Amendment 1-April 1981.

AS 3190—1980 7
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Australian Standard 3190—1980

APPROVAL AND TEST SPECIFICATION FOR CURRENT-OPERATED (CORE BALANCE) EARTH-LEAKAGE DEVICES

PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.
Incorporated by Royal Charter

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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 Electronics 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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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 25 August 1980, and was published on 1 November 1980.

It is one of a series of approval and test specifications issued by the Association under Part 2 of the SAA Wiring Rules. 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.

Preparation of this specification followed requests from statutory Electricity Authorities and manufacturing interests.

In the preparation of this specification, reference was made to SABS 767—1964, South African Standard Specification for Core Balance Earth Leakage Protection Units, and to the draft specifications (227-SEC)A:102/71 and (227-SEC)A:113/72 for similar devices issued by the International Commission on Rules for the Approval of Electrical Equipment (CEE). Acknowledgement is made of the assistance received from these sources.

This edition is technically identical with the 1974 edition except that it incorporates Amendments Nos 1 to 5 to that edition, which were issued in October 1975, February 1976, March and August 1978 and March 1979 respectively, and includes changes to the following clauses:

- Clause 2.3 clarifies the definition of a portable protection device.
- Clause 4.4 (new clause) draws attention to compliance with AS 3111.*
- Clause 5.5 relaxes the requirement that every portable device shall be fitted with a flexible cord.
- Clause 5.6 (new clause) introduces requirements for the connection by pins.
- Clause 6 introduces a note drawing attention to international tests which are under consideration.
- Clause 7.1 introduces new requirements for means of isolation.
- Clause 7.2 introduces new marking requirements for protection devices.
- Clause 7.2 introduces new marking requirements for relays.*
- Clause 7.3 item (a) has been deleted.
- Clause 8.1.1 introduces new testing requirements.
- Clause 8.4 fourth paragraph deleted.*
- Clause 8.5.1 final paragraph deleted.*

*These amendments form part of the specification 12 months after publication.

This specification supersedes AS 3190—1974 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.

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

AS 3111	Miniature Overcurrent Circuit-breakers
AS 3191	Electric Flexible Cords
AS C100	Definitions and General Requirement for Electrical Materials and Equipment
AS C112	Plugs and Plug Sockets.

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Amendment No. 1
April 19..

STANDARDS ASSOCIATION OF AUSTRALIA

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AMENDMENT No 1
to
AS 3190—1980
SAA Approval and Test Specification
for
CURRENT-OPERATED (CORE BALANCE) EARTH-LEAKAGE DEVICES

The 1980 edition of AS 3190 is amended as follows; the amendment should be inserted in the appropriate place.

SUMMARY: The following section of the standard is covered by this amendment: Clause 8.10.1.

Published on 1 May 1981.

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
APPROVAL AND TEST SPECIFICATION FOR CURRENT-OPERATED (CORE BALANCE) EARTH-LEAKAGE DEVICES

This specification shall be read in conjunction with AS C100. (See also Clause 4, below.)

1 SCOPE. This specification applies to earth-leakage devices and relays of the current-operated (core balance) type, designed for operation at low or medium voltage, having an alternating current rating not exceeding 100 A, and intended to isolate supply or initiate a tripping signal in the event of a current flow to earth in the protected circuit, in excess of a predetermined level.

It is not intended that this specification apply to earth-leakage devices for the protection of distribution systems, high voltage equipment, or specialized industrial installations, nor for protection of equipment in mines covered by AS 2081, Earth Fault Protection Equipment in Coal and Shale Mines.

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

2.1 Current-operated (core balance) earth-leakage device (hereinafter referred to as a 'protection device')—an arrangement consisting of a current-operated (core balance) earth-leakage relay and a means of isolating the controlled circuit.

2.2 Current-operated (core balance) earth-leakage relay (hereinafter referred to as a 'relay')—a component incorporating a magnetic core through which all active and neutral conductors of a circuit pass, capable of sensing a current imbalance as a result of earth leakage from this circuit, and designed to produce a sudden change in its output circuit when the imbalance exceeds a predetermined level.

2.3 Portable protection device (hereinafter referred to as a 'portable device')—a portable self-contained unit arranged for connection to a plug socket either directly or by means of a flexible cord and plug and consisting of a Type A protection device (see Clause 3) and one or more outlets, constructed so that is can be carried by hand.

Unless a specific requirement is stated for a portable device, it shall be understood that any requirement given herein for a protection device applies to a portable device.