



Greenhouse and Energy Minimum Standards (External Power Supplies) 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 (External Power Supplies) 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 4665.1:2005 means *Australian/New Zealand Standard AS/NZS 4665.1:2005 Performance of external power supplies Part 1: Test method and energy performance mark*, as it existed on the day this Determination came into force.

Note 1: AS/NZS 4665.1:2005 is available from Standards Australia Limited.

Note 2: AS/NZS4665.1:2005 includes all amendments up to and including AS/NZS4665.1:2005/Amdt:1 made on 27 February 2009.

AS/NZS 4665.2:2005 means *Australian/New Zealand Standard AS/NZS 4665.2:2005 Performance of external power supplies Part 2: Minimum energy performance standard (MEPS) requirements*, as it existed on the day this Determination came into force.

Note 1: AS/NZS 4665.2:2005 is available from Standards Australia Limited.

Note 2: AS/NZS4665.2:2005 includes all amendments up to and including AS/NZS4665.2:2005 Amdt 1 made on 27 February 2009.

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

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

end-use product means the product powered by the external power supply.

EPS means an abbreviation of the words external power supply.

extra low voltage (ELV) means a voltage available at the output of a power supply that does not exceed 50 volts alternating current or 60 volts direct current between conductors, and between conductors and earth, when the power supply is supplied at the rated input voltage.

Note: This is the same meaning as in subclause 1.3.7 of AS/NZS 4665.1:2005.

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

single output external power supply means an appliance that is designed to supply power to other appliances and that:

- (a) has an input from mains supply;

Note: This input is usually 110 volts, 60 hertz; 230 volts, 50 hertz; 240 volts, 50 hertz or a range including some or all of these input conditions).

(b) has one extra low voltage output (either alternating current or direct current) that is either at a fixed voltage or a user selectable voltage through a selector switch;

(c) is sold with, or intended to be used with, a separate end-use product that constitutes the primary load on the power supply;

Note: These units are often used to power/re-charge laptop computers, mobile telephones, portable stereo units and other portable household devices. It is immaterial whether or not the power supply and end use product are packaged separately or together.

(d) is contained in a separate physical enclosure from the end-use product;

Note: These units cannot be built into the equipment being powered and hence are 'external' to the device being powered. The housings of the EPS and its associated end use product are different. Designs covered include units with an integral mains plug, 'in-line' units and units with provision for equipment to sit in a cradle whilst being used.

(e) is connected to the end-use product via a hard-wired or removable male/female electrical connection, cable, cord or other wiring;

(f) does not have batteries, or battery packs, that physically attach directly to the power supply unit (either permanently or only for the purpose of charging); and

Note: This includes batteries that are removable from the power supply unit. For example, a battery pack for a portable electric drill.

(g) does not have either:

(i) a battery chemistry, or type selector, switch; or

(ii) an indicator light or state of charge meter.

Note: These are the same requirements as in subclause 1.3.19 of AS/NZS 4665.1:2005.

standard means an Australian Standard, an Australian/New Zealand 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:

- 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, 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 that existed at the date this Determination came into force.

Note: For example section 2 of AS/NZS 4665.2:2005 provides that the average active mode efficiency of a single output EPS shall be measured in accordance with AS/NZS 4665.1:2005. The applicable version of AS/NZS 4665.1:2005 is the version that existed at the date this Determination came into force.

5 Specified product classes covered by this Determination

- (1) This Determination covers single output external power supply units with a maximum output power of 250 watts or 250 volt-amperes (VA) in the product classes set out in subsection (2) below.

(2) The product classes are as follows:

Product class	Products covered by the product class
1	single output EPS with non user selectable output voltage and with an alternating current input and a direct current output (a.c.–d.c.)
2	single output EPS with user selectable output voltage and with an alternating current input and a direct current output (a.c.–d.c.)
3	single output EPS with non user selectable output voltage and with an alternating current input and an alternating current output (a.c.–a.c.)
4	single output EPS with user selectable output voltage and with an alternating current input and an alternating current output (a.c.–a.c.)

Note 1: This subsection reflects the scope specified in clause 1.1 of AS/NZS 4665.2:2005.

Note 2: This subsection specifies products that are covered by the Determination. See subsection (3) for products that are not covered.

(3) For subsection 23 (2) of the Act, this Determination does not cover:

- (a) external power supplies with simultaneous multiple output voltages;
Note: For example, some personal computer power supplies.
- (b) direct current to direct current (d.c. to d.c.) voltage conversion equipment such as direct current to direct current (d.c. to d.c.) converters;
- (c) single output external power supplies for transformers and electronic step-down converters for extra low voltage (ELV) lamps;
- (d) therapeutic devices on the Australian Register of Therapeutic Goods in accordance with the *Therapeutic Goods Act 1989* and the Therapeutic Goods (Medical Devices) Regulations 2002;
- (e) direct current (d.c.) or battery powered equipment; and
- (f) until 1 December 2013, a single output EPS that is made available by a manufacturer directly to a consumer or to a service or repair facility, after and separate from the original sale of the end-use product.

