



**SLOVENSKI STANDARD**  
**SIST EN IEC 61591:2020/A11:2020**  
**01-september-2020**

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**Odvajalniki kuhinjskih hlapov - Metode za merjenje lastnosti - Dopnilo A11**

Cooking fume extractors - Methods for measuring performance

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**Ta slovenski standard je istoveten z: EN IEC 61591:2020/A11:2020**

[SIST EN IEC 61591:2020/A11:2020](https://standards.iteh.ai/catalog/standards/sist/cc685622-a30b-4206-9fb7-6504efe74011/sist-en-iec-61591-2020-a11-2020)

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**ICS:**

97.040.20	Štedilniki, delovni pulti, pečice in podobni aparati	Cooking ranges, working tables, ovens and similar appliances
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EUROPEAN STANDARD

**EN IEC 61591:2020/A11**

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2020

ICS 97.040.20

English Version

**Cooking fume extractors - Methods for measuring performance**Extracteurs de fumée de cuisine - Méthodes de mesure de  
l'aptitude à la fonctionAbsauger für Kochdünste - Verfahren zur Messung der  
Gebrauchseigenschaft

This amendment A11 modifies the European Standard EN IEC 61591:2020; it was approved by CENELEC on 2019-07-24. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, Turkey and the United Kingdom.

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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**

**EN IEC 61591:2020/A11:2020 (E)****European foreword**

This document (EN IEC 61591:2020/A11:2020) has been 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 at national level by publication of an identical national standard or by endorsement (dop) 2021-01-10
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2023-07-10

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 has been prepared under a mandate M/495 given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Regulations.

For the relationship with EU Regulations see informative Annex ZZA and Annex ZZB which are integral parts of this document.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 61591:2019 are prefixed "Z". (standards.iteh.ai)

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## COMMON MODIFICATIONS

### 6 General conditions for measurements

#### 6.3 Electricity supply

**Replace by:**

The supply voltage shall be maintained throughout the test at 230 V, with a relative tolerance of  $\pm 1\%$ , or at 400 V, with a relative tolerance of  $\pm 1\%$ , as defined by the manufacturer's installation guide. If more than one option for installation is available and no clear indication for testing is given, the supply voltage shall be 230 V, with a relative tolerance of  $\pm 1\%$ . The supply voltage shall be recorded at the point where the appliance is connected to the mains supply during all tests.

The supply frequency shall be maintained throughout the test at 50 Hz, with a relative tolerance of  $\pm 1\%$ .

### 9 Airborne acoustical noise

**Add a note as follows:**

"NOTE A possible procedure for the statistical determination of declared noise values is described in EN 60704-3."

#### 10.4 Calculation of the fluid dynamic efficiency ( $FDE_{hood}$ )

**Add before Figure 3 as follows:** (standards.iteh.ai)

For reporting, the measured values of  $\Delta p_{BEP}$  and  $P_{BEP}$  shall be converted to a reference air density of 1,2 kg/m<sup>3</sup>:

$$\Delta p_{BEP} = \Delta p_{BEP} \frac{\rho_{Ref}}{\rho_{Cha}}$$

where

- $\Delta p_{BEP}$  is the converted difference static pressure at the **best efficiency point BEP** in Pa and rounded to the nearest integer;
- $\Delta p_{BEP}$  is the difference static pressure at the **best efficiency point BEP** in Pa;
- $\rho_{Ref}$  is the reference air density of 1,2 kg/m<sup>3</sup>;
- $\rho_{Cha}$  is the air density in the chamber at test conditions in kg/m<sup>3</sup>.

$$P_{BEP} = P_{BEP} \frac{\rho_{Ref}}{\rho_{Cha}}$$

where

- $P_{BEP}$  is the converted electric power at the **best efficiency point BEP**, expressed in W and rounded to the first decimal place;
- $P_{BEP}$  is the electric power at the **best efficiency point BEP**, expressed in W;
- $\rho_{Ref}$  is the reference air density of 1,2 kg/m<sup>3</sup>;
- $\rho_{Cha}$  is the air density in the chamber at test conditions in kg/m<sup>3</sup>.

