

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Cable trunking systems and cable ducting systems for electrical installations –
Part 2-2: Particular requirements – Cable trunking systems and cable ducting
systems intended for mounting underfloor, flushfloor, or onfloor**

**Systèmes de goulottes et systèmes de conduits-profilés pour installations
électriques –
Partie 2-2 : Exigences particulières – Systèmes de goulottes et systèmes de
conduits-profilés prévus pour être montés en sous-sol, encastrés dans le sol, ou
sur le sol**



THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2024 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Recherche de publications IEC -

webstore.iec.ch/advsearchform

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études, ...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et une fois par mois par email.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Découvrez notre puissant moteur de recherche et consultez gratuitement tous les aperçus des publications, symboles graphiques et le glossaire. Avec un abonnement, vous aurez toujours accès à un contenu à jour adapté à vos besoins.

Electropedia - www.electropedia.org

Le premier dictionnaire d'électrotechnologie en ligne au monde, avec plus de 22 500 articles terminologiques en anglais et en français, ainsi que les termes équivalents dans 25 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.



IEC 61084-2-2

Edition 2.1 2024-03
CONSOLIDATED VERSION

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Cable trunking systems and cable ducting systems for electrical installations –
Part 2-2: Particular requirements – Cable trunking systems and cable ducting
systems intended for mounting underfloor, flushfloor, or onfloor**

**Systèmes de goulottes et systèmes de conduits-profilés pour installations
électriques –
Partie 2-2 : Exigences particulières – Systèmes de goulottes et systèmes de
conduits-profilés prévus pour être montés en sous-sol, encastrés dans le sol, ou
sur le sol**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 29.060.01, 29.120.10

ISBN 978-2-8322-8503-9

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 General requirements	6
5 General conditions for tests	7
6 Classification	7
7 Marking and documentation	7
8 Dimensions	8
9 Construction	8
10 Mechanical properties	9
11 Electrical properties	14
12 Thermal properties	14
13 Fire hazard	14
14 External influences	15
15 Electromagnetic compatibility	15
Annex A (informative) Types of cable trunking systems (CTS) and cable ducting systems (CDS)	27
Annex B (normative) CTS/CDS IK code	28
Annex AA (normative) Mechanical load tests	29
Bibliography	31
Figure 101 – Types and application of CTS/CDS for underfloor, flushfloor or onfloor installations	16
Figure 102 – Examples of trunking and ducting installations	17
Figure 103 – Example of underfloor embedded CDS according to 3.101	18
Figure 104 – Example of flushfloor CTS according to 3.102	19
Figure 105 – Example of onfloor CTS according to 3.103	20
Figure 106 – Principles for arrangement	21
Figure 107 – Examples for arrangement	22
Figure 108 – Load test set-up for CTS/CDS in accordance with 10.5.103	24
Figure 109 – Load test set-up for CTS/CDS in accordance with 10.5.104	26
Table A.2 – Types of CTS and CDS for floor installation	27
Table AA.1 – Mechanical load tests	29

INTERNATIONAL ELECTROTECHNICAL COMMISSION

CABLE TRUNKING SYSTEMS AND CABLE DUCTING SYSTEMS FOR ELECTRICAL INSTALLATIONS –

Part 2-2: Particular requirements – Cable trunking systems and cable ducting systems intended for mounting underfloor, flushfloor, or onfloor

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

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

IEC 61084-2-2 edition 2.1 contains the second edition (2017-03) [documents 23A/828/FDIS and 23A/836/RVD] and its amendment 1 (2024-03) [documents 23A/1061/FDIS and 23A/1069/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 61084-2-2 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 International standard is to be used in conjunction with IEC 61084-1:2017.

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

This part of the IEC 61084 series supplements or modifies the corresponding clauses of IEC 61084-1:2017 as follows:

- where no particular clause or subclause of IEC 61084-1 is mentioned, the corresponding clause or subclause of IEC 61084-1 applies as far as it is reasonable;
- where “addition” or “replacement” is stated, the relevant text of IEC 61084-1 is to be adapted accordingly;
- subclauses, figures and tables which are additional to those in IEC 61084-1 are numbered starting from 101.

In this standard, the following print types are used:

- requirements and definitions: roman type;
- *compliance statements: italic type.*

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

- reconfirmed,
- withdrawn, or
- revised.

IMPORTANT – The ‘colour inside’ logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

CABLE TRUNKING SYSTEMS AND CABLE DUCTING SYSTEMS FOR ELECTRICAL INSTALLATIONS –

Part 2-2: Particular requirements – Cable trunking systems and cable ducting systems intended for mounting underfloor, flushfloor, or onfloor

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.

These systems are intended for mounting underfloor, flushfloor or onfloor.

This document does not apply to CTS/CDS which are intended to be fixed to the wall and supported by the floor.

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

2 Normative references

This clause of Part 1 is applicable, except as follows:

Addition:

IEC 60068-2-60:2015, *Environmental testing – Part 2-60: Tests – Test Ke: Flowing mixed gas corrosion test*

IEC 60068-2-75:2014, *Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests*

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

3 Terms and definitions

This clause of Part 1 is applicable, except as follows:

3.1 *Replace Note 1 to entry by:*

Note 1 to entry: Different types of CTS are shown in Figure 101 and explained in Annex A.

3.2 *Replace Note 1 to entry by:*

Note 1 to entry: Different types of CDS are shown in Figure 101 and explained in Annex A.