ICS 29.140.50, 93.120 SLOVENSKÁ TECHNICKÁ NORMA November 2019

STN	**Elektrické inštalácie pre letecké navigačné pozemné osvetlenie letísk Časť 1: Základné princípy**	**STN EN IEC 61820-1** 36 0068

Electrical installations for aeronautical ground lighting at aerodromes - Part 1: Fundamental principles

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 10/19

Obsahuje: EN IEC 61820-1:2019, IEC 61820-1:2019

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61820-1

July 2019

ICS 29.140.50; 93.120

English Version

Electrical installations for aeronautical ground lighting at aerodromes - Part 1: Fundamental principles (IEC 61820-1:2019)

Installations électriques pour le balisage aéronautique au sol dans les aérodromes - Partie 1: Principes fondamentaux (IEC 61820-1:2019)

Elektrische Anlagen für Beleuchtung und Befeuerung von Flugplätzen - Teil 1: Allgemeine Grundsätze (IEC 61820-1:2019)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 61820-1:2019 E

European foreword

The text of document 97/198/FDIS, future edition 1 of IEC 61820-1, prepared by IEC/TC 97 "Electrical installations for lighting and beaconing of aerodromes" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61820-1:2019.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2020-03-06
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2022-06-06

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61820-1:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60364-4-41	NOTE	Harmonized as HD 60364-4-41
IEC 60529	NOTE	Harmonized as EN 60529
IEC 61140	NOTE	Harmonized as EN 61140
IEC 61820 (series)	NOTE	Harmonized as EN 61820[1] (series)
IEC 61821	NOTE	Harmonized as EN 61821
IEC 62305-2	NOTE	Harmonized as EN 62305-2

[1] Under preparation. Stage at the time of publication: prEN 61820 (series).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60364-4-41	-	Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock	HD 60364-4-41	-
IEC 60721-3-3	-	Classification of environmental conditions - Part 3-3: Classification of groups of environmental parameters and their severities - Stationary use at weatherprotected locations	-	-
IEC 60721-3-4	-	Classification of environmental conditions - Part 3-4: Classification of groups of environmental parameters and their severities - Stationary use at non-weatherprotected locations	-	-
IEC 61000-6-2	-	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments	EN IEC 61000-6-2	-
IEC 61000-6-4	-	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments	EN IEC 61000-6-4	-
IEC 62870	-	Electrical installations for lighting and beaconing of aerodromes - Safety secondary circuits in series circuits - General safety requirements	EN 62870	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

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IEC 61820-1:2019-05(en-fr)

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ELECTRICAL INSTALLATIONS FOR AERONAUTICAL GROUND LIGHTING AT AERODROMES –

Part 1: Fundamental principles

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61820-1 has been prepared by IEC technical committee 97: Electrical installations for lighting and beaconing of aerodromes.

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

FDIS	Report on voting
97/198/FDIS	97/200/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 61820 series, published under the general title *Electrical installations for aeronautical ground lighting at aerodromes*, can be found on the IEC website.

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

This document is part of IEC 61820, a series of standards that defines the requirements throughout the lifecycle of an Aeronautical Ground Lighting (AGL) system including design, installation, commissioning, maintenance, decommissioning and disposal.

This document contains fundamental design requirements for AGL systems.

According to ICAO or national standards, the AGL fixtures are subject to specific requirements for photometric output and serviceability level.

The AGL system is provided to support airfield activities. Therefore, the focus of AGL system design is to maintain the lighting against any possible failure. This document pertains to personnel and operational safety.

ELECTRICAL INSTALLATIONS FOR AERONAUTICAL GROUND LIGHTING AT AERODROMES –

Part 1: Fundamental principles

1 Scope

This part of IEC 61820 covers principles of design and installation requirements for AGL systems including control, monitoring and transformation of energy, the cables and any electrical component utilized to produce the light intended to be used as a visual aid for air and ground navigation.

This document defines in general the fundamental principles to provide safe, reliable and efficient operation of AGL systems independent of the particular system design. Where certain aspects of design are specific to a particular type of system (e.g. series-circuit), these are supplemented in the applicable part.

NOTE Local / national regulations can be different from the provisions of this document.

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 60364-4-41, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60721-3-3, *Classification of environmental conditions – Part 3: Classification of groups of environmental parameters and their severities – Section 3: Stationary use at weatherprotected locations*

IEC 60721-3-4, *Classification of environmental conditions – Part 3: Classification of groups of environmental parameters and their severities – Section 4: Stationary use at non-weatherprotected locations*

IEC 61000-6-2, *Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity standard for industrial environments*

IEC 61000-6-4, *Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments*

IEC 62870, *Electrical installations for lighting and beaconing of aerodromes –Safety secondary circuits in series circuits – General safety requirements*