

Australian/New Zealand Standard™

**Approval and test specification—
General requirements for electrical
equipment**



AS/NZS 3100:2009

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 9 September 2009 and on behalf of the Council of Standards New Zealand on 28 August 2009.

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The following are represented on Committee EL-002:

- Australian Industry Group
 - A3 | National Retailers Association (Australia)
 - Business New Zealand
 - Consumer Electronic Suppliers Association, Australia
 - Consumers' Federation of Australia
 - Electrical regulatory authorities, Australia
 - Electrical Compliance Testing Association
 - Electrical consultants
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 - A3 | Testing Interests New Zealand
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Australian/New Zealand Standard™

Approval and test specification— General requirements for electrical equipment

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PREFACE

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 3100:2002 from the date of publication.

A4 | This Standard incorporates Amendment No. 1 (October 2010), Amendment No. 2 (October 2012) and Amendment No. 3 (June 2014) that was issued in draft form for comment as document DR 13916 and Correction Amendment 4 (July 2015). 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) is indicated by the marginal bar.

A4 | This Standard is one of a series of Approval and test specifications issued by Standards Australia and Standards New Zealand, whose objective is to provide manufacturers and regulatory bodies with minimum safety requirements for equipment not covered by other standards. This standard is designed to give the user protection against hazards that might occur during normal operation and abnormal operation of the equipment, and which may be used as the basis for approval for sale or for connection to supply in Australia and New Zealand.

This Standard contains general requirements for electrical equipment and can be applied to equipment for which no particular Approval and test specification exists. It also forms the basis of general requirements where an Approval and test specification exists for a piece of equipment. Only safety matters and related conditions are covered.

A1 | This Standard was revised to incorporate Amendments No's 1, 2, and 3 and to effect changes to clauses 8.1, 8.3.1 and 8.4.5 that were issued in draft form for comment as document DR 09908. Editorial changes have also been incorporated.

For appliances, where conflict or uncertainty arises between the requirements detailed in this Standard and those detailed in AS/NZS 60335.1, those in AS/NZS 60335.1 shall take precedence. Where an interpretation of the requirements in AS/NZS 3100 is needed, the interpretation made shall be based upon the requirements detailed in AS/NZS 60335.1.

Annex A of this Standard contains fire hazard test requirements for equipment that is not designated as 'attended' or 'unattended'.

The terms 'normative' and 'informative' have been used in this Standard 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

Standards Australia/Standards New Zealand

Approval and test specification – General requirements for electrical equipment

SECTION 1: SCOPE, APPLICATION AND REFERENCED DOCUMENTS

1.1 Scope

This Standard specifies the general safety requirements for, or with respect to, equipment (including fittings, accessories, appliances and apparatus) of classes and types that are used in, or intended for use in, or in connection with, electrical installations in buildings, structures, and premises. It is not applicable to an appliance within the scope of AS/NZS 60335.1 or a part 2 of this standard, except where an approval and test specification makes reference to this standard.

Guidelines covering design and testing of electrical equipment to ensure safety and protection against electric shock, including the principles and application of double insulation, are contained in Annex D. Users of this Standard may find it helpful to study Annex D before reading the main body of this Standard.

1.2 Application

As and when an individual Standard dealing with specific features of the design and construction, and the testing, of any particular class or type of equipment is issued, it shall supersede those general requirements of this Standard that are specifically dealt with in those individual Standards.

Any material, fitting, cable, accessory, appliance or apparatus used in, or in connection with, an electrical installation shall comply with the appropriate individual Standard. In the absence of any such Standard, the appropriate provisions of this Standard shall apply.

NOTE Where an individual Standard makes reference to the appropriate clauses of this Standard, it is taken to mean that Clauses 3, 4, 5, 6.1, 6.2, 6.3, 7 and 8.15.8 of this Standard are applicable to the individual Standard. The remaining tests of Clause 8 are only applicable if referred to by Clauses 3, 4, 5, 6.1, 6.2, 6.3 or 7 of this Standard or if directly referred to in the individual Standard.

Should any requirement of an individual Standard differ from any of the general requirements of this Standard, the requirement of the individual standard shall prevail.

Where the words 'National Wiring Rules' have been used throughout the text of this Standard, it shall be taken to mean AS/NZS 3000.

1.3 Referenced documents

The following documents are referred to in this Standard:

NOTE Where no relevant joint Australia/New Zealand Standard is listed, the referenced Australian Standard is deemed to be appropriate for the purpose of this Standard.

Standards

AS

1834.1 Material for soldering – Solder alloys