SVENSK STANDARD SS-EN 61000-4-7

Fastställd	Utgåva	Sida	Ingår i
2002-12-04	2	1 (1+35)	SEK Område EMC

Svenska Elektriska Kommissionen, SEK

Elektromagnetisk kompatibilitet (EMC) – Del 4-7: Mät- och provningsmetoder – Vägledning vid övertonsmätning på elnät och på nätansluten utrustning

Electromagnetic compatibility (EMC) –
Part 4-7: Testing and measurement techniques –
General guide on harmonics and interharmonics measurements
and instrumentation, for power supply systems and equipment connected thereto

Som svensk standard gäller europastandarden EN 61000-4-7:2002. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61000-4-7:2002.

Nationellt förord

Europastandarden EN 61000-4-7:2002

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 61000-4-7, Second edition, 2002 - Electromagnetic compatibility (EMC) - Part 4-7: Testing and measurement techniques - General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare utgiven svensk standard SS-EN 61000-4-7, utgåva 1, 1993, gäller ej fr o m 2005-10-01.

ICS 33.100.10; 33.100.20

Denna standard är fastställd av Svenska Elektriska Kommissionen, SEK,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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EUROPEAN STANDARD **EN 61000-4-7**

NORME EUROPÉENNE

EUROPÄISCHE NORM October 2002

ICS 33.100.10; 33.100.20 Supersedes EN 61000-4-7:1993

English version

Electromagnetic compatibility (EMC)
Part 4-7: Testing and measurement techniques - General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto
(IEC 61000-4-7:2002)

Compatibilité électromagnétique (CEM)
Partie 4-7: Techniques d'essai
et de mesure -
Guide général relatif aux mesures
d'harmoniques et d'interharmoniques,
ainsi qu'à l'appareillage de mesure,
applicable aux réseaux d'alimentation
et aux appareils qui y sont raccordés
(CEI 61000-4-7:2002)

Elektromagnetische Verträglichkeit (EMV)
Teil 4-7: Prüf- und Messverfahren -
Allgemeiner Leitfaden für Verfahren
und Geräte zur Messung
von Oberschwingungen und
Zwischenharmonischen in
Stromversorgungsnetzen und
angeschlossenen Geräten
(IEC 61000-4-7:2002)

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 61000-4-7:2002 E

Foreword

The text of document 77A/382/FDIS, future edition 2 of IEC 61000-4-7, prepared by SC 77A, Low frequency phenomena, of IEC TC 77, Electromagnetic compatibility, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61000-4-7 on 2002-10-01.

This European Standard supersedes EN 61000-4-7:1993.

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)	2003-07-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2005-10-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annex ZA is normative and annexes A, B and C are informative.
Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 61000-4-7:2002 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 61000-3 (Series)	NOTE	Partly harmonized in EN 61000-3 series (not modified).
IEC 61010-1	NOTE	Harmonized as EN 61010-1:2001 (not modified).

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60050-161	- [1)]	International Electrotechnical Vocabulary (IEV) Chapter 161: Electromagnetic compatibility	-	-
IEC 61000-3-2	- [1)]	Electromagnetic compatibility (EMC) Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	EN 61000-3-2	2000 [2)]
IEC 61967-1	- [1)]	Integrated circuits - Measurement of electromagnetic emissions, 150 kHz to 1 GHz Part 1: General conditions and definitions	EN 61967-1	2002 [2)]

[1)] Undated reference.

[2)] Valid edition at date of issue.

CONTENTS

ELECTROMAGNETIC COMPATIBILITY (EMC) –

Part 4-7: Testing and measurement techniques – General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto

1 Scope

This part of IEC 61000 is applicable to instrumentation intended for measuring spectral components in the frequency range up to 9 kHz which are superimposed on the fundamental of the power supply systems at 50 Hz and 60 Hz. For practical considerations, this standard distinguishes between harmonics, interharmonics and other components above the harmonic frequency range, up to 9 kHz.

This standard defines the measurement instrumentation intended for testing individual items of equipment in accordance with emission limits given in certain standards (for example, harmonic current limits as given in IEC 61000-3-2) as well as for the measurement of harmonic currents and voltages in actual supply systems. Instrumentation for measurements above the harmonic frequency range, up to 9 kHz is tentatively defined (see Annex B).

NOTE 1 This document deals in detail with instruments based on the discrete Fourier transform.

NOTE 2 The description of the functions and structure of the measuring instruments in this standard is very explicit and meant to be taken literally. This is due to the necessity of having reference instruments with reproducible results irrespective of the characteristics of the input signals.

NOTE 3 The instrument is defined to accommodate measurements of harmonics up to the 50th order.

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 – Chapter 161: Electromagnetic compatibility*

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

IEC 61967-1, *Integrated circuits – Measurement of electromagnetic emissions, 150 kHz to 1 GHz – Part 1: Measurement conditions and definitions*[1]

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[1] To be published