ICS 29.020, 91.140.50 SLOVENSKÁ TECHNICKÁ NORMA December 2023

STN	**Elektrické inštalácie nízkeho napätia Časť 7-716: Požiadavky na osobitné inštalácie alebo priestory Rozvod elektrickej energie jednosmerného prúdu nízkeho napätia prostredníctvom káblovej infraštruktúry informačných a komunikačných technológií (ICT)**	**STN 33 2000-7-716** 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. 11/23

Obsahuje: HD 60364-7-716:2023, IEC 60364-7-716:2023

137726

HARMONIZATION DOCUMENT
DOCUMENT D'HARMONISATION
HARMONISIERUNGSDOKUMENT

HD 60364-7-716

September 2023

ICS 91.140.50; 29.020

English Version

Low-voltage electrical installations - Part 7-716: Requirements for special installations or locations - ELV DC power distribution over information and communications technology (ICT) cable infrastructure (IEC 60364-7-716:2023)

Installations électriques à basse tension - Partie 7-716: Exigences pour les installations et emplacements spéciaux - Distribution de l'alimentation en courant continu TBT sur l'infrastructure de câbles des technologies de l'information et de la communication (TIC) (IEC 60364-7-716:2023)

Errichten von Niederspannungsanlagen - Teil 7-716: Anforderungen für Betriebsstätten, Räume und Anlagen besonderer Art - Gleichstrom-Kleinspannungs-Energieverteilung über Informations- und Kommunikationskabel und Leitungen (ICT) (IEC 60364-7-716:2023)

This Harmonization Document was approved by CENELEC on 2023-09-20. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye 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

Ref. No. HD 60364-7-716:2023 E

HD 60364-7-716:2023 (E)

European foreword

The text of document 64/2617/FDIS, future edition 1 of IEC 60364-7-716, 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 60364-7-716:2023.

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) 2024-05-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-08-20

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.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60364-7-716:2023 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 standard indicated:

IEC 60512-99-001 NOTE Approved as EN 60512-99-001

IEC 61558-2-16 NOTE Approved as EN 61558-2-16

IEC 62368-3:2017 NOTE Approved as EN IEC 62368-3:2020 (not modified)

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.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
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
+ A1	2017		-	-
-	-		+ A11	2017
-	-		+ A12	2019
IEC 60364-4-43 (mod)	2008	Low-voltage electrical installations - Part 4-43: Protection for safety - Protection against overcurrent	HD 60364-4-43	2010
IEC 60364-5-52 (mod)	2009	Low-voltage electrical installations - Part 5-52: Selection and erection of electrical equipment - Wiring systems	HD 60364-5-52	2011
-	-		+ A11	2017
-	-		+ A12	2022
IEC 60512-9-3	-	Connectors for electronic equipment - Tests and measurements - Part 9-3: Endurance tests - Test 9c: Mechanical operation (engaging and separating) with electrical load	EN 60512-9-3	-
IEC 61156	series	Multicore and symmetrical pair/quad cables for digital communications	-	-
ISO/IEC 11801-1	2017	Information technology - Generic cabling for customer premises - Part 1: General requirements	-	-
+COR1	2018		-	-

IEC 60364-7-716

Edition 1.0 2023-08

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Low-voltage electrical installations – Part 7-716: Requirements for special installations or locations – ELV DC power distribution over information and communications technology (ICT) cable infrastructure

Installations électriques à basse tension – Partie 7-716: Exigences pour les installations et emplacements spéciaux – Distribution de l'alimentation en courant continu TBT sur l'infrastructure de câbles des technologies de l'information et de la communication (TIC)

IEC 60364-7-716:2023-08(en-fr)

IEC 60364-7-716

Edition 1.0 2023-08

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Low-voltage electrical installations – Part 7-716: Requirements for special installations or locations – ELV DC power distribution over information and communications technology (ICT) cable infrastructure

Installations électriques à basse tension – Partie 7-716: Exigences pour les installations et emplacements spéciaux – Distribution de l'alimentation en courant continu TBT sur l'infrastructure de câbles des technologies de l'information et de la communication (TIC)

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 29.020, 91.140.50

ISBN 978-2-8322-7358-6

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 7-716: Requirements for special installations or locations – ELV DC power distribution over information and communications technology (ICT) cable infrastructure

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.

