Energy Efficiency (Energy Using Products) Amendment Regulations 2025

Cindy Kiro, Governor-General

Order in Council

At Wellington this 13th day of October 2025

Present:
Her Excellency the Governor-General in Council

These regulations are made under section 36(1) of the Energy Efficiency and Conservation Act 2000—

(a) on the advice and with the consent of the Executive Council; and

(b) on the recommendation of the Minister for Energy made in accordance with section 36(2) of that Act.

Contents

Regulations

1 Title

These regulations are the Energy Efficiency (Energy Using Products) Amendment Regulations 2025.

2 Commencement

These regulations come into force on 1 May 2026.

3 Principal regulations

These regulations amend the Energy Efficiency (Energy Using Products) Regulations 2002.

4 Regulation 3 amended (Interpretation)

In regulation 3, insert in its appropriate alphabetical order:

IEMP means the International Efficiency Marking Protocol for External Power Supplies, version 3.0, September 2013, maintained by the United States Department of Energy

5 Cross-heading above regulation 16A amended

In the cross-heading above regulation 16A, replace "*air conditioners up to 65kW and refrigerated cabinets*" with "*products covered by Schedules 2A to 2G*".

6 Regulation 16A amended (Application of regulations to air conditioners up to 65kW and refrigerated cabinets)

(1) In the heading to regulation 16A, replace "**air conditioners up to 65kW and refrigerated cabinets**" with "**products covered by Schedules 2A to 2G**".

(2) In regulation 16A,—

(a) replace "Schedules 2A and 2B have effect" with "Schedules 2A to 2G have effect"; and

(b) replace "clauses 2 and 3 of each of Schedules 2A and 2B" with "clause 2 of each of those schedules".

7 Cross-heading above regulation 17 amended

In the cross-heading above regulation 17, replace "*if standard in Schedule 1 or Schedule 2 replaced or new standard added*" with "*in Schedule 1 or Schedule 2*".

8 Schedule 1 amended

(1) In Schedule 1, replace the item relating to chillers with:

Chillers, except the following: • liquid-chilling packages not driven by an electric motor: • air-cooled liquid-chilling packages with centrifugal fans: • liquid-chilling packages with remote condensers: • liquid-chilling packages for fluids other than water: • free cooling liquid-chilling packages (air cooled) with an additional integral free cooling circuit with a self-contained control system: • free cooling liquid-chilling packages (water cooled) with controls and valves to utilise condenser water: • heat pump (reverse cycle) liquid-chilling packages with components and controls that enable reversing the flow of refrigerant:	AS/NZS 4776.2:2008: Liquid-chilling packages using the vapour compression cycle—Minimum energy performance standard (MEPS) and compliance requirements	AS/NZS 4776.1.1:2008: Liquid-chilling packages using the vapour compression cycle—Method of rating and testing for performance—Rating; and AS/NZS 4776.1.2:2008: Liquid-chilling packages using the vapour compression cycle—Method of rating and testing for performance—Testing

• heat recovery liquid-chilling packages with components and controls that allow heat to be reclaimed from the refrigeration		

(2) In Schedule 1, replace the item relating to close control air conditioners with:

Close control air conditioners, except those— (a) that are designed to be mounted in the row containing the rack enclosures to enable hot air to be cooled and discharged to a cold aisle (such as close-coupled row-based cooling units); and (b) in respect of which the manufacturer has published operating data up to a minimum of 35°C dry-bulb entering air temperature	AS/NZS 4965.2:2008: Performance of close control airconditioners—Minimum energy performance standard (MEPS) requirements	AS/NZS 4965.1:2008: Performance of close control airconditioners—Testing for rating

(3) In Schedule 1, replace the item relating to household refrigerating appliances with:

Household refrigerating appliance product classes specified in clause 2 of Schedule 2E (and not excluded by clause 3 of that schedule)	The requirements specified in clause 4 of Schedule 2E	The requirements specified in clause 7 of Schedule 2E

(4) In Schedule 1, insert in its appropriate alphabetical order:

Rotary clothes dryers specified in clause 2 of Schedule 2F	The requirements specified in clause 3 of Schedule 2F	The requirements specified in clauses 7 to 10 of Schedule 2F

(5) In Schedule 1, replace the item relating to three-phase cage induction motors with:

Three-phase cage induction motors specified in clause 2 of Schedule 2G (and not excluded by clause 3 of that schedule)	The requirements specified in clauses 4 and 5 of Schedule 2G	The requirements specified in clauses 7 and 8 of Schedule 2G

(6) In Schedule 1, replace the item relating to tubular fluorescent lamps with:

Tubular fluorescent lamps, except linear fluorescent lamps that are designed for use in flame-proof luminaires	AS/NZS 4782.2:2004: Double-capped fluorescent lamps—Performance specifications—Minimum Energy Performance Standard (MEPS)	AS/NZS 4782.1:2004: Double-capped fluorescent lamps—Performance specifications—General

9 Schedule 2 amended

(1) In Schedule 2, replace the item relating to clothes washing machines with:

Clothes washing machines specified in clause 2 of Schedule 2C (and not excluded by clause 3 of that schedule)	The requirements specified in clauses 4 to 7 of Schedule 2C	The requirements specified in clauses 8 and 9 of Schedule 2C

(2) In Schedule 2, replace the item relating to dishwashers with:

Dishwashers specified in clause 2 of Schedule 2D	The requirements specified in clauses 3 to 5 of Schedule 2D	The requirements specified in clauses 6 to 9 of Schedule 2D
External power supplies	In the case of an external power supply that exceeds the Mark V energy performance requirements in Appendix A of AS/NZS 4665.1:2005 and meets the Mark VI performance requirements in the IEMP, the requirements for— (a) Mark V, as set out in Appendix A of AS/NZS 4665.1:2005 and clauses 4.2 and 5 of AS/NZS 4665.2:2005; or (b) Mark VI, as set out in the IEMP In any other case,— (a) AS/NZS 4665.1:2005: Performance of external power supplies—Test method and energy performance mark; and (b) AS/NZS 4665.2:2005: Performance of external power supplies—Minimum energy performance standard (MEPS) requirements	AS/NZS 4665.1:2005: Performance of external power supplies—Test method and energy performance mark, and AS/NZS 4665.2:2005: Performance of external power supplies—Minimum energy performance standard (MEPS) requirements

(3) In Schedule 2, replace the item relating to household refrigerating appliances with:

Household refrigerating appliance product classes specified in clause 2 of Schedule 2E (and not excluded by clause 3 of that schedule)	The requirements specified in clauses 5 and 6 of Schedule 2E	The requirements specified in clause 7 of Schedule 2E

(4) In Schedule 2, replace the item relating to rotary clothes dryers with:

Rotary clothes dryers specified in clause 2 of Schedule 2F	The requirements specified in clauses 4 to 6 of Schedule 2F	The requirements specified in clauses 7 to 10 of Schedule 2F

(5) In Schedule 2, insert in its appropriate alphabetical order:

Three-phase cage induction motors specified in clause 2 of Schedule 2G (and not excluded by clause 3 of that schedule)	The requirements specified in clause 6 of Schedule 2G	The requirements specified in clauses 7 and 8 of Schedule 2G

10 Schedule 2A amended

(1) Replace the Schedule 2A heading with:

Schedule 2A
Air conditioners

(2) In Schedule 2A, clause 1(1)(a), replace “23” with “27”.

(3) In Schedule 2A, clause 2(1), table, before the item relating to air-to-air unitary air conditioners, insert:

Air conditioners up to 65 kW					

(4) In Schedule 2A, clause 2(1), table, after the item relating to water-to-air air conditioners, insert:

Air conditioners above 65 kW					
Air-to-air unitary air conditioners	24	Ducted or non-ducted	65 kW <	R	2.9
Air-to-air single-split systems	25	Ducted or non-ducted	65 kW <	R	2.9
Air-to-air single-split outdoor units (not supplied or offered for supply as part of a single-split system)	26	Whether supplied or offered for supply to create a ducted or non-ducted system	65 kW <	R	2.9
Air-to-air multi-split outdoor units (whether or not supplied or offered as part of a multi-split system)	27		65 kW <	R	2.9

(5) In Schedule 2A, clause 3(1)(e), after “coolers”, insert “that have a rated standard cooling full capacity of 65 kW or less”.

(6) In Schedule 2A, after clause 3(1)(e), insert:

(ea) water-to-air air conditioners that have a rated standard cooling full capacity of greater than 65 kW:

(eb) water-to-air air conditioners that are a heating-only product and have a rated standard heating full capacity of greater than 65 kW:

(7) In Schedule 2A, clause 7(1)(a), replace "5 to 23" with "5 to 27".

(8) In Schedule 2A, clause 8(1)(a), replace "5 to 23" with "5 to 27".

(9) In Schedule 2A, clause 27(3), replace "diagrams 14 to 17. All type weights must be regular." with "diagrams 9 to 12. All type weights must be regular unless otherwise indicated in the diagrams."

(10) In Schedule 2A, after clause 50(2), insert:

(3) However, subclause (2)(a) does not apply to air conditioners that—

(a) have a rated standard cooling full capacity of greater than 65 kW; or

(b) are a heating-only product and have a rated standard heating full capacity of greater than 65 kW.

(11) In Schedule 2A, clauses 2 to 59, revoke the compare notes.

11 Schedule 2B amended

In Schedule 2B, clauses 2 to 27, revoke the compare notes.

12 New Schedules 2C, 2D, 2E, 2F, and 2G inserted

After Schedule 2B, insert the Schedules 2C, 2D, 2E, 2F, and 2G set out in Schedules 1 to 5 of these regulations.

Schedule 1
New Schedule 2C inserted

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Schedule 2C
Clothes washing machines

Schedule 2

Contents

Part 1
Product classes, labelling standards, testing standards, and other requirements

1 Overview of schedule

(1) This schedule specifies—

(a) the products that are covered by this schedule (clause 2) and that are not covered by this schedule (clause 3):

(b) labelling standards for those products (clauses 4 to 7):

(c) testing standards for the purposes of the labelling standards (clauses 8 and 9):

(d) the meaning of terms used in this schedule (clauses 10 and 11):

(e) the format requirements for super-efficiency labels (Part 2).

(2) This schedule specifies products, standards, and other matters by reference to various standards (for example, AS/NZS) and, in some cases, specifies modifications that apply to those standards for the purposes of this schedule.

Products covered by schedule

2 Products covered by schedule

(1) This schedule covers clothes washing machines that are ordinarily supplied and used for personal, domestic, or household purposes.

(2) This clause is subject to clause 3.

3 Products not covered by schedule

(1) This schedule does not cover clothes washing machines that have—

(a) a rated load capacity of less than or equal to 2 kilograms; and

(b) no connections to a mains water supply; and

(c) no pump or other means for extracting water; and

(d) in the case of a fitted machine,—

(i) no provision for internal heating; and

(ii) no provision for hot water supply.

(2) This schedule does not cover clothes washing machines that are only capable of being used for cold-wash operations and have—

(a) no provision for internal water heating; and

(b) a single water connection marked only for cold water; and

(c) automatic fill control; and

(d) no program that indicates (directly or indirectly) that a program other than a cold-wash program is possible; and

(e) a user manual that explicitly states that the machine is only suitable for cold-wash operations; and

(f) no associated product literature that states the machine is suitable for anything other than cold-wash operations.

