



SLOVENSKI STANDARD
SIST EN 50346:2003/A2:2009

01-december-2009

Informacijska tehnologija - Polaganje kablov - Preskušanje inštaliranih kablov

Information technology - Cabling installation - Testing of installed cabling

Informationstechnik - Installation von Kommunikationsverkabelung - Prüfen installierter Verkabelung

Technologies de l'information - Installation de câblage - Essai des câblages installés

STANDARD PREVIEW
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Ta slovenski standard je istoveten z: EN 50346:2002/A2:2009

SIST EN 50346:2003/A2:2009
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ICS:

35.110

Omreževanje

Networking

SIST EN 50346:2003/A2:2009

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 50346/A2

October 2009

ICS 35.110

English version

**Information technology -
Cabling installation -
Testing of installed cabling**

Technologies de l'information -
Installation de câblage -
Essai des câblages installés

Informationstechnik -
Installation
von Kommunikationsverkabelung -
Prüfen installierter Verkabelung

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This amendment A2 modifies the European Standard EN 50346:2002; it was approved by CENELEC on 2009-05-01. 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, 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: Avenue Marnix 17, B - 1000 Brussels

Foreword

This amendment to the European Standard EN 50346:2002 was prepared by the Technical Committee CENELEC TC 215, Electrotechnical aspects of telecommunication equipment.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A2 to EN 50346:2002 on 2009-05-01.

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) 2010-05-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2012-05-01

This amendment has been prepared to align Clause 5 with the latest edition of EN 61935-1. In addition, requirements for measuring balanced cabling parameters ACR-F, PSANEXT, PSAACR-F and unbalanced parameters (LCL, TCL and ELTCTL) as well as coaxial cabling have been added. For the convenience of the reader, Clause 5 has been reproduced completely in this amendment.

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Introduction

Insert before the 3rd paragraph (i.e. after the 2nd indent):

Figure 1 and Table 1 show the schematic and contextual relationships between the standards produced by CLC/TC 215 for information technology cabling.

