



**SLOVENSKI STANDARD**  
**SIST EN 60950:1996/A4:1999**

**01-marec-1999**

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**Safety of information technology equipment - Amendment A4 (IEC 60950:1991/A4:1996, modified)**

Safety of information technology equipment - Amendment A4

Sicherheit von Einrichtungen der Informationstechnik

Sécurité des matériels de traitement de l'information

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**Ta slovenski standard je istoveten z: EN 60950:1992/A4:1997**

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**ICS:**

35.020

Informacijska tehnika in  
tehnologija na splošno

Information technology (IT) in  
general

**SIST EN 60950:1996/A4:1999**

**en**

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EUROPEAN STANDARD

EN 60950/A4

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 1997

UDC 681.3:651.2:620.1:614.8  
ICS 35.260.10; 35.020

Descriptors: Information technology equipment, business equipment, personal computer, safety

English version

**Safety of information technology equipment**  
(IEC 950:1991/A4:1996, modified)

Sécurité des matériels de traitement de  
l'information  
(CEI 950:1991/A4:1996, modifiée)

Sicherheit von Einrichtungen der  
Informationstechnik  
(IEC 950:1991/A4:1996, modifiziert)

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This amendment A4 modifies the European Standard EN 60950:1992; it was approved by CENELEC on 1996-12-09. 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.

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 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 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 74/422/FDIS, future amendment 4 of IEC 950:1991, prepared by IEC TC 74, Safety and energy efficiency of IT equipment, was submitted to the IEC-CENELEC parallel vote.

In October 1996, a draft amendment was submitted to the formal vote in order to introduce a common modification in the text of amendment 4.

The combined text was approved by CENELEC as amendment A4 to EN 60950:1992 on 1996-12-09.

The following dates were fixed;

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1997-08-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1998-08-01

For products which have complied with EN 60950:1992 and its amendments A1:1993, A2:1993 and A3:1995 before 1998-08-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2003-08-01.

Annexes designated "normative" are part of the body of the standard. Annexes designated "informative" are given for information only. In this standard, annexes ZA and ZB are normative, annexes ZC and ZD are informative.

Annexes ZA, ZB and ZC replace the annexes of EN 60950:1992/A3:1995.

Annex ZD has been added to provide an overview of all current common modifications to IEC 950:1991 and its amendments 1 to 4.

SIST EN 60950:1996/A4:1999

The following amendments have been made to Annexes ZA, ZB and ZC:

Annex ZA has been revised to align with the reference document.

Annex ZB - Special national conditions (snc)

- 1.6.4 An snc for Norway has been included
- 2.3.5 The snc for Norway (2.3.9) has been moved to 2.3.5
- 5.4.9 The snc for Norway has been amended
- 6.1 The snc for Switzerland has been withdrawn
- 6.2.1.2 An snc for Norway has been included
- An snc for Sweden has been included
- 6.3.3 The snc for Norway has been withdrawn
- 6.3.3.1 An snc for Norway has been included
- An snc for Sweden has been included
- 6.3.3.2 An snc for Norway has been included

Annex ZC - A-deviations - No change

## Endorsement notice

The text of amendment 4:1996 to International Standard IEC 950:1991 was approved by CENELEC as an amendment to the European Standard with agreed common modifications as given below:

### Common modifications

Delete all the "country" notes that appear on the following pages of the reference document (IEC 950:1991/A4:1996):

57a, 95a, 105a, 137, 177, 185, 185a, 221, 225a, 225b, 227, 229a, 231, 235 and 237a.

Correction of typographical errors are required as follows:

2.9.4.1 Page 117, fourth dashed paragraph, replace "nominal" by "normal".

Annex J, Page 317, in table J.1, electrochemical potential between Zinc, zinc alloys and Magnesium, magnesium alloys, replace "0,05" by "0,5".

Annex N, Page 335, in the title between parentheses, replace "2.9.9" by "2.9.1".

Annex V, Page 359, in the figure, replace "SLEV CIRCUIT" by "SELV CIRCUIT".

### New common modifications

2.9.4.2 Amend the last line on page 117a as follows -

"Solvent-based enamel coating on winding wire is not considered to be insulation in thin sheet material."

Add a new sentence below the text on page 117a as follows -

"Requirements for wound components are given in 2.9.4.4."

2.9.4.4 Modify the title as follows -

2.9.4.4 *Wound components*

Replace the first paragraph and the two dashed paragraphs as follows -

"Unless one of the following situations applies, interleaved BASIC, SUPPLEMENTARY OR REINFORCED INSULATION complying with 2.9.4.1 or 2.9.4.2 shall be provided between the windings.

