AS/NZS 3111:2009
(Incorporating Amendment Nos 1 and 2)

AS/NZS 3111:2009

Australian/New Zealand Standard™

Approval and test specification—Miniature overcurrent circuit-breakers

STANDARDS Australia

STANDARDS NEW ZEALAND
PAEREWA AOTEAROA

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-004, Electrical Accessories. It was approved on behalf of the Council of Standards Australia on 22 August 2008 and on behalf of the Council of Standards New Zealand on 18 December 2008.
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The following are represented on Committee EL-004:

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Australian Information Industry Association
Canterbury Manufacturers Association New Zealand
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-004, Electrical Accessories, to supersede AS 3111—1994, *Approval and test specification—Miniature overcurrent circuit-breakers*, on publication.

This Standard incorporates Amendment No. 1 (October 2011) and Amendment No. 2 (June 2015). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide designers, manufacturers, importers, test laboratories and regulators with requirements for miniature overcurrent air-break circuit-breakers.

This Standard will exist in parallel with AS/NZS 60898, *Electrical accessories—Circuit-breakers for overcurrent protection for household and similar installations*, Part 1: *Circuit-breakers for a.c. operation (IEC 60898-1 Ed 1.2 (2003) MOD)* and Part 2: *Circuit-breakers for a.c. and d.c. operation (IEC 60898-2 Ed 1.1 (2003) MOD)* (and any revisions thereof). Both this Standard and AS/NZS 60898.1 cover the requirements for miniature overcurrent circuit-breakers, and either Standard may be used.

The essential safety requirements set out in AS/NZS 3820, *Essential safety requirements for low voltage electrical equipment*, that could be applicable to miniature overcurrent circuit-breakers are covered by this Standard, which is to be used in conjunction with any other relevant requirements affecting safety.

This Standard is one of a series of Approval and Test Specifications issued by Standards Australia. These Specifications are accompanied by a general Specification, AS/NZS 3100, *Approval and test specification—General requirements for electrical equipment*. The purpose of these Specifications is to outline the conditions that are to be met to secure approval for the sale and use of electrical equipment in Australia and New Zealand. Only safety matters and related conditions are covered.

This Standard was revised to introduce the following changes:

(a) Revised comments with respect to Standards covering circuit-breakers.

(b) Revised requirements for the resistance to fire test.

(c) Changes to ratings for circuit-breakers.

(d) Inclusion of information on the number of samples required.

(e) Changes to testing of circuit-breakers.

(f) General editorial revision and updating of style.

This Standard does not include all of the necessary provisions of a contract.

Statements expressed in mandatory terms in footnotes to tables are deemed to be requirements of this Standard.

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1 SCOPE

This Standard 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.

(b) Having current ratings up to, and including, 125 A.

(c) Having current breaking capacities up to, and including, 10 kA.

(d) Intended for use at low voltage.

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

NOTES:

1 Voltages and currents referred to in this Standard relate to alternating currents except where otherwise specified and values quoted are r.m.s. values.

2 Attention is drawn to AS/NZS 60947.2, which covers circuit-breakers having breaking capacities above 3 kA.

2 APPLICATION

2.1 General requirements of AS/NZS 3100

This Standard shall be read in conjunction with AS/NZS 3100, and the appropriate provisions of AS/NZS 3100 shall apply to the construction of the circuit-breaker and to insulation or the safeguarding of parts that normally carry current, or both.

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2.2 Compliance with this Standard and deemed alternative standards

2.2.1 *This Standard*

A circuit-breaker shall be deemed to comply with this Standard only if it complies with all the requirements of this Standard and passes the tests specified herein.

2.2.2 *Deemed alternatives*

MCBs complying with the following Standards are deemed to comply with the requirements of this Standard:

AS/NZS	
60898	Electrical accessories—Circuit-breakers for overcurrent protection for household and similar installations
60898.1	Part 1: Circuit-breakers for a.c. operation, (IEC 60898-1, Ed. 1.2 (2003) MOD)
60898.2	Part 2: Circuit-breakers for a.c. and d.c. operation (IEC 60898-2, Ed. 1.1 (2003) MOD)

2.3 Circuit-breakers with earth-leakage features

A circuit-breaker within the scope of this Standard that also provides earth-leakage protection shall comply with all the requirements of this Standard and the relevant requirements of other applicable Standards, e.g. AS/NZS 3190, in respect of current-operated earth-leakage circuit-breakers.