

**SLOVENSKI**  
**PREDSTANDARD**

**SIST EN 61347-  
1:2002/oprA2:2005**

december 2005

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**Krmilne stikalne naprave za sijalke – 1. del: Splošne in varnostne zahteve**

Lamp controlgear - Part 1: General and safety requirements

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ICS 29.140.99

Referenčna številka  
SIST EN 61347-1:2002/oprA2:2005(en)





# 34C/689/CDV

## COMMITTEE DRAFT FOR VOTE (CDV) PROJET DE COMITÉ POUR VOTE (CDV)

Project number Numéro de projet		IEC 61347-1 A2 Ed.1.0
IEC/TC or SC: <b>34C</b> CEI/CE ou SC:	Date of circulation Date de diffusion <b>2005-07-08</b>	Closing date for voting (Voting mandatory for P-members) Date de clôture du vote (Vote obligatoire pour les membres (P)) <b>2005-12-09</b>
Titre du CE/SC:		TC/SC Title: Auxiliaries for lamps
Secretary: Bernd Borchert, UK Secrétaire:		
Also of interest to the following committees Intéresse également les comités suivants		Supersedes document Remplace le document <b>34C/632/CDV, 34C/653/RVC</b>
Functions concerned Fonctions concernées <input type="checkbox"/> Safety Sécurité <input type="checkbox"/> EMC CEM <input type="checkbox"/> Environment Environnement <input type="checkbox"/> Quality assurance Assurance qualité		

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Titre : CEI 61347-1 A2: APPAREILLAGES DE LAMPES – Partie 1: Prescriptions générales et prescriptions de sécurité

Title : IEC 61347-1 A2 Lamp controlgear - General and safety requirements

Note d'introduction

Introductory note

<b>ATTENTION</b>	<b>ATTENTION</b>
<b>CDV soumis en parallèle au vote (CEI) et à l'enquête (CENELEC)</b>	<b>Parallel IEC CDV/CENELEC Enquiry</b>

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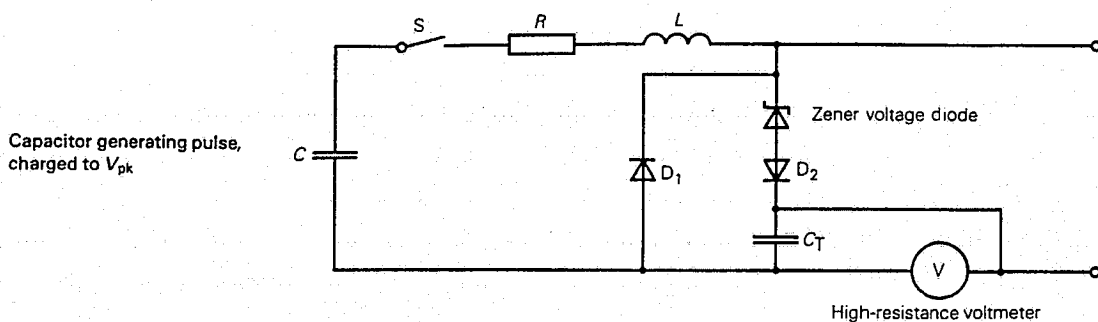
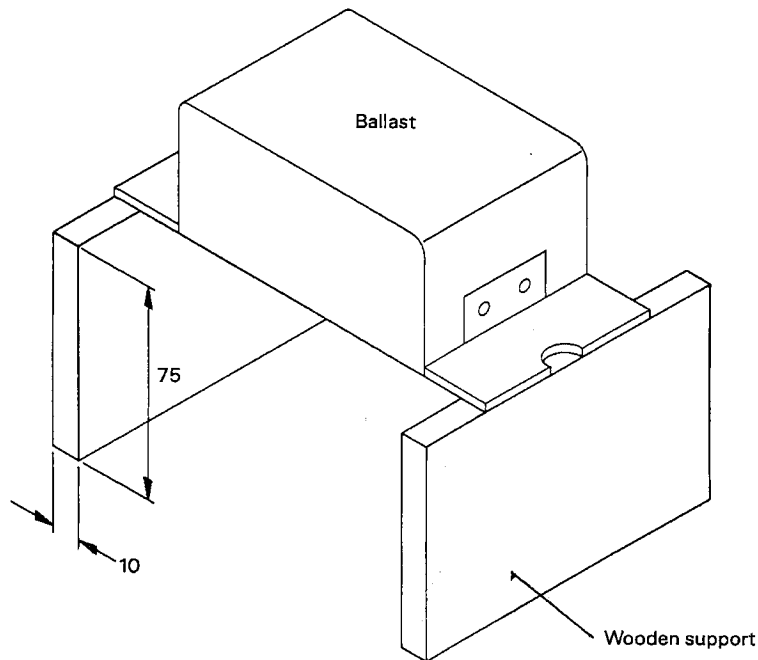


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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## LAMP CONTROLGEAR –

## Part 1: General and safety requirements

## FOREWORD

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International Standard IEC 61347-1 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

The relationship between the parts that make up IEC 61347-2 and the IEC standards they replace is detailed as follows:

- IEC 61347-2-1 replaces IEC 60926
- IEC 61347-2-2 replaces IEC 61046
- IEC 61347-2-3 replaces IEC 60928
- IEC 61347-2-4 replaces IEC 60924, Section 3
- IEC 61347-2-5 replaces IEC 60924, Section 4
- IEC 61347-2-6 replaces IEC 60924, Section 5
- IEC 61347-2-7 replaces IEC 60924, Section 6
- IEC 61347-2-8 replaces IEC 60920
- IEC 61347-2-9 replaces IEC 60922



This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

This part 1 is to be used in conjunction with the appropriate part 2, which contains clauses to supplement or modify the corresponding clauses in part 1, to provide the relevant requirements for each type of product.

NOTE In this standard, the following print types are used:

- Requirements proper: in roman type.
- *Test specifications: in italic type.*
- Explanatory matter: in smaller roman type.

Annexes A, B, C, D, E, F, G, H, I and J form an integral part of this standard.

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. 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 a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps) <sup>1)</sup>
- Part 2-13: Particular requirements for d.c. or a.c. supplied electronic control gear for LED modules <sup>1)</sup>

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<sup>1)</sup> To be published.

The committee has decided that the contents of this publication will remain unchanged until 2008. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

## INTRODUCTION

The first edition of IEC 61347-1, published in conjunction with parts 2-1 to 2-9, represents an editorial review IEC 60926, IEC 61046, IEC 60928, IEC 60924, IEC 60920 and IEC 60922. The formatting into separately published parts provides for ease of future amendments and revisions. Additional requirements will be added as and when a need for them is recognized.

The different parts which make up IEC 61347-2 are technically equivalent to the original IEC standards on which they are based. As such, products which have been shown to comply with IEC 60920, IEC 60922, IEC 60924, IEC 60926, IEC 60928 and IEC 61046 can be considered as complying with the requirements of the part 2 of IEC 61347 which replaces them. Similarly, where other standards call for compliance with IEC 60920, IEC 60922, IEC 60924, IEC 60926, IEC 60928 and IEC 61046, conformity with the equivalent part 2 of IEC 61347 is considered to meet this requirement.

This part of IEC 61347 provides a set of general and safety requirements and tests which are considered to be generally applicable to most types of lamp controlgear and which can be called up as required by the different parts that make up IEC 61347-2. This part 1 is thus not to be regarded as a specification in itself for any type of lamp controlgear, and its provisions apply only to particular types of lamp controlgear, to the extent determined by the appropriate part 2 of IEC 61347.

The parts which make up IEC 61347-2, in referring to any of the clauses of this part, 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. The order in which the clauses of this part are numbered has no particular significance, as the order in which their provisions apply is determined for each type of lamp controlgear by the appropriate part 2 of IEC 61347-2 series. All such parts are self-contained and therefore do not contain references to each other.

Where the requirements of any of the clauses of this part of IEC 61347 are referred to in the various parts that make up IEC 61347-2 by the phrase "The requirements of clause n of IEC 61347-1 apply", this phrase will be interpreted as meaning that all requirements of the clause in question of part 1 apply, except any which are clearly inapplicable to the particular type of lamp controlgear covered by the part 2 concerned.

Lamp controlgear which complies with the text of this standard will not necessarily be judged to comply with the safety principles of the standard if, when examined and tested, it is found to have other features which impair the level of safety covered by these requirements.

Lamp controlgear employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirement and, if found to be substantially equivalent, may be judged to comply with the safety principles of the standard.

Performance requirements for lamp controlgear are the subject of IEC 60921, IEC 60923, IEC 60925, IEC 60927, IEC 60929, IEC 61047 and IEC 62384 (in preparation) as appropriate for the type of lamp controlgear.

**NOTE** Safety requirements ensure that electrical equipment constructed in accordance with these requirements does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was intended.

Requirements for electronic lamp controlgear for other types of lamps will be the subject of a separate standard, as the need arises.

NOTE Controlgear can consist of a printed circuit board and may incorporate the following:

- controlgear;
- lampholder(s);
- switch(es);
- supply terminals.

The lamp controlgear should comply with this standard.

The lampholders(s), switch(es) and supply terminals should comply with their own standards.

## LAMP CONTROLGEAR –

### Part 1: General and safety requirements

#### 1 Scope

This part of IEC 61347 specifies general and safety requirements for lamp controlgear for use on d.c. supplies up to 250 V and/or a.c. supplies up to 1 000 V at 50 Hz or 60 Hz.

This standard also covers lamp controlgear for lamps which are not yet standardized.

Tests dealt with in this standard are type tests. Requirements for testing individual lamp controlgear during production are not included.

Requirements for semi-luminaires are given in IEC 60598-1 (see definition 1.2.60).

In addition to the requirements given in this part 1 of IEC 61347, annex B sets out general and safety requirements applicable to thermally protected lamp controlgear.

Annex C sets out additional general and safety requirements as they apply to electronic lamp controlgear with means of protection against overheating.

Additional requirements for built-in ballasts with double or reinforced insulation are given in Annex I.

#### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61347. For references with a number of the edition or dated, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 61347 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For references to publications within the TC 34-family, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60065 ed. 6.0, *Audio, video and similar electronic apparatus – Safety requirements*

IEC 60081, *Double-capped fluorescent lamps – Performance specifications*

IEC 60112 ed. 3.0, *Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions*

IEC 60216-1 ed. 5.0, *Electrical insulating materials – Properties of thermal endurance – Part 1: Ageing procedures and evaluation of test results*

IEC 60249-1 ed 2.4, *Base materials for printed circuits – Part 1: Test methods*

IEC 60249 parts 2 and 3 with sub-parts ed. 2000, *Base materials for printed circuits*

IEC 60317-0-1 ed. 2.1, *Specifications for particular types of winding wires – Part 0: General requirements – Section 1: Enamelled round copper wire*

IEC 60417 parts 1 and 2 latest ed., *Graphical symbols for use on equipment*