



BSI Standards Publication

Cable trunking systems and cable ducting systems for electrical installations

Part 1: General requirements

National foreword

This British Standard is the UK implementation of EN IEC 61084-1:2024+A11:2024. It is derived from IEC 61084-1:2017. It supersedes BS EN 50085-1:2005+A1:2013, which will be withdrawn on 5 August 2029.

The start and finish of text introduced or altered by amendment A11 is indicated in the text by tags. Tags indicating changes to text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A11 is indicated by A11 A11.

The UK participation in its preparation was entrusted to Technical Committee PEL/213, Cable management.

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English Version

**Cable trunking systems and cable ducting systems for electrical
installations - Part 1: General requirements
(IEC 61084-1:2017)**

Systèmes de goulottes et systèmes de conduits profilés
pour installations électriques - Partie 1 : Exigences
générales
(IEC 61084-1:2017)

Installationskanalsysteme für elektrische Installationen -
Teil 1: Allgemeine Anforderungen
(IEC 61084-1:2017)

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European foreword

This document (EN IEC 61084-1:2024) consists of the text of document IEC 61084-1:2017, prepared by SC 23A "Cable management systems" of IEC/TC 23 "Electrical accessories".

The following dates are fixed:

- latest date by which this document has to be (dop) 2025-08-05
implemented at national level by publication of an
identical national standard or by endorsement
- latest date by which the national standards (dow) 2029-08-05
conflicting with this document have to be withdrawn

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European foreword to Amendment A11

This document (EN IEC 61084-1:2024/A11:2024) has been prepared by CLC/TC 213 "Cable management systems".

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A11 Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60417	-	Graphical symbols for use on equipment	-	-
IEC 60423	2007	Conduit systems for cable management – Outside diameters of conduits for electrical installations and threads for conduits and fittings	EN 60423	2007
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
+ MD1	1999		+ 1	2000
+ MD2	2013		+ 2	2013
IEC 60695-2-11	2021	Fire hazard testing – Part 2–11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end products (GWEPT)	EN 60695-2-11	2021
IEC 60695-11-2	2017	Fire hazard testing – Part 11–2: Test flames – 1 kW pre-mixed flame – Apparatus, confirmatory test arrangement and guidance	EN 60695-11-2	2017
IEC 61032	1997	Protection of persons and equipment by enclosures – Probes for verification	EN 61032	1998
ISO 2768-1	1989	General tolerances. Part 1: tolerances for linear and angular dimensions without individual tolerance indications.	EN 22768-1	1993
		Cable management systems - Test method for content of halogens	EN IEC 63355	2022
		Electromagnetic characteristics of linear cable management systems (CMS)	CLC/TS 50659	2022

A11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Cable trunking systems and cable ducting systems for electrical installations –
Part 1: General requirements**

**Systèmes de goulottes et systèmes de conduits-profilés pour installations
électriques –
Partie 1: Exigences générales**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CABLE TRUNKING SYSTEMS AND CABLE DUCTING
SYSTEMS FOR ELECTRICAL INSTALLATIONS –****Part 1: General requirements****FOREWORD**

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International Standard IEC 61084-1 has been prepared by subcommittee 23A: Cable management systems, of IEC technical committee 23: Electrical accessories.

This second edition cancels and replaces the first edition published in 1991 and Amendment 1:1993. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- classification;
- construction;
- mechanical and electrical properties.

This part of the IEC 61084 series is not intended to be used by itself.

The text of this standard is based on the following documents:

FDIS	Report on voting
23A/826/FDIS	23A/833/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61084 series, published under the general title *Cable trunking and cable ducting systems for electrical installations*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

CABLE TRUNKING SYSTEMS AND CABLE DUCTING SYSTEMS FOR ELECTRICAL INSTALLATIONS –

Part 1: General requirements

1 Scope

This part of the IEC 61084 series specifies requirements and tests for cable trunking systems (CTS) and cable ducting systems (CDS) intended for the accommodation, and where necessary for the electrically protective separation, of insulated conductors, cables and possibly other electrical equipment in electrical and/or communication systems installations. The maximum voltage of these installations is 1 000 V AC and 1 500 V DC.

This document does not apply to conduit systems, cable tray systems, cable ladder systems, power track systems or equipment covered by other standards.

NOTE This part of the IEC 61084 series is not intended to be used by itself.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 IEC 63355:2022, *Cable management systems – Test method for content of halogens*

CLC/TS 50659:2022, *Electromagnetic characteristics of linear cable management systems (CMS)*

IEC 60417, *Graphical symbols for use on equipment*

IEC 60423:2007, *Conduit systems for cable management – Outside diameters of conduits for electrical installations and threads for conduits and fittings*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 60529:1989/AMD1:1999

IEC 60529:1989/AMD2:2013

IEC 60695-2-11:2014, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products (GWEPT)*

IEC 60695-11-2:2013, *Fire hazard testing – Part 11-2: Test flames – 1 kW pre-mixed flame – Apparatus, confirmatory test arrangement and guidance*

IEC 61032:1997, *Protection of persons and equipment by enclosures – Probes for verification*

ISO 2768-1:1989, *General tolerances – Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 cable trunking system CTS

assembly comprising a trunking length and possibly other system components to provide an enclosure for the accommodation and laying in of insulated conductors and cables and possibly the accommodation of other electrical equipment

Note 1 to entry: Different types of CTS are shown in Figure 1 and explained in Annex A.

3.2 cable ducting system CDS

assembly comprising a ducting length and possibly other system components to provide an enclosure for the accommodation and drawing in of insulated conductors and cables and possibly the accommodation of other electrical equipment

Note 1 to entry: Different types of CDS are shown in Figure 1 and explained in Annex A.

