

Australian/New Zealand Standard™

Electric water heaters

A2 | **Part 1: Energy consumption,
performance and general requirements**



AS/NZS 4692.1:2005

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-020, Electric Water Heating Appliances. It was approved on behalf of the Council of Standards Australia on 15 August 2005 and on behalf of the Council of Standards New Zealand on 2 September 2005. This Standard was published on 27 September 2005.

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Australian Gas Association
Australian Greenhouse Office
Australian Industry Group
Australian Stainless Steel Development Association
Business New Zealand
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-020, Electric Water Heating Appliances, to eventually supersede AS 1056.1—1990, *Storage water heaters—General requirements*, AS 1056.2—1985, *Storage water heaters—Specific requirements for water heaters with single shells* and AS 1056.3—1991, *Storage water heaters—Specific requirements for water heaters with composite shells*, at a date to be fixed.

This Standard incorporates Amendment No. 1 (April 2011), Amendment No. 2 (October 2015) and Amendment No. 3 (January 2020). 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.

It is also intended that this Standard eventually supersede NZS 4602:1998, *Low Pressure Copper Thermal Storage Electric Water Heaters*, and NZS 4606, Parts 1–3, New Zealand Adaptations of AS 1056, Parts 1–3, at a date to be fixed.

This Standard is part of a series as follows:

AS/NZS

- 4692 Electric water heaters
- 4692.1 Part 1: Energy consumption, performance and general requirements (this Standard)
- 4692.2 Part 2: Minimum Energy Performance Standard (MEPS) requirements and labelling

The overall objective of the AS/NZS 4692 series of Standards is to promote high levels of quality, performance and energy efficiency in water heaters.

The Parts of AS/NZS 4692 are summarized as follows:

- (a) *Part 1* Includes performance test procedures, minimum performance requirements and a range of other requirements for water heaters. It also includes the revised test method for the determination of standing heat loss for electric storage water heaters, and the method for the determination of hot water delivery and mixed hot water delivery.
- (b) *Part 2* Includes Minimum Energy Performance Standards (MEPS) for electric storage water heaters and electric heat exchanger water heaters. It includes details of the Top Energy Saver Award label for electric storage water heaters. Its structure is suitable for reference in regulatory legislation and it is to be used in conjunction with Part 1.

A2 | This Standard also covers requirements for heat exchange water heaters that were previously covered by AS 1361. If the government introduces MEPS levels for chilled and boiling water dispensers, test methods will be developed as a separate part to this Standard.

For regulatory purposes under AS/NZS 4692.2, heat loss tests to either this Standard or AS 1056.1, Amendment 5 or AS 1361, Amendment 1 (as applicable), will be equally valid until a date to be advised, after which only tests to this Standard will be accepted.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies test methods, and performance and construction requirements for electric water heaters of the following types:

- (a) Storage water heaters of rated hot water delivery up to 630 L or nominal capacity up to 710 L, including the storage component of solar, heat pumps and indirectly heated systems.
- (b) Heat exchange water heaters with a heat storage volume up to 710 L.
- (c) Water heaters that use electric resistive heating as the primary energy source, although the test methods for heat loss and delivery are applicable to other water heater types such as solar water heaters and heat pumps.

NOTES:

- 1 Intending purchasers of water heaters outside the Scope of this Standard are advised to include in their specification the relevant requirements of this Standard. A typical product specification form is given in Appendix F.
- 2 The test methods in this Standard may also be applied to product sizes that are not covered by the Scope.

1.2 APPLICATION

Means for demonstrating compliance with this Standard shall be in accordance with Appendix A.

Standardized test conditions shall be in accordance with Appendix B.

Determination of Standard heat loss shall be in accordance with Appendix C.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1210	Pressure vessels
1308	Electric water heaters—Thermostats and thermal cutouts
1357	Valves primarily for use in heated water systems
1357.1	Part 1: Protection valves
1357.2	Part 2: Control valves
1361	Electric heat-exchange water heaters—For domestic applications
1432	Copper tubes for plumbing, gasfitting and drainage applications
1566	Copper and copper alloys—Rolled flat products