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Gospodinjski in podobni električni aparati - Varnost - 2-35. del: Posebne zahteve za pretočne grelnike vode

Household and similar electrical appliances - Safety - Part 2-35: Particular requirements for instantaneous water heaters

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Appareils électrodomestiques et analogues - Sécurité - Partie 2-35: Règles particulières pour les chauffe-eau instantanés

Ta slovenski standard je istoveten z: EN 60335-2-35:2016

ICS:

13.120	Varnost na domu	Domestic safety
91.140.65	Oprema za ogrevanje vode	Water heating equipment

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EUROPEAN STANDARD

EN 60335-2-35

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2016

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Supersedes EN 60335-2-35:2002

English Version

**Household and similar electrical appliances - Safety - Part 2-35:
Particular requirements for instantaneous water heaters
(IEC 60335-2-35:2012 , modified)**

Appareils électrodomestiques et analogues - Sécurité -
Partie 2-35: Exigences particulières pour les chauffe-eau
instantanés
(IEC 60335-2-35:2012 , modifiée)

Sicherheit elektrischer Geräte für den Hausgebrauch und
ähnliche Zwecke - Teil 2-35: Besondere Anforderungen für
Durchflusserwärmer
(IEC 60335-2-35:2012 , modifiziert)

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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.

SIST EN 60335-2-35:2016

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

The text of document 61/4454/FDIS, future edition 5 of IEC 60335-2-35, prepared by IEC/TC 61 "Safety of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60335-2-35:2016.

A draft amendment, which covers common modifications to IEC 60335-2-35:2012, was prepared by CLC/TC 61 "Safety of household and similar electrical appliances" and approved by CENELEC.

The following dates are fixed:

- latest date by which the amendment has to be implemented (dop) 2016-10-12
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2018-10-12
with the amendment have to be withdrawn

EN 60335-2-35:2016 will supersede EN 60335-2-35:2002 and its amendments.

This amendment supplements or modifies the corresponding clauses of EN 60335-1:2012 and EN 60335-2-35:2012.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60335-2-35:2012 are prefixed "Z".

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD, 2006/95/EC).

Endorsement notice

The text of the International Standard IEC 60335-2-35:2012 was approved by CENELEC as a European Standard with agreed common modifications.

COMMON MODIFICATIONS

1 Scope

Replace the fourth paragraph including the two dashed items by:

As far as is practicable, this European Standard deals with the common hazards presented by appliances that are encountered by all persons in household and similar environments.

However, in general, it does not take into account

- **children** playing with the appliance,
- the use of the appliance by **very young children** without supervision,
- **user maintenance** by **children**, including the cleaning of the appliance.

It is recognized that **very vulnerable people** may have needs beyond the level addressed in this European Standard.

2 Normative references

Add the following new reference:

EN 60335-2-5:2003 + A1:2005 + A2:2008 + A11:2009+ A12:2012, *Household and similar electrical appliances – Safety – Part 2-5: Particular requirements for dishwashers (IEC 60335-2-5:2002, mod. + corrigendum May 2003 + A1:2005 + A2:2008)*

<https://standards.iteh.ai/catalog/standards/sist/b064fc6c-383c-451e-a77f-d655723/sist-en-60335-2-35-2016>

7 Marking and instructions

7.11 Addition:

Controls that are operated in use and that affect the water temperature shall be detectable by a shape, a position or an indication. When only an indication is used, the height of the letters or symbols measured on the capital letters shall be at least 5 mm. If only indicated by increasing dots or bands, the height of the indication for maximum setting shall be at least 7 mm with the minimum value less than 25 % of the maximum value used.

When a digital display is used for the indication of the water temperature, the height of the digits of the display shall be at least 10 mm.

These requirements are not applicable

- for settings that are normally adjusted by the installer during the installation and that can be adjusted by the user only after having removed a detachable cover, or
- for maximum temperature setting of 38 °C.

In giving these indications, a suitable contrast shall be given between indications and background.

NOTE Z101 Guidance on contrast can be found in CEN ISO/TR 22411:2011, 8.5^{Z1)}.

