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oSIST prEN IEC 60350-2:2024
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Gospodinjski električni kuhalni aparati - 2. del: Kuhalne plošče - Metode za merjenje funkcionalnosti

Household electric cooking appliances - Part 2: Hobs - Methods for measuring performance

Elektrische Kochgeräte für den Hausgebrauch - Teil 2: Kochfelder - Verfahren zur Messung der Gebrauchseigenschaften

Appareils de cuisson électrodomestiques - Partie 2: Tables de cuisson - Méthodes de mesure de l'aptitude à la fonction

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FUNCTIONS CONCERNED: <input type="checkbox"/> EMC <input checked="" type="checkbox"/> ENVIRONMENT <input checked="" type="checkbox"/> QUALITY ASSURANCE <input type="checkbox"/> SAFETY	
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TITLE:

Household electric cooking appliances - Part 2: Hobs - Methods for measuring performance

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CONTENTS

FOREWORD	6
1 Scope	8
2 Normative references	8
3 Terms and definitions	8
4 List of measurements	14
4.1 Dimensions and mass	14
4.2 Cooking zones and cooking areas	14
4.3 Cleaning	14
5 General conditions for the measurements	14
5.1 Test room	14
5.2 Electricity supply	15
5.3 Instrumentation and measurements	15
5.4 Positioning the appliance	17
5.5 Initial conditions	17
5.6 Cookware	17
5.6.1 Standardized cookware	17
5.6.2 Alternative cookware	22
6 Dimensions and mass	24
6.1 Overall dimensions	24
6.2 Mass of the appliance	26
6.3 Cooking zones and cooking areas	26
6.3.1 Number of cooking zone per hob	26
6.3.2 Dimensions of cooking zone	26
6.3.3 Dimensions of cooking areas	27
6.4 Distance between cooking zone	27
7 Energy consumption and heating up time	27
7.1 General	27
7.2 Purpose	28
7.3 Determine a cookware set to measure a hob with cooking zone	28
7.4 Positioning the cookware	29
7.5 Procedure for measuring the energy consumption of a cooking process	30
7.5.1 Preparation of the hob	30
7.5.2 Preliminary measurements	30
7.5.3 Measuring the energy consumption - main test	33
7.5.4 Calculation and evaluation	35
7.6 Procedure for measuring the heating up time	36

8	Ability to control the temperature of a load.....	37
8.1	Lower control position	37
8.1.1	Purpose	37
8.1.2	Cookware, positioning and ingredients	37
8.1.3	Procedure.....	38
8.1.4	Assessment.....	38
8.2	Temperature overshoot of hotplates.....	39
8.2.1	Purpose	39
8.2.2	Ingredients and cookware	39
8.2.3	Procedure.....	39
8.2.4	Assessment.....	39
9	Heat distribution and heat supply	39
9.1	Measuring the heat distribution	39
9.1.1	Test purpose.....	39
9.1.2	Discs.....	40
9.1.3	Pre-test for determining the setting	42
9.1.4	Preparation of the disc for the main test.....	43
9.1.5	Main test.....	43
9.1.6	Assessment.....	44
9.2	Continuous frying	49
9.2.1	Purpose	49
9.2.2	Specification of the frying pan	49
9.2.3	Recipe and amounts	50
9.2.4	Pre-test.....	51
9.2.5	Main test.....	51
9.2.6	Assessment.....	53
10	Heat performance of cooking zone	54
10.1	Purpose	54
10.2	Procedure.....	54
11	Smallest detected diameter for induction cooking zone	56
11.1	Purpose	56
11.2	Procedure	56
12	Power measurement of low power modes	57
12.1	Purpose and combination of appliances	57
12.2	Measurement	58
12.2.1	Principles.....	58
12.2.2	Determination of power consumption in off mode.....	59
12.2.3	Determination of power consumption in standby mode	59

