



TE TARI TIAKI PŪNGAO  
ENERGY EFFICIENCY & CONSERVATION AUTHORITY

Greenhouse and Energy  
Minimum Standards Regulator

**GREENHOUSE AND ENERGY  
MINIMUM STANDARDS (GEMS)  
PRODUCT REGISTRATION  
APPLICATION QUESTIONS**

**HOUSEHOLD REFRIGERATOR FREEZERS**

**NEW ZEALAND**

**Per AS/NZS 4474.2:2009/Amdt 1:2011**

**August 2019**

**This form is designed for applicants' internal use only, not for submitting applications to the GEMS Regulator.**

**All applications for product registration must be submitted to the Regulator via the online registration database at <https://reg.energyrating.gov.au>.**

**The Regulator cannot accept any applications in hard copy.**

**Note that this form may be updated from time to time to reflect changes to the registration database and it is the applicant's responsibility to ensure they are using the latest version.**

**Any question with an asterisk (\*) next to it is mandatory.**

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## VERSION CONTROL

<b>Revision Date</b>	<b>Version</b>	<b>Summary of Changes</b>
30 August 2019	1.1	EECA logo updated.
24 March 2017	1.0	Document finalised.
28 February 2017	0.1	Initial document created.

# **MODELS AND MANUFACTURER**

## **Product Model Information**

Fill in one of the two boxes below, depending on if the product being registered is a single model or a family of models.

### **FOR SINGLE MODELS**

Model Number:\* \_\_\_\_\_ Brand:\* \_\_\_\_\_

### **FOR FAMILY OF MODELS**

What is the family name of the models covered by this application?\*

\_\_\_\_\_

Please provide details for each model covered by this registration:

**#1**

Model Number:\* \_\_\_\_\_  
Brand:\* \_\_\_\_\_

**#2**

Model Number:\* \_\_\_\_\_  
Brand:\* \_\_\_\_\_

**#3**

Model Number:\* \_\_\_\_\_  
Brand:\* \_\_\_\_\_

**#4**

Model Number:\* \_\_\_\_\_  
Brand:\* \_\_\_\_\_

**#5**

Model Number:\* \_\_\_\_\_  
Brand:\* \_\_\_\_\_

**#6**

Model Number:\* \_\_\_\_\_  
Brand:\* \_\_\_\_\_

**#7**

Model Number:\* \_\_\_\_\_  
Brand:\* \_\_\_\_\_

**#8**

Model Number:\* \_\_\_\_\_  
Brand:\* \_\_\_\_\_

**#9**

Model Number:\* \_\_\_\_\_  
Brand:\* \_\_\_\_\_

**#10**

Model Number:\* \_\_\_\_\_  
Brand:\* \_\_\_\_\_

## Manufacturing Information

Tick if the product is manufactured in-house

Please provide the following information on the manufacturer if the product is not manufactured in-house. Additional fields are included if there are more than one manufacturer for this product.

**Manufacturer Name:\*** \_\_\_\_\_

**Manufacturer ABN or Company Number:\*** \_\_\_\_\_

**Name of Contact Person:\*** \_\_\_\_\_

**Company Phone:\*** \_\_\_\_\_ **Company Fax:** \_\_\_\_\_

**Company Email:\*** \_\_\_\_\_ **Company Website:** \_\_\_\_\_

**Street Address:\*** \_\_\_\_\_

**Suburb/Region:\*** \_\_\_\_\_ **Postal Code:\*** \_\_\_\_\_ **State/Region:** \_\_\_\_\_

**Country:\*** \_\_\_\_\_

Is postal address the same as the street address?  Yes  No

**If you have ticked No, please complete the postal address fields below:**

**Postal Address:** \_\_\_\_\_

**Suburb/Region:\*** \_\_\_\_\_ **Postal Code:\*** \_\_\_\_\_ **State/Region:** \_\_\_\_\_

**Country:\*** \_\_\_\_\_

### **Second Manufacturer**

If applicable, who is the second manufacturer?

