
Krmilne stikalne naprave - 2-13. del: Posebne zahteve za enosmerno ali izmenično napajane krmilne stikalne naprave za module LED (IEC 61347-2-13:2006)

Lamp controlgear -- Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules

Geräte für Lampen -- Teil 2-13: Besondere Anforderungen an gleich- oder wechselstromversorgte elektronische Betriebsgeräte für LED-Module

Appareillages de lampes -- Partie 2-13: Exigences particulières pour les appareillages électroniques alimentés en courant continu ou alternatif pour les modules de DEL

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ICS:

29.130.01	Stikalne in krmilne naprave na splošno	Switchgear and controlgear in general
29.140.99	Drugi standardi v zvezi z žarnicami	Other standards related to lamps

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**Lamp controlgear
Part 2-13: Particular requirements
for d.c. or a.c. supplied electronic controlgear
for LED modules
(IEC 61347-2-13:2006)**

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(IEC 61347-2-13:2006)

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This European Standard was approved by CENELEC on 2006-07-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 European Standard 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.

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CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 34C/730/FDIS, future edition 1 of IEC 61347-2-13, prepared by SC 34C, Auxiliaries for lamps, of IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61347-2-13 on 2006-07-01.

This standard shall be used in conjunction with EN 61347-1:2001.

In this standard, the following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in smaller roman type;

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) 2007-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2009-07-01

Annex ZA has been added by CENELEC.

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Endorsement notice

SIST EN 61347-2-13:2007

The text of the International Standard IEC 61347-2-13:2006 was approved by CENELEC as a European Standard without any modification.

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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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60051	Series	Direct acting indicating analogue electrical measuring instruments and their accessories	EN 60051	Series
IEC 60065 (mod)	1985	Safety requirements for mains operated electronic and related apparatus for household and similar general use	EN 60065 ^{1) 2)} + A11	1993 1997
IEC/TR 60083	2004	Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC	-	-
IEC 60085	2004	Electrical insulation - Thermal classification	EN 60085	2004
IEC 60127	Series	Miniature fuses	EN 60127	Series
IEC 60269-2	1986	Low-voltage fuses	EN 60269-2	1995
A1	1995	Part 2: Supplementary requirements for fuses	A1	1998
A2	2001	for use by authorized persons (fuses mainly for industrial application)	A2	2002
IEC 60269-2-1 (mod)	2004	Low-voltage fuses Part 2-1: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) - Sections I to VI: Examples of types of standardized fuses	HD 60269-2-1	2005
IEC 60269-3	1987	Low-voltage fuses Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)	EN 60269-3	1995
IEC 60269-3-1 (mod)	2004	Low-voltage fuses Part 3-1: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications) - Sections I to IV: Examples of types of standardized fuses	HD 60269-3-1	2004
IEC 60317-0-1	1997	Specifications for particular types of winding wires Part 0-1: General requirements - Enamelled round copper wire	EN 60317-0-1	1998

¹⁾ EN 60065 includes A1 + A2 + A3 to IEC 60065 (mod).

²⁾ EN 60065 is superseded by EN 60065:2002, which is based on IEC 60065:2001(mod).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60384-14	2005	Fixed capacitors for use in electronic equipment Part 14: Sectional specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	EN 60384-14	2005
IEC 60417-DB	data-base	Graphical symbols for use on equipment	-	-
IEC 60454	Series	Specifications for pressure-sensitive adhesive tapes for electrical purposes	EN 60454	Series
IEC 60598-1 (mod)	2003	Luminaires Part 1: General requirements and tests	EN 60598-1	2004
IEC 60598-2-6	- ³⁾	Luminaires Part 2: Particular requirements - Section 6: Luminaires with built-in transformers or convertors for filament lamps	EN 60598-2-6	1994 ⁴⁾
IEC 60906	Series	IEC system of plugs and socket-outlets for household and similar purposes Part 1: Plugs and socket-outlets 16 A 250 V a.c.	-	-
IEC 60906-1	1986	IEC system of plugs and socket-outlets for household and similar purposes Part 1: Plugs and socket-outlets 16 A 250 V a.c.	-	-
IEC 60950-1 (mod)	2005	Information technology equipment - Safety Part 1: General requirements	EN 60950-1	2006
IEC 61347-1	2000	Lamp controlgear Part 1: General and safety requirements	EN 61347-1 + corr. July	2001 2003
A1	2003		-	-
IEC 61558-1 (mod)	1997	Safety of power transformers, power supply units and similar	EN 61558-1 ⁵⁾ + corr. April	1997 2003
A1	1998	Part 1: General requirements and tests	A1 A11	1998 2003

³⁾ Undated reference.

