SLOVENSKI STANDARD
SIST EN 61347-2-12:2006/A1:2011

01-januar-2011

Predstikalni pribor za sijalke - 2-12. del: Posebne zahteve za elektronske predstikalne naprave za sijalke z enosmernim ali izmeničnim napajanjem (razen fluorescenčnih sijalk) - Dopolnilo A1 (IEC 61347-2-12:2005/A1:2010)

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)

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)

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)

Ta slovenski standard je istoveten z: EN 61347-2-12:2005/A1:2010

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

SIST EN 61347-2-12:2006/A1:2011 en

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61347-2-12/A1

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 -
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(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.

IEC 61347-2-12

Edition 1.0 2010-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

Lamp controlgear –

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

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)

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PRICE CODE
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FOREWORD

This amendment has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

CDV	Report on voting
34C/898/CDV	34C/933/RVC

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

The committee has decided that the contents of this amendment and the base publication 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.

Replace the existing Clause 17 by the following new Clause 17:

17 Abnormal conditions

The ballast shall not impair safety when operated under abnormal conditions at any voltage between 90 % and 110 % of rated supply voltage or range of rated supply voltage declared by the manufacturer.

Compliance is checked by the following test.

Each of the following conditions shall be applied with the ballast operating to the manufacturer's instructions (including a heat sink, if specified) for 1 h:

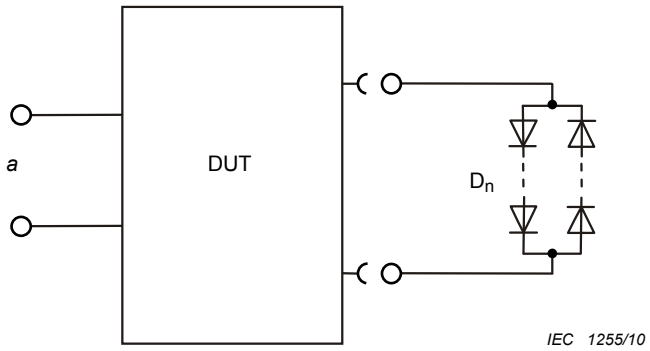
a) lamp is not inserted or does not ignite;

b) burner leaks;

c) the lamp operates, but rectifies.

Condition a) is tested with open output.

Condition b) is tested with circuit in Figure 1 (see below).



Key

a supply

DUT device under test

D_n circuit of some diodes in series, and anti-parallel to them, the same number of diodes in series which yields a voltage of 10 V to 15 V across them.

Figure 1 – Circuit to test whether ballast can withstand a leaking burner

Condition c) is tested with circuit in Figure 2 (see below).

The lamp in the circuit is replaced by test circuit as shown in Figure 2.

Both current directions have to be checked: ballast terminal 1 with circuit wire 1 and ballast terminal 1 with circuit wire 2.

The control gear is stabilised at the ambient temperature of the draught-proof enclosure between 10 °C and 30 °C.

The resistor R_1 has to be chosen such that the electrical operating conditions are the same as with the lamp. An appropriate resistance value can be found by calculation:

$$R_1 = U_{\text{lamp magn}}^2 / P_{\text{lamp magn}}$$

where

$U_{\text{lamp magn}}$ is the lamp voltage in magnetic ballast operation;

$P_{\text{lamp magn}}$ is the lamp wattage in magnetic ballast operation;

$U_{\text{lamp magn}}$ and $P_{\text{lamp magn}}$ are taken from the relevant lamp standard sheet as long as electronic lamp operation data are not available from the lamp manufacturer.

NOTE R_1 changes as a function of lamp type for the same lamp wattage.

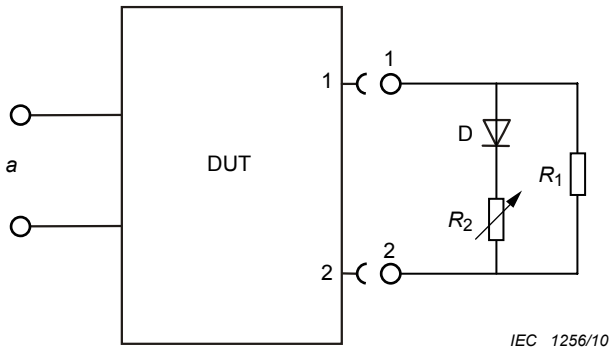
The test is commenced by varying the resistor R_2 to adjust the current to a value equal to twice the normal lamp current; when this is reached, no further adjustment of R_2 is made.

If after 1 h the internal protection of the control gear has not operated, the resistor R_2 shall be adjusted to increase the current up to three times maximum the normal lamp current.

If the internal protection of the control gear operates before the current reaches a value equal to twice the normal lamp current, the control gear is loaded, varying the resistance R_2, by a current equal to 0,95 times the value of the lowest current which causes the protective device to operate. The lowest current causing the protective device to operate is determined by initially operating the control gear at the normal lamp current and gradually increasing the

output current in steps of 2 % (each step is maintained until steady condition is achieved) until the protective device operates. However, the current shall not be adjusted above a value of 3 times the normal lamp current.

The steady state condition is considered to have been reached when the difference between two consecutive readings of temperature rise over the ambient taken at half hour interval has not exceeded 1 K.



Key

a	supply
DUT	device under test
D	100 A, 600 V
R_2	0…200 Ω (wattage rating of the resistor shall be at least ½ lamp wattage)
R_1	$U_{\text{lamp magn}}^2 / P_{\text{lamp.magn}}$
	The above wattage rating of the resistor shall be at least ½ lamp wattage.

Figure 2 – Circuit to test whether ballast can withstand rectification

During and at the end of the tests specified under items a) to c), the ballast shall show no defect impairing safety nor shall any flame, molten material, flammable gases or smoke be produced.