(3) In this clause, **automatic fill control** means a mechanism that automatically controls the amount of water delivered into a clothes washing machine for each fill operation undertaken during the program.

Labelling standards

4 Labelling requirements

(1) A clothes washing machine that is covered by this schedule must be labelled as required by clauses 2 and 5, and Appendix B, of AS/NZS 2040.2:2005, as varied in accordance with clauses 5 and 6 of this schedule.

(2) However, if under subclause (1) a star rating of 7 or more stars is derived from the star rating index, the machine must—

(a) be labelled as required by clauses 2 and 5, and Appendix B, of AS/NZS 2040.2:2005 as if the star rating were 6 stars; or

(b) be labelled with a label that meets the requirements specified in Part 2 (format for super-efficiency label) of this schedule.

(3) For the purposes of this clause, references to AS/NZS 2040.1:2005 in AS/NZS 2040.2:2005 are varied in accordance with clause 7 of this schedule.

5 Variations to clauses 1.5.7 and 2.8 of AS/NZS 2040.2:2005

(1) This clause sets out variations to AS/NZS 2040.2:2005 for the purposes of clause 4.

(2) The requirements in subclauses (3) and (4) replace the requirements in clauses 1.5.7 and 2.8 of AS/NZS 2040.2:2005.

(3) In relation to the number of stars displayed on an energy efficiency label or super-efficiency label,—

(a) the star rating must be calculated using the star rating index; and

(b) the minimum number of stars to be displayed on the label is 1 and the maximum is 10; and

(c) for an energy efficiency label, the rating must be displayed in half-star intervals; and

(d) for a super-efficiency label, the rating must be displayed in 1-star intervals.

(4) The following table replaces Table 2.1 in clause 2.8 of AS/NZS 2040.2:2005:

Star rating index (SRI)	Star rating
SRI < 1.5	1.0
1.5 ≤ SRI < 2.0	1.5

Star rating index (SRI)	Star rating
2.0 ≤ SRI < 2.5	2.0
2.5 ≤ SRI < 3.0	2.5
3.0 ≤ SRI < 3.5	3.0
3.5 ≤ SRI < 4.0	3.5
4.0 ≤ SRI < 4.5	4.0
4.5 ≤ SRI < 5.0	4.5
5.0 ≤ SRI < 5.5	5.0
5.5 ≤ SRI < 6.0	5.5
6.0 ≤ SRI < 7.0	6.0
7.0 ≤ SRI < 8.0	7.0
8.0 ≤ SRI < 9.0	8.0
9.0 ≤ SRI < 10.0	9.0
10.0 ≤ SRI	10.0

6 Variations to clause 5.1 of AS/NZS 2040.2:2005

(1) This clause sets out variations to AS/NZS 2040.2:2005 for the purposes of clause 4.

(2) The requirements in subclauses (3) to (5) replace the requirements in clause 5.1 of AS/NZS 2040.2:2005.

(3) An energy efficiency label or super-efficiency label must be adhered to the upper front part of—

(a) the clothes washing machine; or

(b) any display front for the clothes washing machine.

(4) However, if it is not feasible or practicable to meet the requirement in subclause (3), the label must be—

(a) adhered to the top of the clothes washing machine or the display front so that the label is not obscured when the machine is on display; or

(b) attached to the upper front part of the clothes washing machine in the form of a swing tag.

(5) If the swing tag specified in subclause (4)(b) is—

(a) a single-sided swing tag, it must be non-rotating; or

(b) a rotating swing tag, it must be double-sided.

7 Variations to paragraph M5.1 of Appendix M and paragraph N3.2(g) of Appendix N of AS/NZS 2040.1:2005

(1) This clause sets out variations to references to AS/NZS 2040.1:2005 in AS/NZS 2040.2:2005 for the purposes of clause 4.

(2) The PBIS limit of 0.05 milligrams per litre in paragraph M5.1 of Appendix M of AS/NZS 2040.1:2005 is replaced with a PBIS limit of 0.2 milligrams per litre.

(3) The absorbance requirement for the quartz cell in paragraph N3.2(g) of Appendix N of AS/NZS 2040.1:2005 is replaced with a transmittance requirement of between 80% and 100%.

Testing standards

8 Testing requirements

For the purposes of this schedule, all testing must be conducted in accordance with the requirements in clause 2 of AS/NZS 2040.2:2005, as varied in accordance with clause 9 of this schedule.

9 Variations relating to make-up of test loads and numbers of swatches in AS/NZS 2040.2:2005

(1) This clause sets out variations to AS/NZS 2040.2:2005 for the purposes of clause 8.

(2) For any test, the standard mixed cotton test load must be,—

(a) for test loads of 10 kilograms or less, as shown in Table C2 of AS/NZS 2040.1:2005, made up from the components specified in Table C1 of AS/NZS 2040.1:2005; or

(b) for test loads greater than 10 kilograms but not greater than 20 kilograms, as shown in table 1 of this schedule, made up from the components specified in Table C1 of AS/NZS 2040.1:2005.

(3) If a manufacturer claims a rated load capacity greater than 20 kilograms, the product must be rated and tested at 20 kilograms.

(4) References to the number of swatches to be attached to each relevant test load component in paragraph C3.2 of Appendix C of AS/NZS 2040.1:2005 are replaced with,—

(a) for test loads of 10 kilograms or less, references to the number of swatches set out in Table C3 of AS/NZS 2040.1:2005; or

(b) for test loads greater than 10 kilograms, references to the number of swatches set out in table 2 of this schedule.

(5) For the purposes of subclauses (2)(b) and (4)(b), tables 1 and 2 are as follows:

Guidance note

In table 1, for any particular test load mass, a load consisting of items of mass as set out in Table C1 of AS/NZS 2040.1:2005 and assembled in accordance with this clause might not have a total bone-dry mass equal to the nominal bone-dry mass. Adjustment of the load in accordance with paragraph C2.2 of AS/NZS 2040.1:2005 will frequently be required.

In table 2, for items marked with an asterisk (*), the extra soil swatches are attached to the same article, as indicated in Figure C1 of AS/NZS 2040.1:2005.

Table 1

	Test load mass, kg																				
	10.5	**11**	**11.5**	**12**	**12.5**	**13**	**13.5**	**14**	**14.5**	**15**	**15.5**	**16**	**16.5**	**17**	**17.5**	**18**	**18.5**	**19**	**19.5**	**20**
Load item	**Bone-dry mass required, kg**																			
	9.72	**10.19**	**10.65**	**11.11**	**11.57**	**12.04**	**12.50**	**12.96**	**13.43**	**13.89**	**14.35**	**14.81**	**15.28**	**15.74**	**16.20**	**16.67**	**17.13**	**17.59**	**18.06**	**18.52**
Sheets	4	4	4	4	5	5	5	5	5	5	6	6	6	6	6	7	7	7	7	7
Bath towels	7	8	8	8	8	9	9	10	10	11	11	11	11	12	12	12	13	13	13	14
Tablecloths	3	4	4	5	4	4	4	4	5	5	5	5	5	5	6	6	6	6	6	6
Shirts	5	5	5	6	5	5	7	6	7	7	6	7	8	8	8	8	9	9	10	10
T-shirts	6	5	7	7	7	8	8	8	8	9	8	9	10	11	10	10	10	11	12	12
Pillow cases	6	7	7	7	8	8	8	9	10	9	10	10	10	10	11	11	10	12	12	12
Undershorts	7	7	8	8	9	9	9	11	10	10	10	11	12	12	13	12	12	12	13	14
Wash cloths	9	8	9	9	9	9	10	10	10	12	11	12	12	12	14	12	13	14	14	15
Handkerchiefs	8	7	8	11	8	8	8	10	10	10	11	10	12	11	14	11	12	12	14	14

Table 2

	Test load mass, kg																				
	10.5	**11**	**11.5**	**12**	**12.5**	**13**	**13.5**	**14**	**14.5**	**15**	**15.5**	**16**	**16.5**	**17**	**17.5**	**18**	**18.5**	**19**	**19.5**	**20**
	Number of swatches required																			
Load item	**30**	**35**	**35**	**35**	**35**	**40**	**40**	**40**	**45**	**45**	**45**	**50**	**50**	**50**	**50**	**55**	**55**	**55**	**60**	**60**
Sheets	3	4	4	4	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6
Bath towels	4	6	6	6	6	6	6	6	7	7	7	8	8	8	8	9	9	9	10	10
Tablecloths	3	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	6	6
Shirts	5	6*	6*	6	6*	7*	7	7*	7	7	7*	8*	8	8	8	9*	9	9	10	10
T-shirts	5	5	5	5	5	6	6	6	7	7	7	8	8	8	8	8	8	8	9	9
Pillow cases	5	5	5	5	5	7	7	7	7	7	7	8	8	8	8	9	9	9	10	10
Undershorts	5	5	5	5	5	6	6	6	7	7	7	8	8	8	8	9	9	9	9	9
Wash cloths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Handkerchiefs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Interpretation

10 Interpretation: general

In this schedule,—

clothes washing machine means an appliance designed to—

(a) wash textile materials in water by mechanical action; and

(b) extract water from the textile materials, usually by centrifugal action

energy efficiency label means the label described in clause 5 of AS/NZS 2040.2:2005

rated load capacity means the maximum mass of a textile material (measured in multiples of 0.5 kilograms for each kind of textile material) that the manufacturer claims can be treated in all operations by the clothes washing machine

super-efficiency label means a label described in clause 4(2)(b).

11 Interpretation: standards

In this schedule,—

AS/NZS 2040.1:2005 means Australian/New Zealand Standard 2040.1:2005 Performance of household electrical appliances—Clothes washing machines—Part 1: Methods for measuring performance, energy and water consumption

AS/NZS 2040.2:2005 means Australian/New Zealand Standard 2040.2:2005 Performance of household electrical appliances—Clothes washing machines—Part 2: Energy efficiency labelling requirements.

Part 2
Format for super-efficiency label

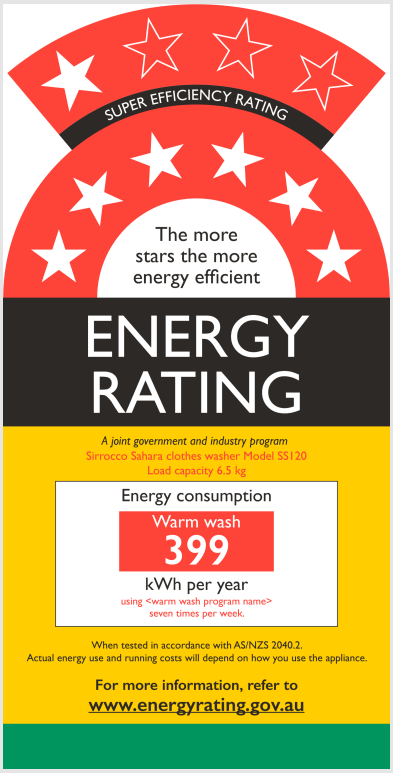
12 Meaning of certain details in diagrams

In a diagram in this Part, numbers, model details, and star ratings are illustrative only. The actual numbers, model details, and star ratings for the energy rating label for a particular product must be those specified in this Part.

13 Elements of super-efficiency label

(1) A super-efficiency label must be in substantially the format shown in diagram 1, unless subclause (3) applies.