⁴⁾ Valid edition at date of issue.

⁵⁾ EN 61558-1 is superseded by EN 61558-1:2005, which is based on IEC 61558-1:2005.

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Partie 2-13:

Exigences particulières pour les appareillages
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Lamp controlgear –

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Part 2-13:

Particular requirements for d.c. or a.c. supplied
electronic controlgear for LED modules

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LAMP CONTROLGEAR –

**Part 2-13: Particular requirements for d.c. or a.c. supplied
electronic controlgear for LED modules**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61347-2-13 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

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

FDIS	Report on voting
34C/730/FDIS	34C/748/RVD

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

This standard shall be used in conjunction with IEC 61347-1. It was established on the basis of the first (2000) edition of that standard.

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

In this standard, the following print types are used:

- requirements: in roman type
- *test specifications: in italic type*
- notes: in small roman type

IEC 61347 consists of the following parts, under the general title *Lamp controlgear*:

- Part 1: General and safety requirements
- Part 2-1: Particular requirements for starting devices (other than glow starters)
- Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps
- Part 2-3: Particular requirements for a.c. supplied electronic ballasts for fluorescent lamps
- Part 2-4: Particular requirements for d.c. supplied electronic ballasts for general lighting
- Part 2-5: Particular requirements for d.c. supplied electronic ballasts for public transport lighting
- Part 2-6: Particular requirements for d.c. supplied electronic ballasts for aircraft lighting
- Part 2-7: Particular requirements for d.c. supplied electronic ballasts for emergency lighting
- Part 2-8: Particular requirements for ballasts for fluorescent lamps
- Part 2-9: Particular requirements for ballasts for discharge lamps (excluding fluorescent lamps)
- Part 2-10: Particular requirements for electronic invertors and convertors for high-frequency operation of cold start tubular discharge lamps (neon tubes)
- Part 2-11: Particular requirements for miscellaneous electronic circuits used with luminaires
- Part 2-12: Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps)
- Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules

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

INTRODUCTION

This standard, and the parts which make up IEC 61347-1, in referring to any of the clauses of IEC 61347-1 specify the extent to which such a clause is applicable and the order in which the tests are to be performed; they also include additional requirements as necessary. All parts which make up IEC 61347-2 are self-contained and therefore do not include references to each other.

Where the requirements of any of the clauses of IEC 61347-1 are referred to in this standard by the phrase “The requirements of Clause n of IEC 61347-1 apply”, this phrase is interpreted as meaning that all requirements of the clause in question of Part 1 apply, except any which are clearly inapplicable to the specific type of lamp controlgear covered by this particular part of IEC 61347-2.

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LAMP CONTROLGEAR –

Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules

1 Scope

This part of IEC 61347 specifies particular safety requirements for electronic controlgear for use on d.c. supplies up to 250 V and a.c. supplies up to 1 000 V at 50 Hz or 60 Hz and at an output frequency which can deviate from the supply frequency, associated with LED modules.

Controlgear for LED modules specified in this standard are designed to provide constant voltage or current at SELV or SELV equivalent or higher voltages. Deviations from the pure voltage and current types do not exclude the gear from this standard.

The annexes of IEC 61347-1 which are applicable according to this Part 2-13 and using the word “lamp” are understood to also comprise LED modules.

Particular requirements for stationary independent SELV controlgear, which are part of the wiring in installations, are given in Annex I.

Performance requirements will be covered by IEC 62384¹.

Plug-in controlgear, being part of the luminaire, are covered as for built-in controlgear by the additional requirements of the luminaire standard.

2 Normative references

For the purpose of this Part 2 of IEC 61347, the normative references given in Clause 2 of IEC 61347-1 which are mentioned in this standard apply, together with the following:

IEC 60051 (all parts), *Direct acting indicating analogue electrical measuring instruments and their accessories*

IEC 60065:1985, *Audio, video and similar electronic apparatus – Safety requirements*

IEC 60083:2004, *Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC*

IEC 60085:2004, *Electrical insulation – Thermal classification*

IEC 60127 (all parts), *Miniature fuses*

¹ To be published.