Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0007121643-03

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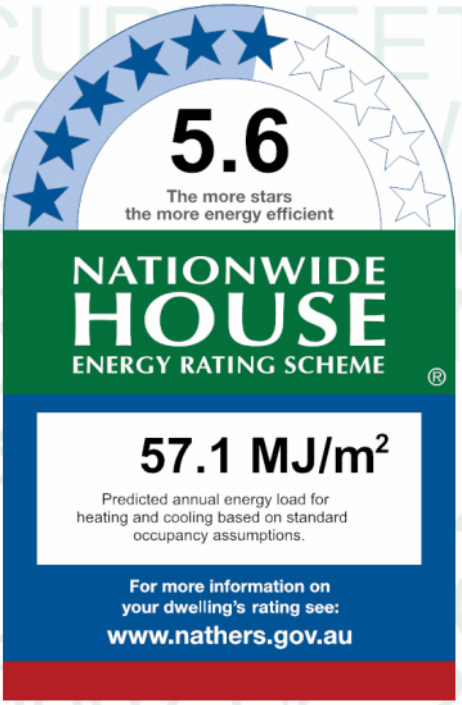

Property

Address	67 Quirk Street , North Curl Curl , NSW , 2099
Lot/DP	56/8139
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	Revision A Issue date - 14/02/2022
Prepared by	Peninsula Homes

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	219.0	Suburban
Unconditioned*	51.0	**NatHERS climate zone**
Total	270.0	56
Garage	35.0	

Thermal performance

Heating	Cooling
38.8 MJ/m^2	18.4 MJ/m^2

Accredited assessor

Name	Jamie Bonnefin
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Phone	1300 443 674
Accreditation No.	10056
Assessor Accrediting Organisation	HERA
Declaration of interest	None

About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=EEiYVOByl.
When using either link, ensure you are visiting hstar.com.au

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

* Refer to glossary.

Certificate check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

Ceiling penetrations*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional notes

*The dwelling has been assessed without recessed light fittings as no lighting or electrical plan has been provided.

*Obscure glazing has been modelled as clear glass as it has similar thermal properties.

I have modeled the shading in accordance with NatHERS principles

Window and glazed door *type and performance*

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALM-001-03 A	ALM-001-03 A Aluminium A SG High Solar Gain Low-E	5.4	0.49	0.47	0.51
ALM-002-03 A	ALM-002-03 A Aluminium B SG High Solar Gain Low-E	5.4	0.58	0.55	0.61

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Theatre	ALM-001-03 A	n/a	900	1800	n/a	60	S	No
Lower Foyer	ALM-001-03 A	n/a	2200	1070	n/a	75	S	No
Lower Foyer	ALM-002-03 A	n/a	2200	500	n/a	90	S	No
Laundry	ALM-001-03 A	n/a	2200	900	n/a	90	E	No
Laundry	ALM-002-03 A	n/a	1200	350	n/a	90	E	No
Music	ALM-002-03 A	n/a	1200	1200	n/a	45	E	No
Music	ALM-001-03 A	n/a	1200	1800	n/a	60	S	No
Bedroom 2	ALM-002-03 A	n/a	1200	1200	n/a	45	E	No
Bedroom 2	ALM-001-03 A	n/a	1200	2100	n/a	60	S	No
Bedroom 3	ALM-001-03 A	n/a	1200	2100	n/a	60	S	No
Bedroom 4	ALM-001-03 A	n/a	1200	600	n/a	90	W	No
Bedroom 4	ALM-001-03 A	n/a	1200	600	n/a	90	W	No
Bathroom	ALM-002-03 A	n/a	450	1200	n/a	00	E	No
Bathroom	ALM-002-03 A	n/a	1200	400	n/a	10	S	No
ENS 2	ALM-002-03 A	n/a	1200	750	n/a	00	S	No
Breakout Zone	ALM-002-03 A	n/a	1200	1500	n/a	45	W	No
Garage	ALM-002-03 A	n/a	1200	1250	n/a	45	E	No
Master Bedroom	ALM-001-03 A	n/a	1200	2700	n/a	45	S	No
Master Bedroom	ALM-002-03 A	n/a	1200	900	n/a	00	S	No
Master Bedroom	ALM-001-03 A	n/a	600	2100	n/a	90	W	No
Master Bedroom	ALM-001-03 A	n/a	600	2100	n/a	90	W	No
Master Bedroom	ALM-002-03 A	n/a	1200	900	n/a	00	E	No
Master Bedroom	ALM-002-03 A	n/a	2200	1400	n/a	45	E	No
Kitchen/Living	ALM-002-03 A	n/a	1200	600	n/a	00	S	No
Kitchen/Living	ALM-002-03 A	n/a	2200	3300	n/a	66	S	No
Kitchen/Living	ALM-002-03 A	n/a	1200	2100	n/a	90	N	No
Kitchen/Living	ALM-002-03 A	n/a	1200	600	n/a	00	N	No
Kitchen/Living	ALM-002-03 A	n/a	1200	1500	n/a	45	E	No
Kitchen/Living	ALM-002-03 A	n/a	1200	900	n/a	00	E	No
Kitchen/Living	ALM-002-03 A	n/a	1200	465	n/a	00	S	No
Kitchen/Living	ALM-002-03 A	n/a	1200	889	n/a	00	E	No
Kitchen/Living	ALM-002-03 A	n/a	1200	1000	n/a	00	E	No
Kitchen/Living	ALM-002-03 A	n/a	450	2100	n/a	00	N	No Shading
Kitchen/Living	ALM-002-03 A	n/a	450	700	n/a	00	N	No Shading
Kitchen/Living	ALM-002-03 A	n/a	450	980	n/a	00	E	No Shading
powder	ALM-002-03 A	n/a	1200	900	n/a	45	W	No
Foyer	ALM-001-03 A	n/a	1500	600	n/a	90	W	No