(2) *Diagram 1* (super-efficiency label)



(3) If a super-efficiency label contains information about the energy consumption of a cold wash,—

(a) the black arch and the elements of the label above the black arch must be in substantially the format shown in diagram 1; and

(b) the elements of the label below the black arch must be in substantially the format required by clauses 2 and 5, and figure B1, of AS/NZS 2040.2:2005.

14 Colours for super-efficiency label

(1) A super-efficiency label must be printed on a white background using the following colours in the elements as shown in diagram 1 and, if applicable, figure B1 of AS/NZS 2040.2:2005:

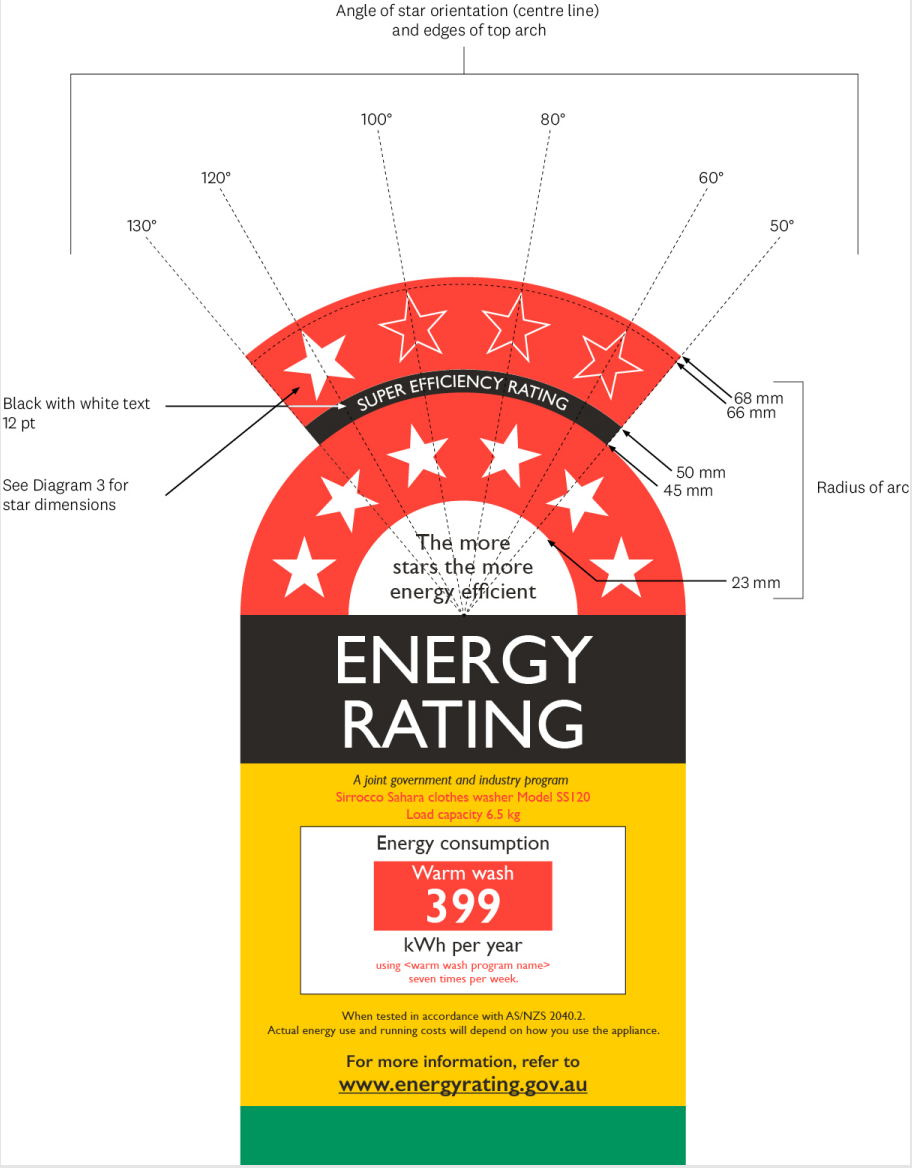
Colour	For a printed label
Blue	Pantone 299
Black	Pantone Black
Green	Pantone 340
Red	Pantone Warm Red
Yellow	Pantone 116

(2) In this clause, **diagram 1** means the diagram in clause 13(2).

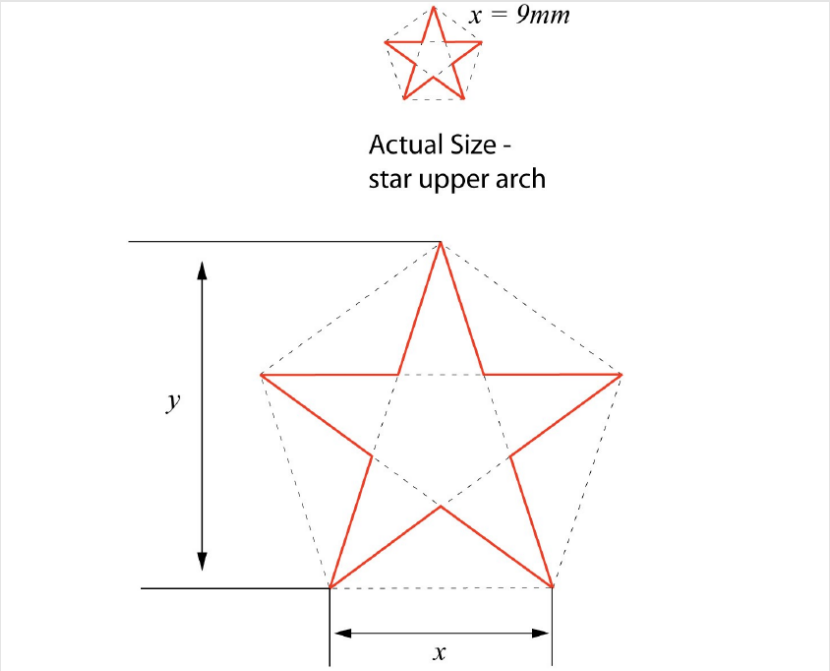
15 Size of super-efficiency label

(1) The relative proportions of a super-efficiency label's dimensions and text must be as illustrated in diagrams 2 and 3.

(2) *Diagram 2* (super-efficiency label dimensions)



(3) *Diagram 3* (star dimensions and geometry)



The apex for each star point lies on the corner of a pentagon. Angles are 108° for the pentagon and 36° for each star apex.

For the upper arch star, the pentagon side x is 9mm (height y is 13.9mm)

(4) The other proportions of the label's dimensions and text must be as specified in figures B1 and B2 (as the case may be) of AS/NZS 2040.2:2005.

16 Other specifications for super-efficiency label

(1) A super-efficiency label must be self-adhesive.

(2) There may be a trim or die-cut margin of up to 2 mm around a super-efficiency label.

Schedule 2
New Schedule 2D inserted

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Schedule 2D
Dishwashers

Schedule 2

Contents

Part 1
Product classes, labelling standards, testing standards, and other requirements

1 Overview of schedule

(1) This schedule specifies—

(a) the products that are covered by the schedule (clause 2):

(b) labelling standards for those products (clauses 3 to 5):

(c) testing standards for the purposes of the labelling standards (clauses 6 to 9):

(d) the meaning of terms used in this schedule (clauses 10 and 11):

(e) the format requirements for super-efficiency labels (Part 2).

(2) This schedule specifies product classes, standards, and other matters by reference to various standards (for example, AS/NZS) and, in some cases, specifies modifications that apply to those standards for the purposes of this schedule.

Products covered by schedule

2 Products covered by schedule

This schedule covers dishwashers ordinarily supplied and used for personal, domestic, or household purposes.

Labelling standards

3 Labelling requirements

(1) A dishwasher that is covered by this schedule must be labelled as required by clauses 2 and 5, and Appendix B, of AS/NZS 2007.2:2005, as varied in accordance with clauses 4 and 5 of this schedule.

(2) However, if under subclause (1) a star rating of 7 or more stars is derived from the star rating index, the dishwasher must—

(a) be labelled as required by clauses 2 and 5, and Appendix B, of AS/NZS 2007.2:2005 as if the star rating were 6 stars; or

(b) be labelled with a label that meets the requirements specified in Part 2 (format for super-efficiency label) of this schedule.

4 Variations to clauses 1.5.8 and 2.7 of AS/NZS 2007.2:2005

(1) This clause sets out variations to AS/NZS 2007.2:2005 for the purposes of clause 3.

(2) The requirements in subclauses (3) and (4) replace the requirements in clauses 1.5.8 and 2.7 of AS/NZS 2007.2:2005.

(3) In relation to the number of stars displayed on an energy efficiency label or a super-efficiency label,—

(a) the star rating must be calculated using the star rating index; and

(b) the minimum number of stars to be displayed on the label is 1 and the maximum is 10; and

(c) for an energy efficiency label, the rating must be displayed in half-star intervals; and

(d) for a super-efficiency label, the rating must be displayed in 1-star intervals.

(4) The following table replaces Table 2.1 in clause 2.7 of AS/NZS 2007.2:2005:

Star rating index (SRI)	Star rating
SRI < 1.5	1.0
1.5 ≤ SRI < 2.0	1.5
2.0 ≤ SRI < 2.5	2.0
2.5 ≤ SRI < 3.0	2.5
3.0 ≤ SRI < 3.5	3.0
3.5 ≤ SRI < 4.0	3.5
4.0 ≤ SRI < 4.5	4.0
4.5 ≤ SRI < 5.0	4.5
5.0 ≤ SRI < 5.5	5.0
5.5 ≤ SRI < 6.0	5.5
6.0 ≤ SRI < 7.0	6.0
7.0 ≤ SRI < 8.0	7.0
8.0 ≤ SRI < 9.0	8.0
9.0 ≤ SRI < 10.0	9.0
10.0 ≤ SRI	10.0

5 Variations to clause 5.1 of AS/NZS 2007.2:2005

(1) This clause sets out variations to AS/NZS 2007.2:2005 for the purposes of clause 3.

(2) The requirements in this clause replace the requirements in 5.1 of AS/NZS 2007.2:2005.

(3) An energy efficiency label or a super-efficiency label must be adhered to the upper front part of—

(a) the dishwasher; or

(b) any display front for the dishwasher.

(4) However, if it is not feasible or practicable to meet the requirements in subclause (3), the label must be—

(a) adhered to the top of the dishwasher or the display front so that the label is not obscured when the dishwasher is on display; or

(b) attached to the upper front part of the dishwasher in the form of a swing tag.

(5) If the swing tag specified in subclause (4)(b) is—

(a) a single-sided swing tag, it must be non-rotating; or

(b) a rotating swing tag, it must be double-sided.

Testing standards

6 Testing requirements

(1) For the purposes of this schedule, all testing must be conducted in accordance with the requirements in clause 2 of AS/NZS 2007.2:2005, as varied in accordance with subclause (2).

(2) For the purposes of subclause (1), references to AS/NZS 2007.1:2005 in AS/NZS 2007.2:2005 are varied in accordance with clauses 7 to 9 of this schedule.

7 Variations to paragraph A10(e) of Appendix A of AS/NZS 2007.1:2005

(1) This clause sets out variations to references to AS/NZS 2007.1:2005 in AS/NZS 2007.2:2005 for the purposes of clause 6.

