BS EN IEC 55014-2:2021

BSI Standards Publication

Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus

Part 2: Immunity — Product family standard

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National foreword

This British Standard is the UK implementation of EN IEC 55014-2:2021. It is identical to CISPR 14-2:2020. It supersedes BS EN 55014-2:2015, which will be withdrawn on 5 October 2023.

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

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Amendments/corrigenda issued since publication

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 55014-2

March 2021

ICS 33.100.20

Supersedes EN 55014-2:2015 and all of its amendments and corrigenda (if any)

English Version

Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard (CISPR 14-2:2020)

Compatibilité électromagnétique - Exigences relatives aux appareils électrodomestiques, outillages électriques et appareils analogues - Partie 2: Immunité - Norme de famille de produits (CISPR 14-2:2020)

Elektromagnetische Verträglichkeit - Anforderungen an Haushaltgeräte, Elektrowerkzeuge und ähnliche Elektrogeräte - Teil 2: Störfestigkeit - Produktfamiliennorm (CISPR 14-2:2020)

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European foreword

The text of document CIS/F/795/FDIS, future edition 3 of CISPR 14-2, prepared by CISPR SC F "Interference relating to household appliances tools, lighting equipment and similar apparatus" of CISPR "International special committee on radio interference" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 55014-2:2021.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-10-05

This document supersedes EN 55014-2:2015 and all of its amendments and corrigenda (if any).

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Endorsement notice

The text of the International Standard CISPR 14-2:2020 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 60335-1:2010	NOTE	Harmonized as EN 60335-1:2012 (modified)
IEC 60335-1:2010/A1:2013	NOTE	Harmonized as EN 60335-1:2012/A1:2019 (modified)
IEC 60335-1:2010/A2:2016	NOTE	Harmonized as EN 60335-1:2012/A2:2019 (modified)
IEC 61000-6-1:2016	NOTE	Harmonized as EN IEC 61000-6-1:2019 (not modified)
IEC 61547	NOTE	Harmonized as EN 61547
CISPR 16-2-3:2016	NOTE	Harmonized as EN 55016-2-3:2017 (not modified)
CISPR 32:2015	NOTE	Harmonized as EN 55032:2015 (not modified)
CISPR 35	NOTE	Harmonized as EN 55035

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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. Chapter 161: Electromagnetic compatibility	-	-
IEC 61000-4-2	2008	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2	2009
IEC 61000-4-3	2006	Electromagnetic compatibility (EMC) - Part 4-3 : Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3	2006
+ A1	2007		+ A1	2008
+ A2	2010		+ A2	2010
IEC 61000-4-4	2012	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4	2012
IEC 61000-4-5	2014	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	2014
+ A1	2017		+ A1	2017
IEC 61000-4-6	2013	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6	2014

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Publication	Year	Title	EN/HD	Year
IEC 61000-4-11	2020	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase	EN IEC 61000-4-11	2020
IEC 61000-4-20	2010	Electromagnetic compatibility (EMC) - Part 4-20: Testing and measurement techniques - Emission and immunity testing in transverse electromagnetic (TEM) waveguides	EN 61000-4-20	2010
IEC 61000-4-22	2010	Electromagnetic compatibility (EMC) - Part 4-22: Testing and measurement techniques - Radiated emissions and immunity measurements in fully anechoic rooms (FARs)	EN 61000-4-22	2011
CISPR 14-1	2020	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission	EN IEC 55014-1	2021

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

ELECTROMAGNETIC COMPATIBILITY – REQUIREMENTS FOR HOUSEHOLD APPLIANCES, ELECTRIC TOOLS AND SIMILAR APPARATUS –

Part 2: Immunity – Product family standard

FOREWORD

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International Standard CISPR 14-2 has been prepared by CISPR subcommittee F: Interference relating to household appliances tools, lighting equipment and similar apparatus.

This third edition cancels and replaces the second edition published in 2015. This edition constitutes a technical revision.

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

a) extension of the frequency range for radiated immunity above 1 GHz;
b) an advanced categorisation of equipment;
c) revision of general test conditions and addition of new specific test conditions (e.g. for robotic equipment);
d) clarification of requirements applicable to equipment incorporating radio functions;

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e) addition of requirements for wired network ports;

f) revision of definitions and addition of new ones;

g) delete requirements referring to statistical evaluation;

h) alignment with CISPR 14-1, where applicable.

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

FDIS	Report on voting
CIS/F/795/FDIS	CIS/F/797/RVD

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

A list of all parts in the CISPR 14 series, published under the general title *Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus*, can be found on the IEC website.

This document has the status of a product family standard.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

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INTRODUCTION

The intention of this document is to establish uniform requirements for the electromagnetic immunity of the equipment mentioned in the scope, to fix test specifications of immunity, to refer to basic standards for methods of testing, and to standardize operating conditions, performance criteria and interpretation of results.

Keywords: Immunity, household appliances, electric apparatus, electromagnetic compatibility.

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ELECTROMAGNETIC COMPATIBILITY – REQUIREMENTS FOR HOUSEHOLD APPLIANCES, ELECTRIC TOOLS AND SIMILAR APPARATUS –

Part 2: Immunity – Product family standard

1 Scope

This part of CISPR 14 specifies the electromagnetic immunity requirements in the frequency range 0 Hz to 400 GHz that apply to appliances, electric tools and similar apparatus as specified below, whether powered by AC or DC (including a battery).

This document specifies immunity requirements for continuous and transient electromagnetic disturbances, both conducted and radiated.

Unless otherwise specified, this document is applicable to all equipment in the scope of CISPR 14-1, namely:

- household appliances or similar apparatus;

  NOTE 1 Examples are equipment used:

  – for typical housekeeping functions in the household environment, which includes the dwelling and its associated buildings, the garden, etc.;
  – for typical housekeeping functions in shops, offices, commercial and other similar working environments;
  – on farms;
  – by clients in hotels and other residential type environments;
  – for induction cooking or air conditioning, either in residential or commercial environments.

- electric tools;

  NOTE 2 Examples of electric tools include electric motor-operated or electromagnetically driven hand-held tools, transportable tools, lawn and garden machinery.

- similar apparatus;

  NOTE 3 Examples are:

  – external power controllers using semiconductor devices;
  – motor-driven electro-medical equipment;
  – electric/electronic toys;
  – personal care and beauty care appliances;
  – automatic goods-dispensing machines;
  – entertainment machines;
  – cine or slide projectors;
  – battery chargers and external power supplies for use with products under the scope of this document;
  – electric fence energisers.

Included in the scope of this document are also microwave ovens for domestic use or catering.

Equipment which incorporate radio transmit/receive functions are included in the scope of this document.

NOTE 4 For handling cases where equipment under the scope of this document is combined with transmit and/or receive radio functions, see Clause 8.

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