

AS 3100

DUPERSEDED BY AS 3100 -1990

Amendment 1 - Nov 1985
 " 2 - December 1986
 " 3 - November 1986
 " 4 - April 1987
 " 5 - December 1987
 AS 3100-1985
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 Amendment 6 - May 1988
 " 7 - July 1989

Australian Standard® 3100—1985

NZS 6200:1988 based on this + Amends 1-

APPROVAL AND TEST SPECIFICATION — DEFINITIONS AND GENERAL REQUIREMENTS FOR ELECTRICAL MATERIALS AND EQUIPMENT



STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter



This Australian standard was prepared by Committee EL/2, Electrical Approvals Standards. It was approved on behalf of the Council of the Standards Association of Australia on 20 February 1985 and published on 17 May 1985.

The following interests are represented on Committee EL/2:

Australian Consumers Association
Australian Electrical and Electronic Manufacturers Association
Confederation of Australian Industry
Consumer Electronics Suppliers Association
Electrical Apparatus Approvals Authorities
Electrical Testing Laboratories
Electricity Supply Association of Australia
Institution of Engineers Australia

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STANDARDS AUSTRALIA

Amendment No 7

to

AS 3100—1985

Approval and test specification—

Definitions and general requirements for electrical materials and equipment



REVISED TEXT

The 1985 edition of AS 3100 which was amended in November 1985, March and November 1986, April and December 1987 and May 1988 is further amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: This Amendment applies to the following: Clauses 2, 3.2, 3.10.2, 4.1.3, 4.3.2, 4.4.1, 4.5.1, 5.1, 5.3.5, 5.4.4, 6.1.2, 6.3, 7.1, 7.8, 7.9, 8.3.1, 8.3.2, 8.4.5, 8.5, 8.6, Tables 4.1, 5.7 and Appendices B and D.

Published on 14 July 1989.

10 MAY 1988

AS 3100/Amdt 6/1988-05-09

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AMENDMENT No 6
to
AS 3100—1985

APPROVAL AND TEST SPECIFICATION—
DEFINITIONS AND GENERAL REQUIREMENTS FOR ELECTRICAL MATERIALS AND EQUIPMENT

REVISED TEXT

The 1985 edition of AS 3100 which was amended in November 1985, March and November 1986, April and December 1987 is further amended as follows; the amendments should be inserted in the appropriate place.

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Published on 9 May 1988.

AS 3100/Amdt 5/1987-12-01

STANDARDS ASSOCIATION OF AUSTRALIA
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AMENDMENT NO 5

AS 3100-1985

**APPROVAL AND TEST SPECIFICATION FOR DEFINITIONS AND GENERAL REQUIREMENTS
ELECTRICAL MATERIALS AND EQUIPMENT**

REVISED TEXT

The 1985 edition of AS 3100 which was amended in November 1985, March and November 1986, and April 1987 is further amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: The following sections of the Standard are covered by this amendment: Clauses 3.7, 4.1.2, 4.3.4, 4.7, 5.2.3.1, 6.2, 7.2, 8.3.1.

Published on 1 December 1987



STANDARDS ASSOCIATION OF AUSTRALIA
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AMENDMENT No. 3

to

AS 3100—1985

APPROVAL AND TEST SPECIFICATION—

DEFINITIONS AND GENERAL REQUIREMENTS FOR ELECTRICAL MATERIALS AND EQUIPMENT

REVISED TEXT

The 1985 edition of AS 3100 which was amended in November 1985 and March 1986 is further amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: The following sections of the standard are covered by this amendment: Clauses 4.3.4, 4.4.1, 6.1.2 and 8.4.5, and Tables 4.1 and 5.7.

Published on 3 November 1986.

STANDARDS ASSOCIATION OF AUSTRALIA
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AMENDMENT No 4

to

AS 3100—1985

Approval and Test Specification—

DEFINITIONS AND GENERAL REQUIREMENTS FOR ELECTRICAL MATERIALS AND EQUIPMENT

REPLACED TEXT

The 1985 edition of AS 3100 which was amended in November 1985, March and November 1986 is further amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: The following sections of the standard are covered by this amendment: Contents and Clauses 3.8.5, 3.10, 4.3.2, 4.8, 7.1 and 7.2.

Published on 6 April 1987.

STANDARDS ASSOCIATION OF AUSTRALIA
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AMENDMENT No 2

to

AS 3100—1985

Approval and Test Specification—

DEFINITIONS AND GENERAL REQUIREMENTS FOR ELECTRICAL MATERIALS AND EQUIPMENT

REVISED TEXT

The 1985 edition of AS 3100 which was amended in November 1985 is further amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: The following sections of the standard are covered by this amendment: Clauses 4.1.3, 6.1.2, 8.6, Table 5.8 and Appendix A.

Published on 3 March 1986.

5 MAR 1986

AS 3100/Amdt 1/1985-11-04

STANDARDS ASSOCIATION OF AUSTRALIA
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AMENDMENT No. 1

to

AS 3100—1985

**APPROVAL AND TEST SPECIFICATION—DEFINITIONS AND GENERAL REQUIREMENTS FOR
ELECTRICAL MATERIALS AND EQUIPMENT**

REVISED TEXT

The 1985 edition of AS 3100 is amended as follows; the amendments should be inserted in the appropriate place.

SUMMARY: The following sections of the standard are covered by this amendment: Clauses 2.28A, 5.2.3.1, 5.2.3.2, 5.2.3.3, 7.1, 8.1, Table 5.7 and Appendix C.

Published on 4 November 1985.