(2) The infant cereal composition requirements in the following table replace the requirements in paragraph A10(e) of Appendix A of AS/NZS 2007.1:2005:

Infant cereal composition	Percentage by mass
Fat	Between 1.6% and 4.8%
Protein	Between 12% and 14%
Carbohydrate (total)	Between 72% and 80%
Carbohydrate (sugars)	Between 0.8% and 2.2%
Dietary fibre	Between 2% and 4%
Vitamins and minerals	Between 0% and 2%

8 Variations to paragraph A10(f) of Appendix A and paragraph C2.6.1 of Appendix C of AS/NZS 2007.1:2005

(1) This clause sets out variations to references to AS/NZS 2007.1:2005 in AS/NZS 2007.2:2005 for the purposes of clause 6.

(2) Instead of the spinach soiling agent specified in paragraph A10(f) of Appendix A of AS/NZS 2007.1:2005, frozen young spinach may be used if—

(a) it does not contain additives or other ingredients; and

(b) it is prepared in accordance with subclause (3).

(3) The preparation method is as follows:

Step	Method
1	Defrost the frozen young spinach at ambient temperature.
2	Place the defrosted spinach in a sieve with a mesh size of 2 mm and allow to drip for about 5 minutes.

Step	Method
3	Pass the spinach completely through a grinder that has a perforated grinding disc that meets the requirements in subclause (4), using a setting where the amount of minced spinach production is approximately 170 grams per minute and the no-load speed for the grinder is approximately 160 revolutions per minute.
4	Stir the spinach.
5	If the spinach is not required for immediate use, divide it into convenient portions and store it in lidded containers in the refrigerator.
6	Stir the spinach before use.
7	Discard any spinach that has been in the refrigerator for more than 3 days.

(4) The requirements for the perforated grinding disc are that it must—

(a) be a flat steel disc approximately 62 mm in diameter and 5 mm thick; and

(b) have a central hole approximately 6.5 mm in diameter; and

(c) have a slot on the perimeter approximately 3 mm wide for holding the disc stationary; and

(d) be drilled through with 180 holes, 2 mm in diameter, in the pattern shown in subclause (5).

(5) The pattern is as follows:

9 Variations to Table A3 of Appendix A of AS/NZS 2007.1:2005

(1) This clause sets out variations to references to AS/NZS 2007.1:2005 in AS/NZS 2007.2:2005 for the purposes of clause 6.

(2) A test may be conducted using—

(a) the cutlery set made up of items 7 to 11 in Table A3 of Appendix A of AS/NZS 2007.1:2005; or

(b) the alternative cutlery set made up of items 7 to 11 in the table in subclause (3).

(3) The items that make up the alternative cutlery set are as follows:

No	Item description	Diameter/ volume/length	Shape/style	Name
7	Fork	188 mm	WMF “Signum”	Dessert Fork “1900”
8	Soup spoon	190 mm	WMF “Signum”	Dessert Spoon “1900”
9	Knife	209 mm	WMF “Gastro”	Table Knife 18/10 “0800”
10	Teaspoon	136 mm	WMF “Signum”	Tea/Coffee Spoon “1900”
11	Dessert spoon	156 mm	WMF “Signum”	Coffee/Tea Spoon “1900”

(4) The same type of cutlery set must be used in both the test machine and the reference machine.

Interpretation

10 Interpretation: general

In this schedule,—

dishwasher means a machine powered by electricity that cleans, rinses, and dries 1 or more of the following by chemical, mechanical, or thermal means:

(a) dishware, glassware, and cutlery:

(b) in some cases, cooking utensils

energy efficiency label means the label described in clause 5 of AS/NZS 2007.2:2005

super-efficiency label means a label described in clause 3(2)(b).

11 Interpretation: standards

In this schedule,—

AS/NZS 2007.1:2005 means Australian/New Zealand Standard 2007.1:2005 Performance of household electrical appliances—Dishwashers—Part 1: Methods for measuring performance, energy and water consumption

AS/NZS 2007.2:2005 means Australian/New Zealand Standard 2007.2:2005 Performance of household electrical appliances—Dishwashers—Part 2: Energy efficiency labelling requirements.

Part 2
Format for super-efficiency label

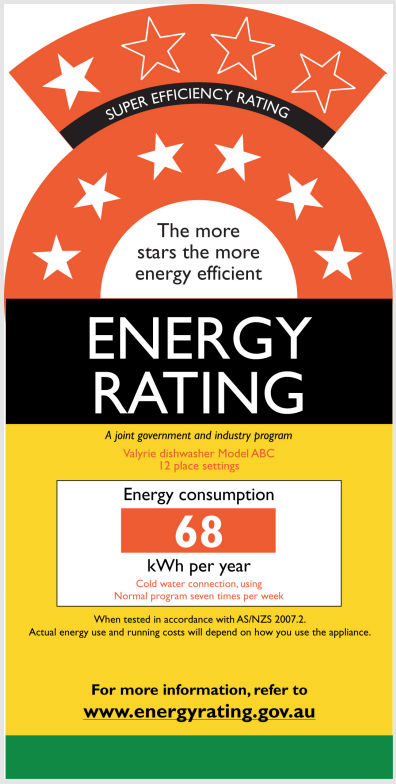
12 Meaning of certain details in diagrams

In a diagram in this Part, numbers, model details, and star ratings are illustrative only. The actual numbers, model details, and star ratings for the energy rating label for a particular product must be those specified in this Part.

13 Elements of super-efficiency label

(1) A super-efficiency label must be in substantially the format shown in diagram 1.

(2) *Diagram 1* (super-efficiency label)



14 Colours for super-efficiency label

(1) A super-efficiency label must be printed on a white background using the following colours in the elements as shown in diagram 1:

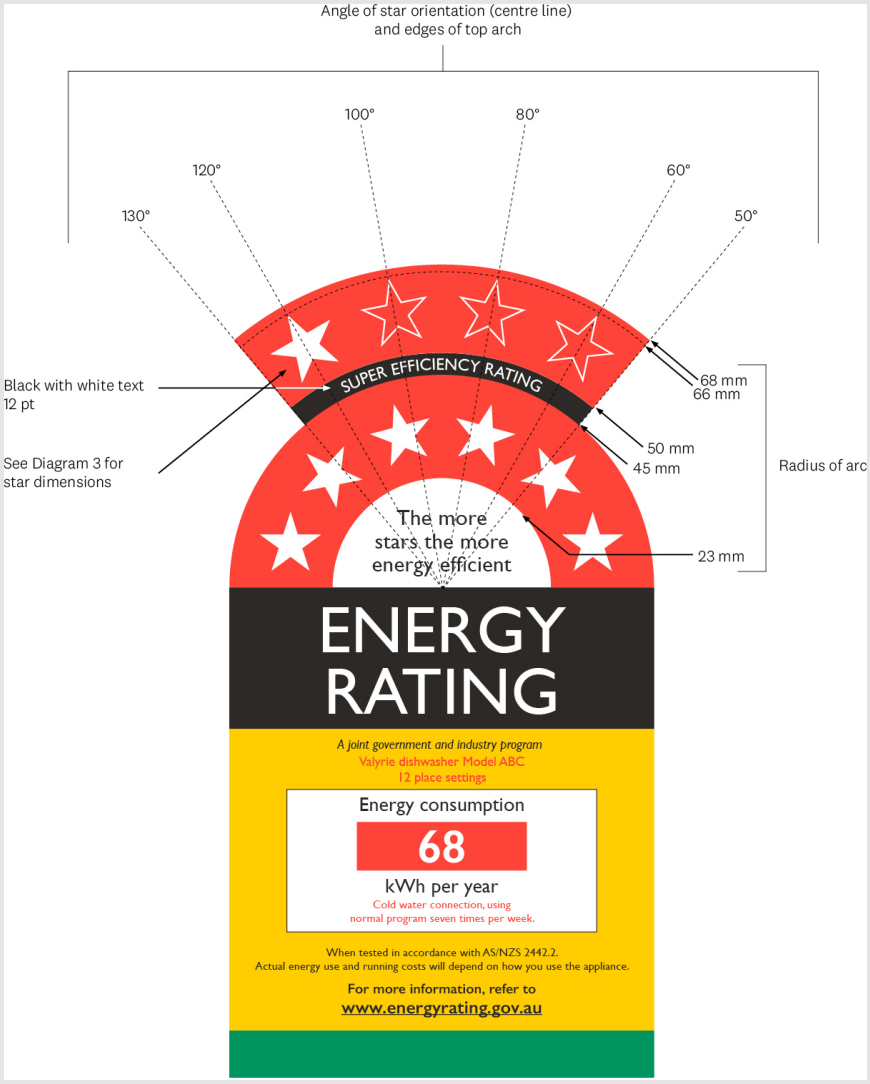
Colour	For a printed label
Black	Pantone Black
Green	Pantone 340
Red	Pantone Warm Red
Yellow	Pantone 116

(2) In this clause, **diagram 1** means the diagram in clause 13(2).

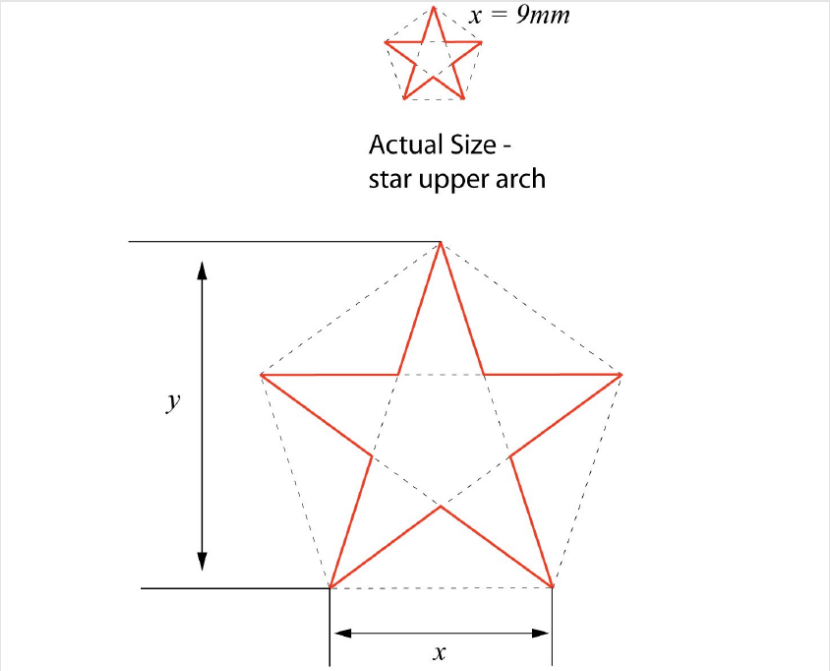
15 Size of super-efficiency label

(1) The relative proportions of the label's dimensions and text must be as illustrated in diagrams 2 and 3.

(2) *Diagram 2* (super-efficiency label dimensions)



(3) *Diagram 3* (star dimensions and geometry)



The apex for each star point lies on the corner of a pentagon. Angles are 108° for the pentagon and 36° for each star apex.

For the upper arch star, the pentagon side *x* is 9mm (height *y* is 13.9mm)

(4) The other proportions of the label's dimensions and text must be as specified in figure 5.1 of AS/NZS 2007.2:2005.

16 Other specifications for super-efficiency label

(1) A super-efficiency label must be self-adhesive.

(2) There may be a trim or die-cut margin of up to 2 mm around a super-efficiency label.

