STN	Elektrické inštalácie nízkeho napätia Časť 5-56: Výber a stavba elektrických zariadení Napájanie na bezpečnostné účely	STN 33 2000-5-56
		33 2000

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/19

Obsahuje: HD 60364-5-56:2018, IEC 60364-5-56:2018

Oznámením tejto normy sa od 07.12.2021 ruší STN 33 2000-5-56 z novembra 2010

128607

STN 33 2000-5-56: 2019

HARMONIZATION DOCUMENT DOCUMENT D'HARMONISATION HARMONISIERUNGSDOKUMENT

HD 60364-5-56

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).

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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 (dop) 2019-09-07 level by publication of an identical national standard or by endorsement
- 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.

Endorsement notice

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.

Publication Y	Year	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60331 s	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 2 (mod)	2005	Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock	HD 60364-4-41	2017
	-		+ 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 2	2007	Emergency lighting	-	-



IEC 60364-5-56

Edition 3.0 2018-11

INTERNATIONAL STANDARD

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





THIS PUBLICATION IS COPYRIGHT PROTECTED Copyright © 2018 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.

IEC Central Office 3, rue de Varembé 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 corrigenda or an amendment might have been published.

IEC Catalogue - webstore.iec.ch/catalogue

The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iBod

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 also once a month by email.

Electropedia - www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing 21 000 terms and definitions in English and French, with equivalent terms in 16 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary

67 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

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 60364-5-56

Edition 3.0 2018-11

INTERNATIONAL STANDARD

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

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ISBN 978-2-8322-6180-4

Warning! Make sure that you obtained this publication from an authorized distributor.

- 2 - IEC 60364-5-56:2018 © IEC 2018

CONTENTS

FOREWO	RD	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
	informative) Example of installation methods of safety services with cable ent 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	
F.6	High temperature effects	25
F.7	Feeder circuits	25
	informative) Guidance on suitable locations for electrical sources for safety	26
G.1	Recommendations for a suitable location for an electrical source for safety services	26
G.2	Conditions of fire protection	
Bibliograp	hy	27
Figure D.	I – Fire switch installation	21
Figure E.1	- Example of cable installation for safety services	22
	- Guidance for emergency lighting	
Table B.1	- Guidance for safety equipment	16

IEC 60364-5-56:2018 © IEC 2018

- 3 -

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.
- 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) 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 - IEC 60364-5-56:2018 © IEC 2018

- 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.

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.

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.

IEC 60364-5-56:2018 © IEC 2018

- 5 -

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

koniec náhľadu – text ďalej pokračuje v platenej verzii STN