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

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CABLE TRUNKING SYSTEMS AND CABLE DUCTING SYSTEMS FOR ELECTRICAL INSTALLATIONS –

Part 1: General requirements

FOREWORD

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This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 61084-1 edition 2.1 contains the second edition (2017-03) [documents 23A/826/FDIS and 23A/833/RVD] and its amendment 1 (2024-02) [documents 23A/1057/FDIS and 23A/1067/RVD].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

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

This second 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.

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 and its amendment will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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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.

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 60695-2-11:2014/2021, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products (GWEPT)*

IEC 60695-11-2:2013/2017, *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*

IEC 63355:2022, *Cable management systems – Test method for content of halogens*

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 <https://www.iteh.com/standards/iec/045b1e9b-7421-453c-9d53-df4d91a9e7bb/iec-61084-1-2017>

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.