* Refer to glossary.

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Foyer	ALM-001-03 A	n/a	2372	1120	n/a	90	N	No
Foyer	ALM-002-03 A	n/a	1200	600	n/a	90	E	No
office	ALM-002-03 A	n/a	1200	600	n/a	90	N	No
office	ALM-002-03 A	n/a	1200	600	n/a	00	N	No
office	ALM-002-03 A	n/a	1200	1389	n/a	00	E	No
staircase	ALM-001-03 A	n/a	1800	915	n/a	70	S	No

Roof window *type and performance*

Default* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight *type and performance*

Skylight ID	Skylight description
GEN-04-006a	Single-glazed clear, Timber and Aluminium Frame

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
ENS Master	GEN-04-006a	n/a	50	1.00	S	None	No	0.50
staircase 2	GEN-04-006a	n/a	50	1.00	S	None	No	0.50
staircase 2	GEN-04-006a	n/a	50	1.00	S	None	No	0.50

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2150	5000	90	N

* Refer to glossary.

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Tilt up concrete, lined	0.30	Light	Anti-glare foil with bulk no gap R2.7	No
EW-2	Tilt up concrete, lined	0.50	Medium	Anti-glare foil with bulk no gap R2.7	No
EW-3	Tilt up concrete, lined	0.30	Light	Anti-glare foil with bulk no gap R2.7	No
EW-4	Fibro Cavity Panel Direct Fix	0.30	Light	Anti-glare foil with bulk no gap R2.7	No
EW-5	Brick Veneer	0.30	Light	Anti-glare foil with bulk no gap R2.7	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Theatre	EW-1	2450	3245	S	600	NO
Theatre	EW-2	1400	5700	W	0	NO
Theatre	EW-2	1050	5700	W	1200	NO
Theatre	EW-2	531	3245	N	0	NO
Theatre	EW-2	1919	3245	N	8900	NO
Lower Foyer	EW-3	1055	1990	N	0	NO
Lower Foyer	EW-3	1395	1990	N	8900	NO
Lower Foyer	EW-1	2450	1990	S	600	NO
Laundry	EW-3	1080	2745	N	0	NO
Laundry	EW-3	1370	2745	N	8900	NO
Laundry	EW-1	2450	2245	E	0	NO
Music	EW-1	2450	3345	E	0	NO
Music	EW-1	2450	2745	S	600	NO
Bedroom 2	EW-4	2450	3595	E	0	NO
Bedroom 2	EW-4	2450	3795	S	0	NO
Bedroom 3	EW-4	2450	3195	S	1000	NO
Bedroom 3	EW-4	2450	3495	W	0	NO
Bedroom 4	EW-4	2450	3195	W	0	NO
Bedroom 4	EW-4	2450	1200	N	4900	YES
W.I.R	EW-4	2450	1590	E	0	NO
W.I.R 2	EW-4	2450	1290	S	1000	NO
Bathroom	EW-4	2450	1566	E	0	YES
Bathroom	EW-4	2450	632	S	0	YES
Robe	EW-4	2450	1390	W	1200	YES
ENS 2	EW-4	2450	1100	S	12500	YES
ENS 2	EW-1	2450	1500	W	100	NO
ENS 2	EW-1	2450	2500	N	2000	NO
ENS 2	EW-1	2450	850	N	200	NO

