

**MADALPINGELISED ELEKTRIPAIGALDISED. OSA 7-709:
NÕUDED ERIPAIGALDISTELE JA -PAIKADELE.
HUVISÕIDUSADAMAD JA MUUD SAMALAADSED PAIGAD**

**Low-voltage electrical installations - Part 7-709:
Requirements for special installations or locations -
Harbours, marinas and similar locations - Special
requirements for shore supply to ships
(IEC 60364-7-709:2007, modified +
IEC 60364-7-709:2007/A1:2012)**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

<p>See Eesti standard EVS-HD 60364-7-709:2009+A1+A11+A12:2019 sisaldab Euroopa standardi HD 60364-7-709:2009+Corr:2010 ingliskeelset teksti ja selle muudatuste A1:2012, A11:2017 ja A12:2019 ingliskeelset teksti.</p>	<p>This Estonian standard EVS-HD 60364-7-709:2009+A1+A11+A12:2019 consists of the English text of the European standard HD 60364-7-709:2009+Corr:2010 and its amendments A1:2012, A11:2017 and A12:2019.</p>
<p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 11.09.2009, muudatused A1 27.04.2012, A11 11.08.2017 ja A12 26.04.2019.</p>	<p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.</p> <p>Date of Availability of the European standard is 11.09.2009, for A1 27.04.2012, A11 11.08.2017 and A12 26.04.2019.</p>
<p>Parandustega AC:2010 ja AC:2012 lisatud või muudetud teksti algus ja lõpp on tekstis vastavalt ära märgitud märgenditega AC1 AC1 ja AC2 AC2.</p> <p>Sellesse standardisse on muudatus A1 sisse viidud ja tehtud muudatused tähistatud siksakjoonega lehe välisveerisel.</p> <p>Sellesse standardisse on muudatus A11 sisse viidud ja tehtud muudatused tähistatud topelpüstkriipsuga lehe välisveerisel.</p> <p>Sellesse standardisse on muudatus A12 sisse viidud ja tehtud muudatused tähistatud kolmekordse püstkriipsuga lehe välisveerisel.</p> <p>Selles standardis on rahvusvahelise standardi ühismuudatused tähistatud püstkriipsuga teksti välimisel veerisel.</p> <p>Standard on kättesaadav Eesti Standardikeskusest.</p>	<p>The start and finish of text introduced or altered by amendments AC:2010 and AC:2012 are indicated in the text by symbols AC1 AC1 and AC2 AC2.</p> <p>The amendment A1 has been incorporated into this standard and changes have been marked by a zigzag line on the outer row of the page.</p> <p>The amendment A11 has been incorporated into this standard and changes have been marked by a double vertical line on the outer row of the page.</p> <p>The amendment A12 has been incorporated into this standard and changes have been marked by a triple vertical line on the outer row of the page.</p> <p>Common modifications has been incorporated into this international standard and changes have been marked by a vertical line on the outer row of the page.</p> <p>The standard is available from the Estonian Centre for Standardisation.</p>

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English version

Low-voltage electrical installations - Part 7-709: Requirements for special installations or locations - Harbours, marinas and similar locations - Special requirements for shore supply to ships (IEC 60364-7-709:2007, modified + IEC 60364-7-709:2007/A1:2012)

Installations électriques à basse tension -
Partie 7-709: Exigences pour les
installations et emplacements spéciaux
- Ports, ports de plaisance et
emplacements analogues –
Exigences spécifiques pour l'alimentation
à quai des navires
(CEI 60364-7-709:2007, modifiée
+ CEI 60364-7-709:2007/A1:2012)

Errichten von Niederspannungsanlagen -
Teil 7-709: Anforderungen für
Betriebsstätten, Räume und Anlagen
besonderer Art –
Häfen, Marinas und ähnliche Bereiche –
Besondere Anforderungen an die
Versorgungseinrichtungen für den
elektrischen Landanschluss von Schiffen
(IEC 60364-7-709:2007, modifiziert
+ IEC 60364-7-709:2007/A1:2012)

This Harmonization Document was approved by CENELEC on 2009-04-01. Amendment A1 was approved by CENELEC on 2012-03-21, Amendment A11 was approved by CENELEC on 2017-05-31 and Amendment A12 was approved by CENELEC on 2019-02-10. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document and its amendments 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 and its Amendments A1, A11 and A12 exist 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

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Foreword

The text of document 64/1573/FDIS, future edition 2 of IEC 60364-7-709, prepared by IEC TC 64, Electrical installations and protection against electric shock, was submitted to the IEC-CENELEC parallel vote.

