
**Električne inštalacije zgradb – 5. del: Izbira in namestitvev električne opreme – 52.
poglavje: Inštalacijski sistemi (IEC 60364-5-52:1993, spremenjen)**

Electrical installations of buildings -- Part 5: Selection and erection of electrical
equipment -- Chapter 52: Wiring systems

Elektrische Anlagen von Gebäuden -- Teil 5: Auswahl und Errichtung von elektrischen
Betriebsmitteln -- Kapitel 52: Kabel- und Leitungssysteme (anlagen)

Installations électriques des bâtiments -- Partie 5: Choix et mise en oeuvre des matériels
électriques -- Chapitre 52: Canalisations

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Ta slovenski standard je istoveten z: HD 384.5.52 S1:1995

ICS:

91.140.50 Sistemi za oskrbo z elektriko Electricity supply systems

SIST HD 384.5.52 S1:2000

en

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HARMONIZATION DOCUMENT
DOCUMENT D'HARMONISATION
HARMONISIERUNGSDOKUMENT

HD 384.5.52 S1

June 1995

ICS 29.060.20; 91.140.50

Descriptors: Electrical installation, building, wiring system, type, selection, current-carrying capacity, section, voltage drop

English version

Electrical installations of buildings
Part 5: Selection and erection of electrical equipment
Chapter 52: Wiring systems
(IEC 364-5-52:1993, modified)

Installations électriques des bâtiments
Partie 5: Choix et mise en oeuvre des
matériels électriques
Chapitre 52: Canalisations
(CEI 364-5-52:1993, modifiée)

Elektrische Anlagen von Gebäuden
Teil 5: Auswahl und Errichtung von
Betriebsmitteln
Kapitel 52: Kabel- und Leitungssysteme
(IEC 364-5-52:1993, modifiziert)

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This Harmonization Document was approved by CENELEC on 1994-12-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document on a national level.

Up-to-date lists and bibliographical references concerning such national implementation may be obtained on application to the Central Secretariat or to any CENELEC member.

This Harmonization Document exists in three official versions (English, French, German).

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of the International Standard IEC 384-5-52:1993, prepared by IEC TC 64, Electrical installations of buildings, together with common modifications prepared by SC 64B, Protection against thermal effects, of Technical Committee CENELEC TC 64, was submitted to the formal vote and was approved by CENELEC as HD 384.5.52 S1 on 1994-12-06.

The following dates were fixed:

- latest date by which the existence of the HD has to be announced at national level (doa) 1995-06-01
- latest date by which the HD has to be implemented at national level by publication of a harmonized national standard or by endorsement (dop) 1995-12-01
- latest date by which the national standards conflicting with the HD have to be withdrawn (dow) 1995-12-01

For products which have complied with the relevant national standard before 1995-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2000-12-01.

Annexes designated "normative" are part of the body of the standard. In this standard, annexes ZA and ZB are normative. Annexes ZA and ZB have been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 384-5-52:1993 was approved by CENELEC as a Harmonization Document with agreed common modifications as given below.

COMMON MODIFICATIONS**520.2** Normative references

Replace the text of this subclause by :

NOTE : Normative references to international publications are listed in annex ZA (normative).

521.2 Add the following note :

NOTE : Other methods of installation of wiring systems not included in table 52 G are allowed provided that they fulfil the requirements of this chapter.

521.5 AC circuits

Change the beginning of this subclause to :

Conductors **and single core cables** of a.c. circuits ...

Table 52F Column cable trunking/line insulated conductors add an asterisk (*) and add at the bottom of the table the following.

(*) insulated conductors are admitted if the cover can be only taken off by the mean of a tool or with an important hand exertion and if the trunking is IP4X or IPXXD.

Table 52G Replace the first line of the table by the following

Building	accessible	25	21, 25	22	31, 32, 75	23	12, 13, 14, 15,16	-	0
voids	not accessible	21, 25, 73, 74	0	22 73, 74	0	23	0	-	-

Table 52G Column cable trunking/line embedded in structure :
add 75

Table 52H Reference 13 - Read :
On perforated trays or on wire mesh - run horizontally or vertically.