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Breakout Zone	EW-4	2450	3390	W	0	NO
Garage	EW-1	2450	5850	N	0	NO
Garage	EW-1	2450	6050	E	0	YES
Master Bedroom	EW-4	3000	4600	S	700	NO
Master Bedroom	EW-4	3000	9995	W	600	NO
Master Bedroom	EW-4	3000	2700	E	5500	YES
Kitchen/Living	EW-4	3000	4795	S	3400	YES
Kitchen/Living	EW-4	3000	3595	N	2150	NO
Kitchen/Living	EW-4	3000	5200	E	700	YES
Kitchen/Living	EW-4	3000	1616	E	427	YES
Kitchen/Living	EW-4	3000	632	S	1265	YES
Kitchen/Living	EW-4	3000	3500	E	700	YES
powder	EW-4	3000	1690	W	600	NO
Foyer	EW-4	3000	1190	W	600	NO
Foyer	EW-4	3000	2595	N	1975	YES
Foyer	EW-4	3000	1095	E	4900	YES
pantry	EW-4	3000	595	N	2675	YES
office	EW-4	3000	2295	W	600	NO
office	EW-5	3000	800	W	600	NO
office	EW-5	3000	1100	N	900	NO
office	EW-4	3000	1500	N	700	NO
office	EW-4	3000	1800	E	5550	YES
staircase	EW-4	2450	1090	S	0	NO

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Tilt Concrete		64.00	No insulation
IW-2 - Cavity wall, direct fix plasterboard, single gap		226.00	No insulation

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Theatre	Concrete Slab on Ground 300mm	18.50	None	No Insulation	Carpet 10mm
Lower Foyer	Concrete Slab on Ground 300mm	11.30	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab on Ground 300mm	6.20	None	No Insulation	Ceramic Tiles 8mm
Music	Concrete Slab on Ground 300mm	9.20	None	No Insulation	Cork Tiles or Parquetry 8mm

* Refer to glossary.

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bedroom 2/Lower Foyer	Concrete Above Plasterboard 200mm	3.70		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2/Laundry	Concrete Above Plasterboard 200mm	5.10		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2/Music	Concrete Above Plasterboard 200mm	4.90		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3/Theatre	Concrete Above Plasterboard 300mm	6.80		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3	Suspended Concrete Slab 300mm	4.10	Totally Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Bedroom 4	Suspended Concrete Slab 300mm	10.80	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
W.I.R/Laundry	Concrete Above Plasterboard 300mm	0.90		No Insulation	Cork Tiles or Parquetry 8mm
W.I.R	Suspended Concrete Slab 300mm	1.90	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
W.I.R 2/Theatre	Concrete Above Plasterboard 200mm	3.60		No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Suspended Concrete Slab 300mm	6.50	Enclosed	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Robe	Suspended Concrete Slab 300mm	2.90	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
ENS 2	Suspended Concrete Slab 300mm	4.90	Enclosed	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Breakout Zone/Theatre	Concrete Above Plasterboard 300mm	2.50		No Insulation	Cork Tiles or Parquetry 8mm
Breakout Zone/Lower Foyer	Concrete Above Plasterboard 300mm	0.60		No Insulation	Cork Tiles or Parquetry 8mm
Breakout Zone	Suspended Concrete Slab 300mm	17.80	Enclosed	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Garage	Suspended Concrete Slab 200mm	35.40	Enclosed	Bulk Insulation in Contact with Floor R2	Bare
Master Bedroom/Bedroom 3	Concrete Above Plasterboard 300mm	9.90		No Insulation	Cork Tiles or Parquetry 8mm
Master Bedroom/Bedroom 4	Concrete Above Plasterboard 300mm	2.10		No Insulation	Cork Tiles or Parquetry 8mm
Master Bedroom/W.I.R 2	Concrete Above Plasterboard 300mm	3.80		No Insulation	Cork Tiles or Parquetry 8mm
Master Bedroom/Breakout Zone	Concrete Above Plasterboard 300mm	3.30		No Insulation	Cork Tiles or Parquetry 8mm
Master Bedroom	Suspended Concrete Slab 300mm	4.50	Totally Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
Dressing/Bedroom 3	Concrete Above Plasterboard 300mm	1.00		No Insulation	Cork Tiles or Parquetry 8mm
Dressing/Breakout Zone	Concrete Above Plasterboard 300mm	3.90		No Insulation	Cork Tiles or Parquetry 8mm
ENS Master/Bedroom 4	Concrete Above Plasterboard 300mm	3.80		No Insulation	Ceramic Tiles 8mm
ENS Master/Breakout Zone	Concrete Above Plasterboard 300mm	3.80		No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Bedroom 2	Concrete Above Plasterboard 300mm	7.50		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living/W.I.R	Concrete Above Plasterboard 300mm	3.00		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living/Bathroom	Concrete Above Plasterboard 300mm	6.90		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living/Breakout Zone	Concrete Above Plasterboard 300mm	5.70		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living/Garage	Concrete Above Plasterboard 300mm	22.20		No Insulation	Cork Tiles or Parquetry 8mm