BASIC, SUPPLEMENTARY, DOUBLE OR REINFORCED INSULATION is permitted in a wound component without interleaved insulation using one of the following situations:

- the insulation on the winding wire complies with 2.9.4.1; or
- the winding wire complies with annex U; or
- the insulation between the windings is provided for separation between TNV circuits and other parts in compliance with 6.4.1.

NOTE - Examples of insulation of winding wire complying with annex U are polyimide and FEP. "

### Annexes ZA, ZB and ZC

Replace by the following new annexes:

## Annex ZA (normative)

Normative references to international publications  
with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

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

<u>IEC Publication</u>	<u>Date</u>	<u>Title</u>	<u>EN/HD</u>	<u>Date</u>
IEC 65 (mod)	1985	Safety requirements for mains operated electronic and related apparatus for household and similar general use	EN 60065 <sup>1)</sup> + corr. Nov. 1993	1993
IEC 73	1991	Coding of indicating devices and actuators by colours and supplementary means	EN 60073 <sup>2)</sup> + corr. Apr. 1993	1993
IEC 83	1975	Plugs and socket-outlets for domestic and similar general use. Standards	---	---
IEC 85	1984	Thermal evaluation and classification of electrical insulation	HD 566 S1	1990
IEC 112	1979	Methods for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions	HD 214 S2	1980
IEC 227 (mod)	series	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V	HD 21	series
IEC 245 (mod)	series	Rubber insulated cables of rated voltages up to and including 450/750V	HD 22	series
IEC 309 (mod)	series	Plugs, socket-outlets and couplers for industrial purposes	EN 60309	series
IEC 320 (mod)	series	Appliance couplers for household and similar general purposes	EN 60320	series
IEC 364	series	Electrical installations of buildings	HD 384	series

1) EN 60065 includes A1:1987 + A2:1989 + A3:1992 to IEC 65:1985

2) EN 60073:1993 is superseded by EN 60073:1996 which is based on IEC 73:1996, *Basic and safety principles for man-machine interface, marking and identification - Coding principles for indication devices and actuators.*

<u>IEC Publication</u>	<u>Date</u>	<u>Title</u>	<u>EN/HD</u>	<u>Date</u>
IEC 384-14	1981	Fixed capacitors for use in electronic equipment - Part 14: Sectional specification Fixed capacitors for radio interference suppression. Selection of methods of test and general requirements	---	---
IEC 384-14	1993	Fixed capacitors for use in electronic equipment - Part 14: Sectional specification Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	EN 132 400	1994
IEC 417	1973	Graphical symbols for use on equipment Index survey and compilation of the single sheets	HD 243 S12 <sup>3)</sup>	1995
IEC 664-1 (mod)	1992	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	HD 625.1 S1	1996
IEC 664-3	1992	Insulation coordination for equipment within low-voltage systems - Part 3: Use of coatings to achieve insulation coordination of printed board assemblies	---	---
IEC 695-2-2	1991	Fire hazard testing - Part 2: Test methods Section 2: Needle-flame test	EN 60695-2-2	1994
IEC 730-1 (mod)	1993	Automatic electrical controls for household and similar use - Part 1: General requirements	EN 60730-1	1995
IEC 825	series	Safety of laser products	EN 60825	series
IEC 851-3 + A2	1985 1992	Methods of test for winding wires : Part 3: Mechanical properties	HD 490.3 S3 <sup>4)</sup>	1993
IEC 851-5 + A1	1988 1990	Methods of test for winding wires Part 5: Electrical properties	HD 490.5 S2 <sup>5)</sup>	1991
IEC 851-6	1985	Methods of test for winding wires Part 6: Thermal properties	HD 490.6 S1 <sup>6)</sup>	1987
IEC 885-1	1987	Electrical test methods for electric cables Part 1: Electrical tests for cables, cords and wires up to and including 450/750 V	---	---
IEC 1058-1	1990	Switches for appliances - Part 1: General requirements	EN 61058-1	1992

3) HD 243 S12 includes supplements A:1974 to M:1994 to IEC 417

4) HD 490.3 S3 is superseded by EN 60851-3:1996 which is based on IEC 851-3:1996.

4) HD 490.5 S2 is superseded by EN 60851-5:1996 which is based on IEC 851-5:1996.

6) HD 490.6 S1 is superseded by EN 60851-6:1996 which is based on IEC 851-6:1996.

