



# SLOVENSKI STANDARD

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**Varnost gospodinjskih in podobnih električnih aparatov - Razlage v zvezi z evropskimi standardi skupine EN 60335**

Safety of household and similar electrical appliances - Interpretations related to European Standards in the EN 60335 series

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**Ta slovenski standard je istoveten z: CLC/TR 50417:2010**

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**ICS:**

13.120	Varnost na domu	Domestic safety
97.030	Električni aparati za dom na splošno	Domestic electrical appliances in general

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**en**

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TECHNICAL REPORT  
RAPPORT TECHNIQUE  
TECHNISCHER BERICHT

# CLC/TR 50417

April 2010

ICS 97.030

Supersedes CLC/TR 50417:2003

English version

## **Safety of household and similar electrical appliances - Interpretations related to European Standards in the EN 60335 series**

This Technical Report was approved by CENELEC on 2009-12-04.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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# CENELEC

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

**Central Secretariat: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

This Technical Report was prepared by the Technical Committee CENELEC TC 61, Safety of household and similar appliances.

It was circulated for voting in accordance with the Internal Regulations, Part 2, Subclause 11.4.3.3 (simple majority) and was approved by CENELEC as CLC/TR 50417 on 2009-12-04.

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

This Technical Report supersedes CLC/TR 50417:2003. It includes all the interpretations agreed up to the CLC/TC 61 meeting in June/July 2009.

Interpretations relating to a particular standard are listed together, the Parts 2 of EN 60335 being associated with the appropriate edition of Part 1. For each standard, the interpretations are listed in the order of clauses and Subclauses.

Each interpretation is identified by

- the place and date of the meeting when it was agreed;
- the document number of the minutes of the meeting;
- the number of the reference document, when applicable;
- a code with the format YYYY/XX, where
  - YYYY is the year when the interpretation was decided,
  - XX is the number of the interpretation, restarted every year.

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**EN 60335-1:1994**      **General requirements**

1995/01 – General

Dublin, May 1995, CLC/TC 61(SEC)1027  
CLC/TC 61(FR)292

In class II constructions of appliances it is not allowed to reverse the basic and the supplementary insulation.

1996/01 - General

Copenhagen, May 1996, CLC/TC 61(SEC)1075  
CLC/TC 61(SEC)1000

For testing motor capacitors in appliances under the scope of EN 60335, document IEC 61/1055/CD should be used.

1996/02 - General

Athens, November 1996, CLC/TC 61(SEC)1098  
CLC/TC 61(SEC)1087

The mass of the appliance is to be considered with the empty appliance, if nothing is said in the particular standard or for a particular clause.

1998/01 - General

Brussels, May 1998, CLC/TC61(SEC)1185

Controls are considered to comply with EN 60730 if they complied with the previous relevant standard before the date specified in EN 60730, and may be used in an appliance until the end of the certification period.

NOTE Controls will also have to comply with the applicable requirements of EN 60335 series standards.

2000/01 - General

Kristiansand, June 2000, CLC/TC 61(SEC)1287

The word "similar" in the title "Toxicity and similar hazards" means other hazards, which may be applicable but not covered by the standard.

2000/02 - General

Brussels, October 2000, CLC/TC 61(SEC)1302

Concerning the use of socket-outlets on appliances, those should be of the appropriate type as specified in IEC 60083:1997 for the relevant countries.

1998/02 - Clause 1

Naples, November 1998, CLC/TC61(SEC)1218

The scope of EN 60335-1:1994 is meant to include the safety of operators which are instructed to operate the machine, but which are non electrical experts.

1996/03 - Subclause 15.1.2

Copenhagen, May 1996, CLC/TC 61(SEC)1075  
CLC/TC 61(SE)351

Parts which are to be removed in accordance with the instructions for use and which can be removed only with the aid of a tool, shall not be removed, only for the purpose of the test of 15.1.2.

2002/01 - Subclause 19.13

Brussels, November 2002, CLC/TC 61(SEC)1403  
CLC/TC 61(IT)258

In general, creepage distances and clearances are not measured during and after the tests of Clause 19.

**EN 60335-1:1994**      **General requirements** (*continued*)

1997/01 - Subclause 22.33

Edinburgh, May 1997, CLC/TC 61(SEC)1127  
CLC/TC 61(SE)393**Add** the following note:

NOTE 2 An air layer is not considered sufficient as one of the layers of double insulation, if it is likely that the air layer could be bridged by leaking liquid".

