STN	Elektrické spotrebiče pre domácnosť a na podobné účely Bezpečnosť Časť 2-36: Osobitné požiadavky na komerčné elektrické sporáky, rúry, platne a ich súčasti	STN EN IEC 60335-2-36
		36 1055

Household and similar electrical appliances - Safety - Part 2-36: Particular requirements for commercial electric cooking ranges, ovens, hobs and hob elements

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. 12/24

Obsahuje: EN IEC 60335-2-36:2024, IEC 60335-2-36:2017

Oznámením tejto normy sa od 07.08.2027 ruší STN EN 60335-2-36 (36 1055) z februára 2005

139787

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2025

Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN IEC 60335-2-36

November 2024

ICS 97.040.20

Supersedes EN 60335-2-36:2002; EN 60335-2-36:2002/A1:2004; EN 60335-2-36:2002/corrigendum Aug. 2007; EN 60335-2-36:2002/A2:2008; EN 60335-2-36:2002/A11:2012

English Version

Household and similar electrical appliances - Safety - Part 2-36: Particular requirements for commercial electric cooking ranges, ovens, hobs and hob elements (IEC 60335-2-36:2017)

Appareils électrodomestiques et analogues - Sécurité -Partie 2-36: Exigences particulières pour les cuisinières, les fours, les tables de cuisson et les foyers de cuisson électriques à usage collectif (IEC 60335-2-36:2017) Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-36: Besondere Anforderungen für elektrische Herde, Brat- und Backöfen und Kochplatten für den gewerblichen Gebrauch (IEC 60335-2-36:2017)

This European Standard was approved by CENELEC on 2024-08-07. 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.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

© 2024 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

EN IEC 60335-2-36:2024 (E)

European foreword

The text of document 61/5327/FDIS, future edition 6 of IEC 60335-2-36, 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 IEC 60335-2-36:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2025-08-07 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2027-08-07 document have to be withdrawn

This document supersedes EN 60335-2-36:2002 and all of its amendments and corrigenda (if any).

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.

This document is read in conjunction with EN IEC 60335-2-36:2024/A11:2024.

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

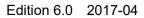
Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60335-2-36:2017 was approved by CENELEC as a European Standard without any modification.







INTERNATIONAL STANDARD



Household and similar electrical appliances – Safety – Part 2-36: Particular requirements for commercial electric cooking ranges, ovens, hobs and hob elements





THIS PUBLICATION IS COPYRIGHT PROTECTED Copyright © 2017 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Central Office	Tel.: +41 22 919 02 11
3, rue de Varembé	Fax: +41 22 919 03 00
CH-1211 Geneva 20	info@iec.ch
Switzerland	www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

IEC Catalogue - webstore.iec.ch/catalogue

The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iPad.

IEC publications search - www.iec.ch/searchpub

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and also once a month by email.

Electropedia - www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing 20 000 terms and definitions in English and French, with equivalent terms in 16 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary

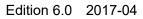
65 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: csc@iec.ch.







INTERNATIONAL STANDARD



Household and similar electrical appliances – Safety – Part 2-36: Particular requirements for commercial electric cooking ranges, ovens, hobs and hob elements

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ICS 97.040.20

ISBN 978-2-8322-4169-1

Warning! Make sure that you obtained this publication from an authorized distributor.

- 2 -

IEC 60335-2-36:2017 © IEC 2017

CONTENTS

FOR	REWORD	4
INTE	RODUCTION	7
1	Scope	8
2	Normative references	8
3	Terms and definitions	9
4	General requirement	11
5	General conditions for the tests	11
6	Classification	12
7	Marking and instructions	12
8	Protection against access to live parts	15
9	Starting of motor-operated appliances	16
10	Power input and current	16
11	Heating	17
12	Void	18
13	Leakage current and electric strength at operating temperature	18
14	Transient overvoltages	19
15	Moisture resistance	19
16	Leakage current and electric strength	20
17	Overload protection of transformers and associated circuits	22
18	Endurance	22
19	Abnormal operation	22
20	Stability and mechanical hazards	24
21	Mechanical strength	25
22	Construction	26
23	Internal wiring	27
24	Components	27
25	Supply connection and external flexible cords	28
26	Terminals for external conductors	28
27	Provision for earthing	28
28	Screws and connections	28
29	Clearances, creepage distances and solid insulation	29
30	Resistance to heat and fire	29
31	Resistance to rusting	30
32	Radiation, toxicity and similar hazards	30
Ann	exes	32
Ann	ex N (normative) Proof tracking test	33
	ex P (informative) Guidance for the application of this standard to appliances I in tropical climates	34
	ography	
Figu	re 101 – Identification of surfaces for temperature measurement	31
Figu	re 102 – Probe for measuring surface temperatures	31

