BS EN IEC 61000-6-3:2021

BSI Standards Publication

Electromagnetic compatibility (EMC)

Part 6-3: Generic standards — Emission standard for equipment in residential environments

bsi.

National foreword

This British Standard is the UK implementation of EN IEC 61000-6-3:2021. It is identical to IEC 61000-6-3:2020. It supersedes BS EN 61000-6-3:2007+A1:2011, which will be withdrawn on 26 March 2024.

The UK participation in its preparation was entrusted to Technical Committee GEL/210/11, EMC - Standards Committee.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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EUROPEAN STANDARD

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English Version

Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for equipment in residential environments (IEC 61000-6-3:2020)

Compatibilité électromagnétique (CEM) - Partie 6-3: Normes génériques - Norme sur l'émission relative aux appareils utilisés dans les environnements résidentiels (IEC 61000-6-3:2020)

Elektromagnetische Verträglichkeit (EMV) - Teil 6-3: Fachgrundnormen - Störaussendung für Wohnbereich, Geschäfts- und Gewerbebereiche sowie Kleinbetriebe (IEC 61000-6-3:2020)

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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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

European foreword

The text of document CIS/H/400/CDV, future edition 3 of IEC 61000-6-3, prepared by CISPR SC H "Limits for the protection of radio services" of CISPR "International special committee on radio interference" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61000-6-3:2021.

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) 2021-09-26
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-03-26

This document supersedes EN 61000-6-3:2007 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61000-6-3:2020 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 61000-6-1	NOTE Harmonized as EN IEC 61000-6-1
IEC 61000-6-2:2016	NOTE Harmonized as EN IEC 61000-6-2:2019 (not modified).
IEC 61000-6-4	NOTE Harmonized as EN IEC 61000-6-4.
IEC 61000-6-8	NOTE Harmonized as EN IEC 61000-6-8.
IEC 61158-1:2019	NOTE Harmonized as EN IEC 61158-1:2019 (not modified).
CISPR 11:2015	NOTE Harmonized as EN 55011:2016 (modified).
CISPR 14-2	NOTE Harmonized as EN 55014-2.
CISPR 35	NOTE Harmonized as EN 55035.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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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 61000-6-3 has been prepared by CISPR subcommittee H: Limits for the protection of radio services.

This third edition cancels and replaces the second edition published in 2006 and its Amendment 1:2010. This edition constitutes a technical revision.

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

a) alternative method for measuring conducted emissions on DC ports;
b) limits and requirements applicable only to equipment intended to be used in residential locations;
c) more stringent limits for DC power ports.

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

CDV	Report on voting
CIS/H/400/CDV	CIS/H/413/RVC

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

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in 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 "http://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 (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

Part 6: Generic standards

Part 9: Miscellaneous

Each part is further subdivided into several parts published either as International Standards or technical reports/specifications, 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: IEC 61000-6-1).

ELECTROMAGNETIC COMPATIBILITY (EMC) –

Part 6-3: Generic standards – Emission standard for equipment in residential environments

1 Scope

This generic EMC emission standard is applicable only if no relevant dedicated product or product family EMC emission standard has been published.

This part of IEC 61000 for emission requirements applies to electrical and electronic equipment intended for use at residential (see 3.1.14) locations. This part of IEC 61000 also applies to electrical and electronic equipment intended for use at other locations that do not fall within the scope of IEC 61000-6-8 or IEC 61000-6-4.

The intention is that all equipment used in the residential, commercial and light-industrial environments are covered by IEC 61000-6-3 or IEC 61000-6-8. If there is any doubt the requirements in IEC 61000-6-3 apply.

The conducted and radiated emission requirements in the frequency range up to 400 GHz are considered essential and have been selected to provide an adequate level of protection of radio reception in the defined electromagnetic environment. Not all disturbance phenomena have been included for testing purposes but only those considered relevant for the equipment intended to operate within the locations included within this document.

The emission requirements in this document are not intended to be applicable to the intentional transmissions and their harmonics from a radio transmitter as defined by the ITU.

NOTE 1 Safety considerations are not covered by this document.

NOTE 2 In special cases, situations will arise where the levels specified in this document will not offer adequate protection; for example where a sensitive receiver is used in close proximity to an equipment. In these instances, special mitigation measures can be employed.

NOTE 3 Disturbances generated in fault conditions of equipment are not covered by this document.

NOTE 4 As the requirements in this document are more stringent or equivalent to those requirements in IEC 61000-6-4 and IEC 61000-6-8, equipment fulfilling the requirements of this document comply with the requirements of IEC 61000-6-4 and IEC 61000-6-8.

2 Normative references

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.

IEC 61000-3-2:2018, *Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)*

IEC 61000-3-3:2013, *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*
IEC 61000-3-3:2013/AMD1:2017