A draft amendment, prepared by SC 64A, Protection against electric shock, of Technical Committee CENELEC TC 64, Electrical installations and protection against electric shock, was submitted to the formal vote.

The combined texts were approved by CENELEC as HD 60364-7-709 on 2009-04-01.

In this standard, the common modifications to the International Standard are indicated by a vertical line in the left margin of the text.

The following dates were fixed:

- latest date by which the existence of the HD has to be announced at national level (doa) 2009-10-01
- latest date by which the HD has to be implemented at national level by publication of a harmonized national standard or by endorsement (dop) 2010-04-01
- latest date by which the national standards conflicting with the HD have to be withdrawn (dow) 2012-04-01

For this Harmonization Document, the informative Annex C of IEC 60364-7-709:2007 shall be disregarded and has been replaced by the normative Annex ZA, *Special national conditions*; and the informative Annex ZB, *A-deviations*.

Annexes ZA and ZB have been added by CENELEC.

HD 60364-7-709/A1:2012 foreword

The text of document 64/1811/FDIS, future edition 1 of IEC 60364-7-709:2009/A1, 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 60364-7-709:2009/A1:2012.

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) 2012-12-21
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-03-21

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 60364-7-709:2009/A1:2012 was approved by CENELEC as a Harmonization Document without any modification.

HD 60364-7-709:2009/A11:2017 foreword

This document (HD 60364-7-709:2009/A11:2017) has been prepared by CLC/TC 64, "Electrical installations and protection against electric shock".

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) 2018-05-31
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2020-05-31

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.

HD 60364-7-709:2009/A12:2019 foreword

This document (HD 60364-7-709:2009/A12:2019) has been prepared by CLC/TC 64 "Electrical installations and protection against electric shock".

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) 2020-02-10
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2022-02-10

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Introduction

The requirements of this part of HD 60364 series supplement, modify or replace certain of the general requirements contained in other parts of HD 60364 series.

The clause numbering appearing after 709 refers to the corresponding parts or clauses of other Parts 1 to 6 of HD 60364. 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 a clause means that the general requirements contained in other Parts 1 to 6 of HD 60364 are applicable.

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709.1 Scope

The particular requirements specified in this part of the HD 60364 series apply only to circuits intended to supply floating crafts used for administrative, commercial, industrial, leisure or sport activities, hereinafter referred to as “ships”, in harbours, marinas and similar locations.

The particular requirements do not apply to:

- onshore installations dedicated to supply inland navigation vessels for commercial and administrative purpose;

NOTE 1 Such requirements are defined in HD 60364-7-730.

- shore connection systems dedicated to ships that require, to prevent blackout, synchronisation of their power generation with the shore power supply,

NOTE 2 Such requirements are defined in IEC/ISO/IEEE 80005-3.

- internal electrical installations of ships;
- the supply of houseboats when they are directly supplied from the public network;
- the supply of anchored ships;
- the supply of ships in dry docks;
- the supply of ships by on-shore stand-alone generating sets.

For the remainder of the electrical installation and for the electrical installations of houseboats, the general requirements of HD 60364 series together with the relevant particular requirements of HD 60364-7 apply.

709.2 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.

EN 60309-1, *Plugs, socket-outlets and couplers for industrial purposes — Part 1: General requirements (IEC 60309-1)*

EN 60309-2, *Plugs, socket-outlets and couplers for industrial purposes — Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories (IEC 60309-2)*

EN 60309-4, *Plugs, socket-outlets and couplers for industrial purposes — Part 4: Switched socket-outlets and connectors with or without interlock*

EN 61386-24, *Conduit systems for cable management — Part 24: Particular requirements — Conduit systems buried underground (IEC 61386-24)*

EN 61558-2-4, *Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V — Part 2-4: Particular requirements and tests for isolating transformers and power supply units incorporating isolating transformers (61558-2-4)*

HD 60364-4-41:2017, *Low-voltage electrical installations — Part 4-41: Protection for safety — Protection against electric shock*

HD 60364-4-43, *Low-voltage electrical installations — Part 4-43: Protection for safety — Protection against overcurrent*

709.3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.