



SLOVENSKI STANDARD

SIST EN 50410:2008

01-julij-2008

Gospodinjski in podobni električni aparati - Varnost - Posebne zahteve za okrasne robote

Household and similar electrical appliances - Safety - Particular requirements for decorative robots

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Besondere Anforderungen für Geräte für Dekorationszweck

Appareils électrodomestiques et analogues - Sécurité - Règles particulières pour les robots décoratifs

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Ta slovenski standard je istoveten z: EN 50410:2008

ICS:

97.040.50 Majhni gospodinjski aparati Small kitchen appliances

SIST EN 50410:2008

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 50410

January 2008

ICS 97.200.50; 97.190

English version

Household and similar electrical appliances - Safety - Particular requirements for decorative robots

Appareils électrodomestiques
et analogues -
Sécurité -
Règles particulières
pour les robots décoratifs

Sicherheit elektrischer Geräte
für den Hausgebrauch
und ähnliche Zwecke -
Besondere Anforderungen
für Geräte für Dekorationszwecke

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This European Standard was approved by CENELEC on 2007-12-01. 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.

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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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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

This European Standard has been prepared by the Technical Committee CENELEC TC 61, Safety of household and similar electrical appliances. During the Brussels meeting in November 2002, it was decided to submit a draft to the CENELEC enquiry. The result of the enquiry was discussed during the Brughes meeting in June 2005, where it was decided to submit a draft to the formal vote.

The draft was circulated in April 2007 and was approved by CENELEC as EN 50410 on 2007-12-01.

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) 2008-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2010-12-01

This standard has to be used in conjunction with EN 60335-1, Household and similar electrical appliances – Safety – Part 1: General requirements. It was established on the basis of the 2002 edition of that standard. Amendments and revisions of EN 60335-1 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 EN 60335-1.

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This standard, which is regarded as a Part 2 of EN 60335, supplements or modifies the corresponding clauses of EN 60335-1, so as to convert it into the European Standard: Safety requirements for decorative robots.

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When a particular subclause of EN 60335-1 is not mentioned in this standard, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of EN 60335-1 is to be adapted accordingly.

NOTE 1 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in EN 60335-1;
- unless notes are in a new subclause or involve notes in EN 60335-1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.
- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letter Z.

NOTE 2 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 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

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.

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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, 2006/95/EC. For products having mechanical moving parts, a risk assessment in accordance with the Machinery Directive, 98/37/EC, 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.

Decorative robots designed for use with a rated voltage between and including 50 V a.c. and 1 000 V a.c. or between and including 75 V d.c. and 1 500 V d.c. are covered by the Low Voltage Directive.

Some decorative robots designed for use with a rated voltage below 50 V a.c. or 75 V d.c. are covered by the General Product Safety Directive, 2001/95/EC.

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1 Scope

This clause of EN 60335-1 is replaced by the following.

This European Standard deals with the safety of electric **decorative robots** for household and similar purposes, including child-appealing and those intended for seasonal use, their **rated voltage** being not more than 250 V.

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 and other premises for normal housekeeping purposes, are within the scope of this standard.

NOTE 101 Examples of such appliances are appliances intended to be used for normal housekeeping purposes in hotels, offices, schools, hospitals and similar premises.

As far as is practicable, this standard deals with the common hazards presented by robots that are encountered by all persons in and around the home.

Robots intended for playing are considered as toys and are covered by EN 62115.

This standard is not applicable to functional robots, which by their design are intended for practical use. They are covered by other standards of the EN 60335 series.

NOTE 102 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;
- 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 103 This standard does not apply to

- electric toys (covered by EN 62115);
- appliances intended 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, vapor or gas).

2 Normative references

This clause of EN 60335-1 is applicable except as follows.

Addition:

EN 62115, *Electric toys – Safety* (IEC 62115, mod.)

3 Definitions

This clause of EN 60335-1 is applicable except as follows.