Schedule 3
New Schedule 2E inserted

r 12

Schedule 2E
Household refrigerating appliances

Schedules 1, 2

Contents

1 Overview of schedule

(1) The schedule specifies—

(a) the product classes that are covered by this schedule (clause 2) and not covered by this schedule (clause 3):

(b) minimum energy performance standards (**MEPS**) for each product class (clause 4):

(c) labelling standards for those product classes (clauses 5 and 6):

(d) testing standards for the purposes of the MEPS and the labelling standards (clause 7):

(e) the meaning of terms used in this schedule (clauses 8 to 10).

(2) This schedule specifies product classes, standards, and other matters by reference to various standards (for example, AS/NZS).

Product classes covered by schedule

2 Product classes covered by schedule

(1) A numbered product class indicated in the first column of the following table is a class of products covered by this schedule:

Product class	Products in product class
1	Products classified as Group 1 in Table 2.1 of AS/NZS 4474:2018
2	Products classified as Group 2 in Table 2.1 of AS/NZS 4474:2018
3	Products classified as Group 3 in Table 2.1 of AS/NZS 4474:2018
4	Products classified as Group 4 in Table 2.1 of AS/NZS 4474:2018
5	Products classified as Group 5T in Table 2.1 of AS/NZS 4474:2018
6	Products classified as Group 5B in Table 2.1 of AS/NZS 4474:2018
7	Products classified as Group 5S in Table 2.1 of AS/NZS 4474:2018
8	Products classified as Group 6C in Table 2.1 of AS/NZS 4474:2018
9	Products classified as Group 6U in Table 2.1 of AS/NZS 4474:2018
10	Products classified as Group 7 in Table 2.1 of AS/NZS 4474:2018

(2) Each numbered product class consists of the products that are described in the second column.

(3) This clause is subject to clause 3.

3 Product classes not covered by schedule

(1) The following products are not covered by this schedule:

(a) products that—

(i) have a total volume of less than 80 litres; and

(ii) are designed exclusively for use in caravans and other vehicles, including mobile homes, camper vans, boats, and railway carriages:

(b) portable products that—

(i) have a chest configuration; or

(ii) have an upright configuration and a total volume of less than 80 litres:

(c) products that have a total volume of less than 30 litres and where the refrigeration function is secondary (such as boiled and cooled water dispensers):

(d) products that have no options for connection to a 230 volt or 400 volt mains electricity supply at 50 Hz:

(e) products that are cooled by technologies other than vapour compression cycle technology:

(f) stand-alone wine storage appliances:

(g) stand-alone ice makers.

(2) In this clause,—

chest configuration means a configuration where access to 1 or more refrigerated storage compartments is from the top

portable product means a product that is—

(a) specifically designed to be moved from place to place as part of its normal use, as stated in the product literature that accompanies the product (including the operating manual and the user instructions); and

(b) designed to operate on an electrical supply of 12 or 24 volts direct current

upright configuration means a configuration where access to 1 or more refrigerated storage compartments is from the front

wine storage appliance means an appliance that is specifically designed for the storage or maturation of wine (or both), and that—

(a) has the capability to maintain continuously a nominated temperature between 5°C and 20°C (inclusive); and

(b) has shelving specifically designed to store wine bottles.

Minimum energy performance standards

4 Minimum energy performance standards for household refrigerating appliances

A household refrigerating appliance that belongs to a product class covered by this schedule must meet the requirements in—

(a) clause 4.2 of AS/NZS 4474:2018 (projected MEPS energy consumption); and

(b) clause 4.4 of AS/NZS 4474:2018 (pull-down); and

(c) clause 4.5 of AS/NZS 4474:2018 (storage test); and

(d) clause 4.6 of AS/NZS 4474:2018 (temperature excursions during defrost and recovery).

Labelling standards

5 Labelling requirements

A household refrigerating appliance that is covered by this schedule must be labelled as required by—

(a) clause 2 of AS/NZS 4474:2018 (determination of energy consumption); and

(b) clause 3 of AS/NZS 4474:2018 (calculations for energy rating label), as varied in accordance with clause 6; and

(c) clause 6 of AS/NZS 4474:2018 (content, format and affixing energy rating labels).

6 Variations to AS/NZS 4474:2018 relating to household refrigerating appliance with variable temperature compartments

(1) This clause—

(a) sets out variations to AS/NZS 4474:2018 for the purposes of clause 5; and

(b) applies only in relation to a household refrigerating appliance that contains 1 or more variable temperature compartments (such as an appliance that can be used as a fridge or a freezer).

(2) The requirements in subclause (3) replace the requirements in clause 3.9 of AS/NZS 4474:2018, but only to the extent that the requirements in clause 3.9 of AS/NZS 4474:2018 relate to calculating the values displayed on the energy rating label referred to in clause 5(b).

(3) The following values must be calculated with each compartment of the household refrigerating appliance set at the mode that produces the highest possible energy consumption for that compartment:

(a) the comparative energy consumption:

(b) the star rating.

(4) To avoid doubt, the requirements in clause 3.9 of AS/NZS 4474:2018 that relate to registering additional groups continue to apply.

(5) In this clause, **group** has the meaning given by clause 1.6.14 of AS/NZS 4474:2018.

Testing standards

7 Testing requirements

For the purposes of this schedule, all testing must be conducted in accordance with the requirements in—

(a) clause 2 of AS/NZS 4474:2018 (determination of energy consumption); and

(b) clause 4.4 of AS/NZS 4474:2018 (pull-down); and

(c) clause 4.5 of AS/NZS 4474:2018 (storage test); and

(d) clause 4.6 of AS/NZS 4474:2018 (temperature excursions during defrost and recovery); and

(e) clause 4.8 of AS/NZS 4474:2018 (declared automatic controls); and

(f) clause 4.9.1 of AS/NZS 4474:2018 (circumvention devices–general).

Interpretation

8 Interpretation: general

In this schedule,—

compartment means an enclosed space within a household refrigerating appliance—

(a) that is directly accessible through 1 or more external doors; and

(b) that may itself be divided into sub-compartments

foodstuffs means food and beverages intended for consumption

household refrigerating appliance means an insulated cabinet that—

(a) has 1 or more compartments that are controlled at specific temperatures; and

(b) is intended for the storage and preservation of foodstuffs that require refrigeration at specified temperature conditions; and

(c) is cooled by—

(i) natural convection; or

(ii) a forced convection system that uses vapour compression cycle technology; and

(d) can be connected to mains electricity; and

(e) is ordinarily supplied and used for household use

IEC means the International Electrotechnical Commission

product class means a product class set out in clause 2

total volume means the sum of the volumes of all compartments in a household refrigerating appliance

volume means the volume of a compartment determined in accordance with—

(a) Annex H of AS/NZS IEC 62552.3:2018; or

(b) Annex H of IEC 62552-3:2015.

9 Interpretation: standards

In this schedule,—

AS/NZS 4474:2018 means Australian/New Zealand Standard 4474:2018 Household refrigerating appliances—Energy labelling and minimum energy performance standards requirements

AS/NZS IEC 62552.1:2018 means Australian/New Zealand Standard IEC 62552.1:2018 Household refrigerating appliances—Characteristics and test methods—Part 1: General requirements

AS/NZS IEC 62552.2:2018 means Australian/New Zealand Standard IEC 62552.2:2018 Household refrigerating appliances—Characteristics and test methods—Part 2: Performance requirements

AS/NZS IEC 62552.3:2018 means Australian/New Zealand Standard IEC 62552.3:2018 Household refrigerating appliances—Characteristics and test methods—Part 3: Energy consumption and volume

IEC 62552-1:2015 means IEC Standard 62552-1:2015 Ed. 1 Household refrigerating appliances—Characteristics and test methods—Part 1: General requirements

IEC 62552-2:2015 means IEC Standard 62552-2:2015 Ed. 1 Household refrigerating appliances—Characteristics and test methods—Part 2: Performance requirements

IEC 62552-3:2015 means IEC Standard 62552-3:2015 Ed. 1 Household refrigerating appliances—Characteristics and test methods—Part 3: Energy consumption and volume.

10 Interpretation of terms in AS/NZS 4474:2018

A reference in AS/NZS 4474:2018 to—

(a) test standard Part 1 is taken to mean a reference to AS/NZS IEC 62552.1:2018 or IEC 62552-1:2015; and

(b) test standard Part 2 is taken to mean a reference to AS/NZS IEC 62552.2:2018 or IEC 62552-2:2015; and

(c) test standard Part 3 is taken to mean a reference to AS/NZS IEC 62552.3:2018 or IEC 62552-3:2015.

Incorporation of further material by reference

11 Incorporation of further material by reference

To the extent that material that this schedule incorporates by reference (**primary material**) itself incorporates any of the following material (**further material**) by reference, the further material also applies for the purposes of this schedule (subject to any modification of it by the primary material):

(a) IEC 62552-1:2015:

(b) IEC 62552-2:2015:

(c) IEC 62552-3:2015.

Schedule 4
New Schedule 2F inserted

r 12

Schedule 2F
Rotary clothes dryers

Schedules 1, 2

Contents

Part 1
Product classes, minimum energy performance standards, labelling standards, testing standards, and other requirements

1 Overview of schedule

(1) This schedule specifies—

(a) the products that are covered by the schedule (clause 2):

(b) minimum energy performance standards (**MEPS**) for each product (clause 3):

(c) labelling standards for those products (clauses 4 to 6):

(d) testing standards for the purposes of the MEPS and the labelling standards (clauses 7 to 10):

(e) the meaning of terms used in this schedule (clauses 11 and 12):

(f) the format requirements for super-efficiency labels (Part 2).

(2) This schedule specifies product classes, standards, and other matters by reference to various standards (for example, AS/NZS) and, in some cases, specifies modifications that apply to those standards for the purposes of this schedule.

Products covered by schedule

2 Products covered by schedule

This schedule covers rotary clothes dryers—

(a) that are ordinarily supplied and used for personal, domestic, or household purposes; and

(b) that use a control mechanism.

Minimum energy performance standards

3 Minimum energy performance standards for rotary clothes dryers

A rotary clothes dryer that is covered by this schedule must meet the requirements in—

(a) clause 4.4 of AS/NZS 2442.1:1996 (maximum tested energy performance); and

(b) clause 3.2 of AS/NZS 2442.2:2000 (drying clothes in a single operation); and

(c) clause 3.3 of AS/NZS 2442.2:2000 (maximum fabric temperature).

Labelling standards

4 Labelling requirements

(1) A rotary clothes dryer that is covered by this schedule must meet the requirements in clauses 2 and 5, and Appendix B, of AS/NZS 2442.2:2000, as varied in accordance with clauses 5 and 6 of this schedule.

(2) However, if under subclause (1) a star rating of 7 or more stars is derived from the star rating index, the rotary clothes dryer must—

(a) be labelled as required by clauses 2 and 5, and Appendix B, of AS/NZS 2442.2:2000 as if the star rating were 6 stars; or

(b) be labelled with a label that meets the requirements specified in Part 2 (format for super-efficiency label) of this schedule.

5 Variations to clause 1.5.10 and clause 2.8 of AS/NZS 2442.2:2000

(1) This clause sets out variations to AS/NZS 2442.2:2000 for the purposes of clause 4.

