



BSI Standards Publication

Household microwave ovens - Methods for measuring performance

This is a preview of "BS EN 60705:2015+A2:...". [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN 60705:2015+A2:2018. It is identical to IEC 60705:2010, incorporating amendment 1:2014 and amendment 2:2018. It supersedes BS EN 60705:2015, which is withdrawn.

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 A1 is indicated by A1 A1.

IEC amendment 1:2014 introduced an electronic file containing calculation sheets in Annex E.

The UK participation in its preparation was entrusted to Technical Committee CPL/59, Performance of household electrical appliances.

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

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Amendments/corrigenda issued since publication

Date	Text affected
30 November 2018	Implementation of IEC amendment 2:2018 with CENELEC endorsement A2:2018

English Version

Household microwave ovens – Methods for measuring performance (IEC 60705:2010/A2:2018)

Fours à micro-ondes à usage domestique –
Méthodes de mesure de l'aptitude à la
fonction (IEC 60705:2010/A2:2018)

Mikrowellengeräte für den Hausgebrauch und
ähnliche Zwecke – Verfahren zur Messung der
Gebrauchstauglichkeit (IEC 60705:2010/A2:2018)

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European foreword

This document (EN 60705:2015) consists of the text of IEC 60705:2010 + A1:2014 prepared by SC 59K "Performance of household and similar electrical cooking appliances" of IEC/TC 59 "Performance of household and similar electrical appliances".

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) level by publication of an identical national standard or by endorsement 2015-09-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-09-11

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60335-2-25:2002 NOTE Harmonized as EN 60335-2-25:2002¹⁾ (not modified).

IEC 60335-2-90:2006 NOTE Harmonized as EN 60335-2-90:2006 (not modified).

IEC 60350:1999 NOTE Harmonized as EN 60350:1999²⁾ (not modified).

CISPR 11:2009 NOTE Harmonized as EN 55011:2009 (modified).

¹⁾ Superseded by EN 60335-2-25:2012 (IEC 60335-2-25:2010, modified).

²⁾ Superseded by EN 50304:2009/EN 60350:2009 (IEC 60350:1999, modified) + A1:2005, modified + A2:2008, modified).

Foreword to amendment A2

The text of document 59K/297/FDIS, future IEC 60705:2010/A2, prepared by SC 59K "Ovens and microwave ovens, cooking ranges and similar appliances" of IEC/TC 59 "Performance of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60705:2015/A2:2018.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) level by publication of an identical national standard or by endorsement 2019-04-04
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-07-04

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Endorsement notice

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60335-2-25:2010	NOTE	Harmonized as EN 60335-2-25:2012 (modified).
IEC 60335-2-90:2015	NOTE	Harmonized as EN 60335-2-90:2015 (not modified).
IEC 60350-1:2016	NOTE	Harmonized as EN 60350-1:2016 (modified).
CISPR 11:2015	NOTE	Harmonized as EN 55011:2016 (modified).

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60350-1 (mod)	2011	Household electric cooking appliances — Part 1: Ranges, ovens, steam ovens and grills - Methods for measuring performance	EN 60350-1	2013
—	—		+ A11	2014
IEC 60584-2	—	Thermocouples — Part 2: Tolerances	—	—
IEC 62301 (mod)	2011	Household electrical appliances - Measurement of standby power	EN 50564	2011
ISO 80000-1	2009	Quantities and units — Part 1: General	EN ISO 80000-1	2013

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FOREWORD

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International Standard IEC 60705 has been prepared by subcommittee 59K: Ovens and microwave ovens, cooking ranges and similar appliances, of IEC technical committee 59: Performance of household and similar electrical appliances.

This fourth edition cancels and replaces the third edition published in 1999, its amendment 1 (2004) and its amendment 2 (2006), and constitutes a technical revision. The main changes from the previous edition are as follows:

- the definition of rounding is given in [3.5](#);
- the usable volume and the overall volume are respectively determined in [7.2](#) and [7.3](#).

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

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FDIS	Report on voting
59K/195/FDIS	59K/198/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.

In this standard, the following print types are used:

- *test specifications: in italic type*
- notes: in small roman type
- other texts: in roman type.

Words in **bold** in the text are defined in [Clause 3](#).

A1) This standard contains an attached file in the form of an Excel®¹⁾ 97-2003 data sheet program. This file is intended to be used as a complement and does not form an integral part of the standard. **A1**

The following differences exist in some countries:

[Clause 7](#): Metric dimensional measures are not in common use (USA).

The committee has decided that the contents of the base publication and its amendments 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.

1) Excel® is the trademark of a product supplied by Microsoft®. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the product named. Equivalent products may be used if they can be shown to lead to the same results.

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Household microwave ovens - Methods for measuring performance

1 Scope

^{A2} This document applies to **microwave ovens** for household use. It also applies to **microwave ovens with grills** and **combination microwave ovens**.

This document defines the main performance characteristics of these appliances, which are of interest to the user, and it specifies methods for measuring these characteristics.

NOTE 1 This document does not deal with

- **microwave ovens** that cannot accept a load having a diameter of ≥ 200 mm or a height of ≥ 120 mm;
- safety requirements (see IEC 60335-2-25 [1] ^{A2}) and IEC 60335-2-90 [2]).

NOTE 2 This document does not apply to ovens incorporating conventional heating means only (see IEC 60350) [3]. ^{A2}

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

^{A1} IEC 60350-1:2011, *Household electric cooking appliances — Part 1: Ranges, ovens, steam ovens and grills — Methods for measuring performance* ^{A1}

^{A1} IEC 60584-2, *Thermocouples — Part 2: Tolerances* ^{A1}

^{A1} IEC 62301:2011, *Household electrical appliances — Measurement of standby power* ^{A1}

ISO 80000-1:2009, *Quantities and units — Part 1: General*

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

3.1

microwave oven

^{A2} appliance using electromagnetic energy in one or several of the ISM frequency bands between 300 MHz and 30 GHz, for heating food and beverages in a cavity ^{A2}

^{A1} *Text deleted* ^{A1}

Note 1 to entry: ^{A1} ISM frequency bands are the electromagnetic frequencies established by the ITU and reproduced in CISPR 11 [4]. ^{A1}

3.2

combination microwave oven

^{A2} **microwave oven** in which microwave energy is combined with energy transfer by forced air circulation, by conventional heating, by hot steam and by steam

Note 1 to entry: For definitions of a forced air circulation function, conventional heating function, hot steam function and steam function, IEC 60350-1:2016 is relevant. ^{A2}

2) Figures in square brackets refer to the Bibliography.