



SLOVENSKI STANDARD
SIST HD 282 S1:1992/A1:1992
01-december-1992

Dopolnilo A1:1992 k HD 282 S1:1990

Safety of household and similar electrical appliances -- Part 2: Particular requirements for instantaneous water heaters

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2: Besondere Anforderungen für Durchlauferhitzer

Sécurité des appareils électrodomestiques et analogues -- Partie 2: Règles particulières pour les chauffe-eau instantanés

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[SIST HD 282 S1:1992/A1:1992](https://standards.itteh.ai/catalog/standards/sist/c2385587-301c-4860-8b6b-0288cd4b2067/sist-hd-282-s1-1992-a1-1992)

Ta slovenski standard je istoveten z: HD 282 S1:1990/A1:1992

ICS:

91.140.65 Oprema za ogrevanje vode Water heating equipment

SIST HD 282 S1:1992/A1:1992 **en**

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HARMONIZATION DOCUMENT

HD 282 S1/A1

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

October 1992

UDC 64.06-83:644.627:620.1:614.8

Descriptors: Household electrical appliance, instantaneous water heater,
safety requirement, particular requirement

ENGLISH VERSION

Safety of household and similar electrical appliances
Part 2: Particular requirements for instantaneous water
heaters

Sécurité des appareils
électrodomestiques et analogues
Deuxième partie: Règles
particulières pour les
chauffe-eau instantanés

Sicherheit elektrischer Geräte
für den Hausgebrauch und
ähnliche Zwecke
Teil 2: Besondere Anforderungen
für Durchlauferhitzer

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SIST HD 282 S1:1992/A1:1992

This amendment A1 modifies the Harmonization Document HD 282 S1:1990. It was approved by CENELEC on 1992-09-15. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this amendment on a national level.

Up-to-date lists and bibliographical references concerning national implementation may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French and German).

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B-1050 Brussels

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Ref. No. HD 282 S1:1990/A1:1992 E

FOREWORD

A proposal to amend HD 282 S1 was discussed during the Neusiedl meeting in May 1988, when it was decided to submit a draft for an amendment to the enquiry procedure and to use the last three months of this procedure for the voting procedure. The voting procedure started in October 1989.

The comments received during the voting were discussed during the Helsinki meeting in May 1990; further discussion followed in the Athens meeting in November 1990, the Baden meeting in May 1991 and the Brussels meeting in November 1991, when it was decided to submit a modified draft amendment to the voting procedure. This draft was circulated as prAD in March 1992 and was ratified by CENELEC as amendment A1 to HD 282 S1 on the 15th of September 1992.

This amendment has been prepared by the secretariat of CENELEC Technical Committee TC 61.

The following dates are applicable:

- latest date of announcement of
the amendment at national level (doa) 1992-10-01
- latest date of publication
of an identical national standard (dop) 1993-04-01
- date of withdrawal of
conflicting national standards (dow) 1995-04-01

For products which have complied with HD 282 S1:1990 before 1995-04-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2000-04-01.

An additional A-deviation is to be added to the Informative annex to HD 282 S1 "List of national deviations" issued in January 1991.

The following modifications amend or supplement those given in HD 282 S1.

CLAUSE

4. Add on page 11 after line 27:

Additional samples may be required for the test of subclause 19.101.

7. Add on page 15 after the last line:

For open outlet water heaters intended to be used with a spray head the instruction sheet shall include a statement that regular descaling of the spray head is necessary.

The instruction sheet shall include a warning that the water heaters must not be switched on if there is a possibility that the water in the heater is frozen.

19. Add on page 25 after line 9:

Additional subclauses:

[SIST HD 282 S1:1992/A1:1992](http://standards.itec.ai/)

<http://standards.itec.ai/standards/sist/2341587-301-4860-8161-0281-1462987/sist-hd-282-s1-1992-a1-1992>
19.101 The container of the water heater shall not rupture due to excessive internal pressure.

Compliance is checked by inspection and by the relevant tests.

