



SLOVENSKI STANDARD

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Informacijska tehnologija - Univerzalni sistemi polaganja kablov - 1. del: Splošne zahteve

Information technology - Generic cabling systems - Part 1: General requirements

Informationstechnik - Anwendungsneutrale Kommunikationskabelanlagen - Teil 1: Allgemeine Anforderungen

Technologies de l'information - Systèmes de câblage générique - Partie 1: Exigences générales

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ICS:

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

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NORME EUROPÉENNE
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EN 50173-1

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ICS 33.040.50

English version

**Information technology -
Generic cabling systems -
Part 1: General requirements**

Technologies de l'information -
Systèmes de câblage générique -
Partie 1: Exigences générales

Informationstechnik -
Anwendungsneutrale
Kommunikationskabelanlagen -
Teil 1: Allgemeine Anforderungen

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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.

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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 European Standard was prepared by the Technical Committee CENELEC TC 215, *Electrotechnical aspects of telecommunication equipment*. This 3rd edition of EN 50173-1 replaces the text of EN 50173-1:2007, EN 50173-1:2007/A1:2009 and consolidates these two standards with the text of EN 50173-1:2007/FprAB:2010 for the convenience of the user of the standard.

The text of draft amendment EN 50173-1:2007/FprAB was submitted to the Formal Vote and was approved by CENELEC to amend EN 50173-1:2007 on 2011-04-01.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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) 2012-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2014-04-01

The previous editions of European Standards EN 50173:1995 and EN 50173-1:2002 have been developed to enable the application-independent cabling to support ICT applications in office premises. Their basic principles, however, are applicable to other types of applications and in other types of premises.

TC 215 has decided to establish relevant European Standards which address the specific requirements of these premises. In order to point out the commonalities of these cabling design standards, these ENs are published as individual parts of the series EN 50173, thus also acknowledging that standards users recognize the designation “EN 50173” as a synonym for generic cabling design.

At the time of publication of this European Standard, series EN 50173 comprises the following standards:

- EN 50173-1 Information technology – Generic cabling systems – Part 1: General requirements
- EN 50173-2 Information technology – Generic cabling systems – Part 2: Office premises
- EN 50173-3 Information technology – Generic cabling systems – Part 3: Industrial premises
- EN 50173-4 Information technology – Generic cabling systems – Part 4: Homes
- EN 50173-5 Information technology – Generic cabling systems – Part 5: Data centres

This edition of EN 50173-1:

- a) contains a change of electromagnetic parameters in the MICE classification (Table 3);
- b) introduces new component Categories 6_A and 7_A in accordance with the channel Classes E_A and F_A defined in EN 50173-1:2007/A1:2009;
- c) modifies insertion loss requirements for coaxial channels;
- d) modifies optical fibre Class OF-100 media and defines a new cabled optical fibre Category OM4;
- e) amends and modifies connecting hardware requirements, defines both a new interface for 2 optical fibres and for 12 and 24 fibres;
- f) introduces limits for additional parameters in Annexes A, B and D.2;
- g) revises D.3 regarding test requirements for mechanical and environmental performance of connecting hardware;
- h) updates Annex F “Supported applications”;

- i) introduces a new normative Annex I “Test procedures to assess conformance with EN 50173 standards”;
- j) amends various other subclauses, tables and figures.

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Introduction

This European Standard contains general requirements in support of the other standards in the EN 50173 series.

It should be noted that generic cabling is a passive system and cannot be tested for EMC compliance individually. Application-specific equipment, designed for one or more cabling media, is required to meet relevant EMC standards on those media. Care should be taken that the installation of any of those media in a cabling system does not degrade the characteristics of the system. The installation methods of EN 50174 series should be used to minimise the effect of electromagnetic disturbances. For EMC requirements of BCT cabling see EN 50083-8.

Series EN 50174 and EN 50310 specify requirements for earthing and equipotential bonding.

Figure 1 and Table 1 show the schematic and contextual relationships between the standards produced by TC 215 for information technology cabling, namely:

- 1) this and other parts of the EN 50173 series;
- 2) application dependent cabling design (e.g. EN 50098 series);
- 3) installation (EN 50174 series);
- 4) testing of installed cabling (EN 50346);
- 5) equipotential bonding requirements (EN 50310).

