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SIST EN IEC 62305-3:2024

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SIST EN 62305-3:2011

**Zaščita pred delovanjem strele - 3. del: Fizična škoda na zgradbah in življenjska
ogroženost**

Protection against lightning - Part 3: Physical damage to structures and life hazard

Blitzschutz - Teil 3: Schutz von baulichen Anlagen und Personen

Protection contre la foudre - Partie 3: Dommages physiques sur les structures et risques humains

Ta slovenski standard je istoveten z: EN IEC 62305-3:2024

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**Protection against lightning - Part 3: Physical damage to
structures and life hazard
(IEC 62305-3:2024)**

Protection contre la foudre - Partie 3: Dommages physiques
sur les structures et risques humains
(IEC 62305-3:2024)

Blitzschutz - Teil 3: Schutz von baulichen Anlagen und
Personen
(IEC 62305-3:2024)

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

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EN IEC 62305-3:2024 (E)**European foreword**

The text of document 81/764/FDIS, future edition 3 of IEC 62305-3, prepared by TC 81 "Lightning protection" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62305-3:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2025-10-31 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2027-10-31 document have to be withdrawn

This document supersedes EN 62305-3:2011 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard IEC 62305-3:2024 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 61400-24	NOTE	Approved as EN IEC 61400-24
ISO 1182	NOTE	Approved as EN ISO 1182
ISO 11925-2	NOTE	Approved as EN ISO 11925-2
IEC 60071-2	NOTE	Approved as EN IEC 60071-2
IEC 60079-17	NOTE	Approved as EN IEC 60079-17
IEC 62858	NOTE	Approved as EN IEC 62858

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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60079-10-1	2020	Explosive atmospheres - Part 10-1: Classification of areas - Explosive gas atmospheres	EN IEC 60079-10-1	2021
IEC 60079-10-2	2015	Explosive atmospheres - Part 10-2: Classification of areas - Explosive dust atmospheres	EN 60079-10-2	2015
IEC 60079-14	-	Explosive atmospheres - Part 14: Electrical installation design, selection and installation of equipment, including initial inspection	EN IEC 60079-14	-
IEC 60364-5-53	-	Low-voltage electrical installations -- Part 5-53: Selection and erection of electrical equipment - Protection, isolation, switching, control and monitoring	-	-
IEC 61643-11	-	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods	EN 61643-11	-
IEC 61643-21	-	Low voltage surge protective devices - Part 21: Surge protective devices connected to telecommunications and signalling networks - Performance requirements and testing methods	EN 61643-21	-
IEC 62305-1	2024	Protection against lightning - Part 1: General principles	EN IEC 62305-1	2024
IEC 62305-2	2024	Protection against lightning - Part 2: Risk management	EN IEC 62305-2	2024
IEC 62305-4	2024	Protection against lightning - Part 4: Electrical and electronic systems within structures	EN IEC 62305-4	2024
IEC 62561	series	Lightning protection system components (LPSC) - Part 1: Requirements for connection components	EN IEC 62561	series

EN IEC 62305-3:2024 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62561-1	2017	Lightning protection system components (LPSC)	EN 62561-1	2017
IEC/TS 62561-8	2018	Lightning protection system components (LPSC) - Part 8: Requirements for components for isolated LPS	-	-
ISO 3864-1	-	Graphical symbols - Safety colours and safety signs - Part 1: Design principles for safety signs and safety markings	-	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Protection against lightning –
Part 3: Physical damage to structures and life hazard**

**Protection contre la foudre –
Partie 3: Dommages physiques sur les structures et risques humains**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

PROTECTION AGAINST LIGHTNING –

Part 3: Physical damage to structures and life hazard

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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IEC 62305-3 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 2010. This edition constitutes a technical revision.

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

- a) Minimum thicknesses of metal sheets or metal pipes are given in Table 4 for air-termination systems where it is necessary to prevent hot-spot problems. Maximum temperature rises ΔT (K) and time duration t_{50} (s) for different thicknesses and long strokes are also given.
- b) Cross-reference to the IEC 62561 series is made for the use of reliable, stable, safe and appropriate LPS components.

- c) The application of two methods – general and simplified – for separation distance calculation is clarified.
- d) Some changes to the requirements for continuity of steel reinforcement are made.
- e) Annex C is revised to address comments from IEC subcommittee 31J.
- f) Revision of positioning of air-termination conductors are modified according to the three accepted methods. A more precise description of the methods for positioning of the air-termination systems is made according to the complexity of structures to be protected. The main text has been simplified, Annex A has been deleted and all detailed information has been moved to Annex D.
- g) Information on the protection of green roofs is introduced in Annex D.
- h) Information on the protection of protruding parts on facades of tall buildings is introduced in Annex D;
- i) a new definition of “electrically insulated LPS” has been introduced to distinguish it from an LPS both electrically and physically isolated from the structure, with a slight modification of the other LPS definitions.

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

Draft	Report on voting
81/764/FDIS	81/767/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 62305 series, published under the general title *Protection against lightning*, can be found on the IEC website.

The following differing practices of a less permanent nature exist in the countries indicated below.

In Austria, Annex C shall not be applied and is replaced by the National standard ÖVE/ÖNORM EN 62305-3 Beiblatt 1:2013-11-01 Blitzschutz – Teil 3: Schutz von baulichen Anlagen und Personen – Beiblatt 1: Zusätzliche Informationen für bauliche Anlagen mit explosionsgefährdeten Bereichen. In Austria, Annex C shall be classified as "Informative".

In Germany, the need for lightning protection is determined by, and the class of required LPS shall be selected according to, a national annex to the third edition of IEC 62305-1 (including an option for a risk assessment following the third edition of IEC 62305-2).

In Germany, for a metallic or electrically-continuous connected reinforced concrete framework, in addition, DIN EN 62305-3 Beiblatt 1 shall be applied.

In Germany, 8.1 condition b) is not applied – see DIN EN 62305-3 Beiblatt 1. Instead, the alternate measures, as described in DIN EN 62305-3 Beiblatt 1, shall be applied.

In Germany, for 8.2, the alternate measures, as described in DIN EN 62305-3 Beiblatt 1, shall be applied.