SVENSK STANDARD SS-EN 61326-1

Fastställd	Utgåva	Sida	Ingår i
2006-06-19	2	1 (1+20)	SEK Område 65

Svenska Elektriska Kommissionen, SEK

Elektrisk utrustning för mätning, styrning och för laboratorieändamål – EMC-fordringar – Del 1: Allmänna fordringar

Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements

Som svensk standard gäller europastandarden EN 61326-1:2006. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61326-1:2006.

Nationellt förord

Europastandarden EN 61326-1:2006

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC

– **IEC 61326-1, First edition, 2005 - Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61326, utgåva 2, 2004, gäller ej fr o m 2009-02-01.

ICS 25.040.40; 33.100

Denna standard är fastställd av Svenska Elektriska Kommissionen, SEK,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

Svenska Elektriska Kommissionen, SEK, svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61326-1

May 2006

ICS 25.040.40; 33.100

Supersedes EN 61326:1997 + A1:1998 + A2:2001 + A3:2003

English version

Electrical equipment for measurement, control and laboratory use – EMC requirements Part 1: General requirements

(IEC 61326-1:2005)

Matériel électrique de mesure, de commande et de laboratoire – Exigences relatives à la CEM Partie 1: Exigences générales (CEI 61326-1:2005)

Elektrische Mess-, Steuer-, Regel- und Laborgeräte – EMV-Anforderungen Teil 1: Allgemeine Anforderungen (IEC 61326-1:2005)

This European Standard was approved by CENELEC on 2006-02-01. 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 61326-1:2006 E

Foreword

The text of document 65A/456/FDIS, future edition 1 of IEC 61326-1, prepared by SC 65A, System aspects, of IEC TC 65, Industrial-process measurement and control, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61326-1on 2006-02-01.

The EN 61326 series supersedes EN 61326:1997 + corrigendum September 1998 + A1:1998 + A2:2001 + A3:2003.

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)	2006-12-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2009-02-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 89/336/EEC. See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 61326-1:2005 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 standards indicated:

IEC 60359	NOTE	Harmonized as EN 60359:2002 (not modified).
IEC 61010 series	NOTE	Harmonized in the EN 61010 series (not modified).

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

Publication	Year	Title	EN/HD	Year
IEC 60050-161	–[1)]	International Electrotechnical Vocabulary Chapter 161: Electromagnetic compatibility	–	–
IEC 61000-3-2 (mod)	2000	Electromagnetic compatibility (EMC) Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16A per phase)	EN 61000-3-2[2)]	2000
IEC 61000-3-3 A1	1994 2001	Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤16 A per phase and not subject to conditional connection	EN 61000-3-3 A1	1995 2001
IEC 61000-3-11	2000	Part 3-11: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems - Equipment with rated current ≤ 75A and subject to conditional connection	EN 61000-3-11	2000
IEC 61000-3-12	2004	Part 3-12: Limits – Limits for harmonic currents produced by equipment connected to public low voltage systems with input current > 16A and ≤ 75A per phase	EN 61000-3-12	2005
IEC 61000-4-2 A1 A2	1995 1998 2000	Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test	EN 61000-4-2 A1 A2	1995 1998 2001
IEC 61000-4-3	2002	Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3	2002
IEC 61000-4-4	2004	Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test	EN 61000-4-4	2004
IEC 61000-4-5 A1	1995 2000	Part 4-5: Testing and measurement techniques – Surge immunity test	EN 61000-4-5 A1	1995 2001

[1)] Undated reference.

[2)] EN 61000-3-2 is superseded by EN 61000-3-2:2006, which is based on IEC 61000-3-2:2005.

Publication	Year	Title	EN/HD	Year
IEC 61000-4-6	2003	Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	– [3]	–
IEC 61000-4-8 A1	1993 2000	Part 4-8: Testing and measurement techniques – Power frequency magnetic field immunity test	EN 61000-4-8 A1	1993 2001
IEC 61000-4-11	2004	Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests	EN 61000-4-11	2004
IEC 61000-6-1	2005	Part 6-1: Generic standards – Immunity for residential, commercial and light-industrial environments	– [4]	–
CISPR 11	2003	Industrial, scientific and medical (ISM) radio-frequency equipment – Electromagnetic disturbance characteristics – Limits and methods of measurement	– [5]	–

[3] IEC 61000-4-6:1996 + A1:2000 are harmonized as EN 61000-4-6:1996 + A1:2001.
[4] IEC 61000-6-1 (mod.) is harmonized as EN 61000-6-1:2001.
[5] CISPR 11:1997 (mod.) + A1:1999 + A2:2002 are harmonized as EN 55011:1997 + A1:1999 + A2:2002.

CONTENTS

ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL AND LABORATORY USE – EMC REQUIREMENTS –

Part 1: General requirements

1 Scope

This part of IEC 61326 specifies requirements for immunity and emissions regarding electromagnetic compatibility (EMC) for electrical equipment, operating from a supply or battery of less than 1 000 V a.c. or 1 500 V d.c. or from the circuit being measured, intended for professional, industrial-process, industrial-manufacturing and educational use, including equipment and computing devices for

– measurement and test;
– control;
– laboratory use;
– accessories intended for use with the above (such as sample handling equipment),

intended to be used in industrial and non-industrial locations.

Computing devices and assemblies and similar equipment within the scope of Information Technology Equipment (ITE) and complying with applicable ITE EMC standards can be used in systems within the scope of this part of IEC 61326 without additional testing, if it is suitable for the intended electromagnetic environment.

This product family standard takes precedence over generic standards.

The following equipment is covered in this standard.

a) Electrical measurement and test equipment

   This is equipment, which by electrical means measures, indicates or records one or more electrical or non-electrical quantities, also non-measuring equipment such as signal generators, measurement standards, power supplies and transducers.

b) Electrical control equipment

   This is equipment, which controls one or more output quantities to specific values, with each value determined by manual settings, by local or remote programming, or by one or more input variables. This includes Industrial Process Measurement and Control (IPMC) equipment, which consists of devices such as:

   – process controllers and regulators;
   – programmable controllers;
   – power supply units for equipment and systems (centralized or dedicated);
   – analogue/digital indicators and recorders;
   – process instrumentation;
   – transducers, positioners, intelligent actuators, etc.

c) Electrical laboratory equipment

This is equipment which measures, indicates monitors or analyses substances, or is used to prepare materials, and includes In Vitro Diagnostic (IVD) equipment. This equipment may also be used in areas other than laboratories, for example self-test IVD equipment may be used in the home.

This standard is applicable to

– equipment for use in residential, commercial and light-industrial environments, according to IEC 61000-6-1;
– equipment for use in industrial locations;
– equipment for use in laboratories or test and measurement areas with a controlled electromagnetic environment;
– portable test and measurement equipment.

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 60050-161, *International Electrotechnical Vocabulary (IEV) – Chapter 161: Electromagnetic compatibility*

IEC 61000-3-2:2000, *Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16A per phase)*

IEC 61000-3-3:2002, *Electromagnetic compatibility (EMC) – Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection*

IEC 61000-3-11:2000, *Electromagnetic compatibility (EMC) – Part 3-11: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems - Equipment with rated current ≤ 75A and subject to conditional connection*

IEC 61000-3-12:2004, *Electromagnetic compatibility (EMC) – Part 3-12: Limits – Limits for harmonic currents produced by equipment connected to public low voltage systems with input current > 16A and ≤ 75A per phase*

IEC 61000-4-2:2001, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test*

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

IEC 61000-4-4:2004, *Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test*