Australian Standard®

LOW VOLTAGE SWITCHGEAR AND CONTROLGEAR —

MOULDED-CASE CIRCUIT BREAKERS FOR RATED VOLTAGES UP TO AND INCLUDING 600 V a.c. AND 250 V d.c

This Australian standard was prepared by Committee EL/6, Industrial Switchgear and Controlgear. It was approved on behalf of the Council of the Standards Association of Australia on 31 January 1985 and published on 4 April 1985.

The following interests are represented on Committee EL/6:

Australian Electrical and Electronic Manufacturers Association

Australian British Chamber of Commerce

Bureau of Steel Manufacturers of Australia

Confederation of Australian Industry

Department of Defence

Department of Defence Support

Electrical Contractors Associations of Australia

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PREFACE

This edition of this standard was prepared by the Association's Committee on Industrial Switchgear and Controlgear to supersede AS 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).

This edition is technically identical with the previous edition except as follows:

(a) Clause 1.1—the addition of Note 2.

(b) Clause 1.3. This clause now lists the standards referred to in this standard. In the previous edition it was titled exemptions and gave exemption from tests to this standard for circuit-breakers certified by test as complying with either NEMA Standards Publication ABI—1975 or Underwriters' Laboratories Inc. Standard No. 489.

When this standard was first published in 1970 (as AS C411) it was closely aligned with the above NEMA and UL standards and it was appropriate to consider circuit-breakers certified by tests as complying therewith as also complying with previous editions of this standard. It is now no longer considered to be appropriate for such circuit-breakers to be exempted from tests to this standard.

CONTENTS

Page

Page

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for

LOW VOLTAGE SWITCHGEAR AND CONTROLGEAR — MOULDED-CASE CIRCUIT-BREAKERS FOR RATED VOLTAGES UP TO AND INCLUDING 600 V a.c. AND 250 V. d.c.

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 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.

NOTES:

1. 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 kA and 10 kA of circuit-breakers falling within the scope of AS 3111.
2. Additional requirements may apply to miniature over-current circuit-breakers in approvals regulations.

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

(a) The characteristics of circuit-breakers.

(b) The conditions with which circuit-breakers must comply with reference to —

(i) their operation and behaviour in normal service;

(ii) their operation and behaviour under fault conditions; and

(iii) their dielectric properties.

(c) The tests intended for confirming that these conditions have been met and the methods to be adopted for these tests.

(d) The data to be marked on the apparatus.

1.3 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 3111 Approval and Test Specification for Miniature Overcurrent Circuit-breakers

AS 3100 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