SVENSK STANDARD SS-EN 61547

Fastställd	Utgåva	Sida	Ansvarig kommitté
2009-09-28	2	1 (1+17)	SEK TK 34

Belysningsmateriel för allmän användning – Elektromagnetisk kompatibilitet (EMC) – Immunitet

Equipment for general lighting purposes – EMC immunity requirements

Som svensk standard gäller europastandarden EN 61547:2009. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61547:2009.

Nationellt förord

Europastandarden EN 61547:2009

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 61547, Second edition, 2009 - Equipment for general lighting purposes - EMC immunity requirements**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61547, utgåva 1, 1996 och SS-EN 61547/A1, utgåva 1, 2001, gäller ej fr o m 2012-07-01.

ICS 29.020; 29.140; 33.100.10

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61547

August 2009

ICS 29.020; 29.140; 33.100.10

Supersedes EN 61547:1995 + A1:2000

English version

Equipment for general lighting purposes - EMC immunity requirements

(IEC 61547:2009)

Equipements pour l'éclairage à usage général - Exigences concernant l'immunité CEM (CEI 61547:2009)

Einrichtungen für allgemeine Beleuchtungszwecke - EMV-Störfestigkeitsanforderungen (IEC 61547:2009)

CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 61547:2009 E

SEK Svensk Elstandard

Foreword

The text of document 34/127/FDIS, future edition 2 of IEC 61547, prepared by IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61547 on 2009-07-01.

This European Standard supersedes EN 61547:1995 + A1:2000.

The main reason for this revision is to update the dates of the references to the basic standards which also required some editorial changes in the tables. Other changes are:

1 Scope: clearly excludes multimedia equipment with lamps (e.g. TV);

3.2 Enclosure port: removal of the “earth port” in Figure 1 as in the generic EMC standards; the note below Figure 1 in EN 61547:1995 relates to a requirement and moved to the main text under 5.1 General;

5.6 Injected currents: update of the names of the example CDN’s;

5.7 Surges: test only at the peak of the mains voltage by deleting the requirement to test at zero crossings;

5.8 Voltage dips and interruptions: clarifying that the voltage level changes at the zero crossing;

6.3.2 Independent auxiliaries: Table 14 has been simplified because most independent auxiliaries have identical performance criteria;

6.3.3 Luminaires: Table 15 has been simplified because most luminaires have identical performance criteria; correcting the error in the injected current column by changing the B into A for luminaires with electronic ballast for discharge lamps; additionally, the requirements for emergency luminaires operating in high risk task areas are updated to meet the levels specified in EN 60598-2-22;

7 Conditions during testing: the “under consideration” for the operating conditions for starting devices has been deleted; the supply voltage and frequency during the test are clearly stated; shortening the immunity test for equipment incorporating a regulating control by testing at one light output level (50 % ± 10 %) instead of testing at three light output levels which are difficult to adjust and do not provide extra protection.

This standard is to be read in conjunction with the relevant basic and/or product standard(s).

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2010-04-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2012-07-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive EMC (2004/108/EC). See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61547:2009 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 referenced documents are indispensable for the application 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.

