SLOVENSKI STANDARD
SIST HD 60364-7-709:2009/A12:2019

01-september-2019

Nizkonapetostne električne inštalacije - 7-709. del: Zahteve za posebne inštalacije ali lokacije - Pristanišča, marine in podobne lokacije - Posebne zahteve za napajanje ladij z obale - Dopolnilo A12

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

Installations électriques à basse tension - Partie 7-709 : Installations et emplacements spéciaux - Ports, marinas et emplacements analogues - Exigences spécifiques pour l'alimentation à quai des navires

Ta slovenski standard je istoveten z: **HD 60364-7-709:2009/A12:2019**

ICS:

91.140.50	Sistemi za oskrbo z elektriko	Electricity supply systems
93.140	Gradnja vodnih poti, pristanišč in nasipov	Construction of waterways, ports and dykes

SIST HD 60364-7-709:2009/A12:2019 **en,fr**

HARMONIZATION DOCUMENT

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

HD 60364-7-709:2009/A12

April 2019

ICS 29.020; 91.140.50

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

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

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

This amendment A12 modifies the Harmonization Document HD 60364-7-709:2009; it 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 amendment 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 amendment exists in three official versions (English, French, German).

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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

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European 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

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.

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.

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.

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

709.3.1
ship
floating craft used for administrative, commercial, industrial, leisure or sport activities (e.g.: boat, yacht, motor launch, vessel, or houseboat)

709.3.2
harbour
facility for the mooring of ships with fixed wharves, jetties, piers or a pontoon arrangement, capable of berthing one or more ships

Note 1 to entry: A harbour performs industrial and/or commercial transit and/or storage functions.

709.3.3
marina
facility for the mooring of pleasure crafts with fixed wharves, jetties, piers or a pontoon arrangement, capable of berthing one or more pleasure crafts

Note 1 to entry: The term “Marina” exists in French but with a different meaning.

709.3.4
pleasure craft
any craft used exclusively for sport or leisure

709.3.5
houseboat
floating decked structure which is designed or adapted for use as a place of permanent residence

709.3.6
accessory
plugs, socket-outlets, ship connectors and ship inlets

[SOURCE: EN IEC 62613-1:2018, 3.1]

Note 1 to entry: The application of accessories is shown in Figure 1.

709.3.6.1
socket-outlet
shore socket-outlet
part intended to be installed with the fixed wiring (shore side) or incorporated in equipment

[SOURCE: EN IEC 62613-1:2018, 3.2 modified: addition of “(shore side)”]

Note 1 to entry: A socket-outlet may also be incorporated in the output circuit of an isolating transformer.

709.3.6.2
plug
shore plug
part intended to be attached directly to one flexible cable, and to be connected to the shore socket-outlet

[SOURCE: EN IEC 62613-1:2018, 3.3 modified: addition of “and do be connected to the shore socket-outlet”]

709.3.6.3
ship coupler
means of enabling the connection at will of a flexible cable to the ship, and which consists of two parts, a ship connector and ship inlet

[SOURCE: EN IEC 62613-1:2018, 3.4]

709.3.6.3.1
ship connector
part intended to be attached to one flexible cable connected to the supply, and to be connected to the ship inlet

[SOURCE: EN IEC 62613-1:2018, 3.5 modified: addition of “and to be connected to the ship inlet”]

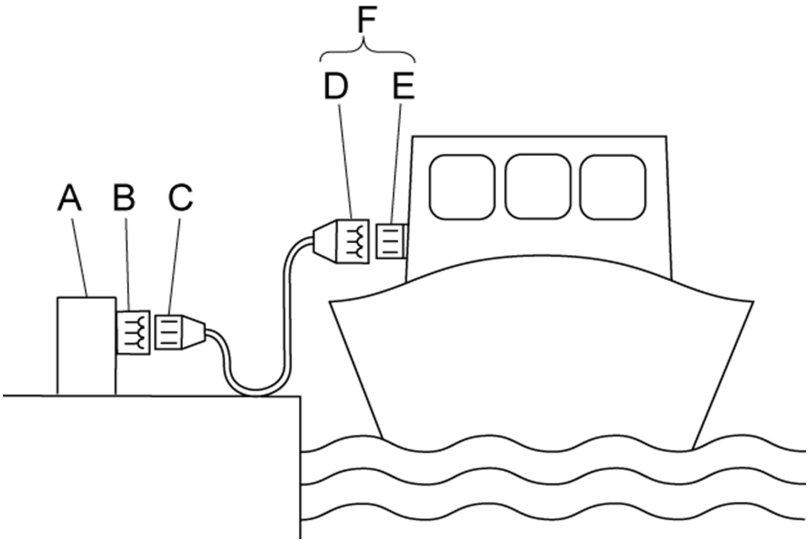
709.3.6.3.2
ship inlet
part incorporated in, or fixed to, the ship

[SOURCE: EN IEC 62613-1:2018, 3.6]

709.3.7
power pillar, supply pillar
enclosure designed for the electric supply of ships

709.3.8
mobile power unit
mobile enclosure designed for the electric supply of ships

709.3.9
service pillar
enclosure designed to supply ships with electricity, water, telecommunication, etc.



Key

A Power pillar
B Shore socket-outlet
C Shore plug
D Ship connector
E Ship inlet
F Ship coupler

Figure 1 — Diagram showing the use of the accessories

709.31 Purposes, supplies and structure

709.312 Conductor arrangement and system earthing

709.312.2 Types of system earthing

709.312.2.1 TN-systems

Add the following:

For a TN-system, the final circuits for the supply of ships shall not include a PEN conductor.

709.313 Supplies

Add the following:

709.313.1.2 The nominal supply voltage shall not exceed 250 V single-phase, or 690 V three-phase.

709.4 Protection for safety

709.41 Protection against electric shock