Australian Standard™

Electric heat-exchange water heaters—For domestic applications

This Australian Standard was prepared by Committee EL-020, Electric Water Heating Appliances. It was approved on behalf of the Council of Standards Australia on 23 December 1994.
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The following are represented on Committee EL-020:

Association of Certification Bodies
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers' Association
Australian Gas Association
Australian Stainless Steel Development Association
Electricity Supply Association of Australia
Engineering and Water Supply Department, S.A.
Heat Exchange Water Heater Manufactures' Association
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Electric heat-exchange water heaters—For domestic applications

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PREFACE

This Standard was prepared by the Joint Standards Australia/New Zealand Committee EL-020 on Electric Water Heating Appliances to supersede AS 1361—1973, *Automatic electric heat exchange water heaters*.

This Standard incorporates Amendment No. 1 (September 2005). 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.

This Standard is the result of a consensus among representatives on the Joint Committee to produce it as an Australian Standard.

This edition is restricted to water heaters intended for domestic situations and incorporates a heat loss test similar in principle to the test used in AS 1056.1, *Storage water heaters*, Part 1: *General requirements*, and includes other changes made to align more closely with AS 1056.1.

A1 This Standard has been amended to incorporate key changes that will improve the accuracy of the existing methods of test for MEPS heat loss testing to acceptable levels.

AS/NZS 4692.1, *Electric water heaters*, Part 1: *Energy consumption, performance and general requirements,* sets out a new test method for MEPS heat loss testing.

This amended Standard will remain current until confidence and experience have been gained with AS/NZS 4692.1, after which time it will be superseded by AS/NZS 4692.1 and AS/NZS 4692.2, *Electric water heaters*, Part 2: *Minimum Energy Performance Standards (MEPS) requirements and energy labelling.*

The new regulatory Standard AS/NZS 4692.2 will allow testing to either the amended AS 1056.1, *Storage water heaters,* Part 1: *General requirements* or AS 1361, *Electric heat-exchange water heaters—For domestic applications*, as applicable, or to AS/NZS 4692.1. MEPS levels, as defined under each test method, are provided in AS/NZS 4692.2. The key elements included in Amendment 1 are as follows:

- Energy correction at the thermostat cut-out.
- Shielding of the water heater from other objects under test that have a temperate difference of greater than 5 K.
- Mounting the water heater on a wooden platform when testing. A cement sheet is also an acceptable mounting.
- 24 h stabilization plus 48 h test period.
- Product specification to be supplied with the test report.
- Frequency of sampling for air and water temperature measurements to be reduced to an acceptable period (5 min or less).

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.

CONTENTS

Page

STANDARDS AUSTRALIA

Australian Standard
Electric heat-exchange water heaters—For domestic applications

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for electric heat-exchange water heaters having a heated storage volume in the range of 45 L to 710 L, which heat potable water at mains pressure for domestic applications.

NOTE: Information to be supplied with enquires and orders for water heaters is given in Appendix A.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1056	Storage water heaters
1056.1	Part 1: General requirements
1308	Electric water heaters—Thermostats and thermal cutouts
1432	Copper tubes for plumbing, gasfitting and drainage applications
1566	Copper and copper alloys—Rolled flat products
1722	Pipe threads of Whitworth form
1722.1	Part 1: Sealing pipe threads
1722.2	Part 2: Fastening pipe threads
1910	Water supply—Float control valves for use in hot and cold water
2345	Dezincification resistance of copper alloys
3100	Approval and test specification—General requirements for electrical equipment
3142	Approval and test specification—Electric water heaters
3161	Approval and test specification for thermostats and energy regulators
3500	National Plumbing and Drainage Code
3500.1	Part 1: Water supply
3500.4	Part 4: Hot water supply systems
3688	Water supply—Copper and copper alloy body compression and capillary fittings and threaded-end connectors
3855	Suitability of plumbing and water distribution systems products for contact with potable water
4020(Int)	Products for use in contact with water intended for human consumption with regard to their effect on the quality of water