
Gospodinjski in podobni električni aparati - Varnost - 2-36. del: Posebne zahteve za komercialne električne štedilnike, pečice, kuhalne plošče in njihove elemente - Dopolnilo A11

Household and similar electrical appliances - Safety - Part 2-36: Particular requirements for commercial electric cooking ranges, ovens, hobs and hob elements

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-36: Besondere Anforderungen für elektrische Herde, Brat- und Backöfen und Kochplatten für den gewerblichen Gebrauch (standards.iteh.ai)

Appareils électrodomestiques et analogues - Sécurité - Partie 2-36: Règles particulières pour les cuisinières, les fours, les tables de cuisson et les foyers de cuisson électriques à usage collectif

Ta slovenski standard je istoveten z: EN 60335-2-36:2002/A11:2012

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
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EN 60335-2-36/A11

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ICS 97.040.20

English version

**Household and similar electrical appliances -
Safety -
Part 2-36: Particular requirements for commercial electric cooking ranges,
ovens, hobs and hob elements**

Appareils électrodomestiques et
analogues -
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This amendment A11 modifies the European Standard EN 60335-2-36:2002; it was approved by CENELEC on 2011-12-21. 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.

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

This document (EN 60335-2-36:2002/A11:2012) has been prepared by CLC/TC 61, "Safety of household and similar electrical appliances".

The following dates are fixed:

- latest date by which the amendment has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2012-12-21
- latest date by which the national standards conflicting
with the amendment have to be withdrawn (dow) 2014-12-21

This amendment supplements or modifies the corresponding clauses of EN 60335-1:2012, EN 60335-2-36:2002, EN 60335-2-36:2002/A1:2004 and EN 60335-2-36:2002/A2:2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

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Introduction

Replace the addition of CENELEC common modifications by the following:

The principle objectives of Low Voltage Directive, 2006/95/EC, are covered in this standard. The essential safety requirements of the Machinery Directive 2006/42/EC have also been taken into account for appliances covered by this part.

1 Scope

Add the following paragraph before NOTE 101:

Additional requirements for appliances with power driven moving parts are given in Annex ZE.

Replace the NOTE 103 by the following:

This standard does not apply to

- machines designed exclusively for industrial purposes,
- machines intended to be used in locations where a corrosive or an explosive atmosphere is present (dust, vapour or gas),
- continuous process machines for the mass production of food,
- machinery for processing cosmetics, chemicals and pharmaceutical products,
- steam cookers, forced and steam convection ovens (IEC 60335-2-42),
- hot cupboards (IEC 60335-2-49),
- microwave ovens (IEC 60335-2-90).

3 Definitions

3.109 Replacement

installation wall

fixed construction containing supply facilities for wall mounted appliances on one or both sides

5 General conditions for the tests

5.5 Addition:

*Solid **hob elements** are operated with no load and sheathed **hob elements** are operated with a load made of dull black, cold or hot rolled steel, 9 mm to 10 mm thick, that covers not less than 90 % and not more than 100 % of the element surface. The **hob elements** are operated with the controls set to give the temperatures as set out below, the temperature being measured at the geometrical centre or the hottest point of the solid element or load, if the element is unevenly heated.*

Stepped controls are set to the first position that gives a temperature equal to or greater than 275 °C. Cycling controls are set so that the mean value of the temperature over the cycle is 275 °C ± 5 °C. If this temperature cannot be reached, the control is set at the maximum.

*Non-induction heating sources beneath a glass-ceramic or similar material are operated with a pan or pans containing initially cold water, the pan(s) being filled to a height of 60 mm ± 10 mm. The pan or pans are of aluminium, of ordinary quality, not brightly polished, with a base concavity not exceeding 0,1 mm. The pan or pans shall cover the **cooking zone** to the greatest extent possible.*

The pan or pans are covered with a lid. The controls are set at maximum until the water boils and then adjusted to maintain boiling. Water is added to maintain the water level during boiling.

***Induction heating sources** beneath a glass-ceramic or similar material are operated with the pan or pans recommended by the manufacturer.*

*If one pan is used, it shall cover as closely as possible, but not less than, the full area of the **cooking zone**. The pan is positioned centrally.*

*For non-circular **cooking zones** a combination of the smallest number of pans is chosen to cover as much as possible the area of the **cooking zone**.*

The pan or pans in each case are filled with initially cold frying oil to a height of 30 mm ± 5 mm. The controls are set to maximum until the temperature of the oil attains a value of 180 °C and then adjusted to maintain the oil at a temperature of 180 °C ± 15 °C.

A further test is made using initially cold water, the pan(s) being filled to a height of 60 mm ± 10 mm. The pan or pans are covered with a lid. The controls are set at maximum until the water boils and then adjusted to maintain boiling. Water is added to maintain the water level during boiling.

The condition providing the most unfavourable results (oil or water) is used.

Ovens are operated with no load and with the controls set so that the mean value of the temperature over the thermostat cycle at the geometric centre of the usable space in the interior of the oven is maintained at 240 °C ± 4 °C. Stepped controls are set so that this temperature is 240 °C ± 15 °C. For ovens that are capable of attaining temperatures in excess of 290 °C, the controls are set so that the temperature is 50 °C ± 4 °C below the maximum temperature attainable. For ovens that are unable to attain a temperature of 240 °C, the controls are set to maximum.

