

SLOVENSKI STANDARD SIST EN 60950-1:2006/A2:2014

01-februar-2014

Oprema za informacijsko tehnologijo - Varnost - 1. del: Splošne zahteve - Dopolnilo A2 (IEC 60950-1:2005/A2:2013, spremenjen)

Information technology equipment - Safety - Part 1: General requirements

Einrichtungen der Informationstechnik - Sicherheit - Teil 1: Allgemeine Anforderungen

Matériel de traitement de l'information - Sécurité - Partie 1: Exigences générales (standards.iteh.ai)

Ta slovenski standard je istoveten z: EN 60950-1:2006/A2:2013

https://standards.iteh.ai/catalog/standards/sist/c1fl6e9b-fbeb-4b94-92a6-

3050c62c3195/sist-en-60950-1-2006-a2-2014

ICS:

35.020 Informacijska tehnika in Information technology (IT) in

tehnologija na splošno general

SIST EN 60950-1:2006/A2:2014 en

SIST EN 60950-1:2006/A2:2014

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SIST EN 60950-1:2006/A2:2014 https://standards.iteh.ai/catalog/standards/sist/c1f16e9b-fbeb-4b94-92a6-3050c62c3195/sist-en-60950-1-2006-a2-2014

EUROPEAN STANDARD

EN 60950-1/A2

NORME EUROPÉENNE EUROPÄISCHE NORM

August 2013

ICS 35.020; 35.260

English version

Information technology equipment - Safety -

Part 1: General requirements (IEC 60950-1:2005/A2:2013, modified)

Matériel de traitement de l'information -Sécurité -Partie 1: Exigences générales

(CEI 60950-1:2005/A2:2013, modifié)

Einrichtungen der Informationstechnik -Sicherheit -Teil 1: Allgemeine Anforderungen (IEC 60950-1:2005/A2:2013, modifiziert)

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This amendment A2 modifies the European Standard EN 60950-1:2006; it was approved by CENELEC on 2013-07-02. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

https://standards.iteh.ai/catalog/standards/sist/c1f16e9b-fbeb-4b94-92a6-

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 amendment 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 108/507/FDIS, future IEC 60950-1:2005/A2, prepared by IEC/TC 108 "Safety of electronic equipment within the field of audio/video, information technology and communication technology" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60950-1:2006/A2:2013.

A draft amendment, which covers common modifications to IEC 60950-1:2005/A2:2013, was prepared by CLC/TC 108X, "Safety of electronic equipment within the fields of Audio/Video, Information Technology and Communication Technology" and approved by CENELEC.

The following dates are fixed:

latest date by which this document has to be implemented (dop) 2014-07-02 at national level by publication of an identical national standard or by endorsement latest date by which the national standards conflicting (dow) 2016-07-02 with this document have to be withdrawn

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60950-1 are prefixed "Z". iTeh STANDARD PREVIEW

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights. SIST EN 60950-1:2006/A2:2014

https://standards.iteh.ai/catalog/standards/sist/c1f16e9b-fbeb-4b94-92a6-This standard covers the Principle_Elements_upfothe_Safety_Qbjectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

EN 60950-1:2006/A2:2013

Endorsement notice

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The text of the International Standard IEC 60950-1:2005/A2:2013 was approved by CENELEC as a European Standard with agreed common modifications.

COMMON MODIFICATIONS

Contents

Add the following:

Annex ZD (informative) IEC and CENELEC code designations for flexible cords

Whole document

Delete all the "country" notes in the reference document according to the following list:

| 2.7.1 | Note * | 2.10.3.1 | Note 2 | 6.2.2 | Note |
|-------|--------|----------|--------|-------|------|
| | | | | | |

^{*} Note of secretary: Text of Common Modification remains unchanged

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For special national conditions, see Annex ZB. (standards.iteh.ai)

Wiring, connections and supply 50-1:2006/A2:2014 3

https://standards.iteh.ai/catalog/standards/sist/c1f16e9b-fbeb-4b94-92a6-

3.2.5.1 AC power supply cords62c3195/sist-en-60950-1-2006-a2-2014

Add the following Note:

NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD.

