AS 2184—1980
UDC 621.316.57.064.241

Australian Standard 2184—1980

MOULDED-CASE CIRCUIT-BREAKERS

(up to and including 600 V a.c. and 250 V d.c.)

(interrupting rating 10 kA and more)

STANDARDS ASSOCIATION OF AUSTRALIA
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THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Electrical and Electronics Manufacturers Association

Australian-British Trade Association

Confederation of Australian Industry

Department of Defence

Department of Productivity

Electrical Contractors Associations of Australia

Electricity Supply Association of Australia

Institution of Engineers Australia

Railways of Australia Committee

Testing Authorities

This standard, prepared by Committee EL/6, Industrial Switchgear and Controlgear, was approved on behalf of the Council of the Standards Association of Australia on 18 February 1980, and was published on 1 May 1980.

AUSTRALIAN STANDARD

MOULDED-CASE CIRCUIT-BREAKERS

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AS 2184—1980

First published (as AS C411) 1970
AS 2184 first published 1978
Second edition 1980

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

ISBN 0 7262 1887 1

PREFACE

This standard was prepared by the Association's Committee on Industrial Switchgear and Controlgear as a revision of AS 2184—1978.

This edition is technically identical with the 1978 edition except for an amendment to the section on markings to allow the use of the symbols 'I' and 'O' in lieu of ON and OFF, respectively.

Consideration was given to the combining of this standard and AS 1930, Circuit-breakers for Distribution Circuits (based on IEC 157-1 Low Voltage Switchgear and Controlgear, Part 1 Circuit-breakers) into one standard as has been done by IEC. The committee decided to retain the two Australian standards as separate entities for the present as the articles covered by this standard and by AS 1930 are quite different and as a consequence most of the requirements are different.

The committee appreciated, however, that as moulded-case circuit-breakers are being increasingly used at higher continuous current ratings, and the distinction between moulded-case circuit-breakers and other circuit-breakers for distribution circuits is less defined at these higher ratings, the above decision could be modified by the time AS 1930 and this standard are next revised.

In the application of this standard reference may be necessary to the following Australian standards:

AS 3000	Part 1—SAA Wiring Rules
AS 3111	Approval and Test Specification for Miniature Overcurrent Circuit-breakers
AS C100	Approval and Test Specification for Definitions and General Requirements for Electrical Materials and Equipment
AS C320	Classification of Insulating Materials for Electrical Machinery and Apparatus on the Basis of Thermal Stability in Service

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Australian Standard
for
MOULDED-CASE CIRCUIT BREAKERS (up to and including 600 V a.c. and 250 V d.c.) (interrupting rating 10 kA and more)

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard specifies requirements for single-pole and multipole moulded-case air-break circuit-breakers, including circuit-breakers incorporating replaceable current limiting fuses, having voltage ratings up to and including 600 V a.c. and 250 V d.c. and interrupting ratings of 10 000 A (10 kA) or more.

It does not apply to single-pole and multipole circuit-breakers intended for installation in rail or road vehicles or in aircraft.

NOTE: Although this standard is intended to apply only to circuit-breakers having an interrupting rating of 10 kA or more, the interrupting rating tests (see Clause 8.2.9) are used to verify claimed breaking capacities between 3 and 10 kA of circuit-breakers falling within the scope of AS 3111.

1.2 OBJECT. The object of this standard is to state:

(i) the characteristics of circuit-breakers;

(ii) the conditions with which circuit-breakers must comply with reference to —

  (a) their operation and behaviour in normal service;

  (b) their operation and behaviour under fault conditions;

  (c) their dielectric properties;

(iii) the tests intended for confirming that these conditions have been met and the methods to be adopted for these tests;

(iv) the data to be marked on the apparatus.

1.3 EXEMPTIONS. Any circuit-breaker which falls within the scope of this standard and which has been type-tested and approved to any one of the overseas standards given below shall, without further testing, on production of satisfactory test reports or proof of listing by the Underwriters' Laboratories Inc., U.S.A., be deemed to comply with the test requirements of this standard for the same interrupting rating if a standard value from Clause 4.7, or for the next lower standard rating:

NEMA Standards Publication AB1 — 1975.

Underwriters' Laboratories Inc. Standard No 489.