



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

ILNAS-EN IEC 61587-1:2022

Mechanical structures for electrical and electronic equipment - Tests for IEC 60917 and IEC 60297 series - Part 1: Environmental requirements, test

Mechanische Bauweisen für elektrische
und elektronische Einrichtungen –
Prüfungen für die Reihen IEC 60917 und
IEC 60297 – Teil 1:

Structures mécaniques pour les
équipements électriques et électroniques
- Essais pour les séries IEC 60917 et IEC
60297 - Partie 1: Exigences

02/2022



National Foreword

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English Version

**Mechanical structures for electrical and electronic equipment -
Tests for IEC 60917 and IEC 60297 series - Part 1:
Environmental requirements, test setups and safety aspects
(IEC 61587-1:2022)**

Structures mécaniques pour les équipements électriques et
électroniques - Essais pour les séries IEC 60917 et IEC
60297 - Partie 1: Exigences environnementales, montages
d'essai et aspects liés à la sécurité
(IEC 61587-1:2022)

Mechanische Bauweisen für elektrische und elektronische
Einrichtungen - Prüfungen für die Reihen IEC 60917 und
IEC 60297 - Teil 1: Umgebungsanforderungen, Prüfaufbau
und Sicherheitsaspekte
(IEC 61587-1:2022)

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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

European foreword

The text of document 48D/743/FDIS, future edition 5 of IEC 61587-1, 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 61587-1:2022.

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) 2022-11-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-02-11

This document supersedes EN 61587-1:2017 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard IEC 61587-1:2022 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 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
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 60068-2-11	-	Environmental testing - Part 2-11: Tests - Test Ka: Salt mist	EN IEC 60068-2-11	-
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 60068-2-42	-	Environmental testing - Part 2-42: Tests - Test Kc: Sulphur dioxide test for contacts and connections	EN 60068-2-42	-
IEC 60068-2-43	-	Environmental testing - Part 2-43: Tests - Test Kd: Hydrogen sulphide test for contacts and connections	EN 60068-2-43	-
IEC 60068-2-49	-	Basic environmental testing procedures - Part 2-49: Tests - Guidance to test Kc: Sulphur dioxide test for contacts and connections	-	-
IEC 60068-2-52	-	Environmental testing - Part 2-52: Tests - Test Kb: Salt mist, cyclic (sodium, chloride solution)	EN IEC 60068-2-52	-
IEC 60068-2-64	2008	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance	EN 60068-2-64	2008

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IEC 60297	series	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series	EN 60297	series
IEC 60297-3-100	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-100: Basic dimensions of front panels, subracks, chassis, racks and cabinets	EN 60297-3-100	-
IEC 60297-3-101	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-101: Subracks and associated plug-in units	EN 60297-3-101	-
IEC 60297-3-105	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-105: Dimensions and design aspects for 1U high chassis	EN 60297-3-105	-
IEC 60297-3-107	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-107: Dimensions of subracks and plug-in units, small form factor	EN 60297-3-107	-
IEC 60297-3-108	-	Mechanical structures for electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-108: Dimensions of R-type subracks and plug-in units	EN 60297-3-108	-
IEC 60512-1-1	-	Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination - Test 1a: Visual examination	EN 60512-1-1	-
IEC 60529	-	Degrees of protection provided by enclosures - (IP Code)		-
IEC 60654-4	-	Operating conditions for industrial-process measurement and control equipment. Part 4: Corrosive and erosive influences	EN 60654-4	-
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 3-2: Classification of groups of environmental parameters and their severities - Transportation and handling	EN IEC 60721-3-2	-
IEC 60721-3-3	-	Classification of environmental conditions - Part 3-3: Classification of groups of environmental parameters and their severities - Stationary use at weatherprotected locations	EN IEC 60721-3-3	-
IEC 60917	series	Modular order for the development of mechanical structures for electrical and electronic equipment practices	EN IEC 60917	series

IEC 60917-2-1	-	Modular order for the development of mechanical structures for electronic equipment practices - Part 2: Sectional specification - Interface co-ordination dimensions for the 25 mm equipment practice - Section 1: Detail specification - Dimensions for cabinets and racks	EN 60917-2-1	-
IEC 60917-2-2	-	Modular order for the development of mechanical structures for electronic equipment practices - Part 2: Sectional specification - Interface co-ordination dimensions for the 25 mm equipment practice - Section 2: Detail specification - Dimensions for subracks, chassis, backplanes, front panels and plug-in units	EN 60917-2-2	-
IEC 61010-1	-	Safety requirements for electrical equipment - for measurement, control and laboratory use - Part 1: General requirements		-
IEC 61076-4-116	-	Connectors for electronic equipment - Product requirements - Part 4-116: Printed board connectors - Detail specification for a high-speed two-part connector with integrated shielding function	EN 61076-4-116	-
IEC 61373	-	Railway applications - Rolling stock equipment - Shock and vibration tests	EN 61373	-
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	-
IEC 61587-3	2013	Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 – Part 3: Electromagnetic shielding performance tests for cabinets and subtracks	EN 61587-3	2013
IEC 61587-5	-	Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 – Part 5: Seismic tests for chassis, subtracks, and associated plug-in units	EN 61587-5	-
IEC 62208	2011	Empty enclosures for low-voltage switchgear and controlgear assemblies - General requirements	EN 62208	2011
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 IEC 62368-1	-
ISO 22878	-	Castors and wheels - Test methods and apparatus	-	-
ISO 22883	-	Castors and wheels - Requirements for applications up to 1,1 m/s (4 km/h)	-	-



INTERNATIONAL STANDARD

NORME INTERNATIONALE



Mechanical structures for electrical and electronic equipment – Tests for IEC 60917 and IEC 60297 series –

Part 1: Environmental requirements, test setups and safety aspects

Structures mécaniques pour les équipements électriques et électroniques – Essais pour les séries IEC 60917 et IEC 60297 –

Partie 1: Exigences environnementales, montages d'essai et aspects liés à la sécurité

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