
Mehanske konstrukcije elektronske opreme - 3. del: Okoljevarstvene zahteve, preskusi in varnostni vidiki

Mechanical structures for electronic equipment - Part 3: Environmental requirements, tests and safety aspects

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

Structures mécaniques pour equipment électronique - Enveloppes de plein air - Partie 3: Exigences environnementales, essais et aspects de la sécurité

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Ta slovenski standard je istoveten z: EN 61969-3:2012

ICS:

| | | |
|--------|---|--|
| 31.240 | Mehanske konstrukcije za elektronsko opremo | Mechanical structures for electronic equipment |
|--------|---|--|

SIST EN 61969-3:2012**en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61969-3

February 2012

ICS 31.240

Supersedes EN 61969-3:2001

English version

**Mechanical structures for electronic equipment -
Outdoor enclosures -
Part 3: Environmental requirements, tests and safety aspects
(IEC 61969-3:2011)**

Structures mécaniques pour équipement
électronique -
Enveloppes de plein air -
Partie 3: Exigences environnementales,
essais et aspects de la sécurité
(CEI 61969-3:2011)

Mechanische Bauweisen für elektronische
Einrichtungen -
Außengehäuse -
Teil 3: Umgebungsanforderungen,
Prüfungen und Sicherheitsaspekte
(IEC 61969-3:2011)

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This European Standard was approved by CENELEC on 2011-12-22. 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.

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 48D/483/FDIS, future edition 2 of IEC 61969-3, prepared by SC 48D, "Mechanical structures for electronic equipment", of IEC/TC 48, "Electromechanical components and mechanical structures for electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61969-3:2012.

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) 2012-09-22
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-12-22

This document supersedes EN 61969-3:2001.

EN 61969-3:2012 includes the following significant technical changes with respect to EN 61969-3:2001:

Table 1 and Table 6 have been extended with requirements and tests, relevant for outdoor conditions.

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Endorsement notice

The text of the International Standard IEC 61969-3:2011 was approved by CENELEC as a European Standard without any modification.

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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|--|----------------|-------------|
| IEC 60068 | Series | Environmental testing | EN 60068 | Series |
| IEC 60417 | Data-base | Graphical symbols for use on equipment | - | - |
| IEC 60529 | - | Degrees of protection provided by enclosures - (IP Code) | - | - |
| IEC 60695-11-10 | - | Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods | EN 60695-11-10 | - |
| IEC 60721-3-2 | - | Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 2: Transportation | EN 60721-3-2 | - |
| 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 | EN 60721-3-4 | - |
| IEC 60825-1 | - | Safety of laser products - Part 1: Equipment classification and requirements | EN 60825-1 | - |
| IEC 60950 | Series | Information technology equipment - Safety | EN 60950 | Series |
| IEC 61010 | - | Safety requirements for electrical equipment for measurement, control and laboratory use | EN 61010 | - |
| IEC 61140 | - | Protection against electric shock - Common aspects for installation and equipment | EN 61140 | - |
| IEC 61439-5 | - | Low-voltage switchgear and controlgear assemblies - Part 5: Assemblies for power distribution in public networks | EN 61439-5 | - |
| IEC 61587-1 | - | Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 - Part 1: Climatic, mechanical tests and safety aspects for cabinets, racks, subracks and chassis | EN 61587-1 | - |
| IEC 61587-2 | - | Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 - Part 2: Seismic tests for cabinets and racks | EN 61587-2 | - |

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|---------------------|-------------|--|---------------|-------------|
| IEC 61587-3 | - | Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 - Part 3: Electromagnetic shielding performance tests for cabinets, racks and subracks | EN 61587-3 | - |
| 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 62305-4 | - | Protection against lightning - Part 4: Electrical and electronic systems within structures | EN 62305-4 | - |
| ISO 2533 | - | Standard atmosphere | - | - |
| ISO 3744 | - | Acoustics - Determination of sound power levels of noise sources using sound pressure - Engineering method in an essentially free field over a reflecting plane | EN ISO 3744 | - |
| ISO 3864 | - | Safety colours and safety signs | - | - |
| ISO 4892-2 | - | Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps | EN ISO 4892-2 | - |
| ETSI EN 300019-2-2- | - | Equipment Engineering (EE) - Environmental conditions and environmental tests for telecommunications equipment - Part 2-2: Specification of environmental tests - Transportation | - | - |

iTech STANDARD PREVIEW
 (Standard to be Published)

SIST EN 61969-3:2012
<https://standards.itech.ai/catalog/standards/sist/1dfd2005-9725-47b2-8c15-f46d2ad3aea4/sist-en-61969-3-2012>



IEC 61969-3

Edition 2.0 2011-11

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

**Structures mécaniques pour équipement électronique – Enveloppes de
plein air –
Partie 3: Exigences environnementales, essais et aspects de la sécurité**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

M

ICS 31.240

ISBN 978-2-88912-761-0

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENT –
OUTDOOR ENCLOSURES –****Part 3: Environmental requirements, tests and safety aspects**

FOREWORD

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International Standard IEC 61969-3 has been prepared by subcommittee 48D: Mechanical structures for electronic equipment, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

This second edition cancels and replaces the first edition issued in 2001. It constitutes a technical revision.

The main technical changes with regard to the previous edition are as follows.

Table 1 and Table 6 have been extended with requirements and tests, relevant for outdoor conditions.