction heating source**

heating source that operates by inducing eddy currents in **induction crockery**

3.110**coil carrier**

insulation device containing the induction winding

3.111**induction crockery**

crockery suitable to be heated by induction for heating up or keeping food warm

3.112**induction tray**

tray adapted to **induction crockery**, as recommended by the manufacturer

6 Classification

Add the following subclause:

[SIST EN 60335-2-49:2003/A1:2009](https://standards.iteh.ai/catalog/standards/sist/e8ad722a-c5ed-48e5-a1a1-a5ebfbddb9/sist-en-60335-2-49-2003-a1-2009)

<https://standards.iteh.ai/catalog/standards/sist/e8ad722a-c5ed-48e5-a1a1-a5ebfbddb9/sist-en-60335-2-49-2003-a1-2009>

6.2 Addition:

Appliances normally used on a table shall be at least IPX3. Other appliances shall be at least IPX4.

7 Marking and instructions**7.1 Add the following:**

Appliances incorporating **induction heating sources** shall also be marked with:

- the operating frequency or operating frequency range, in kilohertz (kHz);
- the total power input of all the induction **heating units** that can operate simultaneously, in watts (W) or kilowatts (kW), unless this is indicated in the instructions;
- the total power input of all the non-induction **heating units** that can operate simultaneously, in watts (W) or kilowatts (kW), unless this is indicated in the instructions.

NOTE 101 The power input to be marked or declared is the highest power input that any switch arrangement will allow.

Any cover giving access to **live parts** at a **working voltage** exceeding 250 V shall be marked with symbol IEC 60417-5036 (2002-10), or with the following warning:

WARNING – DANGEROUS VOLTAGE

Covers giving access to induction coils shall be marked with symbol IEC 60417-5140 (2003-04), or with the following warning:

CAUTION – MAGNETIC FIELD

NOTE 102 If it is not possible to mark these warnings on the cover, they may be placed close to the cover-retaining screws.

7.6 *In the addition, delete the symbol for equipotentiality and add the following new symbols:*



[symbol IEC 60417-5041 (2002-10)] caution, hot surface



[symbol IEC 60417-5140 (2003-04)] non-ionizing electromagnetic radiation

7.12 *Replace the second paragraph of the addition by the following:*

If symbols IEC 60417-5021 (2002-10), IEC 60417-5041 (2002-10) and IEC 60417-5140 (2003-04) are marked on the appliance, their meaning shall be explained.

Add the following to the addition:

<https://standards.iteh.ai/catalog/standards/sist/e8ad722a-c5ed-48e5-a1a1-425b1c0c0000/iec-60335-2-49-2003-a1-2009>

The instructions for appliances incorporating **induction heating sources** shall include the substance of the following warning and information:

- **WARNING:** If the surface of coil carriers changes to darker colour or shows cracks, immediately disconnect the appliance from the supply.
- metallic objects such as kitchen utensils, cutlery, etc., shall not be placed on the induction tray within zones provided for the induction crockery since they could get hot;
- only use induction crockery and induction trays recommended by the manufacturer;
- users with heart pacemakers should consult with the manufacturer (unless specific details are given).

Add the following:

Modification:

The instruction concerning persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge is not applicable.

7.12.1 *Add the following after the first paragraph of the replacement:*

For appliances incorporating swivelling **radiant heaters**, the installation instructions shall include detailed information concerning the area of swivelling with regard to the surrounding conditions. Information shall be given on how to limit the swivelling area by the installer.

The operation of appliances incorporating **induction heating sources** requires an increased instruction of the personnel. In addition, the instructions shall state that any repairs shall be carried out only by persons trained or recommended by the manufacturer.