AS/NZS 3823.2:2003
(Incorporating Amendment No. 1)

AS/NZS 3823.2:2003

Australian/New Zealand Standard™

Performance of electrical appliances—Airconditioners and heat pumps

Part 2: Energy labelling and minimum energy performance standard (MEPS) requirements

STANDARDS AUSTRALIA

STANDARDS NEW ZEALAND
Paerewa Aotearoa

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 17 September 2003 and on behalf of the Council of Standards New Zealand on 30 September 2003.
This Standard was published on 1 October 2003.

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 Minerals and Energy, Qld
Department of Industrial Relations, Qld
Electrical Compliance Testing Association
Energy Efficiency and Conservation Authority New Zealand
Ministry of Energy and Utilities, New South Wales
National Appliance and Equipment Energy Efficiency Committee
National Association of Testing Authorities Australia
New Zealand Manufacturers Federation
Office of the Chief Electrical Inspector, Victoria
Office of the Technical Regulator, South Australia

Additional Interests:

Air Conditioning and Refrigeration Equipment Manufacturers Association
Institute of Refrigeration Heating and Air Conditioning Engineers of New Zealand
Institution of Professional Engineers New Zealand
Primary Industries and Resources, South Australia
Testing Interest Australia

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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

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Australian/New Zealand Standard™

Performance of electrical appliances—Airconditioners and heat pumps

Part 2: Energy labelling and minimum energy performance standard (MEPS) requirements

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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, to supersede AS/NZS 3823.2:2001.

This Standard incorporates Amendment No. 1 (November 2004). The changes required by the Amendments are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The AS/NZS 3823 series comprises four Parts, as follows:

AS/NZS		
3823		Performance of electrical appliances—Airconditioners and heat pumps
3823.1.1	Part 1.1:	Test Methods—Non-ducted airconditioners and heat pumps—Testing and rating for performance
3823.1.2	Part 1.2:	Test Methods—Ducted airconditioners and air-to-air heat pumps—Testing and rating for performance
3823.2	Part 2:	Energy labelling and minimum energy performance standard (MEPS) requirements (this Standard)
3823.3	Part 3:	Calculation of performance for minimum energy performance standard (MEPS) requirements

The overall objective of the AS/NZS 3823 series of Standards is to promote high levels of performance and energy efficiency in airconditioners and heat pumps. The Parts of the AS/NZS 3823 series are summarized as follows:

(a) Part 1.1 includes performance test procedures for rating non-ducted airconditioners and heat pumps, to be used in conjunction with Part 2.

(b) Part 1.2 includes performance test procedures for rating ducted airconditioners and heat pumps, to be used in conjunction with Part 2.

(c) Part 2 specifies minimum energy performance standard (MEPS) requirements and includes algorithms for the calculation of the energy efficiency star rating and energy usage, performance requirements, details of energy labels and requirements for valid applications for registration.

(d) Part 3 specifies procedures for calculating the performance of three-phase airconditioners of the vapour compression type up to a rated cooling capacity of 65 kW, for minimum energy performance standard (MEPS) requirements, in lieu of physical tests.

The main changes in this Standard are the introduction of minimum energy performance standard requirements for single-phase units, revision of MEPS levels for single and three-phase units in 2007 and the inclusion of a definition of future MEPS levels for airconditioners beyond 2007 (Class A efficiency). This edition also includes the introduction of a revised energy label design that highlights the capacity, in response to industry proposals.

Similar to the previous revision of the Standard it is possible to use either physical tests or simulated performance tests (described in AS/NZS 3823.3) to demonstrate compliance with the minimum energy performance standard requirements for three-phase and some single-phase units. Only physical tests can be used to demonstrate compliance with energy labelling. Suppliers of three-phase, single-phase ducted and single-phase commercial units may choose to fix energy labels to products; if so, then all of the usual requirements for energy labelling will apply (including the requirement for a physical test). The status of energy labelling and minimum energy performance standard (MEPS) Australian regulatory programs and their date of implementation, for the various airconditioning equipment configurations, is provided in Appendix E.

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.

Key regulatory dates in this Standard are as follows:

(a) The change in scope of the energy labelling program for household airconditioners and heat pumps from a 7.5 kW cooling requirement to a single-phase requirement was 1 October 2001.

(b) Introduction of MEPS for three-phase airconditioners was 1 October2001.

(c) Introduction of MEPS for single-phase airconditioners is 1 October 2004.

(d) Single-phase ducted units, which are registered to MEPS 2004 under this Standard, may carry an energy label on a voluntary basis.

(e) Revised single- and three-phase MEPS levels will be introduced on 1 October 2007.

(f) Three-phase units that comply with Class A efficiency levels will be valid for the next iteration of MEPS after 2007.

A1 New Zealand Energy Efficiency (Energy Using Products) Regulations 2002 had a commencement date of 1 April 2002 for energy performance labelling of single-phase airconditioners and 1 July 2002 for MEPS for three-phase airconditioners.

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.

Statements expressed in mandatory terms in notes to figures, are deemed to be requirements of this Standard.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies the energy labelling requirements for single-phase non-ducted airconditioners of the vapour compression type for household use and the minimum energy performance standard (MEPS) requirements for single-phase and three-phase airconditioners of the vapour compression type up to a rated cooling capacity of 65 kW and those that fall within the scope of AS/NZS 3823.1.1 or AS/NZS 3823.1.2.

Particular regulatory requirements for different categories of airconditioning equipment and validity dates are summarized in Appendix E of this Standard.

A1

This Standards does not specify electrical safety requirements.

This Standard specifies the following values for cooling and heating, as applicable:

(a) Rated power (input).

(b) Rated capacity (output).

(c) Energy efficiency ratio (EER) for cooling.

(d) Coefficient of performance (COP) for heating.

(e) Comparative energy consumption (CEC).

(f) Star Rating Index (SRI).

(g) Star rating.

(h) Some of the requirements for energy label validity.

(i) The performance criteria for energy labelling validity.

(j) Test report format.

(k) Printing requirements for airconditioner appliance energy labels.

(l) Minimum energy performance standard requirements

1.2 EXCLUSIONS

The following equipment is excluded from the scope of this Standard:

(a) Close controlled airconditioners, pending the development of MEPS levels for these products.

(b) Multi-split systems (i.e., those having more than one indoor unit with more than one independent indoor control) pending the development of a suitable test method.

