Madalpingelised elektripaigaldised. Osa 7-715: Nõuded eripaigaldistele ja -paikadele. Väikepingelised valgustuspaigaldised

Low-voltage electrical installations - Part 7-715: Requirements for special installations or locations - Extra-low-voltage lighting installations

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-HD 60364-7-715:2012 sisaldab Euroopa standardi HD 60364-7-715:2012 ingliskeelset teksti.	This Estonian standard EVS-HD 60364-7-715:2012 consists of the English text of the European standard HD 60364-7-715:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 16.03.2012.	Date of Availability of the European standard is 16.03.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 29.140.50, 91.140.50

HARMONIZATION DOCUMENT

DOCUMENT D'HARMONISATION

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HD 60364-7-715

March 2012

ICS 29.140.50; 91.140.50

Supersedes HD 60364-7-715:2005

English version

Low-voltage electrical installations - Part 7-715: Requirements for special installations or locations - Extra-low-voltage lighting installations

(IEC 60364-7-715:2011, modified)

Installations électriques à basse tension - Partie 7-715: Règles pour les installations et emplacements spéciaux - Installations d'éclairage à très basse tension
(CEI 60364-7-715:2011, modifiée)

Errichten von Niederspannungsanlagen - Teil 7-715: Anforderungen für Betriebsstätten, Räume und Anlagen besonderer Art - Kleinspannungsbeleuchtungsanlagen
(IEC 60364-7-715:2011, modifiziert)

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. HD 60364-7-715:2012 E

Foreword

The text of document (64/1807/FDIS), future edition 2 of IEC 60364-7-715, 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 60364-7-715:2012.

A draft amendment, which covers common modifications to IEC 60364-7-715, was prepared by CLC/TC 64, "Electrical installations and protection against electric shock" and approved by CENELEC.

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2013-01-18
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2015-01-18

This document supersedes HD 60364-7-715:2005.

HD 60364-7-715:2012 includes the following significant technical changes with respect to HD 60364-7-715:2005:

– clause numbering is aligned with present structure of HD 60364;

– introduction of references to LED modules and their particular installation requirements;

– modification of requirements for cross-sectional area of conductors.

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

Endorsement notice

The text of the International Standard IEC 60364-7-715:2011 was approved by CENELEC as a European Standard with common modifications.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60364-1:2005 NOTE Harmonized as HD 60364-1:2008 (modified).

COMMON MODIFICATION

715.521 Types of wiring system

715.521.1

Replace the first bullet by:

- insulated conductors in conduit systems according to EN 61386 series or cable trunking/ducting systems according to EN 50085 series.

Add Annexes ZA and ZB as follows.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

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 + corr. July	2007 2007
IEC 60364-4-42 (mod)	2010	Low voltage electrical installations - Part 4-42: Protection for safety - Protection against thermal effects	HD 60364-4-42	2011
IEC 60364-4-43 (mod) + corr. October	2008 2008	Low voltage electrical installations - Part 4-43: Protection for safety - Protection against overcurrent	HD 60364-4-43	2010
IEC 60364-5-52 (mod) + corr. February	2009 2011	Low-voltage electrical installations - Part 5-52: Selection and erection of electrical equipment - Wiring systems	HD 60364-5-52	2011
IEC 60364-5-53	2001	Electrical installations of buildings - Part 5-53: Selection and erection of electrical equipment - Isolation, switching and control	-	-
IEC 60364-5-55 (mod)	2001	Low-voltage electrical installations - Part 5-55: Selection and erection of electrical equipment - Other electrical equipment - Clause 552: Low-voltage generating sets - stand-alone	-	-
IEC 60570 (mod)	2003	Electrical supply track systems for luminaires	EN 60570	2003
IEC 60598-2-23	1996	Luminaires - Part 2-23: Particular requirements - Extra low-voltage lighting systems for filament lamps	EN 60598-2-23 + corr. March	1996 1997
IEC 60998-2-1 (mod)	2002	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units	EN 60998-2-1	2004
IEC 60998-2-2 (mod)	2002	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units	EN 60998-2-2	2004
IEC 61347-2-2	2000	Lamp controlgear - Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps	EN 61347-2-2 + corr. July + corr. December	2001 2003 2010
IEC 61347-2-13	2006	Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	EN 61347-2-13 + corr. December	2006 2010

Publication	Year	Title	EN/HD	Year
IEC 61558-2-6	2009	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers	EN 61558-2-6	2009

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.

