

Nationwide House Energy Rating Scheme

NatHERS Certificate No. 6O3GV4ET4W

Generated on 14 Sep 2023 using FirstRate5: 5.3.2b (3.21)

Property

Address 129 DOVER ROAD, ROSEBAY, NSW, 2029
Lot/DP 6/101101
NCC Class* Class 1a
Type New Home

Plans

Main plan 21195 REV G
Prepared by CERA STRIBLEY ARCHITECTS

Construction and environment

Assessed floor area (m²)*	Exposure type
Conditioned* 270.3	suburban
Unconditioned* 205.9	NatHERS climate zone
Total 476.2	56 Mascot AMO
Garage 106.4	



Accredited assessor

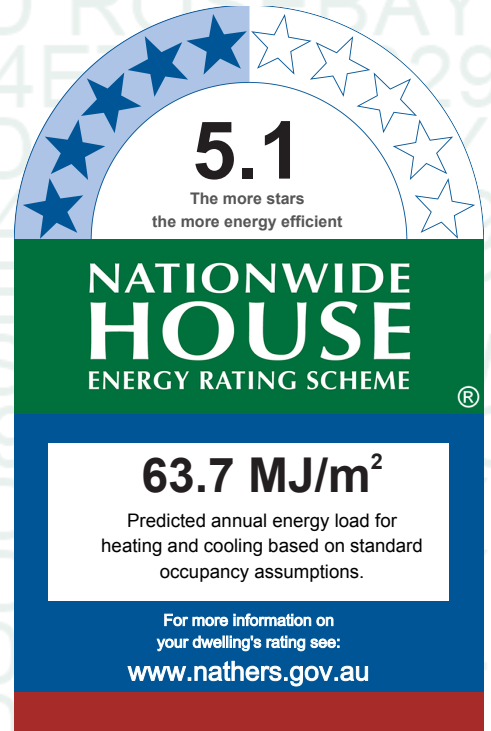
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Assessor Accrediting Organisation ABSA
Declaration of interest Declaration completed: no conflicts

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.



Thermal performance

Heating	Cooling
38.1	25.6
MJ/m²	MJ/m²

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=6O3GV4ET4W> When using either link, ensure you are visiting www.FR5.com.au.





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
ATB-006-04 B	Al Thermally Broken B DG Argon Fill Low Solar Gain low-E -Clear	3	0.26	0.25	0.27
ATB-005-04 B	Al Thermally Broken A DG Argon Fill Low Solar Gain low-E -Clear	3	0.27	0.26	0.28
ATB-006-03 B	Al Thermally Broken B DG Argon Fill High Solar Gain low-E -Clear	2.9	0.51	0.48	0.54

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALS-102-35 A	Carinya Plus 65mm Fixed Window DG 021_AGG MAX Gy 6_12_6	2.27	0.21	0.2	0.22
CAP-133-12 A	Capral Futureline Lift & Slide Door DG 6YGE0157-12Ar-6Pilk Shanghai	2.27	0.2	0.19	0.21

Window and glazed door *Schedule*

* Refer to glossary.

