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Australian Standard 3180—1982

APPROVAL AND TEST SPECIFICATION FOR HOUSEHOLD ELECTRIC HAIR DRYERS

PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
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The following interests were represented on the committee responsible for the preparation of this standard:

Australian Consumers Association

Australian Electrical and Electronic Manufacturers Association

Confederation of Australian Industry

Electrical Apparatus Approvals Authorities

Electrical Testing Laboratories

Electricity Supply Association of Australia

Electronic Importers Association

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PREFACE

This edition of this specification was prepared by the Association's Committee EL/2, Electrical Approvals Standards.

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. The purpose of these specifications is to outline conditions which must be met to secure approval for the sale and use of electrical equipment in Australia. Only safety matters and related conditions are covered.

This edition is technically identical with the 1972 edition except that it incorporates Amendment Nos 1, 2, 3, 4, 5, 6, 7 and 8 to that edition which were issued in March, August and October 1975, August 1977, March and August 1978, March and July 1979 respectively and includes changes to the following:

Clause 4.1—modifies requirements for connection
*Table 1—additional tests
†Clause 8—relates to addition of fire test
Clause 11—incorporates present terminology for thermal cutouts
Clause 14.9—incorporates present terminology for thermal cutouts
‡Clause 14.10—adds fire test
§Clause 14.11—adds test for d.c. component.

This specification supersedes AS 3180—1972 from date of publication.

The Association desires to call attention to the fact that this specification does not purport to include all the necessary provisions of a contract.

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

AS 3100	Definitions and General Requirements for Electrical Materials and Equipment
AS 3121	Insulating Mouldings
AS 3133	Air Break Switches
AS 3161	Thermostats and Energy Regulators
AS C109	Appliance Plugs and Appliance Inlet-sockets.

*Test No 12 forms part of the specification on 1 January 1983.
Test No 13 forms part of the specification on 1 March 1983.
†This change forms part of the specification on 1 January 1983.
‡This Clause forms part of the specification on 1 January 1983.
§This Clause forms part of the specification on 1 March 1983.

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
APPROVAL AND TEST SPECIFICATION FOR HOUSEHOLD ELECTRIC HAIR DRYERS

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

1 SCOPE. This specification applies to household electric hair dryers as defined below, designed for operation at low voltage.

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

2.1 Household electric hair dryer—an appliance designed for use in the home and intended to dry human hair by means of heated air, by direct heat radiation, or a combination of both.

2.2 Stand-mounted hair dryer—a hair dryer having a rigid or semi-rigid hood not intended to be attached to the head and fitted to a fixed or mobile stand or bracket, and which normally could not be regarded as a portable unit.

2.3 Portable hair dryer—a hair dryer which is intended to be held in the hand, or to be carried by the user, or to be placed on a horizontal surface while in use, and usually provided with a flexible hood and air hose.

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 that specification shall apply to the construction of the hair dryer and the insulation and safeguarding of parts which normally carry current.

3.2 Specific Requirements of This Specification. A household electric hair dryer 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 Requirements of Other Specifications. Components incorporated in a hair dryer which are depended upon for safety shall comply with the appropriate requirements of any relevant approval and test specification unless such requirements are varied herein.

4 MEANS OF CONNECTION.

4.1 Types of Connection. The hair dryer shall be provided with one of the following means of connection to the supply:

(a) A Type C appliance plug, appliance inlet socket complying with AS C109.

(b) A power supply cord which shall be assembled with the appliance by one of the following attachments:

Type X attachment.
Type M attachment.
Type Y attachment.

4.2 Flexible Cord and Connecting Plug. A supply flexible cord and plug and, where required, a Type C appliance plug shall be provided in accordance with Clause 4.4 of AS 3100. Tinsel flexible cord shall not be used for any type of hair dryer. Two-core parellel unsheathed and light duty sheathed type flexible cord shall not be used for stand-mounted hair dryers. Any flexible cord shall have a free length of at least 1.8 m.

4.3 Cord Anchorage. Anchorage of the supply flexible cord shall comply with the appropriate requirements of AS 3100.

4.4 Protection of Flexible Cord.

4.4.1 *General.* Hair dryers which are moved while in operation shall be provided with a cord guard at the inlet opening for the power supply cord, unless the inlet or bushing is provided with a smoothly rounded bell-mouthed opening having a radius of curvature at least equal to 1.5 times the overall diameter of the cord to be connected

4.4.2 *Cord guards.* Cord guards shall—

(a) be so designed as to protect the cable or cord against excessive bending where it enters the hair dryer;

(b) be of insulating material;

(c) be fixed in a reliable manner;

(d) project outside the appliance for a distance beyond the inlet opening of at leave five times the overall diameter or, for flat cords at least five times the major overall dimensions, of the cord supplied with the hair dryer.

5 HAIR DRYERS WITH EARTHING FACILITIES. All exposed metal parts of the hair dryer shall be in effective electrical contact with either the earthing contact of an inlet socket or a suitable earthing terminal.

The resistance between the earthing contact or terminal and any metal part that is required to be earthed shall not exceed 1 Ω for rotating parts and 0.1 Ω for other parts.

6 HAIR DRYERS WITH DOUBLE INSULATION. Hair dryers provided with double insulation shall comply with the appropriate requirements of AS 3100.

7 MATERIALS OF ENCLOSING CASE. The enclosing case shall be of robust construction and of adequate mechanical strength. Any insulating mouldings used in the construction of the enclosing case shall be not inferior to the class of moulding specified