

<b>STN</b>	<b>Elektrické spotrebiče pre domácnosť a na podobné účely. Bezpečnosť. Časť 2-5: Osobitné požiadavky na umývačky riadu.</b>	<b>STN EN 60335-2-5</b>  36 1055
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Household and similar electrical appliances - Safety - Part 2-5: Particular requirements for dishwashers

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/15

Obsahuje: EN 60335-2-5:2015, IEC 60335-2-5:2012

Oznámením tejto normy sa od 09.08.2016 ruší  
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60335-2-5**

April 2015

ICS 13.120; 97.040.40

Supersedes EN 60335-2-5:2003

English Version

**Household and similar electrical appliances - Safety -  
Part 2-5: Particular requirements for dishwashers  
(IEC 60335-2-5:2012 , modified)**

Appareils électrodomestiques et analogues - Sécurité -  
Partie 2-5: Exigences particulières pour les lave-vaisselle  
(IEC 60335-2-5:2012 , modifiée)

Sicherheit elektrischer Geräte für den Hausgebrauch und  
ähnliche Zwecke - Teil 2-5: Besondere Anforderungen für  
Geschirrspülmaschinen  
(IEC 60335-2-5:2012 , modifiziert)

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard 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 CEN-CENELEC Management Centre has the same status as the official versions.

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Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## Foreword

The text of document 61/4450/FDIS, future edition 6 of IEC 60335-2-5, prepared by IEC/TC 61 "Safety of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60335-2-5:2015.

A draft amendment, which covers common modifications to IEC 60335-2-5:2012, was prepared by CLC/TC 61, "Safety of household and similar electrical appliances" and approved by CENELEC.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-10-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-08-09

This document supersedes EN 60335-2-5:2003.

EN 60335-2-5:2015 includes the following significant technical changes with respect to EN 60335-2-5:2003 and its amendments:

- added requirements to 22.104 to address switch issues;
- converted notes to normative text (3.1.9, 7.12, 10.1, 10.2, 15.101, 22.6, 22.103, AA.1, AA.2, Annex BB – Clause 4);
- deleted notes (19.101, 22.6, 23.101, AA.2).

This Part 2 is to be used in conjunction with the latest edition of EN 60335-1 and its amendments. It was established on the basis of EN 60335-1:2012.

NOTE 1 When "Part 1" is mentioned in this standard, it refers to EN 60335-1.

This Part 2 supplements or modifies the corresponding clauses of EN 60335-1, so as to convert it into the European Standard: Safety requirements for electric dishwashers.

When a particular subclause of Part 1 is not mentioned in this Part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

NOTE 2 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.;
- clauses, subclauses, notes, tables, figures and annexes that are additional to those in the IEC standard are prefixed with the letter Z.

NOTE 3 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

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

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

## Endorsement notice

The text of the International Standard IEC 60335-2-5:2012 was approved by CENELEC as a European Standard with agreed common modifications.

## COMMON MODIFICATIONS

### Introduction

*Add the following:*

An investigation by CLC/TC 61 has shown that all risks from products within the scope of this standard are fully covered by the Low Voltage Directive, 2006/95/EC.

### 1 Scope

*Replace the text by the following:*

This clause of Part 1 is replaced by the following.

This European Standard deals with the safety of electric dishwashers for household and similar purposes, that are intended for washing and rinsing dishes, cutlery and other utensils, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

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

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

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

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

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

However, in general, it does not take into account

- **children** playing with the appliance,
- the use of the appliance by **very young children**,
- the use of the appliance by **young children** without supervision,
- **user maintenance** by **children**, including the cleaning of the appliance.

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

This European Standard does not apply to

- commercial electric dishwashing machines (EN 60335-2-58),
- appliances intended for industrial purposes,
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas).

NOTE Z103 Attention is drawn to the fact that

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



IEC 60335-2-5

Edition 6.0 2012-11

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Household and similar electrical appliances – Safety –  
Part 2-5: Particular requirements for dishwashers**

**Appareils électrodomestiques et analogues – Sécurité –  
Partie 2-5: Exigences particulières pour les lave-vaisselle**



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IEC 60335-2-5

Edition 6.0 2012-11

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Household and similar electrical appliances – Safety –  
Part 2-5: Particular requirements for dishwashers**

**Appareils électrodomestiques et analogues – Sécurité –  
Partie 2-5: Exigences particulières pour les lave-vaisselle**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –  
SAFETY –****Part 2-5: Particular requirements for dishwashers**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

This part of International Standard IEC 60335 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

This sixth edition cancels and replaces the fifth edition published in 2002 including its Amendment 1 (2005) and its Amendment 2 (2008). It constitutes a technical revision.