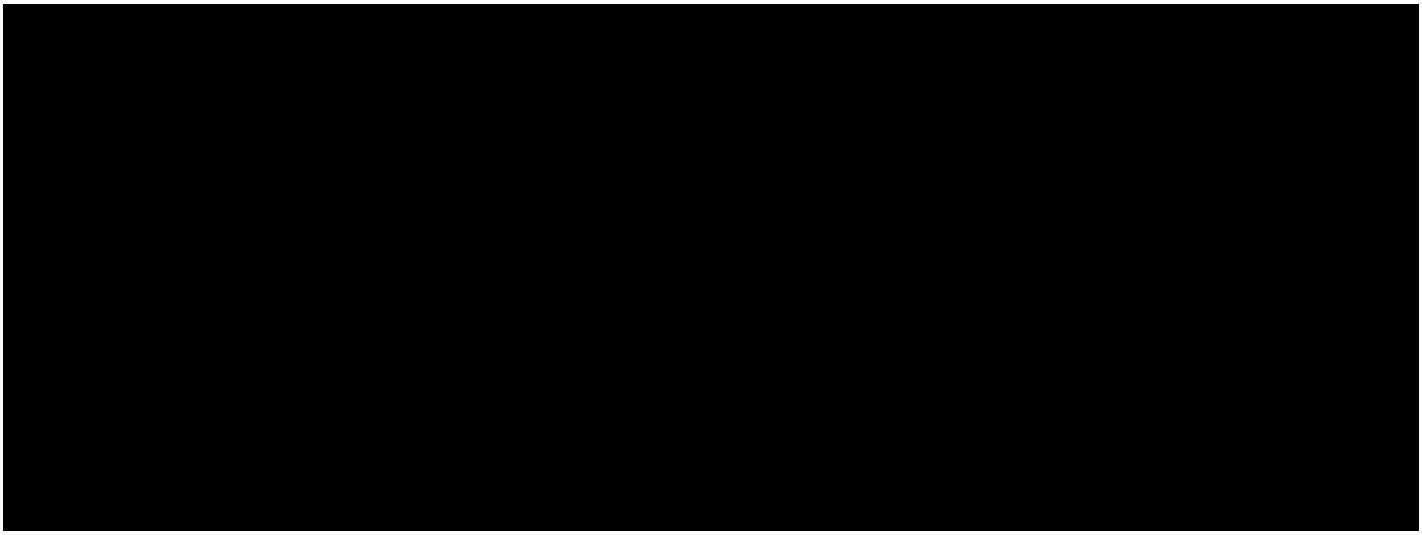
NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60050-161	-[1)]	International Electrotechnical Vocabulary (IEV) - Chapter 161: Electromagnetic compatibility	-	-
IEC 60050-845	-[1)]	International Electrotechnical Vocabulary (IEV) - Chapter 845: Lighting	-	-
IEC 60598-1 (mod)	2008	Luminaires - Part 1: General requirements and tests	EN 60598-1 A11	2008 2009
IEC 60598-2-22 (mod)	-[1)]	Luminaires - Part 2-22: Particular requirements - Luminaires for emergency lighting	EN 60598-2-22 + corr. October	1998[2)] 2007
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 A1	2006 2007	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3 A1 IS1	2006 2008 2009
IEC 61000-4-4	2004	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4	2004
IEC 61000-4-5	2005	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	2006
IEC 61000-4-6	2008	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6	2009
IEC 61000-4-8 A1	1993 2000	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	EN 61000-4-8 A1	1993 2001

[1)] Undated reference.

[2)] Valid edition at date of issue.

Publication	Year	Title	EN/HD	Year
IEC 61000-4-11	2004	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	EN 61000-4-11	2004
IEC 61000-6-1	2005	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments	EN 61000-6-1	2007



CONTENTS

EQUIPMENT FOR GENERAL LIGHTING PURPOSES – EMC IMMUNITY REQUIREMENTS

1 Scope

This International Standard for electromagnetic immunity requirements applies to lighting equipment which is within the scope of IEC technical committee 34, such as lamps, auxiliaries and luminaires, intended either for connecting to a low voltage electricity supply or for battery operation.

Excluded from the scope of this standard is equipment for which the immunity requirements are formulated in other IEC or CISPR standards such as:

– lighting equipment for use in transport vehicles;
– entertainment lighting control equipment for professional purposes;
– lighting devices built into other equipment such as:
  - scale illumination or indicators;
  - photocopiers;
  - slide and overhead projectors;
  - multimedia equipment.

However, in multi-function equipment where the lighting part operates independently from other parts, the electromagnetic immunity requirements of this standard apply to the lighting part.

The requirements of this standard are based on the requirements for domestic, commercial and light-industrial environments as given in IEC 61000-6-1, but modified to lighting engineering practice.

It can be expected that lighting equipment complying with the requirements of this standard will operate satisfactorily in other environments. In some special cases, measures have to be taken to provide higher immunity. It is impracticable to deal with all these possibilities. Such requirements may be established by contractual agreement between supplier and purchaser.

2 Normative references

The following referenced documents are indispensable for the application 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 60050-161, *International Electrotechnical Vocabulary – Chapter 161: Electromagnetic Compatibility*

IEC 60050-845, *International Electrotechnical Vocabulary – Chapter 845: Lighting*

IEC 60598-1:2008, *Luminaires – Part 1: General requirements and tests*

IEC 60598-2-22, *Luminaires – Part 2-22: Particular requirements – Luminaires for emergency lighting*