



SLOVENSKI STANDARD

SIST EN 41003:2009

01-januar-2009

Nadomešča:
SIST EN 41003:2000

Posebne varnostne zahteve za opremo, ki se priključuje na telekomunikacijska omrežja oziroma kabelski razdelilni sistem

Particular safety requirements for equipment to be connected to telecommunication networks and/or a cable distribution system

Besondere Sicherheitsanforderungen an Geräte zum Anschluss an Telekommunikationsnetze und/oder Kabelverteilsysteme
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Règles particulières de sécurité pour les matériels de sécurité destinés à être reliés aux réseaux de télécommunications et/ou aux systèmes de distribution par cables
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Ta slovenski standard je istoveten z: EN 41003:2008

ICS:

33.050.01	Telekomunikacijska terminalska oprema na splošno	Telecommunication terminal equipment in general
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 41003

November 2008

ICS 33.040.00

Supersedes EN 41003:1998

English version

**Particular safety requirements for equipment
to be connected to telecommunication networks
and/or a cable distribution system**

Règles particulières de sécurité
pour les matériels de sécurité
destinés à être reliés aux réseaux
de télécommunications et/ou aux
systèmes de distribution par câbles

Besondere Sicherheitsanforderungen
an Geräte zum Anschluss
an Telekommunikationsnetze
und/oder Kabelverteilssysteme

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This European Standard was approved by CENELEC on 2008-07-01. 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, 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 was prepared by the Technical Committee CENELEC TC 108X, Safety of electronic equipment within the fields of audio/video, information technology and communication technology.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 41003 on 2008-07-01.

This European Standard supersedes EN 41003:1998 + corrigendum September 2000.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2009-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2011-07-01

The first edition of this European Standard was prepared by CENELEC TC 74X, in close cooperation with a number of international organizations, e.g. IEC, ECMA, CEPT, CCITT, ETSI. In 1993 TC 74X was disbanded and responsibility for this European Standard passed to the Technical Committee CENELEC TC 74, Safety and energy efficiency of information technology equipment. CENELEC TC 74 was disbanded by D112/112 in 2002 and merged with CENELEC TC 92 into new CENELEC TC 108, which was renumbered CENELEC TC 108X by 130 BT.

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At that time, a standard was needed for uniform application by network operators in Europe when approving subscribers' equipment for attachment to their networks, and for purchasing purposes by network operators.

In February 1986 the CENELEC Technical Board formed a working group 'Telecom Safety' which became CENELEC TC 74X in early 1987. IEC TC 74 established WG7 to amend IEC 60950 for a similar purpose.

ENV 41003 was ratified by the CENELEC Technical Board in March 1988 and subsequently amended and converted into this EN 41003 which was ratified in September 1990. In June 1992 the CENELEC Technical Board approved the reprint of EN 41003, which was technically unchanged from EN 41003:1991 and refers to EN 60950:1992 wherever possible.

The edition of EN 41003:1996 was deemed necessary following the publication of EN 60950:1992/A3:1995 to reflect further convergence of the two standards.

The edition of EN 41003:1998 was deemed necessary following the publication of EN 60950:1992/A4:1997, to reflect further convergence of the two standards.

This edition of EN 41003 was deemed necessary following the publication of EN 60950-1:2006 Information technology equipment – Safety – Part 1: General requirements (IEC 60950-1:2005, modified), to reflect further convergence of the two standards.

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Introduction

This European Standard is needed for products intended to be connected to a TELECOMMUNICATION NETWORK and/or a CABLE DISTRIBUTION SYSTEM not covered by the scope of EN 60950-1. It is to be used in conjunction with other product safety standards; examples of which are listed in Annex A.

Upper levels for TELECOMMUNICATION/CABLE DISTRIBUTION SYSTEM signals have been defined. They include also telephone ringing signals which have been defined taking into account voltages commonly used in the different networks. The electrical hazard criteria have been chosen to accord with the IEC/TS 60479 series.

Test levels used for the equipment take account of the possibility that overvoltages may occur on TELECOMMUNICATION AND CABLE DISTRIBUTION NETWORKS. Special consideration has been given to equipment parts expected to be held or touched during normal use, e.g. telephone handsets.

It is recognised that in high overvoltages risk areas, requirements of this European Standard may not be sufficient; additional protective devices, not covered by this European Standard, may be installed in the COMMUNICATION NETWORKS to better meet extreme conditions.

For the adoption of this European Standard, the relevant special national conditions and A-deviations apply that are listed in Annexes ZB and ZC of EN 60950-1.

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1 Scope

This European Standard applies to equipment designed and intended to be connected as a terminal to a TELECOMMUNICATION NETWORK and/or a CABLE DISTRIBUTION SYSTEM termination. It does not apply to equipment covered by EN 60950-1 and EN 60065.

This European Standard specifies the safety requirements of the interface to the TELECOMMUNICATION NETWORK and/or the CABLE DISTRIBUTION SYSTEM only and it does not specify any other safety requirements.

It applies regardless of ownership or responsibility for installation or maintenance of the equipment, and regardless of the source of power.

This European Standard, in accordance with the 'principles of safety' given in the introduction of EN 60950-1, covers the requirements and compliance criteria under three headings.

- Protection of equipment USERS from hazards in the equipment. The USER is considered to be protected from hazards in the equipment if the equipment complies with a relevant safety standard, for example one of those listed in Annex A, but compliance with those standards is not part of this European Standard.
- Protection of SERVICE PERSONNEL working on a TELECOMMUNICATION NETWORK and/or a CABLE DISTRIBUTION SYSTEM and other USERS of a TELECOMMUNICATION NETWORK and/or a CABLE DISTRIBUTION SYSTEM, from hazardous conditions on a TELECOMMUNICATION NETWORK and/or a CABLE DISTRIBUTION SYSTEM resulting from the connection of the equipment.
- Protection of equipment USERS from voltages on a TELECOMMUNICATION NETWORK and/or a CABLE DISTRIBUTION SYSTEM.

Requirements additional to those specified in this European Standard may be necessary for

- equipment intended for operation while exposed, for example, to extremes of temperature, to excessive dust, moisture, or vibration, to flammable gases, to corrosive or explosive atmospheres,
- electromedical applications with physical connections to the patient.

The requirements for the following items are not covered by this European Standard:

- functional reliability of equipment;
- communication facilities with remote supply using hazardous voltage;
- protection of equipment, TELECOMMUNICATION NETWORKS and/or CABLE DISTRIBUTION SYSTEMS from damage.

2 Normative references

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

EN 60950-1	2006	Information technology equipment – Safety – Part 1: General requirements (IEC 60950-1:2005, mod)
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NOTE Lists of other related documents can be found in Annex A and in the Bibliography.

3 Definitions

For the purposes of this document, the terms and definitions of EN 60950-1 apply.

NOTE 1 Defined terms are printed in SMALL CAPITALS.

NOTE 2 For information about TELECOMMUNICATION NETWORK voltages and signals, see Annex B.

4 Safety requirements and compliance criteria

NOTE It is assumed that adequate measures according to ITU-T Recommendation K.11 have been taken to reduce the likelihood that the overvoltages presented to the equipment exceed 1,5 kV peak. In installations where overvoltages presented to the equipment may exceed 1,5 kV peak, additional measures such as surge suppression may be necessary.

The general conditions for tests of EN 60950-1, 1.4 apply.

The references to the requirements of EN 60950-1, 4.2.2 and 4.2.3 may be replaced by the corresponding requirements in other relevant safety standards listed in Annex A, if the equipment is designed to comply with one of these standards.

4.1 Interconnection of equipment – General requirements

EN 60950-1, 3.5.1 applies.

4.1.1 Types of interconnection circuits

EN 60950-1, 3.5.2 applies.

4.1.2 ELV circuits as interconnection circuits

EN 60950-1, 3.5.3 applies.

4.1.3 Safety statements

The safety status (SELV CIRCUIT, TNV-1 CIRCUIT; TNV-2 CIRCUIT; TNV-3 CIRCUIT, LIMITED CURRENT CIRCUIT, ELV CIRCUIT AND HAZARDOUS VOLTAGE) of interconnection points for the connection to other equipment shall be stated in the manufacturer's documentation supplied with the equipment.

4.2 TNV circuits

4.2.1 Limits

EN 60950-1, 2.3.1 applies.

4.2.2 Separation of TNV circuits from other circuits and from accessible parts

EN 60950-1, 2.3.2 applies.

The WORKING VOLTAGE of the insulation shall be specified by the manufacturer of the equipment.

4.2.3 Separation from hazardous voltages

EN 60950-1, 2.3.3 applies.

4.2.4 Connection of TNV circuits to other circuits

EN 60950-1, 2.3.4 applies.

4.2.5 Test for operating voltages generated externally

EN 60950-1, 2.3.5 applies.

4.3 Protection against contact with TNV circuits

4.3.1 Protection in operator access areas

4.3.1.1 Access to energized parts

For TNV CIRCUITS EN 60950-1, 2.1.1.1 applies.

4.3.1.2 Battery compartments

For TNV CIRCUITS EN 60950-1, 2.1.1.2 applies.

4.3.2 Protection in service access areas

For TNV CIRCUITS EN 60950-1, 2.1.2 applies.

4.3.3 Protection in restricted access location

For TNV CIRCUITS EN 60950-1, 2.1.3 applies.

4.4 Protection of TELECOMMUNICATION NETWORK and/or cable distribution network service persons, and users of other equipment connected to the network, from hazards in the equipment

4.4.1 Protection from hazardous voltages

EN 60950-1, 6.1.1 or relevant parts of 7 respectively applies.
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4.4.2 Use of protective earthing

EN 60950-1, 2.6.5.8 applies.

For the protective earthing of TNV CIRCUITS EN 60950-1, 2.6.1 (items c), d), and f)), 2.6.3, and 2.6.4 apply.

4.4.3 Separation of the TELECOMMUNICATION NETWORK from earth

EN 60950-1, 6.1.2 or relevant parts of 7 respectively applies.

4.4.4 Touch current to TELECOMMUNICATION NETWORKS and CABLE DISTRIBUTION SYSTEM and from TELECOMMUNICATION NETWORKS

EN 60950-1, 5.1.8 applies.

4.4.5 Summation of touch currents from TELECOMMUNICATION NETWORKS

EN 60950-1, 5.1.8.2 applies.

4.5 Protection of equipment users from overvoltages on TELECOMMUNICATION NETWORKS and/or CABLE DISTRIBUTION SYSTEMS

EN 60950-1, 6.2.1 and 6.2.2 or relevant parts of 7 respectively apply.

4.6 Protection of the telecommunication wiring system from overheating

EN 60950-1, 6.3 applies.