**Manufacturer Name:\*** \_\_\_\_\_

**Manufacturer ABN or Company Number:\*** \_\_\_\_\_

**Name of Contact Person:\*** \_\_\_\_\_

**Company Phone:\*** \_\_\_\_\_ **Company Fax:** \_\_\_\_\_

**Company Email:\*** \_\_\_\_\_ **Company Website:** \_\_\_\_\_

**Street Address:\*** \_\_\_\_\_

**Suburb/Region:\*** \_\_\_\_\_ **Postal Code:\*** \_\_\_\_\_ **State/Region:** \_\_\_\_\_

Country:\* \_\_\_\_\_

Is postal address the same as the street address?  Yes  No

***If you have ticked No, please complete the postal address fields below:***

Postal Address: \_\_\_\_\_

Suburb/Region:\* \_\_\_\_\_ Postal Code:\* \_\_\_\_\_ State/Region: \_\_\_\_\_

Country:\* \_\_\_\_\_

**Third Manufacturer**

If applicable, who is the third manufacturer?

Manufacturer Name:\* \_\_\_\_\_

Manufacturer ABN or Company Number:\* \_\_\_\_\_

Name of Contact Person:\* \_\_\_\_\_

Company Phone:\* \_\_\_\_\_ Company Fax: \_\_\_\_\_

Company Email:\* \_\_\_\_\_ Company Website: \_\_\_\_\_

Street Address:\* \_\_\_\_\_

Suburb/Region:\* \_\_\_\_\_ Postal Code:\* \_\_\_\_\_ State/Region: \_\_\_\_\_

Country:\* \_\_\_\_\_

Is postal address the same as the street address?  Yes  No

***If you have ticked No, please complete the postal address fields below:***

Postal Address: \_\_\_\_\_

Suburb/Region:\* \_\_\_\_\_ Postal Code:\* \_\_\_\_\_ State/Region: \_\_\_\_\_

Country:\* \_\_\_\_\_

**In what country/countries is this product manufactured?\***

\_\_\_\_\_  
\_\_\_\_\_

**How can the date of manufacture be determined from permanent markings on the appliance?\***  
**- Please tick accordingly and if required, provide further information**

From a date permanently marked on the rating plate in a non-encrypted format

**Provide an example of the date format:**

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From a date permanently marked on the rating plate in an encrypted format

**Describe how the date of manufacture can be determined from the markings on the appliance:**

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From another form of permanent marking on the product

**Describe how the date of manufacture can be determined from the markings on the appliance:**

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No date mark

## **Sale Information**

**In what country/countries will this product be sold?\*** (please tick one or both, if required)

Australia       New Zealand

**When will this product be (or when was this product) first available for purchase?\***

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## **LABS & TEST REPORTS**

Is a test report provided?\*

Yes – a test report is provided (please ensure test report is provided with this form)

**If you ticked yes, please answer the questions below:**

What test standard was used?\* (please tick one)  AS/NZS 4474.1:2007/Amdt 2:2011

Which laboratory performed the testing?\* - please provide name of laboratory, type of lab (independent or own lab), and street and/or postal address.

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*Please provide details for each test report, if multiple test reports are provided.*

Test Report Number:\* \_\_\_\_\_

Report Signatory:\* \_\_\_\_\_

Test Date:\* \_\_\_\_\_

Test Unit Serial Number: \* \_\_\_\_\_

No – no test report available but registration details containing test relevant to this product provided

**If you ticked 'no test report available, but registration details provided', please answer the question below:**

Registration number of the unit whose test forms the basis of this application\*:

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Comments regarding the product, the test procedure or test results that should be taken into account when assessing the product for compliance:

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## **APPLIANCE DETAILS**

**Appliance Dimensions:** Width: \_\_\_\_\_ mm Height: \_\_\_\_\_ mm Depth: \_\_\_\_\_ mm

**Designation:\* (please tick one)**

- Cooled appliance       Freezer       Refrigerator       Refrigerator/Freezer  
 Wine storage cabinet

**Configuration:\* (please tick one)**

- Chest       Side-by-side       Upright

**Group as defined in AS/NZS 4474.1:\***

1. Single door refrigerators (No freezer compartment)  
 2. Single door fridge (optional icemaker)  
 3. Single door fridge (frozen food compartment inside)  
 4. Two door fridge/freezer (cyclic defrost)  
 5S: Two door fridge/freezer (frost free side-by-side)  
 5B: Two door fridge/freezer frost free (bottom freezer)  
 5T: Two door fridge/freezer frost free (top freezer and others)  
 6C: Chest freezer (manual defrost)  
 6U: Vertical freezer (manual defrost)  
 7: Vertical freezer (frost free)

