

AS/NZS 3947.2:2002  
IEC 60947-2:2001

AS/NZS 3947.2

Australian/New Zealand Standard™

**Low-voltage switchgear and controlgear  
Part 2: Circuit-breakers**

## **AS/NZS 3947.2:2002**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-006, Industrial Switchgear and Controlgear. It was approved on behalf of the Council of Standards Australia on 24 September 2002 and on behalf of the Council of Standards New Zealand on 17 September 2002. It was published on 7 November 2002.

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## **Low-voltage switchgear and controlgear Part 2: Circuit-breakers**

Originated as AS 3858—1990.  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-006, Industrial Switchgear and Controlgear to supersede AS 3947.2—1997 and its Amendment 1:2001.

The objective of this Standard, in addition to that stated in Clause 1, is to bring Australian and New Zealand requirements into line with Consolidated edition 2.2 (2001-10) of IEC 60947-2.

This Standard is Part 2 of a series which, when complete, will consist of the following:

AS/(NZS) 3947	Low-voltage switchgear and controlgear	
AS/NZS 3947.1	Part 1:	General rules
AS/NZS 3947.2	Part 2:	Circuit-breakers (This Standard)
AS/NZS 3947.3	Part 3:	Switches, disconnectors, switch-disconnectors and fuse-combination units
AS/NZS 3947.3 Supp 1	Part 3:	Switches, disconnectors, switch-disconnectors and fuse-combination units, Supplement 1: Fuse-switch-disconnectors and switch-disconnectors for use with low-voltage aerial bundled cables
AS/NZS 3947.4.1	Part 4.1:	Contactors and motor-starters—Electromechanical contactors and motor-starters
AS/NZS 3947.4.2	Part 4.2:	Contactors and motor-starters—A.C. semiconductor motor controllers and starters
AS/NZS 3947.4.3	Part 4.3:	Contactors and motor-starters—A.C. semiconductor controllers and contactors for non-motor loads
AS/NZS 3947.5.1	Part 5.1:	Control circuit devices and switching elements—Electromechanical control circuit devices
AS/NZS 3947.5.2	Part 5.2:	Control circuit devices and switching elements—Proximity switches
AS/NZS 3947.5.3	Part 5.3:	Control circuit devices and switching elements—Requirements for proximity devices with defined behaviour under fault conditions
AS/NZS 3947.5.4	Part 5.4:	Control circuit devices and switching elements—Methods of assessing the performance of low-energy contacts—Special tests
AS/NZS 3947.5.5	Part 5.5:	Control circuit devices and switching elements—Electrical emergency stop devices with mechanical latching function
AS/NZS 3947.5.6	Part 5.6:	Control circuit devices and switching elements—D.C. interface for proximity sensors and switching amplifiers (NAMUR)
AS/NZS 3947.6.1	Part 6.1:	Multiple function equipment—Automatic transfer switching equipment
AS/NZS 3947.6.2	Part 6.2:	Multiple function equipment—Control and protective switching devices (or equipment) (CPS)
AS/NZS 3947.7.1	Part 7.1:	Ancillary equipment—Terminal blocks for copper conductors
AS 3947.7.2	Part 7.2:	Ancillary equipment—Protective conductor terminal blocks for copper conductors
AS/NZS 3947.7.3	Part 7.3:	Ancillary equipment—Safety requirements for terminal blocks for the reception of cartridge fuse-links

This Standard is identical with and has been reproduced from IEC 60947-2:2001, *Low-voltage switchgear and controlgear—Part 2: Circuit-breakers* which incorporates IEC 60947-2:1995 and its Amendment 1:1997 and Amendment 2:2001.

AS 2184—1985 *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.* will be replaced by this Standard on 5 June 2007 to allow manufacturers to adapt their range of circuit-breakers to comply with this Standard.

The provisions of AS/NZS 3947.1, *General rules* are applicable to this Standard where specifically called for. Clauses and Subclauses thus applicable, as well as tables, figures, and annexes are identified by reference to IEC 60947-1, for example Subclause 1.2.3 of IEC 60947-1, table 4 of IEC 60947-1 or annex A of IEC 60947-1. IEC 60947-1 is also referred to as Part 1.

This Standard differs from AS 3947.2-1997 in the following areas:

- (a) The Standard has been redesignated as a joint Australian/New Zealand Standard.
- (b) References listed in Clause 1.2 *Normative references* have been updated.
- (c) Clause 5.2 *Marking* has been updated.
- (d) Clause 7.1 *Constructional requirements* has been revised.
- (e) Clause 7.1.6 *Additional requirements for circuit-breakers provided with a neutral pole* has been added.
- (f) Tests of Clauses 8.3.3, 8.3.4, 8.3.5 and 8.3.6 have been added.
- (g) Annex B *Circuit-breakers incorporating residual current protection* has been updated.
- (h) Annex F *Additional test for circuit-breakers with electronic over-current protection* has been rewritten.
- (i) In Annex J *Electromagnetic compatibility (EMC)—Requirements and tests for circuit-breakers*, Table J1 has been revised.
- (j) Annex L *Circuit-breakers not fulfilling requirements for overcurrent protection* has been added.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text ‘this standard’ should read ‘this Australia/New Zealand Standard’.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex to which they apply. A ‘normative’ annex is an integral part of a Standard, whereas an ‘informative’ annex is only for information and guidance.

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