

**SLOVENSKI
STANDARD**

**SIST EN 61000-4-
28:2000/A1:2004**

september 2004

Elektromagnetna združljivost (EMC) - 4-28. del: Preskušanje in merilne tehnike - Nihanja električne frekvence, preskušanje odpornosti - Dopolnilo A1 (IEC 61000-4-28:1999/A1:2001)

Electromagnetic compatibility (EMC) - Part 4-28: Testing and measurement techniques - Variation of power frequency, immunity test - Amendment A1 (IEC 61000-4-28:1999/A1:2001)

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[SIST EN 61000-4-28:2000/A1:2004](https://standards.iteh.ai/catalog/standards/sist/5983f559-b090-4b04-9d73-c2ff8e7a67c1/sist-en-61000-4-28-2000-a1-2004)

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ICS 33.100.20

Referenčna številka
SIST EN 61000-4-28:2000/A1:2004(en)

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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/A1:2001)

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/A1:2001)

Elektromagnetische Verträglichkeit (EMV)
Teil 4-28: Prüf- und Messverfahren -
Prüfung der Störfestigkeit gegen
Schwankungen der energietechnischen
Frequenz (Netzfrequenz)
(IEC 61000-4-28:1999/A1:2001)

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This amendment A1 modifies the European Standard EN 61000-4-28:2000; it was approved by CENELEC on 2004-05-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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

Foreword

The text of amendment 1:2001 to the International Standard IEC 61000-4-28:1999, prepared by SC 77B, High frequency phenomena, of IEC TC 77, Electromagnetic compatibility, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A1 to EN 61000-4-28:2000 on 2004-05-01 without any modification.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2005-05-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2007-05-01

Endorsement notice

The text of amendment 1:2001 to the International Standard IEC 61000-4-28:1999 was approved by CENELEC as an amendment to the European Standard without any modification.

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

61000-4-28

1999

AMENDEMENT 1
AMENDMENT 1
2001-07

PUBLICATION FONDAMENTALE EN CEM
BASIC EMC PUBLICATION

Amendement 1

Compatibilité électromagnétique (CEM) –

Partie 4-28:

Techniques d'essai et de mesure –

**Essai d'immunité à la variation de la fréquence
d'alimentation**

[SIST EN 61000-4-28:2000/A1:2004](https://standards.iteh.ai/catalog/standards/sist/5983f559-b090-4b04-9d73-c2f8e7a67c1/sist-en-61000-4-28-2000-a1-2004)

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Amendment 1

Electromagnetic compatibility (EMC) –

Part 4-28:

Testing and measurement techniques –

Variation of power frequency, immunity test

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Commission Electrotechnique Internationale
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Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

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FOREWORD

This amendment has been prepared by subcommittee 77B: High frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

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

FDIS	Reports on voting
77B/291+293/FDIS	77B/298+300/RVD

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

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2006. At this date, the publication will be

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

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Replace the existing subclause 8.1 by the following new subclause 8.1:

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<https://standards.iteh.ai/catalog/standards/sist/5983f559-b090-4b04-9d73-c2ff8e7a67c1/sist-en-61000-4-28-2000-a1-2004>

8.1 Climatic conditions

Unless otherwise specified by the committee responsible for the generic or product standard, the climatic conditions in the laboratory shall be within any limits specified for the operation of the EUT and the test equipment by their respective manufacturers.

Tests shall not be performed if the relative humidity is so high as to cause condensation on the EUT or the test equipment.

NOTE Where it is considered that there is sufficient evidence to demonstrate that the effects of the phenomenon covered by this standard are influenced by climatic conditions, this should be brought to the attention of the committee responsible for this standard.

Replace the existing clause 9 by the following new clause 9, and add the new clause 10:

9 Evaluation of test results

The test results shall be classified in terms of the loss of function or degradation of performance of the equipment under test, relative to a performance level defined by its manufacturer or the requestor of the test, or agreed between the manufacturer and the purchaser of the product. The recommended classification is as follows:

- a) normal performance within limits specified by the manufacturer, requestor or purchaser;

- b) temporary loss of function or degradation of performance which ceases after the disturbance ceases, and from which the equipment under test recovers its normal performance, without operator intervention;
- c) temporary loss of function or degradation of performance, the correction of which requires operator intervention;
- d) loss of function or degradation of performance which is not recoverable, owing to damage to hardware or software, or loss of data.

The manufacturer's specification may define effects on the EUT which may be considered insignificant, and therefore acceptable.

This classification may be used as a guide in formulating performance criteria, by committees responsible for generic, product and product-family standards, or as a framework for the agreement on performance criteria between the manufacturer and the purchaser, for example where no suitable generic, product or product-family standard exists.

10 Test report

The test report shall contain all the information necessary to reproduce the test. In particular, the following shall be recorded:

- the items specified in the test plan required by clause 8 of this standard;
 - identification of the EUT and any associated equipment, for example, brand name, product type, serial number;
 - identification of the test equipment, for example, brand name, product type, serial number;
 - any special environmental conditions in which the test was performed, for example, shielded enclosure;
 - any specific conditions necessary to enable the test to be performed;
 - performance level defined by the manufacturer, requestor or purchaser;
 - performance criterion specified in the generic, product or product-family standard;
 - any effects on the EUT observed during or after the application of the test disturbance, and the duration for which these effects persist;
 - the rationale for the pass/fail decision (based on the performance criterion specified in the generic, product or product-family standard, or agreed between the manufacturer and the purchaser);
 - any specific conditions of use, for example cable length or type, shielding or grounding, or EUT operating conditions, which are required to achieve compliance.
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