



25 August 2017

(17-4538)

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Committee on Technical Barriers to Trade

Original: English

NOTIFICATION 澳洲 通知—空調及熱泵

The following notification is being circulated in accordance with Article 10.6

1. Notifying Member: AUSTRALIA 澳洲 If applicable, name of local government involved (Article 3.2 and 7.2):
2. Agency responsible: Department of the Environment and Energy GPO Box 787 Canberra ACT 2601 Name and address (including telephone and fax numbers, email and website addresses, if available) of agency or authority designated to handle comments regarding the notification shall be indicated if different from above: Phone: +61-2-6275 9213 Email: acrac@environment.gov.au Web: http://www.energyrating.gov.au
3. Notified under Article 2.9.2 [X], 2.10.1 [], 5.6.2 [], 5.7.1 [], other:
4. Products covered (HS or CCCN where applicable, otherwise national tariff heading. ICS numbers may be provided in addition, where applicable): Air conditioning machines, comprising a motor-driven fan and elements for changing the temperature and humidity, including those machines in which the humidity cannot be separately regulated. (HS 8415). Ventilators. Fans. Air-conditioners (ICS 23.120). 空調及熱泵
5. Title, number of pages and language(s) of the notified document: Greenhouse and Energy Minimum Standards (Air Conditioners and Heat Pumps) Determination 2017 (58 page(s), in English)
6. Description of content: Proposed changes to the energy efficiency regulations for air conditioners are set out in Items One to Four below. <u>One:</u> Adopt a Seasonal Energy Efficiency Ratio (SEER) methodology for rating air conditioner energy efficiency, by incorporating the following Australia/New Zealand Standards into regulation: <ul style="list-style-type: none">AS/NZS 3823.4.1:2014 <i>Performance of electrical appliances - Air conditioners and heat pumps - Part 4.1: Air-cooled air conditioners and air-to-air heat pumps - Testing and calculating methods for seasonal performance factors - Cooling seasonal performance factor (ISO 16358-1:2013, MOD) - Including Amendment 1, 2017.</i>AS/NZS 3823.4.2:2014 <i>Performance of electrical appliances - Air conditioners and heat pumps - Part 4.2: Air-cooled air conditioners and air-to-air heat pumps - Testing and calculating methods for seasonal performance factors - Heating seasonal performance factor (ISO 16358-2:2013, MOD) - Including Amendment 1, 2017.</i>AS/NZS 3823.1.5:2015 <i>Performance of electrical appliances - Air conditioners and heat pumps - Part 1.5: Non-ducted portable air-cooled air conditioners and air-to-air heat pumps having a single exhaust duct - Testing and rating for performance.</i> <u>Note:</u> the Standards AS/NZS 3823.4.1:2014 and AS/NZS 3823.4.2:2014 listed above are based on Parts 1 and 2 of ISO 16358:2013 <i>Air-cooled air conditioners and air-to-air heat pumps -- Testing and calculating methods for seasonal</i>

performance factors but they make use of local climate data. Amendments to these Standards were published in May 2017, to include more realistic operational hours. The three Standards listed above will supplement the following test standards that apply under Australian regulation:

- AS/NZS 3823.1.1:2012: *Performance of electrical appliances – Air conditioners and heat pumps - Part 1.1: Non-ducted air conditioners and heat pumps - Testing and rating for performance (ISO 5151:2010, MOD).*
- AS/NZS 3823.1.2:2012: *Performance of electrical appliances – Air conditioners and heat pumps - Test methods - Ducted air conditioners and air-to-air heat pumps - Testing and rating for performance (ISO 13253:2011, MOD).*
- AS/NZS 3823.1.3:2005: *Performance of electrical appliances – Air conditioners and heat pumps – Part 1.3 – Water-source heat pumps – Water-to-air and brine-to-air heat pumps - Testing and rating of performance (ISO 13253:2011, MOD).*
- AS/NZS 3823.1.4:2012 *Performance of electrical appliances – Air conditioners and heat pumps - Part 1.4: Multiple split-system air conditioners and air-to-air heat pumps - Testing and rating for performance (ISO 13256-1, Ed.01 (1998) MOD).*

These standards will also replace the following test standard that:

- AS/NZS 3823.3:2002 *Performance of electrical appliances – Air conditioners and heat pumps - Part 3: Calculation of performance for minimum energy performance standard (MEPS) requirements*
- AS/NZS 3823.2:2013: *Performance of electrical appliances – Air conditioners and heat pumps - Part 2: Energy labelling and minimum energy performance standards (MEPS) requirements.*

Two: Adopt a Zoned Energy Rating Label to replace the existing Energy Rating Label, and report Seasonal Energy Efficiency Ratings.

Products up to 30kW capacity

- Products currently *required* to display a label (i.e. single-phase non-ducted units, including double duct portable air conditioners) will need to display a Zoned Energy Rating Label in place of the existing Energy Rating Label.
- Products currently *not required* to display a label (mainly single-phase ducted and three-phase units) will not need to display a label but it will be mandatory to report SEER ratings for these products, with the ratings to be made available on the Energy Rating website.

Products >30kW capacity will not need to display a label but it will be mandatory to report SEER ratings for cooling only for these products, with the ratings to be made available on the Energy Rating website (SEER ratings for heating based on a physical test report can be provided voluntarily).