**Can this product be configured to operate as more than one group?\***

- Yes       No

**Number of External Doors:\*** \_\_\_\_\_



# **COMPARTMENTS**

*Please provide details for each compartment – add additional pages if required.*

<b><u>Compartment</u></b>				
<b>Type:* (please tick one)</b>				
<input type="checkbox"/> Cellar	<input type="checkbox"/> Chill	<input type="checkbox"/> Freezer	<input type="checkbox"/> Fresh Food	<input type="checkbox"/> Ice making
<input type="checkbox"/> Short term frozen food		<input type="checkbox"/> Special		
<b>Defrost system:* (please tick one)</b>				
<input type="checkbox"/> Frost free	<input type="checkbox"/> Cyclic defrost	<input type="checkbox"/> Semi-automatic defrost	<input type="checkbox"/> Manual defrost	
<b>Storage Volume:*</b> _____ L		<b>Gross Volume:*</b> _____ L		
<b>Max. operating temperature:*</b> _____ °C				
<b>Volume adjusted factor:*</b> _____				
<b>Adjusted gross volume:*</b> _____ L				

<b><u>Compartment</u></b>				
<b>Type:* (please tick one)</b>				
<input type="checkbox"/> Cellar	<input type="checkbox"/> Chill	<input type="checkbox"/> Freezer	<input type="checkbox"/> Fresh Food	<input type="checkbox"/> Ice making
<input type="checkbox"/> Short term frozen food		<input type="checkbox"/> Special		
<b>Defrost system:* (please tick one)</b>				
<input type="checkbox"/> Frost free	<input type="checkbox"/> Cyclic defrost	<input type="checkbox"/> Semi-automatic defrost	<input type="checkbox"/> Manual defrost	
<b>Storage Volume:*</b> _____ L		<b>Gross Volume:*</b> _____ L		
<b>Max. operating temperature:*</b> _____ °C				
<b>Volume adjusted factor:*</b> _____				
<b>Adjusted gross volume:*</b> _____ L				

**Compartment**

**Type:\* (please tick one)**

- Cellar       Chill       Freezer       Fresh Food       Ice making  
 Short term frozen food       Special

**Defrost system:\* (please tick one)**

- Frost free       Cyclic defrost       Semi-automatic defrost       Manual defrost

**Storage Volume:\*** \_\_\_\_\_ L    **Gross Volume:\*** \_\_\_\_\_ L

**Max. operating temperature:\*** \_\_\_\_\_ °C

**Volume adjusted factor:\*** \_\_\_\_\_

**Adjusted gross volume:\*** \_\_\_\_\_ L

**Compartment**

**Type:\* (please tick one)**

- Cellar       Chill       Freezer       Fresh Food       Ice making  
 Short term frozen food       Special

**Defrost system:\* (please tick one)**

- Frost free       Cyclic defrost       Semi-automatic defrost       Manual defrost

**Storage Volume:\*** \_\_\_\_\_ L    **Gross Volume:\*** \_\_\_\_\_ L

**Max. operating temperature:\*** \_\_\_\_\_ °C

**Volume adjusted factor:\*** \_\_\_\_\_

**Adjusted gross volume:\*** \_\_\_\_\_ L

# TEST RESULTS

Test voltage:\* (please tick one)

230

*Please provide details for each test unit (minimum 3):*

<u>Test Unit</u> Report Number:* _____ Report date:* _____ PAEC:* _____ kWh/y	<u>Test Unit</u> Report Number:* _____ Report date:* _____ PAEC:* _____ kWh/y
<u>Test Unit</u> Report Number:* _____ Report date:* _____ PAEC:* _____ kWh/y	<u>Test Unit</u> Report Number:* _____ Report date:* _____ PAEC:* _____ kWh/y
<u>Test Unit</u> Report Number:* _____ Report date:* _____ PAEC:* _____ kWh/y	<u>Test Unit</u> Report Number:* _____ Report date:* _____ PAEC:* _____ kWh/y

