

Australian/New Zealand Standard™

**Safety of household and similar
electrical appliances**

**Part 1: General requirements
(IEC 60335-1:1994 MOD)**

AS/NZS 3350.1:2000

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/2, Safety of household and similar electrical appliances and small power transformers. It was approved on behalf of the Council of Standards Australia on 15 August 2000 and on behalf of the Council of Standards New Zealand on 12 October 2000. It was published on 20 October 2000.

The following interests are represented on Committee EL/2:

Association of Certification Bodies
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Canterbury Manufacturers Association, New Zealand
Consumer Electronics Suppliers Association, Australia
Electrical regulatory authorities
Electrical test laboratories
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AS/NZS 3350.1:2000
(Incorporating Amendment No. 1)

Australian/New Zealand Standard™

Safety of household and similar electrical appliances

Part 1: General requirements (IEC 60335-1:1994 MOD)

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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 3350.1:1994 including Amendments 1, 2, 3, 4, 5 and 6 and Amendment 7 introduced by DR 99214 CP which brought about the revision.

A1 | *This Standard incorporates Amendment No. 1 (January 2001). The changes arising from the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure, or part thereof affected.*

The objective of this Standard is to provide manufacturers and regulatory bodies with minimum general safety requirements, designed to give user protection against hazards that might occur during normal operation and abnormal operation of appliances, and which may be used as the basis for approval for sale or for connection to supply in Australia and New Zealand.

This Standard forms the second edition of AS/NZS 3350.1, *Safety of household and similar electrical appliances*, Part 1: *General requirements*.

This Standard is an adoption with national modifications and contains the full text of IEC 60335-1:1991, *Safety of household and similar electrical appliances*, Part 1: *General requirements*, including Amendments 1 and 2 and has been varied as indicated to take account of Australian and New Zealand conditions. This Standard, referred to as Part 1, is to be used in conjunction with the appropriate Part 2, which contains clauses that supplement or modify the corresponding clauses in Part 1, to provide the relevant requirements for each type of appliance.

In this Standard, the following print types are used:

- requirements proper in: arial type;
- test specifications in: *italic type*;
- defined terms in: **bold type**;
- explanatory matters in: smaller arial type.

Words in **bold** are defined in Clause 2. Where a definition of Part 1 contains an adjective, the adjective and associated noun are **bold** in Part 2.

Variations to IEC 60335-1:1999 are indicated at the appropriate places throughout this Standard. Strikethrough (~~example~~) identifies IEC tables, figures and passages of text which, for the purposes of this Standard, are deleted. Where tables, figures or passages of text 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. The variations are listed in Annex ZZ of this Standard for easy reference. The variations also form the Australian national variations for purposes of the IEC scheme for recognition of results of testing to standards for safety of electrical equipment (the CB scheme).

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.

The requirements in this Standard take into account, as far as possible, the standards and codes of practice that form the wiring rules in Australia and New Zealand, so that an appliance may be installed in accordance with those wiring rules.

The numbering of clauses, subclauses, notes, tables, figures and annexes follows that of IEC 60335-1:1994. To allow for the introduction of additional material by the IEC, the numbers 1 to 100 have been reserved. Clauses numbered from 101 are used by the IEC to add to the body of the Standard by annexes. To allow for additional material to be introduced by Australia and New Zealand, the numbers 201 to 300 are used to number further clauses, subclauses, notes, tables and figures in this Standard.

This scheme has been introduced to reduce the likelihood of the IEC and Australia or New Zealand using the same clause or figure number for differing requirements. The use of the word VOID indicates that the IEC requirement is not used in Australia or New Zealand. The word is also used where the deletion of a particular requirement such as a Table would lead to the consequential renumbering of references within the body of the Standard and succeeding tables. Where Australia and New Zealand have added a requirement or made a change to a particular clause of IEC 60335-1 that clause number remains unchanged.

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 'this international standard' should read 'this Standard'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

A reference to an International Standard identified in Annex A by ~~strikeout~~ is replaced by a reference to the Australian/New Zealand Standard(s) listed immediately thereafter and identified by shading.

INTRODUCTION

It has been assumed in the drafting of this international standard that the execution of its provisions is entrusted to appropriately qualified and experienced persons.

The requirements in this Standard take into account, as far as possible, the standards and codes of practice that form the wiring rules in Australia and New Zealand, so that an appliance may be installed in accordance with these wiring rules.

This standard recognizes the internationally accepted level of protection against hazards such as electrical, mechanical, thermal, fire and radiation of electrical household and similar appliances when operated as in normal use taking into account the manufacturer's instructions; it also covers abnormal situations which can be expected in practice.

A product which complies with the text of this Standard will not necessarily be judged to comply with the safety principles of the Standard if, when examined and tested, it is found to have other features which impair the level of safety covered by these requirements.

A product employing materials or having forms of construction differing from those detailed in the requirements of this Standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be judged to comply with the safety principles of the Standard.

The requirements in this Standard may be applied, so far as is reasonable, to appliances where there is no Part 2 and to appliances designed on new principles.

If the functions of an appliance are covered by different parts 2 of AS/NZS 3350, the relevant Part 2 is applied to each function separately, so far as is reasonable, with the influence of one function on the other being taken into account.

Standards dealing with non-safety aspects of household appliances are:

- IEC standards published by TC 59 concerning methods of measuring performance;
- CISPR 11* and CISPR 14* concerning radio interference suppression;
- CISPR 14-2 and IEC 61000 series concerning electromagnetic compatibility.

* CISPR 11: 1990, Limits and methods of measurement of electromagnetic disturbance characteristics of industrial, scientific and medical (ISM) radio-frequency equipment.

CISPR 14: 1993, Limits and methods of measurement of radio disturbance characteristics of electrical motor operated and thermal appliances for household and similar purposes, electric tools and electrical apparatus.

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Any IEC table, figure or passage of text that is struckthrough is not part of this Standard. Any table, figure or passage of text that is added (and identified by shading) is part of this Standard.

1 Scope

This standard deals with the safety of electrical appliances for household and similar purposes, the **rated voltage** of the appliances being not more than 250 V for single-phase appliances and 480 V for other appliances.

Appliances may incorporate motors, heating elements or their combination.

Appliances not intended for normal household use but which nevertheless may be a source of danger to the public, such as appliances intended to be used by laymen in shops, in light industry and on farms, are within the scope of this standard.

NOTE 1 - Examples of such appliances are catering equipment, cleaning appliances for industrial and commercial use, and appliances for hairdressers.

So far as is practicable, this standard deals with the common hazards presented by appliances which are encountered by all persons in and around the home. However this standard does not in general take into account

- the use of appliances by young children or infirm persons without supervision;
- playing with the appliance by young children.

NOTES

2 Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;
- ~~- for appliances intended to be used in tropical countries, special requirements may be necessary;~~
- for the purpose of this Standard, Australia and New Zealand are not considered to be tropical countries;
- in many countries additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour, the national water supply authorities and similar authorities.

3 This standard does not apply to

- appliances intended exclusively for industrial purposes;
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas);
- radio and television receivers, record players and similar equipment (IEC 60065);
- appliances for medical purposes (IEC 60601);
- hand-held motor-operated electric tools (IEC 60745);
- personal computers and similar equipment (IEC 60950);
- transportable motor-operated electric tools (IEC 61029).