SLOVENSKI STANDARD
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Elektriļ ne inġtalacije zgradb ï 7. del: Zahteve za posebne inġtalacije ali lokacije ï 708. poglavje: Elektriļ ne inġtalacije v avtokampih

Electrical installations of buildings -- Part 7: Requirements for special installations or locations -- Section 708: Electrical installations in caravan parks

Elektrische Anlagen von Gebäuden -- Teil 7: Anforderungen für Betriebsstätten, Räume und Anlagen besonderer Art -- Hauptabschnitt 708: Elektrische Anlagen von Campingplätzen

Installations électriques des bâtiments -- Partie 7: Règles pour les installations et emplacements spéciaux -- Section 708: Installations électriques dans les parcs de caravanes

Ta slovenski standard je istoveten z: **HD 384.7.708 S2:2005**

ICS:

91.140.50	Sistemi za oskrbo z elektriko	Electricity supply systems
97.200.30	Oprema za taborjenje in tabori	Camping equipment and camp-sites

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HARMONIZATION DOCUMENT **HD 384.7.708 S2**

DOCUMENT D'HARMONISATION

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ICS 91.140.50; 97.200.30

Partially supersedes HD 384.7.708 S1:1992

English version

Electrical installations of buildings
Part 7: Requirements for special installations or locations
Section 708: Electrical installations in caravan parks
(IEC 60364-7-708:1988 + A1:1993, modified)

Installations électriques des bâtiments
Partie 7: Règles pour les installations et emplacements spéciaux
Section 708: Installations électriques dans les parcs de caravanes
(CEI 60364-7-708:1988 + A1:1993, modifiée)

Elektrische Anlagen von Gebäuden
Teil 7: Anforderungen für Betriebsstätten, Räume und Anlagen besonderer Art
Hauptabschnitt 708: Elektrische Anlagen von Campingplätzen
(IEC 60364-7-708:1988 + A1:1993, modifiziert)

This Harmonization Document was approved by CENELEC on 2004-07-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document on a national level.

Up-to-date lists and bibliographical references concerning such national implementation may be obtained on application to the Central Secretariat 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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Foreword

The text of the International Standard IEC 60364-7-708:1988 and IEC 60364-7-708/A1:1993, prepared by IEC TC 64, Electrical installations of buildings, together with the common modification prepared by SC 64A, Protection against electric shock, of CENELEC TC 64, Electrical installations of buildings, was submitted to the formal vote and was approved by CENELEC as HD 384.7.708 S2 on 2004-07-06.

This Harmonization Document, in conjunction with HD 384.7.754 S1:2005, supersedes HD 384.7.708 S1:1992.

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

The numbering of the clauses and subclauses differs from the numbering of the International Standard.

The following dates were fixed:

– latest date by which the existence of the HD has to be announced at national level	(doa)	2005-01-01
– latest date by which the HD has to be implemented at national level by publication of a harmonized national standard or by endorsement	(dop)	2006-01-01
– latest date by which the national standards conflicting with the HD have to be withdrawn	(dow)	2007-07-01

Introduction

The requirements of Part 7 supplement, modify or replace certain of the general requirements of HD 384. The absence of reference to a chapter, section or clause means that the corresponding general requirements are applicable.

The clause numbering of section 708 follows the pattern and corresponding references of HD 384. The section numbers are those of the corresponding parts, chapters, sections or clauses of HD 384.

NOTE In order not to mix rules on different matters such as rules for electrical installation of caravan parks and rules for electrical installation inside caravans, it was agreed to split the previous document HD 384.7.708 S1 into two sections:
- HD 384.7.708 S2 which concerns caravan parks, and
- HD 384.7.754 S1 which concerns caravans and motor-caravans.

708 Electrical installations in caravan parks

708.1 Scope and normative references

708.11 Scope

The particular requirements of this section apply to that portion of the electrical installation in caravan parks providing facilities for supplying leisure accommodation vehicles (including caravans) or tents.

They do not apply to the internal electrical installations of leisure accommodation vehicles or mobile or transportable units.

NOTE 1 For installations in caravans and motor-caravans which are operated at 12 V d.c. EN 1648-1 and EN 1648-2 apply.

NOTE 2 For installations in caravans and motor-caravans which are operated at voltages other than 12 V d.c. HD 384.7.754 S1 applies.

708.12 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.

EN 1648-1:1997, *Leisure accommodation vehicles – 12 V direct current extra low voltage electrical installations – Part 1: Caravans*

EN 1648-2:1997, *Leisure accommodation vehicles – 12 V direct current extra low voltage electrical installations – Part 2: Motor-caravans*

EN 50102:1995 + A1:1998, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

EN 60309-2:1999, *Plugs, socket-outlets and couplers for industrial purposes – Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories* (IEC 60309-2:1999)
A11:2004

EN 60529:1991, *Degrees of protection provided by enclosures (IP code)* (IEC 60529:1989)

HD 384.1 S2:2001, *Electrical installations of buildings - Part 1: Scope, object and fundamental principles* (IEC 60364-1:1992, modified)

HD 384.3 S2:1995, *Electrical installations of buildings - Part 3: Assessment of general characteristics* (IEC 60364-3:1993, modified)

HD 384.4.41 S2:1996 + A1:2002, *Electrical installations of buildings – Part 4: Protection for safety – Chapter 41: Protection against electric shock* (IEC 60364-4-41:1992 + A1:1996 + A2:1999, modified)

HD 384.4.47 S2:1995, *Electrical installations of buildings - Part 4: Protection for safety - Chapter 47 - Application of protective measures for safety* (IEC 60364-4-47:1981 + A1: 1993, modified)

HD 384.5.52 S1:1995, *Electrical installations of buildings - Part 5: Selection and erection of electrical equipment - Chapter 52: Wiring systems* (IEC 60364-5-52:1993, modified)

HD 384.5.523 S2:2001, *Electrical installations of buildings - Part 5: Selection and erection of electrical equipment - Chapter 52: Wiring systems - Section 523: Current-carrying capacities*
(IEC 60364-5-523:1999, modified)

HD 384.7.754 S1:2005, *Electrical installations of buildings - Part 7: Requirements for special installations or locations – Section 754: Electrical installations in caravans and motor-caravans*

HD 472 S1:1989 + Corr. Feb. 2002, *Nominal voltages for low-voltage public electricity supply systems* (IEC 60038:1983, modified)
A1:1995

IEC 60364-5-53:1994, *Electrical installations of buildings - Part 5: Selection and erection of electrical equipment - Chapter 53: Switchgear and controlgear*

IEC 60050-826:2004, *International electrotechnical vocabulary - Part 826: Electrical installations*

708.2 Definitions

For the purpose of this Harmonization Document the definitions in IEC 60050-826:2004 and HD 384.7.754 S1:2005 and the following apply:

708.2.1
leisure accommodation vehicle
unit of living accommodation for temporary or seasonal occupation that may meet requirements for construction and use of road vehicles

708.2.2
caravan pitch
plot of ground intended to be occupied by a leisure accommodation vehicle or tent

708.2.3
caravan park
area of land that contains two or more caravan pitches

708.2.4
caravan pitch electrical supply equipment
equipment that provides means of connecting and disconnecting supply cables from leisure accommodation vehicles or tents with a mains electric supply

708.3 Assessment of general characteristics

708.313.1.2 The nominal supply system voltage shall be chosen from HD 472 S1.

The nominal supply voltage of the installation for the supply of leisure accommodation vehicle shall not exceed 230 V single-phase, or 400 V three-phase.

708.413 Protection against indirect contact

708.413.1.3 TN system

In cases where the installations is supplied from a TN systems, only a TN-s installation shall be applied.

708.47 Application of protective measures for safety

708.471 Measures of protection against electric shock

708.471.1 Protection against electric shock in normal service

708.471.1.1 Protection by obstacles and protection by placing out of reach shall not be used.

708.471.2 Protection against electric shock in case of a fault

708.471.2.1 Protection by non-conducting location shall not be used.

NOTE This precludes the use of Class 0 equipment.

Protection by earth free local equipotential bonding shall not be used.

708.5 Selection and erection of electrical equipment

708.512.2 External influences

Electrical equipment installed outside in caravan parks shall comply at least with the following external influences:

– presence of water: AD4 (splashes), IPX4 in accordance with EN 60529,
– presence of foreign solid bodies: AE2 (small objects), IP3X in accordance with EN 60529,
– mechanical stress AG3 (high severity), IK08 in accordance with EN 50102 .

708.521.1 Wiring systems in caravan parks

The following wiring systems are suitable for distribution circuits feeding caravan pitch electrical supply equipment:

– underground distribution circuits;
– overhead distribution circuits.

NOTE The preferred method of supply to leisure accommodation vehicles is by means of underground distribution circuits feeding caravan pitch electrical supply equipment.

708.521.1.1 Underground distribution circuits

Underground cables shall be buried at a depth of at least 0,6 m and, unless having an additional mechanical protection, be placed outside any caravan pitch or away from any surface where tent pegs or ground anchors are expected to be present.

708.521.1.2 Overhead distribution circuits

All overhead conductors shall be insulated conductors.

Poles and other supports for overhead wiring shall be located or protected so that they are unlikely to be damaged by any foreseeable vehicle movement.

Overhead conductors shall be at a height above ground of not less than 6 m in all areas subjected to vehicle movement and 3,5 m in all other areas.

708.530 Switchgear and controlgear

708.530.4 Caravan pitch electrical supply equipment

Caravan pitch electrical supply equipment shall be located adjacent to the pitch and not more than 20 m from the connection facility on the leisure accommodation vehicle or tent when on its pitch.

NOTE Not more than four socket-outlets only should be grouped in one supply/board, in order to avoid the supply cable crossing a pitch other than the one intended to be supplied.

708.530.5 Socket-outlets

708.530.5.1 Each socket-outlet and its enclosure forming part of the caravan pitch electrical supply equipment shall comply with EN 60309-2 and meet the degree of protection of at least IP44 in accordance with EN 60529.

708.530.5.2 The socket-outlets shall be placed at a height of 0,50 m to 1,50 m from the ground to the lowest part of the socket-outlet. In special cases, due to environmental conditions such as risk of flooding or heavy snow fall, the maximum height may exceed 1,50 m.

708.530.5.3 The current rating of socket-outlets shall be not less than 16 A. Outlets of higher current ratings shall be provided where greater demands are envisaged.

708.530.5.4 At least one socket-outlet shall be provided for each caravan pitch.

708.530.5.5 Each socket-outlet shall be provided with individual overcurrent protection.

708.530.5.6 Each socket-outlet shall be protected individually by a residual current protective device with a rated residual operating current not exceeding 30 mA. The neutral shall always be disconnected by a residual current protective device.

Annex A
(informative)

Particular requirements for cord extension sets

The means of connection between the caravan pitch socket-outlet and the leisure accommodation vehicle should be an assembly of the following:

- a plug as specified in EN 60309-2;
- a flexible cable type H07RN-F or equivalent, with a protective conductor and having the following characteristics:
  - length: 25 m maximum,
  - for current rating 16A: minimum cross-sectional area: 2,5 mm², For higher current ratings, the cross-sectional area shall be chosen so that secure tripping of the overcurrent protective device is achieved at lowest short circuit current calculated at the end of the cord extension set.
  - colour identification in accordance with HD 308;
- a connector as specified in EN 60309-2.