3.3 system component

part of the system which includes:

- a) trunking length or ducting length;
- b) trunking fitting or ducting fitting;
- c) fixing device;
- d) apparatus mounting device;
- e) system accessory

Note 1 to entry: A system does not necessarily include all system components a) to e). Different combinations of system components can be used.

3.4 trunking length

main component of a cable trunking system comprising a base with one or more access covers which may be opened or removed

3.5 ducting length

main component of a cable ducting system, characterized by a closed non-circular cross section

3.6 fitting

system component to connect, change direction or terminate trunking lengths or ducting lengths

3.7 fixing device

system component to secure other system components to the wall, ceiling, floor or other structure

3.8 apparatus mounting device

system component to accommodate electrical apparatus (switches, socket outlets, circuit-breakers, telephone outlets, etc...) which can be an integral part of electrical apparatus

Note 1 to entry: An apparatus mounting device can also be a fitting, a trunking length, etc.

3.9

system accessory

system component which provides a supplementary function

EXAMPLE 1: Examples of system accessories are partition, cable retainer, cable outlet, etc.

3.10

metallic system component

system component which consists of metal only

3.11

non-metallic system component

system component which consists of non-metallic material only

3.12

composite system component

system component comprising both metallic and non-metallic materials

3.13

non-flame propagating system component

system component which can catch fire as a result of an applied flame, in which the resulting flame does not propagate and self extinguishes within a limited time after the applied flame is removed

3.14

external influence

factor which may affect the system

3.15

gland

device designed to permit the entry of a cable or flexible cable into equipment, and which provides sealing and retention

Note 1 to entry: It may also provide other functions such as earthing, bonding, insulation, cable guarding, strain relief or a combination of these.

3.16

live part

conductor or conductive part intended to be energized in normal operation, including a neutral conductor, but by convention not a PEN conductor or PEM conductor or PEL conductor

[SOURCE: IEC 60050-826:2004, 826-12-08, modified – Note deleted.]

3.17

cable anchorage

system accessory or part of another system component to relieve conductors in terminals and terminations from strain by resisting the pull and twist forces on cable

3.18

cable restrainer

system accessory to relieve conductors in terminals and terminations from strain by resisting the pull force on cable or insulated conductors

3.19

cable retainer

system accessory for the retention of insulated conductors or cables to prevent them from falling out when the access cover is opened or removed

3.20

grommet

component or an integral part of an enclosure to support and protect the cable, conduit or ducting or trunking at the point of entry

Note 1 to entry: It may also prevent the ingress of moisture or contaminants.

SEE: Figure 7.

3.21

entry membrane

component or an integral part of an enclosure to protect the cable, and may be used to support the cable, conduit or ducting or trunking at the point of entry

Note 1 to entry: It may also prevent the ingress of moisture or contaminants. An entry membrane may be part of a grommet.

SEE: Figure 7.

3.22

protecting membrane

component or an integral part of an enclosure, not to be penetrated in normal use, to provide protection against ingress of water or solid objects and/or to allow the operation of an accessory

SEE: Figure 7.

3.23

gasket

additional part or material or an integral part placed between mating surfaces of an enclosure which in compression contributes to the achievement of the declared ingress protection

3.24

reaction to fire

response of a CTS/CDS in contributing by its own decomposition to a fire, to which it is exposed, under specified conditions

3.25

fire resistance

ability of a CTS/CDS to fulfil for a stated period of time the required stability and/or integrity and/or thermal insulation, and/or other expected duty specified in a standard fire resistance test

Note 1 to entry: Fire resistant (adjective) refers only to this ability.

3.26

skirting CTS/CDS

CTS/CDS intended to be installed on the lower part of a wall

3.27

dry-treatment of floor

process for cleaning and/or care by which the floor is treated without liquids or with only a small quantity of liquid

Note 1 to entry: The required agents are applied and spread in such quantities that no pools are formed and soaking of the floor covering does not occur.

EXAMPLE 1: Examples for dry treatment are: Sweeping with a broom or carpet-sweeper, vacuum cleaning, brushing, cleaning with a dry cleaning powder, dry shampoo treatment, wet shampooing of carpets, treatment with cleaning litter (liquid chemical cleaning agent on a solid material used as carrier, e.g. soaked sawdust, damp cloth, etc.)

3.28**wet-treatment of floor**

process for cleaning and/or care by which the floor is treated with liquid agents such that pools of liquid, or soaking of the floor covering for a brief period of time, cannot be excluded

EXAMPLE 1: Examples of wet treatment are: wet scrubbing, manual or mechanical wiping.

3.29**screen****conductive screen**

conductive part that encloses or separates electric circuits and/or conductors

[SOURCE: IEC 60050-195:1998, 195-02-38]

3.30**protective screen****electrically protective screen**

conductive screen used to separate an electric circuit and/or conductors from hazardous-live-parts

[SOURCE: IEC 60050-195:1998, 195-06-17]

3.31**protective screening****electrically protective screening**

separation of electric circuits or conductors from hazardous-live-parts by an electrically protective screen connected to the protective-equipotential-bonding system and intended to provide protection against electric shock

[SOURCE: IEC 60050-195:1998, 195-06-18]

3.32**protective separation****electrically protective separation**

separation of one electric circuit from another by means of:

- double insulation; or
- basic insulation and electrically protective screening; or
- reinforced insulation

[SOURCE: IEC 60050-195:1998, 195-06-19]

3.33**partition****partition of an assembly**

part of an assembly separating one compartment from other compartments

[SOURCE: IEC 60050-441:1984, 441-13-06]

3.34**internal protective partition**

partition which when used in combination with basic insulation provides electrically protective separation between compartments of the CTS/CDS