BS EN 62561-1:2017



BSI Standards Publication

Lightning protection system components (LPSC)

Part 1: Requirements for connection components

bsi.

National foreword

This British Standard is the UK implementation of EN 62561-1:2017. It supersedes BS EN 62561-1:2012, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/81, Protection against lightning.

A list of organizations represented on this committee can be obtained on request to its secretary.

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© The British Standards Institution 2017
Published by BSI Standards Limited 2017

ISBN 978 0 580 90949 8

ICS 29.020; 91.120.40

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 July 2017.

Amendments/corrigenda issued since publication

Date	Text affected

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62561-1

June 2017

ICS 29.020; 91.120.40

Supersedes EN 62561-1:2012

English Version

Lightning Protection System Components (LPSC) - Part 1: Requirements for connection components (IEC 62561-1:2017)

Composants des systèmes de protection contre la foudre (CSPF) - Partie 1: Exigences pour les composants de connexion (IEC 62561-1:2017)

Blitzschutzsystembauteile (LPSC) - Teil 1: Anforderungen an Verbindungsbauteile (IEC 62561-1:2017)

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

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European foreword

The text of document 81/551/FDIS, future edition 2 of IEC 62561-1, prepared by IEC/TC 81, "Lightning protection", was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62561-1:2017.

The following dates are fixed:

– latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2018-01-13
– latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2020-04-13

This document supersedes EN 62561-1:2012.

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Endorsement notice

The text of the International Standard IEC 62561-1:2017 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 62305 (series)	NOTE	Harmonized as EN 62305 (series).
IEC 62305-1	NOTE	Harmonized as EN 62305-1.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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 60068-2-52	1996	Environmental testing -- Part 2-52: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution)	EN 60068-2-52	1996
IEC 62561-2	-	Lightning Protection System Components (LPSC) -- Part 2: Requirements for conductors and earth electrodes	EN 62561-2	-
ISO 6957	1988	Copper alloys; ammonia test for stress-corrosion resistance		-
ISO 6988	1985	Metallic and other non-organic coatings - Sulfur dioxide test with general condensation of moisture	EN ISO 6988	1994

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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LIGHTNING PROTECTION SYSTEM COMPONENTS (LPSC) –

Part 1: Requirements for connection components

FOREWORD

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International Standard IEC 62561-1 has been prepared by IEC technical committee 81: Lightning protection.

This second edition cancels and replaces the first edition, published in 2012. This edition constitutes a technical revision.

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

a) classification of connection components in permanent and non-permanent connection;
b) requirements and corresponding tests for permanent connection components such as exothermic, brazing, welding, crimping, seaming;
c) flow chart of tests for connection components.

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

FDIS	Report on voting
81/551/FDIS	81/559/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 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 "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 part of IEC 62561 deals with the requirements and tests for lightning protection system components (LPSC) used for the installation of a lightning protection system (LPS) designed and implemented according to the IEC 62305 series.

LIGHTNING PROTECTION SYSTEM COMPONENTS (LPSC) –

Part 1: Requirements for connection components

1 Scope

This part of IEC 62561 specifies the requirements and tests for metallic connection components that form part of a lightning protection system (LPS). Typically, these can be connectors, clamps, bonding and bridging components, expansion pieces and test joints.

For the purposes of this document the following connection types are considered as connection components: exothermic, brazing, welding, clamping, crimping, seaming, screwing or bolting.

Testing of components for an explosive atmosphere is not covered by 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 60068-2-52:1996, *Environmental testing – Part 2-52: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution)*

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

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

ISO 6988:1985, *Metallic and other non-organic coatings – Sulphur dioxide test with general condensation of moisture*

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

3.1
connection component
part of an external LPS which is used for the connection of conductors to each other or to metallic installations

Note 1 to entry: Connection components include connectors, clamps, bridging components, expansion pieces and test joints.