

SLOVENSKI STANDARD

SIST EN 61000-6-1:2007

01-september-2007

BUXca Yý U

SIST EN 61000-6-1:2002

SIST EN 61000-6-1:2002/IS1:2006

Elektromagnetna združljivost (EMC) - 6-1. del: Osnovni standardi - Odpornost v stanovanjskih, poslovnih in manj zahtevnih industrijskih okoljih (IEC 61000-6-1:2005)

Electromagnetic compatibility (EMC) -- Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments

Elektromagnetische Verträglichkeit (EMV) - Teil 6-1: Fachgrundnormen - Störfestigkeit für Wohnbereich, Geschäfts- und Gewerbebereiche sowie Kleinbetriebe

Compatibilité électromagnétique (CEM) - Partie 6-1: Normes génériques - Immunité pour les environnements résidentiels, commerciaux et de l'industrie légère

Ta slovenski standard je istoveten z: EN 61000-6-1:2007

ICS:

33.100.20

Imunost

Immunity

SIST EN 61000-6-1:2007

en

iTeh STANDARD PREVIEW **(standards.iteh.ai)**

SIST EN 61000-6-1:2007

<https://standards.iteh.ai/catalog/standards/sist/1b82bec0-0a2c-4322-b6a0-3ab737d4a3fa/sist-en-61000-6-1-2007>

English version

**Electromagnetic compatibility (EMC) -
Part 6-1: Generic standards -
Immunity for residential, commercial
and light-industrial environments
(IEC 61000-6-1:2005)**

Compatibilité électromagnétique (CEM) -
Partie 6-1: Normes génériques -
Immunité pour les environnements
résidentiels, commerciaux
et de l'industrie légère
(CEI 61000-6-1:2005)

Elektromagnetische Verträglichkeit
(EMV) -
Teil 6-1: Fachgrundnormen -
Störfestigkeit für Wohnbereich,
Geschäfts- und Gewerbebereiche
sowie Kleinbetriebe
(IEC 61000-6-1:2005)

**It's a STANDARD PREVIEW
(standards.iteh.ai)**

SIST EN 61000-6-1:2007

<https://standards.iteh.ai/catalog/standards/sist/1b82bec0-0a2c-4322-b6a0->

This European Standard was approved by CENELEC on 2006-12-01. 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, Bulgaria, 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 the International Standard IEC 61000-6-1:2005, prepared by IEC TC 77, Electromagnetic compatibility, was submitted to the formal vote and was approved by CENELEC as EN 61000-6-1 on 2006-12-01 without any modification.

This European Standard supersedes EN 61000-6-1:2001 + IS1:2005.

Specific technical changes have been introduced to Tables 1 to 4. The frequency range for tests according to EN 61000-4-3 has been extended above 1 GHz according to technologies used in this frequency area. The use of TEM waveguide testing according to EN 61000-4-20 has been introduced for certain products and the testing requirements according to EN 61000-4-11 have been amended significantly.

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) 2007-12-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2009-12-01

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 Directives EMC (89/336/EEC), EMC (2004/108/EC) and RTTED (1999/5/EC). See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

SIST EN 61000-6-1:2007

<https://standards.iteh.ai/en/standards/sist/11821/61000-6-1-2007-3ab737d4a3fa/sist-en-61000-6-1-2007>

Endorsement notice

The text of the International Standard IEC 61000-6-1:2005 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 61000-4-1 | NOTE Harmonized as EN 61000-4-1:2000 (not modified). |
| IEC 61000-4-20 | NOTE Harmonized as EN 61000-4-20:2003 (not modified). |

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 When 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	- ¹⁾	International Electrotechnical Vocabulary (IEV) - Chapter 161: Electromagnetic compatibility	-	-
IEC 61000-4-2	- ¹⁾	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2	1995 ²⁾
IEC 61000-4-3	- ¹⁾	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3	2006 ²⁾
IEC 61000-4-4	- ¹⁾	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4	2004 ²⁾
IEC 61000-4-5	- ¹⁾	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	2006 ²⁾
IEC 61000-4-6	- ¹⁾	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	-	-
IEC 61000-4-8	- ¹⁾	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	EN 61000-4-8	1993 ²⁾
IEC 61000-4-11	- ¹⁾	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	EN 61000-4-11	2004 ²⁾
CISPR 22 (mod)	- ¹⁾	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	EN 55022	2006 ²⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