3.1.9 Replacement:

normal operation

operation of the appliance under the following conditions:

The appliance is supplied at **rated voltage** and operated continuously as far as intended by the construction. Battery operated appliances are operated with the batteries recommended

3.101**decorative robot**

robot having electrically powered moving parts but not for functional purpose and practical use. It may represent a model, person or animal (real or imaginary)

3.102**battery box**

separate compartment for containing the batteries that is detachable from the appliance

3.103**replaceable battery**

battery that can be replaced without breaking the appliance

4 General requirement

This clause of EN 60335-1 is applicable.

5 General conditions for the tests

This clause of EN 60335-1 is applicable except as follows.

5.6 Addition:

Thermostats are short-circuited.

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5.101 *Battery operated appliances are tested using new non-rechargeable batteries or fully charged rechargeable batteries, whichever is more unfavourable.*

NOTE 1 In general a fully charged nickel-cadmium battery or a new alkaline battery is considered to be the most unfavourable battery.

The batteries used are those with the voltage and size specified on the appliance or in the instructions. Similar batteries that are generally available are used if this results in more unfavourable conditions.

NOTE 2 Lithium batteries are not used unless their use is recommended in the instructions.

NOTE 3 If the appliance fails to withstand a test and this could be due to a defective battery, the test is repeated with a new set of batteries.

6 Classification

This clause of EN 60335-1 is applicable except as follows.

6.1 Modification:

Appliances shall be of **class II** or **class III**.

6.2 Addition:

Appliances for outdoor use shall be at least IPX4.

7 Marking and instructions

This clause of EN 60335-1 is applicable except as follows.

7.1 Addition:

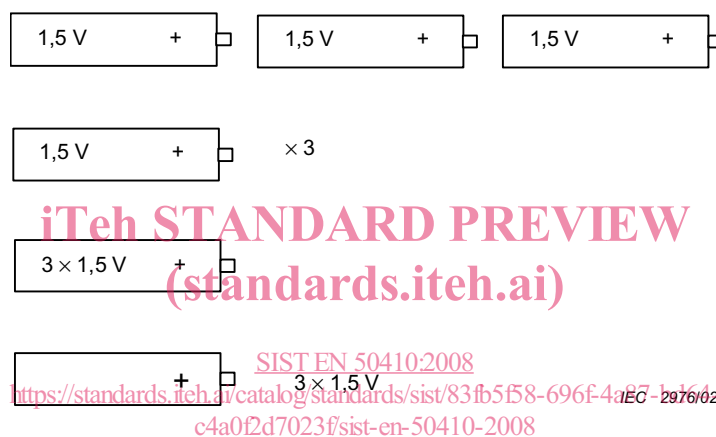
Battery operated appliances with **replaceable batteries** shall be marked with

- the nominal battery voltage, in or on the battery compartment;
- the symbol for d.c. if the appliance has a **battery box**.

If more than one battery is used, the battery compartment shall be marked with the shape of the batteries in proportional size, together with their nominal voltage and polarity.

Compliance is checked by inspection.

NOTE Examples representing three batteries are



7.12 Addition:

The instructions shall include the following:

- “This it not a toy. This robot is not intended for use in play by persons under the age of 14.”;
- “This appliance is not constructed for outdoor use” (for portable appliances less than IPX4);
- “This appliance has to be connected to a SELV transformer” (for robots of **class III** delivered without a transformer);
- the types of batteries that may be used;
- how to remove and insert the batteries;
- non-rechargeable batteries are not to be recharged;
- rechargeable batteries are to be removed from the appliance before being charged;
- different types of batteries or new and used batteries are not to be mixed;
- batteries are to be inserted with the correct polarity;
- exhausted batteries are to be removed from the appliance;
- the supply terminals are not to be short-circuited.

The instructions of portable robots shall also include the substance of the following:

WARNING Do not immerse in water or any other liquid.