CEC:\* \_\_\_\_\_ kWh/y

Does this appliance comply with Pull Down Performance Requirements?\*  Yes  No

Does this appliance comply with the Operating Temperature Performance Requirement?\*  Yes  No

<u>Temperature variation compliance</u>		
Does this product comply with Clause 3.7.3(a) (AS/NZS 4474.1:2007)?*	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Does this product comply with Clause 3.7.3(b) (AS/NZS 4474.1:2007)?*	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Does this product comply with Clause 3.7.3(c) (AS/NZS 4474.1:2007)?*	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Does the unit have a through the door icemaker?\*  Yes  No

# **DOOR ALLOWANCE**

*Please provide details for each compartment type*

<b><u>Compartment</u></b>				
<b>Type:* (please tick one)</b>				
<input type="checkbox"/> Cellar	<input type="checkbox"/> Chill	<input type="checkbox"/> Freezer	<input type="checkbox"/> Fresh Food	<input type="checkbox"/> Ice making
<input type="checkbox"/> Short term frozen food		<input type="checkbox"/> Special		
Number of external doors on this compartment:* _____				
Regular door provisions:* _____				
Actual gasket length:* _____ m				
Estimated gasket length (regular door provision):* _____ m				
Difference in gasket length:* _____ m				
Special compartment maximum operating temperature (if applicable): _____ °C				
Volume adjustment factor:* _____				
Door allowance factor:* _____				
Door allowance:* _____ kWh/y				

<b><u>Compartment</u></b>				
<b>Type:* (please tick one)</b>				
<input type="checkbox"/> Cellar	<input type="checkbox"/> Chill	<input type="checkbox"/> Freezer	<input type="checkbox"/> Fresh Food	<input type="checkbox"/> Ice making
<input type="checkbox"/> Short term frozen food		<input type="checkbox"/> Special		
Number of external doors on this compartment:* _____				
Regular door provisions:* _____				
Actual gasket length:* _____ m				
Estimated gasket length (regular door provision):* _____ m				
Difference in gasket length:* _____ m				
Special compartment maximum operating temperature (if applicable): _____ °C				
Volume adjustment factor:* _____				
Door allowance factor:* _____				
Door allowance:* _____ kWh/y				

**Compartment**

Type:\* (please tick one)

- Cellar       Chill       Freezer       Fresh Food       Ice making  
 Short term frozen food       Special

Number of external doors on this compartment:\* \_\_\_\_\_

Regular door provisions:\* \_\_\_\_\_

Actual gasket length:\* \_\_\_\_\_ m

Estimated gasket length (regular door provision):\* \_\_\_\_\_ m

Difference in gasket length:\* \_\_\_\_\_ m

Special compartment maximum operating temperature (if applicable): \_\_\_\_\_ °C

Volume adjustment factor:\* \_\_\_\_\_

Door allowance factor:\* \_\_\_\_\_

Door allowance:\* \_\_\_\_\_ kWh/y

**Compartment**

Type:\* (please tick one)

- Cellar       Chill       Freezer       Fresh Food       Ice making  
 Short term frozen food       Special

Number of external doors on this compartment:\* \_\_\_\_\_

Regular door provisions:\* \_\_\_\_\_

Actual gasket length:\* \_\_\_\_\_ m

Estimated gasket length (regular door provision):\* \_\_\_\_\_ m

Difference in gasket length:\* \_\_\_\_\_ m

Special compartment maximum operating temperature (if applicable): \_\_\_\_\_ °C

Volume adjustment factor:\* \_\_\_\_\_

Door allowance factor:\* \_\_\_\_\_

Door allowance:\* \_\_\_\_\_ kWh/y

## **SUMMARY OF CONTROLS**

Does the appliance have an adaptive defrost system that complies with the requirements of AS/NZS 4474.1:2007 (including A1 and A2)?\*

Yes  No

**If you ticked yes, please answer the following questions:**

Is an adaptive frost MEPS allowance being claimed?

