

**AS/NZS 3112:2011**

Incorporating Amendment No. 1, 2, and 3

Australian/New Zealand Standard

# Approval and test specification— Plugs and socket-outlets

Superseding AS/NZS 3112:2004



**AS/NZS 3112:2011**



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 6 October 2011 and on behalf of the Council of Standards New Zealand on 3 October 2011.

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*This standard was issued in draft form for comment as DR AS/NZS 3112.*

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Australian/New Zealand Standard

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# **Approval and test specification— Plugs and socket-outlets**

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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 3112:2004.

*This Standard incorporates Amendment No. 1 (April 2012), Amendment No. 2 (August 2013) and Amendment No. 3 (March 2016). The changes required by the Amendments 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 the Australian and New Zealand electrical industry, including manufacturers, test laboratories and regulators, with requirements and test methods for plugs and socket-outlets.

This Standard is one of a series of approval and test specifications to be read in conjunction with AS/NZS 3100, *Approval and test specification—General requirements for electrical equipment*. The purpose of this series is to outline conditions which must be met to secure approval for the sale and use of electrical equipment. Only safety matters and related conditions are covered.

The essential safety requirements in AS/NZS 3820, *Essential safety requirements for electrical equipment*, that could be applicable to plugs and socket-outlets are covered by this Standard, taken in conjunction with any other relevant requirements affecting safety.

This Standard was revised to introduce the following technical and editorial changes:

- (a) Temperature rise test for plugs including introducing clamping units in lieu of testing in a socket-outlet (see Clause 2.13.8). Plugs complying with the previous test are deemed to comply with the new test.
- (b) Clarification of the extent of any protrusions on the socket face (see Clause 3.6.3).
- (c) Marking for sockets (see Clause 3.13.1).
- (d) Marking for sockets with insulated caps (see Clause 3.13.2).
- (e) Requirements for field installed sockets (see Clauses 3.14.1 and 3.14.2).
- (f) Cable sizes (see Table 3.3).
- (g) Switch testing to align with AS/NZS 3133 (see Clause 3.14.9).
- (h) Figures in Appendix A, F and H.
- (i) Requirements for dummy plugs in Appendix I.
- (j) Updating of cross references to referred Standards and other minor editorial changes.

Notes to the text in the body of the Standard are not mandatory parts of the Standard.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

This Standard does not provide all the necessary conditions for a contract.

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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard****Approval and test specification—Plugs and socket-outlets**

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies essential safety requirements for plugs and socket-outlets, as defined in Clause 1.4, intended for use at extra low or low voltages and a rated current not exceeding 32 A for household or similar purposes. (For extra low voltage plugs and socket-outlets, see Appendix E.)

This Standard does not provide guidance on the following:

- (a) Appliance couplers (see AS/NZS 60320.1).
- (b) Installation couplers (see AS/NZS 3131:1995 or AS/NZS 61535.1).
- (c) Plugs, socket-outlets and couplers for general industrial applications (see AS/NZS 3123).
- (d) Plugs and socket-outlets for moveable appliances (see AS/NZS 3131).

**1.2 APPLICATION****1.2.1 General requirements of AS/NZS 3100**

This Standard shall be read in conjunction with AS/NZS 3100, and the appropriate provisions of AS/NZS 3100 shall apply to the construction of a plug or socket-outlet and the insulation and safeguarding of parts that normally carry current.

**1.2.2 Specific requirements of this Standard**

A plug or socket-outlet shall be considered to comply with this Standard only if it complies with all the appropriate requirements of this Standard and passes the relevant tests specified herein.

## NOTES:

- 1 Plugs, socket-outlets and connectors incorporating retaining means of the type specified in AS/NZS 3123, or similar, need not comply with all general dimensional requirements of this Standard, so long as the safe functioning of accessories in a particular system is not impaired. Where appropriate, dimensions relevant to specified pin configurations are applied.
- 2 Requirements for equipment with integral pins for insertion into socket-outlets are provided in Appendix I.

**1.3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard.

## AS

- |            |   |
|------------|---|
| 1722       | Pipe threads of Whitworth form  |
| 1722.2     | Part 2: Fastening pipe threads  |
| 60068      | Environmental testing   |
| 60068.2.30 | Part 2.30: Tests—Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle) |
| 60068.2.32 | Part 2.32: Tests—Test Ed: Free fall   |



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