

Nationwide House Energy Rating Scheme®

NatHERS® Certificate No. #HR-OXQ5LF-01

Generated on 29 May 2025 using Hero 4.1 (Chenath v3.23)

Property

Address 7 Boronia Road, Ingleside, NSW, 2101
Lot/DP Lot 27 / DP 11786
NCC Class* 1a
Floor/all Floors 1 of 2 floors
Type New

Plans

Main Plan Rev E Issue Date: 14/05/2025
Prepared by Inhaus Designs

Construction and environment

Assessed floor area (m²)*	Exposure Type
Conditioned* 337.3	Suburban
Unconditioned* 25.9	NatHERS climate zone
Total 418.4	56 - Mascot AMO
Garage 55.2	



Accredited assessor

Name Jamie Bonnefin
Business name Certified Energy
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Phone +61 1300 443
Accreditation No. 10056
Assessor Accrediting Organisation HERA
Declaration of interest No Conflict of Interest

NCC Requirements

BCA provisions Volume 2
State/Territory variation Yes

National Construction Code (NCC) requirements

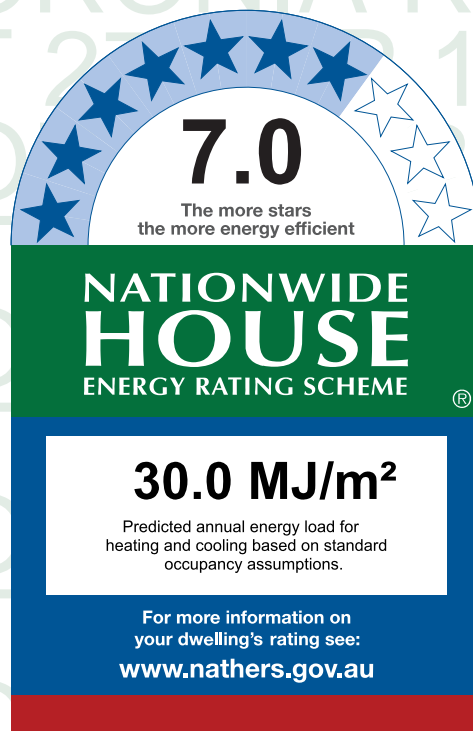
The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J2D2(2)(a) and (3) of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance star rating



Thermal performance (MJ/m²)

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	15.4	14.6
Load limits	25	18

Features determining load limits

Floor type	
(lowest conditioned area)	CSOG
NCC climate zone 1 or 2	N
Outdoor living area	N
Outdoor living area ceiling fan	N

Whole of Home performance rating

No Whole of Home
performance rating
generated for this
certificate.

Verification

To verify this certificate, scan the QR code or visit

<http://www.hero-software.com.au/pdf/HR-OXQ5LF-01>

When using either link, ensure you are visiting <http://www.hero-software.com.au>



* Refer to glossary.

About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating and Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the *ABCB Standard: NatHERS heating and cooling load limits* for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting options:

Floor type:

- CSOG - Concrete Slab on Ground
- SF - Suspended Floor (or a mixture of CSOG and SF)
- NA - Not Applicable

NCC climate Zone 1 or 2:

- Yes
- No
- NA - Not Applicable

Outdoor living area:

- Yes
- No
- NA - Not Applicable

Outdoor living area ceiling fan:

- Yes
- No
- NA - Not Applicable



Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar.

Energy use:

No Whole of Home performance assessment conducted for this certificate.

Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole of Home performance assessment conducted for this certificate.

Certificate check

The checklist covers important items impacting the dwelling's ratings.

It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and who should check each item.

It is not mandatory to complete this checklist.

Approval stage		Construction stage		
Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other

Genuine certificate check

Does this Certificate match the one available at the web address or QR code verification link on the front page?

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Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?

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Thermal performance check

Windows and glazed doors

Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?

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Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?

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External walls

Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'External wall type table' on this Certificate?

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Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?

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Floor

Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?

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Ceiling penetrations*

Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?

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Ceiling

Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?

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Roof

Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?

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Apartment entrance doors (NCC Class 2 assessments only)

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.

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Exposure*

Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

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Heating and cooling load limits*

Do the load limits settings (shown on page 1) match what is shown on the NatHERS-stamped plans?

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* Refer to glossary.