1996/04 - Subclause 22.42

Athens, November 1996, CLC/TC 61(SEC)1098  
CLC/TC 61(AT)260

Concerning Y2 capacitors used as protective impedance, the following applies for bridging insulations:

- |  |   |
|--|---|
| a) Two Y2 capacitors (voltage proof 1 500 V, peak impulse 5 kV); combination Y2 (basic insulation) + Y2 (supplementary insulation) | Not accepted.<br>Acceptance for two Y2 capacitors with voltage proof 2 500 V only |
| b) Combination Y1 (basic insulation) + Y2 (supplementary insulation)   | Accepted for Y2 capacitors with voltage proof 2 500 V only                        |
| c) Combination Y2 (basic insulation) + Y1 (supplementary insulation)   | Accepted (idem b)   |
| d) Combination of three Y2 capacitors in series  | Not accepted  |

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1995/02 - Subclause 24.1.1

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Dublin, May 1995, CLC/TC 61(SEC)1027  
CLC/TC 61(SEC)995
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Miniature fuses with other ratings or dimensions than those in EN 60127 can be accepted under the following conditions:

- It shall not be possible to change the fuse without removing a cover with the use of a tool.
- The fuse and the fuseholder shall be marked to ensure correct replacement.
- The fuse shall be checked in the appliance; 10 samples shall break reliably under fault conditions.

1994/01 - Subclause 24.1.2, note 2

Oslo, April 1994, CLC/TC 61(SEC)972

The switching part of an automatic control (or programmer) with an off position is considered as a switch. An endurance test is only necessary if such a switch is required by the standard.

2001/01 - Subclause 25.7

Delft, May 2001, CLC/TC 61(SEC)1330

The words « shall not be lighter than » means that any heavier standardized cord can be used.

2001/02 - Subclause 25.22

Paris, November 2001, CLC/TC 61(SEC)1349  
CLC/TC 61(SEC)1334**Replace** the second dashed item by:

- be located so that the connector can be inserted into the correct engagement position without difficulty and that improper engagement is not readily possible;

**EN 60335-1:1994**      **General requirements** (*end*)

1999/01 - Subclause 26.10

Pamplona, June 1999, CLC/TC 61(SEC)1244  
CLC/TC 61(DK)123

This subclause does not apply to earth terminals.

1992/01 - Subclause 30.2

Pettenasco, September 1992, CLC/TC 61(SEC)869

"not likely to be ignited" belongs to decorative trims, knobs and other parts.

2000/03 - Annex ZD

Kristiansand, June 2000, CLC/TC 61(SEC)1287  
CLC/TC 61(SEC)1257

Clause 29 has to be mentioned instead of 29.1 with regard to distances, because 29.2 (distance through insulation) is also involved.

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**EN 60335-2-15:1996      Appliances for heating liquids**

1999/02 - Subclause 7.1

Berlin, November 1999, CLC/TC 61(SEC)1260  
Pamplona, June 1999, CLC/TC 61(SEC)1244

The text in the second paragraph is to be read as follows: "... unless they cannot be filled beyond their rated capacity or withstand the test of 15.2 of this Part 2 when filled completely".

2002/02 - Subclause 15.102

Brussels, November 2002, CLC/TC 61(SEC)1403

The height of 200 mm refers to a distance of 200 mm between the outlet of the funnel and the contacts.

1999/03 - Subclause 19.103 (of EN 60335-2-15:1996/A1:1999)

Pamplona, June 1999, CLC/TC 61(SEC)1244  
CLC/TC 61(SEC)1238

The compliance criteria of 19.13 apply to 19.103.

1999/04 - Subclause 25.8

Berlin, November 1999, CLC/TC 61(SEC)1260

The requirement of 25.8 is also applicable to detachable cords delivered with the product.

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**EN 60335-2-24:1999 Refrigerators, food freezers and ice makers**

2000/04 - Subclauses 22.107.1, 22.108 and 22.109

Kristiansand, June 2000, CLC/TC 61(SEC)1287  
CLC/TC 61(DE)542

“One shot” protective devices may be fitted in areas where flammable refrigerants will stagnate.

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**EN 60335-2-72:1998 Automatic machines for floor treatment**

1997/02 - Subclause 7.12

Fehrltorf, October 1997, CLC/TC 61(SEC)1162

It is not the intention that ROPS (Rolling objects protection systems) and FOPS (Falling objects protection systems) are required. The use of these systems will depend on the user and the place where the machine will be used. Requirements for ROPS and FOPS are indicated in 22.Z102.

1997/03 - Subclause 22.Z101

Fehrltorf, October 1997, CLC/TC 61(SEC)1162

No cabin is required, but if it is required, then it should comply with the requirements of 22.Z101.

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**EN 60335-1:2002**      **General requirements**

2004/01 - Subclause 15.1.2

Milan, November 2004, CLC/TC 61(SEC)1519

*Addition:*

*Appliances with an automatic cord reel are tested with the cord in the most unfavourable position in such a way that the reeling of the wet cord may affect electrical insulation during operation. The cord shall not be dried before reeling.*

2006/01 - Subclause 20.2

Málaga, June 2006, CLC/TC 61(SEC)1567

*Replace note 1 by the following normative text:*

For appliances having dangerous movable parts, due to their main function, e.g. the needle of a sewing machine, tools of kitchen machines or the blade of an electrical knife, a full protection is not suitable for intended use.

2006/02 - Subclause 22.44 (of EN 60335-1:2002/A2:2006)      Milano, November 2006, CLC/TC 61(SEC)1586+A

The wording "not ...decorated like a toy" does not mean to put on a normal enclosure stickers or having enclosures marked to represent animals or flowers or representing cars, or trains, or ball.

