SLOVENSKI STANDARD
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Električne inštalacije zgradb – 7. del: Zahteve za posebne inštalacije ali lokacije – 714. oddelek: Inštalacije zunanje razsvetljave (IEC 60364-7-708:1988, spremenjen)

Electrical installations of buildings -- Part 7: Requirements for special installations or locations -- Section 714: Outdoor lighting installations

Elektrische Anlagen von Gebäuden -- Teil 7: Anforderungen für Betriebsstätten, Räume und Anlagen besonderer Art -- Hauptabschnitt 714: Beleuchtungsanlagen im Freien

Installations électriques des bâtiments -- Partie 7: Règles pour les installations et emplacements spéciaux -- Section 714: Installations d'éclairage extérieur

Ta slovenski standard je istoveten z: **HD 384.7.714 S1:2000**

ICS:

91.140.50	Sistemi za oskrbo z elektriko	Electricity supply systems
91.160.20	Zunanja razsvetljava stavb	Exterior building lighting

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HARMONIZATION DOCUMENT **HD 384.7.714 S1**

DOCUMENT D'HARMONISATION

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ICS 91.140.50

English version

Electrical installations of buildings
Part 7: Requirements for special installations or locations
Section 714: Outdoor lighting installations
(IEC 60364-7-714:1996, modified)

Installations électriques des bâtiments
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(CEI 60364-7-714:1996, modifiée)

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Hauptabschnitt 714:
Beleuchtungsanlagen im Freien
(IEC 60364-7-714:1996, modifiziert)

This Harmonization Document was approved by CENELEC on 1999-08-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, 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 60364-7-714:1996, prepared by IEC TC 64, Electrical installations and protection against electric shock, together with the common modifications prepared by SC 64B, Protection against thermal effects, of Technical Committee CENELEC TC 64, Electrical installations of buildings, was submitted to the formal vote and was approved by CENELEC as HD 384.7.714 S1 on 1999-08-01.

The following dates were fixed:

- latest date by which the existence of the HD has to be announced at national level (doa) 2000-02-01
- latest date by which the HD has to be implemented at national level by publication of a harmonized national standard or by endorsment (dop) 2001-05-01
- latest date by which the national standards conflicting with the HD have to be withdrawn (dow) 2002-08-01

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

INTRODUCTION

The requirements of part 7 supplement, modify or replace the general requirements of the other parts of HD 384. The numbers following the particular number of section of part 7 are those of the corresponding parts, chapters, sections or clauses of HD 384. The absence of reference to a chapter, a section or a clause means that the corresponding general requirements are applicable.

714 External lighting installations

714.1 Scope, object and fundamental principles

714.11 Scope

The particular requirements of this section apply to fixed outdoor lighting installations.

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

They apply particularly to:

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

These rules do not apply to:

- public lighting installations which are part of public power grid;
- temporary festoon lighting;
- road traffic signal systems;
- 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 Section 702.

714.12 Normative references

This Harmonization Document incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

HD 384	series	Electrical installations of buildings (IEC 60364 series, mod.)
HD 384.3 S2	1995	Electrical installations of buildings - Part 3: Assessment of general characteristics (IEC 60364-3:1993, mod.)

HD 384.7.702 S1	1991	Electrical installations of buildings - Part 7: Requirements for special installations or locations - Section 702: Swimming pools (IEC 60364-7-702:1983, mod.)
EN 60598	series	Luminaires (IEC 60598 series, mod.)

714.13 Definitions

714.13.1
origin of the outdoor lighting installation
the supply delivery point of electrical energy by the supply authority or the origin of the circuit supplying the outdoor 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 HD 384.3 S2).

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.

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 outdoor lighting installation need not be connected to the earthing terminal.

NOTE 1 The use of a single residual current protective device at the origin of the outdoor lighting 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.

NOTE 2 A discriminated protection may be achieved at each luminaire. If the earthing resistance is not sufficiently low, protection by RCD's of suitable sensitivity may be achieved.

NOTE 3 In case of a TT-system with an earth electrode of sufficiently low resistance, protection by overcurrent protective devices may be used.

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

No protective conductor shall be provided and the conductive parts of the lighting column shall not be intentionally connected to the earthing system.

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 series EN 60598.

714.514 Identification

Ducting, marker tape or cable tiles used with outdoor lighting supply cable shall be suitably colour coded or marked for the purpose of identification and shall be distinct from other services.

714.525 - Voltage drop

NOTE Consideration should be given to the voltage drop arising from the starting current of the lamps.