Note: On and from 1 December 2013, such products would be covered by this Determination.

Note: This subsection reflects the exclusions in clause 1.2 of AS/NZS 4665.2:2005.

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- (4) In this section:
user selectable output voltage means a means by which a user can select one of multiple output voltages.

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 are as follows:
- (a) for products in product classes 1 and 2—the requirements mentioned in clause 2.1 of AS/NZS 4665.2:2005 (No Load Power Consumption and Average Active Mode Efficiency); and
 - (b) for product classes 3 and 4—the requirements mentioned in clause 2.2 of AS/NZS 4665.2:2005 (Average Active Mode Efficiency).

Conducting tests—user selectable EPS (product classes 2 and 4)

- (2) For paragraphs 24 (1) (a) and 25 (b) of the Act, the specified requirements for conducting tests for products in product classes 2 and 4 are the requirements mentioned in:
- (a) section 2 of AS/NZS 4665.1:2005 (General Conditions for Measurement);
 - (b) section 3 of AS/NZS 4665.1:2005 (Measurement Approach);
 - (c) clause 4.2 of AS/NZS 4665.2:2005 (Input Test Voltage); and
 - (d) clause 4.3 of AS/NZS 4665.2:2005 (Output Test Voltages at Highest and Lowest Voltage only).

Conducting tests—non user selectable EPS (product classes 1 and 3)

- (3) Subject to subsection 6 (4) of this Determination, for paragraphs 24 (1) (a) and 25 (b) of the Act, the specified requirements for conducting tests for products in product classes 1 and 3 are the requirements mentioned in:
- (a) section 2 of AS/NZS 4665.1:2005 (General Conditions for Measurement);
 - (b) section 3 of AS/NZS 4665.1:2005 (Measurement Approach); and
 - (c) clause 4.2 of AS/NZS 4665.2:2005 (Input Test Voltage).
- (4) For subsection 6 (3) of this Determination, if a product in product class 1 or 3 is part of a family of models, the testing requirements in clause 4.3 of AS/NZS 4665.2:2005 (Output Test Voltages at Highest and Lowest Voltage only) are also specified for those products.

7 GEMS labelling requirements

Labelling and communication requirements

- (1) For paragraphs 24 (1) (b), 26 (1) (a) and 26 (1) (b) of the Act, the specified labelling and communication requirements for products covered by this Determination are the requirements mentioned in clause 5.1 of AS/NZS 4665.2:2005 and Appendix A of AS/NZS 4665.1:2005 in relation to the energy performance mark to be shown on the product.

Conducting tests

- (1) For paragraphs 24 (1) (b) and 26 (1) (c) of the Act, the specified requirements for conducting tests for products covered by this Determination are the same as in subsection 6 (2) to 6 (4) (inclusive) of this Determination.

8 Other GEMS requirements

High efficiency level

- (1) For subsection 24 (2) and paragraph 27 (1) (a) of the Act, the specified requirements for products covered by this Determination to meet the high efficiency level are the requirements mentioned in this section.

Note: This provisions that follow specify the requirements for products to be designated as “high efficiency IV” or “high efficiency V” for the purposes of GEMS.

High efficiency level IV requirements (HE IV)

- (2) The specified requirements for high efficiency level IV (HE IV) are as follows:
 - (a) for product classes 1 to 2—the requirements mentioned in subclause 3.1.1 of AS/NZS 4665.2:2005 (No Load Power Consumption and Average Active Mode Efficiency); and
 - (b) for product classes 3 to 4—the requirements mentioned in subclause 3.1.2 of AS/NZS 4665.2:2005 (Average Active Mode Efficiency).

High efficiency level V requirements (HE V)

- (3) The specified requirements for high efficiency level V (HE V) are as follows:
 - (a) for product classes 1 to 2—the requirements mentioned in subclause 3.2.1 of AS/NZS 4665.2:2005 (No Load Power Consumption and Average Active Mode Efficiency); and
 - (b) for product classes 3 to 4—the requirements mentioned in subclause 3.2.2 of AS/NZS 4665.2:2005 (Average Active Mode Efficiency).

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- (4) For subsection 24 (2) and paragraph 27 (1) (e) of the Act, the requirements for conducting tests are the same as those mentioned in subsection 6 (2) to (4) (inclusive) of this Determination.

9 Families of models

Non user selectable output voltage

- (1) For section 28 of the Act, the specified circumstances, in which 2 or more models of product in either of product classes 1 or 3, are in the same family of models, are the circumstances mentioned in clause 1.3.8 of AS/NZS 4665.1:2005.

User selectable output voltage

- (2) For section 28 of the Act, the specified circumstances, in which 2 or more models of product in either of product classes 2 and 4 are in the same family of models, are the circumstances mentioned in clause 1.3.9 of AS/NZS 4665.1:2005.

10 Product categories

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>.