AS/NZS 60320.1:2012

Australian/New Zealand Standard™

Appliance couplers for household and similar general purposes

Part 1: General requirements (IEC 60320-1, Ed. 2.1 (2007) MOD)

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 27 March 2012 and on behalf of the Council of Standards New Zealand on 28 May 2012.
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The following are represented on Committee EL-004:

Australasian Railway Association
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Canterbury Manufacturers Association, New Zealand
Consumer Electronic Suppliers Association
Consumers Federation of Australia
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This Standard was issued in draft form for comment as DR AS/NZS 60320.1.

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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 60320.1:2004, *Appliance couplers for household and similar general purposes—General requirements (IEC 60320-1, Ed. 2.0 (2001) MOD)* three months from publication. Until that date, both editions of the Standard will run in parallel.

The objective of this Standard is to provide the Australian and New Zealand electrical industries, including manufacturers and regulatory bodies, with general safety 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.2.1 (2007), *Appliance couplers for household and similar general purposes—Part 1: General requirements* and has been modified to take account of Australian/New Zealand conditions. The variations are specified in Appendix ZZ and are to be used for the IEC CB scheme.

IEC 60320-1, Ed.2.1 (2007) is a consolidated version of IEC 60320-1, consisting of the second edition (2001) and its Amendment 1 (2007). A vertical line in the margin shows where the base publication has been modified by Amendment 1.

The objectives of this revision are—

(a) to adopt the latest edition of IEC 60320-1;

(b) to delete Group 3 appliance couplers;

(c) to revise the additional requirements for Group 2 appliance couplers in Appendix ZA; and

(d) to delete two/three pin flat pin appliance inlets that fit a cord extension socket complying with AS/NZS 3120.

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.

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

(i) Its number appears on the cover and title page while the International Standard number appears only on the cover.

(ii) In the source text ‘this part of IEC 60320’ should read ‘this Australian/New Zealand Standard’.

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

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian/New Zealand Standard*	
IEC		AS	
60050	International Electrotechnical Vocabulary (IEV)	1852	International Electrotechnology Vocabulary (IEV)
60050-151	Part 151: Electrical and magnetic devices	1852.151	Part 151: Electric and magnetic devices
60068	Environmental testing	60068	Environment testing
60068-2-32	Part 2-32: Tests—Test Ed: Free fall	60068.2.32	Part 2.32: Tests—Test Ed: Free fall

IEC		AS/NZS	
60112	Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions	60112	Method for the determination of the proof and the comparative tracking indices of solid insulating materials
60695	Fire hazard testing	60695	Fire hazard testing
60695-2-10	Part 2-10: Glowing/hot-wire based test methods—Glow-wire apparatus and common test procedure	60695.2.10	Part 2.10: Glowing/hot wire based test methods—Glow-wire apparatus and common test procedure
60695-2-11	Part 2-11: Glowing/hot-wire based test methods—Glow-wire flammability test method for end products	60695.2.11	Part 2.11: Glowing/hot wire based test methods—Glow-wire flammability test method for end-products
60695-2-12	Part 2-12: Glowing/hot-wire based test methods—Glow-wire flammability test method for materials	60695.2.12	Part 2.12: Glowing/hot wire based test methods—Glow-wire flammability test method for materials
60695-2-13	Part 2-13: Glowing/hot-wire based test methods—Glow wire ignitability test method for materials	60695.2.13	Part 2.13: Glowing/hot wire based test methods—Glow-wire ignitability test methods for materials
		AS	
2093	Electroplated coatings of tin—Specification and test methods	4169	Electroplated coatings—Tin and tin alloys

Any international references not listed have not been adopted as Australian/New Zealand Standards.

The terms ‘normative’ and ‘informative’ are used 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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1 Scope

This part of IEC 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.

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 referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050(151):1978, *International Electrotechnical Vocabulary (IEV) – Chapter 151: Electrical and magnetic devices*

IEC 60068-2-32:1975, *Environmental testing – Part 2: Tests – Test Ed: Free fall*

IEC/TR 60083:1997, *Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC*

IEC 60112:1979, *Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions*

IEC 60227 (all parts), *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V*

IEC 60245 (all parts), *Rubber insulated cables – Rated voltages up to and including 450/750 V*