SLOVENSKI STANDARD
SIST EN IEC 61000-4-20:2022

01-julij-2022

Nadomešča:

SIST EN 61000-4-20:2011

Elektromagnetna združljivost (EMC) - 4-20. del: Preskusne in merilne tehnike - Preskušanje oddajanja in odpornosti v prečnih elektromagnetnih (TEM) valovodih

Electromagnetic compatibility (EMC) - Part 4-20: Testing and measurement techniques - Emission and immunity testing in transverse electromagnetic (TEM) waveguides

Elektromagnetische Verträglichkeit (EMV) - Teil 4-20: Prüf- und Messverfahren - Messung der Störaussendung und Prüfung der Störfestigkeit in transversal-elektromagnetischen (TEM-)Wellenleitern

Compatibilité électromagnétique (CEM) - Partie 4-20: Techniques d'essai et de mesure - Essais d'émission et d'immunité dans les guides d'onde TEM

Ta slovenski standard je istoveten z: EN IEC 61000-4-20:2022

ICS:

33.100.10	Emisija	Emission
33.100.20	Imunost	Immunity

SIST EN IEC 61000-4-20:2022 en

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61000-4-20

April 2022

ICS 33.100.10; 33.100.20

Supersedes EN 61000-4-20:2010 and all of its amendments and corrigenda (if any)

English Version

Electromagnetic compatibility (EMC) - Part 4-20: Testing and measurement techniques - Emission and immunity testing in transverse electromagnetic (TEM) waveguides (IEC 61000-4-20:2022)

Compatibilité électromagnétique (CEM) - Partie 4-20: Techniques d'essai et de mesure - Essais d'émission et d'immunité dans les guides d'onde TEM (IEC 61000-4-20:2022)

Elektromagnetische Verträglichkeit (EMV) - Teil 4-20: Prüf- und Messverfahren - Messung der Störaussendung und Prüfung der Störfestigkeit in transversal-elektromagnetischen (TEM-)Wellenleitern (IEC 61000-4-20:2022)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

The text of document 77B/853/FDIS, future edition 3 of IEC 61000-4-20, prepared by SC 77B "High frequency phenomena" of IEC/TC 77 "Electromagnetic compatibility" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61000-4-20:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-12-25
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-03-25

This document supersedes EN 61000-4-20:2010 and all of its amendments and corrigenda (if any).

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This document has been prepared under a Standardization Request given to CENELEC by the European Commission and the European Free Trade Association.

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Endorsement notice

The text of the International Standard IEC 61000-4-20:2022 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 60068-1	NOTE Harmonized as EN 60068-1
IEC 60118-13	NOTE Harmonized as EN IEC 60118-13
IEC 61967-2	NOTE Harmonized as EN 61967-2
IEC 62132-2	NOTE Harmonized as EN 62132-2
CISPR 25	NOTE Harmonized as EN IEC 55025
CISPR 14 (series)	NOTE Harmonized as EN IEC 55014-2 (series)
CISPR 16-4-2	NOTE Harmonized as EN 55016-4-2
IEC 61000-2-9	NOTE Harmonized as EN 61000-2-9
IEC 61000-4-3	NOTE Harmonized as EN IEC 61000-4-3
CISPR 16-2-3:2016	NOTE Harmonized as EN 55016-2-3:2017 (not modified)
CISPR 32	NOTE Harmonized as EN 55032
CISPR 20:2006	NOTE Harmonized as EN 55020:2007 (not modified) +A11:2011

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60050-161	-	International Electrotechnical Vocabulary (IEV) - Part 161: Electromagnetic compatibility	-	-
CISPR 16-1-1	-	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-1: Radio disturbance and immunity measuring apparatus - Measuring apparatus	EN IEC 55016-1-1	-
CISPR 16-1-4	-	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements	EN IEC 55016-1-4	-

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NORME INTERNATIONALE

colour inside

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Electromagnetic compatibility (EMC) – Part 4-20: Testing and measurement techniques – Emission and immunity testing in transverse electromagnetic (TEM) waveguides

Compatibilité électromagnétique (CEM) – Partie 4-20: Techniques d'essai et de mesure – Essais d'émission et d'immunité dans les guides d'onde TEM

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTROMAGNETIC COMPATIBILITY (EMC) –

Part 4-20: Testing and measurement techniques – Emission and immunity testing in transverse electromagnetic (TEM) waveguides

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.
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International Standard IEC 61000-4-20 has been prepared by subcommittee 77B: High frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility, in cooperation with CISPR (International Special Committee on Radio Interference) subcommittee A: Radio-interference measurements and statistical methods.

It forms Part 4-20 of IEC 61000. It has the status of a basic EMC publication in accordance with IEC Guide 107.

This third edition cancels and replaces the second edition published in 2010. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) provide information on the testing of large EUTs (including cables);

b) apply the work on measurement uncertainties by adapting the work completed in CISPR and TC 77 (for emissions and immunity);

c) update the validation procedure for the test volume regarding field uniformity and TEM mode verification;

d) provide information concerning two-port and four-port TEM waveguides;

e) add a new informative annex (Annex I) dealing with transient TEM waveguide characterization; and

f) add information dealing with dielectric test stands for EUTs.

The text of this International Standard is based on the following documents:

Draft	Report on voting
77B/853/FDIS	77B/855/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts of the IEC 61000 series, published under the general title *Electromagnetic compatibility (EMC)*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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 (in so far 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

Part 6: Generic standards

Part 9: Miscellaneous

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

This part is an International Standard which gives emission, immunity and HEMP and IEMI transient testing requirements.