



Greenhouse and Energy Minimum Standards (Close Control Air Conditioners) Determination 2012¹

Greenhouse and Energy Minimum Standards Act 2012

I, MARK DREYFUS, Parliamentary Secretary for Climate Change and Energy Efficiency, make this Determination under section 23 of the *Greenhouse and Energy Minimum Standards Act 2012*.

Dated 25 October 2012

MARK DREYFUS

Parliamentary Secretary for Climate Change and Energy Efficiency

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1 Name of Determination

This Determination is the *Greenhouse and Energy Minimum Standards (Close Control Air Conditioners) Determination 2012*.

2 Commencement

This Determination comes into force on the day after it is registered.

3 Definitions

In this Determination:

Act means the *Greenhouse and Energy Minimum Standards Act 2012*.

AS/NZS 3823.2:2011 means *Australian/New Zealand Standard 3823.2:2011 Performance of electrical appliances – air conditioners and heat pumps. Part 2: Energy labelling and minimum energy performance standards (MEPS) requirements*, as it existed on the date this Determination came into force.

Note 1: AS/NZS 3823.2:2011 is available from Standards Australia Limited.

AS/NZS 4965.1:2008 means *Australian/New Zealand Standard 4965.1:2008 Performance of close control air conditioners. Part 1: Testing for rating*, as it existed on the date this Determination came into force.

Note 1: AS/NZS 4965.1:2008 is available from Standards Australia Limited.

AS/NZS 4965.2:2008 means *Australian/New Zealand Standard 4965.2:2008 Performance of close control air conditioners. Part 2: Minimum energy performance standard (MEPS) requirement*, as it existed on the date this Determination came into force.

Note 1: AS/NZS 4965.2:2008 is available from Standards Australia Limited.

Australian Standard means a standard that is published by Standards Australia Limited denoted by the letters “AS” and identifying numbers and/or letters.

Australian/New Zealand Standard means a standard that is jointly published by Standards Australia Limited and Standards New Zealand, is applicable in both countries and denoted by the letters “AS/NZS” and identifying numbers and/or letters.

CIE Standard means a standard that is published by, or on behalf of, the International Commission on Illumination.

IEC Standard means a standard that is published by, or on behalf of, the International Electrotechnical Commission.

standard means an Australian Standard, an Australian/New Zealand Standard, a CIE Standard, an IEC Standard or any other equivalent document.

Note: Several other words and expressions used in this Determination have the meaning given by section 5 of the Act. For example:

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- category A product
 - covered by
 - family of models
 - GEMS
 - GEMS labelling requirements
 - GEMS level requirements
 - model
 - product classes

4 Interpretation

Applicable definitions of terms or phrases

- (1) If a term or phrase is not defined under the Act, the Regulations to the Act or in this Determination, but the term is defined in a standard mentioned specifically in section 3 of this Determination, the term or phrase is to be read for the purposes of this Determination as having the meaning of the term under the relevant standard.

Note: Notwithstanding this, for convenience to users, some of the key terms for ascertaining if a product is covered by this Determination are defined in this Determination.

Applicable version of documents incorporated into standards

- (2) For the purposes of this Determination the applicable version of any document, including a standard, that:
 - (a) is referred to in a standard under the heading 'Referenced Documents', or under an equivalent heading in a standard; and
 - (b) must be applied to give effect to this Determination or a standard referred to in this Determination,

is the version of the document, including a standard, that existed at the date this Determination came into force.

Note: For example, clause 2.3 of AS/NZS 4965.2:2008 provides that the unit shall be operated at rated capacity under the cooling capacity test in accordance with AS/NZS 4965.1:2008 to determine cooling capacity, effective power input, energy efficiency ratio and compliance with minimum EERS cooling requirements. The applicable version of AS/NZS 4965.1:2008 is the version that existed at the date this Determination came into force.

5 Specified product class covered by this Determination

- (1) This Determination covers close control air conditioners.

