

COMMITTEE: EL-002  
Safety of Household and Similar Electrical Appliances  
and Small Power Transformers

DR 24036 CP

**DRAFT**

# **COMBINED POSTAL BALLOT/ AUSTRALIAN / NEW ZEALAND STANDARD FOR COMMENT**

LIABLE TO ALTERATION DO NOT USE AS A STANDARD

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DATE OF ISSUE: 21 October 2024  
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DR 24036 CP

**AS/NZS 61558.2.23:2025**

**Safety of transformers, reactors, power supply  
units and combinations thereof –  
Part 2.23: Particular requirements and tests for  
transformers and power supply units for  
construction sites**

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**COMBINED DRAFT FOR COMMENT/POSTAL BALLOT  
STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND**

Committee EL-002- Safety of Household and Similar Electrical Appliances and Small Power Transformers

**DRAFT  
Australian/New Zealand Standard**

**Safety of transformers, reactors,  
power supply units and combinations thereof –**

**Part 2.23: Particular requirements and tests for  
transformers and power supply units for construction sites**

Please note that this document is currently being voted by the committee and the results of the postal ballot will be contingent on public comment received.

Attention is drawn to the fact that this document is a draft only and is liable to alteration in the light of comment received. It is not to be regarded as an Australian/New Zealand Standard until finally issued as such by Standards Australia and Standards New Zealand.

**NOTES OF THE SECRETARY:**

THE INTRODUCTION OF ANY NATIONAL VARIATIONS TO BE INCLUDED IN THIS STANDARD WILL OCCUR AFTER THE PUBLIC COMMENT HAS BEEN CONSIDERED AND PRIOR TO THE PUBLICATION OF THE STANDARD.

THIS DOCUMENT MUST BE READ IN CONJUNCTION WITH IEC 61558-2-23 ED 3, COPIES OF WHICH MAY BE VIEWED BY CONTACTING [enquiries@standards.govt.nz](mailto:enquiries@standards.govt.nz).

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL 002 - Safety of household and similar electrical appliances and small power transformers. It was approved on behalf of the Council of Standards Australia on xxxxxxxx and by the New Zealand Standards Approvals Board on xxxxxxxx.

It was published on xxxxxxxx 2025.

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The following interests are represented on Committee EL/2

Association of Accredited Certification Bodies

Australian Industry Group

Australian Retailers Association

Better Regulation Division (Fair Trading, Safework NSW, TestSafe)

Business New Zealand

Consumer Electronic Suppliers Association, Australia

Consumers' Federation of Australia

Electrical Regulatory Authorities, Australia

Electrical consultants

Engineers Australia

JAS-ANZ

National Retailers Association (Australia)

New Zealand Electric Fence Energizer Manufacturers' Standards Group

Testing Interests New Zealand

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Standards are living documents, which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at [www.standards.org.au](http://www.standards.org.au) or Standards New Zealand web site at [www.standards.govt.nz](http://www.standards.govt.nz).

For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comment to the Chief Executive of Standards Australia or the New Zealand Standards Executive at the address shown on the title page.

AS/NZS 61558.2.23:2025  
(IEC 61558-2-23 Ed 3, IDT)

Australian/New Zealand Standard™

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**Safety of transformers, reactors,  
power supply units and  
combinations thereof –**

**Part 2.23: Particular requirements  
and tests for transformers and  
power supply units for  
construction sites**

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First edition AS/NZS 61558.2.23:2001  
Second edition AS/NZS 61558.2.23:2011  
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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**AS/NZS 61558.2.23:2025****Safety of transformers, reactors, power supply units and combinations thereof –****Part 2.23: Particular requirements and tests for transformers and power supply units for Construction sites**

## Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002 - Safety of Household and Similar Electrical Appliances and Small Power Transformers to supersede AS/NZS 61558.2.23:2011 and its amendments three years from the date of its publication. During this period it is anticipated that regulatory authorities will approve transformers and power supply units for Construction sites to either standard.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with safety requirements designed to give the user protection against hazards that might occur during normal operation and abnormal operation of the appliance and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand.

The text of IEC 61558-2-23 Ed 3, prepared by IEC Technical Committee TC 96, was submitted to the Standards Australia/Standards New Zealand Combined Procedure (dual public comment and committee vote) for adoption of the IEC standard as a Standards Australia/Standards New Zealand joint standard.

The principal changes in this edition as compared with the 2011 edition of AS/NZS 61558.2.23 are as follows (minor changes are not listed):

- a) adjustment of structure and references in accordance with AS/NZS 61558.1:2018;
- b) new symbol for power supply unit with linearly regulated output voltage;

This Standard is an adoption with national modifications of the third edition of IEC 61558-2-23 *Safety of transformers, reactors, power supply units and combinations thereof – Part 2-23 Particular requirements and tests for transformers and power supply units for Construction sites*. It has been varied as indicated to take account of Australian and New Zealand conditions.

This part 2 has to be used in conjunction with the latest edition of AS/NZS 61558.1 *Safety of transformers, reactors, power supply units and combinations thereof – Part 1: General requirements and tests* and its Amendments. It was established on the basis of AS/NZS 61558.1:2018.

This part 2 supplements or modifies the corresponding clauses of AS/NZS 61558.1 so as to convert it into the Australian/New Zealand Standard: Safety requirements and tests for transformers and power supply units for Construction sites.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

NOTE 1 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;

- additional annexes are lettered AA, BB, etc.;
- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letters AZ.

NOTE 2 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3.

p NOTE 3 In this document, p is used in the margin to indicate instructions for preparing a consolidated version.

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The essential safety requirements in AS/NZS 3820<sup>1</sup> that could be applicable to requirements and tests for transformers and power supply units for Construction sites are covered by this standard.

The national variations to IEC 61558-2-23 Ed 3 form the Australian and New Zealand national variations for purposes of the IECEE scheme for recognition of results of testing to standards for safety of electrical equipment (the CB scheme).

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<sup>1</sup> AS/NZS 3820 *Essential safety requirements for electrical equipment*

The text of the International Standard IEC 61558-2-23 Ed 3 was approved as a joint Australia/New Zealand Standard with the agreed national variations as given below.

#### **AUSTRALIAN NATIONAL VARIATIONS**

There are no national variations to this part 2 other than those listed in the national variations in AS/NZS 61558.1:2018.

#### **NEW ZEALAND NATIONAL VARIATIONS**

There are no national variations to this part 2 other than those listed in the national variations in AS/NZS 61558.1:2018.

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**Annex ANZ  
(normative)**  
**Normative references to international publications with their corresponding joint  
Australia/New Zealand publications**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by national variations the relevant joint Australia/New Zealand publications applies if the national variations are needed to ensure the safety of the appliance for Australia/New Zealand conditions. These international publications are indicated by (mod). If an international publication is not so indicated, then either it or the listed Australia/New Zealand publication may be used.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>AS/NZS</u>	<u>Year</u>
IEC 60068-2-27	2008	<i>Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock</i>		
IEC 60245-4	2011	<i>Rubber insulated cables – Rated voltages up to and including 450/750 V – Part 4: Cords and flexible cables</i>	60245.4	2020
IEC 61558-1 (mod)	2017	<i>Safety of transformers, reactors, power supply units and combinations thereof – Part 1: General requirements and tests</i>	61558.1	2018