

Australian Standard™

Evaporative airconditioning equipment

This Australian Standard was prepared by Committee ME/62, Ventilation and Airconditioning. It was approved on behalf of the Council of Standards Australia on 28 April 2000 and published on 19 July 2000.

The following interests are represented on Committee ME/62:

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Air-Conditioning and Refrigeration Equipment Manufacturers Association of Australia
Australasian Fire Authorities Council
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This Standard was issued in draft form for comment as DR 99474.

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Originated as AS 2913—1987.
Second edition 2000.

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Published by Standards Australia International Ltd
PO Box 1055, Strathfield, NSW 2135, Australia

ISBN 0 7337 3437 5

PREFACE

This Standard was prepared by Standards Australia Committee ME/62, Ventilation and Airconditioning, to supersede AS 2913—1987, *Evaporative air-conditioning equipment*.

The objective of this Standard is to ensure that the data published in relation to any particular equipment are sufficiently accurate to ensure that equipment can be selected correctly for the individual application. The information required for proper selection concerns the unit's airflow, its evaporation efficiency, its electrical power consumption, its nominal rating and its sound power output, and appropriate methods for the determination of each are described. Established techniques already exist for airflow and acoustical measurements and, therefore, this Standard makes reference to them.

The airflow tests are conducted with the evaporation medium dry. This is not the actual condition of use, but there was no real alternative. Because of the length of outlet measurement duct required, downward discharge units cannot be tested in the normal upright position but must be turned horizontal, in which case the wetting provisions are inoperable. If vertical units must be tested dry, then so must all units, to be consistent. The discrepancy is not great, being of the order of 2 or 3 percent, and in any case the results are used mainly for comparison, so there is little real problem as all units are tested on the same basis. An important condition is that the evaporation efficiency tests must be done with the same evaporation pads as were in place for the airflow test; this should offset the effect of variations from pad to pad.

Cooling performance is expressed in terms of an estimate of the sensible cooling capacity and all units are required to have their nominal rating, a rating at standardized conditions, calculated so that the relative performance of different units can be compared.

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

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard prescribes a basis for the performance rating of specified features of evaporative airconditioning equipment, and specifies the test procedures and equipment applicable for each form of rating. It also prescribes basic minimum requirements for construction.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

| | |
|--------|---|
| 1199 | Sampling procedures and tables for inspection by attributes |
| 1217 | Acoustics—Determination of sound power levels of noise sources |
| 1217.2 | Part 2: Precision methods for broad-band sources in reverberation rooms |
| 1217.3 | Part 3: Precision methods for discrete-frequency and narrow-band sources in reverberation rooms |
| 1217.4 | Part 4: Engineering methods for special reverberation test room |
| 1217.5 | Part 5: Engineering methods for free-field conditions over a reflecting plane |
| 1217.6 | Part 6: Precision methods for anechoic and hemi-anechoic rooms |
| 1259 | Acoustics—Sound level meters |
| 1259.1 | Part 1: Non-integrating |
| 1259.2 | Part 2: Integrating—Averaging |
| 1399 | Guide to AS 1199—Sampling procedures and tables for inspection by attributes |
| 1633 | Acoustics—Glossary of terms and related symbols |
| 4036 | Corrosion of metal—Dissimilar metals in contact in seawater |

AS/NZS

| | |
|------------|---|
| 3666 | Air-handling and water systems of buildings—Microbial control |
| 3666.1 | Part 1: Design, installation and commissioning |
| 4476 | Acoustics—Octave-band and fractional-octave-band-filters |
| ISO 9000 | Quality management and quality assurance standards |
| ISO 9000.1 | Part 1: Guidelines for selection and use |
| ISO 9004 | Quality management and quality system elements |
| ISO 9004.1 | Part 1: Guidelines |

SAA

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| HB.18 | Guidelines for third-party certification and accreditation |
| HB.18.28 | Guide 28—General rules for model third-party certification scheme for products |



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