Note 1: Close control air conditioners are used where temperature and humidity are required to be monitored and maintained within narrow limits, for example, use in computer rooms, data processing units, telecommunications facilities and other industrial process areas.

Note 2: This subsection reflects the scope specified in clauses 1 and 2 of AS/NZS 4965.1: 2008.

Note 3: This subsection specifies products that are covered by the Determination. See subsection (3) for products that are not covered.

- (2) The products covered by this Determination form a single product class for the purposes of the Act.
- (3) For subsection 23 (2) of the Act, this Determination does not cover:
- (a) ducted or non-ducted split systems;
 - (b) ducted packaged units;
 - (c) multi-split systems (for example, those having more than one indoor unit with an independent control for each indoor unit);
 - (d) evaporative coolers or any other cooling system that are not of the vapour compression type;
 - (e) ground water sourced or ground loop sourced heat-pumps;
 - (f) unbalanced air conditioners and spot coolers;
 - (g) commercial chillers used in commercial buildings to provide chilled water for space-cooling equipment; and
 - (h) close coupled row based cooling units.

Note 1: Some products not covered by this Determination may be covered by other GEMS Determinations.

Note 2: This subsection reflects the exclusions specified in clause 1.2 of AS/NZS 4965.2: 2008.

- (4) In this section:

brine-to-air heat pump means a heat pump which consists of one or more factory-made assemblies which normally include an indoor conditioning coil with air-moving means, compressor(s), and refrigerant-to-brine heat exchanger(s), including means to provide both cooling and heating, cooling-only, or heating-only functions.

Note 1: When such equipment is provided in more than one assembly, the separated assemblies should be designed to be used together.

Note 2: Such equipment may also provide functions of sanitary water heating, air cleaning, dehumidifying, and humidifying.

Note 3: This is the same meaning as in clause 3.1 of AS/NZS 3823.1.3:2005.

close control air conditioner means a unitary air conditioner designed for high sensible heat ratio applications that are capable of maintaining close control of both temperature and humidity. A close control air conditioner consists of one or more factory-made assemblies, which include a compressor, a direct expansion evaporator, an air-moving device and air-filtering devices, and may include a condenser, a humidifier or a reheating function.

Note: This is the same meaning as in clause 4.1 of AS/NZS 4965.1:2008.

close-coupled row based cooling units means cooling devices that are designed:

- (a) to be mounted in a row containing the rack enclosures and are placed in such a way that the unit takes air from a hot aisle, cools it and discharges it to a cold aisle; and
- (b) for up to a minimum of 35°C (dry bulb) entering air temperature, with operating data published by the manufacturer indicating such.

ground loop sourced heat-pump means a brine-to air heat pump using a brine solution circulating through a subsurface piping loop functioning as a heat source/heat sink.

Note 1: The heat exchange loop may be placed in horizontal tranches or vertical bores, or be submerged in a body of surface water.

Note 2: The temperature of the brine is related to climatic conditions and may vary from minus 5 degrees Celsius to 40 degrees Celsius.

Note 3: This is the same meaning as the term 'ground-loop heat pump application' in clause 3.1.3 of AS/NZS 3823.1.3:2005.

ground water sourced heat-pump means a water-to-air heat pump using water pumped from a well, lake or stream functioning as a heat source/heat sink.

Note 1: The temperature of the water is related to climatic conditions and may vary from 5 degrees Celsius to 25 degrees Celsius for deep wells.

Note 2: This is the same meaning as the term 'ground-water heat pump application' in clause 3.1.2 of AS/NZS 3823.1.3:2005.

multi-split system means a split system air conditioner with a refrigeration system having two or more independently controlled indoor units.

