



NSAI
Standards

Irish Standard
I.S. EN 61347-2-12:2005

Lamp controlgear -- Part 2-12:
Particular requirements for d.c. or a.c.
supplied electronic ballasts for
discharge lamps (excluding fluorescent
lamps) (IEC 61347-2-12:2005 (EQV))

I.S. EN 61347-2-12:2005

Incorporating amendments/corrigenda issued since publication:

EN 61347-2-12:2005/A1:2010
EN 61347-2-12:2005/AC:2010

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

<i>This document replaces:</i>	<i>This document is based on:</i> EN 61347-2-12:2005	<i>Published:</i> 20 October, 2005
This document was published under the authority of the NSAI and comes into effect on: 18 November, 2005		ICS number: 29.140.99
NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie
Údarás um Chaighdeáin Náisiúnta na hÉireann		



Corrigendum to EN 61347-2-12:2005

English version

Foreword

Delete the date of the reference EN 61347-1

December 2010

This page is intentionally left BLANK.

EUROPEAN STANDARD

EN 61347-2-12/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2010

ICS 29.140.99

English version

**Lamp controlgear -
Part 2-12: Particular requirements for d.c. or a.c. supplied electronic
ballasts for discharge lamps (excluding fluorescent lamps)
(IEC 61347-2-12:2005/A1:2010)**

Appareillages de lampes -
Partie 2-12: Exigences particulières pour
les ballasts électroniques alimentés en
courant continu ou alternatif pour lampes
à décharge (à l'exclusion des lampes
fluorescentes)
(CEI 61347-2-12:2005/A1:2010)

Geräte für Lampen -
Teil 2-12: Besondere Anforderungen an
gleich- oder wechselstromversorgte
elektronische Vorschaltgeräte für
Entladungslampen (ausgenommen
Leuchtstofflampen)
(IEC 61347-2-12:2005/A1:2010)

This amendment A1 modifies the European Standard EN 61347-2-12:2005; it was approved by CENELEC on 2010-11-01. 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

Foreword

The text of document 34C/898/CDV, future amendment 1 to IEC 61347-2-12:2005, 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 amendment A1 to EN 61347-2-12:2005 on 2010-11-01.

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) 2011-08-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2013-11-01

Endorsement notice

The text of amendment 1:2010 to the International Standard IEC 61347-2-12:2005 was approved by CENELEC as an amendment to the European Standard without any modification.

CONTENTS

FOREWORD.....	3
INTRODUCTION	6
1 Scope.....	7
2 Normative references.....	7
3 Definitions	7
4 General requirements	8
5 General notes on tests	8
6 Classification	8
7 Marking	9
8 Terminals	9
9 Provisions for earthing	9
10 Protection against accidental contact with live parts	10
11 Moisture resistance and insulation.....	10
12 Electric strength	10
13 Thermal endurance test for windings	10
14 Fault conditions.....	10
15 Protection of associated components.....	10
16 Ignition voltage.....	10
17 Abnormal conditions	11
18 Construction	15
19 Creepage distances and clearances	15
20 Screws, current-carrying parts and connections.....	15
21 Resistance to heat, fire and tracking.....	15
22 Resistance to corrosion.....	15
Annex A (normative) Test to establish whether a conductive part is a live part which may cause an electric shock.....	16
Annex B (normative) Particular requirements for thermally protected lamp controlgear	17
Annex C (normative) Particular requirements for electronic lamp controlgear with means of protection against overheating.....	18
Annex D (normative) Information for carrying out the heating tests of thermally protected lamp controlgear	19
Annex E (normative) The use of constants S other than 4 500 in t_w tests.....	20
Annex F (normative) Draught-proof enclosure.....	21
Annex G (normative) Explanation of the derivation of the values of pulse voltages	22
Annex H (normative) Tests	23
Annex I (normative) Precautions to be observed when measuring with spherical spark gaps.....	24
Bibliography.....	25

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LAMP CONTROLGEAR –

Part 2-12: Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps)

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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

This consolidated version of IEC 61347-2-12 consists of the first edition (2005) [documents 34C/683/FDIS and 34C/687/RVD] and its amendment 1 (2010) [documents 34C/898/CDV and 34C/933/RVC]. It bears the edition number 1.1.

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience. A vertical line in the margin shows where the base publication has been modified by amendment 1. Additions and deletions are displayed in red, with deletions being struck through.

International Standard IEC 61347-2-12 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

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

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 part 2 supplements or modifies the corresponding clauses in IEC 61347-1, so as to convert that publication into the IEC Standard: Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps).

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

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

IEC 61347-2 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 modules¹⁾

¹⁾ To be published.

I.S. EN 61347-2-12:2005

61347-2-12 © IEC:2005+A1:2010

– 5 –

The committee has decided that the contents of the base publication and its amendments 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.

IMPORTANT – The “colour inside” logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this publication using a colour printer.

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.

LAMP CONTROLGEAR –

Part 2-12: Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps)

1 Scope

This part of IEC 61347 specifies particular general and safety requirements for d.c. or a.c. supplied electronic ballasts. The supply comprises a.c. voltages up to 1000 V at 50 Hz/60 Hz. The type of ballast is an convertor that may contain igniting and stabilising elements for operation of a discharge lamp at d.c. or at a frequency that can deviate from the supply frequency. The lamps associated with the ballast are specified in IEC 60188 (High pressure mercury vapour lamps), IEC 60192 (Low pressure sodium vapour lamps), IEC 60662 (High pressure sodium vapour lamps), IEC 61167 (Metal halide lamps) and else for general purpose lighting. Ballasts for fluorescent lamps and for lamps for special applications like for theatre and for vehicles are excluded.

2 Normative references

For the purpose of this part of IEC 61347, the normative references given in Clause 2 of IEC 61347-1 apply together with the following:

IEC 60052:2002, *Voltage measurement by means of standard air gaps*

IEC 60417-DB²⁾, *Graphical symbols for use on equipment*

IEC 61347-1, *Lamp controlgear – Part 1: General and safety requirements*

3 Definitions

For the purpose of this part of IEC 61347, the definitions given in Cause 3 of IEC 61347-1 apply together with the following:

3.1

output power

value of the mean power intended to be provided by an electronic ballast

3.2

output terminals

ballast terminals, intended to be connected to the HID lamp

NOTE This terminal is not understood as a terminal allowing for intermediate operation of e.g. tungsten halogen lamps.

²⁾ "DB" refers to the IEC on-line database.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-