

Australian/New Zealand Standard™

**Performance of close control  
airconditioners**

**Part 1: Testing for rating**



## **AS/NZS 4965.1:2008**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-015, Quality and Performance of Household Electrical Appliances. It was approved on behalf of the Council of Standards Australia on 15 September 2008 and on behalf of the Council of Standards New Zealand on 24 September 2008.

This Standard was published on 14 November 2008.

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The following are represented on Committee EL-015:

Australian Association of Certification Bodies  
Australian Consumers' Association  
Australian Electrical and Electronic Manufacturers Association  
Australian Industry Group  
Australian Retailers Association  
Business New Zealand  
Consumer Electronic Suppliers Association  
Department of Energy, Utilities and Sustainability, New South Wales  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-015, Quality and Performance of Household Electrical Appliances.

The overall objective of the AS/NZS 4965 series of Standards is to promote high levels of performance and energy efficiency in close control airconditioners.

The AS/NZS 4965 series of Standards consists of the following:

### AS/NZS

4965 Performance of close control airconditioners

4965.1 Part 1: Testing for rating (this Standard)

4965.2 Part 2: Minimum energy performance standard (MEPS) requirements

This Standard is published with the approval of the combined state and territory regulatory authorities and is structured to be suitable for reference in legislation calling up minimum energy performance standards and also for reference in energy labelling regulatory legislation.

Acknowledgment is due to the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, whose Standard ASHRAE 127-2007 was reviewed during the development of this Standard. This Standard is a Joint Australian/New Zealand Standard and is not an ASHRAE 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**  
**Performance of close control airconditioners****Part 1: Testing for rating****1 SCOPE**

This Standard specifies the conditions on which the capacity and energy consumption of factory-made close control airconditioners are based and the test methods to be applied to determine the capacity and efficiency ratings. This Standard covers equipment utilizing a single or multiple refrigerated direct expansion (DX) system designed to control and monitor temperature and humidity and may include supplementary conditioning equipment.

Appendix A establishes testing procedures. Appendix B describes the test facilities required for the calorimeter method. Appendix C provides formulae for calculating heating and cooling capacities. Appendix D describes methods for measuring airflow. Appendix E describes the refrigerant enthalpy test method. Appendix F lists the symbols used in this Standard.

This Standard does not cover the determination of seasonal efficiencies, which may be required in some countries.

**2 APPLICATION**

Close control airconditioners are used for applications where temperature and humidity are required to be monitored and maintained within narrow limits. Examples of such applications are computer rooms, data processing units, telecommunication facilities and other industrial process areas.

**3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

## AS/NZS

62301 Household electrical appliances—Measurement of standby power (IEC 62301, Ed. 1.0 (2005) MOD)

## ASHRAE

52.2 Method of testing general ventilation air-cleaning devices for removal efficiency by particle size

127 Method of testing for rating computer and data processing room unitary air conditioners

**4 DEFINITIONS**

For the purpose of this Standard, the definitions below apply. Appendix F lists the symbols used in this Standard.