Replace the entire Annex ZA by the following:

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | EN/HD | <u>Year</u> |
|-----------------------------|------------------|---|--------------------------------|----------------------|
| - | iTeh | Sound system equipment: Headphones and earphones associated with portable audio equipment — Maximum sound pressure level measurement methodology and limit considerations — Part 1: General method for "one package equipment" | EN 50332-1 | - |
| - | https://standard | Sound system equipment: 2014 Headphones and earphones 9b-fbeb associated with portable audio 2011 equipment — Maximum sound pressure level measurement methodology and limit considerations — Part 2: Matching of sets with headphones if either or both are offered separately | EN 50332-2 -4b94-92a6- 4 | - |
| - | - | Insulating, sheathing and covering materials for low-voltage energy cables | EN 50363 | all parts |
| - | - | Electrical test methods for low voltage energy cables | EN 50395 | - |
| - | - | Non electrical test methods for low voltage energy cables | EN 50396 | - |
| IEC 60065 (mod) A1 (mod) | 2001 2005 | Audio, video and similar electronic apparatus – Safety requirements | EN 60065 A1 A11 | 2002 2006 2008 |
| A2 (mod) | 2010 | | A11 A2 A12 | 2010 2011 |
| IEC 60068-2-78 | - | Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state | EN 60068-2-78 | - |

EN 60950-1:2006/A2:2013

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | EN/HD | <u>Year</u> |
|--------------------|------------------------------|--|------------------------|-------------|
| IEC 60073 | - | Basic and safety principles for man-machine interface, marking and identification – Coding principles for indication devices and actuators | EN 60073 | - |
| IEC/TR 60083 | - | Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC | - | - |
| IEC 60085 | 2004 | Electrical insulation – Thermal evaluation and designation | EN 60085 | 2004 1) |
| IEC 60112 | - | Method for the determination of the proof and the comparative tracking indices of solid insulating materials | EN 60112 | - |
| IEC 60127-1 | - | Miniature fuses – Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links | EN 60127-1 | - |
| IEC 60227-1 | 2007 eh | Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V — ten all Part 1: General requirements | | - |
| IEC 60227-2 A1 | 1997 ht2003 tandard 30 | Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V = 1-2006-a2-2014 Part 2: Test methods | 2) -4b94-92a6- 4 | - |
| IEC 60245 | all parts | Rubber insulated cables – Rated voltages up to and including 450/750V | _ 3) | - |
| IEC 60309 | all parts | Plugs, socket-outlets and couplers for industrial purposes – Part 1: General requirements | EN 60309 | all parts |
| IEC 60317 | all parts | Specifications for particular types of winding wires | EN 60317 | all parts |
| IEC 60317-43 | - | Specifications for particular types of winding wires – Part 43: Aromatic polyimide tape wrapped round copper wire, class 240 | EN 60317-43 | - |

¹⁾ IEC 60085:2004 is superseded by IEC 60085:2007 which is harmonised as EN 60085:2008.

²⁾ The HD 21 series is related to, but not directly equivalent with the IEC 60227 series. Also EN 50363, EN 50395 and EN 50396 are to be taken into account.

³⁾ The HD 22 series is related to, but not directly equivalent with the IEC 60245 series. Also EN 50363, EN 50395 and EN 50396 are to be taken into account.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | EN/HD | <u>Year</u> |
|-------------------------|------------------------------|---|------------------------------------|--------------------|
| IEC 60320 | all parts | Appliance couplers for household and similar general purposes | EN 60320 | all parts |
| IEC 60364-1 (mod) | 2001 | Electrical installations of buildings – Part 1: Fundamental principles, assessment of general characteristics, definitions | HD 384.1 S2 | 2001 |
| IEC 60384-14 | 2005 | Fixed capacitors for use in electronic equipment – Part 14: Sectional specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains | EN 60384-14 | 2005 |
| IEC 60417 | Data- base | Graphical symbols for use on equipment | - | - |
| IEC 60664-1 A1 A2 | 1992 2000 2002 iTeh | Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements V and tests | EN 60664-1 | 2003 ⁴⁾ |
| IEC 60695-2-11 | https://standard | naminability test metriod for end- | EN 60695-2-11 0-4b94-92a6- 4 | - |
| IEC 60695-2-20 | - | Fire hazard testing – Part 2-20: Glowing/hot-wire based test methods – Hot-wire coil ignitability – Apparatus, test method and guidance | - | - |
| IEC 60695-10-2 | - | Fire hazard testing – Part 10-2: Abnormal heat – Ball pressure test | EN 60695-10-2 | - |
| IEC 60695-10-3 | - | Fire hazard testing – Part 10-3: Abnormal heat – Mould stress relief distortion test | EN 60695-10-3 | - |
| IEC 60695-11-3 | - | Fire hazard testing – Part 11-3: Test flames –500 W flames – Apparatus and confirmational test methods | EN 60695-11-3 | - |
| IEC 60695-11-4 | - | Fire hazard testing – Part 11-4: Test flames –50 W flame – Apparatus and confirmational test method | EN 60695-11-4 | - |

 $^{^{4)}}$ IEC 60664-1:1992 is superseded by IEC 60664-1:2007 which is harmonised as EN 60664-1:2007.