Certificate check

Continued

Approval stage		Construction stage		
Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other

Additional NCC requirements for thermal performance (not included in the NatHERS assessment)

Thermal bridging

Does the dwelling meet the NCC requirement for thermal bridging?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Insulation installation method

Has the insulation been installed according to the NCC requirements?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Whole of Home performance check (not applicable if a Whole of Home assessment is not conducted)

Appliances

Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional NCC Requirements for Services (not included in the NatHERS assessment)

Does the lighting meet the artificial lighting requirements specified in the NCC?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the hot water system meet the additional requirements specified in the NCC?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Provisional values* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	<input type="checkbox"/>	<input type="checkbox"/>			
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Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Additional Notes

- * Obscure glazing has been modelled as clear glass as it has similar thermal properties.
- * The dwelling has been assessed with "Assumed" recessed light fittings as NO electrical plan was provided.
- * Custom Windows from the NatHERS custom window library have been used.

Room schedule

Room	Zone Type	Area (m ²)
Double Garage	Garage	55.24
Laundry	Unconditioned	9.11
Bathroom_GF	Day Time	5.27
Guest Bedroom	Bedroom	17.73
Guest ENS	Night Time	7.12
WIP	Day Time	12.65
Kitchen/Living	Kitchen/Living	160.11
Bedroom 1	Bedroom	16.02
Bathroom_FF	Unconditioned	7.07
Bedroom 2	Bedroom	16.34
Bedroom 3	Bedroom	16.04
Master Bedroom	Bedroom	26.91
Master ENS	Night Time	10.65
Master WIR	Night Time	9.43
Linen	Day Time	4.05
Bathroom 2_FF	Unconditioned	9.74
Rumpus	Living	54.15

Window and glazed door type and performance

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
HACWD-035-022	Housing Aluminium Casement Window Double Glazed	3.4	0.22	0.21	0.24
HASWD-030-037	Housing Aluminium Sliding Window Double Glazed	3.0	0.37	0.35	0.39



Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-047	ComfortEDGE™ Series 755 Awning Window - Double Glazed	2.4	0.23	0.21	0.24
AWS-112-352	ComfortEDGE™ Series 759 FBR Sliding Door with Embedded Frame (and Embedded Sill) - Double Glazed	2.3	0.26	0.24	0.27
AWS-116-033	756 Fixed DG	2.3	0.25	0.24	0.26

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
Bathroom 2_FF	AWS-088-047	W07	2000	900	Awning	10	SW	OP-40%
Bathroom 2_FF	AWS-088-047	W07	2000	900	Awning	10	WNW	OP-40%
Bathroom_FF	AWS-088-047	W07	2000	900	Awning	10	WNW	OP-40%
Bathroom_FF	AWS-088-047	W07	2000	900	Awning	10	WNW	OP-40%
Bedroom 1	AWS-088-047	W06	2500	1000	Awning	10	NNE	None
Bedroom 1	AWS-116-033	W19	2500	1800	Fixed	0	ESE	None
Bedroom 1	AWS-088-047	W06	2500	1000	Awning	10	ESE	None
Bedroom 2	AWS-088-047	W06	2500	1000	Awning	10	NNE	None
Bedroom 2	AWS-116-033	W16	2500	1998	Fixed	0	ESE	OP-40%
Bedroom 2	AWS-088-047	W06	2500	1000	Awning	10	ESE	OP-40%
Bedroom 3	AWS-116-033	W15	2500	1749	Fixed	0	NE	None
Bedroom 3	AWS-088-047	W14	2500	600	Awning	10	NE	None
Guest Bedroom	AWS-088-047	W04	3000	900	Awning	60	WNW	OP-40%
Guest Bedroom	AWS-088-047	W04	3000	900	Awning	60	NNE	OP-40%
Guest Bedroom	AWS-112-352	SD01	3000	1860	Sliding Door	45	ESE	None
Guest ENS	AWS-088-047	W05	3000	900	Awning	60	WNW	OP-40%
Kitchen/Living	HACWD-035-022	D04	2700	1800	Casement	45	ESE	None
Kitchen/Living	HACWD-035-022	D04	2700	1800	Casement	45	ESE	None
Kitchen/Living	HACWD-035-022	D04	2700	1800	Casement	45	ESE	None
Kitchen/Living	AWS-112-352	SD03	3000	5291	Sliding Door	68	ESE	None

* Refer to glossary.

