

SLOVENSKI STANDARD SIST EN 55014-1:2007/A2:2011

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Elektromagnetna združljivost - Zahteve za (električne) gospodinjske aparate, električna ročna orodja in podobne aparate - 1. del: Oddajanje (CISPR 14-1:2005/A2:2011)

Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission

Elektromagnetische Verträglichkeit Anforderungen an Haushaltgeräte, Elektrowerkzeuge und ähnliche Elektrogeräte - Teil 1: Störaussendung (standards.iteh.ai)

Compatibilité électromagnétique - Exigences pour les appareils électrodomestiques, outillages électriques et appareils analogues - Partie 1: Emission 8-8ab6-

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EUROPEAN STANDARD

EN 55014-1/A2

NORME FUROPÉENNE **EUROPÄISCHE NORM**

September 2011

ICS 33.100.10

English version

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

Part 1: Emission (CISPR 14-1:2005/A2:2011)

Compatibilité électromagnétique -Exigences pour les appareils électrodomestiques, outillages électriques et appareils analogues -Partie 1: Emission (CISPR 14-1:2005/A2:2011) TANDARD P(CISPR 14-1:2005/A2:2011)

Elektromagnetische Verträglichkeit -Anforderungen an Haushaltgeräte, Elektrowerkzeuge und ähnliche Elektrogeräte -Teil 1: Störaussendung

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SIST EN 55014-1:2007/A2:2011

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CENELEC

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

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Foreword

The text of document CISPR/F/537/FDIS, future edition 5 of CISPR 14-1:2005/A2, prepared by CISPR SC F, "Interference relating to household appliances, tools, lighting equipment and similar apparatus" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 55014-1:2006/A2:2011.

The following dates are fixed:

document have to be withdrawn

| • | latest date by which the document has | (dop) | 2012-05-16 |
|---|--|-------|------------|
| | to be implemented at national level by | | |
| | publication of an identical national | | |
| | standard or by endorsement | | |
| • | latest date by which the national | (dow) | 2014-08-16 |
| | standards conflicting with the | | |

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The text of the International Standard CISPR 14-1:2005/A2:2011 was approved by CENELEC as a European Standard without any modification. ards. iteh.ai)

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CISPR 14-1

Edition 5.0 2011-07

INTERNATIONAL **STANDARD**

NORME INTERNATIONALE

INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

COMITÉ INTERNATIONAL SPÉCIAL DES PERTURBATIONS RADIOÉLECTRIQUES

AMENDMENT 2

AMENDEMENT 2 iTeh STANDARD PREVIEW

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Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus ich ai/catalog/standards/sist/ed2ca4e9-49d3-4c58-8ab6-

Part 1: Emission 119e16cbb95b/sist-en-55014-1-2007-a2-2011

Compatibilité électromagnétique – Exigences pour les appareils électrodomestiques, outillages électriques et appareils analogues -Partie 1: Emission

INTERNATIONAL **ELECTROTECHNICAL COMMISSION**

COMMISSION **ELECTROTECHNIQUE INTERNATIONALE**

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CISPR 14-1 Amend, 2 © IEC:2011

FOREWORD

– 2 –

This amendment has been prepared by CISPR subcommittee F: Interference relating to household appliances tools, lighting equipment and similar apparatus.

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

| FDIS | Report on voting |
|------------------|------------------|
| CISPR/F/537/FDIS | CISPR/F/546/RVD |

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

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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Replace the existing Annexes B and C by the following new Annexes B and C:

Annex B (normative) Requirements for induction cooking appliances

Annex C (informative) Example of the use of the upper quartile method to determine compliance with disturbance limits

Add the following new Annex D:

Annex D (informative) Guidance notes for the measurement of discontinuous disturbance (clicks)

Add the following new Tables B.1, B.2 and B.3:

Table B.1 – Terminal voltage limits for induction cooking appliances in the frequency range 9 kHz to 30 MHz

Table B.2 – Magnetic field strength limits for induction cooking appliances intended for commercial use

Table B.3 – Limits of the magnetic field induced current in a 2 m loop antenna for induction cooking appliances for domestic use

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1 Scope

Replace the existing first paragraph of this subclause by the following new paragraph:

1.1 This standard applies to the conduction and radiation of radio-frequency disturbances from appliances whose main functions are performed by motors, switching or regulating devices, or by r.f. generators used in induction cooking appliances.

Replace the fourth dashed item of the existing Note 1 by the following new dashed item:

 equipment for generation and use of radio frequency energy for heating (other than induction cooking) and therapeutic purposes: CISPR 11;

Add, after the existing Note 2, the following new Note 3:

NOTE 3 Until induction cooking appliances are removed from the scope of CISPR 11, either CISPR 11 or CISPR 14-1 may be chosen for compliance.

