# IEC 61347-2-8

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REDLINE VERSION

# INTERNATIONAL STANDARD

colour inside

~~Lamp control gear –~~
## Controlgear for electric light sources – Safety –
## Part 2-8: Particular requirements – Ballasts for fluorescent lamps

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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# ~~LAMP CONTROLGEAR –~~ CONTROLGEAR FOR ELECTRIC LIGHT SOURCES – SAFETY –

## Part 2-8: Particular requirements – Ballasts for 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.
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**This redline version of the official IEC Standard allows the user to identify the changes made to the previous edition IEC 61347-2-8:2000+AMD1:2006 CSV. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.**

IEC 61347-2-8 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lighting. It is an International Standard.

This second edition cancels and replaces the first edition published in 2000 and Amendment 1:2006. This edition constitutes a technical revision.

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

a) introduction of dated references where appropriate;

b) alignment of clause numbers with those of IEC 61347-1.

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

| Draft | Report on voting |
|---|---|
| 34C/1583/CDV | 34C/1591/RVC |

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.

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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.

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# INTRODUCTION

~~This first edition of IEC 61347-2-8, published in conjunction with IEC 61347-1, represents an editorial review of IEC 60920. 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 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 controlgear covered by this particular part of IEC 61347-2.~~

The technical requirements in this document compared to IEC 61347-2-8:2000 and IEC 61347-2-8:2000/AMD1:2006 are essentially unchanged. Nevertheless, a new edition of this document could not be avoided, as without the introduction of dated references to IEC 61347-1:2015 and IEC 61347-1:2015/AMD1:2017, the fourth edition of IEC 61347-1:—[1] would have been implicitly applicable due to the undated nature of the references to IEC 61347-1 in IEC 61347-2-8:2000 and IEC 61347-2-12:2000/AMD1:2006.

This document, in referring to any of the clauses of IEC 61347-1:2015 and IEC 61347-1:2015/AMD1:2017, specifies the extent to which such a clause is applicable. Additional requirements are also included, as necessary.

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1 Fourth edition under preparation. Stage at the time of publication IEC FDIS 61347-1:2024.

~~LAMP CONTROLGEAR –~~
CONTROLGEAR FOR ELECTRIC LIGHT SOURCES – SAFETY –

# Part 2-8: Particular requirements– Ballasts for fluorescent lamps

## 1 Scope

This part of IEC 61347 specifies safety requirements for ballasts, excluding resistance types, for use on AC supplies up to 1 000 V at 50 Hz or 60 Hz, associated with fluorescent lamps with or without pre-heated cathodes operated with or without a starter or starting device and having rated ~~wattages~~ powers, dimensions and characteristics as specified in IEC 60081 and IEC 60901.

This document applies to complete ballasts and to their component parts such as reactors, transformers and capacitors. ~~Particular requirements for thermally protected ballasts are given in annex B.~~ Ballasts for conventional operation of lamps at mains frequency are covered, while AC supplied electronic ballasts for high-frequency operation are excluded.

~~Ballasts for conventional operation of lamps at mains frequency are covered, while a.c. supplied electronic ballasts for highfrequency operation are excluded. These are specified in IEC 61347-2-3.~~

~~Capacitors having a capacitance greater than 0,1 µF are covered by IEC 61048 and IEC 61049. Capacitors having a capacitance less than or equal to 0,1 µF are specified in IEC 60384-14.~~

NOTE 1 AC supplied electronic ballasts for high-frequency operation are specified in IEC 61347-2-3.

NOTE 2 Performance requirements are the subject of IEC 60921.

## 2 Normative references

~~For the purpose of this part of IEC 61347, the normative references given in clause 2 of IEC 61374-1 which are mentioned in this standard apply, together with the following 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 60317-0-1:2013, *Specifications for particular types of winding wires – Part 0-1: General requirements – Enamelled round copper wire*
IEC 60317-0-1:2013/AMD1:2019

IEC 61347-1:2015, *Lamp controlgear – Part 1: General and safety requirements*
IEC 61347-1:2015/AMD1:2017

# IEC 61347-2-8

Edition 2.0 2024-05

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

## Controlgear for electric light sources – Safety – Part 2-8: Particular requirements – Ballasts for fluorescent lamps

## Appareillages de commande pour les sources de lumière électriques – Sécurité – Partie 2-8: Exigences particulières – Ballasts pour lampes fluorescentes



IEC 61347-2-8:2024-05(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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# CONTROLGEAR FOR ELECTRIC LIGHT SOURCES – SAFETY –

## Part 2-8: Particular requirements – Ballasts for 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.
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[1] Fourth edition under preparation. Stage at the time of publication IEC FDIS 61347-1:2024.

# CONTROLGEAR FOR ELECTRIC LIGHT SOURCES – SAFETY –

# Part 2-8: Particular requirements – Ballasts for fluorescent lamps

## 1 Scope

This part of IEC 61347 specifies safety requirements for ballasts, excluding resistance types, for use on AC supplies up to 1 000 V at 50 Hz or 60 Hz, associated with fluorescent lamps with or without pre-heated cathodes operated with or without a starter or starting device and having rated powers, dimensions and characteristics as specified in IEC 60081 and IEC 60901.

This document applies to complete ballasts and to their component parts such as reactors, transformers and capacitors. Ballasts for conventional operation of lamps at mains frequency are covered, while AC supplied electronic ballasts for high-frequency operation are excluded.

NOTE 1 AC supplied electronic ballasts for high-frequency operation are specified in IEC 61347-2-3.

NOTE 2 Performance requirements are the subject of IEC 60921.

