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AC and/or DC-supplied electronic controlgear for discharge lamps (excluding fluorescent lamps) - Performance requirements for low frequency squarewave operation

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. 12/15

Obsahuje: EN 62811:2015, IEC 62811:2015

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EUROPEAN STANDARD

**EN 62811**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2015

ICS 29.140.99

English Version

**AC and/or DC-supplied electronic controlgear for discharge lamps (excluding fluorescent lamps) - Performance requirements for low frequency squarewave operation (IEC 62811:2015)**

Appareillage électronique alimenté en courant alternatif et/ou continu pour lampes à décharge (à l'exclusion des lampes fluorescentes) - Exigences de performance pour le fonctionnement en onde carrée de basse fréquence (IEC 62811:2015)

Gleich- und/oder wechsellspannungsversorgtes elektronisches Betriebsgerät für Entladungslampen (ausgenommen Leuchtstofflampen) - Anforderungen an die Arbeitsweise für Niederfrequenz-Rechteckbetrieb (IEC 62811:2015)

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Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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## Foreword

The text of document 34C/1132/FDIS, future edition 1 of IEC 62811, 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 62811:2015.

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publication of an identical national  
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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61000-3-2:2000	NOTE	Harmonized as EN 61000-3-2:2000.
IEC 61000-4-30:2003	NOTE	Harmonized as EN 61000-4-30:2003.
IEC 61547	NOTE	Harmonized as EN 61547.

## 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 1 When 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.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050	series	International Electrotechnical Vocabulary	-	series
IEC 61000-4-14	1999	Electromagnetic compatibility (EMC) -- Part 4-14: Testing and measurement techniques - Voltage fluctuation immunity test	EN 61000-4-14	1999
+A1	2001		+A1	2004
+A2	2009		+A2	2009
IEC 61167	-		-	-
IEC 61347-1	-	Lamp controlgear - Part 1: General and safety requirement	EN 61347-1	-
IEC 61347-2-12	-	Lamp controlgear - Part 2-12: Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps)	-	-
IEC 62386	series	Digital addressable lighting interface	EN 62386	series



# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



**AC and/or DC-supplied electronic controlgear for discharge lamps (excluding fluorescent lamps) – Performance requirements for low frequency square wave operation**

**Appareillage électronique alimenté en courant alternatif et/ou continu pour lampes à décharge (à l'exclusion des lampes fluorescentes) – Exigences de performance pour le fonctionnement en onde carrée de basse fréquence**



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

Tel.: +41 22 919 02 11  
Fax: +41 22 919 03 00  
[info@iec.ch](mailto:info@iec.ch)  
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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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**AC and/or DC-supplied electronic controlgear for discharge lamps (excluding fluorescent lamps) – Performance requirements for low frequency square wave operation**

**Appareillage électronique alimenté en courant alternatif et/ou continu pour lampes à décharge (à l'exclusion des lampes fluorescentes) – Exigences de performance pour le fonctionnement en onde carrée de basse fréquence**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**AC AND/OR DC-SUPPLIED ELECTRONIC CONTROLGEAR  
FOR DISCHARGE LAMPS (EXCLUDING FLUORESCENT LAMPS) –  
PERFORMANCE REQUIREMENTS FOR  
LOW FREQUENCY SQUARE WAVE OPERATION**

## FOREWORD

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International Standard IEC 62811 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

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

FDIS	Report on voting
34C/1132/FDIS	34C/1149/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 2.

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## INTRODUCTION

This International Standard covers performance requirements for electronic controlgear for use on a.c., at 50 Hz or 60 Hz and/or d.c. supplies up to 1 000 V associated with discharge lamps as specified in IEC 61167 for low frequency square wave operation.

In order to obtain satisfactory performance of discharge lamps and electronic controlgears, it is necessary that certain features of their design be properly coordinated. It is essential, therefore, that specifications for them be written in terms of measurement made against some common baseline of reference, permanent and reproducible.

These conditions may be fulfilled by reference ballasts. Moreover, the testing of controlgear for discharge lamps will, in general, be made with reference lamps and, in particular, by comparing the results obtained using these lamps on the controlgear to be tested and on the reference ballast. Whereas the reference ballast for frequencies of 50 Hz or 60 Hz is a self-inductive coil, the low frequency square wave reference ballast is a resistor because of its independence of frequency and the lack of influence of parasitic capacitance.

# AC AND/OR DC-SUPPLIED ELECTRONIC CONTROLGEAR FOR DISCHARGE LAMPS (EXCLUDING FLUORESCENT LAMPS) – PERFORMANCE REQUIREMENTS FOR LOW FREQUENCY SQUARE WAVE OPERATION

## 1 Scope

This International Standard specifies performance requirements for electronic controlgear for use on a.c. and/or d.c. supplies up to 1 000 V and/or a.c. supplies up to 1 000 V at 50 Hz or 60 Hz, associated with discharge lamps, as specified in IEC 61167, which have information for low frequency square wave operation, where the frequency range of the low frequency is from 70 Hz to 400 Hz.

Tests in this standard are type tests. Requirements for testing individual controlgear during production are not included.

There are regional standards regarding the regulation of mains current harmonics and immunity for end products like luminaires and independent controlgear. In a luminaire, the controlgear is dominant in this respect. Controlgear, together with other components, should comply with these standards.

## 2 Normative references

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.

IEC 60050 (all parts), *International Electrotechnical Vocabulary*

IEC 61000-4-14:1999, *Electromagnetic compatibility (EMC) – Part 4-14: Testing and measurement techniques – Voltage fluctuation immunity test*

IEC 61000-4-14:1999/AMD1:2001

IEC 61000-4-14:1999/AMD2:2009

IEC 61167, *Metal Halide lamps – Performance specifications*

IEC 61347-1, *Lamp controlgear – Part 1: General and safety requirements*

IEC 61347-2-12, *Lamp controlgear – Part 2-12: Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps)*

IEC 62386 (all parts), *Digital addressable lighting interface*

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