AS/NZS 61347.2.2:2007

Australian/New Zealand Standard™

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)

STANDARDS Australia

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-041, Lamps and Related Equipment. It was approved on behalf of the Council of Standards Australia on 1 June 2007 and on behalf of the Council of Standards New Zealand on 4 May 2007.
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The following are represented on Committee EL-041:

Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Certification Interests (New Zealand)
Consumers' Federation of Australia
Electrical Compliance Testing Association
Electrical Regulatory Authorities Council
Energy Efficiency and Conservation Authority of New Zealand
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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

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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 61347.2.2:2004 on publication.

The objective of this Standard is to specify particular safety requirements for electronic step-down convertors associated with tungsten-halogen lamps and other filament lamps.

This Standard is an adoption with national modifications and has been reproduced from IEC 61347-2-2, Ed. 1.2 (2006), *Lamp controlgear – Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps*, and has been varied as indicated to take account of Australian/New Zealand conditions.

Variations to IEC 61347-2-2, Ed. 1.2 (2006) are indicated at the appropriate places throughout this standard. Strikethrough (~~example~~) identifies IEC text, tables and figures which, for the purposes of this Australian/New Zealand Standard, are deleted. Where text, tables or figures are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border.

This Standard is a section of Part 2 of AS/NZS 61347 *Lamp controlgear*. Currently this Series consists of the following parts. Additional parts will be added from time to time.

AS/NZS	
61347.1	Part 1: General and safety requirements
61347.2.1	Part 2.1: Particular requirements for starting devices (other than glow starters)
61347.2.2	Part 2.2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps (this Standard)
61347.2.3	Part 2.3: Particular requirements for a.c. supplied electronic ballasts for fluorescent lamps
61347.2.4	Part 2.4: Particular requirements for d.c. electronic ballasts for general lighting
61347.2.5	Part 2.5: Particular requirements for d.c. supplied electronic ballasts for public transport lighting
61347.2.6	Part 2.6: Particular requirements for d.c. supplied electronic ballasts for aircraft lighting
61347.2.7	Part 2.7: Particular requirements for d.c. supplied electronic ballasts for emergency lighting
61347.2.8	Part 2.8: Particular requirements for ballasts for fluorescent lamps
61347.2.9	Part 2.9: Particular requirements for ballasts for discharge lamps (excluding fluorescent lamps)
61347.2.10	Part 2.10: Particular requirements for electronic invertors and convertors for high-frequency operation of cold start tubular discharge lamps (neon tubes)
61347.2.11	Part 2.11: Particular requirements for miscellaneous electronic circuits used with luminaires

This Standard is to be read in conjunction with AS/NZS 61347.1.

It is to be noted that AS/NZS 61347.1 has variations from IEC and hence product complying with IEC 61347-1 may not comply with AS/NZS 61347.1.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text ‘IEC 61347-2-2’ should read ‘AS/NZS 61347.2.2’.

(c) A full point should be substituted for a comma when referring to a decimal marker.

In this Standard, the following print types are used:

– requirements proper: in arial type;

– *test specifications: in italic type;*

– explanatory matter: in smaller arial type.

The terms ‘normative’ and ‘informative’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a Standard, whereas an informative annex is only for information and guidance.

CONTENTS

INTRODUCTION

This first edition of IEC 61347-2-2, published in conjunction with IEC 61347-1, represents an editorial review of IEC 61046. 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.

NOTES

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Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian/New Zealand table, figure or text that is added is part of this standard and is identified by shading.

1 Scope

This part of IEC 61347 specifies particular safety requirements for electronic step-down convertors for use on d.c. supplies up to 250 V or a.c. supplies up to 1 000 V at 50 Hz or 60 Hz and rated output voltage ≤50 V r.m.s. at a frequency deviating from the supply frequency or $\leq 50\sqrt{2}$ V unsmoothed d.c. between conductors or 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 requirements for stationary independent SELV convertors, which are part of the wiring in installations, 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.

References to international standards that are struck through in this clause are replaced by references to Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is identified as such.

IEC 60051 (all parts), *Direct acting indicating analogue electrical measuring instruments and their accessories*

~~IEC 60065, *Safety requirements for mains operated electronic and related apparatus for household and similar general use*~~

AS/NZS 60065:2003, *Audio, video and similar electronic apparatus—Safety requirements*

IEC 60083, *Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC*