

STN	Ovládacie zariadenia elektrických svetelných zdrojov Bezpečnosť Časť 2-13: Osobitné požiadavky Elektronické ovládacie zariadenia svetelných zdrojov LED	STN EN IEC 61347-2-13 36 0511
------------	--	---

Controlgear for electric light sources - Safety - Part 2-13: Particular requirements - Electronic controlgear for LED light sources

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/25

Obsahuje: EN IEC 61347-2-13:2024, IEC 61347-2-13:2024

Oznámením tejto normy sa od 31.12.2027 ruší
STN EN 61347-2-13 (36 0511) z júna 2015

140129

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2025
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

EUROPEAN STANDARD

EN IEC 61347-2-13

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2024

ICS 29.140.99

Supersedes EN 61347-2-13:2014; EN 61347-2-13:2014/A1:2017

English Version

**Controlgear for electric light sources - Safety - Part 2-13:
Particular requirements - Electronic controlgear for LED light
sources
(IEC 61347-2-13:2024)**

Appareillages de commande pour les sources de lumière
électriques - Sécurité - Partie 2-13 : Exigences particulières
- Appareillages électroniques pour les sources de lumière à
LED
(IEC 61347-2-13:2024)

Geräte für elektrische Lichtquellen - Sicherheit - Teil 2-13:
Besondere Anforderungen - elektronische Betriebsgeräte
für LED-Lichtquellen
(IEC 61347-2-13:2024)

This European Standard was approved by CENELEC on 2024-10-16. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 61347-2-13:2024 (E)**European foreword**

The text of document 34C/1599/FDIS, future edition 3 of IEC 61347-2-13, prepared by SC 34C "Auxiliaries for lamps" of IEC/TC 34 "Lighting" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61347-2-13:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2025-12-31 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2027-12-31 document have to be withdrawn

This document supersedes EN 61347-2-13:2014 and all of its amendments and corrigenda (if any).

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 61347-2-13:2024 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 61140	NOTE Approved as EN 61140
IEC 61347-1:2015	NOTE Approved as EN 61347-1:2015 (not modified)
IEC 61347-1:2015/A1:2017	NOTE Approved as EN 61347-1:2015/A1:2021 (not modified)
IEC 61347-2-7	NOTE Approved as EN 61347-2-7
IEC 61347-2-13:2014	NOTE Approved as EN 61347-2-13:2014 (not modified)
IEC 61347-2-13:2014/A1:2016	NOTE Approved as EN 61347-2-13:2014/A1:2017 (not modified)

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61347-1	2024	Controlgear for electric light sources - Safety - Part 1: General requirements	EN IEC 61347-1	2024
IEC 61547	-	Equipment for general lighting purposes - EMC immunity requirements	EN IEC 61547	-
IEC 62384	2020	DC or AC supplied electronic controlgear for LED modules - Performance requirements	EN IEC 62384	2020



IEC 61347-2-13

Edition 3.0 2024-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Controlgear for electric light sources – Safety –
Part 2-13: Particular requirements – Electronic controlgear for LED light sources**

**Appareillages de commande pour les sources de lumière électriques – Sécurité –
Partie 2-13: Exigences particulières – Appareillages électroniques pour les
sources de lumière à LED**





THIS PUBLICATION IS COPYRIGHT PROTECTED
Copyright © 2024 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, 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 either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, 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'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Secretariat
 3, rue de Varembe
 CH-1211 Geneva 20
 Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Recherche de publications IEC -

webstore.iec.ch/advsearchform

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études, ...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et une fois par mois par email.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Découvrez notre puissant moteur de recherche et consultez gratuitement tous les aperçus des publications, symboles graphiques et le glossaire. Avec un abonnement, vous aurez toujours accès à un contenu à jour adapté à vos besoins.

Electropedia - www.electropedia.org

Le premier dictionnaire d'électrotechnologie en ligne au monde, avec plus de 22 500 articles terminologiques en anglais et en français, ainsi que les termes équivalents dans 25 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.



IEC 61347-2-13

Edition 3.0 2024-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Controlgear for electric light sources – Safety –
Part 2-13: Particular requirements – Electronic controlgear for LED light sources**

**Appareillages de commande pour les sources de lumière électriques – Sécurité –
Partie 2-13: Exigences particulières – Appareillages électroniques pour les
sources de lumière à LED**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 29.140.99

