



SLOVENSKI STANDARD SIST HD 60364-5-56:2019

01-marec-2019

Nadomešča:

SIST HD 60364-5-56:2011

SIST HD 60364-5-56:2011/A1:2012

SIST HD 60364-5-56:2011/A11:2013

SIST HD 60364-5-56:2011/A12:2017

Nizkonapetostne električne inštalacije - 5-56. del: Izbira in namestitvev električne opreme - Varnostno napajanje

Low-voltage electrical installations - Part 5-56: Selection and erection of electrical equipment - Safety services
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Errichten von Niederspannungsanlagen - Teil 5-56: Auswahl und Errichtung elektrischer Betriebsmittel - Einrichtungen für Sicherheitszwecke

Installations électriques à basse tension - Partie 5-56: Choix et mise en oeuvre des matériels - Services de sécurité

Ta slovenski standard je istoveten z: HD 60364-5-56:2018

ICS:

91.140.50 Sistemi za oskrbo z elektriko Electricity supply systems

SIST HD 60364-5-56:2019

en

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HARMONIZATION DOCUMENT

HD 60364-5-56

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

December 2018

ICS 91.140.50

Supersedes HD 60364-5-56:2010
HD 60364-5-56:2010/A1:2011
HD 60364-5-56:2010/A11:2013
HD 60364-5-56:2010/A12:2017

English Version

Low-voltage electrical installations - Part 5-56: Selection and erection of electrical equipment - Safety services (IEC 60364-5-56:2018)

Installations électriques à basse tension - Partie 5-56: Choix et mise en oeuvre des matériels - Installations de sécurité
(IEC 60364-5-56:2018)Errichten von Niederspannungsanlagen - Teil 5-56: Auswahl und Errichtung elektrischer Betriebsmittel - Einrichtungen für Sicherheitszwecke
(IEC 60364-5-56:2018)

This Harmonization Document was approved by CENELEC on 2018-12-07. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document at national level.

Up-to-date lists and bibliographical references concerning such national implementations may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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

<https://standards.iteh.ai/catalog/standards/sist/97396f7-acb6-4dfe-8bfb-9837957f9287/iec-60364-5-56:2018>

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

HD 60364-5-56:2018 (E)**European foreword**

The text of document 64/2316/FDIS, future edition 3 of IEC 60364-5-56, prepared by IEC/TC 64 "Electrical installations and protection against electric shock" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as HD 60364-5-56:2018.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-09-07
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-12-07

This document supersedes HD 60364-5-56:2010, HD 60364-5-56:2010/A1:2011, HD 60364-5-56:2010/A11:2013, and HD 60364-5-56:2010/A12:2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

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The text of the International Standard IEC 60364-5-56:2018 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60079-14	NOTE	Harmonized as EN 60079-14
IEC 60364-4-43:2008	NOTE	Harmonized as HD 60364-4-43:2010 (modified)
IEC 60623	NOTE	Harmonized as EN 60623
IEC 60896 (series)	NOTE	Harmonized as EN 60896 (series)
IEC 61508-4:2010	NOTE	Harmonized as EN 61508-4:2010 (not modified)
IEC 62034	NOTE	Harmonized as EN 62034

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 Where 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 60331	series	Tests for electric cables under fire conditions - Circuit integrity	-	-
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	EN 60332-1-2	-
IEC 60364-4-41 (mod)	2005	Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock	HD 60364-4-41	2017
-	-	https://standards.iteh.ai/catalog/standards/sist/973f96f7-acb6-4dfe-8bfb-a58279f759f9/sist-hd-60364-5-56-2019	+ A11	2017
IEC 60364-5-52	-	Low-voltage electrical installations - Part 5-52: Selection and erection of electrical equipment - Wiring systems	HD 60364-5-52	-
IEC 60598-2-22	-	Luminaires - Part 2-22: Particular requirements - Luminaires for emergency lighting	EN 60598-2-22	-
IEC 60702-1	-	Mineral insulated cables and their terminations with a rated voltage not exceeding 750 V - Part 1: Cables	EN 60702-1	-
IEC 60702-2	-	Mineral insulated cables and their terminations with a rated voltage not exceeding 750 V - Part 2: Terminations	EN 60702-2	-
IEC 62040-1	-	Uninterruptible power systems (UPS) - Part 1: Safety requirements	-	-
IEC 62040-2	-	Uninterruptible power systems (UPS) - Part 2: Electromagnetic compatibility (EMC) requirements	EN IEC 62040-2	-
IEC 62040-3	-	Uninterruptible power systems (UPS) - Part 3: Method of specifying the performance and test requirements	EN 62040-3	-
ISO 8528-12	-	Reciprocating internal combustion engine driven alternating current generating sets - Part 12: Emergency power supply to safety services	-	-
ISO 30061	2007	Emergency lighting	-	-

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INTERNATIONAL STANDARD

**Low-voltage electrical installations –
Part 5-56: Selection and erection of electrical equipment – Safety services**

STANDARD PREVIEW
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SIST HD 60364-5-56:2019
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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 91.140.50