Yes  No

**If you are claiming adaptive frost MEPS allowance, please answer the following questions:**

Provide information that demonstrates the adaptive nature of the defrost system\*

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Which of the following parameters are used to significantly alter time between defrosts?\*(tick all that apply)

- |   |   |
|---|---|
| <input type="checkbox"/> door openings and duration           | <input type="checkbox"/> interval between door openings |
| <input type="checkbox"/> defrost heater on-time history       | <input type="checkbox"/> time between previous defrosts |
| <input type="checkbox"/> compressor run time/compressor speed | <input type="checkbox"/> amount of accumulated frost    |
| <input type="checkbox"/> ambient temperature range            | <input type="checkbox"/> ambient humidity range         |
| <input type="checkbox"/> other                                |   |

Confirm that the system is adaptive defrost and complies with the requirements of Clause 1.3.7(b) (AS/NZS 4474.1:2007, including A1 and A2) and will provide on request supporting information\*

Yes  No

Does the product have an automatically controlled anti-condensation heater that is affected by ambient conditions as set out in Appendix S of AS/NZS 4474.1:2007?\*

Yes  No

**If you ticked yes, please answer the following questions:**

How is the heater controlled?\*

Temperature only  Temperature and humidity  Humidity only

**If you ticked Temperature only, please answer the following question/s:**

State the average heater power at the following conditions:

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W

**If you ticked Temperature and humidity, please answer the question below:**

**State the average heater power at the following conditions:**

**Relative humidity 0-10%**

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W

**Relative humidity 11-20%**

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W

**Relative humidity 21-30%**

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W

**Relative humidity 31-40%**

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W

**Relative humidity 41-50%**

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W

**Relative humidity 51-60%**

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W

**Relative humidity 61-70%**

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W

**Relative humidity 71-80%**

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W

**Relative humidity 81-90%**

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W

**Relative humidity 91-100%**

Ambient 16°C:\* \_\_\_\_\_ W Ambient 22 °C:\* \_\_\_\_\_ W Ambient 32°C:\* \_\_\_\_\_ W



**If you ticked Humidity only, please answer the following question/s:**

**State the average heater power at the following conditions:**

0-10%:* _____ W	11-20%:* _____ W
21-30%:* _____ W	31-40%:* _____ W
41-50%:* _____ W	51-60%:* _____ W
61-70%:* _____ W	71-80%:* _____ W
81-90%:* _____ W	91-100%:* _____ W

**Under which conditions will heater power be at maximum?\***

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**What is the average heater power at those conditions?\*** \_\_\_\_\_ W

**What relative humidity was used to determine the average heater power?\*** (only required to be answered if Temperature only is selected under How is the heater controlled?)

0-10%     11-20%     21-30%     31-40%     41-50%     51-60%     61-70%  
 71-80%     81-90%     91-100%

**What temperature was used to determine the average heater power?\*** (only required to be answered if Humidity only is selected under How is the heater controlled?)

Ambient 16°C     Ambient 22°C     Ambient 32°C

**Provide instructions for how the heater can be disabled during testing, or, if the heater cannot be disabled, describe how the average heater power can be measured.\***

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**Confirm that the values provided are based on data certified by the product manufacturer and that you hold a copy and can provide it upon request\***

Yes     No

**Does the product have any additional control that falls within the scope of a declared automatic control?\***

Yes - *if you ticked Yes, please attach documents that describe the purpose and effect of the control, how the control operates during normal use, whether it is likely to operate during energy testing and how it correctly configure controls during testing. \**

No

## **AUTOMATIC ICE-MAKERS**

Does the product contain a through-the-door automatic ice-maker with or without a cooled water dispenser?\*

Yes  No

**If you ticked yes, please answer the following questions:**

State the relevant configuration used to determine energy consumption (in AS/NZS 4474.1:2007 incl A1 and A2):\*

C2.8.3 – Storage bin in place and empty

C2.8.4 – Storage bin removed

**If you ticked C2.8.3 – Storage bin in place and empty, please answer the following question:**

Note all applicable reasons for leaving storage bin in place:\* (tick all that apply)

Bin not in freezer

Bin is a sub-compartment

Bin not removable

Bin removal affects operation

Manufacturer's instructions

Note any additional information regarding the configuration of the automatic ice-maker for energy testing:\*

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During an energy test, does the ice-maker normally operate in accordance with C2.8.1 of AS/NZS 4474.1:2007 (inc A1 and A2)?\*

Yes  No