

Australian/New Zealand Standard™

**Household and similar electrical  
appliances—Safety**

**Part 2.27: Particular requirements for  
appliances for skin exposure to optical  
radiation (IEC 60335-2-27 Ed 5.2, MOD)**



## **AS/NZS 60335.2.27:2016**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-002, Safety of Household and Similar Electrical Appliances and Small Power Transformers. It was approved on behalf of the Council of Standards Australia on 17 June 2016 and by the New Zealand Standards Approval Board on 2 June 2016.

This Standard was published on 30 June 2016.

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The following are represented on Committee EL-002:

Australian Industry Group  
National Retailers Association (Australia)  
Business New Zealand  
Consumer Electronic Suppliers Association, Australia  
Consumers' Federation of Australia  
Electrical Regulatory Authorities, Australia  
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*This Standard was issued in draft form for comment as DR 15916.*

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### Part 2.27: Particular requirements for appliances for skin exposure to optical radiation (IEC 60335-2-27 Ed 5.2, MOD)

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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

## AS/NZS 60335.2.27:2016

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –  
SAFETY –Part 2.27: Particular requirements for appliances for  
skin exposure to optical radiation

## Foreword

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002- Safety of Household and Similar Electrical Appliances and Small Power Transformers to supersede AS/NZS 60335.2.27:2010 two years from the date of publication for UV and IR appliances and three years from the date of publication for Visual appliances.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with safety requirements designed to give the user protection against hazards that might occur during normal operation and abnormal operation of the appliance and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand

The text of IEC 60335-2-27 Ed 5.2, prepared by IEC Technical Committee 61, was submitted to the Standards Australia/Standards New Zealand Combined Procedure (dual public comment and committee vote) for adoption of the IEC standard as a Standards Australia/Standards New Zealand joint standard.

The principal changes in this edition as compared with the 2010 edition of AS/NZS 60335.2.27 and its amendments are as follows (minor changes are not listed).

- the title has been changed to reflect the change in the scope;
- emitters in the range 400 nm to 780 nm have been included (1, 3.107);
- specific instructions have been included to cover IR appliances and Visual appliances (7.1, 7.12);
- method of calculating the exposure dose is included (32.101);
- clarification of the radiation measurement procedure (32.101, 32.102);
- specific requirements for protective goggles have been added (7.1, 32.103).

This Standard incorporates Amendment No. 1 (June 2017). The changes required by the amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected. Where an application date other than immediate is applicable to an amendment the date of application (DOA) and the date of withdrawal (DOW) if relevant, is indicated by the marginal bar against the part affected. The change to the IEC text is not indicated by a marginal bar.

This Standard is an adoption with national modifications of the fifth edition of IEC 60335-2-27, Household and similar electrical appliances – safety – Part 2-27: Particular requirements for appliances for skin exposure to optical radiation and its amendment 1 (2014), amendment 2 (2015) and its corrigendum 1 (2015) and its corrigendum 2 (2016). It has been varied as indicated to take account of Australian and New Zealand conditions.

This part 2 has to be used in conjunction with the latest edition of AS/NZS 60335.1 *Household and similar electrical appliances – Safety – Part 1: General requirements* and its Amendments. It was established on the basis of AS/NZS 60335.1:2011.

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This part 2 supplements or modifies the corresponding clauses of AS/NZS 60335.1 so as to convert it into the Australian/New Zealand Standard: Safety requirements for appliances for skin exposure to optical radiation.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

NOTE 1 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.;
- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letters AZ.

NOTE 2 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3.

p NOTE 3 In this document, p is used in the margin to indicate instructions for preparing a consolidated version.

The essential safety requirements in AS/NZS 3820<sup>1</sup> that could be applicable to requirements for appliances for skin exposure to optical radiation are covered by this standard.

The national variations to the IEC 60335-2-27 Ed 5.2 form the Australian and New Zealand national variations for purposes of the IECEE scheme for recognition of results of testing to standards for safety of electrical equipment (the CB scheme).

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<sup>1</sup> AS/NZS 3820 *Essential safety requirements for low voltage electrical equipment*