

**SLOVENSKI**  
**STANDARD**

**SIST EN 61000-3-  
3:1997/A1:2002**

prva izdaja  
maj 2002

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Electromagnetic compatibility (EMC) – Part 3: Limits – Section 3: Limitation of voltage fluctuations and flicker in low-voltage supply systems – Equipment with rated current < 16 A - Amendment 1 (IEC 61000-3-3:1994/A1:2001)

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[SIST EN 61000-3-3:1997/A1:2002](https://standards.iteh.ai/catalog/standards/sist/083b006a-4255-4074-b05e-c106842fd5e8/sist-en-61000-3-3-1997-a1-2002)  
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ICS 33.100.01

Referenčna številka  
SIST EN 61000-3-3:1997/A1:2002(en)

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English version

**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  $\leq 16$  A per phase and not subject to conditional connection**

(IEC 61000-3-3:1994/A1:2001)

Compatibilité électromagnétique (CEM)

Partie 3-3: Limites -

Limitation des variations de tension, des fluctuations de tension et du papillotement

dans les réseaux publics d'alimentation basse tension ayant un courant assigné

 $\leq 16$  A par phase et non soumis à un

raccordement conditionnel

(CEI 61000-3-3:1994/A1:2001)

Elektromagnetische Verträglichkeit (EMV)

Teil 3-3: Grenzwerte -

Begrenzung von Spannungsänderungen, Spannungsschwankungen und Flicker in

öffentlichen Niederspannungs-

Versorgungsnetzen für Geräte mit einem

Bemessungsstrom  $\leq 16$  A je Leiter,

die keiner Sonderanschlussbedingung

unterliegen

(IEC 61000-3-3:1994/A1:2001)

<https://standards.iteh.ai/catalog/standards/sist/083101c4-4e5d-455d-c106842fd5e8/sist-en-61000-3-3-1997-a1-2002>

This amendment A1 modifies the European Standard EN 61000-3-3:1995; it was approved by CENELEC on 2001-05-01. 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, 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**

## Foreword

The text of document 77A/326/FDIS, future amendment 1 to IEC 61000-3-3:1994, 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 amendment A1 to EN 61000-3-3:1995 on 2001-05-01.

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) 2002-02-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2004-05-01

Annexes designated "normative" are part of the body of the standard. In this standard, annexes A, B and ZA are normative. Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of amendment 1:2001 to the International Standard IEC 61000-3-3:1994 was approved by CENELEC as an amendment to the European Standard without any modification.

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**Annex ZA**  
(normative)

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

**Delete** the reference to IEC 60335-2-7.

**Add** the following new footnote to the end of the normative reference to IEC 60868:

EN 60868 will be withdrawn and replaced by EN 61000-4-15. Flickermeters complying with EN 61000-4-15 may also be used for flicker measurements associated with this part of EN 61000-3.

**Add:**

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61000-3-2 (mod)	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 <sup>2)</sup>
IEC 61000-3-11	1)	Part 3-11: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems - Equipment with rated current ≤ 75 A and subject to conditional connection	EN 61000-3-11	2000 <sup>2)</sup>
IEC 60974-1	1)	Arc welding equipment Part 1: Welding power sources	EN 60974-1	1998 <sup>2)</sup>

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1) undated reference.

2) valid edition at date of issue.

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

61000-3-3

1994

AMENDEMENT 1  
AMENDMENT 1  
2001-01

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Amendement 1

**Compatibilité électromagnétique (CEM) –**

**Partie 3-3:**

**Limites – Limitation des variations de tension, des fluctuations de tension et du papillotement dans les réseaux publics d'alimentation basse tension, pour les matériels ayant un courant assigné  $\leq 16$  A par phase et non soumis à un raccordement conditionnel**

<https://standards.iteh.ai/catalog/standards/sist/083b006a-4255-4074-b05e-c1068d2f15e8/sist-en-61000-3-3-1997-a1-2002>

Amendment 1

**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  $\leq 16$  A per phase and not subject to conditional connection**

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International Electrotechnical Commission  
Telefax: +41 22 919 0300

3, rue de Varembe Geneva, Switzerland  
e-mail: inmail@iec.ch IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE

M

*Pour prix, voir catalogue en vigueur  
For price, see current catalogue*

## FOREWORD

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

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

FDIS	Report on voting
77A/326/FDIS	77A/328/RVD

Full information on the voting for the approval of this amendment can be found in the report 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 2005. At this date, the publication will be

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

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**Title**

*Replace the title of this standard on the cover page, the title page and on pages 7 and 11 as follows:*

SIST EN 61000-3-3:1997/A1:2002  
<https://standards.iteh.ai/catalog/standards/sist/085b006a-4255-4074-b05c-c106842fd5e8/sist-en-61000-3-3-1997-a1-2002>

**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**

Page 3

**CONTENTS**

*Replace the title of clause 4 by the following title:*

4 Assessment of voltage changes, voltage fluctuations and flicker

*Add the title of the new annex B as follows:*

Annex B (normative) Test conditions and procedures for measuring  $d_{\max}$  voltage changes caused by manual switching



Page 7

## FOREWORD

*Replace the last paragraph by*

Annexes A and B form an integral part of this standard.

Page 9

## INTRODUCTION

*Add the following new paragraph at the end of the introduction:*

The limits in this standard relate to the voltage changes experienced by consumers connected at the interface between the public supply low-voltage network and the equipment user's installation. Consequently, if the actual impedance of the supply at the supply terminals of equipment connected within the equipment user's installation exceeds the test impedance, it is possible that supply disturbance exceeding the limits may occur.

Page 11

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## 1 Scope

*Replace, in the first paragraph, "This section of IEC 1000-3" by "This part of IEC 61000". Throughout the text replace all references to "section" by "part".*

*Replace the third paragraph by the following:*

This part of IEC 61000 is applicable to electrical and electronic equipment having an input current equal to or less than 16 A per phase, intended to be connected to public low-voltage distribution systems of between 220 V and 250 V line to neutral at 50 Hz, and not subject to conditional connection.

*Add the following new paragraph after the third paragraph:*

Equipment which does not comply with the limits of this part of IEC 61000 when tested with the reference impedance  $Z_{ref}$  of 6.4, and which therefore cannot be declared compliant with this part, may be retested or evaluated to show conformity with IEC 61000-3-11. Part 3-11 is applicable to equipment with rated input current  $\leq 75$  A per phase and subject to conditional connection.

*Replace notes 1 and 2 by the following note:*

NOTE The limits in this part of IEC 61000 are based mainly on the subjective severity of flicker imposed on the light from 230 V/60 W coiled-coil filament lamps by fluctuations of the supply voltage. For systems with nominal voltage less than 220 V line to neutral and/or frequency of 60 Hz, the limits and reference circuit values are under consideration.