

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004269858

Certificate Date: 11 Oct 2019

★ Star rating: 4.3



Assessor details

Accreditation number: **20127**
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Declaration of interest: **No potential conflicts of interest to declare**
Software: **AccuRate Sustainability V2.3.3.13 SP4**
AAO: **ABSA**

Overview

Dwelling details

Street: **Unit EAST, 259 Friday Hut Road**
Suburb: **Possum Creek**
State: **NSW** Postcode: **2479**
Type: **New** NCC Class: **1a**
NatHERS climate zone: **10**
Lot/DP number: **Lot 30 DP 755695** Exposure: **Open**

Key construction and insulation materials

(see following pages for details)

Construction: **Concrete blocks**
Slate/Plywood/Timber Slab
Insulation: **R2.0 wall insulation**
R2.5 ceiling insulation
Floor (uninsulated)
Glazing: **Timber B SG Clear**

Net floor area (m²)

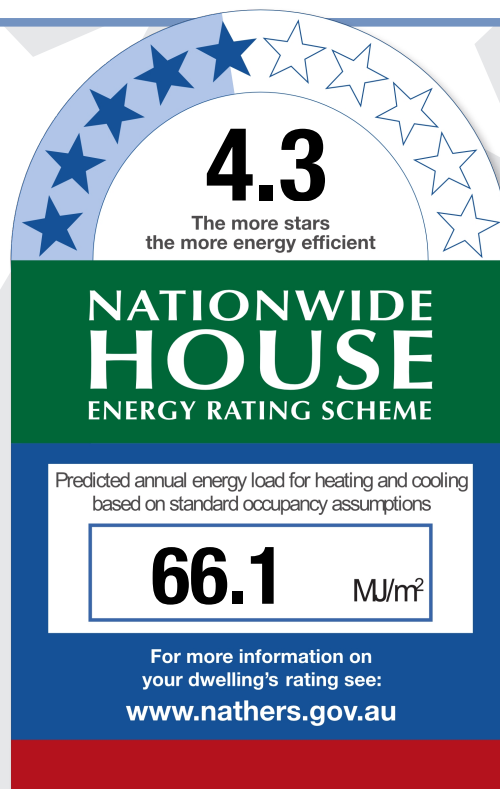
Conditioned: **274.2**
Unconditioned: **93.2**
Garage: **50.1**
TOTAL: **367.4**

Annual thermal performance loads (MJ/m²)

Heating: **31.5**
Cooling: **34.6**
TOTAL: **66.1**

Plan documents

Plan ref/date: **DA03B, DA07A, DA08B - DA13 oCTOBER 2019**
Prepared by: **Indigo & Ochre**



Ceiling penetrations

(see following pages for details)

Sealed: **109**
Unsealed: **0**
TOTAL:** **109**

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: **Light-emitting diode (LED)**

Window selection - default windows only

Note on allowable window values: With a 10% tolerance to the nominated SHGC window values shown on page 2, the following ratings are achieved:

-10% SHGC **4.1**
+10% SHGC **4.3**

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 the rating listed above falls below 6.0 stars or the required rating, then the window with this tolerance can NOT be selected.

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
TIM-001-01 W	DEFAULTS: Timber A SG Clear	5.4	0.56
TIM-002-01 W	DEFAULTS: Timber B SG Clear	5.4	0.63
ALM-002-01 A	DEFAULTS: Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	DEFAULTS: Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Garage	TIM-002-01 W	W29	1500	1800	NE	None
Garage	ALM-001-01 A	D30	2100	800	SE	None
Garage	TIM-002-01 W	W31	1500	1800	SE	None
Lobby / Hall	TIM-002-01 W	W1	2500	800	SE	None
Lobby / Hall	TIM-002-01 W	W04	2500	800	SW	None
Lobby / Hall	TIM-002-01 W	W02	2500	800	SW	None
Lobby / Hall	TIM-001-01 W	W03	400	1640	SW	None
Lobby / Hall	TIM-002-01 W	W05	2500	800	NW	None
Lobby / Hall	ALM-002-01 A	D28	2100	2400	SE	None
Lobby / Hall	TIM-002-01 W	W27	2000	2400	SE	None
Laundry / Dry Room	ALM-001-01 A	D33	2100	800	SW	None
Office	TIM-002-01 W	W6	1880	1770	NW	None
Pantry/Kitchen/Dining/Sitting	TIM-001-01 W	D14	2500	3280	NE	None
Pantry/Kitchen/Dining/Sitting	ALM-002-01 A	D13	2500	1700	NE	None
Pantry/Kitchen/Dining/Sitting	TIM-002-01 W	W12	1700	3200	NE	None
Pantry/Kitchen/Dining/Sitting	TIM-002-01 W	W15	2000	1700	SE	None
Pantry/Kitchen/Dining/Sitting	ALM-002-01 A	W26	1700	3200	SW	None
Pantry/Kitchen/Dining/Sitting	TIM-002-01 W	W36	760	710	NE	None
Pantry/Kitchen/Dining/Sitting	TIM-002-01 W	W35	760	710	NE	None
Hall 2	TIM-002-01 W	W25	2060	3200	W	None
Hall 2	ALM-001-01 A	D16	2100	900	NE	None
Study/Library	TIM-002-01 W	W19	1700	2300	E	None
Study/Library	TIM-001-01 W	D18	2500	2300	N	None
Bedroom 2	ALM-001-01 A	D20	2100	2400	E	None
2 Way Bathroom	ALM-001-01 A	Shutter	2600	2500	E	None
Bedroom 1	TIM-002-01 W	W22	1700	2300	E	None
Bedroom 1	ALM-001-01 A	D23	2100	2400	S	None
Gallery	ALM-001-01 A	W24	2100	3200	W	None
Powder Room	TIM-002-01 W	W17	2100	880	NE	None
Garden Room	ALM-001-01 A	D11	2100	800	NE	None
Garden Room	TIM-002-01 W	W10	2100	1700	NE	None
Garden Room	ALM-001-01 A	D08	2500	3280	NW	None
Garden Room	TIM-002-01 W	W09	1700	2300	NW	None
Garden Room	ALM-001-01 A	D7	2100	800	SW	None

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

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Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
DG-Generic-02 A	DEFAULTS: Clear AI DG DEFAULT ROOF WINDOW System 02	4.2	0.72

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
2 Way Bathroom	DG-Generic-02 A	SK1	0.7	E	None	None

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-001	Concrete block/Timber	Glass fibre batt: R2.0	No
EW-002	Timber	Polyester or polyester/wool blanket: R2.5	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-001	3280	4800	NW	Yes	750
Garage	EW-001	6900	3000	NE	Yes	750
Garage	EW-001	6900	4165	SE	Yes	750
Garage	EW-001	6900	3000	SW	Yes	750
Garage	EW-001	990	3000	NE	Yes	5900
Lobby / Hall	EW-001	990	3000	SE	Yes	750
Lobby / Hall	EW-001	3700	3000	SW	Yes	2250
Lobby / Hall	EW-001	2100	3000	NW	Yes	750
Lobby / Hall	EW-001	570	3000	NE	Yes	5900
Lobby / Hall	EW-001	5900	3000	SE	Yes	750
Laundry / Dry Room	EW-001	3010	3000	SW	Yes	750
Laundry / Dry Room	EW-001	310	3000	SW	Yes	750
Office	EW-001	2400	3000	SW	Yes	750
Office	EW-001	3310	3000	NW	Yes	600
Pantry/Kitchen/Dining/Sitting	EW-001	530	3500	NW	Yes	300
Pantry/Kitchen/Dining/Sitting	EW-001	13490	3090	NE	Yes	600
Pantry/Kitchen/Dining/Sitting	EW-001	2790	3080	SE	No	
Pantry/Kitchen/Dining/Sitting	EW-002	2790	1000	SE	Yes	300
Pantry/Kitchen/Dining/Sitting	EW-001	6510	3090	SW	Yes	690
Pantry/Kitchen/Dining/Sitting	EW-002	4360	1000	SE	Yes	300
Pantry/Kitchen/Dining/Sitting	EW-001	2780	3000	NW	Yes	600
Pantry/Kitchen/Dining/Sitting	EW-002	1680	800	NW	Yes	290
Pantry/Kitchen/Dining/Sitting	EW-002	1680	800	SE	Yes	290

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ng/Sitting						
Pantry/Kitchen/Dining/Sitting	EW-002	1680	900	NE	Yes	290
Pantry/Kitchen/Dining/Sitting	EW-002	1680	800	NW	Yes	290
Pantry/Kitchen/Dining/Sitting	EW-002	1680	800	SE	Yes	290
Pantry/Kitchen/Dining/Sitting	EW-002	1680	900	NE	Yes	290
Hall 2	EW-001	4400	2600	W	Yes	600
Hall 2	EW-001	1700	2600	NE	Yes	3820
Hall 2	EW-001	4300	2600	SW	No	
Study/Library	EW-001	3965	3090	E	Yes	570
Study/Library	EW-001	2390	2600	N	No	
Study/Library	EW-002	2390	1500	N	Yes	300
Bedroom 2	EW-001	2500	2600	E	Yes	200
Bedroom 2	EW-001	380	3100	E	Yes	570
Bedroom 2	EW-001	585	2600	N	Yes	750
Bedroom 2	EW-001	465	3100	E	Yes	570
Bedroom 2	EW-001	585	2600	N	Yes	750
2 Way Bathroom	EW-001	2500	2600	E	Yes	400
2 Way Bathroom	EW-001	1930	2600	N	Yes	2340
2 Way Bathroom	EW-001	1840	2600	N	No	
Bedroom 1	EW-001	470	3100	S	Yes	1490
Bedroom 1	EW-001	4050	3090	E	Yes	570
Bedroom 1	EW-001	1750	3100	S	No	
Bedroom 1	EW-001	580	2400	E	No	
Bedroom 1	EW-001	2490	2400	S	No	
Bedroom 1	EW-001	580	2400	W	No	
Bedroom 1	EW-001	1800	3000	S	No	
Bedroom 1	EW-001	4100	3090	W	Yes	600
Bedroom 1	EW-002	1750	760	S	No	
Bedroom 1	EW-002	2490	1500	S	No	
Gallery	EW-001	3100	3000	W	Yes	1600
Gallery	EW-001	1620	3090	W	Yes	600
Gallery	EW-001	600	3000	S	Yes	6500
Gallery	EW-001	600	3000	N	Yes	6500
Gallery	EW-001	1730	3090	W	Yes	600
Hall/Gallery Roof	EW-002	3900	650	W	Yes	300
Hall/Gallery Roof	EW-002	2300	600	S	No	
Lobby/Hall/Powder Room/Pantry Roof	EW-002	4700	800	SW	Yes	600
Lobby/Hall/Powder Room/Pantry Roof	EW-002	5200	1150	SW	Yes	600
Powder Room	EW-001	560	2600	E	Yes	2830
Powder Room	EW-001	2730	2600	NE	Yes	3820
Garden Room	EW-001	1600	2600	NE	Yes	1260
Garden Room	EW-001	510	2600	SE	Yes	1670
Garden Room	EW-001	3895	3100	NE	No	
Garden Room	EW-002	3895	1400	NE	Yes	300

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Room	EW-Code	Area (m ²)	Volume (m ³)	Orientation	Insulation	Value
Garden Room	EW-001	7230	3100	NW	Yes	600
Garden Room	EW-001	1600	2600	SW	Yes	1260
Garden Room	EW-001	510	2600	SE	Yes	1670
Garden Room	EW-001	3895	3100	SW	No	
Garden Room	EW-002	3895	1400	SW	Yes	300

Internal wall type

ID	Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-001	Timber	248.1	Polyester or polyester/wool blanket: R2.0	No
IW-002	Timber	35.9	Glass fibre batt: R2.0	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Garage/Ground	150mm Concrete Floor slab (no insul)	50.1			
Lobby / Hall/Ground	150mm Concrete Floor slab with ceramic tiles (no insul)	24.0			Ceramic tile
Laundry / Dry Room/Ground	150mm Concrete Floor slab with ceramic tiles (no insul)	15.1			Ceramic tile
Office/Ground	150mm Concrete Floor slab with ceramic tiles (no insul)	7.9			Ceramic tile
Pantry/Kitchen/Dining/Sitting/Ground	150mm Concrete Floor slab with ceramic tiles (no insul)	96.8			Ceramic tile
Hall 2/Ground	150mm Concrete Floor slab with ceramic tiles (no insul)	17.6			Ceramic tile
Study/Library/Ground	150mm Concrete Floor slab with carpet-underfelt(no insul)	24.8			Carpet 10 + rubber underlay 8
Bedroom 2/Ground	150mm Concrete Floor slab with carpet-underfelt(no insul)	21.5			Carpet 10 + rubber underlay 8
2 Way Bathroom/Ground	150mm Concrete Floor slab with ceramic tiles (no insul)	12.9			Ceramic tile
2 Way Bathroom/Ground	150mm Concrete Floor slab with timber (no insul)	7.8			
Bedroom 1/Ground	150mm Concrete Floor slab with carpet-underfelt(no insul)	28.3			Carpet 10 + rubber underlay 8
Gallery/Ground	150mm Concrete Floor slab with ceramic tiles (no insul)	15.1			Ceramic tile
Hall/Gallery Roof/Hall 2	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	17.6		R2.5	
Hall/Gallery Roof/Outdoor Air	Ceiling 10mm Plasterboard ceiling fixed to ceiling joists above + R2.5 bulk insulation	4.3		R2.5	
Hall/Gallery Roof/Powder Room	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	7.2		R2.5	
Hall/Gallery	Ceiling 10mm Timber T&G	8.2		R2.5	

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Roof/Bedroom 1	Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.		
Hall/Gallery Roof/Gallery	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	15.1	R2.5
Lobby/Hall/Powder Room/Pantry Roof/Lobby / Hall	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	24.0	R2.5
Lobby/Hall/Powder Room/Pantry Roof/Laundry / Dry Room	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	15.1	R2.5
Lobby/Hall/Powder Room/Pantry Roof/Office	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	7.9	R2.5
Lobby/Hall/Powder Room/Pantry Roof/Pantry/Kitchen/Dining/Sitting	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	24.8	R2.5
Lobby/Hall/Powder Room/Pantry Roof/Garage	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	1.5	R2.5
Powder Room/Ground	150mm Concrete Floor slab with ceramic tiles (no insul)	7.2	Ceramic tile
Garden Room/Ground	150mm Concrete Floor slab with ceramic tiles (no insul)	38.3	Ceramic tile

Ceiling type

Location	Construction	Added insulation	Roof space above
Lobby/Hall/Powder Room/Pantry Roof/Garage	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	R2.5	Yes
Lobby/Hall/Powder Room/Pantry Roof/Lobby / Hall	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	R2.5	Yes
Lobby/Hall/Powder Room/Pantry Roof/Laundry / Dry Room	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	R2.5	Yes
Lobby/Hall/Powder Room/Pantry Roof/Office	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	R2.5	Yes
Lobby/Hall/Powder Room/Pantry Roof/Pantry/Kitchen/Dining/Sitting	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	R2.5	Yes
Hall/Gallery Roof/Hall 2	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	R2.5	Yes
Hall/Gallery Roof/Bedroom 1	Ceiling 10mm Timber T&G Boards or plywood (softwood) fixed to ceiling joists + R2.5 bulk insul.	R2.5	Yes
Hall/Gallery	Ceiling 10mm Timber T&G Boards or plywood (softwood)	R2.5	Yes

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Roof/Gallery	fixed to ceiling joists + R2.5 bulk insul.		
Hall/Gallery	Ceiling 10mm Timber T&G Boards or plywood (softwood)	R2.5	Yes
Roof/Powder Room	fixed to ceiling joists + R2.5 bulk insul.		

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Lobby / Hall	11	Downlight		Sealed
Laundry / Dry Room	6	Downlight		Sealed
Laundry / Dry Room	1	Ceiling vent	180	Sealed
Office	2	Downlight		Sealed
Pantry/Kitchen/Dining/Sitting	44	Downlight		Sealed
Pantry/Kitchen/Dining/Sitting	1	Chimney	300	Sealed
Pantry/Kitchen/Dining/Sitting	1	Ceiling exhaust fan	180	Sealed
Hall 2	8	Downlight		Sealed
Study/Library	8	Downlight		Sealed
Bedroom 2	8	Downlight		Sealed
2 Way Bathroom	5	Downlight		Sealed
2 Way Bathroom	1	Ceiling exhaust fan	180	Sealed
Bedroom 1	12	Downlight		Sealed
Gallery	1	Downlight		Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Slate on plywood roof with R2.5 bulk insul + 10mm Softwood ceiling under	R2.5	Tiles: clay (dark purple)
22.5 deg Slate roof with no ceiling under		Tiles: clay (dark purple)

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Additional information

R1.0 insulation to slab edge where hydronic heating is installed within the 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