

Australian/New Zealand Standard™

**Safety of power transformers, power
supply units and similar**

**Part 2.6: Particular requirements for
safety isolating transformers for general
use
(IEC 61558-2-6:1997, MOD)**



AS/NZS 61558.2.6:2001

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 21 May 2001 and on behalf of the Council of Standards New Zealand on 12 May 2001.

This Standard was published on 11 June 2001.

The following are represented on Committee EL-002:

Association of Certification Bodies
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Canterbury Manufacturers Association New Zealand
Consumer Electronic Suppliers Association, Australia
Electrical regulatory authorities, Australia
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This Standard was issued in draft form for comment as DR 00915.

Australian/New Zealand Standard™

Safety of power transformers, power supply units and similar

Part 2.6: Particular requirements for safety isolating transformers for general use (IEC 61558-2-6:1997, MOD)

Originated, in part, in Australia as AS C126—1939.
Second edition C126—1958.
Revised and redesignated AS 3126—1981 (withdrawn 1989).
Originated, in part, in Australia as AS C167—1962.
Revised and redesignated AS 3167—1981 (withdrawn 1987).
AS 3126—1981 and AS 3167—1981 were revised and redesignated AS 3108.1—1984, AS 3108.2—1984 and AS 3108.3—1984.
Revised, amalgamated and redesignated AS 3108—1990.
First published in New Zealand as NZS/AS 3108:1990.
Jointly revised and redesignated AS/NZS 3108:1994.
Jointly revised and redesignated, in part, as AS/NZS 61558.2.6:2001.
Reissued incorporating Amendment No. 1 (June 2006).
Reissued incorporating Amendment No. 2 (June 2009).

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Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

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 3108, Chapter 3, Section 1, two years from publication.

This Standard incorporates Amendment No. 1 (June 2006) and Amendment No. 2 Correction (June 2009). The Correction only applies to the 2001 edition of AS/NZS 61558.2.6 consolidated with its amendment 1 (June 2006). 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 manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with safety requirements for the design, manufacture and testing of safety isolating transformers for general use which can form the basis for approval by regulatory authorities.

This Standard forms the first edition of AS/NZS 61558.2.6 *Safety of power transformers, power supply units and similar - Part 2.6: Particular requirements for safety isolating transformers for general use.*

This Standard is an adoption with national modifications and contains the full text of the first edition of IEC 61558-2-6:1997, *Safety of power transformers, power supply units and similar - Part 2-6: Particular requirements for safety isolating transformers for general use* and has been varied as indicated to take account of Australian and New Zealand conditions. It is to be used in conjunction with the latest edition of AS/NZS 61558.1 and its amendments. It was established on the basis of the first edition (2001) of that standard.

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 for safety isolating transformers for general use.*

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

NOTE 1 Subclauses, notes, tables and figures which are additional to those in part 1 are numbered starting from 101. Annexes, which are additional to those in part 1 are lettered AA, BB, etc.

Annex ZZ is for information only.

NOTE 2 In this Standard the following print types are used:

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

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

The numbering of clauses, subclauses, notes, tables, figures and annexes follows that of IEC 61558-2-6:1997. To allow for the introduction of additional material by the IEC, the numbers 101 to 200 have been reserved. To allow for additional material to be introduced by Australia and New Zealand, the numbers 201 to 300 are used to number further clauses, subclauses, notes, tables and figures in part 1. The numbers 301 to 400 are used to number further clauses, subclauses, notes, tables and figures in this part 2. Additional annexes are lettered ZA, ZB and so on.

This scheme has been introduced to reduce the likelihood of the IEC and Australia and New Zealand using the same identifier for different purposes.

The use of the word VOID indicates that the IEC text is not used in Australia or New Zealand. The use of this word also avoids the need to renumber, clauses, notes, tables and figure if an earlier clause, note, table or figure is not used.

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 on the cover and title page only.
- (b) In the source text "this International Standard" should read "this Australian/New Zealand Standard".
- (c) A full point substitutes for a comma when referring to a decimal marker.

Variations to IEC 61558-2-6:1997 are indicated at the appropriate places throughout this standard. Strikethrough (~~example~~) identifies IEC tables, figures and passages of text which, for the purposes of this Australian/New Zealand standard are deleted. Where Australian/New Zealand tables, figures or passages of text are added, each is set in its proper place and identified by shading (~~example~~). Added figures are not themselves shaded, but are identified by a shaded border.

Variations made to IEC 61558-2-6:1997 form the Australian variations for the purposes of the IECEE scheme for recognition of testing to standards for safety of electrical equipment (the CB scheme). These variations have been incorporated in the body of the standard. They are listed in Annex ZZ for easy reference.

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AUSTRALIAN/NEW ZEALAND STANDARD

SAFETY OF POWER TRANSFORMERS, POWER SUPPLY UNITS AND SIMILAR –

Part 2.6: Particular requirements for safety isolating transformers for general use (IEC 61558-2-6:1997 MOD)

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

1 Scope

Replacement:

This part 2 of IEC 61558 applies to stationary or portable, single-phase or polyphase, air-cooled **safety isolating transformers**, associated or otherwise, having a **rated supply voltage** not exceeding 1000 V a.c. and **rated frequency** not exceeding 500 Hz, the **rated output** not exceeding:

- 10 kVA for single-phase transformers;
- 16 kVA for polyphase transformers.

This standard is also applicable to **safety isolating transformers** without limitation of the **rated output**; however such transformers are considered as special transformers and are subjected to an agreement between the purchaser and the supplier.

The **no-load output voltage** and the **rated output voltage** does not exceed:

- 50 V a.c. r.m.s. and/or
- 120 V ripple-free d.c.

between conductors or between any conductor and earth.

This standard is applicable to **dry type transformers**. The windings may be encapsulated or non-encapsulated.

2 Normative references

~~This clause of part 1 is applicable.~~

This clause of part 1 is applicable except as follows:

Addition:

AS/NZS 3112:2000, *Approval and test specification – Plugs and socket-outlets*

3 Definitions

This clause of part 1 is applicable.