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Elektriska hushållsapparater för matlagning – Del 2: Hällar – Funktionsprovning

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

Som svensk standard gäller europastandarden EN 60350-2:2013. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60350-2:2013.

Nationellt förord

Europastandarden EN 60350-2:2013

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60350-2, First edition, 2011 - Household electric cooking appliances - Part 2: Hobs - Methods for measuring performance**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 50304/60350, utgåva 2, 2009 och SS-EN 50304/A1/SS-EN 60350/A11, utgåva 1, 2010, gäller ej fr o m 2016-06-03.

Tillsammans med SS-EN 60350-1, utgåva 1, 2013, ersätter denna standard SS-EN 50304/60350, utgåva 2, 2009 och SS-EN 50304/A1/SS-EN 60350/A11, utgåva 1, 2010.

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English version

**Household electric cooking appliances -
Part 2: Hobs -
Methods for measuring performance
(IEC 60350-2:2011, modified)**

Appareils de cuisson électrodomestiques -
Partie 2: Tables de cuisson -
Méthodes de mesure de l'aptitude à la
fonction
(CEI 60350-2:2011, modifiée)

Elektrische Kochgeräte für den
Hausgebrauch -
Teil 2: Kochmulden -
Verfahren zur Messung der
Gebrauchseigenschaften
(IEC 60350-2:2011, modifiziert)

This European Standard was approved by CENELEC on 2013-06-03. 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

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Foreword

This document (EN 60350-2:2013) consists of the text of IEC 60350-2:2011 prepared by IEC/SC 59K "Ovens and microwave ovens, cooking ranges and similar appliances", of IEC/TC 59 "Performance of household and similar electrical appliances", together with the common modifications prepared by CLC/TC 59X "Performance of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2014-06-03
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2016-06-03
with this document have to be withdrawn

Together with EN 60350-1:2013, this document will supersede EN 50304:2009/EN 60350:2009 + A1:2010/A11:2010.

EN 60350-2:2013 includes the following significant technical changes with respect to EN 50304:2009/EN 60350:2009:

- 1) a method to measure energy consumption of hobs
 - a) that is representative for a real cooking process, for which after the heat up phase a simmering phase has been implemented in the measurement. Water as a standardised load is used. Food is theoretically considered in the experimental setup but not used as that leads to insufficient reproducibility. The ranking between the technologies will not be changed by different methods/applications, so the energy consumption is measured only by one energy optimised method.
 - b) that is applicable to compare different electrically heated technologies like e.g. induction, radiant or solid plates
 - c) that leads not to a comparison with gas burners. Gas hobs are covered by EN 30-2-1.
 - d) that fulfil requirements of repeatability and reproducibility (crucial for energy measuring purposes). Therefore the cooking process is defined on the temperature level 90 °C to avoid influence on the boiling point by ambient pressure.
 - e) that is applicable for hobs with different layouts and **cooking zone** / area sizes.

This method is based on the method described in TC59X/217/DC.

- 2) definition of cooking areas:

Following new market trends a definition for cooking areas is given. A definition is necessary as cooking areas have other demands e.g. for positioning the cookware or selecting the cookware sizes than **cooking zones**.

- 3) definition of standardised cookware also for big **cooking zone** sizes:

For a high reproducibility a standardised cookware shall be used. Therefore a self made cookware is defined up to a size of 330 mm bottom diameter. Evaporating water by holes in the lid simulates a cooking process on a higher temperature level. The thermal energy which is needed to keep at boiling point for a real cooking process including evaporation and the energy uptake of the food during the simmering phase is considered by the holes.

- 4) additional requirements (according to EN 50564) how to measure low power modes.

5) under consideration:

A control procedures for checking measured values in comparison to values declared by the manufacturer under consideration of permitted tolerances. WG10 with the support and sponsorship of CECED believes that it is fundamental to proceed with a Round Robin Test procedure of this draft amendment to confirm requirements of repeatability and reproducibility and to estimate the standard deviation of the method itself.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60350-2:2011 are prefixed "Z".

Words in **bold** in the text are defined in Clause 3.

According to the decision D137/061 for CLC/TC 59X, this European Standard has been drawn up as a document which follows, as far as suitable, the structure of IEC 60350-2:2011.

It also describes the evaluation of data declared by the manufacturer and control procedures for checking these values.

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

This European Standard is suitable for direct comparison and is considered sufficiently reproducible within given limits for the purpose of setting the ecodesign requirements for hobs according to the Directive ERP 2009/125/EC.

Endorsement notice

The text of the International Standard IEC 60350-2:2011 was approved by CENELEC as a European Standard with agreed common modifications.

Annex ZF (normative)

Normative references to international publications with their corresponding European publications

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

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
-	-	Stainless steels Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes	EN 10088-2	-
IEC 60364-5-54	-	Low-voltage electrical installations Part 5-54: Selection and erection of electrical equipment - Earthing arrangements and protective conductors	HD 60364-5-54	-
IEC 62301 (mod.)	2011	Electrical and electronic household and office equipment – Measurement of low power consumption	EN 50564	2011
ISO 80000-1 + Cor 1	2009 2011	Quantities and units Part 1: General	EN ISO 80000-1	2013

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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 **hobs** for household use.

NOTE 1 Appliances covered by this standard may be built-in or for placing on a working surface or the floor. The hob can also be a part of a cooking range.

NOTE 2 This standard does not apply to

– portable appliances for cooking, grilling and similar functions (IEC 61817).

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

NOTE 3 Some of the tests which are specified in this standard are not considered to be reproducible since the results may vary between laboratories. They are therefore intended for comparative testing purposes only.

This standard does not specify requirements for performance.

NOTE 4 This standard does not deal with safety requirements (IEC 60335-2-6 and IEC 60335-2-9).

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.

IEC 62301:2005¹, *Household electrical appliances – Measurement of standby power*

¹ This document has been replaced by a new edition (2011), but for the purposes of this standard, the 2005 edition is cited.