Z1) CEN ISO/TR 22411:2011, *Ergonomics data and guidelines for the application of ISO/IEC Guide 71 to products and services to address the needs of older persons and persons with disabilities (ISO/TR 22411:2008)*.

7.12 Modification

Replace the first sentence in the fourth paragraph of EN 60335-1:2012, by the following:

This appliance can be used by children aged from 3 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

7.12 Addition:

Add the substance of the following for single point open outlet water heaters for showering purposes.

'Fit only shower heads recommended by the manufacturer and never fit any additional device to restrict the water outlet flow'.

15 Moisture resistance

Add the following new subclause:

15.Z101 Water heaters installed in shower cabinets above shower basins or baths shall be protected against penetration of water and chemicals that can remain on the top of the enclosure.

Appliances allowing a 50 mm diameter, 100 mm high cylinder to be placed on the top when the water heater is mounted in accordance with the manufacturer's instructions shall be subjected to the following test:

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A quantity of 0,5 l of water containing approximately 1 % NaCl and 0,6 % of any commercially available rinsing agent may be used, but if there is any doubt with regards to the test results, a rinsing agent, as specified in EN 60335-2-5:2003, Annex AA, is poured over the top of the appliance, the controls being placed in the ON position. The controls are then operated through their working range, this operation being repeated after a period of 5 min.

The appliance shall then withstand the electric strength test of 16.3 and inspection shall show that there is no trace of water on insulation that could result in reduction of clearances and creepage distances below the values specified in Clause 29.

Compliance is checked by the relevant test and by inspection.

22 Construction

22.40 Addition:

Water heaters shall be fitted with an accessible switch to stop the water heating function.

NOTE Z101 A tap is considered a suitable device.

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Add the following annexes:

Annex ZA (normative)

Special national conditions

Annex ZA of EN 60335-1:2012 is applicable, with the following **addition**:

Clause	Special national condition
22.101	<p>Denmark, Finland, Norway, Sweden</p> <p>For closed water heaters, the minimum rated pressure is 1,0 MPa.</p>

Annex ZB (informative)

A-deviations

Annex ZB of EN 60335-1:2012 is applicable, with the following **addition**:

Clause	Deviation
1	<p>Spain (Royal Decree 842/2002; Spanish regulation on low voltage installations: Technical Instruction ICT-BT-45, subclause 2.1)</p> <p>https://standards.iteh.ai/catalog/standards/sist/b064f6c-383c-451e-a77f-000000000000/60335-2-35-sist-en-60335-2-35-2016</p> <p>The household use of appliances incorporating bare heating elements immersed in water as well as those where the water is part of the electric circuit is prohibited.</p>

Annex ZC (normative)

Normative references to international publications with their corresponding European publications

Annex ZC of EN 60335-1:2012 is applicable, with the **addition** of the EN reference mentioned in Clause 2.

Bibliography

The Bibliography of EN 60335-1:2012 is applicable, except that the following notes have to be **added** for the standards indicated:

IEC 60335-2-15	NOTE	Harmonized as EN 60335-2-15.
IEC 60335-2-21	NOTE	Harmonized as EN 60335-2-21.
IEC 60335-2-75	NOTE	Harmonized as EN 60335-2-75.



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INTERNATIONAL STANDARD

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Part 2-35: Particular requirements for instantaneous water heaters
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Partie 2-35: Exigences particulières pour les chauffe-eau instantanés

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –
SAFETY –**
Part 2-35: Particular requirements for instantaneous water heaters

FOREWORD

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This part of International Standard IEC 60335 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

This fifth edition cancels and replaces the fourth edition published in 2002 including its Amendment 1 (2006) and its Amendment 2 (2009). It constitutes a technical revision.

The principal changes in this edition as compared with the fourth edition of IEC 60335-2-35 are as follows (minor changes are not listed):

- converted notes to normative text (7.12, 7.102, 8.1.5, 22.104, and 22.109.3);
- deleted notes in 19.13, 22.109, and A.101;
- added Annex R and 22.108 for appliances with programmable electronic circuits;
- added requirements for water heaters (22.50, 22.51).