IEC 60364-7-711

Edition 2.0 2018-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Low voltage electrical installations –
Part 7-711: Requirements for special installations or locations – Exhibitions, shows and stands

Installations électriques a basse tension –
Partie 7-711: Exigences pour les installations ou emplacements spéciaux – Expositions, spectacles et stands

IEC 60364-7-711:2018-03(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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LOW VOLTAGE ELECTRICAL INSTALLATIONS –

Part 7-711: Requirements for special installations or locations – Exhibitions, shows and stands

FOREWORD

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International Standard IEC 60364-7-711 has been prepared by IEC technical committee 64: Electrical installations and protection against electric shock.

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

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

a) in 711.3.1 and 711.3.2 addition of "outdoors" to the list of suitable locations;
b) alignment with IEC 60364-4-41.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
64/2248/FDIS	64/2260/RVD

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

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

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.

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.

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

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- withdrawn,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

INTRODUCTION

For the purpose of this part of IEC 60364 (IEC 60364-7-711) 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 711.101, 711.102, 711.103 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 711 part may no longer align with the latest edition of the general part. Dated references should be observed.

LOW VOLTAGE ELECTRICAL INSTALLATIONS –

Part 7-711: Requirements for special installations or locations – Exhibitions, shows and stands

711 Exhibitions, shows and stands

711.1 Scope

The particular requirements of this part of IEC 60364 apply to the temporary electrical installations of exhibitions, shows and stands (including mobile and portable displays and equipment).

711.2 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 60227 (all parts), *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V*

IEC 60245 (all parts), *Rubber insulated cables – Rated voltages up to and including 450/750 V*

IEC 60309-1, *Plugs, socket-outlets and couplers for industrial purposes – Part 1: General requirements*

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

IEC 60332-1-1, *Tests on electric and optical fibre cables under fire conditions – Part 1-1: Test for vertical flame propagation for a single insulated wire or cable – Apparatus*

IEC 60332-3 (all parts), *Tests on electric and optical fibre cables under fire conditions – Part 3: Test for vertical flame spread of vertically-mounted bunched wires or cables*

IEC 60364-4-41:2005, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*
IEC 60364-4-41:2005/AMD1:2017

IEC 60364-7-705, *Low-voltage electrical installations – Part 7-705: Requirements for special installations or locations – Agricultural and horticultural premises*

IEC 61034 (all parts), *Measurement of smoke density of cables burning under defined conditions*

IEC 61084 (all parts), *Cable trunking and ducting systems for electrical installations*

IEC 61386 (all parts), *Conduit systems for cable management*

IEC 61558 (all parts), *Safety of transformers, reactors, power supply units and combination thereof*

IEC 61347 (all parts), *Lamp controlgear*

711.3 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

711.3.1
exhibition
event intended for the purpose of displaying and/or selling products etc., which can take place at any suitable location, for example a room, building or temporary structure or outdoors

711.3.2
show
display, presentation or performance which can take place in any suitable location, for example a room, building or temporary structure or outdoors

711.3.3
stand
area or temporary structure used for display, marketing, sales, entertainment, etc.

711.3.4
temporary structure
unit or a part of a unit including mobile portable units, situated indoors or outdoors, designed and intended to be assembled and dismantled

711.3.5
temporary electrical installation
electrical installation erected and dismantled in conjunction with, for example the stand or display with which it is associated

711.3.6
origin of the temporary electrical installation
point on the permanent installation or other source of supply from which electrical energy is delivered to the temporary electrical installation

711.31 Purposes, supplies and structure

711.313 Supplies

Add the following:

The nominal supply voltage to earth of electrical installations in exhibitions, shows and stands shall not exceed 230 V RMS AC or 350 V ripple free DC.

711.4 Protection for safety

711.41 Protection against electric shock

711.410 Introduction

711.410.3 General requirements

711.410.3.5 *Replace the requirement with the following:*

The protective measures:

- obstacles, and
- placing out of reach

as specified in IEC 60364-4-41:2005, Annex B shall not be used.

711.410.3.6

Replace the requirement with the following:

The protective measures:

– non-conducting location,
– earth-free equipotential bonding, and
– electrical separation for the supply of more than one current-using equipment

as specified in IEC 60364-4-41:2005 and IEC 60364-4-41:2005/AMD1:2017, Annex C shall not be used.

711.410.3.101 All final circuits not exceeding 32 A supplying socket-outlets, all final circuits for lighting, except emergency lighting and all final circuits supplying hand-held electrical equipment that has a rated current not exceeding 32 A shall:

- be protected by automatic disconnection of supply together with additional protection by the use of residual current devices (RCD) having a rated residual operating current not exceeding 30 mA (IEC 60364-4-41:2005, 415.1.1), or
- be supplied by SELV or PELV (IEC 60364-4-41:2005, 414), or
- have electrical separation of circuits (IEC 60364-4-41:2005, 413), each socket-outlet and hand-held electrical equipment being supplied by an individual isolating transformer or by separate windings of an isolating transformer.

711.411 Protective measure: automatic disconnection of supply

711.411.3 Requirements for fault protection

711.411.3.2 Automatic disconnection in case of a fault

711.411.3.2.101 For circuits supplying temporary structures, RCDs shall be used as automatic disconnection devices.

711.411.4 TN system

711.411.4.101 A PEN conductor shall not be used in the installation.

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

711.414.4 Requirements for SELV and PELV circuits

711.414.4.5 *Replace the subclause with the following:*

Irrespective of the nominal voltage, in AC and DC circuits, the requirement for basic protection shall be provided by the following:

- basic insulation in accordance with IEC 60364-4-41:2005, Clause A.1, or
- barriers or enclosures in accordance with IEC 60364-4-41:2005, Clause A.2.

711.415 Additional protection

711.415.2 Additional protection: supplementary protective equipotential bonding

Add the following:

In locations intended for livestock, consideration shall be given to applying the relevant supplementary protective equipotential bonding requirements of IEC 60364-7-705.

711.42 Protection against thermal effects

711.422 Precautions where particular risks of fire exist

711.422.4 Locations with combustible constructional materials

711.422.4.101 Heat generation

Lighting equipment such as incandescent lamps, spotlights and small projectors, and other equipment or appliances with high temperature surfaces shall be suitably guarded, and installed and located in accordance with the relevant standard. All such equipment shall be arranged well away from combustible material to prevent contact.

Showcases and signs shall be constructed of materials having an adequate heat resistance, mechanical strength, electrical insulation and ventilation, taking into account the combustibility of exhibits in relation to the heat generation.

Stand installations containing a concentration of electrical apparatus, lighting fittings or lamps liable to generate excessive heat shall not be installed unless adequate ventilation provisions are made, for example well-ventilated ceilings constructed of incombustible material.

711.5 Selection and erection of electrical equipment

711.51 Common rules

711.51.101 Control and protective switchgear shall be placed in closed cabinets which can only be opened by the use of a key or a tool, except for those parts designed and intended to be operated by ordinary persons (BA1 in IEC 60364-5-51:2005, Table 51A).

711.511 Compliance with standards

711.511.1 *Add the following:*

Where interchangeability is required:

– socket-outlets with a rated current not exceeding 16 A shall comply with IEC 60309-2 or relevant national standards, and

– socket-outlets with a rated current exceeding 16 A but not exceeding 125 A shall comply with IEC 60309-2.

Sockets-outlets shall comply with IEC 60309-1 where:

– the rated current exceeds 125 A, or

– interchangeability is not required.

711.52 Wiring systems

711.52.101

Conductors shall have a cross-sectional area of not less than 1,5 mm^2 copper or equivalent.

Cables shall be in accordance with IEC 60227 (all parts) or IEC 60245 (all parts), as appropriate.

Flexible cables shall not be laid in areas accessible to the public unless they are protected against mechanical damage.

711.521 Types of wiring systems

711.521.101

Where no fire alarm system is installed in a building used for exhibitions, etc. cable systems shall be either:

- non-flame propagating according to IEC 60332-1-1 or IEC 60332-3 (all parts), and low smoke according to IEC 61034 (all parts), or
- single or multicore unarmoured cables enclosed in metallic or non-metallic conduit or trunking, providing resistance to flame propagation in accordance with IEC 61386 (all parts) or IEC 61084 (all parts), providing a degree of protection of at least IP4X or IPXXD.

711.526 Electrical connections

711.526.101

Joints shall not be made in cables except where necessary as a connection into a circuit. Where joints are made, these shall be either using connectors in accordance with the relevant IEC standards or the connection shall be made in an enclosure with a degree of protection of at least IP4X or IPXXD.

711.53 Isolation, switching and control

711.535 Co-ordination of various protective devices

711.535.3 Discrimination between residual current protective devices

Replace the first paragraph with:

Discrimination between residual current protective devices installed in series shall be provided.

711.536 Isolation and switching

711.536.2 Isolation

711.536.2.1.1

Add the following:

Every separate temporary structure, such as a vehicle, a stand or a unit, intended to be occupied by one specific user and each distribution circuit supplying outdoor installations shall be provided with their own readily accessible and properly identifiable means of isolation.