

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0002611143**

Certificate Date: **03 Apr 2018**

★ Star rating: **5.2**

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

Assessor details

Accreditation number: **100765**
Name: **Jamie Bonnefin**
Organisation: **Certified Energy**
Email: **jamie@certified.energy**
Phone: **1300 443 674**
Declaration of interest: **None**
Software: **BERS Pro v4.3.0.2b (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Street: **23 Greenwood Avenue**
Suburb: **Narraweena**
State: **NSW** Postcode: **2099**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **56**
Lot/DP number: **78/12228** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **Brick Veneer**
Waterproofing Membrane
Concrete Slab on Ground
Insulation: **R2.5 wall insulation**
R6.0 ceiling insulation
No floor insulation
Glazing: **PVC-002-03 W uPVC B SG High Solar Gain Low-E**

Net floor area (m²)

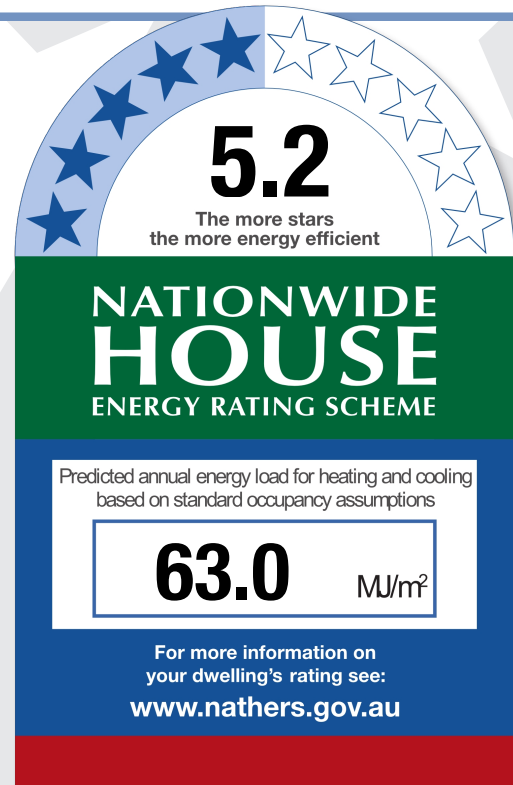
Conditioned: **339.0**
Unconditioned: **78.0**
Garage: **43.0**
TOTAL: **417.0**

Annual thermal performance loads (MJ/m²)

Heating: **39.6**
Cooling: **23.4**
TOTAL: **63.0**

Plan documents

Plan ref/date: **23 Greenwood Ave, Narraweena**
Prepared by: **Rapid Plans**



Ceiling penetrations

(see following pages for details)

Sealed: **85**
Unsealed: **0**
TOTAL:** **85**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Window selection - default windows only

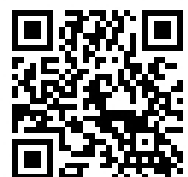
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
PVC-002-03 W	PVC-002-03 W uPVC B SG High Solar Gain Low-E	4.3	0.50
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Garage 1	PVC-002-03 W	n/a	900	2400	W	Awning
Laundry	PVC-002-03 W	n/a	1500	1500	W	Awning
Bath	PVC-002-03 W	n/a	1200	1500	W	Awning
Rumpus	PVC-002-03 W	n/a	900	2400	W	Awning
Entry/Foyer	PVC-002-03 W	n/a	2400	900	N	No Shading
Kitchen/Living	PVC-002-03 W	n/a	2900	2964	S	No Shading
Kitchen/Living	PVC-002-03 W	n/a	2900	2964	S	No Shading
Kitchen/Living	PVC-002-03 W	n/a	2900	2964	S	No Shading
Kitchen/Living	PVC-002-03 W	n/a	2400	1200	W	Awning
Stair	PVC-002-03 W	n/a	2900	4716	E	No Shading
Stair	ALM-002-01 A	n/a	200	4716	E	No Shading
Master bed	PVC-002-03 W	n/a	2700	1200	E	No Shading
Master bed	PVC-002-03 W	n/a	2700	3300	N	No Shading
Master bed	PVC-002-03 W	n/a	2700	1800	N	No Shading
Master Ensuite	PVC-002-03 W	n/a	1800	1800	N	No Shading
WIR	PVC-002-03 W	n/a	2700	750	W	No Shading
Bedroom 2	PVC-002-03 W	n/a	1800	2100	W	No Shading
Bath	PVC-002-03 W	n/a	1200	2400	W	No Shading
Bedroom 3	PVC-002-03 W	n/a	1800	2100	W	No Shading
Bedroom 4	PVC-002-03 W	n/a	2700	3300	S	No Shading
Bedroom 5	PVC-002-03 W	n/a	1200	2700	E	No Shading
Bedroom 5	PVC-002-03 W	n/a	2700	3300	S	No Shading
Ensuite	PVC-002-03 W	n/a	1500	750	E	No Shading
Stair	PVC-002-03 W	n/a	2700	4716	E	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
GEN-04-006a	Single-glazed clear, Timber and Aluminium Frame	0.0	0.00

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
Stair	GEN-04-006a	1	1.4	N	None	No
Stair	GEN-04-006a	2	1.4	N	None	No

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Foil reflective both sides of the Bulk Insulation R2.5	Yes

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EW-2 Weatherboard Cavity Panel Direct Fix Foil reflective both sides of the Bulk Insulation R2.5 Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage 1	EW-1	6095	2900	W	No	200
Garage 1	EW-1	7100	2900	N	No	500
Garage 1	EW-1	1000	2900	E	No	3100
Laundry	EW-1	2490	2900	W	No	200
Bath	EW-1	2590	2900	W	No	200
Rumpus	EW-1	4995	2900	W	No	200
Entry/Foyer	EW-1	2895	2900	N	No	1500
Entry/Foyer	EW-1	5195	2900	E	No	200
Kitchen/Living	EW-1	11995	2900	E	No	200
Kitchen/Living	EW-1	10000	2900	S	No	3200
Kitchen/Living	EW-1	7395	2900	W	No	200
Stair	EW-1	5390	2900	E	No	200
Master bed	EW-2	5095	2700	E	No	600
Master bed	EW-2	5595	2700	N	No	2000
Master Ensuite	EW-2	2895	2700	W	No	600
Master Ensuite	EW-2	4395	2700	N	No	2000
WIR	EW-2	2195	2700	W	No	600
Bedroom 2	EW-2	3795	2700	W	No	600
Bath	EW-2	2790	2700	W	No	600
Bedroom 3	EW-2	3690	2700	W	No	600
Bedroom 4	EW-2	4395	2700	S	No	600
Bedroom 4	EW-2	4695	2700	W	No	600
Bedroom 5	EW-2	4695	2700	E	No	600
Bedroom 5	EW-2	5595	2700	S	No	600
Ensuite	EW-2	1290	2700	E	No	600
Sitting	EW-2	4090	2700	E	No	600
Stair	EW-2	4890	2700	E	No	600

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	35.0	Bulk Insulation, No Air Gap R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	296.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Garage 1	Concrete Slab on Ground 100mm	42.8	None	No Insulation	Bare

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Laundry	Concrete Slab on Ground 100mm	7.4	None	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Bath	Concrete Slab on Ground 100mm	7.7	None	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Rumpus	Concrete Slab on Ground 100mm	32.6	None	Bulk Insulation in Contact with Floor R2	Carpet 10mm
Entry/Foyer	Concrete Slab on Ground 100mm	42.3	None	Bulk Insulation in Contact with Floor R2	Carpet 10mm
Kitchen/Living	Concrete Slab on Ground 100mm	89.2	None	Bulk Insulation in Contact with Floor R2	60/40 Carpet 10mm/Ceramic
Stair	Concrete Slab on Ground 100mm	6.7	None	Bulk Insulation in Contact with Floor R2	Carpet 10mm
Master bed/Garage	Timber Above Plasterboard 19mm	12.7		Bulk Insulation R2	Carpet 10mm
Master bed/Entry/Foyer	Timber Above Plasterboard 19mm	15.1		Bulk Insulation R2	Carpet 10mm
Master Ensuite/Garage 1	Timber Above Plasterboard 19mm	12.4		Bulk Insulation R2	Ceramic Tiles 8mm
WIR/Garage 1	Timber Above Plasterboard 19mm	7.9		Bulk Insulation R2	Carpet 10mm
WIR/Laundry	Timber Above Plasterboard 19mm	0.9		Bulk Insulation R2	Carpet 10mm
Bedroom 2/Laundry	Timber Above Plasterboard 19mm	6.6		Bulk Insulation R2	Carpet 10mm
Bedroom 2/Bath	Timber Above Plasterboard 19mm	4.8		Bulk Insulation R2	Carpet 10mm
Bedroom 2/Entry/Foyer	Timber Above Plasterboard 19mm	5.9		Bulk Insulation R2	Carpet 10mm
Bath/Bath	Timber Above Plasterboard 19mm	3.0		Bulk Insulation R2	Ceramic Tiles 8mm
Bath/Rumpus	Timber Above Plasterboard 19mm	8.1		Bulk Insulation R2	Ceramic Tiles 8mm
Bath/Entry/Foyer	Timber Above Plasterboard 19mm	1.5		Bulk Insulation R2	Ceramic Tiles 8mm
Bedroom 3/Rumpus	Timber Above Plasterboard 19mm	12.0		Bulk Insulation R2	Carpet 10mm
Bedroom 3/Kitchen/Living	Timber Above Plasterboard 19mm	3.7		Bulk Insulation R2	Carpet 10mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	20.3		Bulk Insulation R2	Carpet 10mm
Bedroom 5/Kitchen/Living	Timber Above Plasterboard 19mm	24.3		Bulk Insulation R2	Carpet 10mm
Ensuite/Rumpus	Timber Above Plasterboard 19mm	1.0		Bulk Insulation R2	Carpet 10mm
Ensuite/Kitchen/Liv ing	Timber Above Plasterboard 19mm	4.1		Bulk Insulation R2	Carpet 10mm
Sitting/Rumpus	Timber Above Plasterboard 19mm	11.2		Bulk Insulation R2	Carpet 10mm
Sitting/Entry/Foyer	Timber Above Plasterboard 19mm	11.1		Bulk Insulation R2	Carpet 10mm
Sitting/Kitchen/Livi	Timber Above Plasterboard	13.5		Bulk Insulation	Carpet 10mm

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ng	19mm		R2
Stair/Entry/Foyer	Timber Above Plasterboard 19mm	7.4	Bulk Insulation Carpet 10mm R2
Stair/Stair	Timber Above Plasterboard 19mm	6.2	Bulk Insulation Carpet 10mm R2

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage 1	Plasterboard	Bulk Insulation R6	No
Garage 1	Timber Above Plasterboard	Bulk Insulation R2	No
Laundry	Plasterboard	Bulk Insulation R4	No
Laundry	Timber Above Plasterboard	Bulk Insulation R2	No
Bath	Plasterboard	Bulk Insulation R4	No
Bath	Timber Above Plasterboard	Bulk Insulation R2	No
Rumpus	Plasterboard	Bulk Insulation R4	No
Rumpus	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Foyer	Plasterboard	Bulk Insulation R6	No
Entry/Foyer	Timber Above Plasterboard	Bulk Insulation R2	No
Kitchen/Living	Plasterboard	Bulk Insulation R6	No
Kitchen/Living	Timber Above Plasterboard	Bulk Insulation R2	No
Stair	Plasterboard	Bulk Insulation R4	No
Stair	Timber Above Plasterboard	Bulk Insulation R2	No
Master bed	Plasterboard	Bulk Insulation R6	No
Master Ensuite	Plasterboard	Bulk Insulation R6	No
WIR	Plasterboard	Bulk Insulation R6	No
Bedroom 2	Plasterboard	Bulk Insulation R6	No
Bath	Plasterboard	Bulk Insulation R6	No
Bedroom 3	Plasterboard	Bulk Insulation R6	No
Bedroom 4	Plasterboard	Bulk Insulation R6	No
Bedroom 5	Plasterboard	Bulk Insulation R6	No

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Ensuite	Plasterboard	Bulk Insulation R6	No
Sitting	Plasterboard	Bulk Insulation R6	No
Stair	Plasterboard	Bulk Insulation R6	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bath	2	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Rumpus	7	Downlights - LED	150	Sealed
Entry/Foyer	9	Downlights - LED	150	Sealed
Kitchen/Living	18	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Stair	2	Downlights - LED	150	Sealed
Master bed	6	Downlights - LED	150	Sealed
Master Ensuite	3	Downlights - LED	150	Sealed
Master Ensuite	1	Exhaust Fans	300	Sealed
WIR	2	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bath	3	Downlights - LED	150	Sealed
Bath	1	Exhaust Fans	300	Sealed
Bedroom 3	3	Downlights - LED	150	Sealed
Bedroom 4	4	Downlights - LED	150	Sealed
Bedroom 5	5	Downlights - LED	150	Sealed
Ensuite	1	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Sitting	8	Downlights - LED	150	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	Bulk, Reflective Side Down, Anti-glare Up R1.8	Light
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.8	Light

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Corrugated Iron

Bulk, Reflective Light
Side Down, Anti-
glare Up R1.8

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Additional information

Climate File Zone: 56 Maximum Heating loads: 40 Maximum Cooling loads: 26

Concrete slab

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

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 on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au