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| Publication | <u>Year</u> | <u>Title</u> | EN/HD | <u>Year</u> |
|-------------------------|-----------------------|---|---------------------------|----------------------------|
| IEC 60695-11-5 | 2004 | Fire hazard testing – Part 11-5: Test flames – Needle- flame test method – Apparatus, confirmatory test arrangement and guidance | EN 60695-11-5 | 2004 |
| IEC 60695-11-10 | - | Fire hazard testing – Part 11-10: Test flames – 50 W horizontal and vertical flame test methods | EN 60695-11-10 | - |
| IEC 60695-11-20 | - | Fire hazard testing – Part 11-20: Test flames – 500 W flame test methods | EN 60695-11-20 | - |
| IEC 60730-1 (mod) A1 | 1999 2003 | Automatic electrical controls for household and similar use – Part 1: General requirements | EN 60730-1 A1 | 2000 ⁵⁾ 2004 |
| IEC 60747-5-5 | 2007 | Semiconductor devices – Discrete devices – Part 5-5: Optoelectronic devices – Photocouplers | EN 60747-5-5 | 2011 |
| IEC 60825-1 | -iTeh | Safety of laser products PRFV Part 1: Equipment classification and requirements site 1.21 | EN 60825-1 | - |
| IEC 60825-2 | - https://standard | Safety of laser products – Part 2: Safety of optical fibre scommunication systems (OFCS) beb 50c62c3195/sist-en-60950-1-2006-a2-2014 | EN 60825-2 -4b94-92a6- | - |
| IEC/TR 60825-9 | - | Safety of laser products – Part 9: Compilation of maximum permissible exposure to incoherent optical radiation | - | - |
| IEC 60825-12 | - | Safety of laser products – Part 12: Safety of free space optical communication systems used for transmission of information | EN 60825-12 | - |
| IEC 60851-3 | 2009 | Winding wires – Test methods – Part 3: Mechanical properties | EN 60851-3 | 2009 |
| IEC 60851-5 | 2008 | Winding wires – Test methods – Part 5: Electrical properties | EN 60851-5 | 2008 |
| IEC 60851-6 A1 A2 | 1996 1997 2003 | Winding wires – Test methods – Part 6: Thermal properties | EN 60851-6 A1 A2 | 1996 1997 2004 |

 $^{5) \ \}mathsf{IEC} \ 60730\text{-}1:1999 \ \mathsf{is} \ \mathsf{superseded} \ \mathsf{by} \ \mathsf{IEC} \ 60730\text{-}1:2000 \ \mathsf{which} \ \mathsf{is} \ \mathsf{harmonised} \ \mathsf{as} \ \mathsf{EN} \ 60730\text{-}1:2011, \ \mathsf{modified}.$

| Publication | <u>Year</u> | <u>Title</u> | EN/HD | <u>Year</u> |
|-------------------------|------------------|--|------------|-------------|
| IEC 60885-1 | 1987 | Electrical test methods for electric cables – Part 1: Electrical tests for cables, cords and wires for voltages up to and including 450/750 V | - | - |
| IEC 60906-1 | - | IEC system of plugs and socket- outlets for household and similar purposes – Part 1: Plugs and socket-outlets 16 A 250 V a.c. | - | - |
| IEC 60906-2 | - | IEC system of plugs and socket- outlets for household and similar purposes – Part 2: Plugs and socket-outlets 15 A 125 V a.c. and 20 A 125 V a.c. | - | - |
| IEC 60947-1 | - | Low-voltage switchgear and controlgear – Part 1: General rules | EN 60947-1 | - |
| IEC 60990 | 1999 eh | Methods of measurement of touch current and protective conductor current dards item at | EN 60990 | 1999 |
| IEC 60998-1 | https://standard | Connecting devices for low-voltage circuits for household and similar purposes — Similar purposes — Part 1: General requirements 2-201 | | - |
| IEC 60999-1 | - | Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units – Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm² up to 35 mm² (included) | EN 60999-1 | - |
| IEC 60999-2 | - | Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units – Part 2: Particular requirements for clamping units for conductors above 35 mm² up to 300 mm² (included) | EN 60999-2 | - |
| IEC 61051-2 | 1991 | Varistors for use in electronic equipment – Part 2: Sectional specification for surge suppression varistors | - | - |
| IEC 61058-1 (mod) A1 | 2000 2001 | Switches for appliances – Part 1: General requirements | EN 61058-1 | 2002 |
| A2 | 2007 | | A2 | 2008 |