<u>ISO Publication</u>	<u>Date</u>	<u>Title</u>	<u>EN/HD</u>	<u>Date</u>
ISO 216	1975	Writing paper and certain classes of printed matter - Trimmed sizes - A and B series	EN 20216	1990
ISO 261	1973	ISO general purpose metric screw threads - General plan	----	----
ISO 262	1973	ISO general purpose metric screw threads - Selected sizes for screws, bolts and nuts	----	----
ISO 3864	1984	Safety colours and safety signs	----	----
ISO 4046	1978	Paper, board, pulp and related terms - Vocabulary	---	---
ISO 7000	1989	Graphical symbols for use on equipment - Index and synopsis	----	----

#### Other publications

CFR 47, Part 68: Code of Federal Regulations (USA) Part 68: Connection of terminal equipment to the telephone network (commonly referred to as "FCC Rules, part 68").

ITU-T (formerly CCITT) Recommendation K.17: 1988, Tests on power-fed repeaters using solid-state devices in order to check the arrangements for protection from external interference.

ITU-T (formerly CCITT) Recommendation K.21: 1988, Resistibility of subscribers' terminals to overvoltages and overcurrents.

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**Annex ZB (normative)****Special national conditions**

**Special national condition:** National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions. If it affects harmonization, it forms part of the European Standard.

For the countries in which the relevant special national conditions apply these provisions are normative, for other countries they are informative.

<u>Clause</u>	<u>Special national condition</u>
1.2.4.1	In <b>Denmark</b> , certain types of Class I appliances (see subclause 3.2.1) may be provided with a plug not establishing earthing continuity when inserted into Danish socket-outlets.
1.6.4	In <b>Norway</b> , due to the IT power system used, capacitors are required to be rated for the applicable phase-to-phase voltage (230 V).
1.7.2	In <b>Norway</b> , if separation between the mains and a communication system/network, other than public telecommunications networks, relies upon connection to safety earth, the equipment shall have a marking stating that it must be connected to an earthed mains socket-outlet.  NOTE: For requirements for equipment to be connected to a public telecommunication network see 6.2.1.4.  In <b>Sweden</b> , if the separation between the mains and a SELV terminal relies upon connection to the safety earth, the apparatus shall have a marking stating that it must be connected to an earthed mains socket-outlet when a SELV circuit is connected to a network passing both unearthed and earthed electrical environment. <a href="https://standards.iteh.ai/catalog/standards/sist/b572d76b-26e4-4f99-9d65-029dcf8d017/sist-en-60950-1999">https://standards.iteh.ai/catalog/standards/sist/b572d76b-26e4-4f99-9d65-029dcf8d017/sist-en-60950-1999</a> The marking text shall be in Swedish and as follows: "Apparaten skall anslutas till jordat uttag när den ansluts till ett nätverk."  In <b>Denmark</b> , socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment.
1.7.5	In <b>Denmark</b> , socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment.
2.3.3.3	In <b>France</b> , Method 3 is not acceptable.
2.3.5	In <b>Norway</b> , marking and insulation requirements according to this annex, sub-clauses 1.7.2 and 6.2.1.4.b) apply.
2.5.2	In <b>Denmark and Norway</b> , add after the first paragraph:  "The above exception is not acceptable in PLUGGABLE EQUIPMENT TYPE A."
2.9.1	In <b>Norway</b> , due to the IT power systems used, the mains supply voltage is considered to be equal to the phase-to-phase voltage (230 V).

- 3.2.1 In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to the Heavy Current Regulations Section 107-2-D1.

Class I equipment provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.

If poly-phase equipment and single-phase equipment having a rated current exceeding 10 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations Section 107-1-D1 or EN 60309-2.

In **Switzerland**, supply cords of equipment having a rated current not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 884-1 and one of the following dimension sheets:

SEV 6532-2.1991	Plug Type 15	3P+N+PE	250/400 V, 10 A
SEV 6533-2.1991	Plug Type 11	L+N	250 V, 10 A
SEV 6534-2.1991	Plug Type 12	L+N+PE	250 V, 10 A

EN 60309 applies for plugs for currents exceeding 10 A.

In the **United Kingdom**, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations.

NOTE: 'standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.

