



BSI Standards Publication

Household and similar electrical appliances — Safety

Part 2-5: Particular requirements for dishwashers

National foreword

This British Standard is the UK implementation of EN 60335-2-5:2015+A1:2020. It is derived from IEC 60335-2-5:2012 incorporating amendment 1:2018 and corrigendum 1:2018. It supersedes BS EN 60335-2-5:2015+A11:2019, which is withdrawn. BS EN 60335-2-5:2015+A11:2019 supersedes BS EN 60335-2-5:2015, which has a withdrawal date of 6 December 2022. That withdrawal date is still valid and applicable for BS EN 60335-2-5:2015.

The CENELEC common modifications have been implemented at the appropriate places in the text. The start and finish of each common modification is indicated in the text by tags **[C]** **[C]**.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Text altered by CENELEC amendment A11 is indicated by **[A11]** **[A11]**.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by **[A1]** **[A1]**.

The start and finish of text introduced or altered by corrigendum is indicated in the text by tags. Text altered by IEC Corrigendum August 2018 is indicated in the text by **[AC1]** **[AC1]**.

The UK participation in its preparation was entrusted to Technical Committee CPL/61, Safety of household and similar electrical appliances.

A list of organizations represented on this committee can be obtained on request to its committee manager.

This publication has been prepared under a mandate given to the European Standards Organizations by the European Commission and the European Free Trade Association. It is intended to support requirements of the EU legislation detailed in the European Foreword. A European Annex, usually Annex ZA or ZZ, describes how this publication relates to that EU legislation.

For the Great Britain market (England, Scotland and Wales), if UK Government has designated this publication for conformity with UKCA marking (or similar) legislation, it may contain an additional National Annex. Where such a National Annex exists, it shows the correlation between this publication and the relevant UK legislation. If there is no National Annex of this kind, the relevant Annex ZA or ZZ in the body of the European text will indicate the relationship to UK regulation applicable in Great Britain. References to EU legislation may need to be read in accordance with the UK designation and the applicable UK law. Further information on designated standards can be found at www.bsigroup.com/standardsandregulation.

For the Northern Ireland market, UK law will continue to implement relevant EU law subject to periodic confirmation. Therefore Annex ZA/ZZ in the European text, and references to EU legislation, are still valid for this market.

UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of www.gov.uk.

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Amendments/corrigenda issued since publication

Date	Text affected
30 June 2015	Corrected to include CENELEC Common Modifications
31 January 2020	Implementation of CENELEC amendment A11:2019
31 January 2020	IEC Interpretation Sheet 1 added
31 March 2022	Implementation of IEC Corrigendum August 2018
31 March 2022	Implementation of IEC amendment A1:2020 with CENELEC endorsement

EUROPEAN STANDARD

EN 60335-2-5:2015+A1

NORME EUROPÉENNE

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October 2020

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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)

This European Standard was approved by CENELEC on 2013-08-09. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 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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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

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.

Foreword to amendment A11

This document (EN 60335-2-5:2015/A11:2019) has been prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has (dop) 2020-06-06
to be implemented at national level
by publication of an identical
national standard or by endorsement
- latest date by which the national (dow) 2022-12-06
standards conflicting with this
document have to be withdrawn

This amendment supplements or modifies the corresponding clauses of the standards below:

- EN 60335-1:2012+A11:2014+ A13:2017+A1:2019+A14:2019+A2:2019 (Part 1)
- EN 60335-2-5:2015 (Part 2)

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

For the relationship with EU Directive(s) see informative Annexes ZZA and ZZB, which are integral parts of this document.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

European foreword to amendment A1

This document [EN 60335-2-5:2015/A1:2020] has been prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

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) 2021-09-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-03-11

This amendment supplements or modifies the corresponding clauses of the standards below:

- EN 60335-1:2012+A11:2014+ A13:2017+A1:2019+A14:2019+A2:2019 (Part 1)
- EN 60335-2-5:2015+A11:2019 (Part 2)

For the relationship with EU Directive see informative Annex ZZA, which is an integral part of this document.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

Endorsement notice

The text of the International Standard IEC 60335-2-5:2012/A1:2018 was approved by CENELEC as a European Standard.

IEC 60335-2-5:2012/ISH1:2019
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

IEC 60335-2-5
Edition 6.0 2012-11

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-5: Particular requirements for dishwashers

INTERPRETATION SHEET 1

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

The text of this interpretation sheet is based on the following documents:

DISH	Report on voting
61/5882/DISH	61/5894/RVDISH

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

TC 61 interpretation sheet on: Detergent composition in Table AA.1 of IEC 60335-2-5:2012

Introduction

It has been reported that Plurafac RA 43 is no longer readily available. This causes a problem when preparing the detergent specified in Table AA.1 of IEC 60335-2-5:2012.

QUESTION:

Instead of Plurafac RA 43, can polyoxyethylene 4 lauryl ether (chemical formulae $C_{14}H_{30}O_2$) be used ?

ANSWER:

Yes. Polyoxyethylene 4 lauryl ether (chemical formulae $C_{14}H_{30}O_2$) can be used as a substitute for Plurafac RA 43 in the detergent composition detailed in Table AA.1 of IEC 60335-2-5:2012.

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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 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).

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 the base publication and its amendment 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).

The contents of the corrigendum of August 2018 have been included in this copy.

The contents of the interpretation sheet September 2019 have been included in this copy.

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.

☐ 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. ☐

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 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. Ⓒ

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*