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Household microwave ovens - Methods for measuring performance

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. 03/25

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EN IEC 60705

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English Version

**Household microwave ovens - Methods for measuring
performance
(IEC 60705:2024)**

Fours à micro-ondes à usage domestique - Méthodes de
mesure de l'aptitude à la fonction
(IEC 60705:2024)

Mikrowellengeräte für den Hausgebrauch - Verfahren zur
Messung der Gebrauchstauglichkeit
(IEC 60705:2024)

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EN IEC 60705:2024 (E)**European foreword**

The text of document 59K/400/FDIS, future edition 5 of IEC 60705, prepared by SC 59K "Performance of household and similar electrical cooking 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 IEC 60705:2024.

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

IEC 60335-2-25 NOTE Approved as EN IEC 60335-2-25

CISPR 11 NOTE Approved as EN 55011

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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60350-1	2023	Household electric cooking appliances - Part 1: Ranges, ovens, steam ovens and grills - Methods for measuring performance	EN IEC 60350-1	2023
IEC 60584-1	-	Thermocouples - Part 1: EMF specifications and tolerances	EN 60584-1	-
ISO 80000-1	2022	Quantities and units - Part 1: General	EN ISO 80000-1	2022



IEC 60705

Edition 5.0 2024-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Household microwave ovens – Methods for measuring performance

Fours à micro-ondes à usage domestique – Méthodes de mesure de l'aptitude à la fonction

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IEC 60705

Edition 5.0 2024-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Household microwave ovens – Methods for measuring performance

Fours à micro-ondes à usage domestique – Méthodes de mesure de l'aptitude à la fonction

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**HOUSEHOLD MICROWAVE OVENS –
METHODS FOR MEASURING PERFORMANCE****FOREWORD**

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IEC 60705 has been prepared by subcommittee 59K: Performance of household and similar cooking appliances, of IEC technical committee 59: Performance of household and similar electrical appliances. It is an International Standard.

This fifth edition cancels and replaces the fourth edition published in 2010, Amendment 1: 2014 and Amendment 2: 2018. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) thematically ordered new sequence of the clauses;
- b) updated normative references;
- c) introduced a new definition for microwave generator to open the standard for microwave ovens with one or more magnetrons or solid-state components;
- d) aligned with IEC 60350-1:2023 regarding the definitions and references;

- e) aligned preparation of water load for Clause 8 and Clause 10;
- f) removed the definitions for set to off mode and set to standby mode ;
- g) added new definitions regarding low power modes;
- h) aligned the low power mode measurement, Clause 11, to IEC 60350-1:2023;
- i) revised square tank tests to one new 12.2;
- j) revised the dishes used for Clause 12, Clause 13 and Clause 14 and removal of Annex B;
- k) removed A.3.3;
- l) removed Annex F for measuring the energy consumption of the cooling down period;
- m) former Annex E will be substituted by a supporting document located on the IEC's website.

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

Draft	Report on voting
59K/400/FDIS	59K/404/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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HOUSEHOLD MICROWAVE OVENS – METHODS FOR MEASURING PERFORMANCE

1 Scope

This document applies to **microwave ovens** for household and similar 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.

The manufacturer defines the primary cooking function of the appliance, **microwave function** or thermal heat. The primary cooking function will be measured with an existing method according to energy consumption.

If the primary cooking function is declared as a **microwave function**, IEC 60705 will be applied for energy consumption measurement. If the primary cooking function is declared as a thermal heat, IEC 60350-1 will be applied for energy consumption measurement. If the manufacturer does not declare the primary function, the performance of the **microwave function** and thermal heat is measured as far as it is possible.

NOTE 1 There is currently no measurement method for the energy consumption for grilling and steam functions.

NOTE 2 This document does not deal with safety requirements (see IEC 60335-2-25 [1]¹).

NOTE 3 This document does not apply to appliances incorporating thermal heat, steam function or hot steam function only. These appliances are covered by IEC 60350-1.

2 Normative references

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.

IEC 60350-1:2023, *Household electric cooking appliances – Part 1: Ranges, ovens, steam ovens and grills – Methods for measuring performance*

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

ISO 80000-1:2022, *Quantities and units – Part 1: General*

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¹ Numbers in square brackets refer to the Bibliography.