IEC 60364-7-716 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock. It is an International Standard.

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

Draft	Report on voting
64/2617/FDIS	64/2637/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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

The committee has decided that the contents of this document 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,
- replaced by a revised edition, or
- amended.

INTRODUCTION

For the purpose of this part of IEC 60364 (IEC 60364-7-716) the requirements of the general Parts 1 to 6 and Part 8 of IEC 60364 apply.

The IEC 60364-7-7XX parts of IEC 60364 contain particular requirements for special installations or locations which are based on the requirements of the general parts of IEC 60364 (IEC 60364-1 to IEC 60364-6 and IEC 60364-8). These IEC 60364-7-7XX parts are considered in conjunction with the requirements of the general parts.

The particular requirements of this part of IEC 60364 supplement, modify or replace certain of the requirements of the general parts of IEC 60364 being valid at the time of publication of this part. The absence of reference to the exclusion of a part or a clause of a general part means that the corresponding clauses of the general part are applicable (undated references).

Requirements of other 7XX parts being relevant for installations covered by this part also apply, and circuits serving such parts are limited by the requirements of those 7XX parts.

The clause numbering of this part follows the pattern and corresponding references of IEC 60364. The numbers following the particular number of this part are those of the corresponding parts, or clauses of the other parts of the IEC 60364 series, valid at the time of publication of this part, as indicated in the normative references of this document (dated references).

If requirements or explanations additional to those of the other parts of the IEC 60364 series are necessary, the numbering of such items appears as 716.101, 716.102, 716.103, etc.

In the case where new or amended general parts with modified numbering were published after this part was issued, it is possible that the clause numbers referring to a general part in this Part 716 will no longer align with the latest edition of the general part. Dated references should be observed.

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 7-716: Requirements for special installations or locations – ELV DC power distribution over information and communications technology (ICT) cable infrastructure

716 ELV DC power distribution over information and communications technology (ICT) cable infrastructure

716.1 Scope

This part of IEC 60364 specifies requirements in electrical installations for the distribution of ELV DC power using balanced, information technology cables and accessories primarily designed for data transmission, as specified in terms of a category within the channels of ISO/IEC 11801-1 using power sourcing equipment in accordance with IEC 62368-3.

Requirements are included for the design, erection, and verification of telecommunications infrastructure for the purpose of both telecommunications and distribution of ELV DC power. In addition, requirements are included for use of existing telecommunications infrastructure for distribution of ELV DC power.

The power delivery systems include, but are not restricted to, the Power over Ethernet systems specified by IEEE 802.3.

This document does not apply to the use of cables and accessories within the core and access networks for example private branch exchange (PBX).

716.2 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 60364-4-41:2005, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*
IEC 60364-4-41:2005/AMD1:2017

IEC 60364-4-43:2008, *Low-voltage electrical installations – Part 4-43: Protection for safety - Protection against overcurrent*

IEC 60364-5-52:2009, *Low-voltage electrical installations – Part 5-52: Selection and erection of electrical equipment – Wiring systems*

IEC 60512-9-3, *Connectors for electronic equipment – Tests and measurements – Part 9-3: Endurance tests – Test 9c: Mechanical operation (engaging and separating) with electrical load*

IEC 61156 (all parts), *Multicore and symmetrical pair/quad cables for digital communications*

ISO/IEC 11801-1:2017, *Information technology – Generic cabling for customer premises – Part 1: General requirements*
ISO/IEC 11801-1:2017/COR1:2018