

AS/NZS 61347.2.2:2020



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## Lamp controlgear

Part 2.2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps (IEC 61347-2-2:2011, MOD)



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AS/NZS 61347.2.2:2020

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Consumers Federation of Australia  
Department of Industry, Science, Energy and Resources  
Electrical Compliance Testing Association of Australia  
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Australian/New Zealand Standard™

## Lamp controlgear

**Part 2.2: Particular requirements for d.c. or a.c. supplied electronic step-down converters for filament lamps (IEC 61347-2-3:2011, MOD)**

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## Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-041, Lamps and Related Equipment to supersede AS/NZS 61347.2.2:2007, *Lamp controlgear, Part 2.2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps (IEC 61347-2-2, Ed. 1.2 (2006) MOD)*.

The objective of this document is to specify particular safety requirements for electronic step-down convertors for use on d.c. supplies of up to 250 V or a.c. supplies of up to 1 000 V, at 50 Hz or 60 Hz and with rated output voltage 50 V r.m.s. at a frequency deviating from the supply frequency, or 120 V ripple free d.c. between conductors and between any conductor and earth, associated with tungsten-halogen lamps as specified in IEC 60357 and other filament lamps.

This document is to be read in conjunction with AS/NZS 61347.1:2016.

This document is an adoption with national modifications, and has been reproduced from, IEC 61347-2-2:2011, *Lamp controlgear — Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps*. The modifications are additional requirements and are set out in Appendix ZZ, which has been added at the end of the source text.

Appendix ZZ lists the variations to IEC 61347-2-2:2011 for the application of this document in Australia and New Zealand.

As this document has been reproduced from an International Standard, the following applies:

- (a) In the source text “part of IEC 61347” should read “this document”.
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Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

NOTES

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## LAMP CONTROLGEAR –

**Part 2-2: Particular requirements for d.c. or a.c. supplied  
electronic step-down convertors for filament lamps**

## FOREWORD

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

This second edition of IEC 61347-2-2 replaces the first edition (2000), Amendment 1 (2005) and Amendment 2 (2006). The major modification for this second edition is the changeover from SELV equivalent to SELV.

This standard shall be used in conjunction with the second edition of IEC 61347-1 (2007) and its Amendment 1 (2010) and 2 (to be published).

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

FDIS	Report on voting
34C/994/FDIS	34C/1001/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.

This part 2 supplements or modifies the clauses in IEC 61347-1, so as to convert that publication into the IEC Standard: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps.

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.

A list of all parts of the IEC 61347 series, under the general title: *Lamp control gear* can be found on the IEC website.

The committee has decided that the contents of this 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.

## INTRODUCTION

This second edition of IEC 61347-2-2 is published in conjunction with IEC 61347-1. 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 other 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 in which are clearly inapplicable to the specific type of lamp control gear covered by this particular part of IEC 61347-2.

## LAMP CONTROLGEAR –

### Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps

#### 1 Scope

This part of IEC 61347 specifies particular safety requirements for electronic step-down convertors for use on d.c. supplies of up to 250 V or a.c. supplies of up to 1 000 V, at 50 Hz or 60 Hz and with rated output voltage  $\leq 50$  V r.m.s. at a frequency deviating from the supply frequency, or 120 V ripple free d.c. between conductors and between any conductor and earth, associated with tungsten-halogen lamps as specified in IEC 60357 and other filament lamps.

NOTE The limit of 50 V rated output voltage is in accordance with band I of IEC 60449.

Particular requirements for electronic step-down convertors with means of protection against overheating are given in Annex C.

Particular additional requirements for convertors providing safety extra low voltage (hereinafter SELV), are given in Annex I.

Performance requirements are covered by IEC 61047.

Plug-in convertors, being part of the luminaire, are covered as for built-in convertors by the additional requirements of the luminaire standard.

#### 2 Normative references

For the purpose of this part of IEC 61347, the normative references given in Clause 2 of IEC 61347-1 which are mentioned in this standard apply, together with the following normative references:

IEC 60357, *Tungsten halogen lamps (non vehicle) – Performance specifications*

IEC 61047, *DC or a.c. supplied electronic step-down convertors for filament lamps – Performance requirements*

IEC 61347-1:2007, *Lamp controlgear – Part 1: General and safety requirements* Amendment 1 (2010)

IEC 61558-2-1, *Safety of power transformers, power supplies, reactors and similar products – Part 2-1: Particular requirements and tests for separating transformers and power supplies incorporating separating transformers for general applications*

IEC 61558-2-6, *Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V – Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers*

IEC 61558-2-13, *Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1 100 V – Part 2-13: Particular requirements and tests for auto transformers and power supply units incorporating auto transformers*