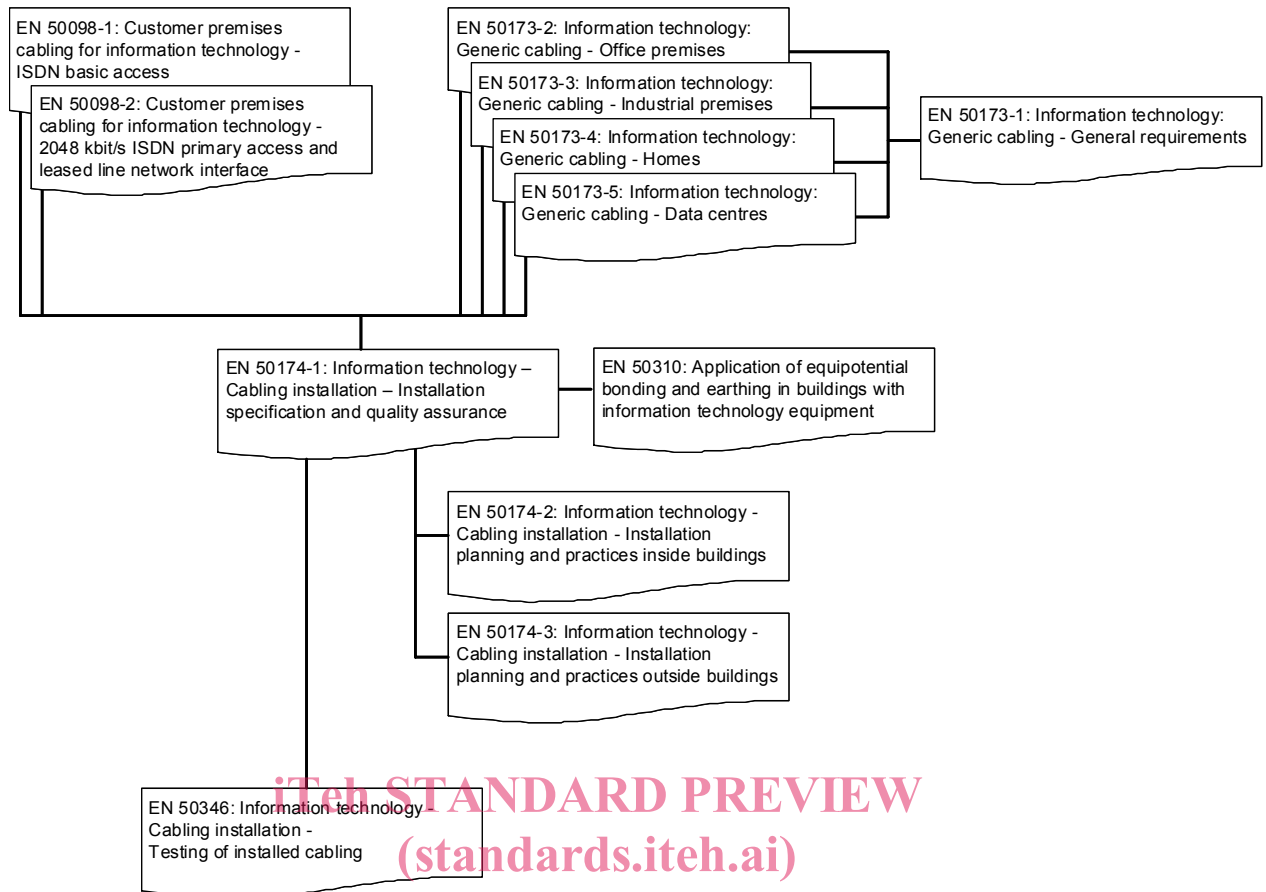
In addition, a number of Technical Reports have been developed to support or extend the application of these standards, including:

- CLC/TR 50173-99-1, *Cabling guidelines in support of 10 GBASE-T*;
- CLC/TR 50173-99-2, *Information technology – Implementation of BCT applications using cabling in accordance with EN 50173-4*.

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