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
BED3	ATB-006-04 B	GW03	3300	2900	sliding	45.0	WNW	No
BATH GF	ATB-005-04 B	GW04	1650	950	awning	90.0	WNW	No
BED 2	ATB-006-04 B	GW02	3300	3300	sliding	45.0	NNE	No
BED 4	ATB-006-04 B	GW05	3300	2900	sliding	45.0	WNW	No
WIR BED 2	ATB-006-03 B	GW01	3300	700	double_hung	45.0	ESE	No
ENTRY + S/H GF	ATB-006-03 B	GW10	3300	280	fixed	0.0	ESE	No
ENTRY + S/H GF	ATB-006-03 B	GW10	3300	280	fixed	0.0	ESE	No
STUDY	ALS-102-35 A	GW06 FIXED	3300	2400	fixed	0.0	SSW	No
LKD	ATB-006-03 B	GW08	3300	8600	sliding	66.0	SSW	No
LKD	ATB-006-03 B	FIXED	3300	380	fixed	0.0	ESE	No
LKD	ATB-006-03 B	FIXED	3300	380	fixed	0.0	ESE	No
LKD	ATB-006-03 B	FIXED	3300	380	fixed	0.0	ESE	No
LKD	ATB-006-03 B	ANEETA	3300	380	double_hung	33.0	ESE	No
LKD	ATB-006-03 B	ANEETA	3300	380	double_hung	33.0	ESE	No
LKD	ALS-102-35 A	GW06 FIXED	3300	2400	fixed	0.0	NNE	No
LKD	ATB-006-04 B	FIXED	3300	380	fixed	0.0	WNW	No
LKD	ATB-006-04 B	FIXED	3300	380	fixed	0.0	WNW	No
LKD	ATB-006-04 B	FIXED	3300	380	fixed	0.0	WNW	No
LKD	ATB-006-04 B	ANEETA	3300	380	double_hung	33.0	WNW	No
LKD	ATB-006-04 B	ANEETA	3300	380	double_hung	33.0	WNW	No
WC GF	ATB-005-04 B	GW09	1500	800	awning	90.0	ESE	No
LIVING LV1	ALS-102-35 A	FW102 FIXED	3200	1850	fixed	0.0	NNE	No
LIVING LV1	CAP-133-12 A	FW102 SLIDE	3200	1850	sliding	45.0	NNE	No
LIVING LV1	CAP-133-12 A	FW102 SLIDE	3200	1850	sliding	45.0	NNE	No
LIVING LV1	ALS-102-35 A	FW103 FIXED	3200	3050	fixed	0.0	SW	No
STORAGE LV1	ALS-102-35 A	FW101	3200	650	fixed	0.0	ESE	No
STORAGE LV1	ALS-102-35 A	FW102 FIXED	3200	1850	fixed	0.0	NNE	No
MB	CAP-133-12 A	FW102	3200	4500	sliding	45.0	SSW	No
MB	ALS-102-35 A	FW103 FIXED	3200	3050	fixed	0.0	N	No
MB	ATB-006-04 B	ANEETA	3200	425	double_hung	5.0	WNW	No
MB	ATB-006-04 B	ANEETA	3200	425	double_hung	5.0	WNW	No
MB ENSUITE	ATB-006-04 B	ANEETA	3200	425	double_hung	5.0	ESE	No
MB ENSUITE	ATB-006-04 B	ANEETA	3200	425	double_hung	5.0	ESE	No
MB ENSUITE	ALS-102-35 A	FW106	3200	4100	fixed	0.0	SSW	No
MB WIR	ATB-006-04 B	FW107	3200	665	double_hung	5.0	NNE	No

Roof window type and performance value

Default* roof windows

Substitution tolerance ranges



Window ID	Window description	Maximum U-value*	SHGC*	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
Velux:VEL-011-01 W	VELUX FS - Fixed Skylight DG 3mm LoE 366 / 8.5mm Argon Gap / 5.36mm Clear La	2.58	0.24	0.23	0.25

Roof window schedule

Location	Window ID	Window no.	Opening %	Area (m²)	Orientation	Outdoor shade	Indoor shade
S/H LV1	Velux:VEL-011-01 W	SK02	90.0	9.2	N	None	Yes
MB ENSUITE	Velux:VEL-011-01 W	SK01	0.0	0.5	N	None	None

Skylight type and performance

Skylight ID	Skylight description
No Data Available	

Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m²)	Orient-ation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2400	3000	90.0	NNE
ENTRY + S/H GF	3300	1500	90.0	ESE

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
1	Retaining Wall Insulated	0.5	Medium	Polystyrene extruded: R2.0 (R2.0)	No
2	CONCRETE insulated	0.5	Medium	Polystyrene extruded: R2.5 (R2.5)	Yes
3	DOUBLE BRICK	0.3	Light	Polystyrene extruded (k = 0.028) (R1.1)	Yes
4	CONCRETE insulated	0.3	Light	Polystyrene extruded: R2.5 (R2.5)	Yes
5	Single Brick	0.5	Medium	Glass fibre batt: R1.0 (R1.0);Glass fibre batt: R1.0 (R1.0)	No