The principal changes in this edition as compared with the fifth edition of IEC 60335-2-5 are as follows (minor changes are not listed):

- added requirements to 22.104 to address switch issues;
- converted notes to normative text (3.1.9, 7.12, 10.1, 10.2, 15.101, 22.6, 22.103, AA.1, AA.2, Annex BB – Clause 4);
- deleted notes (19.101, 22.6, 23.101, AA.2).

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

FDIS	Report on voting
61/4450/FDIS	61/4503/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This part 2 is to be used in conjunction with the latest edition of IEC 60335-1 and its amendments. It was established on the basis of the fifth edition (2010) of that standard.

NOTE 1 When "Part 1" is mentioned in this standard, it refers to IEC 60335-1.

This part 2 supplements or modifies the corresponding clauses in IEC 60335-1, so as to convert that publication into the IEC standard: Safety requirements for dishwashers.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

NOTE 2 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.

NOTE 3 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

NOTE 4 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.

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.

A list of all parts of the IEC 60335 series, under the general title: *Household and similar electrical appliances – Safety*, can be found on the IEC website.

The following differences exist in the countries indicated below.

- 6.1: Appliances may be of class 0I, if the rated voltage does not exceed 150 V (Japan).
- 20.102: A 30 000 cycle endurance test is carried out on door interlocks (USA).
- 25.7: The supply cord is required to have a free length of at least 1,5 m (USA).
- Annex AA: The detergent and rinsing agent are different (USA).
- Annex BB: Different tests are carried out (USA).

## INTRODUCTION

It has been assumed in the drafting of this International Standard that the execution of its provisions is entrusted to appropriately qualified and experienced persons.

This standard recognizes the internationally accepted level of protection against hazards such as electrical, mechanical, thermal, fire and radiation of appliances when operated as in normal use taking into account the manufacturer's instructions. 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.

This standard takes into account the requirements of IEC 60364 as far as possible so that there is compatibility with the wiring rules when the appliance is connected to the supply mains. However, national wiring rules may differ.

If an appliance within the scope of this standard also incorporates functions that are covered by another part 2 of IEC 60335, the relevant part 2 is applied to each function separately, as far as is reasonable. If applicable, the influence of one function on the other is taken into account.

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.

An appliance that complies with the text of this standard will not necessarily be considered to comply with the safety principles of the standard if, when examined and tested, it is found to have other features which impair the level of safety covered by these requirements.

An appliance employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be considered to comply with the standard.

## HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

### Part 2-5: Particular requirements for dishwashers

#### 1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electric dishwashers for household and similar purposes that are intended for washing and rinsing dishes, cutlery and other utensils, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

Appliances intended for normal household and similar use and that may also be used by laymen in shops, in light industry and on farms, are within the scope of this standard. However, if the appliance is intended to be used professionally for washing and rinsing dishes and cutlery and other utensils that are used for commercial purposes, the appliance is not considered to be for household and similar use only.

As far as is practicable, this standard deals with the common hazards presented by appliances that are encountered by all persons in and around the home. However, in general, it does not take into account

- persons (including children) whose
  - physical, sensory or mental capabilities, or
  - lack of experience and knowledgeprevents them from using the appliance safely without supervision or instruction;
- children playing with the appliance.

NOTE 101 Attention is drawn to the fact that

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

NOTE 102 This standard does not apply to

- commercial electric dishwashing machines (IEC 60335-2-58);
- appliances intended for industrial purposes;
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas).

#### 2 Normative references

This clause of Part 1 is applicable except as follows.

*Addition:*

IEC 60436, *Electric dishwashers for household use – Methods for measuring the performance*

ISO 1817:2011, *Rubber, vulcanized or thermoplastic – Determination of the effect of liquids*

ISO 4046-4:2002, *Paper, board, pulps and related terms – Vocabulary – Part 4: Paper and board grades and converted products*

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