IEC 60335-2-36:2017 © IEC 2017 - 3 -

Figure 103 – Splash apparatus	31
Figure 104 – Concavity of disc	32

Table 101 – Maximum temperature rises for specified external accessible surfaces	
under normal operating conditions	18
Table 102 – Assembling torques for screwed connections providing earthing continuity	29

- 4 -

IEC 60335-2-36:2017 © IEC 2017

INTERNATIONAL ELECTROTECHNICAL COMMISSION

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-36: Particular requirements for commercial electric cooking ranges, ovens, hobs and hob elements

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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 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 (2004) and its Amendment 2 (2008). It constitutes a technical revision.

The principle changes in this edition as compared with the fifth edition of IEC 60335-2-36 are as follows (minor changes are not listed):

- stating some wording in the scope more precisely;
- addition of a measurement method for pans in the definition for normal operation;
- new definitions on the topic surface temperature;
- deletion of the paragraph with the warning for dangerous voltages (already covered by Part 1);

IEC 60335-2-36:2017 © IEC 2017 - 5 -

- addition of hot surface symbol IEC 60417-5041;
- addition of instructions and markings on hot surfaces and other topics;
- addition of requirements, measuring methods and thresholds for different materials on hot surfaces;
- modification on leakage current defining the value for appliances with a power consumption less than 1 kW;
- modification on the measurement method for induction heating sources in abnormal operation;
- addition of a requirement for the construction of stationary appliances with rollers or castors;
- modification on some points concerning permanent connection to fixed wiring;
- addition of specific requirements concerning types of screws to be used for electrical connections and connections for earth continuity;
- addition of a figure showing the surfaces to be measured;
- addition of a figure showing the probe for measuring surface temperatures;
- addition of a figure showing the disc for the pan detection on induction heating sources;
- addition of informative Annex P dealing with leakage currents for appliances used in tropical climates.

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

FDIS	Report on voting
61/5327/FDIS	61/5383/RVD

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

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

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.

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 commercial electric cooking ranges, ovens, hobs and hob elements.

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;

IEC 60335-2-36:2017 © IEC 2017

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

Words in **bold** in the text are defined in Clause 3. When a definition of Part 1 concerns an adjective, the adjective and the associated noun are also in bold.

- 6 -

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document 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 from the date of publication.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

IEC 60335-2-36:2017 © IEC 2017

- 7 -

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.

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 that 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. - 8 -

IEC 60335-2-36:2017 © IEC 2017

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – SAFETY –

Part 2-36: Particular requirements for commercial electric cooking ranges, ovens, hobs and hob elements

1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electrically operated commercial **cooking and baking ranges**, ovens, **hobs**, **hob elements** and similar appliances not intended for household and similar use, their **rated voltage** being not more than 250 V for single-phase appliances connected between one phase and neutral and 480 V for other appliances.

NOTE 101 These appliances are used for the commercial processing of food, for example in kitchens of restaurants, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc.

The electrical part of appliances making use of other forms of energy is also within the scope of this standard.

As far as is practicable, this standard deals with the common hazards presented by these types of appliances.

NOTE 102 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 103 This standard does not apply to

- appliances designed exclusively 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);
- appliances for continuous mass production of food;
- steam cookers, forced and steam convection ovens (IEC 60335-2-42);
- hot cupboards (IEC 60335-2-49);
- microwave ovens (IEC 60335-2-90).

2 Normative references

This clause of Part 1 is applicable except as follows.

Addition:

IEC 60584-1, Thermocouples – Part 1: EMF specifications and tolerances

ISO 185, Grey cast irons – Classifications

ISO 898-1, Mechanical properties of fasteners made of carbon steel and alloy steel – Part 1: Bolts, screws and studs with specified property classes – Coarse thread and fine pitch thread

ISO 3506-1, Mechanical properties of corrosion-resistant stainless steel fasteners – Part 1: Bolts, screws and studs

IEC 60335-2-36:2017 © IEC 2017 - 9 -

ISO 3506-2, Mechanical properties of corrosion-resistant stainless steel fasteners – Part 2: Nuts

ISO 3506-3, Mechanical properties of corrosion-resistant stainless steel fasteners – Part 3: Set screws and similar fasteners not under tensile stress

ISO 3506-4, Mechanical properties of corrosion-resistant stainless steel fasteners – Part 4: Tapping screws

koniec náhľadu – text ďalej pokračuje v platenej verzii STN