**STANDARDS ASSOCIATION OF AUSTRALIA**
**Incorporated by Royal Charter**

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# AMENDMENT No 2
# to
# AS 3111—1983
# Approval and Test Specification for
# MINIATURE OVERCURRENT CIRCUIT-BREAKERS

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## REVISED TEXT

The 1983 edition of AS 3111 which was 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: Clause 1 and Appendix A.

Published on 3 February 198

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**Page 3. Preface.**

In the fourth paragraph, *delete* '4.2.1(i)' and *insert* '4.2.1(j)', and *delete* 'Table 1' and *insert* 'Table 2'.

In the seventh paragraph, *delete* 'AS 3110 Earth-leakage Circuit-breakers'.

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

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# AMENDMENT No 1
to
# AS 3111—1983
## Approval and Test Specification for
## MINIATURE OVERCURRENT CIRCUIT-BREAKERS

**REVISED TEXT**

The 1983 edition of AS 3111 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: Preface and Clauses 3.4, 5.3.1 and 6.1.

Published on 4 April 1985.

# 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 standard deals with breakers having current ratings of up to 100 A and breaking capacities up to but not including 10 kA.

This edition is technically identical with the 1980 edition except that it incorporates Amendments Nos 1 and 2 to that edition which were issued in November 1981 and March 1982 respectively, and includes changes to the following clauses:

*Clause 4.2.1(a)(j) — additional marking requirement for open-mounting circuit-breakers

†Clause 5.6 — additional requirements for insulating material—

*Clause 5.11 — additional requirements for spacing between terminals intended for field wiring

†Table 2 — additional test

†Clause 6.11 — adds fire test

*Fig. 4 — adds guidance for new requirements of Clause 5.11.

This standard supersedes AS 3111—1980 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 3110~~ | ~~Earth-leakage Circuit-breakers~~ |
| AS 3121 | Insulating Mouldings |
| AS 3190 | Current-operated (core balance) Earth-leakage Devices |
| AS 3300 | General Requirements for Household and Similar Electrical Appliances |

and to the following Australian standards—

| | |
|---|---|
| AS 2184 | Moulded Case Circuit-breakers |
| AS 3000 | SAA Wiring Rules |

*Forms part of the specification on 1 June 1984.

†Forms part of the specification on 1 January 1984.

STANDARDS ASSOCIATION OF AUSTRALIA

# Australian Standard
# APPROVAL AND TEST SPECIFICATION
# FOR
# MINIATURE OVERCURRENT CIRCUIT-BREAKERS

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

**1 SCOPE.** This specification applies to miniature overcurrent air-break circuit-breakers, referred to hereinafter as 'circuit-breaker(s)', having the following characteristics:

(a) intended for the prevention of continued overloading of electrical circuit wiring; and

(b) have current ratings up to and including 100 A; and

(c) have current breaking capacities up to but not including 10 kA; and

(d) intended for use at low or medium voltages.

A circuit-breaker intended only for the protection of electrical equipment as distinct from circuit wiring, and which is appropriately marked as such, is not within the scope of this specification.

NOTES:

1. Voltages and currents referred to in this specification relate to alternating currents except where otherwise specified and values quoted are r.m.s. values.
2. Attention is drawn to AS 2184 which covers circuit-breakers having breaking capacities above 3 kA. Some moulded-case circuit-breakers with normal current ratings not exceeding 100 A may be within the scope of this approval and test specification and AS 2184. (See Clause 5.2 herein for breaking capacity requirements.)

3. SEE AMENDMENTS No 2

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

**2.1 Case**—that part of the circuit-breaker which houses the operating mechanism, tripping device and contacts. A circuit-breaker may have more than one case; e.g. a trip unit inside the main circuit-breaker case.

**2.2 Cover**—an integral part of the case of the circuit-breaker which is removable for wiring purposes.

**2.3 Enclosure**—a separate piece of equipment, not part of the circuit-breaker, which is designed to accommodate one or more circuit-breakers.

**2.4 Enclosure type circuit-breaker**—a circuit-breaker which is suitable only for mounting in an enclosure.

**2.5 Open-mounting type circuit-breaker**—a circuit-breaker which may be mounted on a panel without an enclosure.

**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 circuit-breaker and the insulation and/or safeguarding of parts which normally carry current.

**3.2 Specific Requirements of this Specification.** A circuit-breaker 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.** Equipment and components, the function of which is likely to give rise to a hazard, incorporated in a circuit-breaker shall comply with the appropriate requirements of any relevant approval and test specification.

**3.4 Circuit-breakers with Earth-leakage Features.** A circuit-breaker within the scope of this specification, which also provides earth-leakage protection, shall comply with all the requirements of this specification and the relevant requirements of other applicable approval and test specifications, e.g. ~~AS 3110, in respect of a voltage-operated earth-leakage circuit-breaker, or~~ AS 3190, in respect of a current-operated earth-leakage circuit-breaker. SEE AMENDMENTS No 1

**4 RATINGS AND MARKINGS.**

**4.1 Preferred Current Ratings.** The following current ratings in amperes shall be preferred:

6, 8, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80 and 100.

**4.2 Marking.**

**4.2.1** *Required marking.* Every circuit-breaker shall be marked with the following information:

(a) The name or registered trade name or mark of the manufacturer or of the applicant for approval, or alternatively, the approval number (complete with any specified wording) allotted by an Approvals Authority or a Statutory Authority.

(b) Rated voltage.

(c) Rated current in amperes.

(d) If the circuit-breaker includes any component which is suitable for use on alternating current only, the circuit-breaker shall be marked accordingly as specified in Clause 7.1 of AS 3100.

(e) If not the only type of circuit-breaker marketed by the manufacturer or by the applicant for approval, the circuit-breaker shall also be marked with a catalogue number, type number or name, or other marking which will distinguish it from any other type of circuit-breaker marketed by that manufacturer or applicant for approval.

(f) Breaking capacity in kiloamperes (r.m.s. symmetrical).