Table 52H Reference 31, 31A - add :
Insulated conductors

Table 52H Reference 41 - read :
Insulated conductors, single and/or multicore cables in conduits in enclosed cable channels, run horizontally or vertically.

Table 52H Reference 42 and 43 - add at the end of the description :

(1)

and at the bottom of the page add :

(1) It is recommended that these methods of installation are used only in areas where access is restricted to authorized persons and the reduction of current-carrying capacity and the fire hazard due to the accumulation of debris can be prevented

Table 52H Reference 53 - Replace :

The figure by the following one :

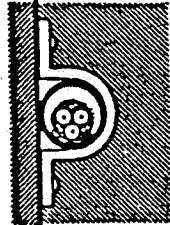


Table 52H Reference 72 - Read :

insulated conductors, sheathed singlecore or multicore cables in skirting, trunking
* space for data and communication cables.

Table 52H Add the following reference :

	<p>insulated conductors or singlecore or multicore cables in embedded trunking</p> <p>iTeh STANDARD PREVIEW (standards.iteh.ai)</p> <p>https://standards.iteh.ai/catalog/standards/sist/352a49bd-17c1-4055-872d-4895e40d5c34/sist-hd-384-5-52-s1-2000</p> <p>SIST HD 384.5.52 S1:2000</p>	<p>75</p>
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522.1, 522.3, 522.3.3, 522.4, 522.4.2, 522.5, 522.6, 522.6.2, 522.7, 522.7.1, 522.8, 522.9, 522.9.1, 522.10, 522.10.1, 522.11, 522.11.1, 522.12, 522.12.2, 522.13, 522.13.1, 522.14, 522.14.1, 522.14.2.

Delete all Environment Code references and references to Clauses of Section 321.

522.1.1 Second line - Add after the highest :
or the lowest

522.1.3 Add the new following paragraph

522.1.3 Where cables having different temperature ratings are installed in the same enclosure, the temperature rating of the cable system is taken to be the lowest temperature rating of all the cables.

522.2.1 Read :
In order to avoid the effects of heat from external sources, one or more of the following ...

522.6.1 Add at the end of the paragraph :
During installation, use and maintenance.

522.8.1 First line - replace :
"prevent" by "avoid"

- 522.8.1.7** Add at the end of the paragraph :
Except for wiring systems in ceilings or in floors which can follow the shortest practical route.
- 522.8.1.9** Add a new paragraph :
Cable supports and enclosures shall not have sharp edges.
- 524.2** First sentence, read :
The neutral conductor, if any, shall have a cross-sectional area not less than the phase conductor.
- Table 52 J** Last column - line 2
Replace 2,5 by 16
Last column, lines 5 and 6
Add (see note 4)
and add at the bottom of the table
4 special requirements for ELV lighting circuits are under consideration.
- 526.2** Note : add at the end of the note :
and temperature rise under fault conditions.
- 527.1.1** end of the paragraph
replace 522 by 527.
- 527.1.3** Second line, add after in other IEC standards :
(ie IEC 1084-1 and CLC/TC 113 documents).
- 527.2.4** Second line, add after IEC 614 :
and IEC 1084-1.
- 527.2.6** Replace 527.2.3 by 527.2.2
- 527.5.1** First line, add after inspected
at an appropriate time during erection.

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Annex ZA (normative)

Normative references to international publications
with their corresponding European publications

