Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes

EVS EESTI STANDARDIMIS- JA AKREDITEERIMISKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 62561-2:2025 sisaldab Euroopa standardi EN IEC 62561-2:2025 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 62561-2:2025 consists of the English text of the European standard EN IEC 62561-2:2025.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.11.2025.	Date of Availability of the European standard is 07.11.2025.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

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ICS 29.020, 91.120.40

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English Version

Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes (IEC 62561-2:2025)

Composants des systèmes de protection contre la foudre (CSPF) - Partie 2 : Exigences pour les conducteurs et les électrodes de terre (IEC 62561-2:2025)

Blitzschutzsystembauteile (LPSC) - Teil 2: Anforderungen an Leiter und Erder (IEC 62561-2:2025)

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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

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European foreword

The text of document 81/794/FDIS, future edition 3 of IEC 62561-2, prepared by TC 81 "Lightning protection" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62561-2:2025.

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) 2026-11-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-11-30

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Endorsement notice

The text of the International Standard IEC 62561-2:2025 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 standard indicated:

IEC 62305 series	NOTE	Approved as EN IEC 62305 series
IEC 62305-1	NOTE	Approved as EN IEC 62305-1
IEC 62305-2	NOTE	Approved as EN IEC 62305-2
IEC 62305-3	NOTE	Approved as EN IEC 62305-3
IEC 62305-4	NOTE	Approved as EN IEC 62305-4
IEC 62561-1	NOTE	Approved as EN IEC 62561-1
IEC 62561-7	NOTE	Approved as EN IEC 62561-7
IEC 62561-2:2018	NOTE	Approved as EN IEC 62561-2:2018 (not modified)

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INTERNATIONAL STANDARD

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes

FOREWORD

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IEC 62561-2 has been prepared by IEC technical committee 81: Lightning protection. It is an International Standard.

This third edition cancels and replaces the second edition published in 2018. This edition constitutes a technical revision.

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

a) definitions of new conductor types mentioned in this document have been added;
b) the document has been updated in line with IEC 60068-2-52:2017 on salt mist treatment;
c) the document has been updated in line with ISO 22479:2019 on humid sulphurous atmosphere treatment;
d) a new normative Annex H for material, configuration and cross-sectional area test has been introduced;

e) a new normative Annex I for applicability of previous tests has been introduced.

f) equipotential earth grid has been introduced.

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

Draft	Report on voting
81/794/FDIS	81/800/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 62561 series, published under the general title *Lightning protection system components (LPSC),* 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

– reconfirmed,

– withdrawn, or

– revised.

INTRODUCTION

This part of IEC 62561 deals with the requirements and tests for lightning protection system components (LPSC), specifically conductors and earth electrodes, used for the installation of a lightning protection system (LPS) designed and implemented according to the IEC 62305 series.

1 Scope

This part of IEC 62561 specifies the requirements and tests for

– metallic conductors (other than "natural" conductors) that form part of the air-termination and down-conductor systems, and

– metallic earth electrodes that form part of the earth-termination system.

NOTE 1 Additional requirements can be necessary for conductors and earth electrodes intended for use in hazardous environments.

NOTE 2 In CENELEC member countries, testing requirements of components for explosive atmospheres are specified in CLC/TS 50703-2.

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 60068-2-52:2017, *Environmental testing – Part 2-52: Tests – Test Kb: Salt mist, cyclic (sodium, chloride solution*)

IEC 60228, *Conductors of insulated cables*

ISO 2178, *Non-magnetic coatings on magnetic substrates – Measurement of coating thickness – Magnetic method*

ISO 1460, *Metallic coatings – Hot dip galvanized coatings on ferrous materials – Gravimetric determination of the mass per unit area*

ISO 1461:2022, *Hot dip galvanized coatings on fabricated iron and steel articles – Specifications and test methods*

ISO 6892-1, *Metallic materials – Tensile testing – Part 1: Method of test at room temperature*

ISO 6957:1988, *Copper alloys – Ammonia test for stress corrosion resistance*

ISO 22479:2019, *Corrosion of metals and alloys – Sulphur dioxide test in a humid atmosphere (fixed gas method)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

– IEC Electropedia: available at https://www.electropedia.org/

– ISO Online browsing platform: available at https://www.iso.org/obp