## 2 Normative references

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

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# APPAREILLAGES DE COMMANDE POUR LES SOURCES DE LUMIÈRE ÉLECTRIQUES – SÉCURITÉ –

## Partie 2-8: Exigences particulières – Ballasts pour lampes fluorescentes

## AVANT-PROPOS

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L'IEC 61347-2-8 a été établie par le sous-comité 34C: Appareils auxiliaires pour lampes, du comité d'études 34 de l'IEC: Éclairage. Il s'agit d'une Norme internationale.

Cette seconde édition annule et remplace la première édition parue en 2000 et l'Amendement 1:2006. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

a) ajout de références datées le cas échéant;

b) alignement des numéros d'articles sur ceux de l'IEC 61347-1.

Le texte de cette Norme internationale est issu des documents suivants:

| Projet | Rapport de vote |
|---|---|
| 34C/1583/CDV | 34C/1591/RVC |

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La langue employée pour l'élaboration de cette Norme internationale est l'anglais.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2, il a été développé selon les Directives ISO/IEC, Partie 1 et les Directives ISO/IEC, Supplément IEC, disponibles sous www.iec.ch/members_experts/refdocs. Les principaux types de documents développés par l'IEC sont décrits plus en détail sous www.iec.ch/publications/.

Le présent document est destiné à être utilisé conjointement avec l'IEC 61347-1:2015 et l'IEC 61347-1:2015/AMD1:2017. Lorsque les exigences de l'un des articles de l'IEC 61347-1:2015 et de l'IEC61347-1:2015/AMD1:2017 sont citées en référence dans le présent document par la phrase "L'IEC 61347-1:2015, Article n et l'IEC 61347-1:2015/AMD1:2017, Article n s'appliquent", cette phrase signifie que l'ensemble des exigences de cet article de l'IEC 61347-1:2015 et de l'IEC 61347-1:2015/AMD1:2017 s'appliquent, excepté les exigences qui ne s'appliquent explicitement pas au type particulier d'appareillage couvert par le présent document.

NOTE Dans le présent document, les caractères d'imprimerie suivants sont utilisés:

– *déclarations de conformité: caractères italiques.*

Une liste de toutes les parties de la série IEC 61347, publiées sous le titre général *Appareillages de commande pour les sources de lumière électriques – Sécurité*, se trouve sur le site web de l'IEC.

Les futurs documents de cette série porteront le nouveau titre général cité ci-dessus. Le titre des documents qui existent déjà dans cette série sera mis à jour lors de leur prochaine édition.

Le comité a décidé que le contenu de ce document ne sera pas modifié avant la date de stabilité indiquée sur le site web de l'IEC sous webstore.iec.ch dans les données relatives au document recherché. À cette date, le document sera

- reconduit,
- supprimé, ou
- révisé.

# INTRODUCTION

Les exigences techniques spécifiées dans le présent document par rapport à l'IEC 61347-2-8:2000 et à l'IEC 61347-2-8:2000/AMD1:2006 n'ont pratiquement pas évolué. Néanmoins, l'élaboration d'une nouvelle édition du présent document était inévitable, car sans l'ajout de références datées à l'IEC 61347-1:2015 et l'IEC 61347-1:2015/AMD1:2017, l'applicabilité de la quatrième édition de l'IEC 61347-1:—[1] aurait été implicite en raison des références à l'IEC 61347-1 non datées dans l'IEC 61347-2-8:2000 et l'IEC 61347-2-12:2000/AMD1:2006.

Lorsque le présent document fait référence à l'un des articles de l'IEC 61347-1:2015 et l'IEC 61347-1:2015/AMD1:2017, celui-ci spécifie le degré d'applicabilité de cet article. Des exigences supplémentaires sont également fournies, lorsque cela est nécessaire.

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1 Quatrième édition en cours d'élaboration. Stade à la date de publication IEC FDIS 61347-1:2024.

# APPAREILLAGES DE COMMANDE POUR LES SOURCES DE LUMIÈRE ÉLECTRIQUES – SÉCURITÉ –

## Partie 2-8: Exigences particulières – Ballasts pour lampes fluorescentes

## 1 Domaine d'application

La présente partie de l'IEC 61347 spécifie les exigences de sécurité des ballasts autres que ceux du type à résistance, destinés à être utilisés avec des alimentations jusqu'à 1 000 V en courant alternatif à 50 Hz ou 60 Hz, associés à des lampes fluorescentes avec ou sans cathodes préchauffées fonctionnant avec ou sans starter ou dispositif d'amorçage et dont les puissances assignées, les dimensions et les caractéristiques sont spécifiées dans l'IEC 60081 et l'IEC 60901.

Le présent document s'applique aux ballasts complets ainsi qu'à leurs composants, comme les réactances, les transformateurs et les condensateurs. Les ballasts destinés à l'alimentation conventionnelle des lampes à la fréquence du réseau sont couverts, mais les ballasts électroniques alimentés en courant alternatif pour l'alimentation en haute fréquence sont exclus.

NOTE 1 Les ballasts électroniques alimentés en courant alternatif pour l'alimentation en haute fréquence sont spécifiés dans l'IEC 61347-2-3.

NOTE 2 Les exigences de performance sont traitées dans l'IEC 60921.

## 2 Références normatives

Les documents suivants sont cités dans le texte de sorte qu'ils constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60317-0-1:2013, *Spécifications pour types particuliers de fils de bobinage – Partie 0-1: Exigences générales – Fil de section circulaire en cuivre émaillé*
IEC 60317-0-1:2013/AMD1:2019

IEC 61347-1:2015, *Appareillages de lampes – Partie 1: Exigences générales et exigences de sécurité*
IEC 61347-1:2015/AMD1:2017