- 3.2.4 In the **United Kingdom**, a power supply cord with conductor of 1,25 mm<sup>2</sup> is allowed for equipment with a rated current over 10 A and up to and including 13 A.
- 3.3.5 In the **United Kingdom**, the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current of over 10 A up to and including 13 A is:  
- 1,25 mm<sup>2</sup> to 1,5 mm<sup>2</sup> nominal cross-sectional area.
- 4.3.18 In the **United Kingdom**, this test should be performed using an appropriate socket-outlet with an earthing contact.
- 5.4.9 In **Norway**, the electric strength test includes testing of basic insulation in Class 1 pluggable equipment Type B and permanently connected equipment.
- 6.2.1.2 In **Norway and Sweden**, supplementary insulation for a primary circuit is required between any TNV circuit and any circuit that has a connection to a protective earthing terminal.

In **Norway**, this requirement does not apply to permanently connected equipment or to pluggable equipment type B, installed in areas where equipotential bonding has been applied, e.g. a telecommunication Central Office.

In **Sweden**, this requirement does not apply to permanently connected equipment or pluggable equipment type B.

- 6.2.1.4 b) In **Finland**, method b) is permitted only for permanently connected equipment or for pluggable equipment type B.
- In **Norway**, method b) is not permitted. Insulation between parts conductively connected to the supply mains and parts connected to a public telecommunication network shall comply with the requirements for double or reinforced insulation.
- 6.2.1.5 In **Norway**, requirements according to this annex, subclause 6.2.1.4 b) apply.
- 6.3.3.1 In **Norway**, requirements according to this annex, subclauses 6.2.1.2, 6.2.1.4 b) and 6.3.3.2 apply.
- In **Sweden**, requirements according to this annex, subclause 6.2.1.2 apply.
- 6.3.3.2 In **Norway**, exclusions are applicable for permanently connected equipment and pluggable equipment Type B only.

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**Annex ZC (informative)****A-Deviations**

**A-deviation:** National deviation due to regulations, the alteration of which is for the time being outside the competence of the CENELEC member.

This European Standard falls under Directive 73/23/EEC.

NOTE (from CEN/CENELEC IR Part 2, 3.1.9): Where standards fall under EC Directives, it is the view of the Commission of the European Communities (OJ No. C 59, 9.3.1982) that the effect of the decision of the Court of Justice in case 815/79 Cremonini/Vrankovich (European Court Reports 1980, p.3583) is that compliance with A-deviations is no longer mandatory and that the free movement of products complying with such a standard should not be restricted except under the safeguard procedure provided for in the relevant Directive.

A-deviations in an EFTA-country are valid instead of the relevant provisions of the European Standard in that country until they have been removed.

<u>Clause</u>	<u>Deviation</u>
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1.5.1	<b>Sweden</b> (Ordinance SFS 1991:1290)
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Add the following:

NOTE: Switches containing mercury such as thermostats, relays and level controllers are not allowed.

1.7.2	<b>Denmark</b> (Heavy Current Regulations)
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Supply cords of Class I equipment, which is delivered without a plug, must be provided with a visible tag with the following text:

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<https://standards.iteh.ai/catalog/standards/sist/b572d76b-26e4-4f99-9d65-0290c1b40111/sist-en-60950-1996-a4-1999>  
 "Vigtigt!  
 Lederen med grøn/gul isolation  
 må kun tilsluttes en klemme mærket



eller eller

If essential for the safety of the equipment, the tag must in addition be provided with a diagram, which shows the connection of the other conductors, or be provided with the following text:

"For tilslutning af de øvrige ledere, se medfølgende installationsvejledning."

1.7.5	<b>Denmark</b> (Heavy Current Regulations)
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Class II equipment shall not be fitted with socket-outlets for providing power to other equipment.

1.7.14	<b>Germany</b> (Gesetz über technische Arbeitsmittel (Gerätesicherheitsgesetz) [Law on technical labour equipment {Equipment safety law}], of 23rd October 1992, Article 3, 3rd paragraph, 2nd sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchführung des Zweiten Abschnitts des Gerätesicherheitsgesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10th January 1996, article 2, 4th paragraph, item 2).
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Directions for use with rules to prevent certain hazards for (among others) maintenance of the technical labour equipment, also for imported technical labour equipment shall be written in the German language.

NOTE: Of this requirement, rules for use even only by service personnel are not exempted.

1.7.17 **Switzerland** (Ordinance on environmentally hazardous substances SR 814.013)

Annex 4.10 of SR 814.013 applies for batteries.

6.4.2.1 **Austria** (Femmeldebauvorschrift Teil 11)

A value of  $U_C = 2,0$  kV is used in cases b) and c).

