EESTI STANDARD

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 61347-2-2:2012 sisaldab Euroopa standardi EN 61347-2-2:2012 ingliakaslast takati	This Estonian standard EVS-EN 61347-2-2:2012 consists of the English text of the European standard			
ingliskeelset teksti.	EN 61347-2-2.2012.			
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.			
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 02.03.2012.	Date of Availability of the European standard is 02.03.2012.			
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.			
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Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <u>standardiosakond@evs.ee</u>.

ICS 29.140.99

Võtmesõnad: bulbs, electric, illumination eng, incandescent lamps, instruments, insulations, lamps, lighting systems, metallurgical converters, protection against electric shocks, safety, safety requirements, specification (approval), specifications, testing, tungsten lamps,

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 61347-2-2

March 2012

ICS 29.140.99

Supersedes EN 61347-2-2:2001 + corr. Jul.2003 + A1:2006 + A2:2006 + corr. Nov.2006

English version

Lamp controlgear -Part 2-2: Particular requirements for d.c. or a.c. supplied electronic stepdown convertors for filament lamps

(IEC 61347-2-2:2011)

Appareillages de lampes -Partie 2-2: Exigences particulières pour les convertisseurs abaisseurs électroniques alimentés en courant continu ou alternatif pour lampes à incandescence (CEI 61347-2-2:2011) Geräte für Lampen -Teil 2-2: Besondere Anforderungen an gleich- oder wechselstromversorgte elektronische Konverter für Glühlampen (IEC 61347-2-2:2011)

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

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Foreword

The text of document 34C/994/FDIS, future edition 2 of IEC 61347-2-2, prepared by SC 34C, "Auxiliaries for lamps", of IEC/TC 34, "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61347-2-2:2012.

The following dates are fixed:

•	latest date by which the document has to be implemented at national level by publication of an identical national	(dop)	2012-10-11
•	standard or by endorsement latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2015-01-11

This document supersedes EN 61347-2-2:2001 + corr Jul. 2003 + A1:2006 + A2:2006 + corr. Nov. 2006.

The major modification for EN 61347-2-2:2012 is the changeover from SELV equivalent to SELV.

This standard shall be used in conjunction with EN $61347-12008 + A12011 + A2200X^{1}$.

This part 2 supplements or modifies the clauses in EN 61347-1, so as to convert that publication into the European Standard: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps.

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.

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

Endorsement notice

The text of the International Standard IEC 61347-2-2:2011 was approved by CENELEC as a European Standard without any modification.

¹ To be published.

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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	<u>EN/HD</u>	Year
IEC 60357	3	Tungsten halogen lamps (non-vehicle) - Performance specifications	EN 60357	-
IEC 61047	- 0	DC or AC supplied electronic step-down convertors for filament lamps - Performance requirements	EN 61047	-
IEC 61347-1 (mod) + A1	2007 2010	Lamp controlgear - Part 1: General and safety requirements	EN 61347-1 + A1	2008 2011
IEC 61558-2-1	-	Safety of power transformers, power supplies reactors and similar products - Part 2-1: Particular requirements and tests for separating transformers and power supplies incorporating separating transformers for general applications	EN 61558-2-1	-
IEC 61558-2-6	-	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers	/EN 61558-2-6	-
IEC 61558-2-13	-	Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V - Part 2-13: Particular requirements and tests for auto transformers and power supply units incorporating auto transformers	/EN 61558-2-13	-
IEC 61558-2-16	-	Safety of transformers, reactors, power supply units and similar products for voltages up to 1 100 V - Part 2-16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units	EN 61558-2-16	-
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INTRODUCTION

This second edition of IEC 61347-2-2 is published in conjunction with IEC 61347-1. 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.

This standard, and the other parts which make up IEC 61347-2, 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 control gear covered by this particular part of IEC 61347-2.

LAMP CONTROLGEAR -

Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps

1 Scope

This part of IEC 61347 specifies particular safety requirements for electronic step-down convertors for use on d.c. supplies of up to 250 V or a.c. supplies of up to 1 000 V, at 50 Hz or 60 Hz and with rated output voltage \leq 50 V r.m.s. at a frequency deviating from the supply frequency, or 120 V ripple free d.c. between conductors and between any conductor and earth, associated with tungsten-halogen lamps as specified in IEC 60357 and other filament lamps.

NOTE The limit of 50 V rated output voltage is in accordance with band I of IEC 60449.

Particular requirements for electronic step-down convertors with means of protection against overheating are given in Annex C.

Particular additional requirements for convertors providing safety extra low voltage (hereinafter SELV), are given in Annex I.

Performance requirements are covered by IEC 61047.

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

2 Normative references

For the purpose of this part 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 normative references:

IEC 60357, Tungsten halogen lamps (non vehicle) – Performance specifications

IEC 61047, DC or a.c. supplied electronic step-down convertors for filament lamps – Performance requirements

IEC 61347-1:2007, Lamp controlgear – Part 1: General and safety requirements Amendment 1 (2010)

IEC 61558-2-1, Safety of power transformers, power supplies, reactors and similar products – Part 2-1: Particular requirements and tests for separating transformers and power supplies incorporating separating transformers for general applications

IEC 61558-2-6, Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V – Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers

IEC 61558-2-13, Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V – Part 2-13: Particular requirements and tests for auto transformers and power supply units incorporating auto transformers

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IEC 61558-2-16, Safety of transformers, reactors, power supply units and similar products for voltages up to 1 100 V – Part 2-16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units

3 Terms and definitions

For the purposes of this part of IEC 61347, the terms and definitions given in Clause 3 of IEC 61347-1 apply, together with the following:

3.1

electronic step-down convertor

unit inserted between the supply and one or more tungsten-halogen or other filament lamps which serves to supply the lamp(s) with its (their) rated voltage, generally at high frequency

The unit may consist of one or more separate components and may include means for dimming, correcting the power factor and suppressing radio interference.

3.2

d.c. or a.c. supplied convertor

convertor that includes stabilizing elements for operating one or more filament lamps, generally at high frequency

3.3

SELV convertor

convertor providing a SELV output isolated from the supply mains by means such as a safety isolating transformer, as specified in IEC 61558-2-6 and IEC 61558-2-16

3.4

independent convertor

convertor designed to supply unspecified appliances and intended to be used without any additional enclosure which provides protection against electric shock

3.5

plug-in convertor

convertor incorporated in an enclosure provided with an integral plug as the means of connection of the electrical supply

3.6

rated output voltage

output voltage, at rated supply voltage, rated frequency and at unity power factor, assigned to the convertor

3.7

half-resistance effect

effect which can occur at the end of lamp life due to filament deformation or crystallization effects resulting in a partial short-circuit of the lamp filament, which can cause overloading of the convertor

4 General requirements

The requirements of Clause 4 of IEC 61347-1 apply, together with the following additional requirement:

Convertors providing SELV shall comply with the requirements of Annex I. This includes insulation resistance, electric strength, creepage distances and clearances between primary and secondary circuits.