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
Kitchen/Living	AWS-112-352	SD04	3000	8379	Sliding Door	68	NE	None
Kitchen/Living	AWS-112-352	SD05	3000	7280	Sliding Door	68	NE	None
Kitchen/Living	AWS-112-352	SD05	3000	7280	Sliding Door	68	SE	None
Kitchen/Living	AWS-088-047	W03	3000	900	Awning	60	SW	None
Kitchen/Living	AWS-088-047	W03	3000	900	Awning	60	SW	None
Kitchen/Living	AWS-112-352	SD02	3000	3000	Sliding Door	45	SW	None
Kitchen/Living	AWS-116-033	D01-a	3000	750	Fixed	0	NW	None
Kitchen/Living	AWS-116-033	D01-b	3000	650	Fixed	0	NW	None
Laundry	HASWD-030-037	W01	900	3000	Sliding	45	SW	None
Master Bedroom	AWS-088-047	W06	2500	1000	Awning	10	NE	None
Master Bedroom	AWS-116-033	W12-a	2500	5000	Fixed	0	NE	None
Master Bedroom	AWS-116-033	W12-b	2500	1140	Fixed	0	SE	None
Master Bedroom	AWS-088-047	W06	2500	1000	Awning	10	SE	None
Master Bedroom	AWS-088-047	W10	2100	1280	Awning	10	SW	None
Master ENS	AWS-116-033	W11-a	2000	2100	Fixed	0	NE	None
Master ENS	AWS-116-033	W11-b	2000	1160	Fixed	0	SE	None
Master ENS	AWS-088-047	W07	2000	900	Awning	10	SE	None
Rumpus	AWS-116-033	W13	2500	999	Fixed	0	NE	None
Rumpus	AWS-116-033	W13	2500	999	Fixed	0	NE	None
Rumpus	AWS-116-033	W13	2500	999	Fixed	0	NE	None
Rumpus	AWS-088-047	W09	2700	1000	Awning	10	SW	None
Rumpus	AWS-088-047	W09	2700	1000	Awning	10	SW	None
Rumpus	AWS-088-047	W09	2700	1000	Awning	10	SW	None
Rumpus	AWS-116-033	W08	2500	1170	Fixed	0	WNW	OP-40%
Rumpus	AWS-116-033	W08	2500	1170	Fixed	0	WNW	OP-40%
Rumpus	AWS-116-033	W08	2500	1170	Fixed	0	WNW	OP-40%

* Refer to glossary.



Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
Rumpus	AWS-116-033	W08	2500	1170	Fixed	0	WNW	OP-40%
Rumpus	AWS-088-047	W06	2500	1000	Awning	10	ESE	OP-40%
Rumpus	AWS-088-047	W06	2500	1000	Awning	10	ESE	OP-40%
Rumpus	AWS-088-047	W06	2500	1000	Awning	10	ESE	OP-40%
WIP	HASWD-030-037	W02	600	2600	Sliding	45	SW	None

Roof window *type and performance value*

Default* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
DG-Generic-02 A	Clear AI DG Default Roof Window System 02	4.2	0.72	0.68	0.76

Custom* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
Bathroom 2_FF	DG-Generic-02 A	SK01	0	713	705	W	None	None
Bathroom 2_FF	DG-Generic-02 A	SK01	0	713	705	W	None	None
Bathroom 2_FF	DG-Generic-02 A	SK01	0	713	705	W	None	None
Bathroom_FF	DG-Generic-02 A	SK01	0	713	705	W	None	None
Bathroom_FF	DG-Generic-02 A	SK01	0	713	705	W	None	None
Bathroom_FF	DG-Generic-02 A	SK01	0	713	705	W	None	None
Master ENS	DG-Generic-02 A	SK01	0	876	572	NW	None	None
Master ENS	DG-Generic-02 A	SK01	0	876	572	NW	None	None
Master WIR	DG-Generic-02 A	SK02	0	845	851	N	None	None
Master WIR	DG-Generic-02 A	SK02	0	845	851	N	None	None

Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
Master WIR	DG-Generic-02 A	SK02	0	844	851	N	None	None

