

**SLOVENSKI STANDARD
SIST EN 61347-2-7:2002****01-december-2002****Nadomešča:
SIST EN 60924:1995**

Lamp controlgear – Part 2-7: Particular requirements for d.c. supplied electronic ballasts for emergency lighting (IEC 61347-2-7:2000)

Lamp controlgear -- Part 2-7: Particular requirements for d.c. supplied electronic ballasts for emergency lighting

Geräte für Lampen -- Teil 2-7: Besondere Anforderungen an gleichstromversorgte elektronische Vorschaltgeräte für die Notbeleuchtung

Appareillages de lampes -- Partie 2-7: Prescriptions particulières pour les ballasts électroniques alimentés en courant continu pour l'éclairage de secours

Ta slovenski standard je istoveten z: EN 61347-2-7:2001**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 61347-2-7:2002 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61347-2-7:2002

<https://standards.iteh.ai/catalog/standards/sist/7f869274-9d31-4c37-8bdf-5bb7a54f41c6/sist-en-61347-2-7-2002>

EUROPEAN STANDARD

EN 61347-2-7

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2001

ICS 29.140.99

Partly supersedes EN 60924:1991 + A1:1994

English version

Lamp controlgear
Part 2-7: Particular requirements for d.c. supplied electronic ballasts
for emergency lighting
(IEC 61347-2-7:2000)

Appareillages de lampes
Partie 2-7: Prescriptions particulières pour
les ballasts électroniques alimentés en
courant continu pour l'éclairage de
secours
(CEI 61347-2-7:2000)

Geräte für Lampen
Teil 2-7: Besondere Anforderungen an
gleichstromversorgte elektronische
Vorschaltgeräte für die Notbeleuchtung
(IEC 61347-2-7:2000)

ITeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61347-2-7:2002

<https://standards.iteh.ai/catalog/standards/sist/7f869274-9d31-4c37-8bdf-5bb7a54f41c6/sist-en-61347-2-7-2002>

This European Standard was approved by CENELEC on 2000-11-01. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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/504/FDIS, future edition 1 of IEC 61347-2-7, 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 61347-2-7 on 2000-11-01.

This European Standard, together with EN 61347-1, supersedes section six of EN 60924:1991 + A1:1994.

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) 2001-08-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2003-11-01

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

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

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

Annexes designated "normative" are part of the body of the standard.
In this standard, annexes A to H and ZA are normative.
Annex ZA has been added by CENELEC.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
<https://standards.iteh.ai/catalog/standards/sist/7f869274-9d31-4c37-8bdf-5bb7a54f41c6/sist-en-61347-2-7-2002>

Endorsement notice

The text of the International Standard IEC 61347-2-7:2000 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60598-2-22 (mod) | ¹⁾ | Luminaires Part 2-22: Particular requirements - Luminaires for emergency lighting | EN 60598-2-22 + corr. February | 1998 ²⁾ 1999 |
| IEC 60742 (mod) | ¹⁾ | Isolating transformers and safety isolating transformers - Requirements | EN 60742 | 1995 ²⁾ |
| IEC 60925 | ¹⁾ | D.C. supplied electronic ballasts for tubular fluorescent lamps - Performance requirements | EN 60925 | 1991 ²⁾ |
| IEC 61347-1 | 2000 | Lamp control gear Part 1: General and safety requirements | EN 61347-1 | 2001 |

¹⁾ undated reference.

