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APPROVAL AND TEST SPECIFICATION FOR EDISON-TYPE SCREW LAMPHOLDERS

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Association of Consulting Engineers Australia
Australian Electrical and Electronic Manufacturers Association
Confederation of Australian Industry
Department of Defence Support
Department of Transport and Construction
Department of Public Works, N.S.W.
Electrical Contractors Associations of Australia
Electrical regulatory authorities
Electricity Supply Association of Australia
Plastics Institute of Australia Incorporated
Railways of Australia Committee
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PREFACE

This edition of this standard was prepared by the Association's Committee EL/4, 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. 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 1979 edition except that it incorporates Amendment No 1 to that edition which was issued in April 1981 and includes changes to Clauses 6 and 13.8 and Table 1. These changes relate to the addition of a fire test and form part of the specification on 1 February 1984.

This standard supersedes AS 3140—1979 from date of publication.

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

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 3121 Insulating Mouldings

AS 3133 Air Break Switches

and to BS 5042, Lampholders and Starterholders, Part 2—Edison Screw Lampholders.

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
APPROVAL AND TEST SPECIFICATION FOR EDISON-TYPE SCREW LAMPHOLDERS

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

1 SCOPE. This specification applies to Edison-type screw lampholders intended for use in direct or alternating current circuits at medium, low, or extra-low voltages.

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

2.1 *Lampholder*—an accessory in which an electric lamp can be inserted for the purpose of connection to the source of supply.

2.2 *Edison screw lampholder*—a lampholder intended for the connection of lamps having 'Edison Screw' caps complying with the relevant requirements of BS 5042, Part 2.

2.3 *Goliath Edison screw lampholder*—an Edison screw lampholder intended for the connection of lamps having goliath Edison screw caps designated E.40.

2.4 *Medium Edison screw lampholder*—an Edison screw lampholder intended for the connection of lamps having medium Edison screw caps designated E.27.

2.5 *Small Edison screw lampholder*—an Edison screw lampholder intended for the connection of lamps having small Edison screw caps designated E.14.

2.6 *Miniature Edison screw lampholder*—an Edison screw lampholder intended for the connection of lamps having miniature Edison screw caps designated E.10.

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 design and construction of lampholders covered by this specification.

3.2 Specific Requirements of this Specification. Lampholders shall be deemed to comply with this specification only if they comply with all the requirements of this specification and pass the relevant tests specified herein.

3.3 Requirements of Other Specifications. Components incorporated in lampholders 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 DIMENSIONS. The general design, form, and dimensions of the lampholder shall be such that any lamp of the appropriate size complying with the relevant requirements of BS 5042, Part 2, can be readily inserted and maintained in position, under normal conditions of use.

5 SHIELDING OF LAMP CAPS. Except in the goliath type, the design of Edison screw lampholders shall be such that it is not possible to touch with the standard test finger the metal cap of a lamp when it is in contact with the outer contact of the lampholder. The test shall be made with the longitudinal axis of the lamp in line with the axis of the lampholder, i.e. with the lamp fitted square into the lampholder and not tilted at an angle, using—

(a) a 40 W general lighting service lamp for medium Edison screw lampholders;

(b) a pilot lamp for small Edison screw lampholders; and

(c) a parallel-sided lamp for miniature Edison screw lampholders.

In lampholders of the goliath type, it shall not be possible to touch with the standard test finger the metal cap of a lamp which is inserted and screwed to the limit of the socket screw.

NOTE: For information on the dimensions of lamps other than the goliath Edison screw type used for this test see Appendix A.

6 INSULATING MATERIALS. Insulating materials used for the support or protection of live parts shall not be inferior to those of Class 140 mouldings complying with AS 3121, except that in goliath Edison screw lampholders the body shall be of porcelain.

†In addition, any insulating material shall meet the requirements of Clause 13.8.

Ceramic material used as insulation in Edison screw lampholders shall be such that after 24 h immersion of a broken section in water, and after all moisture has been removed from the surface by wiping, it shall not have increased in mass by more than 2 percent.

NOTE: The above requirements are not intended to preclude the use of materials other than those mentioned by virtue of their design or application.

7 CURRENT-CARRYING PARTS. Terminals, contacts, and internal connections, intended primarily for the carrying of current, shall be of suitable corrosion-resisting material, such as brass or phosphor-bronze, having sufficient hardness and rigidity for the purpose.

†This paragraph forms part of the specification on 1 February 1984.