4 Limits of disturbance

Add, after the first sentence of this clause, the following new text:

The requirements for induction cooking appliances are given in Annex B. (standards.iteh.ai)

7.3.4.15

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Add, after the first paragraph of this subclause introduced by Amendment 1 – the following new paragraph: 119e16cbb95b/sist-en-55014-1-2007-a2-2011

In case of the rice cooker operating in induction heating function, measurement shall be made under the condition of maximum input power and the same conditions as specified in Annex B.

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Renumber the existing Annexes B and C, their existing clauses and subclauses, to have Annexes C and D respectively.

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Add, after the existing Annex A, the following new Annex B:

Annex B (normative)

Requirements for induction cooking appliances

B.1 Limits of disturbance

B.1.1 General

Radio disturbance measurements below 9 kHz and above 1 000 MHz do not need to be carried out.

B.1.2 Limits for terminal disturbance voltages in the frequency range 9 kHz to 30 MHz Limits for mains terminal disturbance voltages are given in Table B.1.

Table B.1 – Terminal voltage limits for induction cooking appliances https://stainatheufrequencyaranges9/kHzato930/MHz58-8ab6-119e16cbb95b/sist-en-55014-1-2007-a2-2011

| Frequency range | | | All appliances which are 100 V rated and without an earth connection | |
|-----------------|--|--|--|--|
| (MHz) | dB(μV) Quasi-peak | dB(μV) Average | dB(μV) Quasi-peak | dB(μV) Average |
| 0,009 - 0,050 | 110 | _ | 122 | - |
| 0,050 - 0,150 | 90 Decreasing linearly with logarithm of frequency to 80 | - | 102 Decreasing linearly with logarithm of frequency to 92 | - |
| 0,150 - 0,5 | 66 Decreasing linearly with logarithm of frequency to 56 | 56 Decreasing linearly with logarithm of frequency to 46 | 72 Decreasing linearly with logarithm of frequency to 62 | 62 Decreasing linearly with logarithm of frequency to 52 |
| 0,5 - 5 | 56 | 46 | 56 | 46 |
| 5 – 30 | 60 | 50 | 60 | 50 |

B.1.3 Limits for radiated disturbances in the frequency range 9 kHz to 30 MHz

The limits for radiated disturbances are specified in the Tables B.2 and B.3.

Table B.2 – Magnetic field strength limits for induction cooking appliances intended for commercial use

| Frequency range MHz | Limits at 3 m distance Quasi-peak dB(μA/m) |
|------------------------|--|
| 0,009 - 0,070 | 69 |
| 0,070 - 0,150 | 69 Decreasing linearly with logarithm of frequency to 39 |
| 0,150 - 4,0 | 39 Decreasing linearly with logarithm of frequency to 3 |
| 4,0 - 30 | 3 |

NOTE 1 The limits of this table apply to induction cooking appliances intended for commercial use and those for domestic use with a diagonal diameter of more than 1,6 m.

NOTE 2 The measurements are performed at 3 m distance with a 0,6 m loop antenna as described in 4.2.1 of CISPR 16-1-4.

NOTE 3 The antenna shall be vertically installed, with the lower edge of the loop at 1 m height above the floor.

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Table B.3 – Limits of the magnetic field induced current in a 2 m loop antenna for induction cooking appliances for domestic use https://standards.iteh.ai/catalog/standards/sist/ed2ca4e9-49d3-4c58-8ab6-

| Frequency range | 119e16cbb95b/sist-en-55014-1-20 Quasi-peak dB(μA) | | |
|-----------------|---|---|--|
| IVITZ | Horizontal component | Vertical component | |
| 0,009 - 0,070 | 88 | 106 | |
| 0,070 - 0,150 | 88 Decreasing linearly with logarithm of frequency to 58 | 106 Decreasing linearly with logarithm of frequency to 76 | |
| 0,150 – 30 | 58 Decreasing linearly with logarithm of frequency to 22 | 76 Decreasing linearly with logarithm of frequency to 40 | |

NOTE 1 The limits of this table apply to induction cooking appliances for domestic use which have a diagonal dimension of less than $1,6~\mathrm{m}$.

NOTE 2 The measurement is performed using the loop antenna system (LAS) as described in 7.6 of CISPR 16-2-3.

B.1.4 Limits for emissions in the frequency range 30 MHz to 1 000 MHz

Limits for the emissions of induction cooking appliances in the frequency range 30 MHz to 1 000 MHz are given in subclause 4.1.2.

B.2 Methods of measurement

The methods of measurement of terminal disturbance voltage are given in Clause 5.