²⁾ valid edition at date of issue.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61347-2-7:2002

<https://standards.iteh.ai/catalog/standards/sist/7f869274-9d31-4c37-8bdf-5bb7a54f41c6/sist-en-61347-2-7-2002>

**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

61347-2-7

Première édition
First edition
2000-10

Appareillages de lampes –

**Partie 2-7:
Prescriptions particulières pour les ballasts
électroniques alimentés en courant continu
pour l'éclairage de secours**

ITeH STANDARD PREVIEW

(standards.iteh.ai)

Lamp controlgear –

SIST EN 61347-2-7:2002

<https://standards.iteh.ai/catalog/standards/sist/7f869274-9d31-4c37-8bdf>

**Part 2-7:
Particular requirements for d.c. supplied
electronic ballasts for emergency lighting**

© IEC 2000 Droits de reproduction réservés — Copyright - all rights reserved

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'éditeur.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission
Telefax: +41 22 919 0300

3, rue de Varembé Geneva, Switzerland
e-mail: inmail@iec.ch IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

S

*Pour prix, voir catalogue en vigueur
For price, see current catalogue*

CONTENTS

| | Page |
|--|------|
| FOREWORD | 7 |
| INTRODUCTION | 11 |
| Clause | |
| 1 Scope | 13 |
| 2 Normative references | 13 |
| 3 Definitions | 15 |
| 4 General requirements | 17 |
| 5 General notes on tests | 17 |
| 6 Classification | 17 |
| 7 Marking | 17 |
| 7.1 Mandatory marking | 17 |
| 7.2 Information to be provided, if applicable | 19 |
| 8 Protection against accidental contact with live parts | 19 |
| 9 Terminals | 19 |
| 10 Provisions for earthing | 19 |
| 11 Moisture resistance and insulation | 19 |
| 12 Electric strength | 19 |
| 13 Thermal endurance test for windings | 19 |
| 14 Pulse voltages for ballasts for central battery systems | 21 |
| 15 Starting | 21 |
| 15.1 Open-circuit voltage at terminations of lamp | 21 |
| 15.2 Preheat conditions | 23 |
| 15.2.1 Minimum voltage across lamp cathode | 23 |
| 15.2.2 Maximum voltage across lamp cathode | 23 |
| 15.3 Switching capability | 25 |
| 16 Lamp current and luminous flux | 25 |
| 17 Supply current | 27 |
| 18 Maximum current in any lead (with cathode preheating) | 27 |
| 19 Lamp operating current waveforms | 27 |
| 20 Change-over operation | 27 |
| 21 Recharging device | 29 |
| 22 Protection against excessive discharge | 31 |
| 23 Indicator | 31 |
| 24 Remote control | 31 |
| 25 Temperature cycling test and endurance test | 33 |
| 26 Polarity reversal | 33 |
| 27 Fault conditions | 33 |
| 28 Construction | 33 |
| 29 Creepage distances and clearances | 35 |
| 30 Screws, current-carrying parts and connections | 35 |
| 31 Resistance to heat, fire and tracking | 35 |
| 32 Resistance to corrosion | 35 |

| | |
|--|----|
| Annexes | 39 |
| Figure 1 – Suitable circuits for the measurement of lamp current and luminous flux | 37 |
| Table 1 – Pulse voltages | 21 |
| Table 2 – Open-circuit voltage for high- and low-resistance cathode lamps (with cathode preheating) | 23 |
| Table 3 – Discharge voltage | 29 |

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61347-2-7:2002

<https://standards.iteh.ai/catalog/standards/sist/7f869274-9d31-4c37-8bdf-5bb7a54f41c6/sist-en-61347-2-7-2002>

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LAMP CONTROLGEAR –

Part 2-7: Particular requirements for d.c. supplied electronic ballasts for emergency lighting

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61347-2-7 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

This first edition of IEC 61347-2-7, together with IEC 61347-1, cancels and replaces section six of the first edition of IEC 60924, published in 1990, and constitutes a minor revision.

This standard shall be used in conjunction with IEC 61347-1. It was established on the basis of the first edition (2000) 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. supplied electronic ballasts for public transport lighting

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.

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

| FDIS | Report on voting |
|--------------|------------------|
| 34C/504/FDIS | 34C/518/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 publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

Annexes A to H 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 luminaires¹⁾

The committee has decided that the contents of this publication will remain unchanged until 2003. At this date, the publication will be

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

¹⁾ To be published.