SLOVENSKI STANDARD
SIST EN 50174-1:2009/oprA1:2009

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Informacijska tehnologija - Polaganje kablov - 1. del: Specifikacija in zagotavljanje kakovosti

Information technology - Cabling installation -- Part 1: Installation specification and quality assurance

Informationstechnik - Installation von Kommunikationsverkabelung - Teil 1: Installationsspezifikation und Qualitätssicherung

Technologies de l'information - Installation de câblages -- Partie 1: Spécification de l'installation et assurance de la qualité

Ta slovenski standard je istoveten z: **EN 50174-1:2009/prA1:200X**

ICS:

33.040.50	Vodi, zveze in tokokrogi	Lines, connections and circuits
35.110	Omreževanje	Networking

SIST EN 50174-1:2009/oprA1:2009 **en,de**

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English version

Information technology - Cabling installation - Part 1: Installation specification and quality assurance

Technologies de l'information - Installation de câblages - Partie 1: Spécification de l'installation et assurance de la qualité

Informationstechnik - Installation von Kommunikationsverkabelung - Teil 1: Installationsspezifikation und Qualitätssicherung

This draft amendment prA1, if approved, will modify the European Standard EN 50174-1:2009; it is submitted to CENELEC members for CENELEC enquiry.
Deadline for CENELEC: 2010-03-26.

It has been drawn up by CLC/TC 215.

If this draft becomes an amendment, 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.

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

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Foreword

This draft amendment to the European Standard EN 50174-1:2009 was prepared by the Technical Committee CENELEC TC 215, Electrotechnical aspects of telecommunication equipment. It is submitted to the CENELEC enquiry.

This draft amendment comes with

- a new normative Annex E on sampling plans and marginal results;
- simplified administration requirements (see 4.5.2), simplified complexity installation and operational levels (see 6.2) and simplified minimum requirements for technical specifications and quality plans (see Annex A);
- some technical and editorial changes to Clauses 4 and 5.

CLC/TC 215 note:
For the convenience of the reader of this draft, the pertinent tables are reproduced in total, with grey shading of new table cells. Where modifications to text apply to single expressions or a few words only, this is indicated by underlining. Comments are to be addressed to these grey table cells and underlined text, respectively, only.

Text of prA1 to EN 50174-1:2009

Introduction

Replace Table 1 with:

Table 1 – Contextual relationship between EN 50174 series and other standards relevant for information technology cabling systems

Building design phase	Generic cabling design phase	Specification phase	Installation phase	Operation phase
EN 50310	**EN 50173 series except EN 50173-4**	**EN 50174-1**		**EN 50174-1**
6. Earthing networks	4: Structure 5: Channel performance 7: Cable requirements 8: Connecting hardware requirements 9: Requirements for cords and jumpers A: Link performance limits	4: Requirements for specifying installations of information technology cabling 5: Requirements for installers of information technology cabling		4: Requirements for specifying installations of information technology cabling
		Planning phase		
	and EN 50173-4	**EN 50174-2**	**EN 50174-2**	
	4 and 5: Structure 6: Channel performance 8: Cable requirements 9: Connecting hardware requirements 10: Requirements for cords and jumpers A: Link performance limits	4: Requirements for planning installations of information technology cabling 6: Segregation of metallic information technology cabling and power supply cabling 7: Electricity distribution systems and lightning protection	5: Requirements for the installation of information technology cabling 6: Segregation of metallic and power supply cabling	
		and EN 50174-3	**and EN 50174-3**	
		and (for equipotential bonding) EN 50310	**and (for equipotential bonding) EN 50310**	
			and EN 50346 4: General requirements 5: Test parameters for balanced cabling 6: Test parameters for optical fibre cabling	

2 Normative references

Modify the reference to EN 50173-1:2007 as follows.