This Harmonization Document incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this Harmonization Document only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 332-1	1979	Tests on electric cables under fire conditions Part 1: Test on a single vertical insulated wire or cable	HD 405.1 S1	1983
IEC 332-3	1992	Part 3: Tests on bunched wires or cables	HD 405.3 S1	1993
IEC 364-1	1992 ¹⁾	Electrical installations of buildings Part 1: Scope, object and fundamental principles	-	-
IEC 364-3 (mod)	1993	Part 3: Assessment of general characteristics	HD 384.3 S2	1995
IEC 364-4-473 (mod)	1977	Part 4: Protection for safety Chapter 47: Application of protective measures for safety Section 473: Measures of protection against overcurrent	HD 384.4.473 S1	1980
IEC 364-5-523 (mod)	1983	Part 5: Selection and erection of electrical equipment - Chapter 52: Wiring systems Section 523: Current-carrying capacities	HD 384.5.523 S1	1991
IEC 439-2 (mod)	1987	Low-voltage switchgear and controlgear assemblies Part 2: Particular requirements for busbar trunking systems (busways)	EN 60439-2 ²⁾	1993
IEC 529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
IEC 614	series	Specification for conduits for electrical installations	-	-

1) IEC 364-1:1972 is harmonized as HD 384.1 S1:1979.

2) EN 60439-2 includes A1:1991 to IEC 439-2.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 1084-1	1991	Cable trunking and ducting systems for electrical installations Part 1: General requirements	-	-
IEC 1200-52	1993	Electrical installation guide Part 52: Selection and erection of electrical equipment - Wiring systems	-	-
ISO 834	1975	Fire-resistance tests Elements of building construction	-	-

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ANNEX ZB
 (Normative)

SPECIAL NATIONAL CONDITIONS

Special national condition : National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions. If it affects harmonization, it forms part of the European Standard or Harmonization Document.

For the countries in which the relevant special national conditions apply these provisions are normative, for other countries they are informative.

GERMANY

Flat webbed house wires in accordance with DIN VDE 0250 Part 201 may be used if the following requirements are met:

- a) Flat webbed house wires according to DIN VDE 0250 Part 201 (NYIF, NYIFY) may only be installed in dry rooms and only in or under plaster. They shall be covered with plaster along their entire length.

NOTE : The use of flat webbed house wires may be restricted in special specifications.

- b) If flat webbed house wires are installed in cavities in ceilings or walls consisting of concrete, stone or similar non-combustible material, it is not necessary to cover them with plaster in accordance with item a).
- c) Even when covered with plaster, flat webbed house wires may not be laid on combustible construction materials (see DIN 4102 Part 1), e.g. wood.
- d) Flat webbed house wires shall not be bunched. Collecting flat webbed house wires together at the inlet points of electrical equipment, e.g. distribution boards, is not considered as bunching.
- e) Flat webbed house wires may only be fixed using means and methods which will ensure that the insulation is not damaged or deformed.

NOTE : Means for fixing without damage are, e.g.

- gypsum plaster, or
- clamps matching the shape of the wires and made of insulating material or of metal with insulating layer, or
- sticking, or
- nailing with suitable nails with insulating washers.

- f) Flat webbed house wires shall not be installed under plaster board unless these boards are attached entirely with plaster.
- g) Flat webbed house wires shall not be installed immediately on or under wire netting, metal mesh or similar.
- h) Flat webbed house wires may only be joined in installation boxes in accordance with DIN VDE 0606 Part 1 made of insulating material.

UNITED KINGDOM

- a) Whereas the safety of the circuit is determined by the earth fault loop impedance, a reduced cross-section circuit protective conductor incorporated in the ring final circuits is in widespread use in domestic, commercial and small industrial installations;
- b) Cables have been designed specifically for use with this type of circuit and are contained in British National Standard BS 6004 Tables 5 and 6, "PVC insulated, PVC sheathed cable with circuit protective conductor, 300/500 V, single core, flat twin and 3 core" and in BS 7211 Table 7 "Thermosetting insulated, single core, flat twin and 3-core sheathed cables with circuit protective conductor, 300/500V";
- c) The cables shall be used in accordance with BS 7540 "Guide to use of cables with a voltage not exceeding 450/750 V" and British Standard BS 7671 "Requirements for Electrical Installations".

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
364-5-52

Première édition
First édition
1993-10

Installations électriques des bâtiments –

Partie 5:

Choix et mise en oeuvre des matériels électriques –

Chapitre 52: Canalisations

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Electrical installations of buildings –

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Part 5:

Selection and erection of electrical equipment –

Chapter 52: Wiring systems

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