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| <u>Publication</u> | <u>Year</u> | <u>Title</u> | EN/HD | <u>Year</u> |
|--------------------|------------------|--|------------------|-------------|
| IEC 62133 | 2012 | Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications | EN 62133 | 2013 |
| IEC 62368-1 | - | Audio/video, information and communication technology equipment – Part 1: Safety requirements | FprEN 62368 | - |
| IEC 62471 (mod) | 2006 | Photobiological safety of lamps and lamp systems | EN 62471 | 2008 |
| ISO 178 | - | Plastics - Determination of flexural properties | EN ISO 178 | - |
| ISO 179 | all parts | Plastics - Determination of Charpy impact properties | EN ISO 179 | all parts |
| ISO 180 | iTeh | Plastics - Determination of Izod impact strength RD PREV | EN ISO 180 | - |
| ISO 261 | - | ISO general purpose metric screw threads - General plan | - | - |
| ISO 262 | https://standard | ISO general purpose metric screw threads Selected sizes for 90-fbcb screws, bolts and nuts -2006-a2-201 | -4b94-92a6- 4 | - |
| ISO 527 | all parts | Plastics – Determination of tensile properties | EN ISO 527 | all parts |
| ISO 3864 | all parts | Graphical symbols – Safety colours and safety signs | - | - |
| ISO 4892-1 | - | Plastics – Methods of exposure to laboratory light sources – Part 1: General guidance | EN ISO 4892-1 | - |
| ISO 4892-2 | - | Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc lamps | EN ISO 4892-2 | - |
| ISO 4892-4 | - | Plastics – Methods of exposure to laboratory light sources – Part 4: Open-flame carbon-arc lamps | - | - |
| ISO 7000 | - | Graphical symbols for use on equipment – Registered symbols | - | - |
| ISO 8256 | - | Plastics – Determination of tensile-impact strength | EN ISO 8256 | - |

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| <u>Publication</u> | <u>Year</u> | <u>Title</u> | EN/HD | <u>Year</u> |
|--------------------------------|-------------|--|-------------|-------------|
| ISO 9772 | - | Cellular plastics – Determination of horizontal burning characteristics of small specimens subjected to a small flame | - | - |
| ISO 9773 | - | Plastics – Determination of burning behaviour of thin flexible vertical specimens in contact with a small-flame ignition source | EN ISO 9773 | - |
| ITU-T Recommendation K44 | - | Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents – Basic Recommendation | - | - |

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<u>SIST EN 60950-1:2006/A2:2014</u> https://standards.iteh.ai/catalog/standards/sist/c1f16e9b-fbeb-4b94-92a6-3050c62c3195/sist-en-60950-1-2006-a2-2014

Annex ZB (normative)

Special national conditions

Change the existing special national conditions as follows:

| Clause | Special national condition |
|---------|--|
| 1.7.2.1 | In Denmark , Finland , Norway and Sweden , CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. |
| | The marking text in the applicable countries shall be as follows: |
| | In Denmark : "Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord." |
| | In Finland : "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" |
| | In Norway: "Apparatet må tilkoples jordet stikkontakt" |
| | (standards.iteh.ai) In Sweden: "Apparaten skall anslutas till jordat uttag" |
| 1.7.5 | In Denmark , tasocket outlets of forta providing power-fto-other grequipment shall be in accordance with the DS 60884-2-D1:20110-1-2006-a2-2014 |
| | For class I equipment the following Standard Sheets are applicable: DK 1-3a, DK 1-1c, DK 1-1d, DK 1-5a or DK 1-7a, with the exception for STATIONARY EQUIPMENT where the socket-outlets shall be in accordance with Standard Sheet DK 1-1b, DK 1-1c, DK 1-1d or DK 1-5a. |
| | Socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance with DS 60884-2-D1 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with by DS 60884-2-D1 Standard Sheet DKA 1-3a or DKA 1-3b. |
| | Justification the Heavy Current Regulations, 6c |