EN 50173-1:2007 + A1:200X [1] + A2:200X [2], *Information technology – Generic cabling systems – Part 1: General requirements*

Add the following references:

EN 61935-1:200X [1], *Specification for the testing of balanced and coaxial information technology cabling -- Part 1: Installed balanced cabling as specified in the standards series EN 50173* (IEC 61935-1:2009, mod.)

ISO/IEC TR 14763-2-1 [3], *Information technology – Implementation and operation of customer premises cabling – Part 2-1: Planning and installation of copper cabling – Identifiers within administration systems*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

Modify as follows:

3.1.3
building entrance facility
facility that provides all necessary mechanical and electrical services for the entry of telecommunications cables into a building and which may allow for transition from external to internal cable

[EN 50173-1:2007/A2:200X]

3.1.5
cable element
smallest construction unit in a cable

NOTE 1 A cable element may have a screen

NOTE 2 A pair, a quad, a single isolated lead with coaxial screen and a single optical fibre are examples of a cable element.

[EN 50173-1:2007/A2:200X]

Delete definition 3.1.12 and **insert** the following definitions:

3.1.12
fire barrier
fire compartment boundary with appropriate levels of fire performance in order to prevent the spread of fire and its effluent and minimize the extent of loss

3.1.13
fire-stop materials
sealing products that, at all times, take up imperfections of fit or design tolerance between the fire resisting fixed elements of a building and which provide the same fire performance as the fixed elements in order to restrict the passage of fire and smoke

3.1.14
fire-stopping techniques
processes, products and materials that reinstate the original fire rating of a fire barrier

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1) To be published.

2) At draft stage.

3) Under development.

3.1.15
frame
open construction, typically wall-mounted, for housing closures and other information technology equipment

Renumber 3.1.13 **into** 3.1.16 and **replace** existing 3.1.14 with**:**

3.1.17
information technology
telecommunications
branch of technology concerned with the transmission, emission and reception of signs, signals, writing, images and sounds; that is, information of any nature by cable, radio, optical or other electromagnetic systems

NOTE The term telecommunications has no legal meaning when used in this document.

[EN 50173-1:2007/A2:200X]

Renumber 3.1.15 to 3.1.23 accordingly and **insert** the following definitions:

3.1.27
power supply cabling
cabling whose primary purpose is the supply of electrical power

3.1.28
rack
open construction, typically self-supporting and floor-mounted, for housing closures and other information technology equipment

Renumber 3.1.24 to 3.1.29 accordingly.

3.2 Abbreviations

Insert the following abbreviation:

BEF building entrance facility

4 Requirements for specifying installations of information technology cabling

4.1.1.1 Requirements

In 3rd paragraph, bullet 1), **replace** “mains power” with “power supply”.

4.1.1.2 Recommendations

Delete “mains” in bullet d).

4.2.1 Mains power/information technology cabling segregation requirements

Replace the title with:

4.2.1 Power supply/information technology cabling segregation requirements

In 1st paragraph **replace** “mains power” with “power supply”

4.2.2.1 Requirements

Replace 2nd paragraph with the following text:

Information technology cables that do not comply with the minimum recommended performance requirements of EN 60332-1-2 shall either be:

1) terminated inside the building, within 2 m (unless an alternative distance if specified by local regulations) of the point of internal penetration of the external fire barrier (e.g. floor/ceiling/wall)

   or

2) any length exceeding 2 m (unless an alternative distance if specified by local regulations) is installed within trunking or conduit that is considered as a fire barrier in accordance with local fire regulations.

NOTE This also applies where the cable has to pass through a space between two external fire barriers within a building.

4.2.3.2 Recommendations

Replace 6th paragraph with:

Fire barriers should be designed to facilitate their refurbishment following cable installation. Cables passing through fire barriers should be segregated and appropriate fire-stopping techniques applied to minimise disruption to the fire barriers during any subsequent installation (or removal) of cables.

4.3.2.1 Requirements

Replace 3rd paragraph with:

The pathway systems selected shall enable the reinstatement of the original fire rating of fire barrier, if required, by the use of identified fire-stop materials and/or fire-stopping techniques.

4.5.2 Administration requirements

Replace subclause with:

An administration system shall be specified to enable effective operation, maintenance and repair of the cabling infrastructure. All information produced for or by the administration system shall be dated. Change control shall be exercised and records shall be retained for a specified minimum period.

The administration system shall meet the requirements of:

a) Table 2 based upon the installation complexity level determined from Table 4;
b) Table 3 based upon the operational complexity level of Table 5.

Table 2 and Table 3 define the minimum requirements that apply to Levels 1 to 3.

Table 2 – Minimum requirements of administration systems

	Administration system		
IDENTIFIERS			
Installation complexity level	**1**	**2**	**3**
Bonds - functional earth	–	–	Yes
Cabinets/frames	Yes	Yes	Yes
Cables	Yes	Yes	Yes
Closures	–	Yes	Yes
Pathways	–	–	Yes
Spaces	–	Yes	Yes
Termination points including joints	Yes	Yes	Yes
LABELS (fixed to the item or are part of the item)			
Installation complexity level	**1**	**2**	**3**
Bonds - functional earth [a]	–	–	–
Cabinets/frames	Yes	Yes	Yes
Cables [b]	–		Yes
Closures (unless indicated by visible termination point labelling)	–	Yes	Yes
Pathways	–	–	Yes
Spaces (at entrances)	–	Yes	Yes
Termination points including joints [c]	Yes	Yes	Yes
RECORDS (AND/OR DRAWINGS) that provide information about the item together with other items related to it			
Installation complexity level	**1**	**2**	**3**
Fixed cabling	Manual	Manual	Electronic
NOTE Manual records include paper-based systems. Electronic records include spreadsheets, databases etc.			
[a] National or local regulation may require labels to identify their function.			
[b] Labels at both ends.			
[c] indicating the treatment of cable elements at the joint.			

CLC/TC 215 note:
Compared to EN 50174-1:2009, Table 2, column 4 for installation complexity level has been deleted.

123 **Table 3 – Minimum requirements of operational administration systems**

	Administration system			
IDENTIFIERS				
Operational complexity level	**1**	**2**	**3**	**Enhanced**
Cords/jumpers	–	–	Yes	Yes
LABELS (fixed to the item or are part of the item)				
Operational complexity level	**1**	**2**	**3**	**Enhanced**
Cords/jumpers (see Note 1)	–	–	Yes	Yes
RECORDS (AND/OR DRAWINGS) that provide information about the item together with other items related to it				
Operational complexity	**1**	**2**	**3**	**Enhanced**
Cord connections (see Note 2)	None	Manual	Electronic	Automated
Service delivery (see Note 2)	None	None	None	Automated
NOTE 1 Labels or other means to identify both ends of a cord. NOTE 2 Manual records include paper-based systems. Electronic records include spreadsheets, databases etc. Automated records include systems that detect disconnection/reconnection of cords and/or services provided over the cabling				

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125 ***CLC/TC 215 note:***
126 *Compared to EN 50174-1:2009, Table 3, column 4 for the operational complexity level has been deleted.*

127 The additional features provided by “Enhanced” administration systems may be required by local regulations
128 regarding security of information technology service delivery.

129 The administration level shall be specified in the technical specification (see 4.1.2).

130 The elements of the telecommunications infrastructure that are required, by the specified administration
131 level, to be subject to an identifier scheme shall each have an identifier that:

132 1) is unique within the administration system;

133 2) explicitly defines the element to which it refers (e. g. closure, cable, outlet etc).

134 The identifier scheme shall conform to the requirements of ISO/IEC TR 14763-2-1 unless the installation
135 specification requires an alternative scheme that also meets the above requirements.

136 ***4.6.1 Requirements***

137 In bullet c) **replace** “fire barriers” with “reinstatement of fire barriers”.