



SLOVENSKI STANDARD

SIST EN 60335-2-7:2001

01-julij-2001

Nadomešča:

SIST EN 60335-2-7:1998

SIST EN 60335-2-7:1998/A1:1998

Varnost gospodinjskih in podobnih električnih aparatov - 2-7. del: Posebne zahteve za pralne stroje (IEC 60335-2-7:2000; spremenjen)

Safety of household and similar electrical appliances -- Part 2-7: Particular requirements for washing machines

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Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-7: Besondere Anforderungen für Waschmaschinen

[SIST EN 60335-2-7:2001](https://standards.itih.ai/catalog/standards/sist/e923f6d5-fc69-4d3e-b4e1-f9495a16d441/sist-en-60335-2-7-2001)

Sécurité des appareils électrodomestiques et analogues -- Partie 2-7: Règles particulières pour les machines à laver le linge

Ta slovenski standard je istoveten z: EN 60335-2-7:2001

ICS:

13.120	Varnost na domu	Domestic safety
97.060	Aparati za nego perila	Laundry appliances

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EUROPEAN STANDARD

EN 60335-2-7

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2001

ICS 13.120.97.060

Supersedes EN 60335-2-7:1997 + A1:1998

English version

Safety of household and similar electrical appliances
Part 2-7: Particular requirements for washing machines
 (IEC 60335-2-7:2000, modified)

Sécurité des appareils
 électrodomestiques et analogues
 Partie 2-7: Règles particulières pour les
 machines à laver le linge
 (CEI 60335-2-7:2000, modifiée)

Sicherheit elektrischer Geräte für den
 Hausgebrauch und ähnliche Zwecke
 Teil 2-7: Besondere Anforderungen für
 Waschmaschinen
 (IEC 60335-2-7:2000, modifiziert)

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This European Standard was approved by CENELEC on 2000-08-01. 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, Czech Republic, 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 amendment 2:1999 to IEC 60335-2-7:1993, prepared by the IEC Technical Committee 61, was submitted to the Unique Acceptance Procedure.

The text of document 61/1644/FDIS, future amendment to IEC 60335-2-7:1993 prepared by the IEC Technical Committee 61, was submitted to the IEC-CENELEC parallel vote.

The above texts were combined with the text of IEC 60335-2-7:1993 and its amendment 1:1998 into a new edition of IEC 60335-2-7 which, together with the common modifications in EN 60335-2-7:1997, was approved by CENELEC as a new edition of EN 60335-2-7 on 2000-08-01.

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) 2001-08-01
- date on which national standards conflicting with the EN have to be withdrawn (dow) 2007-08-01

This European Standard replaces EN 60335-2-7:1997 and its amendment A1:1998.

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 electric washing machines.

When a particular subclause of part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When 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.
Annexes which are additional to those in part 1 are lettered AA, BB, etc.

Special national conditions causing a deviation from this European Standard are listed in annex ZA and are in addition to those in 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.

p NOTE In this document, p is used in the margin to indicate instructions for preparing the printed version.

Introduction

An investigation by CENELEC TC 61 has shown that all risks from products within the scope of this standard are fully covered by the Low Voltage Directive, 73/23/EEC. If the product has mechanical moving parts, a risk assessment in accordance with the Machinery Directive, 89/392/EEC, has shown that the risks are mainly of electrical origin and consequently this directive is not applicable. However, the relevant essential safety requirements of the Machinery Directive are covered by this standard together with the principal objectives of the Low Voltage Directive.

Endorsement notice

The text of the International Standard IEC 60335-2-7:2000 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS**19 Abnormal operation**

- p 19.101 Add to the penultimate dashed item of note 1:

This fault condition is not applied if the cross section of the tube supplying the air chamber with water is greater than 5 cm² with a minimum dimension of 1 cm, and if the outlet of the chamber is at least 2 cm above the highest water level. The tube connecting the air chamber to the water level switch is to be fixed so that there is no likelihood of bending or pinching.

22 Construction

- p 22.101 Add:

NOTE Z1 - Refer to annex ZA.

24 Components

- p Add:

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24.Z101 Components necessary for the connection of the washing machine to the water mains shall comply with EN 61770. They shall be supplied with the appliance.

Compliance is checked by inspection.

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Annexes**Annex A - Normative references**p *Replace by:***Annex A**
(normative)**Normative references****International publications with their relevant European publication***Addition:*

<u>IEC standard</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60335-2-4	1993	Safety of household and similar electrical appliances - Part 2-4: Particular requirements for spin extractors	EN 60335-2-4	1995
IEC 60335-2-11	2000	Safety of household and similar electrical appliances - Part 2-11: Particular requirements for tumble dryers	EN 60335-2-11	2001
IEC 60456 (mod)	1998	Clothes washing machines for household use Methods for measuring the performance	EN 60456	1999
IEC 61770	1998	Electric appliances connected to the water mains - Avoidance of backsiphonage and failure of hose-sets	EN 61770	1999
<u>ISO standard</u>				
ISO 1817	1985	Vulcanized rubber - Determination of the effect of liquids		-

p *Add:***Annex ZA (normative)****Special national conditions***Addition:*

<u>Clause</u>	<u>Special national condition</u>
22.101	Norway

The test is carried out at twice the permissible inlet pressure or 2,0 MPa, whichever is greater.