Annex H **Germany** (Regulation on protection against hazards by X-ray, of 8th January 1987, Article 5 [Operation of X-ray emission source], clauses 1 to 4)

a) A licence is required by those who operate an X-ray emission source.

b) A licence in accordance with clause 1 is not required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if

- 1) the local dose rate at a distance of 0,1 m from the surface does not exceed  $1 \mu\text{Sv/h}$  and
- 2) it is adequately indicated on the X-ray emission source that
  - i) X-rays are generated and
  - ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.

c) A licence in accordance with clause 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if

- 1) the X-ray emission source has been granted a type approval and
- 2) it is adequately indicated on the X-ray emission source that
  - i) X-rays are generated,
  - ii) the device stipulated by the manufacturer or importer guarantees that the maximum permissible local dose rate in accordance with the type approval is not exceeded and
  - iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.

d) Furthermore, a licence in accordance with clause 1 is also not required by persons who operate X-ray emission sources on which the electron acceleration voltage does not exceed 30 kV if

- 1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6,
- 2) the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device and
- 3) it is adequately indicated on the X-ray emission source that the X-rays generated are adequately screened by the intrinsically safe CRT.

**Annex ZD (informative)****Summary of all current common modifications**

When IEC 950:1991 was harmonized as EN 60950:1992, a number of common modifications were approved. As a result of the subsequent amendments A1, A2, A3 and A4, some of these common modifications are no longer necessary, a summary of all current common modifications is as follows:

Delete all the "country" notes that appear on the following pages of the reference document (IEC 950:1991 and its amendments 1 to 4):

57a, 61, 89, 95a, 105a, 137, 139, 177, 185, 185a, 221, 225a, 225b, 227, 229a, 231, 235 and 237a.

1.7.11 Replace the reference to clause "2.7.2" by "2.7".

2.7.1 Replace the subclause as follows:

*Basic requirements*

To protect against excessive current, short circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b), c) and d) :

a) Except as detailed in b) and c), protective devices necessary to comply with the requirements of subclause 5.4 shall be included as parts of the equipment.

b) For components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short circuit and earth fault protection may be provided by protective devices in the building installation.

c) It is permitted for equipment with a RATED CURRENT exceeding 16 A, which is PLUGGABLE EQUIPMENT TYPE B OR PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instruction.

d) If reliance is placed on protection in the building installation, the installation instructions shall comply with 1.7.11, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet and 1.7.11 does not apply.

2.7.2 This subclause has been declared 'void'.

2.9.4.1 Fourth dashed paragraph, replace "nominal" by "normal".

2.9.4.2 Amend the last line on page 117a as follows -

"Solvent-based enamel coating on winding wire is not considered to be insulation in thin sheet material."

Add a new sentence below the text on page 117a as follows -

"Requirements for wound components are given in 2.9.4.4."

2.9.4.4 Modify the title as follows -

*Wound components*

Replace the first paragraph and the two dashed paragraphs as follows -

"Unless one of the following situations applies, interleaved BASIC, SUPPLEMENTARY or REINFORCED INSULATION complying with 2.9.4.1 or 2.9.4.2 shall be provided between the windings.

BASIC, SUPPLEMENTARY, DOUBLE or REINFORCED INSULATION is permitted in a wound component without interleaved insulation using one of the following situations:

- the insulation on the winding wire complies with 2.9.4.1; or
- the winding wire complies with annex U; or
- the insulation between the windings is provided for separation between TNV circuits and other parts in compliance with 6.4.1.

NOTE - Examples of insulation of winding wire complying with annex U are polyimide and FEP.

3.2.2 Delete the NOTE, and in table 10 delete the conduit sizes in parentheses.

3.2.4 Replace "245 IEC 53" by "HO5 RR-F"  
"227 IEC 52" by "HO3 VV-F or HO3 VVH2-F"  
"227 IEC 53" by "HO5 VV-F or HO5 VVH2-F2"

In table 11, replace the first four lines by the following:

Up to and including 6	0,75 <sup>1)</sup>
Over 6 up to and including 10	1,0 (0,75) <sup>2)</sup>
Over 10 up to and including 16	1,5 (1,0) <sup>3)</sup>

In the Conditions applicable to table 11 delete the words "in some countries" in condition 1).

In the NOTE delete the second sentence.

3.3.5 In table 13, delete the fourth line - conductor sizes for 10 to 13 A, and replace with the following:

"| Over 10 up to and including 16 | 1,5 to 2,5 | 1,5 to 4 |"

Delete the fifth line - conductor sizes for 13 to 16 A.

Annex C Page 283, in the paragraph below Table C.1, replace "...power to the motor is..." by "...power to the transformer is..."