Skylight type and performance

Skylight ID	Skylight description
None	

Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m ²)	Orient-ation	Outdoor shade	Diffuser	Shaft Reflectance
None								

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Double Garage	2700	6000	90	NW
Double Garage	2400	920	90	SE
Kitchen/Living	3000	1800	90	NW
Laundry	2400	920	90	SW

External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
CAV-BRICK-110-110-PB11	Cavity Brick Wall - 110mm/110mm Plasterboard Internally	0.30	Light	1.70	No

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orient-ation	Horizontal shading feature* projection (mm)	Vertical shading feature
Bathroom 2_FF	CAV-BRICK-110-110-PB11	2700	2864	SW		No
Bathroom 2_FF	CAV-BRICK-110-110-PB11	2700	454	WSW		No
Bathroom 2_FF	CAV-BRICK-110-110-PB11	2700	346	W		No
Bathroom 2_FF	CAV-BRICK-110-110-PB11	2700	2119	WNW		No
Bathroom_FF	CAV-BRICK-110-110-PB11	2700	3426	WNW		No
Bedroom 1	CAV-BRICK-110-110-PB11	2700	3354	NNE		Yes
Bedroom 1	CAV-BRICK-110-110-PB11	2700	3518	ESE	690	Yes

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
Bedroom 1	CAV-BRICK-110-110-PB11	2700	5004	WNW		No
Bedroom 2	CAV-BRICK-110-110-PB11	2700	3264	NNE	2811	Yes
Bedroom 2	CAV-BRICK-110-110-PB11	2700	5004	ESE	720	Yes
Bedroom 3	CAV-BRICK-110-110-PB11	2700	614	E	1441	Yes
Bedroom 3	CAV-BRICK-110-110-PB11	2700	468	ENE	1979	Yes
Bedroom 3	CAV-BRICK-110-110-PB11	2700	2330	NE	699	Yes
Double Garage	CAV-BRICK-110-110-PB11	3000	6496	NE		Yes
Double Garage	CAV-BRICK-110-110-PB11	3000	6496	SW		No
Double Garage	CAV-BRICK-110-110-PB11	3000	8504	NW		No
Double Garage	CAV-BRICK-110-110-PB11	3000	1893	SE	11436	Yes
Guest Bedroom	CAV-BRICK-110-110-PB11	3000	4217	WNW	920	Yes
Guest Bedroom	CAV-BRICK-110-110-PB11	3000	3303	NNE	968	Yes
Guest Bedroom	CAV-BRICK-110-110-PB11	3000	2791	ESE	4367	Yes
Guest Bedroom	CAV-BRICK-110-110-PB11	3000	538	SSW		Yes
Guest ENS	CAV-BRICK-110-110-PB11	3000	3360	WNW	913	Yes
Guest ENS	CAV-BRICK-110-110-PB11	3000	2131	SSW		Yes
Kitchen/Living	CAV-BRICK-110-110-PB11	3000	3747	NNE	3759	Yes
Kitchen/Living	CAV-BRICK-110-110-PB11	3000	6654	ESE	518	Yes
Kitchen/Living	CAV-BRICK-110-110-PB11	3000	2311	SSW		Yes
Kitchen/Living	CAV-BRICK-110-110-PB11	3000	5561	ESE	2822	Yes
Kitchen/Living	CAV-BRICK-110-110-PB11	3000	16159	NE	873	Yes
Kitchen/Living	CAV-BRICK-110-110-PB11	3000	7282	SE	3478	No
Kitchen/Living	CAV-BRICK-110-110-PB11	3000	7489	SW		No
Kitchen/Living	CAV-BRICK-110-110-PB11	3000	2599	NW		Yes
Kitchen/Living	CAV-BRICK-110-110-PB11	3000	3533	SW		Yes

* Refer to glossary.

