

Australian/New Zealand Standard™

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

**Part 2.3: Particular requirements for
ignition transformers for gas and oil
burners
(IEC 61558-2-3:1999, MOD)**



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The following interests are represented on Committee EL/2:

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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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AS/NZS 61558.2.3:2001
(IEC 61558-2-3:1999, IDT)

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First edition AS/NZS 61558.2.3:2001

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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

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 ignition transformers for gas and oil burners which can form the basis for approval by regulatory authorities.

This Standard forms the first edition of AS/NZS 61558.2.3 *Safety of power transformers, power supply units and similar devices - Part 2.3: Particular requirements for ignition transformers for gas and oil burners.*

This Standard is an adoption with national modifications and contains the full text of the first edition of IEC 61558-2-3:1999, *Safety of power transformers, power supply units and similar devices - Part 2-3: Particular requirements for ignition transformers for gas and oil burners* 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 (2000) 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 of ignition transformers for gas and oil burners.

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.

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 61558-2-3:1999. 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.

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 61558-2-3:1999 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. The variations in this standard do not affect the technical content of IEC 61558-2-3:1999, therefore in terms of ISO/IEC Guide 21 this standard is identical to IEC 61558-2-3:1999.

AUSTRALIA/NEW ZEALAND STANDARD
SAFETY OF POWER TRANSFORMERS, POWER SUPPLY UNITS
AND SIMILAR DEVICES –

Part 2.3: Particular requirements for ignition transformers
for gas and oil burners
(IEC 61558-2-3:1999, IDT)

1 Scope

Replacement:

This International Standard deals with all aspects of safety such as electrical, thermal and mechanical aspects.

This part of ~~IEC 61558~~ **AS/NZS 61558** applies to **fixed** single-phase air-cooled (natural or forced) **associated transformers** (incorporated or not) used in the ignition system of gas and oil burners, having a **rated supply voltage** not exceeding 1 000 V a.c. and a **rated frequency** not exceeding 500 Hz. The **rated output current** does not exceed 500 mA a.c.

~~NOTE 1 Due to the national safety law, in Japan the rated output current does not exceed 50 mA.~~

The no-load output voltage and the rated no-load output voltage does not exceed 15 000 V a.c.

This standard applies to transformers where **double** or **reinforced insulation** between circuits is not required by the installation rules or by the appliance specification.

NOTE 2 The transformers are intended to be associated with equipment to provide voltages different from the supply voltage for the functional requirement of the equipment. The safety insulation may be provided (or completed) by other features of the equipment, such as the **body**.

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

NOTE 3 For transformers filled with liquid dielectric or pulverised material, such as sand, additional requirements are under consideration.

NOTE 4 Attention is drawn to the fact that

- for transformers intended to be used in tropical countries special requirements may be necessary;
- ~~for the purposes of this standard, Australia and New Zealand are not considered to be tropical;~~
- in locations where special environmental conditions prevail, particular requirements may be necessary.

This standard also applies to transformers incorporating electronic circuits. This standard does not apply to external circuits and their components intended to be connected to the input and output terminals or socket-outlets of the transformer.

NOTE 5 Electronic **ignition transformers** are under consideration.

2 Normative references

This clause of part 1 is applicable except as follows:

Addition:

ISO 3864: 1984, *Safety colours and safety signs*