

საქართველოს სტანდარტი

საინფორმაციო ტექნოლოგიები - საერთო საკაბელო სისტემები - ნაწილი 1:
ზოგადი მოთხოვნები

საქართველოს სტანდარტებისა და მეტროლოგიის
ეროვნული სააგენტო
თბილისი

სსტ ენ 50173-1:2018/2019

საინფორმაციო მონაცემები

1 შემუშავებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს სტანდარტების დეპარტამენტის მიერ

2 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს 2019 წლის 9 ოქტომბრის № 73 განკარგულებით

3 მიღებულია გარეკანის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 50173-1:2018 “საინფორმაციო ტექნოლოგიები - საერთო საკაბელო სისტემები - ნაწილი1: ზოგადი მოთხოვნები“

4 პირველად

5 რეგისტრირებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2019 წლის 9 ოქტომბერი №268-1.3-015309

დაუშვებელია წინამდებარე სტანდარტის სრული ან ნაწილობრივი კვლავწარმოება, ტირაჟირება და გავრცელება სსიპ საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს ნებართვის გარეშე

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

This European Standard was approved by CENELEC on 2018-03-19. 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 CEN-CENELEC Management Centre or to any CENELEC member.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 50173-1:2018) was prepared by CLC/TC 215, "Electrotechnical aspects of telecommunication equipment".

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-03-19
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2021-03-19

This document supersedes EN 50173-1:2011.

The first edition of EN 50173-1, published in 2002, has 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.

This edition of EN 50173-1:

- a) introduces new balanced cabling component Categories 8.1 and 8.2 to support new channel Classes I and II;
- b) removes balanced cabling components and channel Class CCCB;
- c) removes the optical fibre Classes concept;
- d) defines a new cabled optical fibre Category OM5;
- e) updates Annex F "Supported applications";
- f) amends various other subclauses, tables and figures.

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 spaces
EN 50173-3	Information technology – Generic cabling systems – Part 3: Industrial spaces
EN 50173-4	Information technology – Generic cabling systems – Part 4: Homes
EN 50173-5	Information technology – Generic cabling systems – Part 5: Data centre spaces
EN 50173-6	Information technology – Generic cabling systems – Part 6: Distributed building services

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

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.

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) installation (EN 50174 series);
- 3) bonding (EN 50310).

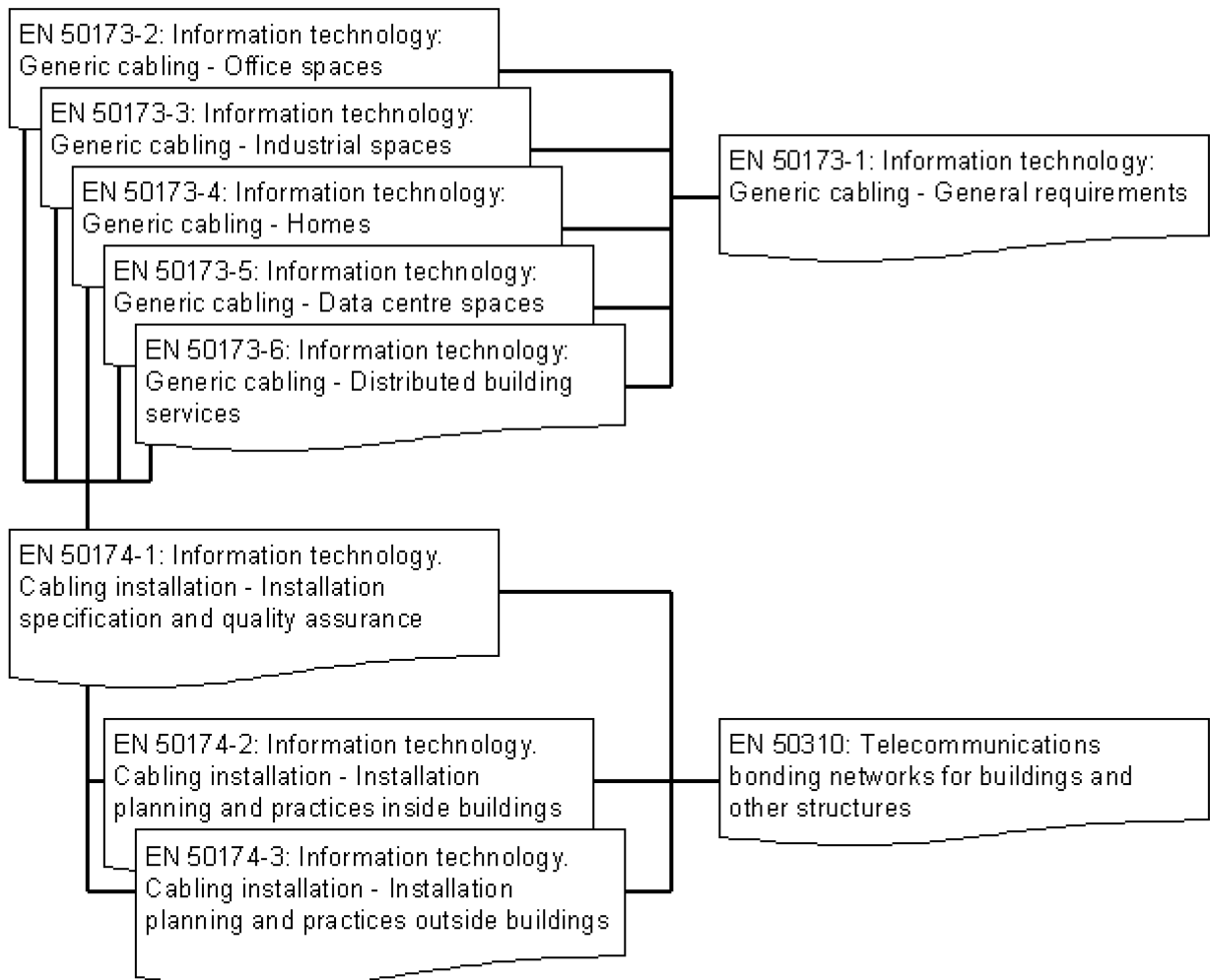


Figure 1 — Schematic relationship between the EN 50173 series and other relevant standards

Table 1 — Contextual relationship between EN 50173 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 50173-2 EN 50173-3 EN 50173-4 EN 50173-5 EN 50173-6 (these ENs reference general requirements of EN 50173-1)	EN 50174-1	EN 50174-2 EN 50174-3 EN 50310	EN 50174-1
		Planning phase		
		EN 50174-2 EN 50174-3 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*;
- CLC/TR 50173-99-3, *Information technology — Generic cabling systems — Part 99-3: Home cabling infrastructures up to 50 m in length to support simultaneous and non simultaneous provision of applications*.

In addition, a number of cabling design standards have been developed using components of EN 50173-1 (e.g. EN 50098 series and EN 50700).