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orient-ation	Horizontal shading feature* projection (mm)	Vertical shading feature
Kitchen/Living	CAV-BRICK-110-110-PB11	3000	3886	NW	5215	Yes
Laundry	CAV-BRICK-110-110-PB11	3000	5068	SW	1807	Yes
Linen	CAV-BRICK-110-110-PB11	2700	1931	SE		Yes
Linen	CAV-BRICK-110-110-PB11	2700	2095	SW		No
Master Bedroom	CAV-BRICK-110-110-PB11	2700	6001	NE	699	Yes
Master Bedroom	CAV-BRICK-110-110-PB11	2700	3204	SE	662	Yes
Master Bedroom	CAV-BRICK-110-110-PB11	2700	1283	SW		No
Master Bedroom	CAV-BRICK-110-110-PB11	2700	768	SW		Yes
Master ENS	CAV-BRICK-110-110-PB11	2700	3315	NE	3903	Yes
Master ENS	CAV-BRICK-110-110-PB11	2700	3214	SE		No
Master ENS	CAV-BRICK-110-110-PB11	2700	3315	SW		No
Master WIR	CAV-BRICK-110-110-PB11	2700	1931	NW		Yes
Master WIR	CAV-BRICK-110-110-PB11	2700	3862	SW		No
Rumpus	CAV-BRICK-110-110-PB11	2700	2991	NE	699	Yes
Rumpus	CAV-BRICK-110-110-PB11	2700	3862	SW		Yes
Rumpus	CAV-BRICK-110-110-PB11	2700	4683	WNW		No
Rumpus	CAV-BRICK-110-110-PB11	2700	3869	ESE	721	Yes
WIP	CAV-BRICK-110-110-PB11	3000	2485	SE		Yes
WIP	CAV-BRICK-110-110-PB11	3000	6231	SW	1119	No
WIP	CAV-BRICK-110-110-PB11	3000	688	NW		Yes

Internal wall *type*

Wall ID	Wall Type	Area (m ²)	Bulk insulation
INT-PB	Internal Plasterboard Stud Wall	74.1	2.50
INT-PB	Internal Plasterboard Stud Wall	148.6	0.00

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Bathroom 2_FF	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	9.7	N/A	0.00	Tile (8mm)
Bathroom_FF	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	4.3	N/A	0.00	Tile (8mm)
Bathroom_FF	SUSP-CONC-300-LINED: Suspended Concrete Slab Floor (300mm) - Lined Below	2.8	N/A	4.00	Tile (8mm)
Bathroom_GF	CSOG-200: Concrete Slab on Ground (200mm)	5.3	N/A	2.00	Tile (8mm)
Bedroom 1	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	13.6	N/A	0.00	Carpet
Bedroom 1	SUSP-CONC-300-LINED: Suspended Concrete Slab Floor (300mm) - Lined Below	2.4	N/A	4.00	Carpet
Bedroom 2	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	11.8	N/A	0.00	Carpet
Bedroom 2	SUSP-CONC-300-LINED: Suspended Concrete Slab Floor (300mm) - Lined Below	4.5	N/A	4.00	Carpet
Bedroom 3	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	15.7	N/A	0.00	Carpet
Bedroom 3	SUSP-CONC-300-LINED: Suspended Concrete Slab Floor (300mm) - Lined Below	0.3	N/A	4.00	Carpet
Double Garage	CSOG-200: Concrete Slab on Ground (200mm)	55.2	N/A	2.00	Exposed
Guest Bedroom	CSOG-200: Concrete Slab on Ground (200mm)	17.7	N/A	2.00	Carpet
Guest ENS	CSOG-200: Concrete Slab on Ground (200mm)	7.1	N/A	2.00	Tile (8mm)
Kitchen/Living	CSOG-200: Concrete Slab on Ground (200mm)	160.1	N/A	2.00	Timber (12mm)
Laundry	CSOG-200: Concrete Slab on Ground (200mm)	9.1	N/A	2.00	Tile (8mm)
Linen	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	4.1	N/A	0.00	Timber (12mm)
Master Bedroom	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	26.9	N/A	0.00	Carpet
Master ENS	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	5.1	N/A	0.00	Tile (8mm)
Master ENS	SUSP-CONC-300-LINED: Suspended Concrete Slab Floor (300mm) - Lined Below	5.5	N/A	4.00	Tile (8mm)
Master WIR	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	9.4	N/A	0.00	Carpet
Rumpus	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	47.3	N/A	0.00	Timber (12mm)
Rumpus	SUSP-CONC-300-LINED: Suspended Concrete Slab Floor (300mm) - Lined Below	6.9	N/A	4.00	Timber (12mm)
WIP	CSOG-200: Concrete Slab on Ground (200mm)	12.6	N/A	2.00	Timber (12mm)

Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
Bathroom 2_FF	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	6.00	No
Bathroom_FF	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	6.00	No
Bathroom_GF	SLAB-300-CEIL-01: Concrete Slab (300mm) with Suspended PB Ceiling	6.00	No
Bedroom 1	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	6.00	No
Bedroom 2	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	6.00	No
Bedroom 3	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	6.00	No
Double Garage	SLAB-300-CEIL-01: Concrete Slab (300mm) with Suspended PB Ceiling	6.00	No
Guest Bedroom	SLAB-300-CEIL-01: Concrete Slab (300mm) with Suspended PB Ceiling	6.00	No
Kitchen/Living	SLAB-300-CEIL-01: Concrete Slab (300mm) with Suspended PB Ceiling	6.00	No
Laundry	SLAB-300-CEIL-01: Concrete Slab (300mm) with Suspended PB Ceiling	6.00	No
Linen	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	6.00	No
Master Bedroom	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	6.00	No
Master ENS	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	6.00	No
Master WIR	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	6.00	No
Rumpus	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	6.00	No
WIP	SLAB-300-CEIL-01: Concrete Slab (300mm) with Suspended PB Ceiling	6.00	No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
Bathroom 2_FF	2	Downlight	190	Sealed
Bathroom 2_FF	1	Exhaust Fan	350	Unsealed
Bathroom_FF	2	Downlight	190	Sealed
Bathroom_FF	1	Exhaust Fan	350	Unsealed
Bathroom_GF	1	Downlight	190	Sealed
Bathroom_GF	1	Exhaust Fan	350	Sealed
Bedroom 1	4	Downlight	190	Sealed

* Refer to glossary.

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
Bedroom 2	4	Downlight	190	Sealed
Bedroom 3	4	Downlight	190	Sealed
Guest Bedroom	4	Downlight	190	Sealed
Guest ENS	2	Downlight	190	Sealed
Guest ENS	1	Exhaust Fan	350	Sealed
Kitchen/Living	32	Downlight	190	Sealed
Kitchen/Living	1	Exhaust Fan	350	Sealed
Laundry	2	Downlight	190	Sealed
Laundry	1	Exhaust Fan	350	Unsealed
Linen	1	Downlight	190	Sealed
Master Bedroom	6	Downlight	190	Sealed
Master ENS	2	Downlight	190	Sealed
Master ENS	1	Exhaust Fan	350	Sealed
Master WIR	2	Downlight	190	Sealed
Rumpus	11	Downlight	190	Sealed
WIP	3	Downlight	190	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
Bedroom 1	1	1500
Bedroom 2	1	1500
Bedroom 3	1	1500
Kitchen/Living	2	1500
Master Bedroom	1	1500
Rumpus	1	1500

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
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* Refer to glossary.



Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	1.80	0.30	Light
SLAB-300-CEIL-01: Concrete Slab (300mm) with Suspended PB Ceiling	1.79	0.30	Light

Thermal bridging *schedule for steel frame elements*

Building element	Steel section dimensions (height x width, mm)	Frame spacing (mm)	Steel thickness (BMT mm)	Thermal Break (R-value)
None				

Appliance *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Cooling system

Type	Location	Fuel Type	Minimum efficiency / performance	Recommended capacity
No Whole of Home Data				

Heating system

Type	Location	Fuel Type	Minimum efficiency / performance	Recommended capacity
No Whole of Home Data				

Hot water system

Type	Fuel type	Hot Water CER Zone	Minimum efficiency / STC	Assessed daily load [litres]
No Whole of Home Data				

Pool / spa equipment

Type	Fuel type	Minimum efficiency / performance	Recommended capacity
No Whole of Home Data			

Onsite Renewable Energy *schedule*

Type	Orientatation	Generation Capacity [kW]
No Whole of Home Data		

Battery *schedule*

Type	Storage Capacity [kWh]
No Whole of Home Data	

Explanatory Notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the home's energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary.

Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and

are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings 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, behaviour, appliance performance, indoor air temperature and local climate.

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
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, range hoods, 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.
COP	Coefficient of performance
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.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your home's rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
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	see exposure categories below
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 .
Net zero home	a home that achieves a net zero energy value*.
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
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
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 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.
STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulatory
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
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).
Window shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

* Refer to glossary.