Portable air conditioners (single duct) will need to display the Zoned Energy Rating Label, to be labelled with the test results obtained from testing in accordance with AS/NZS 3823.1.5:2015 *Performance of electrical appliances - Air conditioners and heat pumps - Part 1.5: Non-ducted portable air-cooled air conditioners and air-to-air heat pumps having a single exhaust duct - Testing and rating for performance.*

Three: Changes to MEPS requirements

Portable air conditioners:

- Double duct units: Reduce the Minimum Energy Performance Standard (MEPS) to a level of 2.5 based on the Energy Efficiency Ratio (EER) and Coefficient Of Performance (COP). (See AS/NZS 3823.2:2013 *Performance of electrical appliances - Air conditioners and heat pumps - Part 2: Energy labelling and minimum energy performance standards (MEPS) requirements* for the current requirements.)
- Single duct units: Introduce MEPS, also at a level of 2.5 based on the EER and COP.

Commercial/industrial air conditioners

Introduce a MEPS of 2.9 for air conditioners with a capacity of >65 kW based on their Annual Energy Efficiency Ratio (AEER) and Annual Coefficient of Performance (ACOP).

Note: MEPS for these products currently apply (at levels between 2.6 and 2.8) under the National Construction Code (NCC). Australia will include these MEPS (at the higher level of 2.9 shown above) under the Greenhouse Energy Minimum Standards (GEMS) Act 2012.

Four: Minor changes

Resolve some minor technical issues with air conditioner regulations. These will not have significant impacts on the requirements of regulation.

Remove H2 MEPS: Meeting a separate MEPS level at the H2 test point will no longer be required.

Multi-split registration: Systems comprising of multiple, already registered outdoor units will no longer be required to register the combined systems.

Supply of outdoor units only: MEPS requirements will apply to the supply of outdoor units that are not sold as a system.

Noise test standard for products <30 kW: EN 12102:2013 *Air conditioners, liquid chilling packages, heat pumps and dehumidifiers with electrically driven compressors for space heating and cooling. Measurement of airborne noise. Determination of the sound power level* will be used.

Noise rating test points: Measured at the operating points T1 (35 °C) for the rated capacity cooling test or H1 (7 °C) for heating only units.

Noise test requirements:

- Non-ducted split systems: indoor and outdoor noise levels.
- Ducted units (both split and unitary units): outdoor noise levels only.
- Non-ducted unitary units (e.g. window/wall units): indoor and outdoor noise levels.
- Single and double duct 'portable' unitary units that sit wholly within the conditioned space: indoor noise levels only.
- Multi-split systems: outdoor noise level of single outdoor units, based on the representative combination used for registration.

Changing the SEER degradation coefficient: The degradation coefficient from AS/NZS 3823.4 will be fixed at the default value of 0.25.

Measurement of non-operative power: Non-operative power (e.g. standby) for the MEPS metric will change to the weighted average power consumption (Pia) of AS/NZS 3823.4.

H2 and H3 testing: Air enthalpy tests or a shorter calorimeter room test will be accepted for H2/H3 (2 °C/-7 °C) tests for all air conditioners.

Use of default SEER values: Fixed speed products will be allowed to use the default values for the 29 °C cooling test and variable speed products will be allowed to use the fixed speed test points.

Certifying test results for >30 kW products: Eurovent, and Air conditioning, Heating and Refrigeration Institute (AHRI) certification and regional adoptions of International Standards Organisation (ISO) test standards will be able to be used.

Simulation testing of >30 kW products: Simulation software that can be demonstrated to yield equivalent results to a physical test will be able to be used.

Maximum cooling test: Will no longer be a requirement for labelled products.

Rating commercial products: Products may be rated on either a commercial or domestic operating basis.

<p>7. Objective and rationale, including the nature of urgent problems where applicable: Consumer information, labelling; Protection of the environment; Harmonization; Cost saving and productivity enhancement;</p> <ol style="list-style-type: none">1. Alignment of standards and regulation with international standards.2. Contribute to Australia's plan to improve energy productivity by 40 per cent by 2030.3. Contribute to Australia's target to reduce greenhouse gas emissions to 26 to 28 per cent below 2005 levels by 2030.
<p>8. Relevant documents: A full list of policy documents on these proposed changes can be found under "Key Documents" at: http://www.energyrating.gov.au/products/space-heating-and-cooling/air-conditioners#toc4</p>
<p>9. Proposed date of adoption: If adopted, the proposed regulatory changes will be included in regulation by the end of 2017</p> <p>Proposed date of entry into force: The lower MEPS requirements for double duct portable air conditioners will come into force the day after the regulations are approved (e.g. December 2017). The MEPS requirements for air conditioners with a capacity >65kW will come into force no earlier than 1 October 2020. All of the other proposed regulatory changes will come into force no earlier than 1 April 2019 (the main date of entry into force)</p>
<p>10. Final date for comments: 60 days from notification</p>
<p>11. Texts available from: National enquiry point [] or address, telephone and fax numbers and email and website addresses, if available, of other body:</p> <p>Department of the Environment and Energy GPO Box 787 Canberra ACT 2601 Australia</p> <p>Phone: +61-2-6275 9213 Email: acrac@environment.gov.au Web: http://www.energyrating.gov.au http://www.energyrating.gov.au/products/space-heating-and-cooling/air-conditioners#toc4</p>