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Australian Standard 3105-1984

APPROVAL AND TEST SPECIFICATION FOR ELECTRICAL PORTABLE OUTLET DEVICES



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Australian Electrical and Electronic Manufacturers Association
Confederation of Australian Industry
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Department of Public Works, N.S.W.
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AMENDMENT No 1
to
AS 3105—1984
Approval and Test Specification for
ELECTRICAL PORTABLE OUTLET DEVICES

REVISED TEXT

The 1984 edition of AS 3105 is amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: The following sections of this standard are covered by this amendment: Clauses 2, 4.5.1, 4.5.3, 7.2 and Table 2.

Published on 4 April 1985.

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AMENDMENT No 2
to
AS 3105—1984
APPROVAL AND TEST SPECIFICATION
FOR
ELECTRICAL PORTABLE OUTLET DEVICES

REVISED TEXT

The 1984 edition of AS 3105 amended in April 1985, is further amended as follows: the amendments should be inserted in the appropriate place.

SUMMARY: The following sections of this standard are covered by this amendment: Clauses 4.5.3 and 8.4 and Table 2.

Published on 2 February 1987.

PREFACE

This standard was prepared by the Association's Committee on Electrical Accessories. It is one of a series of approval and test specifications issued by the Association. These specifications are accompanied by a general specification AS 3100, containing definitions and general requirements for electrical materials and equipment.

It specifies requirements for electrical portable outlet devices which have—

(a) a single means of connection to a low-voltage supply; and

(b) one or more outlet facilities;

and which may incorporate a reeling or coiling device.

The standard covers only safety matters and related conditions.

This standard requires reference to the following Australian standard approval and test specifications:

AS 3100	Definitions and General Requirements for Electrical Materials and Equipment
AS 3109	Appliance Couplers for Household and Similar General Purposes
AS 3111	Miniature Overcurrent Circuit Breakers
AS 3112	Plugs and Plug Sockets
AS 3117	Bayonet Lampholders
AS 3120	Cord Extension Sockets
AS 3127	Cord-line Switches
AS 3133	Air Break Switches
AS 3140	Edison-type Screw Lampholders
AS 3168	Fluorescent Lamp Ballasts
AS 3191	Electric Flexible Cords
AS C109	Appliance Plugs and Appliance Inlet-sockets

and the following Australian standard:

AS 3000	SAA Wiring Rules.
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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
APPROVAL AND TEST SPECIFICATION
FOR
ELECTRICAL PORTABLE OUTLET DEVICES

This specification shall be read in conjunction with AS 3100. (See also Clause 3, below.)

1 SCOPE. This specification applies to electrical portable outlet devices intended for use at low voltage and which are connected to the supply by one of the following means:

- (a) A flexible cord and a plug complying with Clause 6.1.
- (b) An appliance inlet socket complying with Clause 5(b).

This specification does not apply to—

- (i) cord extension sets which are covered by AS 3199;

NOTE: A cord extension set has a *single* means of connection to a low voltage supply and a *single* outlet facility in the form of a cord extension socket and does not incorporate a reeling or coiling arrangement (see Clause 2.2).

- (ii) portable current-operated (core balance) earth-leakage devices which are covered by AS 3190;
- (iii) plug socket adaptors, e.g. 'double adaptors', which are covered by AS 3122;
- (iv) electric inspection handlamps which are covered by AS 3118;
- (v) portable switching or control devices which are covered by AS 3197; or
- (vi) separate devices for the storage of flexible cords or cord extension sets, e.g. a cable tidy.

2 DEFINITIONS. For the purpose of this specification, the following definitions apply:

2.1 Portable outlet device—a device, other than a cord extension set, having a single means of connection to a low voltage supply, and one or more outlet facilities. It may incorporate a reeling or coiling arrangement. The term 'device' shall be taken to mean 'electrical portable outlet device' where used in this specification.

2.2 Reeling or coiling arrangement—an arrangement, which may be in the form of a frame or reel, intended for the storage of whole or part of a flexible cord, and which is not detachable from the cord or electrical portable outlet device without the use of a tool.

2.3 SEE AMENDMENTS: No 1

3 COMPLIANCE WITH SPECIFICATIONS.

3.1 General requirements of AS 3100. This specification shall be read in conjunction with AS 3100, and the appropriate provisions of AS 3100 shall apply to the construction of the device and to the insulation and/or safeguarding of parts which normally carry current.

3.2 Specific requirements of this specification. A device shall be deemed to comply with this specification only if it complies with all the requirements of this specification and passes the tests specified herein.

3.3 Compliance with other specifications. Components incorporated in a device which are depended upon for safety, shall comply with the appropriate requirements of any relevant approval and test specification.

4 DESIGN AND CONSTRUCTION.

4.1 General. The current rating of any socket outlet shall be not greater than that of the plug or appliance inlet socket nor greater than the current carrying capacity of the flexible cord.

4.2 Mechanical strength. The enclosing case of the device, or of any reeling or coiling arrangement, shall be of robust construction and adequate mechanical strength, and comply with the requirements of Clause 8.3.

4.3 Insulating material. All insulating material, except ceramic, used in the construction of the device shall comply with the requirements of Clause 8.4.

4.4 Flexible cord. Any flexible cord provided shall—

- (a) comply with the relevant requirements of AS 3191;
- (b) be a 3-core ordinary duty or heavy duty type;
- (c) have conductors with a cross-sectional area of not less than 1 mm²; and
- (d) comply with the requirements of Clause 6.3.

4.5 Outlet facilities.

4.5.1 General. The device shall be provided with one or more socket outlets—

- (a) complying with the relevant requirements of AS 3112 except that on the plane of the socket-outlet faceplate—

- (i) the minimum distance from the edge of any live-pin aperture to the edge of the faceplate shall be 13.7 mm; and
- (ii) the maximum distance by which the faceplate, within the distance specified in (i) is below the plane, shall be 3 mm; and

- (b) each intended to accommodate a plug conforming to Fig. 2.1(a) of AS 3112.

NOTES:

1. The increase in the distance specified from the edge of a live pin aperture to the extremity of the device faceplate was made possible because these devices are not intended to be inserted into an appliance inlet socket complying with Clause 5(b).
2. Attention is drawn to the possibility of an additional requirement being included in the next revision of AS 3112 which will specify a minimum distance between the centres of socket-outlets where two or more are located on the same faceplate.
3. To allow for possible changes to future editions of AS 3112, it is recommended that there is no appreciable projection on the faceplate within 23 mm of the centroid of the apertures.