12.2.4 Determination of consumption in standby mode in condition of networked standby	59
Annex A Further requirements for measuring the energy consumption and heating up time for cooking areas (normative)	61
A.1 General	61
A.2 Hob with cooking area	61
A.2.1 General	61
A.2.2 Cooking area without limitative marking	61
A.2.3 Hob with cooking area with limitative marking	62
A.2.4 Hob with cooking zone and cooking areas	64
A.3 Positioning on a cooking area.....	64
A.3.1 General	64
A.3.2 Positioning on a cooking area without limitative markings.....	64
A.3.3 Positioning on a cooking area with limitative markings.....	64
Annex B Aids for measuring the energy consumption according to Clause 7(informative)	69
B.1 Fixing the temperature measurement instrument to the lid - Example	69
B.2 Marking the lowest possible simmering power setting.....	69
Annex C Examples how to select and position the cookware for measurements according to Clause 7 and Annex A (informative)	71
C.1 Example 1 - Cooking zones.....	71
C.2 Example 2 - cooking zone combined with cooking area with limitative markings.....	72
C.3 Example 3 - cooking area with limitative markings > 3 controls with the area of control in front	73
C.4 Example 4 - cooking area with limitative markings > 3 controls with the area of control at the side	76
Annex D Addresses of suppliers(informative)	79
D.1 General	79
D.2 Disc material (C45) for measuring the smallest detected diameter.....	79
D.3 Stainless steel for bottom material of the standardized cookware	79
D.4 Cookware for measuring the energy consumption and heating up time	79
D.5 Disc for measuring the heat distribution	79
Annex E Example for assessing the lower control position(informative).....	80
E.1 General	80
E.2 Criteria	80

Annex F

Pre-test for determining the simmering setting regarding the measurement of energy
consumption

(informative) 81

F.1 Purpose 81

F.2 Procedure to determine an adequate simmering setting..... 81

Annex G Low power mode measurements(normative)..... 83

G.1 Step by step instruction for measuring low power modes 83

Bibliography..... 87

Figure 1 - Standardized cookware 21

Figure 2 - Dimensions of appliances 25

Figure 3 - Dimensions of built-in hob..... 25

Figure 4 - Overshoot measurement 31

Figure 5 - Energy consumption measurement process for a cooking process 34

Figure 6 - Diametral lines 48

Figure 7 - Disc to determine the smallest detected diameter 57

Figure A.1 - Layout for a hob with cooking area without limitative markings - Example 61

Figure A.2 - Layouts for a hob with a cooking area with limitative markings - Examples..... 62

Figure A.3 - Drawing layer..... 65

Figure A.4

- Position a cookware set on a cooking area with limitative markings ≤ 3 controls - Example. 66

Figure A.5

- Position a cookware set on a cooking area with limitative markings > 3 controls - Example .68

Figure B.1 - Position of the temperature measurement instrument 69

Figure B.2 - Polar coordinate paper - Example 70

Figure C.1

- Example 1: tubular hotplate, solid hotplate, radiant cooking zone or induction cooking zone
..... 71

Figure C.2 - Example 1: selecting and positioning of cookware 72

Figure C.3

- Example 2: induction or radiant cooking zone combined with a cooking area with limitative
markings
..... 73

Figure C.4 - Example 2: selecting and positioning of cookware 73

Figure C.5

- Example 3: Cooking area with limitative markings > 3 controls with the area of the control in
front
..... 74Figure C.6 - Example 3: procedure how to shift the cookware into the correct position - Step 1
..... 74Figure C.7 - Example 3: Procedure how to shift the cookware into the correct position - Step 2
..... 75

Figure C.8

- Example 4: cooking area with limitative markings > 3 control with the area of the control at the side

..... 76

Figure C.9 - Example 4: procedure how to shift the cookware into the correct position - Step 1

..... 77

Figure C.10

- Example 4: procedure how to shift the cookware into the correct position - Step 2 78

Table 1 - Instruments 16

Table 2 - Measurements 16

Table 3 - Sizes of standardized cookware and water amounts 20

Table 4 - Criteria for selecting the cookware set regarding cooking zone 28

Table 5 - Amount of oil 38

Table 6 - Specifications for discs used for measuring the heat distribution 41

Table 7 - maximum time t_{\max} for each size of disc 46

Table 8 - Ingredients 50

Table 9 - Quantity of batter per pancake 51

Table 10 - Example for the assessment of pancakes 54

Table 11 - Quantities for heat performance test 55

Table 12 - Frying times for potato chips 55

Table A.1

- Criteria for the cookware set for measuring cooking areas without limitative marking 62

Table A.2 - Criteria for the cookware set for measuring cooking area with limitative markings

..... 63

Table G.1 84

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD ELECTRIC COOKING APPLIANCES - PART 2: HOBS -
METHODS FOR MEASURING PERFORMANCE –**

FOREWORD

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IEC 60350-2 has been prepared by subcommittee 59K: Performance of household and similar electrical cooking appliances, of IEC technical committee TC 59: Performance of household and similar electrical appliances. It is an International Standard.

This **third** edition cancels and replaces the **second** edition published in **2017** and **Amendment 1:2021**. This edition constitutes a technical revision.

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

- new definitions for [portable hob \(3.25\)](#) , [hob with down draft system \(3.24\)](#) and low power modes are amended in [Clause 3](#);
- revision of [Clause 5](#): Tolerance for water amount added, requirements for dimension measurement added;
- removal of [6.4](#) Level of solid hotplates;
- revision of [Clause 7](#) in order to improve the application of the smoothing average;
- revision of [Table 1](#) and [Table 3](#) in order to amend missing tolerances;
- Ry replaced by L* in [Clause 9](#) and reference to [IEC TS 63350](#);
- requirements for digital assessment in [9.1.6](#) removed as they are covered in [IEC TS 63350](#);
- revision of [Clause 12](#) Consumption measurement of low power modes;
- removal of [Clause 13](#) Spillage capacity of hobs;
- [Annex H](#) Low-power mode measurements added;
- removal of [Annex D](#) as the shade charts are specified in [IEC TS 63350](#);
- removal of [Annex E](#) as the calculation sheet is substituted by a supporting document located on the IEC web site;
- update of [Annex F](#) by removal of F.6, F.7 and F.8 and by adding a further possible supplier in F.4.

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

Draft	Report on voting
XX/XX/FDIS	XX/XX/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 standard contains attached files in the form of a spreadsheet. These files are intended to be used as a complement and do not form an integral part of the standard.

A list of all parts in the [IEC 60350 series](#), published under the general title *Household electric cooking appliances*, can be found on the IEC website.

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.

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

- reconfirmed,
- withdrawn, or
- revised.

HOUSEHOLD ELECTRIC COOKING APPLIANCES - PART 2: HOBS - METHODS FOR MEASURING PERFORMANCE –

1 Scope

This part of IEC 60350 defines methods for measuring the performance of electric hob (3.2) for household use.

Appliances covered by this document can be built-in or designed to be placed on a work surface. The hob (3.2) can be part of a cooking range (3.1) and it can have an integrated cooking fume extractor, i.e. a down-draft system.

This document defines the main performance characteristics of hob (3.2) which are of interest to the user and specifies methods for measuring these characteristics.

This document does not specify a classification or ranking for performance.

NOTE 1: Some of the tests which are specified in this document are not considered to be reproducible since the results can vary between laboratories. They are therefore intended for comparative testing purposes only.

NOTE 2: This document does not deal with safety requirements (IEC 60335-2-6 and IEC 60335-2-9).

NOTE 3: This document is also applicable for portable appliances with similar functionality that were previously covered by the withdrawn IEC 61817.

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 electrical cooking appliances - Part 1: Ranges, ovens, steam ovens and grills - Methods for measuring performance*

IEC 60364-5-54, *Low-voltage electrical installations - Part 5-54: Selection and erection of electrical equipment - Earthing arrangements and protective conductors*

IEC 61591:2023, *Cooking fume extractors - Methods for measuring performance*

IEC 62301:2011, *Household electrical appliances - Measurement of standby power*

IEC TS 63350:2022, *Household electrical appliances - Specification of the properties of a digital system for measuring the performance*

IEC 63474:2023, *Electrical and electronic household and office equipment - Measurement of networked standby power consumption of edge equipment*

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

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

cooking range

appliance having a **hob** (3.2) and at least one **oven** and which may incorporate a **grill**

Note 1 to entry: Methods for measuring performance of ovens are described in IEC 60350-1.

[SOURCE: IEC 60350-1, 3.3]

3.2

hob

appliance or part of an appliance which incorporates one or more **cooking zone** (3.3) and/or **cooking areas** including a **control** (3.12) unit

Note 1 to entry: A **hob** (3.2) is also known as a cooking top.

Note 2 to entry: The **control** (3.12) unit can be included in the **hob** (3.2) itself or integrated in a **cooking range** (3.1).

3.3

cooking zone

limitative marking on the surface of a **hob** (3.2) where one cookware is placed and heated or an attached area to the surface

EXAMPLE: A **cooking zone** (3.3) can be:

- a **single zone** (3.4) or a **multiple zone** (3.5) (see 3.4 and 3.5);
- a **solid hotplate** (3.6) (see 3.6);
- a **tubular hotplate** (3.7) (see 3.7);
- a **radiant cooking zone** (3.8) (see 3.8);
- an **induction cooking zone** (3.9) (see 3.9).

Note 1 to entry: **Cooking zones** which are used without cookware but by positioning the food directly on the surface are not included.