ISBN 978-2-8322-6180-4

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CONTENTS

FOREWORD.....	3
560.1 Scope	5
560.2 Normative references.....	5
560.3 Terms and definitions.....	6
560.4 Classification	8
560.5 General.....	8
560.6 Electrical sources for safety services	9
560.7 Electrical circuits of safety services.....	10
560.8 Wiring systems	11
560.9 Emergency lighting applications.....	12
560.10 Fire protection applications/equipment.....	14
Annex A (informative) Guidance for emergency lighting	15
Annex B (informative) Guidance for fire protection equipment.....	16
Annex C (informative) List of notes concerning certain countries	17
Annex D (informative) Fire switch	21
Annex E (informative) Example of installation methods of safety services with cable management system.....	22
Annex F (informative) Wiring systems.....	23
F.1 Ambient test temperature rise	23
F.2 Duration of the safety service.....	23
F.3 Expected resistance of feeder conductors.....	23
F.4 Protection against electric shock in the event of a failure by means of the touch voltage reduction.....	24
F.5 Conductor resistance in case of fire.....	24
F.6 High temperature effects.....	25
F.7 Feeder circuits.....	25
Annex G (informative) Guidance on suitable locations for electrical sources for safety services.....	26
G.1 Recommendations for a suitable location for an electrical source for safety services	26
G.2 Conditions of fire protection	26
Bibliography.....	27
Figure D.1 – Fire switch installation	21
Figure E.1 – Example of cable installation for safety services	22
Table A.1 – Guidance for emergency lighting.....	15
Table B.1 – Guidance for safety equipment.....	16

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

**Part 5-56: Selection and erection of electrical equipment –
Safety services**

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.
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- 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) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60364-5-56 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 2009. This edition constitutes a technical revision.

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

- 1) Modifications to normative references and terms and definitions.
- 2) Under electrical circuits for safety services, addition of requirements concerning circuit and overcurrent protection in order to maintain reliability of safety service power supplies under fire conditions.
- 3) Under electrical circuits for safety services, addition of requirements stating that circuits for safety services are not to be protected by RCDs or AFDDs.

- 4) Under emergency lighting applications, addition of requirements to prevent emergency lighting systems being adversely affected by any control system.
- 5) Addition of requirements for all emergency luminaires in the area to provide full design light output in the event of any final circuit failure.
- 6) Addition of a new Annex D (informative): Fire switch.
- 7) Addition of a new Annex E (informative): Example of installation methods of safety services with cable management system.
- 8) Addition of a new Annex F (informative): Wiring systems.
- 9) Addition of a new Annex G (informative): Guidance on suitable locations for electrical sources for safety services.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
64/2316/FDIS	64/2341/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.

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

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A list of all parts in the IEC 60364 series, published under the general title *Low-voltage electrical installations*, can be found on the IEC website.

<https://standards.iteh.ai/catalog/standards/sist/973f96f7-acb6-4dfe-8bfb-a58279f759f9/sist-hd-60364-5-56-2019>

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.

A bilingual version of this publication may be issued at a later date.

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 5-56: Selection and erection of electrical equipment – Safety services

560.1 Scope

This part of IEC 60364 covers general requirements for safety services, selection and erection of electrical supply systems for safety services and the electrical source for safety services.

Standby electrical supply systems are outside the scope of this document. This document does not apply to installations in hazardous areas (BE3), for which requirements are given in IEC 60079-14.

560.2 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 60331 (all parts), *Tests for electric cables under fire conditions – Circuit integrity*

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

IEC 60364-5-52, *Low-voltage electrical installations – Part 5-52: Selection and erection of electrical equipment – Wiring systems*

IEC 60598-2-22, *Luminaires – Part 2-22: Particular requirements – Luminaires for emergency lighting*

IEC 60702-1, *Mineral insulated cables and their terminations with a rated voltage not exceeding 750 V – Part 1: Cables*

IEC 60702-2, *Mineral insulated cables and their terminations with a rated voltage not exceeding 750 V – Part 2: Terminations*

IEC 62040-1, *Uninterruptible power systems (UPS) – Part 1: Safety requirements*

IEC 62040-2, *Uninterruptible power systems (UPS) – Part 2: Electromagnetic compatibility (EMC) requirements*

IEC 62040-3, *Uninterruptible power systems (UPS) – Part 3: Method of specifying the performance and test requirements*

ISO 8528-12, *Reciprocating internal combustion engine driven alternating current generating sets – Part 12: Emergency power supply to safety services*

ISO 30061:2007, *Emergency lighting*

560.3 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>

560.3.1

electrical supply system for safety services

supply system intended to maintain the operation of essential parts of an electrical installation and equipment

- for the health and safety of persons and livestock, and/or
- to avoid damage to the environment and to other equipment

Note 1 to entry: The supply system includes the source and the electrical circuits up to the terminals of electrical equipment.

560.3.2

electrical source for safety services

electrical source intended to be used as part of an electrical supply system for safety services

560.3.3

electrical circuits for safety services

electrical circuits intended to be used as part of an electrical supply system for safety services

560.3.4

standby electrical supply system

supply system intended to maintain, for reasons other than safety, the functioning of an electrical installation or parts thereof, in case of interruption of the normal supply

560.3.5

standby electrical source

electrical source intended to maintain, for reasons other than safety, the supply to an electrical installation or parts thereof, in case of interruption of the normal supply

560.3.6

emergency lighting

lighting provided for use when the supply to the normal lighting fails

[SOURCE: ISO 30061:2007, 4.1]

560.3.7

emergency lighting luminaire

luminaire which may or may not be provided with its own electrical source for safety services and which is used for safety or emergency lighting

560.3.8

escape sign luminaire

luminaire that indicates and assists the identification of escape routes