

Australian/New Zealand Standard™

**Appliance couplers for household and  
similar general purposes**

**Part 1: General requirements (IEC  
60320-1, Ed. 2.0 (2001) MOD)**



## **AS/NZS 60320.1:2004**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-004, Electrical Accessories. It was approved on behalf of the Council of Standards Australia on 18 November 2004 and on behalf of the Council of Standards New Zealand on 3 December 2004.

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Canterbury Manufacturers Association, New Zealand  
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# Australian/New Zealand Standard™

## Appliance couplers for household and similar general purposes

### Part 1: General requirements (IEC 60320-1, Ed. 2.0 (2001) MOD)

Originated in Australia as AS C109—1937.  
Previous edition AS/NZS 3109.1:1996.  
Jointly revised and redesignated AS/NZS 60320.1:2004.

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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-004, Electrical Accessories to supersede AS/NZS 3109.1:1996, *Approval and test specification—Appliance couplers for household and similar general purposes*, from the date of publication.

This Standard forms the first edition of AS/NZS 60320.1, *Appliance couplers for household and similar general purposes*, Part 1: *General requirements*.

This Standard 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 product.

The objective of this Standard is to provide Australian and New Zealand electrical industries, manufacturers and regulatory bodies with safety general requirements, for appliance couplers for household and similar general purposes, and which may be used as the basis for approval for sale or for connection to supply in Australia and New Zealand.

This Standard is an adoption with national modifications and has been reproduced from IEC 60320-1, Ed. 2.0 (2001), *Appliance couplers for household and similar general purposes Part 1: General requirements*.

Variations to IEC 60320-1 to take account of Australian/New Zealand conditions 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.

Variations made to IEC 60320-1 form the Australian national variations for purposes of the CB scheme for recognition of testing to standards for safety of electrical equipment. These variations have been incorporated in the body of the Standard. They are listed in Annex ZZ for easy reference. Annex ZA covers additional Australian/New Zealand requirements for Group 2 and Group 3 appliance couplers.

This Standard was revised to adopt the latest international requirement for appliance couplers and include the following technical changes:

- (a) Insert new Clause 5.1.201 giving tolerances for testing purposes.
- (b) Adopt resistance to heat requirements of Clause 24.1.1 and Clause 24.1.2.
- (c) Adopt resistance to tracking requirements of Clause 27.2.

The essential safety requirements in AS/NZS 3820 that could be applicable to appliance couplers are covered by this Standard taken in conjunction with any other relevant requirements affecting safety.

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.

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

- (i) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (ii) A full point should be substituted for a comma when referring to a decimal marker.

(iii) Throughout this Standard the word 'elastomer' should replace the word 'rubber'. The term 'polyvinyl chloride or similar material' is intended to include all 'resilient type materials'. In Clauses 15.2, 22.1, 22.3 and 22.4, replace IEC 'Type of cord' with the following:

- (A) 60227 IEC 41 – PVC insulated tinsel parallel 2-core unsheathed.
- (B) 60227 IEC 52 – Light duty PVC insulated sheathed.
- (C) 60227 IEC 53 – Ordinary duty PVC insulated sheathed.
- (D) 60245 IEC 51 – Elastomer insulated braided.
- (E) 60245 IEC 53 – Ordinary duty elastomer insulated sheathed.

The numbering of clauses, subclauses, notes, tables, figures and annexes follows that of IEC 60320-1. 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 60320-1 that clause number remains unchanged.

This Standard does not purport to include all the necessary conditions of a contract.

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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard****Appliance couplers for household and similar general purposes  
Part 1: General requirements (IEC 60320-1, Ed. 2.0 (2001) MOD)**

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 60320~~ AS/NZS 60320 is applicable to two-pole appliance couplers for a.c. only, with or without earthing contact, with a rated voltage not exceeding 250 V and a rated current not exceeding 16 A, for household and similar general purposes and intended for the connection of a supply cord to electrical appliances or other electrical equipment for 50 Hz or 60 Hz supply.

Additional requirements for Group 2 and Group 3 appliance couplers are given in Annex ZA.

NOTE 1 Appliance inlets integrated or incorporated in appliances or other equipment are within the scope of this standard. The dimensional and general requirements of this standard apply to such inlets, but certain tests may not be relevant.

NOTE 2 The requirements for connectors are based on the assumption that the temperature of the pins of the corresponding appliance inlets does not exceed

- 70°C for connectors for cold conditions;
- 120°C for connectors for hot conditions;
- 155°C for connectors for very hot conditions.

NOTE 3 Appliance couplers complying with this standard are suitable for use at ambient temperatures not normally exceeding 25°C, but occasionally reaching 35°C.

NOTE 4 Appliance couplers complying with the standard sheets in this standard are intended for the connection of equipment having no special protection against moisture. If appliance couplers are used with equipment which may be subject to spillage of liquid in normal use then protection against moisture is to be provided by the equipment.

NOTE 5 Special constructions may be required

- in locations where special conditions prevail, for example, as in ships, vehicles and the like;
- in hazardous locations, for example, where explosions are liable to occur.

**2 Normative references**

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ~~IEC 60320~~ AS/NZS 60320. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ~~IEC 60320~~ AS/NZS 60320 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

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.