

© Copyright SEK. Reproduction in any form without permission is prohibited.

**Elektrisk utrustning för mätning, styrning och för laboratorieändamål – EMC-fordringar –
Del 2-2: Särskilda fordringar –
Provningsuppställningar, driftförhållanden och prestandavillkor
för bärbar utrustning för mätning, provning och övervakning i
lågspänningssnät**

*Electrical equipment for measurement, control and laboratory use –
EMC requirements –
Part 2-2: Particular requirements –
Test configurations, operational conditions and performance
criteria for portable test, measuring and monitoring equipment used in
low-voltage distribution systems*

Som svensk standard gäller europastandarden EN 61326-2-2:2006. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61326-2-2:2006.

Nationellt förord

Europastandarden EN 61326-2-2:2006

består av:

- **europastandardens ikraftsättningssdokument**, utarbetat inom CENELEC
- **IEC 61326-2-2, First edition, 2006 - Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-2: Particular requirements - Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden bygger på och ersätter Bilaga E i tidigare fastställd svensk standard SS-EN 61326, utgåva 2, 2004.

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

ICS 25.040.40; 33.100

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 standardiseringssarbetet 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).

Standardiseringssarbetet 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 standardiseringssverksamhet 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.

SEK

Box 1284
164 29 Kista
Tel 08-444 14 00
www.sekom.se

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 2-2: Particular requirements –

**Test configurations, operational conditions and performance criteria
for portable test, measuring and monitoring equipment
used in low-voltage distribution systems**

(IEC 61326-2-2:2005)

Matériel électrique de mesure, de commande et de laboratoire – Exigences relatives à la CEM Partie 2-2: Exigences particulières – Configurations d'essai, conditions de fonctionnement et critères d'aptitude à la fonction des matériels portatifs d'essai, de mesure et de surveillance utilisés dans des systèmes de distribution basse tension (CEI 61326-2-2:2005)

Elektrische Mess-, Steuer-, Regel- und Laborgeräte – EMV-Anforderungen Teil 2-2: Besondere Anforderungen – Prüfanordnung, Betriebsbedingungen und Leistungsmerkmale für ortswandeliche Prüf-, Mess- und Überwachungsgeräte für den Gebrauch in Niederspannungs-Stromversorgungsnetzen (IEC 61326-2-2:2005)

This European Standard was approved by CENELEC on 2005-12-01. 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

Foreword

The text of document 65A/457/FDIS, future edition 1 of IEC 61326-2-2, 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 61326-2-2 on 2005-12-01.

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.

Endorsement notice

The text of the International Standard IEC 61326-2-2:2005 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

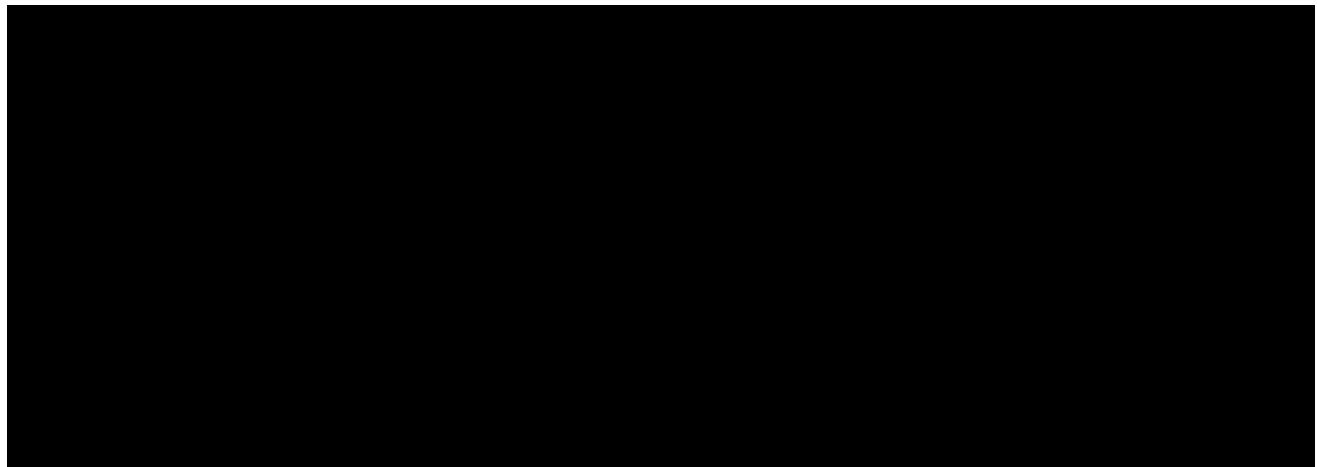
The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE Where 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 60050-161	1990	International Electrotechnical Vocabulary Chapter 161: Electromagnetic compatibility	–	–
IEC 61000-4-6	¹⁾	Electromagnetic compatibility (EMC) Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	^{– 2)}	–
IEC 61326-1	2005	Electrical equipment for measurement, control and laboratory use – EMC requirements Part 1: General requirements	EN 61326-1	2006
IEC 61557	Series	Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1 500 V d.c. - Equipment for testing, measuring or monitoring of protective measures	EN 61557	Series

¹⁾ Undated reference.

²⁾ IEC 61000-4-6:1996 + A1:2000 are harmonized as EN 61000-4-6:1996 + A1:2001.



CONTENTS

1	Scope.....	9
2	Normative references	9
3	Terms and definitions	11
4	General	11
5	EMC test plan.....	11
5.1	General	11
5.2	Configuration of EUT during testing.....	11
5.3	Operation conditions of EUT during testing.....	15
5.4	Specification of performance criteria	15
5.5	Test description.....	15
6	Immunity requirements	17
6.1	Conditions during the tests	17
6.2	Immunity test requirements	17
6.3	Random aspects	17
6.4	Performance criteria	17
7	Emission requirements	17
8	Test results and test report.....	17
9	Instructions for use	17
	Bibliography.....	19

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

Part 2-2: Particular requirements – Test configurations, operational conditions and performance criteria for portable test, measuring and monitoring equipment used in low-voltage distribution systems

1 Scope

In addition to the scope of IEC 61326-1, this part of IEC 61326 specifies more detailed test configurations, operational conditions and performance criteria for equipment which is:

- used for testing, measuring or monitoring of protective measures in low-voltage distribution systems, and;
- powered by battery and/or from the circuit measured, and
- portable.

Examples of such EUT include, but are not limited to, voltage detectors, multimeters, insulation testers, earth continuity testers, earth resistance testers, loop impedance testers, “residual-current-device-testers” (RCD-testers) and phase sequence testers as defined in IEC 61557.

NOTE Particular EMC requirements for equipment covered by IEC 61557-8 and IEC 61557-9 are given in IEC 61326-2-4

The manufacturer specifies the environment for which the product is intended to be used and/or select the appropriate test level specifications of IEC 61326-1.

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 60050-161:1990, *International Electrotechnical Vocabulary (IEV) – Part 161: Electromagnetic compatibility*

IEC 61000-4-6, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*

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

IEC 61557 (all parts): *Electrical safety in low voltage distribution systems up to 1 000 V a.c. and 1500 V d.c. – Equipment for testing, measuring or monitoring of protective measures*