## EN IEC 61591:2020/A11:2020 (E)

Annex ZA  
(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 1 When 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](http://www.cenelec.eu)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60584-1	-	Thermocouples - Part 2: Tolerances	EN 60584-1	2013
IEC 60704-2-13	-	Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-13: Particular requirements for range hoods and other cooking fume extractors	EN 60704-2-13	2017
IEC 62301	-	Household electrical appliances - Measurement of standby power	EN 50564	2011
ISO 5167-1	-	Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 1: General principles and requirements	EN ISO 5167-1	2003
ISO 5167-2	-	Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 2: Orifice plates	EN ISO 5167-2	2003
ISO 5167-3	-	Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 3: Nozzles and Venturi nozzles	EN ISO 5167-3	2003
ISO 5167-4	-	Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 4: Venturi tubes	EN ISO 5167-4	2003
ISO 80000-1	2009	Quantities and units - Part 1: General	EN ISO 80000-1	2013

## Annex ZZA (informative)

### Relationship between this European Standard and the energy labelling requirements of Commission Delegated Regulation (EU) No 65/2014 aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/495 Standardization mandate to CEN, CENELEC and ETSI under Directive 2009/125/EC relating to harmonized standards in the field of Ecodesign to provide one voluntary means of conforming to the energy labelling requirements of Commission Delegated Regulation (EU) No 65/2014 of 1 October 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of domestic ovens and range hoods [OJ L 29/1, 31.01.2014].

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative clauses of this standard given in Table ZZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding energy labelling requirements of that Regulation and associated EFTA Regulations.

**Table ZZA.1 — Correspondence between this European Standard and Commission Delegated Regulation (EU) No 65/2014 of 1 October 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of domestic ovens and range hoods [OJ L 29/1, 31.01.2014] and Commission's standardisation request M/495 Standardization mandate to CEN, CENELEC and ETSI under Directive 2009/125/EC relating to harmonized standards in the field of Ecodesign**

Energy labelling requirements of Regulation No 65/2014 [OJ L 29/1, 31.01.2014]	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Scope; general description of the appliance model (Art 2), defining general test conditions	1 Scope IEC 61591:2020/A11:2020 2 Normative references 3 Definitions 4 Classification 6 General conditions for measurements 7 Dimensions and mass	
Determining the airflow in general and at the Best Efficiency Point (BEP) in m <sup>3</sup> /h. (Annex I Table 3, Annex II 2.2)	10 Volumetric air flow	
Determining the grease filtering efficiency (Annex I Table 5, Annex II 2.4)	13 Grease absorption	The grease absorption factor is stated in the standard as GFE and corresponds to $GFE_{hood}$ in Energy labelling requirements of Regulation No 65/2014.
Determining the lighting efficiency (Annex I Table 4, Annex II 2.3)	11 Effectiveness of the lighting system	
Determining the fluid dynamic efficiency and measuring the energy consumption (Annex II 2.1, 2.2)	10.4 Calculation of the Fluid Dynamic Efficiency ( $FDE$ )	

## EN IEC 61591:2020/A11:2020 (E)

Energy labelling requirements of Regulation No 65/2014 [OJ L 29/1, 31.01.2014]	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Measuring the noise value (Annex II, 2.5)	9 Airborne acoustical noise	
Standby and off mode (Annex II, 2.1)	8 Power measurement of low power modes	

**WARNING 1:** Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2:** Other Union legislation may be applicable to the products falling within the scope of this standard.

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## Annex ZZB (informative)

### Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EU) No 66/2014 aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/495 Standardization mandate to CEN, CENELEC and ETSI under Directive 2009/125/EC relating to harmonized standards in the field of Ecodesign to provide one voluntary means of conforming to the ecodesign requirements of Commission Regulation (EU) No 66/2014 of 14 January 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for domestic ovens, hobs and range hoods [OJ L 29/33, 31.01.2014].

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative clauses of this standard given in Table ZZB.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding ecodesign requirements of that Regulation and associated EFTA Regulations.

**Table ZZB.1 — Correspondence between this European Standard and Commission Regulation (EU) No 66/2014 of 14 January 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for domestic ovens, hobs and range hoods [OJ L 29/33, 31.01.2014] and Commission's standardization request M/495 Standardization mandate to CEN, CENELEC and ETSI under Directive 2009/125/EC relating to harmonized standards in the field of Ecodesign**

Ecodesign requirements of Regulation No 66/2014 [OJ L 29/33, 31.01.2014]	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
Scope; general description of the appliance model (Art 2); defining general test conditions	1 Scope 2 Normative references 3 Definitions 4 Classification 6 General conditions for measurements 7 Dimensions and mass	
Determining the airflow in general and at the Best Efficiency Point (BEP) in m <sup>3</sup> /h (Annex I, 1.3, Annex II, 3.2)	10 Volumetric air flow	
Determining the lighting efficiency (Annex I, 1.3, Annex II, 3.4)	11 Effectiveness of the lighting system	
Determining the fluid dynamic efficiency and measuring the energy consumption (Annex I, 1.3, Annex II, 3.2)	10.4 Calculation of the Fluid Dynamic Efficiency (FDE)	
Measuring the noise value (Annex II, 3.5)	9 Airborne acoustical noise	
Standby and off mode (Annex II, 3.1)	8 Power measurement of low power modes	

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