ISBN 978-2-8322-9101-6

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms and definitions	7
4 General requirements	8
5 General notes on tests	9
6 Information and marking	9
6.1 Information and marking items	9
6.1.1 Mandatory markings	9
6.1.2 Information to be provided	9
6.2 Durability and legibility of marking.....	9
6.3 Built-in controlgear without an enclosure and integral controlgear	9
7 Terminals	10
8 Earthing.....	10
9 Protection against accidental contact with hazardous live parts	10
10 Insulation resistance and electric strength	10
11 Fault conditions	10
12 Construction	10
13 Creepage distances, clearances and distances through insulation.....	10
14 Screws, current-carrying parts and connections.....	10
15 Resistance to heat, fire and tracking.....	10
16 Thermal requirements.....	11
16.1 General.....	11
16.2 Normal operation	11
16.3 Abnormal operation.....	11
17 Output working voltage (U_{out})	11
18 Rated output characteristics	12
Annex A (normative) Additional requirements for centrally supplied controlgear for emergency lighting.....	13
A.1 Marking and information.....	13
A.2 General notes on tests	13
A.3 Operating conditions	13
A.4 Supply current	13
A.5 EMC immunity.....	14
A.6 Pulse voltage from central battery systems	14
A.7 Tests for abnormal conditions	14
A.8 Temperature cycling test and endurance test.....	14
A.9 Functional safety (EOF_X).....	14
Annex B (informative) Schedule of more onerous requirements	16
Bibliography.....	17
Figure 1 – Symbol for electronic controlgear for LED light sources.....	9
Table A.1 – Pulse voltages	14

INTERNATIONAL ELECTROTECHNICAL COMMISSION

CONTROLGEAR FOR ELECTRIC LIGHT SOURCES – SAFETY –

Part 2-13: Particular requirements – Electronic controlgear for LED light sources

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) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 61347-2-13 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lighting. It is an International Standard.

This third edition cancels and replaces the second edition published in 2014 and Amendment 1:2016. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) alignment with respect to the fourth edition of IEC 61347-1:
 - introduction of dated references to the fourth edition of IEC 61347-1 as appropriate;
 - deletion of the clauses and subclauses which are either no longer relevant or now covered in IEC 61347-1;
- b) update of normative references, introducing dated references where appropriate;
- c) scope extension to 1 500 V for direct current;
- d) scope clarification;
- e) deletion of unused definitions;
- f) revision of information and marking requirements;
- g) new marking requirement "electronic controlgear for LED light sources";
- h) new requirements for electronic controlgear for LED light sources with constant light output function or programmable current (additions to Clause 3, Clause 6, Clause 16 and Clause 18);
- i) modification of requirements for the determination of the output working voltage (new Clause 17);
- j) new requirements for the determination of the rated output characteristics (Clause 18).

The text of this International Standard is based on the following documents:

Draft	Report on voting
34C/1599/FDIS	34C/1603/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

This document is intended to be used in conjunction with IEC 61347-1:2024. Where the requirements of any of the clauses of IEC 61347-1:2024 are referred to in this document by the phrase "IEC 61347-1:2024, Clause n applies", this phrase is interpreted as meaning that all the requirements of the clause in question of IEC 61347-1:2024 apply, except any which are clearly inapplicable to the specific type of controlgear covered by this document.

NOTE In this document, the following print type is used:

- *compliance statements: in italic type.*

A list of all parts in the IEC 61347 series, published under the general title *Controlgear for electric light sources – Safety* can be found on the IEC website.

Future documents in this series will carry the new general title as cited above. Titles of existing documents in this series will be updated at the time of the next edition.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

This document specifies safety requirements for electronic controlgear for LED light sources. All general requirements, which apply to controlgear for electric light sources in general, regardless of the specific type of light source in question, are contained in IEC 61347-1. The corresponding general requirements apply to electronic controlgear for LED light sources by clause-wise reference in this document to any of the clauses of IEC 61347-1, thereby specifying the extent to which such a clause is applicable and the order in which the tests are performed.

In the same way, further documents exist specifying individual safety requirements for different types of controlgear related to different types of electric light sources which, together with this document, constitute the IEC 61347-2 series.

Any such parts of the IEC 61347-2 series are the leading documents for the safety assessment of the corresponding types of controlgear; it is not IEC 61347-1.

Also, all parts of the IEC 61347-2 series are self-contained and therefore typically do not include references to each other.

CONTROLGEAR FOR ELECTRIC LIGHT SOURCES – SAFETY –

Part 2-13: Particular requirements – Electronic controlgear for LED light sources

1 Scope

This part of IEC 61347 specifies safety requirements for electronic controlgear for LED light sources for use on DC supplies up to 1 500 V or on AC supplies up to 1 000 V at 50 Hz or 60 Hz.

This document is applicable for electronic controlgear for LED light sources with an output voltage (RMS) not higher than 1 000 V.

NOTE 1 Control units, such as devices connected between the power supply unit and LED light sources that control or adjust the operation of LED light sources, are covered by this document.

NOTE 2 Performance requirements are covered by IEC 62384.

NOTE 3 Such controlgear can also be used for electric sources producing optical radiation with the same technology used for purposes different than illumination and producing radiation other than visible spectrum.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61347-1:2024, *Controlgear for electric light sources – Safety – Part 1: General requirements*

IEC 61547, *Equipment for general lighting purposes – EMC immunity requirements*

IEC 62384:2020, *DC or AC supplied electronic controlgear for LED modules – Performance requirements*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN