AS/NZS 3823.1.4:2012

Australian/New Zealand Standard™

Performance of electrical appliances—Airconditioners and heat pumps

Part 1.4: Multiple split-system airconditioners and air-to-air heat pumps—Testing and rating for performance (ISO 15042:2011, MOD)

STANDARDS Australia

STANDARDS NEW ZEALAND PAEREWA AOTEAROA

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-056, Room Air Conditioners. It was approved on behalf of the Council of Standards Australia on 26 October 2012 and on behalf of the Council of Standards New Zealand on 29 October 2012.
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The following are represented on Committee EL-056:

Airconditioning & Refrigeration Equipment Manufacturers Association of Australia
Australian Building Codes Board
Australian Industry Group
CHOICE
Consumer Electronics Association of New Zealand
Consumer Electronics Suppliers Association
Department of Climate Change and Energy Efficiency
Electrical Compliance Testing Association
Energy Efficiency & Conservation Authority of New Zealand
Energy Safe Victoria
Institute of Refrigeration Heating & AirConditioning Engineers of New Zealand
Institution of Professional Engineers New Zealand
NSW Department of Trade and Investment, Regional Infrastructure and Services
Office of the Technical Regulator, SA
University of New South Wales

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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 or Standards New Zealand at the address shown on the back cover.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-056, Room Air Conditioners.

This Standard is an adoption with national modifications and has been reproduced from ISO 15042:2011, *Multiple split-system air-conditioners and air-to-air heat pumps—Testing and rating for performance* and has been varied as indicated to take account of Australian/New Zealand conditions. The modifications are specified in Appendix ZZ.

The following clauses in ISO 15042:2011 have been varied or added:

Contents, Clauses 2; 3.6; 3.16; 3.20; 3.21; 3.22; 6.1.1.2; 6.1.1.3; 6.1.1.7; 7.1.1.2; 7.1.1.4; and 7.1.1.7; Annex B, Clause B2.5; Annex D, Clauses D.1.3 and D.1.4; and Annex F.

As this Standard is reproduced from an International Standard, the following applies:

(a) In the source text 'this International Standard' should read 'this Australian/New Zealand Standard'.

(b) A full point substitutes for a comma when referring to a decimal marker.

This Standard is Part 1.4 of the AS 3823.1 series, which provides testing and rating for performance requirements for airconditioners and heat pumps. The series comprises:

AS/NZS	
3823	Performance of electrical appliances—Airconditioners and heat pumps
3823.1.1	Part 1.1: Non-ducted airconditioners and heat pumps—Testing and rating for performance (ISO 5151:2010, MOD)
3823.1.2	Part 1.2: Ducted airconditioners and air-to-air heat pumps—Testing and rating for performance (ISO 13253:2011, MOD)
3823.1.3	Part 1.3: Water-source heat pumps—Water-to-air and brine-to air heat pumps—Testing and rating of performance (ISO 13256-1:1998, MOD)
3823.1.4	Part 1.4: Multiple split-system airconditioners and air-to-air heat pumps—Testing and rating for performance (ISO 15042:2011, MOD)

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex or appendix to which they apply. A 'normative' annex or appendix is an integral part of a Standard, whereas an 'informative' annex or appendix is only for information and guidance.

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Multiple split-system airconditioners and air-to-air heat pumps—Testing and rating for performance (ISO 15042:2011, MOD)

1 Scope

This International Standard establishes performance testing and rating criteria for factory-made residential, commercial and industrial, electrically driven, mechanical-compression, air-cooled air-conditioners and air-to-air heat pumps, described as basic multi-split systems, modular multi-split systems and modular heat recovery multi-split systems. These multi-split systems include air-to-air systems with non-ducted and/or ducted indoor units with integral fans and indoor units supplied without fans.

This International Standard is limited to single- and multiple-circuit split-systems which utilize one or more compressors with no more than two steps of control of the outdoor unit. It is also limited to split-systems with a single refrigeration circuit which utilize one or more variable-speed compressors or alternative compressor combinations for varying the capacity of the system by three or more steps. These split-systems are designed to operate with a combination of one or more outdoor units and two or more indoor units designed for individual operation, and such modular systems that are capable of transferring recovered heat from one or more indoor units to other units in the same system.

The requirements of testing and rating contained in this International Standard are based on the use of matched assemblies.

This International Standard is not applicable to the testing and rating of:

a) water-cooled or water source equipment;

b) mobile (single-duct) units having a condenser exhaust duct;

c) individual assemblies not constituting a complete refrigeration system;

d) equipment using the absorption refrigeration cycle.

This International Standard does not cover the determination of either seasonal efficiencies or seasonal part-load performances which can be required in some countries because they provide a better indication of efficiency under actual operating conditions.

NOTE Throughout this International Standard, the terms “equipment” and “systems” mean “multi-split air-conditioners” and/or “multi-split heat pumps”.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 817, *Refrigerants — Designation and safety classification*[1)]

1) To be published. (Revision of ISO 817:2005.)