Annex ZZ (informative)

Coverage of Essential Requirements of EC Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers the essential requirements as given in Article 4(b) of the EC Directive 89/336/EEC and Annex I Article 1(b) of the EC Directive 2004/108/EC, and the essential requirements of Article 3.1(b) (immunity only) of the EC Directive 1999/5/EC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directives concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 61000-6-1:2007](https://standards.iteh.ai/catalog/standards/sist/1b82bec0-0a2c-4322-b6a0-3ab737d4a3fa/sist-en-61000-6-1-2007)

<https://standards.iteh.ai/catalog/standards/sist/1b82bec0-0a2c-4322-b6a0-3ab737d4a3fa/sist-en-61000-6-1-2007>

INTERNATIONAL STANDARD

IEC
61000-6-1

Second edition
2005-03

Electromagnetic compatibility (EMC) –

Part 6-1:

Generic standards –

Immunity for residential, commercial and

light-industrial environments

(standards.iteh.ai)

SIST EN 61000-6-1:2007

<https://standards.iteh.ai/catalog/standards/sist/1b82bec0-0a2c-4322-b6a0-3ab737d4a3fa/sist-en-61000-6-1-2007>

© IEC 2005 Copyright - all rights reserved

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

P

For price, see current catalogue

CONTENTS

FOREWORD	5
INTRODUCTION	9
1 Scope and object.....	11
2 Normative references	13
3 Terms and definitions	15
4 Performance criteria	17
5 Conditions during testing	17
6 Product documentation	19
7 Applicability	19
8 Immunity test requirements.....	19
Bibliography	31
Figure 1 – Examples of ports	15
Table 1 – Immunity – Enclosure ports.....	23
Table 2 – Immunity – Signal ports	25
Table 3 – Immunity – Input and output DC power ports.....	27
Table 4 – Immunity – Input and output AC power ports.....	29

iTeh STANDARD PREVIEW

(standards.iteh.ai)

SIST EN 61000-6-1:2007

<https://standards.iteh.ai/catalog/standards/sist/1b82bec0-0a2c-4322-b6a0-3ab197d4a51a/sist-en-61000-6-1-2007>

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTROMAGNETIC COMPATIBILITY (EMC) –**Part 6-1: Generic standards –
Immunity for residential, commercial
and light-industrial environments**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
SIST-EN-61000-6-1:2007
3ab737d4a3fa/sist-en-61000-6-1-2007
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61000-6-1 has been prepared by IEC technical committee 77: Electromagnetic compatibility.

This second edition cancels and replaces the first edition published in 1997. It constitutes a technical revision. Specific technical changes have been introduced to Tables 1 to 4. The frequency range for tests according to IEC 61000-4-3 has been extended above 1 GHz according to technologies used in this frequency area. The use of TEM waveguide testing according to IEC 61000-4-20 has been introduced for certain products and the testing requirements according to IEC 61000-4-11 have been amended significantly.

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

FDIS	Report on voting
77/294A/FDIS	77/300/RVD

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

The publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 61000-6-1:2007

<https://standards.iteh.ai/catalog/standards/sist/1b82bec0-0a2c-4322-b6a0-3ab737d4a3fa/sist-en-61000-6-1-2007>

INTRODUCTION

IEC 61000 is published in separate parts according to the following structure:

Part 1: General

General considerations (introduction, fundamental principles)

Definitions, terminology

Part 2: Environment

Description of the environment

Classification of the environment

Compatibility levels

Part 3: Limits

Emission limits

Immunity limits (insofar as they do not fall under the responsibility of the product committees)

Part 4: Testing and measurement techniques

Measurement techniques

Testing techniques

Part 5: Installation and mitigation guidelines

Installation guidelines

Mitigation methods and devices

[SIST EN 61000-6-1:2007](https://standards.iteh.ai/catalog/standards/sist/1b82bec0-0a2c-4322-b6a0-5a6737d4a3fa/sist-en-61000-6-1-2007)

<https://standards.iteh.ai/catalog/standards/sist/1b82bec0-0a2c-4322-b6a0-5a6737d4a3fa/sist-en-61000-6-1-2007>

Part 6: Generic standards

Part 9: Miscellaneous

Each part is further subdivided into several parts, published either as International Standards or as technical specifications or technical reports, some of which have already been published as sections. Others will be published with the part number followed by a dash and a second number identifying the subdivision (example: 61000-6-1).