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Edition 3.1 2024-11
CONSOLIDATED VERSION

INTERNATIONAL STANDARD

colour inside

Low-voltage electrical installations –
Part 5-52: Selection and erection of electrical equipment – Wiring systems



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 5-52: Selection and erection of electrical equipment – Wiring systems

FOREWORD

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

IEC 60364-5-52 edition 3.1 contains the third edition (2009-10) [documents 64/1685/FDIS and 64/1705/RVD], its corrigendum 1 (2011-02) and its amendment 1 (2024-11) [documents 64/2675/FDIS and 64/2703/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 60364-5-52 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

This third edition cancels and replaces the second edition, published in 2001, and constitutes a technical revision.

The main changes with respect to the previous edition are as follows:

- Subclause 521.4 introduces minor changes with regard to busbar trunking systems and powertrack systems.
- Subclause 523.6 introduces minor changes with regard to the sizing of cables where harmonic currents are present.
- A new sublause 523.9 concerning single-core cables with a metallic covering has been introduced.
- Clause 525 introduces changes in the maximum value of voltage drop permitted between the origin of the consumer's installation and the equipment which should not be greater than that given in the relevant annex.
- Clause 526 introduces minor changes to electrical connections including additional exceptions for inspection of connections and additional notes.
- Clause 528 introduces additional requirements with regard to proximity of underground power and telecommunication cables.
- Clause 529 introduces minor changes to selection and erection of wiring systems in relation to maintainability, including cleaning.

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

The reader’s attention is drawn to the fact that Annex I lists all of the “in-some-country” clauses on differing practices of a less permanent nature relating to the subject of this standard.

A list of all the parts in the IEC 602364 series, under the general title *Low-voltage electrical installations*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 5-52: Selection and erection of electrical equipment – Wiring systems

520 Introduction

520.1 Scope

Part 5-52 of IEC 60364 deals with the selection and erection of wiring systems.

NOTE 1 This standard also applies in general to protective conductors, while IEC 60364-5-54 contains further requirements for those conductors.

NOTE 2 Guidance on Part 5-52 of IEC 60364 is given in IEC 61200-52.

520.2 Normative references

The following referenced documents are indispensable for the application 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 60228, *Conductors of insulated cables*

IEC 60287 (all parts), *Electric cables – Calculation of the current rating*

IEC 60287-2-1, *Electric cables – Calculation of the current rating – Part 2-1: Thermal resistance –Calculation of thermal resistance*[1]

IEC 60287-3-1, *Electric cables – Calculation of the current rating – Part 3-1: Sections on operating conditions – Reference operating conditions and selection of cable type*[2]

IEC 60332-1-1, *Tests on electric and optical fibre cables under fire conditions – Part 1-1: Test for vertical flame propagation for a single insulated wire or cable – Apparatus*

IEC 60332-1-2, *Tests on electric and optical fibre cables under fire conditions – Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame*

IEC 60364-1:2005, *Low-voltage electrical installations – Part 1: Fundamental principles, assessment of general characteristics, definitions*

IEC 60364-4-41:2005, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60364-4-42, *Electrical installations of buildings – Part 4-42: Protection for safety – Protection against thermal effects*

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1 A consolidated edition 1.2 exists (2006) that includes IEC 60287-2-1 (1994) and its amendments 1 and 2 (1999 and 2006).

2 A consolidated edition 1.1 exists (1999) that includes IEC 60287-3-1 (1995) and its amendment 1 (1999).