SLOVENSKI STANDARD
SIST EN 55011:2010/A1:2010

01-november-2010

Industrijska, znanstvena in medicinska oprema - Karakteristike občutljivosti za radijske motnje - Mejne vrednosti in merilne metode - Dopolnilo A1

Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement

Industrielle, wissenschaftliche und medizinische Geräte - Funkstörungen - Grenzwerte und Messverfahren

Appareils industriels, scientifiques et médicaux - Caractéristiques des perturbations radioélectriques - Limites et méthodes de mesure

Ta slovenski standard je istoveten z: **EN 55011:2009/A1:2010**

ICS:

33.100.10 Emisija Emission

SIST EN 55011:2010/A1:2010 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 55011/A1

July 2010

ICS 33.100.10

English version

Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement
(CISPR 11:2009/A1:2010)

Appareils industriels, scientifiques et médicaux -
Caractéristiques des perturbations radioélectriques -
Limites et méthodes de mesure
(CISPR 11:2009/A1:2010)

Industrielle, wissenschaftliche und medizinische Geräte -
Funkstörungen -
Grenzwerte und Messverfahren
(CISPR 11:2009/A1:2010)

This amendment A1 modifies the European Standard EN 55011:2009; it was approved by CENELEC on 2010-07-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 55011:2009/A1:2010 E

Foreword

The text of document CISPR/B/492/FDIS, future amendment 1 to CISPR 11:2009, prepared by CISPR SC B, Interference relating to industrial, scientific and medical radio-frequency apparatus, to other (heavy) industrial equipment, to overhead power lines, to high voltage equipment and to electric traction, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 55011:2009 on 2010-07-01.

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

The following dates were fixed:

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2011-04-01
– latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2013-07-01

Endorsement notice

The text of amendment 1:2010 to the International Standard CISPR 11:2009 was approved by CENELEC as an amendment to the European Standard without any modification.

In EN 55011:2009, for Bibliography, the following note has to be added for the standard indicated:

[12] CISPR 14-1 NOTE Harmonized as EN 55014-1.

CISPR 11

Edition 5.0 2010-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE
COMITÉ INTERNATIONAL SPÉCIAL DES PERTURBATIONS RADIOÉLECTRIQUES

AMENDMENT 1
AMENDEMENT 1

Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement

Appareils industriels, scientifiques et médicaux – Caractéristiques de perturbations radioélectriques – Limites et méthodes de mesure

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE
CODE PRIX

G

ICS 33.100.10

ISBN 2-8318-1082-4

FOREWORD

This amendment has been prepared by CISPR subcommittee B: Interference relating to industrial, scientific and medical radio-frequency apparatus, to other (heavy) industrial equipment, to overhead power lines, to high voltage equipment and to electric traction.

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

FDIS	Report on voting
CISPR/B/492/FDIS	CISPR/B/496/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 amendment and the base 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.

Foreword

*In the third paragraph starting with "*This fifth edition of CISPR 11 got a more ….", *change the reference to* CISPR 16-4-4 *to* CISPR 16-4-2.

1 Scope

Add the following note at the end of Clause 1:

NOTE Induction cooking appliances are in the process of being transferred from CISPR 11 to CISPR 14-1. Until the removal of induction cooking appliances from the scope of CISPR 11, users of the standards may choose either CISPR 11 or CISPR 14-1 for testing.

3 Terms and definitions

Add, after term and Definition 3.9, the following new term and definition:

3.10
small equipment
equipment, either positioned on a table top or standing on the floor which, including its cables fits in a cylindrical test volume of 1,2 m in diameter and 1,5 m above the ground plane

6.2.2.3 Frequency range 150 kHz to 1 GHz

Replace the third paragraph as follows:

On a test site, class A equipment can be measured at a nominal distance of 3 m, 10 m or 30 m (see information in Table 4), and class B equipment at a nominal distance of 3 m or 10 m (see information in Table 5). A measuring distance less than 10 m is allowed only for equipment which complies with the definition given in 3.10.

Add, after the third paragraph, the following new paragraph:

The limits specified for the 3 m separation distance apply to small equipment only.