Note: This is the same meaning as in subclause 1.6.12 of AS/NZS 3823.2:2011.

packaged unit means a self contained air conditioning unit including the evaporator, compressor, condenser, fans and associated equipment ready for installation and that:

- (a) can be wholly located outside and distribute conditioned air through ductwork; or
- (b) can be mounted with one part of the housing outside and the other part inside; and
- (c) can service an individual room, a zone or multiple zones.

split system means an air conditioner with separate indoor and outdoor components that are connected with refrigerant piping. The indoor unit usually lies within the conditioned space and may be installed or portable or mobile.

Note 1: The indoor unit in some configurations may feed into a duct system. Some split ducted system indoor units may have no fan and are designed to operate with an existing system (for example, a gas heater).

Note 2: This is the same meaning as in subclause 1.6.21 of AS/NZS 3823.2:2011.

spot cooler means a unitary air conditioner that lies wholly within a conditioned space and that draws air for both the evaporator and condenser from the conditioned space and expels both of these back into the conditioned space.

Note: This is the same meaning as in subclause 1.6.22 of AS/NZS 3823.2:2011.

unbalanced air conditioner means a unitary air conditioner that lies wholly within a conditioned space and that draws air from the conditioned space and expels this to outdoors. An unbalanced air conditioner is usually ducted (where the exhaust air from the heat exchanger is expelled from the conditioned space via a flexible duct, pipe or opening) but may be connected to a pipe or other opening such as a window. These units are typically portable or mobile.

Note: This is the same meaning as in subclause 1.6.30 of AS/NZS 3823.2:2011.

unitary air conditioner means an air conditioner where the evaporator, condenser and associated refrigeration components (for example, the compressor) are contained within a single casing.

Note 1: Unitary air conditioners may be non-ducted (for example, window/wall units) or ducted (for example, single packaged units).

Note 2: This is the same meaning as in subclause 1.6.31 of AS/NZS 3823.2:2011.

water-to-air heat pump means a heat pump which consists of one or more factory-made assemblies which normally include an indoor conditioning coil with air-moving means, compressor(s), and refrigerant-to-water heat exchanger(s), including means to provide both cooling and heating, cooling-only, or heating-only functions.

Note 1: When such equipment is provided in more than one assembly, the separated assemblies should be designed to be used together.

Note 2: Such equipment may also provide functions of sanitary water heating, air cleaning, dehumidifying, and humidifying.

Note 3: This is the same meaning as in clause 3.1 of AS/NZS 3823.1.3:2005.

6 GEMS level requirements

Energy use and greenhouse gas production

- (1) For paragraphs 24 (1) (a) and 25 (a) of the Act, the specified energy use requirements for products covered by this Determination are the requirements mentioned in clause 2.2 of AS/NZS 4965.2:2008.

Conducting tests

- (2) For paragraphs 24 (1) (a) and 25 (b) of the Act, the specified requirements for conducting tests covered by this Determination are the requirements mentioned in:
 - (a) clauses 2.3 and 2.4 of AS/NZS 4965.2:2008; and
 - (b) sections 5 to 7 of AS/NZS 4965.1:2008.

7 GEMS labelling requirements

Labelling and communication requirements

There are no GEMS labelling requirements for products covered by this Determination.

8 Other GEMS requirements

There are no other GEMS requirements for products covered by this Determination.

9 Families of models

- (1) For section 28 of the Act, the specified circumstances in which 2 or more models from a single product class covered by this Determination are in the same family of models, are when the models:
 - (a) are of a single brand; and
 - (b) rely on the same test report that sets out the results of testing conducted in accordance with section 6 of this Determination; and
 - (c) have the same physical characteristics that are relevant to complying with section 6 of this Determination; and
 - (d) have the same energy performance characteristics that are relevant to complying with section 6 of this Determination.
- (2) For subsection (1), a model cannot be a member of a family of models if its inclusion in that family would lead to the family consisting of more than 4 models.

10 Product category

For section 29 of the Act, the products covered by this Determination are category A products.

Note

1. All legislative instruments and compilations are registered on the Federal Register of Legislative Instruments kept under the *Legislative Instruments Act 2003*. See <http://www.frli.gov.au>.