NOTE If it affects harmonization, it forms part of the Harmonization Document.

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

Clause	Special national condition
715.430.04	**Denmark**
	In Denmark, automatic resetting of protective devices is not allowed

CONTENTS

INTRODUCTION

The requirements of this part of IEC 60364 supplement, modify or replace certain of the general requirements contained in Parts 1 to 6 of IEC 60364.

The clause numbering appearing after 715 refers to the corresponding parts or clauses of IEC 60364, Parts 1 to 6. Numbering of clauses does not, therefore, necessarily follow sequentially. Numbering of figures and tables takes the number of this part followed by a sequential number.

The absence of reference to a part or clause means that the general requirements contained in Parts 1 to 6 of IEC 60364 are applicable.

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 7-715: Requirements for special installations or locations – Extra-low-voltage lighting installations

715 Extra-low-voltage lighting installations

715.1 Scope

The particular requirements of this part of IEC 60364 apply to the selection and erection of extra-low-voltage lighting installations supplied from sources with a maximum rated voltage of 50 V a.c. or 120 V d.c.

NOTE 1 For the definition of an extra-low-voltage lighting system see IEC 60598-2-23.

NOTE 2 AC voltages are given as r.m.s. values.

715.2 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 60364-4-41:2005, Low-voltage e*lectrical installations – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60364-4-42:2010, Low-voltage e*lectrical installation – Part 4-42: Protection for safety – Protection against thermal effects*

IEC 60364-4-43:2008, Low-voltage e*lectrical installation – 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 60364-5-53:2001, *Electrical installations of buildings – Part 5-53: Selection and erection of electrical equipment – Isolation, switching and control*

IEC 60364-5-55:2001, *Electrical installations of buildings – Part 5-55: Selection and erection of electrical equipment – Other equipment*

IEC 60570:2003, *Electrical supply track systems for luminaires*

IEC 60598-2-23:1996, *Luminaires – Part 2: Particular requirements – Section 23: Extra-low-voltage lighting systems for filament lamps*

IEC 60998-2-1:2002, *Connecting devices for low-voltage circuits for household and similar purposes – Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units*

IEC 60998-2-2:2002, *Connecting devices for low-voltage circuits for household and similar purposes – Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units*

IEC 61347-2-2:2000, *Lamp controlgear – Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps*

IEC 61347-2-13:2006, *Lamp controlgear – Part 2-13: Particular requirements for d.c. or a.c. supplied eletronic controlgear for LED modules*

IEC 61558-2-6:2009, *Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V – Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers*

715.4 Protection for safety

715.41 Protection against electric shock

715.414 Protective measure: extra-low-voltage provided by SELV and PELV

Add the following:

For extra-low-voltage lighting installations only SELV shall be applied. Where bare conductors are used, the maximum voltage shall be 25 V a.c. or 60 V d.c. according to 414.4.5.

The source of the ELV lighting installation can be one of the following:

– A safety isolating transformer complying with IEC 61558-2-6:2009.

Parallel operation of transformers in the secondary circuit is allowed only if they are also paralleled in the primary circuit and the transformers have identical electrical characteristics.

– A safety isolating convertor complying with IEC 61347-2-2:2000, Annex I for incandescent lamps, or IEC 61347-2-13:2006, Annex I for LED.

Parallel operation of convertors is not permitted.

715.42 Protection against thermal effects

715.422.3 Locations with risks of fire due to the nature of processed or stored materials

Add the following:

The manufacturer's installation instructions shall be followed, including those relating to mounting on flammable or non-flammable surfaces.

Luminaires and their accessories shall be designed and placed to avoid harmful heating of materials or surroundings.

NOTE See also IEC 60364-5-55:2001, Clause 559.

Add the following:

715.422.106 Fire risk of transformers/convertors

Transformers shall be either:

– protected on the primary side by the protective device required in 715.422.107.2; or

– short-circuit proof (both inherently and non-inherently), see IEC 60364-5-55, Clause 559, Annex A for the symbol.

Electronic convertors shall comply with IEC 61347-2-2:2000 and, for LED-modules with IEC 61347-2-13:2006, Annex I.