Replace the existing Table 4 by the following:

Table 4 – Electromagnetic radiation disturbance limits for class A group 1 equipment measured on a test site

Frequency range MHz	**10 m measuring distance** **rated input power of**		**3 m measuring distance** [b] **rated input power of**	
	≤ 20 kVA	**> 20 kVA** [a]	**≤ 20 kVA**	**> 20 kVA** [a]
	Quasi-peak dB(μV/m)	**Quasi-peak** dB(μV/m)	**Quasi-peak** dB(μV/m)	**Quasi-peak** dB(μV/m)
30 – 230	40	50	50	60
230 – 1 000	47	50	57	60

On a test site, class A equipment can be measured at a nominal distance of 3 m, 10 m or 30 m. A measuring distance less than 10 m is allowed only for equipment which complies with the definition given in 3.10. In case of measurements at a separation distance of 30 m, an inverse proportionality factor of 20 dB per decade shall be used to normalize the measured data to the specified distance for determining compliance.

At the transition frequency, the more stringent limit shall apply.

[a] These limits apply to equipment with a rated input power of > 20 kVA and intended to be used at locations where there is a distance greater than 30 m between the equipment and third party sensitive radio communications. The manufacturer shall indicate in the technical documentation that this equipment is intended to be used at locations where the separation distance to third party sensitive radio services is > 30 m. If these conditions are not met, then the limits for ≤ 20 kVA apply.

[b] The limits specified for the 3 m separation distance apply only to small equipment meeting the size criterion defined in 3.10.

Replace the existing Table 5 by the following:

Table 5 – Electromagnetic radiation disturbance limits for class B group 1 equipment measured on a test site

Frequency range MHz	**10 m measuring distance**	**3 m measuring distance** [a]
	Quasi-peak dB(μV/m)	**Quasi-peak** dB(μV/m)
30 – 230	30	40
230 – 1 000	37	47

On a test site, class B equipment can be measured at a nominal distance of 3 m or 10 m. A measuring distance less than 10 m is allowed only for equipment which complies with the definition given in 3.10.

At the transition frequency, the more stringent limit shall apply.

[a] The limits specified for the 3 m separation distance apply only to small equipment meeting the size criterion defined in 3.10.

6.3.2.3 Frequency range 150 kHz to 1 GHz

Replace the tenth paragraph as follows:

On a test site, class A equipment can be measured at a nominal distance of 3 m, 10 m or 30 m, and class B equipment at a nominal distance of 3 m or 10 m (see Tables 9 and 11).

A measuring distance less than 10 m is allowed only for equipment which complies with the definition given in 3.10.

Add the following new paragraph eleven:

The limits specified for the 3 m separation distance apply to *small equipment* only.

Replace the existing Table 9 by the following:

Table 9 – Electromagnetic radiation disturbance limits for class A group 2 equipment measured on a test site

Frequency range MHz	Limits for a measuring distance *D* in m					
	On a test site *D* = 30 m from the equipment		On a test site *D* = 10 m from the equipment		On a test site *D* = 3 m from the equipment [a]	
	Electric field Quasi-peak dB(μV/m)	Magnetic field Quasi-peak dB(μA/m)	Electric field Quasi-peak dB(μV/m)	Magnetic field Quasi-peak dB(μA/m)	Electric field Quasi-peak dB(μV/m)	Magnetic field Quasi-peak dB(μA/m)
0,15 – 0,49	–	33,5	–	57,5	–	57,5
0,49 – 1,705	–	23,5	–	47,5	–	47,5
1,705 – 2,194	–	28,5	–	52,5	–	52,5
2,194 – 3,95	–	23,5	–	43,5	–	43,5
3,95 – 20	–	8,5	–	18,5	–	18,5
20 – 30	–	–1,5	–	8,5	–	8,5
30 – 47	58	–	68	–	78	–
47 – 53,91	40	–	50	–	60	–
53,91 – 54,56	40	–	50	–	60	–
54,56 – 68	40	–	50	–	60	–
68 – 80,872	53	–	63	–	73	–
80,872 – 81,848	68	–	78	–	88	–
81,848 – 87	53	–	63	–	73	–
87 – 134,786	50	–	60	–	70	–
134,786 – 136,414	60	–	70	–	80	–
136,414 – 156	50	–	60	–	70	–
156 – 174	64	–	74	–	84	–
174 – 188,7	40	–	50	–	60	–
188,7 – 190,979	50	–	60	–	70	–
190,979 – 230	40	–	50	–	60	–
230 – 400	50	–	60	–	70	–
400 – 470	53	–	63	–	73	–
470 – 1 000	50	–	60	–	70	–

On a test site, class A equipment can be measured at a nominal distance of 3 m, 10 m or 30 m. A measuring distance less than 10 m is allowed only for equipment which complies with the definition given in 3.10.

At the transition frequency, the more stringent limit shall apply.

[a] The limits specified for the 3 m separation distance apply only to small equipment meeting the size criterion defined in 3.10.