Water heaters provided with a weak part which is ejected or ruptures when the pressure is excessive are subjected to the test of subclause 19.102.

Examples of suitable weak parts are diaphragms or plugs.

Water heaters provided with other means for relieving pressure are subjected to the tests of subclauses 19.102 and 19.104.

Water heaters having heating elements which rupture before the internal pressure is excessive or which cannot be energized under such conditions, are subjected to the tests of subclauses 19.103 and 19.104.

These tests check that there is no hazard in the event of a blocked outlet or of frozen water in the container.

WARNING: When conducting these tests precautions have to be taken to safeguard personnel against risk of explosive rupture of the container.

CLAUSE

Closed water heaters incorporating a flow switch are not subjected to the tests of the subclauses 19.102, 19.103 or 19.104.

19.102 The water heater is installed in accordance with the manufacturer's instructions and filled with water as in normal use. The outlet hose or pipe is then disconnected and the water outlet sealed. The inlet valve is opened and water is supplied at a steadily increasing pressure.

The pressure relief device shall operate before a pressure of 1.1 MPa (11 bar) is reached. After the pressure relief device has operated the water is allowed to flow from the pressure relief device for a period of 1 min.

After this test the appliance shall comply with the requirements of clause 8 and subclause 16.2.

19.103 The water heater is installed in accordance with the manufacturer's instructions and filled with water as in normal use. The outlet hose or pipe is then disconnected and the water outlet sealed. The water inlet valve is closed. All electrical controls are simultaneously set to the most unfavourable position, or short-circuited or open-circuited whichever is the most unfavourable.

The water heater is then operated at rated input.

The heating element shall remain de-energized or shall rupture without causing a hazard to the user.

If the heating element ruptures during the test, the inlet valve is opened and water supplied at a steadily increasing pressure until a pressure of 1.1 MPa (11 bar) is reached. This pressure is maintained for 1 min and then reduced to atmospheric pressure.

After this test the water heater shall comply with the requirements of clause 8 and subclause 16.2.

Flow switches are not short-circuited.

19.104 The water heater is installed in accordance with the manufacturer's instructions and filled with water as in normal use. The outlet hose or pipe is then disconnected and the water inlet and outlet sealed.

CLAUSE

All electrical controls are simultaneously set to the most unfavourable position, short-circuited or open-circuited whichever is the most unfavourable. The water heater is then placed in the same attitude as it was when mounted, in an ambient temperature of $-5\text{ }^{\circ}\text{C}$ or lower, for a period sufficient to freeze the water.

The water heater is then immediately re-installed in the normal ambient temperature and operated at rated input.

The heating element shall remain de-energized, or shall rupture without causing a hazard to the user or any excessive pressure shall be relieved by means of a pressure relief device. The water heater is switched off and allowed to reach room temperature.

If the heating element ruptures or is de-energized during the test, the inlet is opened and water supplied at a steadily increasing pressure until a pressure of 1.1 MPa (11 bar) is reached. This pressure is maintained for 1 min and then reduced to atmospheric pressure.

If a pressure relief device has operated, the water heater is reconnected to the water supply for a period of 1 min with the outlet still sealed.

After this test the water heater shall comply with the requirements of clause 8 and subclause 16.2.

Flow switches are not short-circuited.

Add the following to the A-deviations in the Informative annex to HD 282 S1 "List of national deviations" of January 1991:

Clause

- 22 **UNITED KINGDOM** (Building Regulations 1985, Part G3 Hot water storage, HMSO July 1989, ISBN 0 11752224 4)

In addition to a non-resetting thermal cut-out any closed water heater having a storage capacity in excess of 15 l shall be fitted with a temperature relief valve to BS 6283 Part 2 or a combined temperature/pressure relief valve to BS 6283 Part 3.

- 24 **UNITED KINGDOM** (Building Regulations 1985, Part G3 Hot water storage, HMSO July 1989, ISBN 0 11752224 4)

In any closed water heating system having a storage capacity in excess of 15 l adequate precautions shall be taken to prevent the water temperature of the stored water at any time exceeding 100 °C.

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