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SVENSK STANDARD SS-EN 61000-4-28

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Elektromagnetisk kompatibilitet (EMC) – Del 4: Mät- och provningsmetoder – Provning av immunitet mot variationer i matningsspänningen

Electromagnetic compatibility (EMC) –
Part 4-28: Testing and measurement techniques –
Variation of power frequency, immunity test

Som svensk standard gäller europastandarden EN 61000-4-28:2000. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61000-4-28:2000.

Nationellt förord

Europastandarden EN 61000-4-28:2000

består av:

– **europastandardens ikraftsättningsdokument, utarbetat inom CENELEC**

– **IEC 61000-4-28, First edition, 1999 - Electromagnetic compatibility (EMC) - Part 4-28: Testing and measurement techniques - Variation of power frequency, immunity test**

utarbetad inom International Electrotechnical Commission, IEC.

ICS 33.100.20

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EUROPEAN STANDARD **EN 61000-4-28**

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English version

Electromagnetic compatibility (EMC)
Part 4-28: Testing and measurement techniques
Variation of power frequency, immunity test
(IEC 61000-4-28:1999)

Compatibilité électromagnétique (CEM)
Partie 4-28: Techniques d'essai et de mesure - Essai d'immunité à la variation de la fréquence d'alimentation
(CEI 61000-4-28:1999)

Elektromagnetische Verträglichkeit (EMV)
Teil 4-28: Prüf- und Messverfahren
Prüfung der Störfestigkeit gegen Schwankungen der energietechnischen Frequenz (Netzfrequenz)
(IEC 61000-4-28:1999)

This European Standard was approved by CENELEC on 2000-01-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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 61000-4-28:2000 E

Foreword

The text of document 77A/287/FDIS, future edition 1 of IEC 61000-4-28, 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 61000-4-28 on 2000-01-01.

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)	2000-10-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2003-01-01

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 and B are informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61000-4-28:1999 was approved by CENELEC as a European Standard without any modification.

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	1990	International Electrotechnical Vocabulary (IEV) Chapter 161: Electromagnetic compatibility	-	-
IEC 60068-1	1988	Environmental testing Part 1: General and guidance	EN 60068-1[1)]	1994
IEC 61000-2-4 + corr. August	1994 1994	Electromagnetic compatibility (EMC) Part 2: Environment Section 4: Compatibility levels in industrial plants for low-frequency conducted disturbances	EN 61000-2-4	1994

1) EN 60068-1 includes the corrigendum October 1988 and A1:1992 to IEC 60068-1.

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ELECTROMAGNETIC COMPATIBILITY (EMC) –

Part 4-28: Testing and measurement techniques – Variation of power frequency, immunity test

1 Scope

This part of IEC 61000 is a basic EMC (electromagnetic compatibility) publication. It considers immunity tests for electric and/or electronic equipment in its electromagnetic environment. Only conducted phenomena are considered, including immunity tests for equipment connected to public and industrial networks.

The object of this part is to establish a reference for evaluating the immunity of electric and electronic equipment when subjected to variations of the power frequency.

This standard applies to electric and/or electronic equipment connected to 50 Hz or 60 Hz distributed network with rated line current up to 16 A per phase.

It does not apply to electric and/or electronic equipment connected to a.c. 400 Hz distribution networks. Tests concerning these networks will be covered by other IEC standards.

In general, electrical and electronic equipment is not susceptible to minor variations of the power frequency. Testing according to this standard should be limited to products which are assessed to be susceptible to power frequency variations by virtue of design, environment or failure consequences.

The immunity test levels required for a specific electromagnetic environment together with the performance criteria are indicated in the product, product family or generic standards as applicable.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61000. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61000 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60050(161), *International Electrotechnical Vocabulary (IEV) – Chapter 161 Electro-magnetic compatibility*

IEC 60068-1, *Environmental testing – Part 1: General and guidance*

IEC 61000-2-4, *Electromagnetic compatibility (EMC) – Part 2: Environment – Section 4: Com-patibility levels in industrial plants for low-frequency conducted disturbances*