

3167-1981

Dep Amendment 1 - May 1982  
2 - May 1983

see also DR 80251 of Dec 1980

AS 3167-1981  
UDC 621.31:621.314.211

Ⓢ To be superseded by  
AS 3108.1-2-3-1984 on  
3 Aug 1986 (see AS 3108 Preface)

WITHDRAWN

# Australian Standard *TAS May 1987* 3167-1981 *(superseded by AS 3108-1984 on 1986-08-03)*

## APPROVAL AND TEST SPECIFICATION FOR PROTECTIVE ISOLATING TRANSFORMERS



PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA  
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**THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL organizations or departments were officially represented on the committee entrusted with the preparation of this specification:**

- Australian Chamber of Commerce**
- Australian Electrical and Electronic Manufacturers Association**
- Confederation of Australian Industry**
- Department of Housing and Construction**
- Electrical Apparatus Approvals Authorities**
- Electrical Contractors Association of Australia**
- Electrical Testing Laboratories**
- Electricity Supply Association of Australia**
- Electronic Importers Association**

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## STANDARDS ASSOCIATION OF AUSTRALIA

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## AMENDMENT No 2

to

## AS 3167—1981

Approval and Test Specification for  
PROTECTIVE ISOLATING TRANSFORMERS

## REVISED TEXT

The 1981 edition of AS 3167 which was amended in May 1982 is further amended as follows; the amendment should be inserted in the appropriate place.

*SUMMARY:* The following section of the standard is covered by this amendment: Table 1.

Published on 9 May 1983.

**Page 11. Table 1.**

After Test No 5 *add* the following test:

6	Leakage Current Test	8.3.2 of AS 3100
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*Renumber* test numbers 6 to 14 inclusive as 7 to 15 inclusive.

**This amendment forms part of the specification 6 months after publication.**

AMDT  
No 2  
MAY  
1983

10 MAY 1982

Amendment No 1  
May 1982

**STANDARDS ASSOCIATION OF AUSTRALIA**  
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**AMENDMENT No 1**

to

**AS 3167—1981**

**Approval and Test Specification**

for

**PROTECTIVE ISOLATING TRANSFORMERS**

The 1981 edition of AS 3167 is amended as follows; the amendment should be inserted in the appropriate place.

**SUMMARY:** The following sections of the standard are covered by this amendment: Clauses 7, 9.2, 18.15 (new) and Table 1. In addition a number of references to AS C100 have been changed to AS 3100.

Published on 10 May 1982

## PREFACE

This revised specification, prepared by Committee EL/2, Electrical Approvals Standards, was approved on behalf of the Council of the Standards Association of Australia on 27 April 1981, and was published on 1 July 1981.

It is one of a series of approval and test specifications issued by the Association. These specifications are accompanied by a general specification, AS C100, 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.

The purpose of the revision is to express the requirements in metric units having regard to Australian Government legislation under the Metric Conversion Act 1970, which has the objective of the progressive adoption of such units. The '3000' series of numbers has been allocated for new and revised SAA approval and test specifications expressed in metric units, the letter classification 'C' being dropped; thus this specification which was numbered AS C167 in the imperial unit series becomes AS 3167 in the metric series.

It should be noted that the metric values herein are a 'soft' conversion, i.e. a direct conversion from imperial to metric units, rounded off as was considered appropriate. Various items have been updated in line with current drafting practice.

This edition is technically identical with AS C167—1962 except that it incorporates Amendments No 1 to 6 to that edition which were issued in June 1964, April 1965, November 1969, October 1971, February 1974 and August 1978 respectively and includes changes to the following clauses:

- Clause 9.3(b)(ii)—alters the requirements for type of plug sockets permitted.
- Clause 17.1—the marking requirement with regard to the use of the standard number has been deleted in accordance with SAA policy.
- Table 1—new table added and existing Table 2 renumbered.

This specification supersedes AS C167—1962 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 approval and test specifications:

AMENDMENT 1 (5.82) AS C100 3100	Definitions and General Requirements for Electrical Materials and Equipment
AS C109	Appliance Plugs and Appliance Inlet Sockets
AS C122	Plugs and Plug Sockets
AS 3121	Insulating Mouldings
AS 3133	Air Break Switches
AS 3191	Electric Flexible Cords



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and to the following Australian and British standards:

- |         |                                                                                         |
|---------|-----------------------------------------------------------------------------------------|
| AS 1939 | Classification of Degrees of Protection Provided by Enclosures for Electrical Equipment |
| AS 3000 | SAA Wiring Rules                                                                        |
| BS 1858 | Bitumen-based Filling Compound for Electrical Purposes.                                 |

The provisions of this standard and of AS 3126, Extra-low Voltage Transformers, are under review in the light of work on safety isolating transformers currently being considered by the International Electrotechnical Commission (IEC). A draft based on the IEC work was issued to public review in Australia as DR 80251.

**Preface.**

**Page 5.** (Line under title.)

**Clauses 3.1, 4, 6, 8, 9.2, 10, 12, 17.1, 18.6, 18.12.**

*Delete 'AS C100' and insert 'AS 3100'.*

**This amendment forms part of the specification on publication.**

**AMDT  
No 1  
MAY  
1982**

## STANDARDS ASSOCIATION OF AUSTRALIA

## Australian Standard

APPROVAL AND TEST SPECIFICATION FOR  
PROTECTIVE ISOLATING TRANSFORMERS

This specification shall be read in conjunction with AS C100. (See also Clause 3, below.)

*\* All changes to AS C100  
3100 SEE AMENDMENT 1 (S.82)*

**1 SCOPE.** This specification applies to single-phase, air-cooled, protective isolating transformers having a rated input current of not more than 10 A, suitable for connection on the input side to low voltage circuits, and intended to provide a low voltage supply, effectively isolated from the source of supply and from earth for the operation of one item of electrical equipment.

**NOTES:**

1. In accordance with AS 3000, any exposed metal parts of any piece of electrical equipment supplied through a transformer complying with this specification need not be earthed.
2. For the purpose of this specification a single-phase, air-cooled, protective isolating transformer is referred to hereinafter as an 'isolating transformer' or 'transformer'.

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

- 2.1 Rated input voltage**—the maximum input voltage marked on the isolating transformer.
- 2.2 Rated output voltage**—the maximum output voltage marked on the isolating transformer.
- 2.3 Rated output current**—the maximum output current marked on the isolating transformer.
- 2.4 Live parts**—parts which are 'live' as defined in AS C100 and also, for the purpose of this specification, all parts connected to the output winding of the transformer.

**3 COMPLIANCE WITH SPECIFICATIONS.** <sup>3100</sup> **General Requirements of Specification C100.** This specification shall be read in conjunction with AS C100, and the appropriate provisions of AS C100 shall apply to the construction of the apparatus and the insulation and/or safeguarding of parts which normally carry current. *SEE AMENDMENT 1 (S.82)*

**3.2 Specific Requirements of this Specification.** An isolating transformer 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.