(2) The requirements in subclauses (3) and (4) replace the requirements in clauses 1.5.10 and 2.8 of AS/NZS 2442.2:2000.

(3) In relation to the number of stars displayed on an energy efficiency label or super-efficiency label,—

(a) the star rating must be calculated using the star rating index (dimensionless); and

(b) the minimum number of stars to be displayed on the label is 1 and the maximum is 10; and

(c) for an energy efficiency label, the rating must be displayed in half-star intervals; and

(d) for a super-efficiency label, the rating must be displayed in 1-star intervals.

(4) The following table replaces Table 2.1 in clause 2.8 of AS/NZS 2442.2:2000:

Star rating index (SRI)	Star rating
SRI < 1.5	1.0
1.5 ≤ SRI < 2.0	1.5
2.0 ≤ SRI < 2.5	2.0
2.5 ≤ SRI < 3.0	2.5
3.0 ≤ SRI < 3.5	3.0
3.5 ≤ SRI < 4.0	3.5
4.0 ≤ SRI < 4.5	4.0
4.5 ≤ SRI < 5.0	4.5
5.0 ≤ SRI < 5.5	5.0
5.5 ≤ SRI < 6.0	5.5
6.0 ≤ SRI < 7.0	6.0

Star rating index (SRI)	Star rating
7.0 ≤ SRI < 8.0	7.0
8.0 ≤ SRI < 9.0	8.0
9.0 ≤ SRI < 10.0	9.0
10.0 ≤ SRI	10.0

6 Variations to clause 5.1 of AS/NZS 2442.2:2000

(1) This clause sets out variations to AS/NZS 2442.2:2000 for the purposes of clause 4.

(2) The requirements in subclauses (3) to (5) replace the requirements in clause 5.1 of AS/NZS 2442.2:2000.

(3) An energy efficiency label or super-efficiency label must be adhered to the upper front part of—

(a) the rotary clothes dryer; or

(b) any display front for the rotary clothes dryer.

(4) However, if it is not feasible or practicable to meet the requirement in subclause (3), the label must be—

(a) adhered to the top of the rotary clothes dryer, or on any display front of the rotary clothes dryer, so that the label is not obscured when the dryer is on display; or

(b) attached to the upper front part of the rotary clothes dryer in the form of a swing tag.

(5) If the swing tag specified in subclause (4)(b) is—

(a) a single-sided swing tag, it must be non-rotating; or

(b) a rotating swing tag, it must be double-sided.

Testing standards

7 Testing requirements

(1) For the purposes of this schedule, all testing must be conducted in accordance with clause 2 of AS/NZS 2442.2:2000.

(2) For the purposes of subclause (1), references to AS/NZS 2442.1:1996 in AS/NZS 2442.2:2000 are varied in accordance with clauses 8 to 10 of this schedule.

8 Variations to Appendix E of AS/NZS 2442.1:1996

(1) This clause—

(a) sets out variations to references to AS/NZS 2442.1:1996 in AS/NZS 2442.2:2000 for the purposes of clause 7; and

(b) applies only if the test load make-up is prepared in accordance with Table E2 of Appendix E of AS/NZS 2442.1:1996.

(2) The test load component items may be—

(a) the items specified in Table E1 of Appendix E of AS/NZS 2442.1:1996; or

(b) the alternative test load component items specified in subclause (3).

(3) The alternative test load component items are as follows:

Load item	Target bone-dry mass (kg)	Approx nominal mass (kg)	Material	Colour	Approx size (cm)	Remarks
Sheets	0.73	0.77	Cotton sheeting	White	180 × 240	Flat, 170 gsm material
Bath towels	0.33	0.35	Cotton terry	White	60 × 120	Rectangular
Tablecloths	0.24	0.25	Cotton sheeting	White	117 × 117	Flat, 170 gsm material
Shirts	0.20	0.21	Polyester/ cotton	White	41	Long sleeve, men's
T-shirts	0.15	0.16	Cotton interlock	White	115 (3XL)	Raglan sleeve
Pillow cases	0.13	0.14	Cotton sheeting	White	50 × 75	Flat, 170 gsm material
Undershorts	0.090	0.095	Cotton interlock	White	Waist 95–100	
Wash cloths	0.060	0.065	Cotton terry	White	33 × 33	
Handerchiefs	0.014	0.015	Cotton	White	40 × 43	

Guidance note

The total mass of the load when using the alternative test load component items is on average 3.2% higher than the approximate bone-dry mass listed in column 2 of Table E2 of Appendix E of AS/NZS 2442.1:1996. This is slightly higher than the original load specified in AS/NZS 2442.1:1996 but is considered to be within acceptable limits considering that the mass of the load items is measured when they are new and some loss of mass is expected over the life of the load items.

(4) For the purposes of subclause (3), the material of a shirt must be a cross-linked polyester/cotton made up of 65% polyester and 35% cotton.

9 Variations to AS/NZS 2442.1:1996 relating to dryer with both timer and autosensing control mechanism

(1) This clause—

(a) sets out variations to references to AS/NZS 2442.1:1996 in AS/NZS 2442.2:2000 for the purposes of clause 7; and

(b) applies only in relation to a rotary clothes dryer that has both a timer control mechanism and an autosensing control mechanism.

(2) The determination of moisture removal and energy consumption must be tested on the supplier's nominated autosensing program, not in accordance with clause 2.2 of AS/NZS 2442.1:1996.

(3) The requirements of clause 2.3 of AS/NZS 2442.1:1996 and the test conditions in paragraph D2.4 of Appendix D of AS/NZS 2442.1:1996 must be met both—

(a) when using the timer control mechanism; and

(b) when using the autosensing control mechanism.

10 Variations to AS/NZS 2442.1:1996 relating to dryer with interlock mechanism

(1) This clause—

(a) sets out variations to references to AS/NZS 2442.1:1996 in AS/NZS 2442.2:2000 for the purposes of clause 7; and

(b) applies only in relation to a rotary clothes dryer that has an interlock mechanism.

(2) Paragraph B3.2 of Appendix B of AS/NZS 2442.1:1996 does not apply.

(3) Any energy and water used up to the point when the load becomes accessible again must be included when conducting tests in accordance with clause 7.

(4) In this clause, **interlock mechanism**, in relation to a rotary clothes dryer, means a mechanism that prevents access to the dryer's load for the purpose of weighing the load immediately before the commencement of the cool-down period.

Interpretation

11 Interpretation: general

In this schedule,—

condenser rotary clothes dryer means an electric clothes dryer by which moisture from the air within the clothes dryer is converted to a liquid and the liquid is drained or stored for later removal

control mechanism means one of the following mechanisms by which the operation of a dryer is terminated:

(a) autosensing (the clothes drying is stopped by a system within the dryer that can determine, directly or indirectly, the moisture content of the load):

(b) manual (the clothes drying is stopped by hand):

(c) timer (the clothes drying is stopped by a timer)

energy efficiency label means the label described in clause 5 of AS/NZS 2442.2:2000

rotary clothes dryer means one of the following appliances that is designed for the tumble-drying of clothing:

(a) a condenser rotary clothes dryer:

(b) a vented rotary clothes dryer:

(c) the drying function of an appliance—

(i) that has both clothes washing and clothes drying functions; and

(ii) in which the drying function operates by the same method as a condenser rotary clothes dryer or vented rotary clothes dryer

super-efficiency label means a label described in clause 4(2)(b)

tumble-drying of clothing means drying a clothing item by passing air through the item while it is being tumbled

vented rotary clothes dryer means an electric clothes dryer in which the air and accumulated moisture are discharged into the atmosphere.

12 Interpretation: standards

In this schedule,—

AS/NZS 2442.1:1996 means Australian/New Zealand Standard 2442.1:1996 Performance of household electrical appliances—Rotary clothes dryers—Part 1: Energy consumption and performance

AS/NZS 2442.2:2000 means Australian/New Zealand Standard 2442.2:2000 Performance of household electrical appliances—Rotary clothes dryers—Part 2: Energy labelling requirements.

Part 2
Format for super-efficiency label

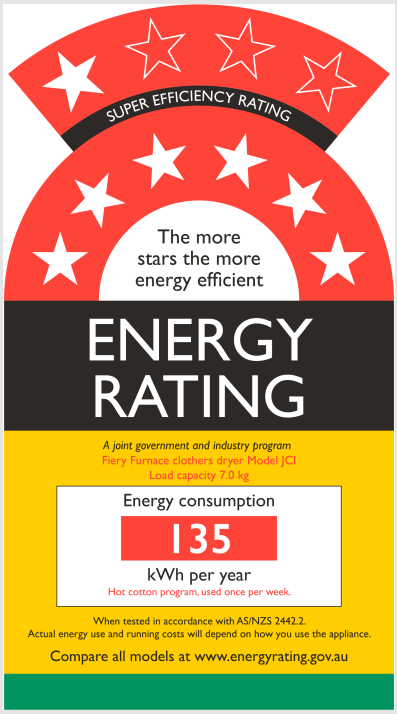
13 Meaning of certain details in diagrams

In a diagram in this Part, numbers, model details, and star ratings are illustrative only. The actual numbers, model details, and star ratings for the energy rating label for a particular product must be those specified in this Part.

14 Elements of super-efficiency label

(1) A super-efficiency label must be in substantially the format shown in diagram 1.

(2) *Diagram 1* (super-efficiency label)



15 Colours for super-efficiency label

(1) A super-efficiency label must be printed on a white background using the following colours in the elements as shown in diagram 1:

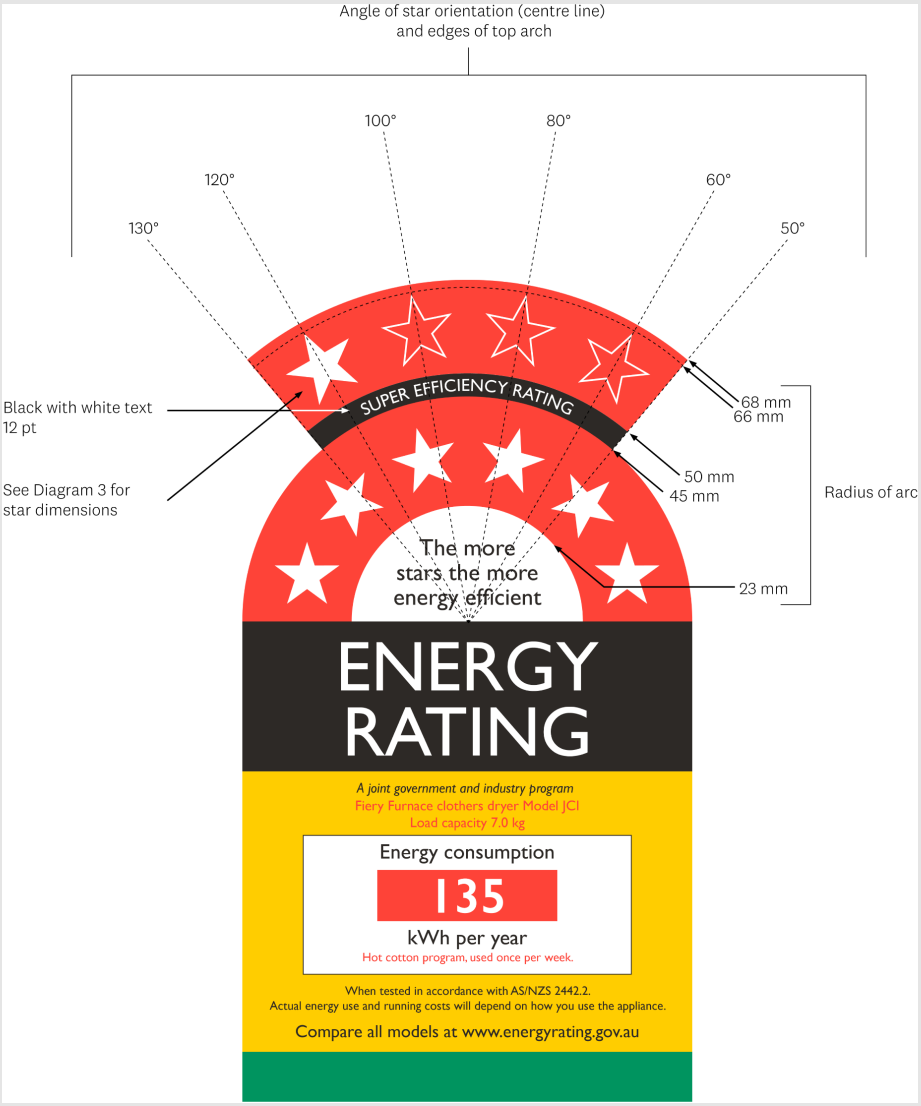
Colour	For a printed label
Black	Pantone Black
Green	Pantone 340
Red	Pantone Warm Red
Yellow	Pantone 116

(2) In this clause, **diagram 1** means the diagram in clause 14(2).

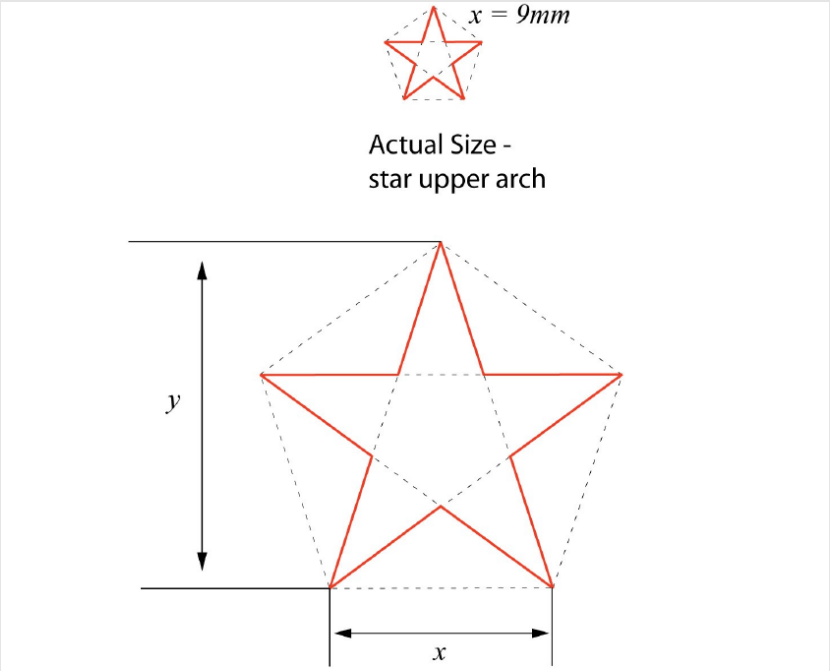
16 Size of super-efficiency label

(1) The relative proportions of the label's dimensions and text must be as illustrated in diagrams 2 and 3.

(2) *Diagram 2* (super-efficiency label dimensions)



(3) *Diagram 3* (star dimensions and geometry)



The apex for each star point lies on the corner of a pentagon. Angles are 108° for the pentagon and 36° for each star apex.

For the upper arch star, the pentagon side *x* is 9mm (height *y* is 13.9mm)

(4) The other proportions of the label's dimensions and text must be as specified in figure 5.1 of AS/NZS 2442.2:2000.

17 Other specifications for super-efficiency label

(1) A super-efficiency label must be self-adhesive.

(2) There may be a trim or die-cut margin of up to 2 mm around the super-efficiency label.

Schedule 5
New Schedule 2G inserted

r 12

Schedule 2G
Three-phase cage induction motors

Schedules 1, 2

Contents

1 Overview of schedule

(1) This schedule specifies—

(a) the products that are covered by this schedule (clause 2) and not covered by this schedule (clause 3):

(b) minimum energy performance standards (**MEPS**) for each product (clause 4):

(c) high efficiency requirements for each product (clause 5):

(d) labelling standards for those products (clause 6):

(e) testing standards for the purposes of the MEPS and the labelling standards (clauses 7 and 8):

(f) the meaning of terms used in this schedule (clauses 9 and 10).

(2) This schedule specifies products, standards, and other matters by reference to various standards (for example, IEC Standards) and, in some cases, specifies modifications that apply to those standards for the purposes of this schedule.

Products covered by schedule

2 Products covered by schedule

(1) This schedule covers three-phase cage induction motors with—

(a) a rated output power equal to or greater than 0.73 kilowatts but less than 185 kilowatts; and

(b) a rated voltage of up to 1,100 volts alternating current; and

(c) 2, 4, 6, or 8 poles.

(2) This clause is subject to clause 3.

3 Products not covered by schedule

The following products are not covered by this schedule:

(a) a submersible (sealed) motor specifically designed to operate wholly immersed in a liquid:

(b) a motor that—

(i) shares common components (excluding connectors, such as bolts) with the driven unit; and

(ii) cannot operate as a motor if separated from the driven unit, even if a temporary end shield or a drive-end bearing is fitted:

(c) a motor that can run at 2 or more discrete speeds by using switchgear to reconfigure the connection of the motor's winding or windings to the supply:

(d) a motor that is to be used only for short-time duty cycle applications and has a duty type rating of S2 (short-time duty):

(e) a motor—

(i) that has had its insulated winding or windings replaced; and

(ii) in respect of which the supplier has not made any claim that the motor meets the MEPS:

(f) a motor that is supplied exclusively to third parties who will incorporate the motor into equipment that will be exported to a country other than Australia or New Zealand:

(g) a high-slip motor designed primarily to provide torque, often at or near 100% slip.

Minimum energy performance standards

4 Minimum energy performance standards for certain three-phase cage induction motors

(1) This clause applies to a 50 Hz or 60 Hz three-phase cage induction motor that has 2, 4, 6, or 8 poles.

(2) The efficiency of the motor at 75% or 100% of rated load must not be less than,—

(a) for a motor with a rated output power specified in the first column of table 1, the minimum efficiency specified in the table for the type of motor; or

(b) for a motor with a rated output power that is between the values specified in the first column of table 1, the value determined in accordance with the method specified in—

(i) clause 5.4.5 or 5.4.6, as appropriate, of IEC 60034-30-1 Ed. 1.0; or

(ii) IEEE 112-2004; or

(iii) IEEE 112-2017.

Table 1

Rated output power (kW)	50 Hz motors Minimum efficiency (%)				60 Hz motors Minimum efficiency (%)			
	2-pole	4-pole	6-pole	8-pole	2-pole	4-pole	6-pole	8-pole
0.73	77.4	79.6	75.9	66.2	75.5	78.0	73.0	66.0
0.75	77.4	79.6	75.9	66.2	75.5	78.0	73.0	66.0
1.1	79.6	81.4	78.1	70.8	82.5	84.0	85.5	75.5
1.5	81.3	82.8	79.8	74.1	84.0	84.0	86.5	82.5
2.2	83.2	84.3	81.8	77.6	85.5	87.5	87.5	84.0
3	84.6	85.5	83.3	80.0	87.5	87.5	87.5	85.5
4	85.8	86.6	84.6	81.9	87.5	87.5	87.5	85.5
5.5	87.0	87.7	86.0	83.8	88.5	89.5	89.5	85.5
7.5	88.1	88.7	87.2	85.3	89.5	89.5	89.5	88.5
11	89.4	89.8	88.7	86.9	90.2	91.0	90.2	88.5
15	90.3	90.6	89.7	88.0	90.2	91.0	90.2	89.5
18.5	90.9	91.2	90.4	88.6	91.0	92.4	91.7	89.5
22	91.3	91.6	90.9	89.1	91.0	92.4	91.7	91.0
30	92.0	92.3	91.7	89.8	91.7	93.0	93.0	91.0
37	92.5	92.7	92.2	90.3	92.4	93.0	93.0	91.7
45	92.9	93.1	92.7	90.7	93.0	93.6	93.6	91.7
55	93.2	93.5	93.1	91.0	93.0	94.1	93.6	93.0
75	93.8	94.0	93.7	91.6	93.6	94.5	94.1	93.0
90	94.1	94.2	94.0	91.9	94.5	94.5	94.1	93.6
110	94.3	94.5	94.3	92.3	94.5	95.0	95.0	93.6

Rated output power (kW)	50 Hz motors Minimum efficiency (%)				60 Hz motors Minimum efficiency (%)			
	2-pole	4-pole	6-pole	8-pole	2-pole	4-pole	6-pole	8-pole
132	94.6	94.7	94.6	92.6	95.0	95.0	95.0	93.6
160	94.8	94.9	94.8	93.0	95.0	95.0	95.0	93.6
185	95.0	95.1	94.9	93.3	95.4	95.0	95.0	93.6

Guidance note

The last row of this table is not relevant in relation to subclause (2)(a) because a motor covered by this schedule cannot have a rated output of 185 kW.

The values in this table are equivalent to the efficiency requirements for IE2 (High Efficiency) levels in the IEC framework.

5 High efficiency requirements

(1) This clause applies to a 50 Hz or 60 Hz three-phase cage induction motor that has 2, 4, 6, or 8 poles.

(2) A motor may be designated as high efficiency only if it meets the high efficiency level.

(3) The motor meets the high efficiency level if it meets the requirements in subclause (4).

(4) The efficiency of the motor at 75% or 100% of rated load must not be less than,—

(a) for a motor with a rated output power specified in the first column of table 2, the minimum efficiency specified in the table for the type of motor; or

(b) for a motor with a rated output power that is between the values specified in the first column of table 2, the value determined in accordance with the method specified in—

(i) clause 5.4.5 or 5.4.6, as appropriate, of IEC 60034-30-1 Ed. 1.0; or

(ii) IEEE 112-2004; or

(iii) IEEE 112-2017.

