AS/NZS 60898.2:2025

STANDARDS NEW ZEALAND
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STANDARDS Australia

Australian/New Zealand Standard™

Electrical accessories — Circuit-breakers for overcurrent protection for household and similar installations

Part 2: Circuit-breakers for a.c. and d.c. operation (IEC 60898-2:2016 (ED. 2.0) MOD)

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee EL-004, Electrical Accessories. It was approved on behalf of Standards Australia's Standards Development and Accreditation Committee on 15 May 2025 and by the New Zealand Standards Approval Board on 07 May 2025.

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The following are represented on Committee EL-004:

Australian Chamber of Commerce and Industry
Australian Industry Group
Building Commission NSW
CDB Group
Consumer Electronics Suppliers Association
Consumers' Federation of Australia
Electrical Regulatory Authorities Council, Australia
Engineers Australia
International Accreditation New Zealand
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National Electrical and Communications Association
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Part 2: Circuit-breakers for a.c. and d.c. operation (IEC 60898-2:2016 (ED. 2.0) MOD)

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Reconfirmed 2016.
Second edition 2025.

Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-004, Electrical Accessories, to supersede AS/NZS 60898.2:2004, *Circuit-breakers for overcurrent protection for household and similar installations, Part 2: Circuit-breakers for a.c. and d.c. operation (IEC 60898-2, Ed. 1.1 (2003) MOD)*.

AS/NZS 60898.2:2004 will also remain current for 12 months after the date of publication of this document and after this time it will be superseded by AS/NZS 60898.2:2025. Regulatory authorities that reference this document in regulation may apply these requirements at a different time. Users of this document should consult with these authorities to confirm their requirements.

The objective of this document is to give additional requirements for single- and two-pole circuit-breakers which, in addition to the characteristics given in AS/NZS 60898.1:2024, are suitable for operation with direct current, and have a rated DC voltage not exceeding 220 V for single-pole and 440 V for two-pole circuit-breakers, a rated current not exceeding 125 A and a rated DC short-circuit capacity not exceeding 10 000 A.

The essential safety requirements in AS/NZS 3820 that could be applicable to miniature circuit-breakers are covered by this document and taken in conjunction with any other relevant requirements affecting safety.

This document is an adoption with national modifications, and has been reproduced from, IEC 60898-2:2016, *Electrical accessories — Circuit-breakers for overcurrent protection for household and similar installations — Part 2: Circuit-breakers for AC and DC operation*. The modifications are set out in national variations boxes which give instructions where the IEC text is to be modified for use in Australia and New Zealand. Due to IEC copyright policy it is not possible to directly modify the IEC content.

As this document has been reproduced from an international document, a full point substitutes for a comma when referring to a decimal marker.

NATIONAL VARIATIONS

Throughout this document, *delete* "IEC 60898-1:2015" and *replace* with "AS/NZS 60898.1:2024".

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

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How to read this Standard

This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

Requirements

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

Recommendations, permissions and possibilities

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Technical Specification will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

This Standard is a modified adoption of an International Standard. It makes changes to the international text.

The changes to the international text are shown in boxes in the text. These boxes have the heading "National Variations".

To use this Standard in Australia/New Zealand, the changes in the national variation boxes need to be followed.

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

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8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60898-2 has been prepared by subcommittee 23E: Circuit-breakers and similar equipment for household use, of IEC technical committee 23: Electrical accessories.

This second edition cancels and replaces the first edition published in 2000 and Amendment 1:2003. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) alignment with second edition of IEC 60898-1;

b) introduction of test I_{cn1}.

The text of this standard is based on the following documents:

FDIS	Report on voting
23E/951A/FDIS	23E/976/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60898 series, published under the general title *Electrical accessories – Circuit-breakers for overcurrent protection for household and similar installations*, can be found on the IEC website.

This Part 2 is to be used in conjunction with IEC 60898-1.

Where a particular subclause of Part 1 is not mentioned in this Part 2, that subclause applies as far as is reasonable. Where this Part 2 states "addition", "deletion" or "replacement", the corresponding requirement, test specification or explanatory material in Part 1 should be adapted accordingly.

In this standard, the following print types are used:

– Requirements proper: in roman type.

– *Test specifications: in italic type.*

– Explanatory matter: in smaller roman type.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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1 Scope

Clause 1 of IEC 60898-1:2015 is applicable except as follows:

Addition at the end of the first paragraph:

This standard gives additional requirements for single- and two-pole circuit-breakers which, in addition to the above characteristics, are suitable for operation with direct current, and have a rated DC voltage not exceeding 220 V for single-pole and 440 V for two-pole circuit-breakers, a rated current not exceeding 125 A and a rated DC short-circuit capacity not exceeding 10 000 A.

NOTE This standard applies to circuit-breakers able to make and break both alternating current and direct current.

Delete the last two paragraphs.

2 Normative references

Clause 2 of IEC 60898-1:2015 is applicable except as follows:

Addition:

IEC 60898-1:2015, *Electrical accessories – Circuit-breakers for overcurrent protection for household and similar installations – Part 1: Circuit-breakers for a.c. operation*

NATIONAL VARIATIONS

Delete Clause 2 and *replace* with the following:

Clause 2 of AS/NZS 60898.1:2024 is applicable except as follows:

Addition:

AS/NZS 60898.1:2024, *Electrical accessories — Circuit-breakers for overcurrent protection for household and similar installations — Part 1: Circuit-breakers for a.c. operation*

3 Terms and definitions

Clause 3 of IEC 60898-1:2015 is applicable except as follows:

Addition:

3.5.10.3
time constant
T
rise time of a prospective direct current to reach a value of 0,63 times the maximum peak current

$T = L/R$ (ms)