

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Amendment No. 1
to
AS/NZS 2712:2007
Solar and heat pump water heaters—Design and construction

REVISED TEXT

The 2007 edition of AS/NZS 2712 is amended as follows; the amendments should be inserted in the appropriate places.

SUMMARY: This Amendment applies to Clauses 1.4, 4.4.3, 4.5.2, 7.4.3.4 and 8.2.1, and Appendices B, E, F and H.

Published on 29 March 2011.

Approved for publication in New Zealand on behalf of the Standards Council of New Zealand on 18 March 2011.

Clause 1.4

Add the following to the list of AS/NZS Standards:

- 2208 Safety glazing materials in buildings
- 5125 Heat pump water heaters—Performance assessment
- 5125.1 Part 1: Air source heat pump water heaters

Clause 4.4.3

Delete the second paragraph and *replace* with the following:

Toughened safety glass complying with AS/NZS 2208 is deemed to comply with this requirement.

Clause 4.5.2

In Item (d) *add* the following:

The thermal efficiency after the stagnation test shall be no less than 0.85 of the initial efficiency at the check test condition specified in Appendix B.

Clause 7.4.3.4

Delete existing text and *replace* with the following:

The daily water discharge for a solar water heater under the no-load conditions of Appendix F shall not exceed three times the sum of the thermal expansion volume of the water contents of the tank and the volume of the water in the collector array (if the array is directly coupled to the tank).

Clause 8.2.1

Add the following at the end of Clause 8.2.1:

Heat pump water heating systems shall be classified in accordance with the requirements of Appendix H.

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Appendix B, Clause B3

Delete Note 4 and *replace* with the following:

- 4 Collectors complying with ISO 9806-2, including the high temperature resistance test 'Sunny C', are deemed to comply with Level 2 conditions.

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Appendix E, Clause E5

Delete Step (a) and *replace* with the following:

- (a) Assemble the water heater in accordance with the manufacturer's installation instructions. For in-ceiling or floor mounted containers, the container shall be located outside the chamber.

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Appendix F, Equation F5(1)

Delete equation and *replace* with the following:

$$\text{Daily irradiation} = 25 \times \left[\frac{\text{Large system 'heat delivery to volume ratio'}}{\text{Test system 'heat delivery to volume ratio'}} \right] \text{MJ}/(\text{m}^2 \text{day}) \quad \dots \text{F5(1)}$$

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Appendix F, Clause F6

Delete the definitions of T_{cold} and *replace* with the following:

$$T_{\text{cold}} = \text{inlet water temperature}$$

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Appendix H

Add new Appendix H as follows:

APPENDIX H

AIR-SOURCE HEAT PUMP WATER HEATER LOW TEMPERATURE CLASSIFICATION AND TEST REQUIREMENTS

(Normative)

H1 SCOPE

This Appendix specifies qualification requirements for classifying the suitability of an air-source heat pump water heater product for operation at low ambient temperatures.

H2 LOW TEMPERATURE CLASSIFICATION

H2.1 Definition of low temperature classes

The low temperature performance of each product shall be classified as one of the following:

- (a) Low Temperature Class A: Suitable for low ambient temperature operation without auxiliary boosting.
- (b) Low temperature Class B: Auxiliary boosting required for low air temperature locations.
- (c) Low temperature Class C: Unsuitable to operate at low ambient air temperature.