



Institut luxembourgeois de la normalisation  
de l'accréditation, de la sécurité et qualité  
des produits et services

## ILNAS-EN IEC 61969-3:2024

### **Mechanical structures for electrical and electronic equipment - Outdoor enclosures - Part 3: Environmental requirements, tests and safety aspects**

Structures mécaniques pour équipement  
électrique et électronique - Enveloppes  
de plein air - Partie 3: Exigences et essais  
d'environnement, et aspects liés à la

Mechanische Bauweisen für elektrische  
und elektronische Einrichtungen -  
Außengehäuse - Teil 3:  
Umgebungsanforderungen, Prüfungen

01/2024



## National Foreword

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ILNAS-EN IEC 61969-3:2024

EUROPEAN STANDARD **EN IEC 61969-3**

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**Mechanical structures for electrical and electronic equipment -  
Outdoor enclosures - Part 3: Environmental requirements, tests  
and safety aspects  
(IEC 61969-3:2023)**

Structures mécaniques pour équipement électrique et  
électronique - Enveloppes de plein air - Partie 3: Exigences  
et essais d'environnement, et aspects liés à la sécurité  
(IEC 61969-3:2023)

Mechanische Bauweisen für elektrische und elektronische  
Einrichtungen - Außengehäuse - Teil 3:  
Umgebungsanforderungen, Prüfungen und  
Sicherheitsaspekte  
(IEC 61969-3:2023)

This European Standard was approved by CENELEC on 2023-12-25. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



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**

## European foreword

The text of document 48D/765/FDIS, future edition 4 of IEC 61969-3, prepared by SC 48D "Mechanical structures for electrical and electronic equipment" of IEC/TC 48 "Electrical connectors and mechanical structures for electrical and electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61969-3:2024.

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) 2024-09-25
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-12-25

This document supersedes EN IEC 61969-3:2020 and all of its amendments and corrigenda (if any).

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## Endorsement notice

The text of the International Standard IEC 61969-3:2023 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 60068-2-5 NOTE Approved as EN IEC 60068-2-5

IEC 60695-11-10 NOTE Approved as EN 60695-11-10

IEC 60825-1 NOTE Approved as EN 60825-1

IEC 61010-1 NOTE Approved as EN 61010-1

IEC 61140 NOTE Approved as EN 61140

IEC 62305-4 NOTE Approved as EN 62305-4

## 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](http://www.cenelec.eu).

| <u>Publication</u> | <u>Year</u> | <u>Title</u>                                                                                                                                                                        | <u>EN/HD</u>      | <u>Year</u> |
|--------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|
| IEC 60068-2-1      | -           | Environmental testing - Part 2-1: Tests - Test A: Cold                                                                                                                              | EN 60068-2-1      | -           |
| IEC 60068-2-2      | -           | Environmental testing - Part 2-2: Tests - Test B: Dry heat                                                                                                                          | EN 60068-2-2      | -           |
| IEC 60068-2-6      | -           | Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)                                                                                                           | EN 60068-2-6      | -           |
| IEC 60068-2-10     | -           | Environmental testing - Part 2-10: Tests - Test J and guidance: Mould growth                                                                                                        | EN 60068-2-10     | -           |
| IEC 60068-2-11     | -           | Environmental testing - Part 2-11: Tests - Test Ka: Salt mist                                                                                                                       | EN IEC 60068-2-11 | -           |
| IEC 60068-2-14     | -           | Environmental testing - Part 2-14: Tests - Test N: Change of temperature                                                                                                            | EN IEC 60068-2-14 | -           |
| IEC 60068-2-27     | -           | Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock                                                                                                              | EN 60068-2-27     | -           |
| IEC 60068-2-30     | -           | Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)                                                                                           | EN 60068-2-30     | -           |
| IEC 60068-2-60     | -           | Environmental testing - Part 2-60: Tests - Test Ke: Flowing mixed gas corrosion test                                                                                                | EN 60068-2-60     | -           |
| IEC 60529          | -           | Degrees of protection provided by enclosures (IP Code)                                                                                                                              | EN 60529          | -           |
| IEC 60721-3-2      | -           | Classification of environmental conditions - Part 3-2: Classification of groups of environmental parameters and their severities - Transportation and Handling                      | EN IEC 60721-3-2  | -           |
| 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 | EN IEC 60721-3-4  | -           |

|                |      |                                                                                                                                                                                           |                   |      |
|----------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------|
| IEC 60794-1-21 | -    | Optical fibre cables - Part 1-21: Generic specification - Basic optical cable test procedures - Mechanical tests methods                                                                  | EN 60794-1-21     | -    |
| IEC 61300-2-10 | -    | Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-10: Tests - Crush and load resistance                                         | EN IEC 61300-2-10 | -    |
| IEC 61300-2-56 | 2020 | Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 2-56: Tests - Wind resistance of mounted housing                                | EN IEC 61300-2-56 | 2020 |
| IEC 61439-5    | -    | Low-voltage switchgear and controlgear assemblies - Part 5: Assemblies for power distribution in public networks                                                                          | EN IEC 61439-5    | -    |
| IEC 61587-1    | -    | Mechanical structures for electrical and electronic equipment - Tests for IEC 60917 and IEC 60297 series - Part 1: Environmental requirements, test setups and safety aspects             | EN IEC 61587-1    | -    |
| IEC 61587-2    | -    | Mechanical structures for electronic equipment - Tests for IEC 60917 and 60297 - Part 2: Seismic tests for cabinets and racks                                                             | EN 61587-2        | -    |
| IEC 61587-3    | -    | Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 - Part 3: Electromagnetic shielding performance tests for cabinets and subracks                        | EN 61587-3        | -    |
| IEC 61969-1    | 2023 | Mechanical structures for electrical and electronic equipment - Outdoor enclosures - Part 1: Design guidelines                                                                            | EN IEC 61969-1    | 2023 |
| IEC 62194      | -    | Method of evaluating the thermal performance of enclosures                                                                                                                                | EN 62194          | -    |
| IEC 62262      | -    | Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)                                                                       | EN 62262          | -    |
| IEC 62368-1    | -    | Audio/video, information and communication technology equipment - Part 1: Safety requirements                                                                                             | EN 62368-1        | -    |
| ISO 2533       | -    | Standard Atmosphere                                                                                                                                                                       | -                 | -    |
| ISO 3744       | -    | Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane | EN ISO 3744       | -    |
| ISO 4892-2     | -    | Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps                                                                                                      | EN ISO 4892-2     | -    |
| ISO 4892-3     | -    | Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps                                                                                                 | EN ISO 4892-3     | -    |

|                       |                                                                                                                                                                                                                                       |   |   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|
| ETSI EN 300 019-2-2 - | Equipment Engineering (EE);<br>Environmental conditions and<br>environmental tests for<br>telecommunications equipment; Part 2-2:<br>Specification of environmental tests;<br>Transportation                                          | - | - |
| ETSI EN 300 019-2-4 - | Environmental Engineering (EE);<br>Environmental conditions and<br>environmental tests for<br>telecommunications equipment; Part 2-4:<br>Specification of environmental tests;<br>Stationary use at non-weatherprotected<br>locations | - | - |



# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Mechanical structures for electrical and electronic equipment – Outdoor enclosures –**

**Part 3: Environmental requirements, tests and safety aspects**

**Structures mécaniques pour équipement électrique et électronique – Enveloppes de plein air –**

**Partie 3: Exigences et essais d'environnement, et aspects liés à la sécurité**

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