SLOVENSKI STANDARD

SIST EN 61587-3:2008

01-februar-2008

Mehanske strukture za elektronsko opremo - Preskusi za IEC 60917 in IEC 60297 - 3. del: Preskušanje lastnosti elektromagnetnega zaslona ohišij, stojal in okvirov (IEC 61587-3:2006)

Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 - Part 3: Electromagnetic shielding performance tests for cabinets, racks and subracks (IEC 61587-3:2006)

Mechanische Bauweisen für elektronische Einrichtungen - Prüfungen für IEC 60917 und IEC 60297 - Teil 3: Schirmdämpfungsprüfungen für Schränke, Gestelle und Baugruppenträger (IEC 61587-3:2006)

Structures mécaniques pour équipement électronique - Essais pour la CEI 60917 et la CEI 60297 - Partie 3: Essais de performance du blindage électromagnétique pour les baies, les bâtis et les bacs a cartes (IEC 61587-3:2006)

Ta slovenski standard je istoveten z: **EN 61587-3:2006**

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61587-3

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English version

Mechanical structures for electronic equipment - Tests for IEC 60917 and IEC 60297 Part 3: Electromagnetic shielding performance tests for cabinets, racks and subracks

(IEC 61587-3:2006)

Structures mécaniques
pour équipement électronique -
Essais pour la CEI 60917
et la CEI 60297
Partie 3: Essais de performance
du blindage électromagnétique
pour les baies, les bâtis
et les bacs à cartes
(CEI 61587-3:2006)

Mechanische Bauweisen
für elektronische Einrichtungen -
Prüfungen für IEC 60917
und IEC 60297
Teil 3: Schirmdämpfungsprüfungen
für Schränke, Gestelle
und Baugruppenträger
(IEC 61587-3:2006)

This European Standard was approved by CENELEC on 2006-10-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Ref. No. EN 61587-3:2006 E

Foreword

The text of document 48D/340/FDIS, future edition 1 of IEC 61587-3, 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 was approved by CENELEC as EN 61587-3 on 2006-10-01.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2007-07-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2009-10-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61587-3:2006 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 referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60297	Series	Dimensions of mechanical structures of the 482,6 mm (19 in) series	HD 493.1 S1	Series
IEC 60917	Series	Modular order for the development of mechanical structures for electronic equipment practices	EN 60917	Series
IEC 61000-4-3	2002	Electromagnetic compatibility (EMC) Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3[1)]	2002
IEC 61000-5-7	2001	Electromagnetic compatibility (EMC) Part 5-7: Installation and mitigation guidelines - Degrees of protection by enclosures against electromagnetic disturbances (EM code)	EN 61000-5-7	2001
CISPR 16-1	Series	Specification for radio disturbance and immunity measuring apparatus and methods	EN 55016-1	Series

[1)] EN 61000-4-3 is superseded by EN 61000-4-3:2006, which is based on IEC 61000-4-3:2006.

NORME INTERNATIONALE

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Structures mécaniques pour équipement électronique – Essais pour la CEI 60917 et la CEI 60297 –

Partie 3:
Essais de performance du blindage électromagnétique pour les baies, les bâtis et les bacs à cartes

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

Part 3:
Electromagnetic shielding performance tests for cabinets, racks and subracks

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENT – TESTS FOR IEC 60917 AND IEC 60297 –

Part 3: Electromagnetic shielding performance tests for cabinets, racks and subracks

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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International Standard IEC 61587-3 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 standard cancels and replaces the technical specification issued in 1999. It constitutes the first edition. It also constitutes a technical revision and now has the status of an International Standard.

This standard includes the following significant technical changes with respect to the technical specification: the frequency range for the shielding performance is now extended up to 2 000 MHz. In Annex A the example of a spherical dipole antenna is shown.

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

FDIS	Report on voting
48D/340/FDIS	48D/346/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

IEC 61587 consists of the following parts, under the general title *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

Part 2: Seismic tests for cabinets and racks

Part 3: Electromagnetic shielding performance tests for cabinets, racks and subracks

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENT – TESTS FOR IEC 60917 AND IEC 60297 –

Part 3: Electromagnetic shielding performance tests for cabinets, racks and subracks

1 Scope and object

This part of IEC 61587 specifies the tests for empty cabinets and subracks concerning electromagnetic shielding performance, in the frequency range of 30 MHz to 2 000 MHz. Stipulated attenuation values are chosen for the definition of the shielding performance level of cabinets and subracks for the IEC 60297 and IEC 60917 series. The shielding performance levels are chosen with respect to the requirements of the typical fields of industrial application. They will support the measures to achieve electromagnetic compatibility but cannot replace the final testing of compliance of the equipped enclosure.

The purpose of this standard is to ensure physical integrity and environmental performance of cabinets and subracks, taking into account the need for different levels of performance in different applications. It is intended to give the user a level of confidence in the selection of products to meet his specific needs. This standard in whole or part applies only to the empty enclosures, for example cabinets and subracks according to IEC 60297 and IEC 60917 and does not apply to the enclosures when electronic equipment is installed.

This standard was developed in close relationship to IEC 61000-5-7 but with the specific focus on subracks and cabinets and the determination of performance levels at the chosen frequency range.

2 Normative references

The following referenced documents are indispensable for the application 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 60297 (all parts), *Dimensions of mechanical structures of the 482,6 mm (19 in) series*

IEC 60917 (all parts), *Modular order for the development of mechanical structures for electronic equipment practices*

IEC 61000-4-3:2002, *Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test*

IEC 61000-5-7:2001, *Electromagnetic compatibility (EMC) – Part 5-7: Installation and mitigation guidelines – Degrees of protection provided by enclosures against electromagnetic disturbances (EM code)*

CISPR 16-1 (all parts), *Specification for radio disturbance and immunity measuring apparatus and methods*