***Griddle plates** are operated with no load and with the controls set so as to give the temperatures set out below, the temperature being measured at the hottest point of each controlled cooking surface. Stepped controls are set to the first position that gives a temperature equal to or greater than 275 °C. Cycling controls are set so that the mean value of the temperature over the cycle is 275 °C ± 5 °C. If this temperature cannot be reached, the control is set to maximum.*

Motors incorporated in the appliance are operated in the intended manner under the most severe conditions that can be expected in normal use, taking into account the manufacturer's instructions.

7 Marking and instructions

7.12 Add the following text before the second paragraph:

The front cover of the instructions shall include the substance of the following:

CAUTION: Read the instructions before using the machine.

This wording may be replaced by symbols ISO 7000-0434 and ISO 7000-0790.

Add the following text before the first paragraph of the addition:

If symbols IEC 60417-5021, ISO 7000-0434 and ISO 7000-0790 are used on the product or in the instructions, their meaning shall be explained.

Delete the seventh paragraph of the addition.

Add the following:

The instructions shall also state the maximum weight of the empty appliance.

7.12.1 Replace the last paragraph of the replacement by the following:

In addition, for appliances incorporating **induction heating sources**, the instructions shall give recommendations regarding the rating and type of the additional **protective devices**, such as residual-current device(s), to be installed.

Bibliography

Add the following references:

EN 614-1:2006 + A1:2009, *Safety of machinery – Ergonomic design principles – Part 1: Terminology and general principles*

EN 614-2:2000 + A1:2008, *Safety of machinery – Ergonomic design principles – Part 2: Interactions between the design of machinery and work tasks*

Annex ZE (normative)

Specific additional requirements for appliances and machines with power driven moving parts and intended for commercial use

The following modifications to this standard are applicable for appliances and machines with power driven moving parts and intended for commercial use.

NOTE The additional paragraphs to Annex ZE of Part 1 are numbered starting with ZE.101.

Introduction

Replacement:

For the verification of compliance of appliances or machines intended for commercial use with the Essential Health and Safety Requirements (EHSR) of the Directive 2006/42/EC, the requirements in this Annex ZE shall apply.

1 Scope

Add the following:

This annex deals with additional requirements concerning appliances and machines intended to be used by experts or trained users for example in restaurants, canteens, hospitals and commercial enterprises such as bakeries, butcheries, etc. and appliances and machines which are declared to be for commercial use by lay persons.

Products covered by this standard do not create a noise hazard, therefore no specific provisions concerning noise are given.

2 Normative references

Add the following normative references:

EN ISO 14159:2008, Safety of machinery - Hygiene requirements for the design of machinery (ISO 14159:2002)

3 Definitions

This clause of Annex ZE of Part 1 is applicable.

4 General requirement

This clause of Annex ZE of Part 1 is applicable.

7 Marking and instructions

This clause of Annex ZE of Part 1 is applicable except as follows:

7.12 *Add the following dashed items:*

- the intended use of the appliance as covered by the scope of this standard;
- instructions regarding user maintenance and operation of the appliance and, if necessary, instructions for the training of operators;
- instructions designed to enable adjustment and maintenance to be carried out safely, including the protective measures that should be taken during these operations;
- the conditions under which the appliance is stable during use, dismantling when out of use, testing or foreseeable breakdowns;
- the operating method to be followed in the event of accident or breakdown to prevent unsafe actions;
- information regarding the use of personal protection equipment in case of spreading hot food stuff;
- warning concerning possible slippery floor adjacent to the appliance.

7.12.Z1 Replace the sixth dashed item by the following:

- on airborne noise emissions, the A-weighted sound pressure level is below 70 dB(A).

Add the following subclause:

7.12.ZE.101 The instructions shall include the possible reasonably foreseeable misuse and, whenever relevant, a warning against the effects it may have on the safe use of the appliance. At least, it shall include the substance of the following.

WARNING: Appliances must be disconnected from their power supply during cleaning or maintenance and when replacing parts.

21 Mechanical strength

This clause of Annex ZE of Part 1 is applicable.

22 Construction

This clause of Annex ZE of Part 1 is applicable except as follows:

22.ZE.1

This clause of Annex ZE of Part 1 is not applicable.

22.ZE.5 Replace the second paragraph of the test specification by:

*The **guard** is opened at the extent needed to cause the interlocking to operate and is then closed. This operation is carried out for 5 000 cycles at a rate of 5 cycles per min.*

22.ZE.101 Operator controls shall be

- clearly visible and identifiable,
- positioned within easy reach of the operator's hand,
- secured against accidental actuation, if their actuation could result in a hazard.

Compliance is checked by inspection and by manual test if necessary.

22.ZE.102 Appliances shall meet hygiene requirements.

Compliance is checked by inspection and by the requirements of EN ISO 14159.

22.ZE.103 Appliances shall meet ergonomic principles.

Compliance is checked by inspection.

NOTE Guidance may be found in EN 614-1 and EN 614-2.