External wall schedule

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
LAUNDRY	1	2600	2036	ESE	0	No
Garage	2	2600	11453	ESE	0	Yes
Garage	1	2600	937	NNE	0	No
Garage	1	2600	5710	ESE	0	No
Garage	2	2600	3253	NNE	0	No
Garage	1	2600	19446	WNW	0	No
PV Room	1	2600	3618	NNE	0	No
Access Hall Basement	1	2600	4921	WNW	0	No
electrical room	1	2600	4430	ESE	0	No
AC Room	1	2600	5131	SSW	0	No
AC Room	1	2600	3303	ESE	0	No
Pool Mech	1	2600	2833	SSW	0	No
Pool Mech	1	2600	3050	ESE	0	No
Pool Mech	1	2600	5875	WNW	0	No
BED3	3	3300	2998	WNW	0	Yes
BED3	3	3300	104	SSW	0	Yes
BED3	3	3300	1167	WNW	0	Yes
BED3	3	3300	3634	NNE	0	No
BATH GF	3	3300	1575	WNW	0	Yes
BED 2	4	3300	3103	ESE	0	Yes
BED 2	3	3300	3593	NNE	0	No
BED 4	3	3300	2795	WNW	0	No
BED 4	3	3300	521	WNW	0	Yes
WIR BED 2	5	3000	444	SSW	0	No
WIR BED 2	3	3300	1551	ESE	0	Yes
ENTRY + S/H GF	4	3300	2285	ESE	0	Yes
ENTRY + S/H GF	3	3300	418	S	0	No
ENTRY + S/H GF	3	3300	504	SSE	0	Yes
ENTRY + S/H GF	3	3300	316	SE	0	Yes
ENTRY + S/H GF	3	3300	3496	ESE	0	Yes
ENTRY + S/H GF	3	3300	261	E	0	Yes
ENTRY + S/H GF	3	3300	264	ENE	0	Yes
ENTRY + S/H GF	3	3300	431	NE	0	No
ENTRY + S/H GF	4	3300	822	WSW	0	Yes
ENTRY + S/H GF	4	3300	457	W	0	Yes
ENTRY + S/H GF	4	3300	605	NW	0	Yes
ENTRY + S/H GF	4	3300	417	NNW	0	Yes
ENTRY + S/H GF	4	3300	309	N	0	Yes
STUDY	4	3300	777	WNW	0	Yes



STUDY	4	3300	418	W	0	Yes
STUDY	4	3300	410	WSW	0	Yes
STUDY	4	3300	396	SW	0	Yes
STUDY	4	3300	2834	SSW	0	Yes
STUDY	4	3300	312	SW	0	Yes
STUDY	3	3300	162	NNE	0	Yes
LKD	3	3300	8561	SSW	5905	No
LKD	3	3300	2631	ESE	0	Yes
LKD	4	3300	4134	ESE	0	Yes
LKD	4	3300	3056	NNE	0	Yes
LKD	4	3300	597	NNW	0	Yes
LKD	4	3300	459	NW	0	Yes
LKD	4	3300	846	WNW	0	Yes
LKD	4	3300	164	SSW	0	Yes
LKD	4	3300	7206	WNW	0	Yes
LKD	3	3300	2674	WNW	0	Yes
PANTRY	4	3300	3248	ESE	0	Yes
WC GF	4	3300	1176	ESE	0	Yes
WC GF	4	3300	884	NNE	0	Yes
LIFT GF	3	3300	848	NNE	0	No
LIFT GF	5	3000	153	NNE	0	Yes
LIFT GF	3	3300	1017	ESE	0	Yes
LIVING LV1	4	3300	346	WSW	0	Yes
LIVING LV1	4	3300	544	W	0	Yes
LIVING LV1	4	3300	512	WNW	0	Yes
LIVING LV1	4	3300	446	NW	0	Yes
LIVING LV1	4	3300	779	N	0	Yes
LIVING LV1	4	3300	2144	ESE	0	Yes
LIVING LV1	3	3300	2760	NNE	2799	Yes
LIVING LV1	3	3300	2908	NNE	394	Yes
LIVING LV1	4	3300	6552	WNW	76	No
LIVING LV1	4	3300	155	NNE	0	Yes
LIVING LV1	4	3300	486	W	0	No
LIVING LV1	4	3300	467	WSW	0	Yes
LIVING LV1	4	3300	3738	SW	0	Yes
LIFT LV1	4	3300	1064	ESE	0	Yes
LIFT LV1	4	3300	720	NNE	0	No
S/H LV1	4	3300	3418	ESE	0	Yes
S/H LV1	4	3300	430	E	0	Yes
S/H LV1	4	3300	481	NE	0	No
S/H LV1	4	3300	485	S	0	No

