BS EN 61000-3-2:2014



BSI Standards Publication

Electromagnetic compatibility (EMC)

Part 3-2: Limits — Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)

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National foreword

This British Standard is the UK implementation of EN 61000-3-2:2014. It is identical to IEC 61000-3-2:2014. It supersedes BS EN 61000-3-2:2006+A2:2009, which will be withdrawn on 30 June 2017.

The UK participation in its preparation was entrusted by Technical Committee GEL/210, EMC - Policy committee, to Subcommittee GEL/210/12, EMC basic, generic and low frequency phenomena Standardization.

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

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Elektromagnetische Verträglichkeit (EMV) - Teil 3-2: Grenzwerte - Grenzwerte für Oberschwingungsströme (Geräte-Eingangsstrom ≤ 16 A je Leiter) (IEC 61000-3-2:2014)

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European Committee for Electrotechnical Standardization
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Foreword

The text of document 77A/846/FDIS, future edition 4 of IEC 61000-3-2, prepared by SC 77A, "Low-frequency phenomena", of IEC TC 77, "Electromagnetic compatibility" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61000-3-2:2014.

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)	2015-03-30
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-06-30

This document supersedes EN 61000-3-2:2006.

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

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

Endorsement notice

The text of the International Standard IEC 61000-3-2:2014 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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 60050-131	-	International Electrotechnical Vocabulary (IEV) -- Part 131: Circuit theory	-	-
IEC 60050-161	-	International Electrotechnical Vocabulary (IEV) -- Chapter 161: Electromagnetic compatibility	-	-
IEC 60107-1	-	Methods of measurement on receivers for television broadcast transmissions -- Part 1: General considerations - Measurements at radio and video frequencies	EN 60107-1	-
IEC 60155	-	Glow-starters for fluorescent lamps	EN 60155	-
IEC 60268-1	1985	Sound system equipment -- Part 1: General	HD 483.1 S2	1989
IEC 60268-3	-	Sound system equipment -- Part 3: Amplifiers (GMT)	EN 60268-3	-
IEC 60335-2-2	-	Household and similar electrical appliances - Safety -- Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances	EN 60335-2-2	-
IEC 60335-2-14	-	Household and similar electrical appliances - Safety -- Part 2-14: Particular requirements for kitchen machines	EN 60335-2-14	-
IEC 60335-2-24	2010	Household and similar electrical appliances - Safety -- Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice makers	EN 60335-2-24	2010
IEC 60335-2-79	-	Household and similar electrical appliances - Safety -- Part 2-79: Particular requirements for high pressure cleaners and steam cleaners	EN 60335-2-79	-
IEC 60974-1	-	Arc welding equipment -- Part 1: Welding power sources	EN 60974-1	-
IEC 61000-2-2	-	Electromagnetic compatibility (EMC) -- Part 2-2: Environment - Compatibility levels for low-frequency conducted disturbances and signalling in public low-voltage power supply systems	EN 61000-2-2	-
IEC 61000-3-12	-	Electromagnetic compatibility (EMC) -- Part 3-12: Limits - Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase	EN 61000-3-12	-

IEC 61000-4-7	-	Electromagnetic compatibility (EMC) -- Part 4-7: Testing and measurement techniques - General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto	EN 61000-4-7	-
IEC/TS 61000-3-4	-	Electromagnetic compatibility (EMC) -- Part 3-4: Limits - Limitation of emission of harmonic currents in low-voltage power supply systems for equipment with rated current greater than 16 A	-	-
ITU-R BT.471-1	-	Nomenclature and description of colour bar signals	-	-

Annex ZZ
(informative)

Coverage of Essential Requirements of EU 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 protection requirements of Annex I Article 1(a) of the EU Directive 2004/108/EC and protection requirements of Article 3.1(b) (emissions only) of the EU 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 EU Directives may be applicable to the products falling within the scope of this standard.

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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 levels

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 sections which are to be published either as international standards, technical specifications, or as technical reports.

These standards and reports will be published in chronological order and numbered accordingly (for example, 61000-6-1).

This part is an international standard which gives emission limits for harmonic currents from equipment having an input current up to and including 16 A per phase.

This part is a Product Family Standard.

ELECTROMAGNETIC COMPATIBILITY (EMC) –

Part 3-2: Limits – Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)

1 Scope

This part of IEC 61000 deals with the limitation of harmonic currents injected into the public supply system.

It specifies limits of harmonic components of the input current which may be produced by equipment tested under specified conditions.

Harmonic components are measured according to Annexes A and B.

This part of IEC 61000 is applicable to electrical and electronic equipment having an input current up to and including 16 A per phase, and intended to be connected to public low-voltage distribution systems.

Arc welding equipment which is not professional equipment, with input current up to and including 16 A per phase, is included in this standard.

Arc welding equipment intended for professional use, as specified in IEC 60974-1, is excluded from this standard and may be subject to installation restrictions as indicated in IEC/TR 61000-3-4 or IEC 61000-3-12.

The tests according to this standard are type tests. Test conditions for particular equipment are given in Annex C.

For systems with nominal voltages less than 220 V (line-to-neutral), the limits have not yet been considered.

NOTE The words apparatus, appliance, device and equipment are used throughout this standard. They have the same meaning for the purpose of this standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050-131, *International Electrotechnical Vocabulary (IEV) – Part 131: Electric and magnetic circuits*

IEC 60050-161, *International Electrotechnical Vocabulary (IEV) – Part 161: Electro-magnetic compatibility*

IEC 60107-1, *Methods of measurement on receivers for television broadcast transmissions – Part 1: General considerations – Measurements at radio and video frequencies*

IEC 60155, *Glow-starters for fluorescent lamps*