AUSTRALIAN STANDARD

**APPROVAL AND TEST
SPECIFICATION—
DEFINITIONS AND
GENERAL REQUIREMENTS
FOR ELECTRICAL MATERIALS
AND EQUIPMENT**

AS 3100—1985

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PREFACE

This standard was prepared by Committee EL/2, Electrical Approvals Standards. It supersedes AS 3100-1982 from the date of publication.

This general specification, containing definitions and safety requirements for electrical materials and equipment, is the parent specification of a series of approval and test specifications. As outlined in Section 0, these specifications are intended to prescribe the essential safety requirements for materials and equipment to be used in electrical installations complying with AS 3000, SAA Wiring Rules.

This edition was published to incorporate into the specification Amendment Nos 1 to 5 to AS 3100—1982 and to effect changes to the following:

(a) SECTION 1. List of referenced documents added.

(b) SECTION 2.

(i) Definitions rearranged.

(ii) Definition for type Y attachment changed.

(iii) New definitions for switches added.

(c) Clause 3.8.5 Modified to include new requirements for switches.

(d) Clause 3.14 Modified test requirements.

(e) Clause 4.4.1 Modifies cord lengths.

(f) Clause 4.5.2 Modifies requirements for type X attachment.

(g) Clause 4.5.3 Modifies requirements for type X attachment.

(h) Clause 6.1 Modifies fire test requirements.

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

MDT Page 3. Contents.

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Delete existing for 4.5 and insert:

4.5 Supply Connection and External
Flexible Cables and Cords 16

This amendment forms part of the specification on publication.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

**APPROVAL AND TEST SPECIFICATION—
DEFINITIONS AND GENERAL REQUIREMENTS
FOR ELECTRICAL MATERIALS AND EQUIPMENT**

**SECTION 0. INTRODUCTION TO SAA APPROVAL
AND TEST SPECIFICATIONS**

0.1 HISTORICAL DEVELOPMENT. In the first edition of the SAA Wiring Rules, published in 1931, safety requirements concerning the design and construction of electrical materials and equipment were included among rules dealing with wiring methods. In the first revised edition, published in 1934, the rules were grouped in two parts, Part I (later Part 1) containing requirements concerning wiring methods, and Part II (later Part 2) containing requirements concerning materials and equipment. In the 1940 revision, this subdivision was carried a stage further, Part I being published as one complete book and Part II taking the form of a collection of specifications.

The purpose of the specifications which constituted Part 2 of the SAA Wiring Rules was to outline conditions which electrical equipment had to meet to be used in electrical installations in Australia. These specifications were prepared, up until the early 1970s, by the Association's Electrical Approvals Standards Committee. However, owing to the rapid expansion in the number and complexity of these specifications, this system has been abandoned and a number of committees now prepare approval and test specifications and other specifications containing safety requirements.

In the 1981 edition of AS 3000, the concept of Parts 1 and 2 to the SAA Wiring Rules was abandoned, with the former Part 1 now being titled 'SAA Wiring Rules' and all applicable approval and test specifications and other applicable standards being called up by means of Clause 1.3.1 of AS 3000.

0.2 TYPES OF SPECIFICATIONS. There are two different types of approval and test specifications, as follows:

- (a) *General specifications.*
- (i) AS 3100, Approval and Test Specification and Definitions and General Requirements for Electrical Materials and Equipment.
 - (ii) AS 3200, Approval and Test Specification for Electromedical Equipment—General Requirements.
 - (iii) AS 3300, Approval and Test Specification for General Requirements for Household and Similar Electrical Appliances.
- (b) *Particular specifications.* These are particular specifications that are related to AS 3100, AS 3200 or AS 3300.

AS 3100 includes general requirements applicable to all electrical equipment and the related particular specifications contain additional requirements for particular types of equipment. AS 3100 may be satisfactorily used as a specification for equipment

which is not covered by a related particular specification.

AS 3200, which is to be read in conjunction with AS 3100, includes general requirements applicable to all electromedical equipment, and the related particular specifications contain additional requirements for particular types of equipment. AS 3200 may be satisfactorily used as a specification for equipment which is not covered by a related particular specification.

AS 3300 contains a wide range of requirements, all of which may not necessarily be applicable to a particular appliance. A particular specification converts AS 3300 into the specification for the type of appliance being considered; it does this by indicating, clause by clause, whether or not the requirements and test methods are applicable in whole or in part, or whether they should be replaced, modified or supplemented. Whereas AS 3100 may be satisfactorily used as a specification for an appliance for which there is no particular specification related to AS 3100, it is not practicable to use AS 3300 in a similar manner; it may, however, be used as a guide by taking into account particular specifications related to AS 3300 for a similar appliance.

0.3 APPLICATION. Approval and test specifications are intended to prevent injury to persons and damage to property by establishing essential requirements and safety standards for materials and for the design and construction of fittings, accessories, appliances and apparatus used in or in connection with or intended for use in or in connection with any electrical installation.

0.4 MATERIALS, ETC TO COMPLY WITH SPECIFICATIONS. Any material, fitting, cable, accessory, appliance or apparatus used in or in connection with an electrical installation shall comply with the appropriate particular approval and test specification or with the appropriate Australian standard. In the absence of any such specification or standard, the appropriate provisions of AS 3100 and AS 3200 shall apply.

As and when individual specifications dealing with specific features of design and construction and the testing of any particular class or type of material, fitting, cable, accessory, appliance or apparatus are issued, they shall supersede those general requirements of AS 3100 and AS 3200, as appropriate, that are specifically dealt with in such individual specifications.

Should any requirement of any individual specification differ from any of the general requirements of AS 3100, AS 3200 and AS 3300, as appropriate, that of the individual specification shall prevail.