S/H LV1	4	3300	539	SE	0	Yes
STORAGE LV1	3	3300	2095	ESE	0	Yes
STORAGE LV1	3	3300	1652	NNE	2849	Yes
STORAGE LV1	4	3300	436	SSW	0	No
MB	3	3300	4365	SSW	0	Yes
MB	5	2900	200	ESE	0	Yes
MB	4	3300	3115	N	0	Yes
MB	4	3300	563	NNW	0	Yes
MB	4	3300	476	NW	0	No
MB	4	3300	194	SSW	0	Yes
MB	3	3300	6340	WNW	0	Yes
MB ENSUITE	3	3300	923	ESE	0	No
MB ENSUITE	4	3300	3221	ESE	0	No
MB ENSUITE	3	3300	3932	SSW	0	Yes
MB WIR	4	3300	3719	ESE	0	No
MB WIR	4	3300	983	NNE	0	Yes

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
1	Single Brick Wall	130.1	Polystyrene extruded: R1.0 (R1.0); Polystyrene extruded: R1.0 (R1.0)
2	Single Brick	220.8	Glass fibre batt: R1.0 (R1.0); Glass fibre batt: R1.0 (R1.0)

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
LAUNDRY	CONCRETE SLAB ON GROUND 200	4.9	Enclosed	R2.5	Tiles
lift basement	CONCRETE SLAB ON GROUND 200	1.8	Enclosed	R2.5	Tiles
Garage	CONCRETE SLAB ON GROUND 200	106.4	Enclosed	R2.5	none
PV Room	CONCRETE SLAB ON GROUND 200	9.2	Enclosed	R2.5	none
Access Hall Basement	CONCRETE SLAB ON GROUND 200	22.6	Enclosed	R2.5	none
Water Tank	CONCRETE SLAB ON GROUND 200	6.8	Enclosed	R2.5	none
electrical room	CONCRETE SLAB ON GROUND 200	10.6	Enclosed	R2.5	none
AC Room	CONCRETE SLAB ON GROUND 200	15.6	Enclosed	R2.5	none
Pool Mech	CONCRETE SLAB ON GROUND 200	16.6	Enclosed	R2.5	none
BED3	FR5 - 200mm concrete slab Lined	15.9	Enclosed	R2.5	Carpet
BATH GF	FR5 - 200mm concrete slab Lined	6.8	Enclosed	R2.5	Tiles
BED 2	FR5 - 200mm concrete slab Lined	11.2	Enclosed	R2.5	Carpet
BED 4	FR5 - 200mm concrete slab Lined	14.5	Enclosed	R2.5	Carpet
WIR BED 2	FR5 - 200mm concrete slab Lined	2.3	Enclosed	R2.5	Carpet
ENTRY + S/H GF	FR5 - 200mm concrete slab Lined	26.2	Enclosed	R2.5	Timber

STUDY	FR5 - 200mm concrete slab Lined	4.7	Enclosed	R2.5	Timber
STUDY	FR5 - 200mm concrete slab Lined	2.2	Enclosed	R2.5	Timber
LKD	FR5 - 200mm concrete slab Lined	55.2	Enclosed	R2.5	Timber
LKD	FR5 - 200mm concrete slab Lined	1.7	Enclosed	R2.5	Timber
LKD	CONCRETE SLAB ON GROUND 200	6.9	Enclosed	R2.5	Timber
LKD	FR5 - 200mm concrete slab Lined	6.5	Enclosed	R2.5	Timber
LKD	FR5 - 200mm concrete slab Lined	3.5	Enclosed	R2.5	Timber
LKD	FR5 - 200mm concrete slab Lined	11.4	Enclosed	R2.5	Timber
PANTRY	FR5 - 200mm concrete slab Lined	8.2	Enclosed	R2.5	Timber
WC GF	FR5 - 200mm concrete slab Lined	2.9	Enclosed	R2.5	Tiles
LIFT GF	FR5 - 200mm concrete slab Lined	1.9	Enclosed	R0.0	Tiles
LIVING LV1	FR5 - 200mm concrete slab Lined	52.6	Enclosed	R0.0	Timber
LIFT LV1	FR5 - 200mm concrete slab Lined	1.8	Enclosed	R0.0	Tiles
S/H LV1	FR5 - 200mm concrete slab Lined	8.1	Enclosed	R0.0	Timber
STORAGE LV1	FR5 - 200mm concrete slab Lined	3.5	Enclosed	R0.0	Timber
MB	FR5 - 200mm concrete slab Lined	33.9	Enclosed	R0.0	Carpet
MB ENSUITE	FR5 - 200mm concrete slab Lined	16.3	Enclosed	R0.0	Tiles
MB WIR	FR5 - 200mm concrete slab Lined	14.8	Enclosed	R0.0	Carpet

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
LAUNDRY	FR5 - 200mm concrete slab Lined	R2.5	No
LAUNDRY	Plasterboard	R0.0	No
lift basement	FR5 - 200mm concrete slab Lined	R0.0	No
Garage	FR5 - 200mm concrete slab Lined	R2.5	No
Garage	Plasterboard	R0.0	No
PV Room	FR5 - 200mm concrete slab Lined	R2.5	No
PV Room	Plasterboard	R0.0	No
Access Hall Basement	FR5 - 200mm concrete slab Lined	R2.5	No
Water Tank	FR5 - 200mm concrete slab Lined	R2.5	No
electrical room	FR5 - 200mm concrete slab Lined	R2.5	No
AC Room	FR5 - 200mm concrete slab Lined	R2.5	No
Pool Mech	FR5 - 200mm concrete slab Lined	R2.5	No
BED3	FR5 - 200mm concrete slab Lined	R0.0	No
BED3	Plasterboard	R0.0	No
BATH GF	FR5 - 200mm concrete slab Lined	R0.0	No
BED 2	FR5 - 200mm concrete slab Lined	R0.0	No
BED 2	Plasterboard	R0.0	No
BED 4	FR5 - 200mm concrete slab Lined	R0.0	No
WIR BED 2	FR5 - 200mm concrete slab Lined	R0.0	No

ENTRY + S/H GF	FR5 - 200mm concrete slab Lined	R0.0	No
STUDY	FR5 - 200mm concrete slab Lined	R0.0	No
STUDY	Plasterboard	R5.0	No
LKD	FR5 - 200mm concrete slab Lined	R0.0	No
LKD	FR5 - 200mm concrete slab Lined	R0.0	No
LKD	Plasterboard	R5.0	No
LKD	Plasterboard	R2.0	No
LKD	Plasterboard	R2.0	No
LKD	Plasterboard	R2.0	No
LKD	Plasterboard	R2.0	No
PANTRY	FR5 - 200mm concrete slab Lined	R0.0	No
WC GF	FR5 - 200mm concrete slab Lined	R0.0	No
LIFT GF	FR5 - 200mm concrete slab Lined	R0.0	No
LIVING LV1	Plasterboard	R5.0	No
LIFT LV1	Plasterboard	R5.0	No
S/H LV1	Plasterboard	R5.0	No
STORAGE LV1	Plasterboard	R5.0	No
MB	Plasterboard	R5.0	No
MB ENSUITE	Plasterboard	R5.0	No
MB WIR	Plasterboard	R5.0	No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
LAUNDRY	1	Exhaust Fans	50	Sealed
LAUNDRY	1	Downlights	50	Sealed
Garage	42	Downlights	50	Sealed
PV Room	2	Downlights	50	Sealed
Access Hall Basement	9	Downlights	50	Sealed
Water Tank	2	Downlights	50	Sealed
electrical room	4	Downlights	50	Sealed
AC Room	6	Downlights	50	Sealed
Pool Mech	6	Downlights	50	Sealed
BED3	3	Downlights	50	Sealed
BATH GF	1	Exhaust Fans	200	Sealed
BATH GF	2	Downlights	50	Sealed
BED 2	4	Downlights	50	Sealed
BED 4	5	Downlights	50	Sealed
WIR BED 2	1	Downlights	50	Sealed
ENTRY + S/H GF	10	Downlights	50	Sealed
STUDY	2	Downlights	50	Sealed
LKD	34	Downlights	50	Sealed
LKD	1	Exhaust Fans	200	Sealed

* Refer to glossary.

PANTRY	2	Downlights	50	Sealed
WC GF	1	Downlights	50	Sealed
WC GF	1	Exhaust Fans	200	Sealed
LIVING LV1	21	Downlights	50	Sealed
S/H LV1	2	Downlights	50	Sealed
STORAGE LV1	1	Downlights	50	Sealed
MB	13	Downlights	50	Sealed
MB ENSUITE	6	Downlights	50	Sealed
MB ENSUITE	1	Exhaust Fans	200	Sealed
MB WIR	6	Downlights	50	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
No Data Available		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Ceil: Ceiling	0.0	0.5	Medium
Slab:Slab - Suspended Slab : 200mm: 200mm Suspended Slab	0.0	0.5	Medium
GreenRoofIntensive:Slab - 500mm Substrate : 200mm:200mm Slab - 500mm Substrate	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

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.

* 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).