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IEC 60947-7-1:1989
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Australian/New Zealand Standard™

Low-voltage switchgear and controlgear

Part 7.1: Ancillary equipment—Terminal blocks for copper conductors

Standards Australia

STANDARDS NEW ZEALAND

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 7 March 2001 and on behalf of the Council of Standards New Zealand on 9 March 2001. It was published on 5 May 2001.

The following interests are represented on Committee EL-006:

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Australian Chamber of Commerce and Industry
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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 3947.7.1—1996.

The objective of this Standard is to provide characteristics, constructional and performance requirements and tests to verify performance for terminal blocks primarily intended for industrial or similar use for rated voltages up to 1000 V a.c. up to 1000 Hz or 1500 V d.c.

This Standard is Part 7.1 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 3947.2	Part 2:	Circuit-breakers
AS/NZS 3947.3	Part 3:	Switches, disconnectors, switch-disconnectors and fuse-combination units
AS/NZS 3947.3 Supp1	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 (this Standard)
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 60947-7-1:1989 + A1:1999, *Low-voltage switchgear and controlgear—Part 7-1: Ancillary equipment—Terminal blocks for copper conductors*.

The provisions of AS/NZS 3947.1 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.

This Standard differs from AS 3947.7.1—1996 by the addition of IEC Amendment 1:1999 to include electromagnetic compatibility (EMC) and EMC tests.

A vertical line in the margin shows where the base publication has been modified by Amendment 1.

A reference to an International Standard identified in the Normative References Clause by strikethrough (~~example~~) is replaced by a reference to the Australian or Australian/New Zealand Standard(s) listed immediately thereafter and identified by shading (example). Where the struck-through referenced document and the referenced Australian or Australian/New Zealand Standard are identical, this is indicated in parenthesis after the title of the latter.

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 Australian/New Zealand Standard’.

(c) A full point should be substituted for a comma when referring to a decimal marker.

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An informative annex is only for information and guidance.

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Any IEC table, figure or passage of text that is struck-through is not part of this Standard. Any Australian/New Zealand table, figure or passage of text that is added (and identified by shading) is part of this Standard.

1 General

The provisions of the general rules, IEC Publication 60947-1, are applicable to this standard, where specifically called for. General rules, clauses and sub-clauses thus applicable, as well as tables, figures and appendices, are identified by a reference to Part 1, e.g. Sub-clause 1.2.3, table 4 or appendix A of Part 1.

1.1 Scope

This standard specifies requirements for terminal blocks with screw-type or screwless type terminals primarily intended for industrial or similar use and to be fixed to a support to provide electrical and mechanical connection between copper conductors. It applies to terminal blocks intended to connect round copper conductors, with or without special preparation, having a cross-section between 0,2 mm^2 and 300 mm^2 (AWG 24/600 MCM), intended to be used in circuits of a rated voltage not exceeding 1 000 V a.c. up to 1 000 Hz or 1 500 V d.c.

It does not apply to terminal blocks or connecting devices forming an integral part of equipment which are dealt with in the relevant product standards.

This standard does not apply to:

– connecting devices requiring the fixing of special devices to the conductors before clamping them into the terminal, for example flat push-on connectors;

– connecting devices requiring twisting of the conductors, for example those with twisted joints;

– connecting devices providing direct contact to the conductors by means of edges or points penetrating the insulation,

which are dealt with in other product standards.

NOTE This standard may be used as a guide for special types of terminal blocks (e.g. disconnecting terminal blocks) when appropriate specifications are not available.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of 60947. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 60947 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.