



SLOVENSKI STANDARD SIST EN 60335-2-41:1997

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Nadomešča:

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Varnost gospodinjskih in podobnih električnih aparatov - 2-41. del: Posebne zahteve za črpalke za tekočine, katerih temperatura ni višja od 35 °C (IEC 60335-2-41:1996)

Safety of household and similar electrical appliances -- Part 2-41: Particular requirements for pumps

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-41: Besondere Anforderungen für Pumpen

Sécurité des appareils électrodomestiques et analogues -- Partie 2-41: Règles particulières pour les pompes

Ta slovenski standard je istoveten z: EN 60335-2-41:1996

ICS:

13.120	Varnost na domu	Domestic safety
23.080	Črpalke	Pumps

SIST EN 60335-2-41:1997 en

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EUROPEAN STANDARD

EN 60335-2-41

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 1996

ICS 23.080

Supersedes EN 60335-2-41:1990 and its amendments

Descriptors: Household electrical appliances, pumps, safety requirements, protection against electric shock, fire protection, protection against mechanical hazard

English version

Safety of household and similar electrical appliances
Part 2: Particular requirements for pumps for liquids having
a temperature not exceeding 35 °C
 (IEC 335-2-41:1996)

Sécurité des appareils
 électrodomestiques et analogues
 Partie 2: Règles particulières pour
 les pompes pour liquides dont la
 température ne dépasse pas 35 °C
 (CEI 335-2-41:1996)

Sicherheit elektrischer Geräte für den
 Hausgebrauch und ähnliche Zwecke
 Teil 2: Besondere Anforderungen für
 Pumpen für Flüssigkeiten, die eine
 Temperatur von 35° nicht überschreiten
 (IEC 335-2-41:1996)

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This European Standard was approved by CENELEC on 1996-03-05. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

Foreword

The text of document 61/949/FDIS, future second edition of IEC 335-2-41, prepared by the IEC Technical Committee 61 was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60335-2-41 on 1996-03-05.

The following dates are applicable:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-12-01
- date on which national standards conflicting with the EN have to be withdrawn (dow) 1998-12-01

For products which have complied with EN 60335-2-41:1990 and its amendment A1:1994 before 1998-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2003-12-01.

This standard has to be used in conjunction with EN 60335-1, Safety of household and similar electrical appliances, Part 1: General requirements. It was established on the basis of the 1994 edition of that standard. Amendments and revisions of part 1 have also to be taken into account and the dates when such changes become applicable will be stated in the relevant amendment or revision of part 1.

This part 2 supplements or modifies the corresponding clauses of EN 60335-1, so as to convert it into the European Standard: Safety requirements for electrical pumps for liquids having a temperature not exceeding 35 °C.

Where a particular subclause of part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. Where this standard states "addition", "modification" or "replacement", the relevant text of part 1 is to be adapted accordingly.

Subclauses which are additional to those in part 1 are numbered starting with 101.

There are no special national conditions causing a deviation from this European Standard, other than those listed in annex ZA to EN 60335-1.

There are no national deviations from this European Standard, other than those listed in annex ZB to EN 60335-1.

NOTE - The following print types are used:

- requirements: in roman type;
- test specifications: in italic type;
- notes: in small roman type.

Words in **bold** in the text are defined in clause 2. When a definition of part 1 concerns an adjective, the adjective and the associated noun are also in bold.

Endorsement notice

The text of the International Standard IEC 335-2-41:1996 was approved by CENELEC as a European Standard without any modification.

**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

335-2-41

Deuxième édition
Second edition
1996-02

**Sécurité des appareils électrodomestiques
et analogues –**

Partie 2:

Règles particulières pour les pompes pour liquides
dont la température ne dépasse pas 35 °C

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**Safety of household and similar
electrical appliances –**

Part 2:

Particular requirements for pumps for liquids
having a temperature not exceeding 35 °C

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part 2: Particular requirements for pumps for liquids
having a temperature not exceeding 35 °C

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.
- 6) The IEC has not laid down any procedure concerning marking as an indication of approval and has no responsibility when an item of equipment is declared to comply with one of its standards.

This part of International Standard IEC 335 has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

It forms the second edition of IEC 335-2-41 and replaces the first edition, published in 1984, and its amendment.

The text of this standard is based on the following documents:

FDIS	Report on voting
61/949/FDIS	61/999/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This part 2 is to be used in conjunction with the latest edition of IEC 335-1 and its amendments. It was established on the basis of the third edition (1991) of that standard.

This part 2 supplements or modifies the corresponding clauses of IEC 335-1, so as to convert it into the IEC standard: Safety requirements for electric pumps for liquids having a temperature not exceeding 35 °C.

Where a particular subclause of part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. Where this standard states "addition", "modification" or "replacement", the relevant text in part 1 is to be adapted accordingly.

NOTES

1 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in clause 2. When a definition of part 1 concerns an adjective, the adjective and the associated noun are also in bold.

2 Subclauses which are additional to those in part 1 are numbered starting from 101.

The following additional differences exist in some countries.

- 6.1: Pumps intended to be used in or close to swimming pools, garden ponds and similar places may be of class 0I if their supply circuit is protected by a residual current device. Other pumps may be of class 0I (Japan).
- 6.1: Class 0 aquarium pumps are allowed (USA).
- 7.12.1: Stationary pumps not incorporating a protective device are to be marked with the characteristics of the device to be installed in the fixed wiring (USA).
- 15.1.1: The test is different (USA).
- 20.1: This test is only carried out on fountain pumps, the angle being 15° (USA).
- 22.105: The test is different (USA).

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SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part 2: Particular requirements for pumps for liquids having a temperature not exceeding 35 °C

1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of electric **pumps** for liquids having a temperature not exceeding 35 °C, which are intended for household and similar purposes, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

Appliances not intended for normal household use, but which nevertheless may be a source of danger to the public, such as appliances intended to be used by laymen in shops, in light industry and on farms, are within the scope of this standard.

NOTE 1 – Examples of appliances within the scope of this standard are:

- **submersible pumps;**
- **vertical wet pit pumps;**
- **sludge pumps;**
- **aquarium pumps;**
- **pumps for garden ponds.**

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So far as is practicable, this standard deals with the common hazards presented by appliances, which are encountered by all persons in and around the home.

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This standard does not in general take into account

- the use of appliances by young children or infirm persons without supervision;
- playing with the appliance by young children.

NOTES

2 Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;
- for appliances intended to be used in tropical countries, special requirements may be necessary;
- in many countries additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour and similar authorities.

3 This standard does not apply to

- circulation **pumps** for heating and service water installations (IEC 335-2-51);
- **pumps** for flammable liquids;
- **pumps** for sewage installations where flammable gases are likely to occur;
- **pumps** intended exclusively for industrial purposes;
- **pumps** intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas);
- **pumps** incorporating chlorinators of the electrolytic type.

4 **Pumps** incorporated in appliances are not covered by this standard unless a specific reference is made.