INTERNATIONAL STANDARD

IEC 60335-2-7

Fifth edition
2000-01

Safety of household and similar electrical appliances –

Part 2-7: Particular requirements for washing machines

Sécurité des appareils électrodomestiques et analogues –

*Partie 2-7:
Règles particulières pour les machines à laver le linge*

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

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CONTENTS

	Page
FOREWORD	3
Clause	
1 Scope	5
2 Definitions	6
3 General requirement	6
4 General conditions for the tests	6
5 Void	7
6 Classification	7
7 Marking and instructions	7
8 Protection against access to live parts	8
9 Starting of motor-operated appliances	8
10 Power input and current	8
11 Heating	8
12 Void	10
13 Leakage current and electric strength at operating temperature	10
14 Void	10
15 Moisture resistance	10
16 Leakage current and electric strength	11
17 Overload protection of transformers and associated circuits	12
18 Endurance	12
19 Abnormal operation	12
20 Stability and mechanical hazards	13
21 Mechanical strength	14
22 Construction	14
23 Internal wiring	15
24 Components	15
25 Supply connection and external flexible cords	16
26 Terminals for external conductors	16
27 Provision for earthing	16
28 Screws and connections	16
29 Creepage distances, clearances and distances through insulation	16
30 Resistance to heat, fire and tracking	16
31 Resistance to rusting	16
32 Radiation, toxicity and similar hazards	16
Annex A Normative references	17
Annex AA (normative) Detergent (extract from IEC 60456)	18
Annex BB (normative) Ageing test for elastomeric parts	19

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SIST EN 60335-2-7:2001

<https://standards.iteh.ai/catalog/standards/sist/e923fd5-f669-4d3e-b4cc-b405a16dc41/sist-en-60335-2-7-2001>

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –**Part 2-7: Particular requirements for washing machines**

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 co-operation 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 express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, 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) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60335-2-7 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 1993, amendment 1 (1998) and amendment 2 (1999). This fifth edition constitutes a technical revision.

The text of this standard is based on the fourth edition, amendments 1 and 2 and the following documents:

FDIS	Report on voting
61/1644/FDIS	61/1740/RVD

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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 intended to be used in conjunction with the latest edition of IEC 60335-1 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 60335-1 so as to convert it into the IEC standard: Safety requirements for electric washing machines.

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.

NOTE 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.

NOTE 2 Subclauses which are additional to those in part 1 are numbered starting from 101. Annexes which are additional to those in part 1 are lettered AA, BB, etc.

The following additional differences exist in some countries:

- 2.2.9: Different size cloths are used. The initial water temperature for machines without heating elements and without a wringer is 71 °C (USA).
- 6.1: Class 01 appliances are permitted (China and Japan).
- 6.2: IPX0 appliances are permitted (Canada and USA).
- 11.7: The test durations are different (USA).
- 15.101: The test is carried out differently (USA).
- 19.7: Appliances without a programmer are operated until steady conditions are established (USA).
- 19.101: A redundant set of contacts is not required as shown in note 2. Operation without water as specified in note 4 is not considered an abnormal condition (USA).
- 22.6: A different test is made (USA).

The test is carried out at twice the permissible inlet pressure or 2,0 MPa, whichever is greater (Norway).

The test is not conducted (USA).

- Annex AA: A different detergent is used (USA).
- Annex BB: Other tests are made on elastomeric parts (USA).

A bilingual version of this standard may be issued at a later date.

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SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –

Part 2-7: Particular requirements for washing machines

1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of electric washing machines for household and similar purposes, intended for washing clothes and textiles, their **rated voltage** being not more than 250 V for single-phase appliances and 480 V for other appliances.

NOTE 1 Washing machines may incorporate means for heating water, water extraction and drying.

NOTE 2 Washing machines having a spin extraction function also have to comply with the relevant requirements of IEC 60335-2-4.

Washing machines having a drying function also have to comply with the relevant requirements of IEC 60335-2-11.

NOTE 3 Washing machines supplied with electricity together with other forms of energy are also within the scope of this standard.

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 4 Examples of such appliances are washing machines for communal use in blocks of flats or in launderettes.

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.

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.

NOTE 5 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, the national water supply authorities and similar authorities.

NOTE 6 This standard does not apply to: [SIST EN 60335-2-7:2001](#)

- appliances designed exclusively for industrial purposes;
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas).