



**SLOVENSKI STANDARD**  
**SIST IEC 60364-7-714:2000**

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**Electrical installations of buildings - Part 7: Requirements for special installations and locations - Section 714: External lighting installations**

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# INTERNATIONAL STANDARD

# IEC 60364-7-714

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## Electrical installations of buildings –

### Part 7-714:

### Requirements for special installations or locations –

### External lighting installations (standards.iteh.ai)

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## CONTENTS

	Page
FOREWORD .....	5
INTRODUCTION .....	7
Clause	
714 External lighting installations .....	9
714.1 Scope, object and fundamental principles .....	9
714.11 Scope .....	9
714.12 Normative references .....	9
714.13 Definitions .....	11
714.3 Assessment of general characteristics .....	11
714.31 Classification of external influences .....	11
714.4 Protection for safety .....	11
714.41 Protection against electric shock .....	11
714.5 Selection and erection of electrical equipment .....	13
714.51 Common rules .....	13

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## ELECTRICAL INSTALLATIONS OF BUILDINGS –

Partie 7: Requirements for special installations or locations –  
Section 714: External lighting installations

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, express as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
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- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 364-7-714 has been prepared by IEC technical committee 64: Electrical installations of buildings.

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

FDIS	Report on voting
64/794/FDIS	64/839/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.

## INTRODUCTION

The requirements of part 7 supplement, modify or replace certain of the general requirements of the IEC 364. The numbers following the particular number of section 714 are those of the corresponding parts, chapters, sections or clauses of IEC Publication 364. The absence of reference to a chapter, a section or a clause means that the general requirements of IEC 364 are applicable.

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## ELECTRICAL INSTALLATIONS OF BUILDINGS –

### Partie 7: Requirements for special installations or locations – Section 714: External lighting installations

#### 714 External lighting installations

##### 714.1 Scope, object and fundamental principles

##### 714.11 Scope

This section of IEC 364-7 deals with fixed external lighting installations.

NOTE - External lighting comprises luminaires, wiring system and accessories located outside buildings.

The requirements apply particularly to:

- lighting installations e.g. for roads, parks, gardens, public places, sporting areas, illumination of monuments and floodlighting;
- other equipment incorporating lighting such as telephone kiosks, bus shelters, advertising panels, town plans, roads signs.

These rules do not apply to:

- public lighting installations which are part of public power grid and operated by a public supply authority who is responsible for and has taken all necessary measures regarding safety;
- temporary festoon lighting; [SIST IEC 60364-7-714:2000](https://standards.iteh.ai/catalog/standards/sist/42173908-ff66-4cdb-9201-cab9da1ef3fb/sist-iec-60364-7-714-2000)
- road traffic signal systems; <https://standards.iteh.ai/catalog/standards/sist/42173908-ff66-4cdb-9201-cab9da1ef3fb/sist-iec-60364-7-714-2000>
- luminaires which are fixed to the outside of a building and are supplied directly from the internal wiring of that building.

For lighting installations for swimming pools and fountains, see IEC 364-7-702.

##### 714.12 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this section of IEC 364-7. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this section of IEC 364-7 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 364-3: 1993, *Electrical installations of buildings – Part 3: Assessment of general characteristics*

IEC 364-7-702: 1983, *Electrical installations of buildings – Part 7: Requirements for special installations or locations – Section 702: Swimming pools*

IEC 598: *Luminaires*

### 714.13 *Definitions*

#### 714.13.1 *Origin of the external lighting installation*

The origin of the external lighting installation is the supply delivery point of electrical energy by the supply authority or the origin of the circuit supplying the external lighting installation exclusively.

#### 714.13.2 *Luminaire*

Apparatus which distributes, filters or transforms the light transmitted from one or more lamps and which includes all the parts necessary for supporting, fixing and protecting the lamps, but not the lamps themselves, and where necessary circuit auxiliaries together with the means for connecting them to the supply.

### 714.3 *Assessment of general characteristics*

#### 714.32 *Classification of external influences*

Classes of external influences for ambient temperature and climatic conditions depend on local conditions. The following classes are generally recommended:

- ambient temperature: AA 2 and AA 4 (from –40 °C to +40 °C);
- climatic conditions: AB 2 and AB 4 (relative humidity between 5 % and 100 %);

The classes given for the following external influences are minimum requirements:

- presence of water: AD 3 (sprays);
- presence of foreign bodies: AE 2 (small objects).

Classes of other conditions of external influences are dependant on local conditions.

NOTE - Other classes of external influences, e.g. corrosive substances, mechanical impact, solar radiation, etc. may be applicable in certain conditions (see IEC 364-3).

### 714.4 *Protection for safety*

#### 714.41 *Protection against electric shock*

##### 714.412 *Protection against direct contact*

All live parts of electrical equipment shall be protected by insulation or by barriers or enclosures preventing direct contact, unintentional or not.

Cabinets housing accessible live parts shall be locked with a key or a tool, unless they are in a location where only skilled or instructed persons may obtain access.

Doors giving access to electrical equipment and located less than 2,50 m above ground level shall be locked with a key or a tool. In addition protection against direct contact shall be provided when the door is open either by the use of equipment having at least the degree of protection IP2X or IPXXB by construction or by installation, or by placing a barrier or an enclosure giving the same degree of protection.



For luminaires at height less than 2,80 m above ground level, access to the light source shall only be possible after removing a barrier or an enclosure requiring the use of a tool.

#### 714.413 *Protection against indirect contact*

Protection by non-conducting location and protection by earth-free local equipotential bonding shall not be used.

##### 714.413.1 *Protection by automatic disconnection of supply*

Metallic structures (such as fences, grids etc.), which are in the proximity of but are not part of the external lighting installation need not be connected to the earthing terminal.

In the case of a TT-system with an earth electrode of sufficiently low resistance, protection by disconnection by fuses or circuit breakers is preferred. The use of a single residual current protective device at the origin of the installation in case of a single fault in one lighting equipment can cause the disconnection of the whole lighting installation and may create safety risks for the users.

It is recommended that equipment incorporating lighting such as defined in the second indent of clause 714.11 is protected by a residual current protective device having a rated operating residual current not exceeding 30 mA, the lighting of such equipment being less important from the point of view of the safety of persons; furthermore, such protective devices provide supplementary protection against direct contact.

##### 714.413.2 *Protection by use of class II equipment or by equivalent insulation*

NOTE - It is considered that the requirements for protection by use of class II equipment are met if the metal covering, if any, of the wiring system is separated from the conductive parts of the lighting column by the use of insulating material, e.g. sleeves or tubes.

No protective conductor shall be provided and the conductive parts of the lighting column shall not be intentionally earthed.

#### 714.5 *Selection and erection of electrical equipment*

##### 714.51 *Common rules*

Electrical equipment shall have, by construction or by installation, at least the degrees of protection IP33.

NOTE - It may be necessary in some cases, due to operational or cleaning conditions, to require higher degrees of protection.

For luminaires, the degrees of protection IP23 are sufficient when the risk of pollution is negligible, for example in residential and rural areas, and if the luminaires are located at more than 2,50 m above the ground level.

Construction and safety requirements of luminaires are given in IEC 598.