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living/staircase	Concrete Above Plasterboard 300mm	2.10		No Insulation	Cork Tiles or Parquetry 8mm
powder/Robe	Concrete Above Plasterboard 300mm	0.70		No Insulation	Ceramic Tiles 8mm
powder/ENS 2	Concrete Above Plasterboard 300mm	0.60		No Insulation	Ceramic Tiles 8mm
powder	Suspended Concrete Slab 300mm	1.50	Totally Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Foyer/Bedroom 4	Concrete Above Plasterboard 300mm	4.60		No Insulation	Cork Tiles or Parquetry 8mm
Foyer/Robe	Concrete Above Plasterboard 300mm	2.30		No Insulation	Cork Tiles or Parquetry 8mm
Foyer/ENS 2	Concrete Above Plasterboard 300mm	1.60		No Insulation	Cork Tiles or Parquetry 8mm
Foyer/Garage	Concrete Above Plasterboard 300mm	4.70		No Insulation	Cork Tiles or Parquetry 8mm
Foyer	Suspended Concrete Slab 300mm	0.60	Totally Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
pantry/Garage	Concrete Above Plasterboard 300mm	2.30		No Insulation	Ceramic Tiles 8mm
office/ENS 2	Concrete Above Plasterboard 300mm	2.70		No Insulation	Cork Tiles or Parquetry 8mm
office	Suspended Concrete Slab 300mm	5.20	Totally Open	Bulk Insulation in Contact with Floor R2	Cork Tiles or Parquetry 8mm
staircase/Lower Foyer	Concrete Above Plasterboard 200mm	3.80		No Insulation	Cork Tiles or Parquetry 8mm
niche shaft/Breakout Zone	Concrete Above Plasterboard 300mm	0.40		No Insulation	Cork Tiles or Parquetry 8mm
staircase 2/Breakout Zone	Concrete Above Plasterboard 300mm	3.70		No Insulation	Cork Tiles or Parquetry 8mm
staircase 2/Garage	Concrete Above Plasterboard 300mm	2.10		No Insulation	Cork Tiles or Parquetry 8mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Theatre	Concrete, Plasterboard	Bulk Insulation R3.5	No
Theatre	Concrete Above Plasterboard	No Insulation	No
Lower Foyer	Concrete, Plasterboard	Bulk Insulation R3.5	No
Lower Foyer	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Music	Concrete, Plasterboard	Bulk Insulation R3.5	No
Music	Concrete Above Plasterboard	No Insulation	No
Bedroom 2	Concrete, Plasterboard	Bulk Insulation R3.5	No
Bedroom 2	Concrete Above Plasterboard	No Insulation	No
Bedroom 3	Concrete Above Plasterboard	No Insulation	No
Bedroom 4	Concrete Above Plasterboard	No Insulation	No
W.I.R	Concrete Above Plasterboard	No Insulation	No
W.I.R 2	Concrete Above Plasterboard	No Insulation	No
Bathroom	Concrete Above Plasterboard	No Insulation	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Robe	Concrete Above Plasterboard	No Insulation	No
ENS 2	Concrete Above Plasterboard	No Insulation	No
Breakout Zone	Concrete Above Plasterboard	No Insulation	No
Garage	Concrete, Plasterboard	Bulk Insulation R3.5	No
Garage	Concrete Above Plasterboard	No Insulation	No
Master Bedroom	Plasterboard	Bulk Insulation R3.5	No
Dressing	Plasterboard	Bulk Insulation R3.5	No
ENS Master	Plasterboard	Bulk Insulation R3.5	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	No
powder	Plasterboard	Bulk Insulation R3.5	No
Foyer	Plasterboard	Bulk Insulation R3.5	No
pantry	Plasterboard	Bulk Insulation R3.5	No
office	Plasterboard	Bulk Insulation R3.5	No
staircase	Concrete, Plasterboard	Bulk Insulation R3.5	No
staircase	Concrete Above Plasterboard	No Insulation	No
niche shaft	Plasterboard	Bulk Insulation R3.5	No
staircase 2	Plasterboard	Bulk Insulation R3.5	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
No Data Available				

Ceiling *fans*

Location	Quantity	Diameter (mm)
Bedroom 2	1	900
Bedroom 3	1	900
Bedroom 4	1	900
Master Bedroom	1	900
office	1	900

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.8	0.50	Medium
Waterproofing Membrane	No Insulation, Only an Air Gap	0.50	Medium
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.8	0.50	Medium

* Refer to glossary.

Explanatory notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

* Refer to glossary.