The meaning is that household appliances can be decorated to make them more attractive when the buying is decided but not to have them considered as toys to play with.

NOTE See also the LVD/ADCO recommendation "LYD ADCO Recommendation regarding Child-Appealing Household Appliances - November 2008", available under the link [http://ec.europa.eu/enterprise/sectors/electrical/files/adcorecommendations\\_childapp\\_en.pdf](http://ec.europa.eu/enterprise/sectors/electrical/files/adcorecommendations_childapp_en.pdf).

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2002/05 - Clause 24 <https://standards.iteh.ai/catalog/standards/sist/5B11602-a7cc-315846b1e8a7/sist-tp-clc-tr-50417-2011>      Kista, May 2002, CLC/TC 61(SEC)1377  
CLC/TC 61(FR)1351

## Add the following paragraph:

Plugs and socket-outlets and other connecting devices of interconnection cords shall not be interchangeable with plugs and socket-outlets listed in IEC 60083 or IEC 60906-1 or with connectors and appliance inlets complying with the standard sheets of IEC 60320-1, if direct supply to these parts from the supply mains could give rise to a hazard.

2005/01 - Subclause 24.1

Brussels, November 2005, CLC/TC 61(SEC)1544

Plugs and connectors specified in IEC 60083, IEC 60320, IEC 60309 or IEC 60884-1 are not subjected to the tests of EN 60335-1.

2004/02 - Subclause 24.1.3

Milan, November 2004, CLC/TC 61(SEC)1519

For the purpose of this test a thermostat or timer that is operating the relay or contactor is considered to be a switch.

2003/01 - Clause 29

Athens, November 2003, CLC/TC 61(SEC)1462  
CLC/TC 61(SEC)1440

Type B coating does not require any creepage distances and clearances between tracks covered by this coating but type A coating allows to improve the environment from PD2 to PD1 and in this case distances for PD1 applies.

A type A coating can be used to pass from PD3 to PD2 or even to PD1.

2005/02 - Subclause 29.3

Brussels, November 2005, CLC/TC 61(SEC)1544

If there is a risk of damaging the insulation during installation, the insulation has to withstand the scratch and penetration test of 21.2.

2005/03 - Clause 32

Brussels, November 2005, CLC/TC 61(SEC)1544  
Málaga, June 2006, CLC/TC 61(SEC)1567

For appliances incorporating UVC emitters no exposure to UVA, UVB or UVC is allowed during operation.

NOTE Examples of appliances that may incorporate UVC emitters are range hoods, water pumps, air cleaners.

The manufacturer declaration is considered as sufficient proof that the plastic material exposed to the radiation is UV resistant.

The instructions shall include the substance of the following:

**WARNING** This appliance contains a UV emitter. Do not stare at the light source.

During maintenance and service the UVC emitters shall be switched off completely by a plug or switch. If this does not switch off completely the UVC emitters, an interlock is needed. It shall not be possible to operate the interlock switch with the test finger.

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2007/01 – Annex I, Subclause 19.101, Berlin, November 2007, CLC/TC 61(SEC)1613

The appliance is operated under normal operation.

When any of the fault conditions are simulated, the duration of the test is as specified in Subclause 19.7.

**EN 60335-2-4:2002 Spin extractors**

2004/03 - Subclauses 15.2

Milan, November 2004, CLC/TC 61(SEC)1519

Appliances having a working surface are tilted at an angle of up to 2° in relation to the position of normal use in the direction which is likely to be the most unfavourable for this test.

The lid of top loading appliances is considered as a working surface if it is flat enough to put something on.

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**EN 60335-2-6:2003      Cooking ranges, hobs and ovens**

2002/06 - Subclause 11.101

Brussels, November 2002, CLC/TC 61(SEC)1403  
CLC/TC 61(SEC)1380

When operating the grill in the oven, the grill is operated under normal operation.

2007/02 - Subclause 19.102

Berlin, November 2007, CLC/TC 61(SEC)1613

If the thermal control is a microprocessor controlled system using an NTC sensor, an additional test is carried out with the NTC replaced by a resistor with a value equal to the middle of the range of operation of the NTC in this circuit.

NOTE This additional test satisfies Note 5 of 19.1 of EN 60335-1.

2008/01 - Subclause 20.101

Kista, June 2008, CLC/TC 61(DE)609

The stability test has to be carried out with the oven placed in its intended position.

2008/02 - Clause 21

Kista, June 2008, CLC/TC 61(DE)609

Referring to Note 101, hobs having a complete surface in one piece are tested according to 21.102 and Part 1.

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2007/03 - Subclause 29.2

**(standards.iteh.ai)** Málaga, June 2007, CLC/TC 61(SEC)1614+A

- 1) The macroenvironment in a domestic kitchen is pollution degree 2.
- 2) The microenvironment inside the appliance with respect to the positioning of the insulation may be pollution degree 2 or 3 depending on the design and the pollution produced by operation of the appliance itself.

NOTE Z1 Item 2 does not exclude the possibility to accept pollution degree 1, where precautions have been taken to protect the insulation.