


Nationwide House Energy Rating Scheme

NatHERS Certificate No. 2LZHS2PSFK

Generated on 21 Jul 2022 using FirstRate5: 5.3.2b (3.21)



6.9
The more stars
the more energy efficient

**NATIONWIDE
HOUSE**
ENERGY RATING SCHEME

40.1 MJ/m²
Predicted annual energy load for
heating and cooling based on standard
occupancy assumptions.

For more information on
your dwelling's rating see:
www.nathers.gov.au

Property

Address C.302, 77-103 ANZAC PARADE, KENSINGTON, NSW, 2033
Lot/DP C
NCC Class* Class 2
Type New Home

Plans

Main plan -
Prepared by -

Construction and environment

Assessed floor area (m ²)*	Exposure type
Conditioned* 78.6	open
Unconditioned* 0	NatHERS climate zone
Total 78.6	56 Mascot AMO
Garage -	

Thermal performance

Heating	Cooling
14.9	25.2
MJ/m ²	MJ/m ²

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 <https://www.fr5.com.au/QRCodeLanding?PublicId=2LZHS2PSFK> When using either link, ensure you are visiting www.FR5.com.au.



Accredited assessor

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Assessor Accrediting Organisation Design Matters National
Declaration of interest Declaration completed: no conflicts

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

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-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*
Glazed 6	ALM-002-03 A	Opening 50	2800	1900	louvre	50.0	S	No
Glazed 6	ALM-002-03 A	Opening 39	2800	2000	louvre	50.0	E	No
Glazed 6	ALM-002-03 A	Opening 40	2800	1400	louvre	50.0	N	No
Glazed 6	ALM-002-03 A	Opening 37	2800	2000	louvre	50.0	W	No
Kitchen/Living 1	ALM-002-03 A	Opening 44	2800	2400	sliding	45.0	E	No

* Refer to glossary.

Kitchen/Living 1	ALM-002-03 A	Opening 45	2000	1200	awning	10.0	E	No
Bedroom 2	ALM-002-03 A	Opening 43	2800	1400	awning	60.0	E	No
Bedroom 5	ALM-002-03 A	Opening 41	2800	1300	fixed	0.0	E	No
Bedroom 5	ALM-002-03 A	Opening 42	2800	950	awning	60.0	N	No

Roof window type and performance value

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 %	Area (m ²)	Orientation	Outdoor shade	Indoor shade
No Data Available							

Skylight type and performance

Skylight ID	Skylight description
No Data Available	

Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m ²)	Orient-ation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
No Data Available				

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
1	WGE01 - Ext Concrete Wall with R2.5 Added	0.5	Medium		No
2	WGE01 - Concrete R1.8 added	0.5	Medium	Glass fibre batt: R1.5 (R1.5)	No
3	FR5 - Cast Concrete	0.5	Medium		No
4	WGE01 - Ext Concrete Wall with R2.5 Added	0.5	Medium	Glass fibre batt: R2.5 (R2.5)	No

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Glazed 6	1	2800	2028	S	0	Yes
Glazed 6	2	2800	11018	E	0	No
Glazed 6	2	2800	9798	E	0	No
Glazed 6	2	2800	340	S	0	No
Glazed 6	1	2800	1952	E	0	Yes
Glazed 6	2	2800	333	N	0	No
Glazed 6	2	2800	28497	E	0	No
Glazed 6	1	2800	1575	N	0	Yes
Glazed 6	2	2800	1218	W	0	No
Glazed 6	2	2800	623	N	0	No
Glazed 6	2	2800	3389	W	0	No
Glazed 6	2	2800	678	S	0	No
Glazed 6	2	2800	9541	W	0	No
Glazed 6	2	2800	671	N	0	No
Glazed 6	2	2800	1778	W	0	No
Glazed 6	2	2800	635	S	0	No
Glazed 6	2	2800	8323	W	0	No
Glazed 6	2	2800	397	N	0	No
Glazed 6	2	2800	4269	W	0	No
Glazed 6	1	2800	2051	W	0	Yes
Glazed 6	2	2800	5222	W	0	No
Glazed 6	2	2800	299	S	0	No
Glazed 6	2	2800	9588	W	0	No
Glazed 6	2	2800	493	N	0	No
Glazed 6	2	2800	3941	W	0	No
Glazed 6	2	2800	553	S	0	No
Glazed 6	2	2800	5466	W	0	No
Glazed 6	2	2800	447	N	0	No
Glazed 6	2	2800	2277	W	0	No
Kitchen/Living 1	3	2800	1560	S	0	No
Kitchen/Living 1	3	2800	510	E	0	No
Kitchen/Living 1	4	2800	2662	E	2663	Yes
Kitchen/Living 1	4	2800	788	S	4084	Yes
Kitchen/Living 1	4	2800	1350	E	0	Yes
Kitchen/Living 1	3	2800	9828	N	0	No
Bedroom 2	4	2800	1529	E	2642	Yes
Day 3	3	2800	1019	S	0	No
Night 4	3	2800	2607	W	0	No
Bedroom 5	3	2800	7270	S	0	No

Bedroom 5	4	2800	1483	S	0	Yes
Bedroom 5	4	2800	1914	E	0	No
Bedroom 5	4	2800	251	S	0	Yes
Bedroom 5	4	2800	1272	E	0	No
Bedroom 5	4	2800	2682	N	3922	Yes
Bedroom 5	3	2800	948	W	0	No

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
1	WGE01 - Concrete R1.8 added	16.2	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.8)
2	FR5 - Internal Plasterboard Stud Wall	69.6	

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Glazed 6	FR5 - 200mm concrete slab	100.4	Enclosed	R0.0	Tiles
Kitchen/Living 1	FR5 - 200mm concrete slab	5.1	Enclosed	R0.0	Carpet
Kitchen/Living 1	FR5 - 200mm concrete slab	36.9	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab	0	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab	0.2	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab	9.2	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 200mm concrete slab	2.2	Enclosed	R0.0	Carpet
Day 3	FR5 - 200mm concrete slab	0.8	Enclosed	R0.0	Carpet
Day 3	FR5 - 200mm concrete slab	3.2	Enclosed	R0.0	Carpet
Night 4	FR5 - 200mm concrete slab	0.6	Enclosed	R0.0	Carpet
Night 4	FR5 - 200mm concrete slab	3.2	Enclosed	R0.0	Carpet
Bedroom 5	FR5 - 200mm concrete slab	1	Enclosed	R0.0	Carpet
Bedroom 5	FR5 - 200mm concrete slab	4.1	Enclosed	R0.0	Carpet
Bedroom 5	FR5 - 200mm concrete slab	5.8	Enclosed	R0.0	Carpet
Bedroom 5	FR5 - 200mm concrete slab	6.3	Enclosed	R0.0	Carpet

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Kitchen/Living 1	Plasterboard	R3.0	No
Bedroom 2	Plasterboard	R3.0	No
Bedroom 5	Plasterboard	R3.0	No
Bedroom 5	Plasterboard	R3.0	No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living 1	18	Downlights	100	Sealed
Kitchen/Living 1	1	Exhaust Fans	200	Sealed

Bedroom 2	5	Downlights	100	Sealed
Day 3	1	Downlights	100	Sealed
Day 3	1	Exhaust Fans	200	Sealed
Night 4	1	Downlights	100	Sealed
Night 4	1	Exhaust Fans	200	Sealed
Bedroom 5	7	Downlights	100	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
No Data Available		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	0.5	Medium

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

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.

* Refer to glossary.

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).