Table 2

Rated output power (kW)	50 Hz motors Minimum efficiency (%)				60 Hz motors Minimum efficiency (%)			
	2-pole	4-pole	6-pole	8-pole	2-pole	4-pole	6-pole	8-pole
0.73	80.7	82.5	78.9	75.0	77.0	83.5	82.5	75.5
0.75	80.7	82.5	78.9	75.0	77.0	83.5	82.5	75.5
1.1	82.7	84.1	81.0	77.7	84.0	86.5	87.5	78.5
1.5	84.2	85.3	82.5	79.7	85.5	86.5	88.5	84.0
2.2	85.9	86.7	84.3	81.9	86.5	89.5	89.5	85.5

Rated output power (kW)	50 Hz motors Minimum efficiency (%)				60 Hz motors Minimum efficiency (%)			
	2-pole	4-pole	6-pole	8-pole	2-pole	4-pole	6-pole	8-pole
3	87.1	87.7	85.6	83.5	88.5	89.5	89.5	86.5
4	88.1	88.6	86.8	84.8	88.5	89.5	89.5	86.5
5.5	89.2	89.6	88.0	86.2	89.5	91.7	91.0	86.5
7.5	90.1	90.4	89.1	87.3	90.2	91.7	91.0	89.5
11	91.2	91.4	90.3	88.6	91.0	92.4	91.7	89.5
15	91.9	92.1	91.2	89.6	91.0	93.0	91.7	90.2
18.5	92.4	92.6	91.7	90.1	91.7	93.6	93.0	90.2
22	92.7	93.0	92.2	90.6	91.7	93.6	93.0	91.7
30	93.3	93.6	92.9	91.3	92.4	94.1	94.1	91.7
37	93.7	93.9	93.3	91.8	93.0	94.5	94.1	92.4
45	94.0	94.2	93.7	92.2	93.6	95.0	94.5	92.4
55	94.3	94.6	94.1	92.5	93.6	95.4	94.5	93.6
75	94.7	95.0	94.6	93.1	94.1	95.4	95.0	93.6
90	95.0	95.2	94.9	93.4	95.0	95.4	95.0	94.1
110	95.2	95.4	95.1	93.7	95.0	95.8	95.8	94.1
132	95.4	95.6	95.4	94.0	95.4	96.2	95.8	94.5
160	95.6	95.8	95.6	94.3	95.4	96.2	95.8	94.5
185	95.7	95.9	95.7	94.5	95.8	96.2	95.8	95.0

Guidance note

The last row of this table is not relevant in relation to subclause (4)(a) because a motor covered by this schedule cannot have a rated output of 185 kW.

The values in this table are equivalent to the efficiency requirements for IE3 (Premium Efficiency) levels in the IEC framework.

Labelling standards

6 Labelling requirements

A three-phase cage induction motor that is covered by this schedule must be labelled as required by clause 10 of IEC 60034-1 (rating plates).

Testing standards

7 Testing requirements

(1) For the purposes of this schedule, all testing must be conducted in accordance with—

(a) IEC 60034-1; and

(b) clause 6.1.3 of IEC 60034-2-1 Ed. 2.0; and

(c) IEC 60034-30-1 Ed. 1.0; and

(d) IEC 60050-411.

(2) However, the testing requirements specified in subclause (1)(b) can be met by using either of the following alternative test methods:

(a) Method B (test procedure for polyphase induction motors and generators) in IEEE 112-2004:

(b) Method B (test procedure for polyphase induction motors and generators) in IEEE 112-2017.

(3) This clause is subject to clause 8.

8 Special testing requirements for totally enclosed air over motors

(1) If the product being tested under clause 7 is a totally enclosed air over motor, the testing requirements specified in clause 7 must be met while using an externally and independently generated air stream—

(a) that is at laboratory ambient air temperature; and

(b) that is directed over the motor's stator from the non-drive end; and

(c) with air flowing—

(i) parallel to the motor's shaft; and

(ii) at the minimum declared air velocity specified by the manufacturer for normal operation of the product, as measured using a hot-wire anemometer or similar instrument.

(2) For the purposes of subclause (1), the power required to generate the externally and independently generated air stream does not count towards the result for the motor under the test.

(3) In this clause, **totally enclosed air over motor** means a frame surface cooled machine, the exterior of which is cooled by a ventilating means external to the motor (for example, by a fan).

Interpretation

9 Interpretation: general

In this schedule,—

cage induction motor means an induction motor with secondary cage (squirrel cage) winding or windings that consist of a number of conducting bars that have their extremities connected by conducting rings or plates at each end

IEC Standard means a standard that is published by the International Electrotechnical Commission

IEEE Standard means a standard that is published by the Institute of Electrical and Electronics Engineers

MEPS means minimum energy performance standard

rated, in relation to a motor, means having a quantity or value assigned, generally by a manufacturer, for a specified operating condition of the motor (for example, rated output power)

S2 or **short-time duty** means operation at constant load for a given time, less than the time required to reach thermal equilibrium, followed by a time de-energised and at rest of sufficient duration to re-establish machine temperatures within 2 kelvin of the coolant temperature.

10 Interpretation: standards

In this schedule,—

ANSI/NEMA MG 1-2016 means ANSI/NEMA MG 1-2016 Motors and Generators, published by the American National Standards Institute and the National Electrical Manufacturers Association

IEC 60027-1 means IEC Standard 60027-1:1992 Ed. 6.0 Letter symbols to be used in electrical technology—Part 1: General

IEC 60027-4 means IEC Standard 60027-4:2006 Ed. 2.0 Letter symbols to be used in electrical technology—Part 4: Rotating electric machines

IEC 60034-1 means IEC Standard 60034-1:2017 Ed. 13.0 Rotating electrical machines—Part 1: Rating and performance

IEC 60034-2-1 Ed. 2.0 means IEC Standard 60034-2-1:2014 Ed. 2.0 Rotating electrical machines—Part 2-1: Standard methods for determining losses and efficiency from tests (excluding machines for traction vehicles)

IEC 60034-5 means IEC Standard 60034-5:2006 Ed. 4.1 Rotating electrical machines—Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code)—Classification

IEC 60034-6 means IEC Standard 60034-6:1991 Ed. 2.0 Rotating electrical machines—Part 6: Methods of cooling (IC Code)

IEC 60034-8 means IEC Standard 60034-8:2007 Ed. 3.0 Rotating electrical machines—Part 8: Terminal markings and direction of rotation

IEC 60034-12 means IEC Standard 60034-12:2016 Ed. 3.0 Rotating electrical machines—Part 12: Starting performance of single-speed three-phase cage induction motors

IEC 60034-30-1 Ed. 1.0 means IEC Standard 60034-30-1:2014 Ed. 1.0 Rotating electrical machines—Part 30-1: Efficiency classes of line operated AC motors (IE code)

IEC 60050-411 means IEC Standard 60050-411:1996 Ed. 2.0 International Electrotechnical Vocabulary (IEV)—Part 411: Rotating machinery

IEC 60072-1 means IEC Standard 60072-1:1991 Ed. 6.0 Dimensions and output series for rotating electrical machines—Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080

IEC 60072-2 means IEC Standard 60072-2:1990 Ed. 1.0 Dimensions and output series for rotating electrical machines—Part 2: Frame numbers 355 to 1000 and flange numbers 1180 to 2360

IEC 60072-3 means IEC Standard 60072-3:1994 Ed. 1.0 Dimensions and output series for rotating electrical machines—Part 3: Small built-in motors—Flange numbers BF10 to BF50

IEC 61293 means IEC Standard 61293:1994 Ed. 1.0 Marking of electrical equipment with ratings related to electrical supply—Safety requirements

IEEE 112-2004 means IEEE Standard 112-2004 IEEE Standard Test Procedure for Polyphase Induction Motors and Generators

IEEE 112-2017 means IEEE Standard 112-2017 IEEE Standard Test Procedure for Polyphase Induction Motors and Generators

IEEE 118-1978 means IEEE Standard 118-1978 IEEE Standard Test Code for Resistance Measurements

IEEE 119-1974 means IEEE Standard 119-1974 IEEE Recommended Practice for General Principles of Temperature Measurement as Applied to Electrical Apparatus

IEEE 120-1989 means IEEE Standard 120-1989 IEEE Master Test Guide for Electrical Measurements in Power Circuits.

Incorporation of further material by reference

11 Incorporation of further material by reference

To the extent that material that this schedule incorporates by reference (**primary material**) itself incorporates any of the following material (**further material**) by reference, the further material also applies for the purposes of this schedule (subject to any modification of it by the primary material):

(a) ANSI/NEMA MG 1-2016:

(b) IEC 60027-1:

(c) IEC 60027-4:

(d) IEC 60034-5:

(e) IEC 60034-6:

(f) IEC 60034-8:

(g) IEC 60034-12:

(h) IEC 60072-1:

(i) IEC 60072-2:

(j) IEC 60072-3:

(k) IEC 61293:

(l) IEEE 118-1978:

(m) IEEE 119-1974:

(n) IEEE 120-1989.

Rachel Hayward,
Clerk of the Executive Council.

Explanatory note

This note is not part of the regulations but is intended to indicate their general effect.

These regulations, which come into force on 1 May 2026, amend the Energy Efficiency (Energy Using Products) Regulations 2002 (the **principal regulations**).

The principal regulations specify minimum energy performance standards (**MEPS**) and labelling requirements for the products specified in Schedules 1 to 2B of the principal regulations. There is a corresponding series of Greenhouse and Energy Minimum Standards Determinations (each an **Australian Determination**) that specifies similar requirements for the purposes of Australian law.

In general, these amendments are designed to realign New Zealand's MEPS and labelling requirements with the requirements under the relevant Australian Determination for certain products.

Amendments relating to clothes washing machines, dishwashers, household refrigerating appliances, rotary clothes dryers, and three-phase cage induction motors

The main change made by these amendments is to insert *new Schedules 2C to 2G* into the principal regulations. Each new schedule specifies the updated New Zealand requirements, broadly aligned with the relevant Australian Determination, in relation to the products specified in the table below. The relevant Australian Determination and the corresponding schedule inserted into the principal regulations for each product are also listed in the table.

Product	Australian Determination	Schedule in principal regulations
Clothes washing machines	Greenhouse and Energy Minimum Standards (Clothes Washing Machines) Determination 2015	*New Schedule 2C*
Dishwashers	Greenhouse and Energy Minimum Standards (Dishwashers) Determination 2015	*New Schedule 2D*
Household refrigerating appliances	Greenhouse and Energy Minimum Standards (Household Refrigerating Appliances) Determination 2019	*New Schedule 2E*
Rotary clothes dryers	Greenhouse and Energy Minimum Standards (Rotary Clothes Dryers) Determination 2015	*New Schedule 2F*

Product	Australian Determination	Schedule in principal regulations
Three-phase cage induction motors	Greenhouse and Energy Minimum Standards (Three Phase Cage Induction Motors) Determination 2019	*New Schedule 2G*

Amendments relating to air conditioners above 65 kW

These regulations also amend Schedule 2A (air conditioners) of the principal regulations. That schedule previously covered only air conditioners with a rated standard cooling or heating full capacity of 65 kW or less. It now also covers air conditioners with a rated standard cooling or heating full capacity of greater than 65 kW, in line with the relevant Australian Determination (the Greenhouse and Energy Minimum Standards (Air Conditioners above 65kW) Determination 2022).

Amendments relating to chillers, close control air conditioners, external power supplies, and tubular fluorescent lamps

These regulations also make a number of minor changes, including to—

- exclude certain chillers from the chillers covered by Schedule 1 of the principal regulations:
- exclude certain close control air conditioners (designed to be mounted in the row containing the rack enclosures) from the close control air conditioners covered by Schedule 1 of the principal regulations:
- exclude certain linear fluorescent lamps from the tubular fluorescent lamps covered by Schedule 1 of the principal regulations:
- introduce labelling requirements for external power supplies.

Regulatory impact assessments

The Ministry of Business, Innovation, and Employment produced regulatory impact assessments in April 2018 (Household Refrigerators and Freezers) and April 2019 (Air conditioners) to help inform the decisions taken by the Government relating to the contents of this instrument.

Copies of these regulatory impact assessments can be found at—

- https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/low-emissions-economy/energy-efficiency-in-new-zealand
- https://www.regulation.govt.nz/our-work/regulatory-impact-statements/

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