Note 2 to entry: A **cooking zone** (3.3) where the limitative markings do not clearly indicate the dimensions is considered a **cooking area without limitative markings** (3.10).

3.4

single zone

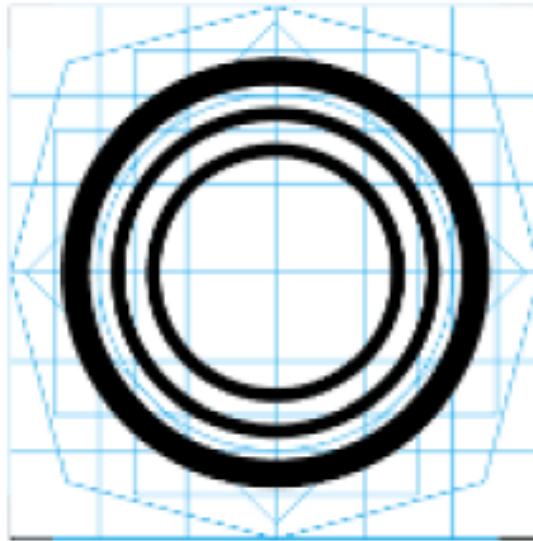
cooking zone (3.3) marked for one cookware size

3.5

multiple zone

cooking zone (3.3) marked for more than one cookware size and shape which can be circular, elliptical or a combination

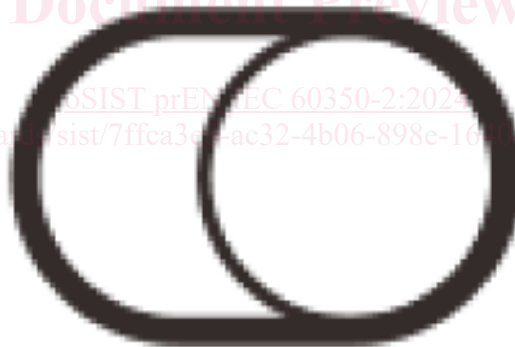
*EXAMPLE 1: Circular **multiple zone** (3.5) for three different cookware sizes:*



[IEC 60417-Pr17-001]

*EXAMPLE 2: Circular and elliptical **multiple zone** (3.5):*

Standards
(<https://standards.iteh.ai>)
Document Preview



[IEC 60417-5492:2002-10]

3.6

solid hotplate

cooking zone (3.3) having a closed surface, which is usually constructed from cast iron, with an integrated heating element

3.7

tubular hotplate

cooking zone (3.3) having a surface which is formed by the configuration of a tubular heated heating element in a substantially flat plane

3.8

radiant cooking zone

cooking zone (3.3) on which the cookware is heated by means of a radiant heating element below the glass ceramic which could have a heating ribbon, heating spiral or a tungsten wire which is located in a quartz glass bulb or combination of these

3.9

induction cooking zone

cooking zone (3.3) in which the cookware is heated by means of an induction element below the glass ceramic or similar where the eddy currents are induced in the bottom of the cookware by a magnetic field

3.10

cooking area without limitative markings

area where cookware is placed and heated by an inducted magnetic field without limitative markings

EXAMPLE: See [Figure A.1](#)

Note 1 to entry: **Cooking areas** which are used without cookware but by positioning the food directly on the surface are not included.

Note 2 to entry: Sometimes there are one or more decoration symbols, e.g. a cross, on the **cooking area** to mark the centre position where the cookware is placed.

3.11

cooking area with limitative markings

area where cookware is placed and heated by an inducted magnetic field where the area is marked to show the limits where more than one cookware can be used simultaneously while the cookware pieces can be used and controlled separately from each other at the same time

EXAMPLE: See [Figure A.2](#)

Note 1 to entry: **Cooking areas** which are used without cookware but by positioning the food directly on the surface are not included.

Note 2 to entry: The **cooking area** is also used combined for one cookware, even if there is more than one **control** (3.12).

3.12

control

part of the **hob** (3.2) for adjusting the power or temperature respectively of a **cooking zone** (3.3) or a **cooking area** for one piece of cookware, independent from technical solution (e.g. knobs, touch controls etc.)

Note 1 to entry: The power is generally indicated as numbers, but also temperature values and symbols are possible.

Note 2 to entry: **Controls** (3.12) integrated outside of the **hob** (3.2) in a separate device or as part of a built-in-oven are also included.

3.13

warming zone

area used for keeping food warm usually not used for cooking