IEC 60364-7-708

Edition 3.0 2017-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Low-voltage electrical installations –
Part 7-708: Requirements for special installations or locations – Caravan parks, camping parks and similar locations

Installations électriques à basse tension –
Partie 7-708: Exigences pour les installations ou emplacements particuliers – Parcs de caravanes, parcs de camping et emplacements analogues

IEC 60364-7-708:2017-04(en-fr)

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LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 7-708: Requirements for special installations or locations – Caravan parks, camping parks and similar locations

FOREWORD

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International Standard IEC 60364-7-708 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

This third edition cancels and replaces the second edition published in 2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

– requirements to protect against impact has changed: equipment installed in a campsite now has to be protected against impact of high severity AG3 (minimum degree of protection IK 08);
– socket outlets and connectors are now required to be interlocked in accordance with IEC standards to prevent the socket contacts being live when accessible.

The text of this standard is based on the following documents:

FDIS	Report on voting
64/2162/FDIS	64/2186/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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 standard.

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.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

For the purpose of this part (IEC 60364-7-708) the requirements of the general Parts 1 to 6 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). 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 reference).

Requirements of other 7XX parts being relevant for installations covered by this part also apply. This part may therefore also supplement, modify or replace certain of these requirements valid at the time of publication of this part.

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 reference).

If requirements or explanations additional to those of the other parts of the IEC 60364 series are needed, the numbering of such items appears as 708.101, 708.102, 708.103 etc.

In the case where new or amended general parts with modified numbering were published after this part was issued, the clause numbers referring to a general part in this 701 part may no longer align with the latest edition of the general part. Dated references should be observed.

LOW-VOLTAGE ELECTRICAL INSTALLATIONS –

Part 7-708: Requirements for special installations or locations – Caravan parks, camping parks and similar locations

708 Caravan parks, camping parks and similar locations

708.1 Scope

The particular requirements contained in this part of IEC 60364 apply only to circuits intended to supply leisure accommodation vehicles, tents or residential park homes in caravan parks, camping parks and similar locations.

NOTE For the purposes of this document caravan park includes camping parks and similar locations.

The particular requirements do not apply to the internal electrical installations of leisure accommodation vehicles, mobile or transportable units or residential park homes.

708.2 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 60038, *IEC standard voltages*

IEC 60309-1:1999, *Plugs, socket-outlets and couplers for industrial purposes – Part 1: General requirements*
IEC 60309-1:1999/AMD1:2005
IEC 60309-1:1999/AMD2:2012

IEC 60309-2, *Plugs, socket-outlets and couplers for industrial purposes – Part 2: Dimensional interchangeability requirements for pin and contact-tubes accessories*

IEC 60309-4:2006, *Plugs, socket-outlets and couplers for industrial purposes – Part 4: Switched socket-outlets and connectors with or without interlock*
IEC 60309-4:2006/AMD1:2012

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

IEC 62262, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

708.3 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

708.3.1
leisure accommodation vehicle
unit of living accommodation for temporary or seasonal occupation that may meet the requirements for the construction and use of road vehicles

708.3.1.1
caravan
trailer leisure accommodation vehicle, used for touring, that meets the requirements for the construction and use of road vehicles

708.3.1.2
motor caravan
self-propelled leisure accommodation vehicle, used for touring, that meets the requirements for the construction and use of road vehicles

Note 1 to entry: The motor caravan is either adapted from a series production vehicle, or designed and built on an existing chassis, with or without the driving cab, the accommodation being either fixed or demountable.

708.3.1.3
mobile home
transportable leisure accommodation vehicle that includes means for mobility but does not meet the requirements for the construction and use of road vehicles

708.3.2
caravan/tent pitch
plot of ground intended to be occupied by a leisure accommodation vehicle or tent

708.3.3
caravan park
camping park
area of land that contains two or more caravan or tent pitches.

708.3.4
residential park home
factory-produced relocatable dwelling

708.31 Purposes, supplies and structure

708.312 Conductor arrangement and system earthing

708.312.2 Types of system earthing

708.312.2.1 TN-systems

Add the following:

For a TN-system, the final circuit for the supply to a leisure accommodation vehicle, tent or residential park home shall not include a PEN conductor.

708.313 Supplies

708.313.1 General

708.313.1.101

The nominal supply system voltage shall be selected from IEC 60038.

The nominal supply voltage of the installation for the supply of leisure accommodation vehicles shall not exceed 230 V AC single-phase and/or 400 V AC three-phase and 48 V DC.

708.4 Protection for safety

708.41 Protection against electric shock

708.410.3 General requirements

708.410.3.5

Add the following:

The protective measures of obstacles and placing out of reach as specified in Annex B of IEC 60364-4-41:2005 shall not be used.

708.410.3.6

Add the following:

The protective measures of non-conducting location and earth-free local equipotential bonding as specified in Annex C of IEC 60364-4-41:2005 shall not be used.

708.415 Additional protection

708.415.1 Residual current protective devices (RCDs)

Add the following:

Every socket-outlet shall be individually protected by an RCD having a rated residual operating current not exceeding 30 mA. Devices selected shall disconnect all live conductors.

A final circuit intended for the fixed connection for a supply to a mobile home or a residential park home shall be individually protected by an RCD having a rated residual operating current not exceeding 30 mA. Devices selected shall disconnect all live conductors.

708.5 Selection and erection of electrical equipment

NOTE See IEC TS 61439-7.

708.51 Selection and erection of electrical equipment – Common rules

708.512 Operational conditions and external influences

708.512.2 External influences

Add the following:

NOTE In a caravan park or camping park, special consideration is given to the protection of people, due to the fact that the human body can be in contact with earth potential, to the protection of wiring due to tent pegs or ground anchors and to the movement of heavy or high vehicles.

708.512.2.1.101 Presence of water (AD)

Equipment shall be selected with a degree of protection of at least IPX4 in order to protect against water splashes (AD4).

708.512.2.1.102 Presence of solid foreign bodies (AE)

Equipment shall be selected or provided with a degree of protection of at least IP4X in order to protect against the ingress of very small objects (AE3).

708.512.2.1.103 Impact (AG)

Equipment installed in a campsite shall be protected against mechanical damage (impact of high severity AG3). Protection of the equipment shall be afforded by one or more of the following:

– the position or location shall be selected to avoid damage by any reasonably foreseeable impact;
– local or general mechanical protection shall be provided;
– equipment that complies with a minimum degree of protection against external mechanical impact of IK08 (see IEC 62262) shall be installed.

708.52 Wiring systems

708.521 Types of wiring systems

708.521.7 Several circuits in one cable

708.521.7.101 **Supply for the caravan or tent pitch**

The preferred method of supply for feeding the caravan pitch or tent pitch electrical supply equipment is by means of underground distribution circuits.

708.521.7.102 Underground cables

An underground distribution circuit shall, unless provided with additional mechanical protection, be buried at a sufficient depth to avoid being damaged, for example by tent pegs or ground anchors or by the movement of vehicles.

A depth of 0,6 m is generally considered as a minimum depth to fulfill this requirement. Alternatively the cable may be installed outside the pitch or other area where tent pegs or ground anchors may be driven.

NOTE For conduit systems buried underground, see IEC 61386-24.

708.521.7.103 Overhead cables or overhead insulated conductors

Every overhead conductor shall be insulated.

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

Every overhead conductor shall be at a height above ground of not less than 6 m in all areas subject to the movement of vehicles and 3,5 m in all other areas.

708.53 Isolation, switching and control

708.533 Devices for protection against overcurrent

In addition the following applies:

Every socket-outlet shall be individually protected by an overcurrent protective device, in accordance with the requirements of IEC 60364-4-43.

A fixed connection for a supply to a mobile home or residential park home shall be individually protected by an overcurrent protective device, in accordance with the requirements of IEC 60364-4-43.

708.536 Isolation and switching

708.536.2 Isolation

708.536.2.1 General

708.536.2.1.1

Add the following:

At least one means of isolation shall be installed in each distribution cabinet. This device shall disconnect all live conductors.

708.55 Other equipment

708.55.101 Socket-outlets

708.55.101.1 Every socket-outlet shall comply with IEC 60309-2.

Every socket-outlet shall meet the degree of protection of at least IP44 or such protection shall be provided by an enclosure.

To prevent the socket contacts being live when accessible, every socket-outlet or connector shall either comply with IEC 60309-2 and shall be interlocked and classified according to IEC 60309-1:1999, 6.1.5 or shall be part of an interlocked self-contained product complying with IEC 60309-4 and classified according to IEC 60309-4:2006, 6.1.101 and 6.1.102.

708.55.101.2 Every socket-outlet shall be located as close as practicable to the caravan pitch or tent pitch to be supplied.

Socket-outlets shall be installed in the distribution board or in separate enclosures.

708.55.101.3 In order to avoid any hazard due to long connection cables no more than four socket-outlets shall be grouped together in any one enclosure. To ensure that the degree of protection is maintained when the socket-outlets are in use, no more than four socket-outlets shall be mounted within the same enclosure.

Columns (pillars) should be located so as to minimize the need for extension cables to cross gangways, etc.

708.55.101.4 Every caravan pitch or tent pitch shall be supplied with at least one socket-outlet.

708.55.101.5 The current rating of socket-outlets shall be not less than 16 A.

708.55.101.6 The lowest part of any socket-outlet shall be placed at a height between 0,5 m and 1,5 m from the ground. In special cases of extreme environmental conditions, it is permitted to exceed the stated maximum height of 1,5 m. In such cases, special measures shall be taken to ensure the safe insertion and removal of plugs.

NOTE This can be necessary if the caravan park or camping park risks being flooded. This can also be necessary if the caravan park is used during winter after heavy snow falls.