AS 60155:2018

Australian STANDARD

# Glow-starters for fluorescent lamps (IEC 60155:1993 (ED. 4.0), MOD)



STANDARDS Australia

This Australian Standard® was prepared by Committee EL-041, Lamps and Related Equipment. It was approved on behalf of the Council of Standards Australia on 23 July 2018. This Standard was published on 7 September 2018.

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The following are represented on Committee EL-041:

- Australian Industry Group
- Consumers' Federation of Australia
- Department of the Environment and Energy (Australian Government)
- Electrical Compliance Testing Association
- Electrical Regulatory Authorities Council
- IES: The Lighting Society
- Joint Accreditation System of Australia and New Zealand
- Lighting Council Australia
- Master Electricians (Australia)
- NSW Fair Trading

Additional Interests:

- Australasian Fire and Emergency Service Authorities Council
- Independent Pricing and Regulatory Tribunal

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard®

# Glow-starters for fluorescent lamps (IEC 60155:1993 (ED. 4.0), MOD)

Originally as AS/NZS 60155:2000.
Revised and redesignated as AS 60155:2018.



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# PREFACE

This Standard was prepared by the Australian members of Joint Standards Australia/Standards New Zealand Committee EL-041, Lamps and Related Equipment, to supersede AS/NZS 60155:2000 and its amendments. AS/NZS 60155:2000, *Glow-starters for fluorescent lamps* will also remain current for 12 months and after this time it will be superseded by AS 60155:2018. Regulatory authorities that reference this Standard in regulation may apply these requirements at a different time. Users of this Standard should consult with these authorities to confirm their requirements.

After consultation with stakeholders, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify safety and performance requirements for glow-starters for fluorescent lamps.

This Standard is an adoption with national modifications; it has been reproduced from IEC 60155:1993 (ED. 4.0) *Glow-starters for fluorescent lamps*, and its Amendments 1 (1995) and 2 (2006). The modifications are additional requirements and are set out in Appendix ZZ.

Amendment 2 includes new requirements in Clause 7.9 for starter contact material with respect to the previous edition.

The original text of the amendments included page numbers for the relevant English and French text. As this adoption reproduces only the English text, the clause numbers provide clear instructions and the page numbers have been deleted.

Variations made to IEC 60155:1993 (ED. 4.0) incorporating Amendments 1 and 2 form the Australian variations for the purpose of the IECEE CB Scheme for recognition of testing to standards for safety of electrical equipment (the CB Scheme). They are listed in Appendix ZZ for easy reference and will be published in the *CB Bulletin*.

This Standard is structured as follows:

(a) Preface.

(b) IEC 60155:1993, (ED. 4.0), including Amendment 1 (1995) and Amendment 2 (2006) from the first clause to the Bibliography.

(c) Appendix ZZ — Australian variations to the source document.

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

(i) In the source text '*this* is part of IEC 60155' should read 'this Australian Standard'.

(ii) A full point substitutes for a comma when referring to a decimal marker.

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' have been used in this Standard to define the application of the annex or appendix to which they apply. A 'normative' annex or appendix is an integral part of a Standard, whereas an 'informative' annex or appendix is only for information and guidance.

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# FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. 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. The 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 the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.

International Standard IEC 155 has been prepared by subcommittee 34A: Lamps, of IEC technical committee 34: Lamps and related equipment.

This fourth edition cancels and replaces the third edition published in 1983 and amendments 1 and 2, and constitutes a technical revision.

The test of this standard is based on the third edition, on the amendments 1 and 2 and on the following documents:

| DIS | Report on voting |
|---|---|
| 34A(CO)635 | 34A(CO)686 |

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 standard should be used in conjunction with IEC 81, IEC 901 and IEC 921.

Annexes A and B form an integral part of this standard.

# INTRODUCTION

This standard for interchangeable glow-starters for fluorescent lamps comprises two sections: Section 1 describes the general requirements with which glow-starters shall comply in order to ensure safety, and Section 2 covers the requirements for performance.

The additional requirements with which glow-starters for use in class II luminaires shall comply are specified in annex B.

AUSTRALIAN STANDARD

# Glow-starters for fluorescent lamps (IEC 60155:1993 (ED. 4.0), MOD)

## 1 Scope

This standard specifies interchangeable glow-starters used with pre-heat type fluorescent lamps, hereafter called "starters".

Section 1 specifies the general and safety requirements with which starters shall comply.

Section 2 specifies the performance.

NOTE – Starters are generally designed to operate with a range of lamps, depending on supply voltage, single lamp or series pair operation, maximum lamp voltage and lamp starting requirements.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 81: 1984, *Tubular fluorescent lamps for general lighting service*

IEC 400: 1991, *Lampholders for tubular fluorescent lamps and starterholders*

IEC 598: *Luminaires*

IEC 695-2-1: 1991, *Fire hazard testing. Part 2: Test methods – Section 1: Glow-wire test and guidance*

IEC 901: 1987, *Single-capped fluorescent lamps – Safety and performance requirements*

IEC 921: 1988, *Ballasts for tubular fluorescent lamps. Performance requirements*

## 3 Definitions

3.1 **starter:** A device, other than a main switch, which closes or opens the pre-heating circuit of a fluorescent lamp for the purpose of starting the lamp.