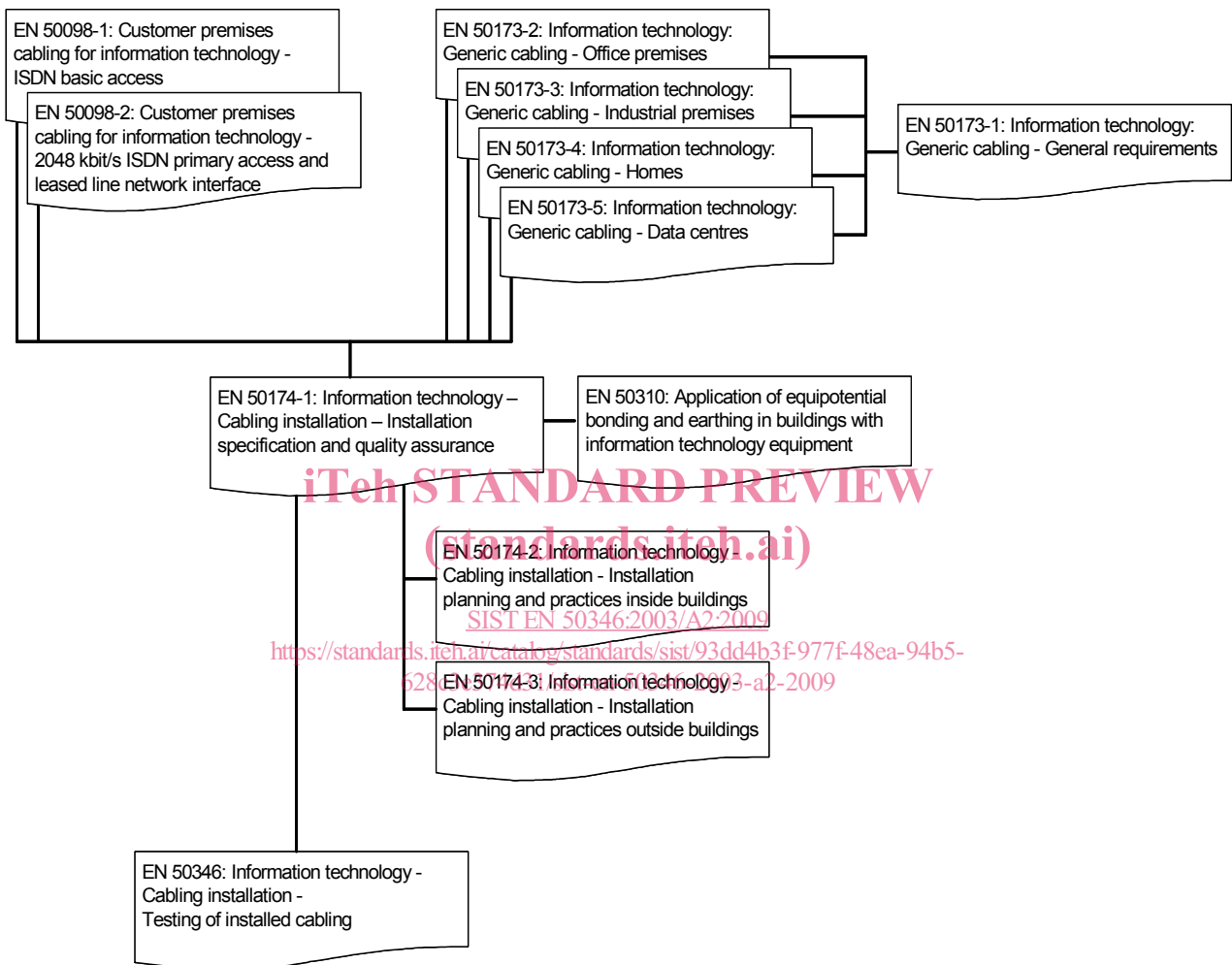


Figure 1 – Schematic relationship between EN 50346 and other relevant standards

Table 1 – Contextual relationship between EN 50346 and other standards relevant for information technology cabling systems

Building design phase	Generic cabling design phase	Specification phase	Installation phase	Operation phase
EN 50310 5.2: Common bonding network (CBN) within a building 6.3: AC distribution system and bonding of the protective conductor (TN-S)	EN 50173 series except EN 50173-4 4: Structure 5: Channel performance 7: Cable requirements 8: Connecting hardware requirements 9: Requirements for cords and jumpers A: Link performance limits and EN 50173-4 4 and 5: Structure 6: Channel performance 8: Cable requirements 9: Connecting hardware requirements 10: Requirements for cords and jumpers A: Link performance limits	EN 50174-1 4: Requirements for specifying installations of information technology cabling 5: Requirements for installers of information technology cabling		EN 50174-1 4: Requirements for specifying installations of information technology cabling
		Planning phase EN 50174-2 4: Requirements for planning installations of information technology cabling 6: Segregation of metallic information technology cabling and mains power cabling 7: Electricity distribution systems and lightning protection	EN 50174-2 5: Requirements for the installation of information technology cabling 6: Segregation of metallic information technology cabling and mains power cabling	
		and EN 50174-3 and (for equipotential bonding) EN 50310 5.2: Common bonding network (CBN) within a building 6.3: AC distribution system and bonding of the protective conductor (TN-S)	and EN 50174-3 and (for equipotential bonding) EN 50310 5.2: Common bonding network (CBN) within a building 6.3: AC distribution system and bonding of the protective conductor (TN-S) and EN 50346 4: General requirements 5: Test parameters for balanced cabling 6: Test parameters for optical fibre cabling	

2 Normative references

Replace references to “EN 61935-1:2000” and “EN 61935-1:2000/A1:2002” **with** “EN 61935-1:2009”.

Delete reference to EN 50289-1-6.

Add the following references:

EN 50173-1, *Information technology – Generic cabling systems – Part 1: General requirements*

EN 50289-1-15, *Communication cables – Specifications for test methods – Part 1-15: Electromagnetic performance – Coupling attenuation of links and channels (Laboratory conditions)*

EN 50289-1-16, *Communication cables – Specifications for test methods – Part 1-16: Electromagnetic performance – Coupling attenuation of cable assemblies (Field conditions)*

3.2 Abbreviations

Add the following abbreviations:

ACR-F	Attenuation to crosstalk ratio at the far-end
ACR-N	Attenuation to crosstalk ratio at the near-end
ELTCTL	Equal level transverse conversion transfer loss
LCL	Longitudinal conversion loss
PSACR-F	Power sum attenuation to crosstalk ratio at the far-end
PSACR-N	Power sum attenuation to crosstalk ratio at the near-end
PSANEXT	Power sum alien (exogenous) near-end crosstalk loss
PSAACR-F	Power sum attenuation to alien (exogenous) crosstalk ratio at the far-end
TCL	Transfer conversion loss

4 General requirements

Renumber the figures in 4.1.2, 4.1.3, 4.1.4 and 4.3.

4.6.3 Treatment of marginal test results

Add at the end of 4.6.3:

For detailed information see EN 50173-1.

5 Test parameters for balanced copper cabling

Replace Clause 5 by:

5 Test parameters for balanced copper cabling

5.1 Wire map

Test method: see EN 61935-1:2009, 5.3.2.2.

5.2 Length

5.2.1 Test method

See EN 61935-1:2009, 5.3.4.

5.2.2 Documentation

The measured results shall be reported in tabular format. The test report shall also include the nominal velocity of propagation used in any calculation of the measured result.

5.3 Propagation delay

5.3.1 Test method

See EN 61935-1:2009, 5.3.3.

5.3.2 Documentation

The measured results shall be reported in tabular format. The test report shall also include the requirements of the relevant cabling or application standard and the measurement accuracy.

Results for all pairs shall be reported. It shall be explicitly noted if the measured results do not conform to the requirements.

5.4 Delay skew

5.4.1 Test method

See EN 61935-1:2009, 5.3.3.

5.4.2 Documentation

The measured results shall be reported in tabular format. The test report shall also include the requirements of the relevant cabling or application standard and the measurement accuracy.

It shall be explicitly noted if the measured results do not conform to the requirements.

5.5 Attenuation (insertion loss)

5.5.1 Parameter

The term attenuation, widely used throughout the cabling industry, refers to a parameter more correctly described and measured as “insertion loss”. In this standard the two terms are used in parallel with the understanding that the parameter measured is “insertion loss”.

5.5.2 Test method

See EN 61935-1:2009, 5.3.5, for the measurement of attenuation (insertion loss) on installed cabling at frequencies up to 600 MHz using portable field test equipment.

5.5.3 Documentation

The measured results shall be reported in tabular or graphical format. The test report shall also include the requirements of the relevant cabling or application standard and the measurement accuracy.

Results for all pairs shall be reported. It shall be explicitly noted if the measured results do not conform to the requirements.

5.6 Attenuation (insertion loss) deviation

For further study.

5.7 Near end crosstalk loss (NEXT, pair-to-pair and power sum)

5.7.1 Test method

See EN 61935-1:2009, 5.3.6, for the measurement of NEXT (pair-to-pair and power sum) on installed cabling at frequencies up to 600 MHz using portable field test equipment.

It is possible to use laboratory test equipment to perform tests under the following conditions:

- a) the cable within the cabling interface adaptor shall be as short as possible;
- b) for the measurement of screened cabling, the screen terminations of the cabling interface adaptor shall be of low impedance.

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5.7.2 Documentation

The measured results shall be reported in graphical or tabular format. The test report shall also include the requirements of the relevant cabling or application standard and the measurement accuracy.

Results for all pairs shall be reported. It shall be explicitly noted if the measured results do not conform to the requirements.

5.8 Equal level far end crosstalk loss (ELFEXT, pair-to-pair and power sum)

5.8.1 Test method

See EN 61935-1:2009, 5.3.8, for the measurement of ELFEXT (pair-to-pair and power sum) at frequencies up to 600 MHz using portable field test equipment.

The measurement of ELFEXT using laboratory test equipment requires synchronization between local and remote test equipment. Where such equipment is used

- a) the cable within the cabling interface adaptors shall be as short as possible,
- b) for the measurement of screened cabling, the screen terminations of the cabling interface adaptors shall be of low impedance.

The measurement of ELFEXT using laboratory test equipment without synchronization between local and remote test equipment is not supported by this standard.