

Australian/New Zealand Standard™

**Liquid-chilling packages using the vapour compression cycle**

**Part 2: Minimum energy performance standard (MEPS) and compliance requirements**



## **AS/NZS 4776.2:2008**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME-086, Commercial Airconditioning Equipment. It was approved on behalf of the Council of Standards Australia on 9 September 2008 and on behalf of the Council of Standards New Zealand on 19 September 2008. This Standard was published on 2 December 2008.

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The following are represented on Committee ME-086:

Air Conditioning and Refrigeration Equipment Manufacturers Association of Australia  
Australian Building Codes Board  
Australian Greenhouse Office, Department of the Environment, Water, Heritage and the Arts  
Australian Institute of Refrigeration, Air Conditioning and Heating  
Energy Efficiency and Conservation Authority, New Zealand  
Engineers Australia

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vapour compression cycle**

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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-086, Commercial Airconditioning Equipment. This document is Part 2 of the AS/NZS 4776 series, *Liquid-chilling packages using the vapour compression cycle*.

This Standard is part of a series for liquid-chilling packages, as follows:

### AS/NZS

- 4776 Liquid-chilling packages using the vapour compression cycle
- 4776.1.1 Part 1.1: Method of rating and testing for performance—Rating (this Standard)
- 4776.1.2 Part 1.2: Method of rating and testing for performance—Testing
- 4776.2 Part 2: Minimum energy performance standard (MEPS) and compliance requirements

This part of the Standard is published with the express approval of the Australian Greenhouse Office, the State and Territory regulatory authorities and the Energy Efficiency Conservation Authority of New Zealand, and it is structured to be suitable for reference in legislation in Australia.

The objective of this Standard is to provide industry in general and manufacturers and suppliers of liquid-chilling packages specifically, with MEPS and high-efficiency product performance levels.

The rating and testing methods used to determine compliance with MEPS are based on Parts 1.1 and 1.2 of the AS/NZS 4776 series, *Liquid-chilling packages using the vapour compression cycle*.

Acknowledgment is due to the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) of the USA and the European Committee of Air Handling and Refrigeration Equipment Manufacturers (Eurovent), whose Standards were reviewed during the development of this Standard. This Standard is a Joint Australian/New Zealand Standard and is not an AHRI Standard.

Statements expressed in mandatory terms in notes to 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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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard****Liquid-chilling packages using the vapour compression cycle****Part 2: Minimum energy performance standard (MEPS) and compliance requirements****1 SCOPE**

This Standard specifies the MEPS levels and compliance paths for liquid-chilling packages that fall within the scope of AS/NZS 4776.1.1.

**2 OBJECTIVES**

The objectives of this Standard are to—

- (a) establish minimum energy performance Standards for the full-load and part-load performance of liquid-chilling packages using the vapour compression cycle; and
- (b) define minimum documentation requirements for registration of liquid-chilling packages that are not certified by either AHRI or Energy Star.

**3 NORMATIVE REFERENCES**

The following referenced documents are indispensable for the application of this Standard:

## AS/NZS

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|----------|--|
| 4776     | Liquid-chilling packages using the vapour compression cycle    |
| 4776.1.1 | Part 1.1: Method of rating and testing for performance—Rating  |
| 4776.1.2 | Part 1.2: Method of rating and testing for performance—Testing |

## ASHRAE

- |      |   |
|------|---|
| 90.1 | Energy Standard for buildings except low-rise residential buildings |
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**4 DEFINITIONS**

For the purpose of this Standard, the definitions given in AS/NZS 4776.1.1 and those below apply.

**4.1 Minimum energy performance standards (MEPS)**

The minimum value of energy efficiency that must be met by each liquid-chilling package model as defined in Table 1.

**4.2 Statements of intention****4.2.1 Shall**

Indicates that a statement is mandatory.

**4.2.2 Should**

Indicates a recommendation.