

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0003537958**

Certificate Date: **16 Jan 2019**

★ Star rating: **6.1**

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: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **29 Allan Road**
Suburb: **Mulgoa**
State: **NSW** Postcode: **2745**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **28**
Lot/DP number: **15/1225912** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **Brick Veneer**
Roof Tiles
Concrete Slab on Ground
Insulation: **R2.5 wall insulation**
R6.0 ceiling insulation
No floor insulation
Glazing: **BRD-112-01 A ESS Awning 52 SG**
4mmClr

Net floor area (m²)

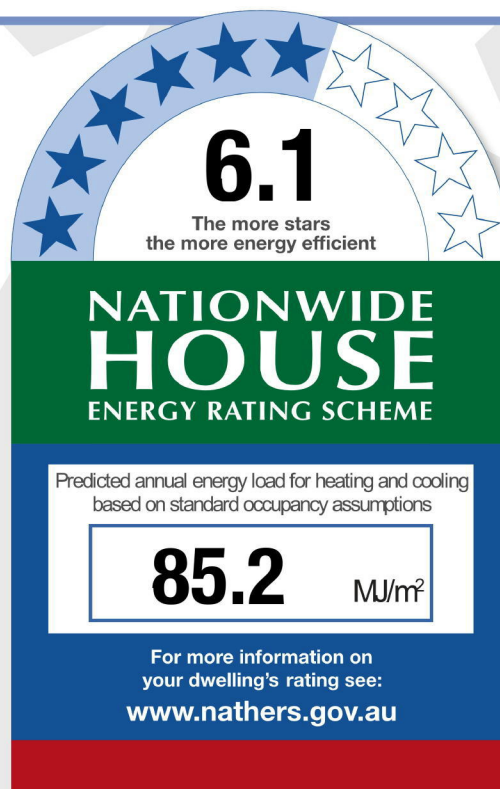
Conditioned: **227.0**
Unconditioned: **60.0**
Garage: **44.0**
TOTAL: **287.0**

Annual thermal performance loads (MJ/m²)

Heating: **55.4**
Cooling: **29.7**
TOTAL: **85.2**

Plan documents

Plan ref/date: **Lot 15 Allan Rd Mulgoa**
Prepared by: **AC**



Ceiling penetrations

(see following pages for details)

Sealed: **1**
Unsealed: **0**
TOTAL:** **1**

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: **Unknown**

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
BRD-030-01 A	BRD-030-01 A ESS Hinged Door (100mm) SG 4Clr	6.1	0.62
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67
BRD-026-24 A	BRD-026-24 A ESS Awning Window (52mm) SG 4SP10	5.0	0.54
BRD-063-16 A	BRD-063-16 A SIG Fixed Lite (67mm) SG 4SP10	4.1	0.66
BRD-033-13 A	BRD-033-13 A ESS Sliding Door (80mm) SG 4SP10	4.3	0.63
BRD-043-06 A	BRD-043-06 A SIG Louvre Window (125mm) SG 6EA	4.5	0.52
BRD-063-01 A	BRD-063-01 A SIG Fixed Lite (67mm) SG 4Clr	6.0	0.78
BRD-043-01 A	BRD-043-01 A SIG Louvre Window (125mm) SG 6Clr	6.1	0.60
TIM-002-01 W	TIM-002-01 W Timber B SG Clear	5.4	0.63

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Garage	BRD-030-01 A	n/a	2400	850	N	No Shading
Master Bedroom	BRD-112-01 A	n/a	600	3490	E	No Shading
Master Bedroom	BRD-112-01 A	n/a	2400	2880	N	Horizontal Louvres, Horizontal Blades
Bedroom 2	BRD-112-01 A	n/a	1350	1500	S	No Shading
Bedroom 3	BRD-112-01 A	n/a	1350	1500	S	No Shading
Bedroom 4	BRD-112-01 A	n/a	1350	1500	S	No Shading
Ensuite	BRD-112-01 A	n/a	2400	490	E	No Shading
Lounge	BRD-026-24 A	n/a	2400	850	S	No Shading
Lounge	BRD-026-24 A	n/a	2400	850	S	No Shading
Lounge	BRD-026-24 A	n/a	2400	850	S	No Shading
Study	BRD-063-16 A	n/a	2400	1110	E	No Shading
Study	BRD-026-24 A	n/a	2400	610	S	No Shading
Study	BRD-063-16 A	n/a	2400	1470	S	No Shading
Laundry	BRD-030-01 A	n/a	2400	900	W	No Shading
Bathroom	BRD-112-01 A	n/a	1350	1570	W	No Shading
WC	BRD-112-01 A	n/a	1350	610	W	No Shading
Kitchen/Living	BRD-033-13 A	n/a	2400	4660	N	No Shading
Kitchen/Living	BRD-043-06 A	n/a	2400	3500	N	Horizontal Louvres, Horizontal Blades
Kitchen/Living	BRD-063-01 A	n/a	1370	510	W	Horizontal Louvres, Horizontal Blades
Kitchen/Living	BRD-043-01 A	n/a	1370	1950	N	Horizontal Louvres, Horizontal Blades
Kitchen/Living	BRD-026-24 A	n/a	2400	1210	E	Horizontal Louvres, Horizontal Blades
Kitchen/Living	BRD-043-06 A	n/a	2400	610	N	No Shading
Kitchen/Living	BRD-043-06 A	n/a	2400	700	W	No Shading
Foyer/Hallway	TIM-002-01 W	n/a	2400	365	S	No Shading
Foyer/Hallway	TIM-002-01 W	n/a	2400	365	S	No Shading
Foyer/Hallway	TIM-002-01 W	n/a	600	1930	S	No Shading

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Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
GEN-04-008a	Double-glazed clear, Timber and Aluminium Frame	0.0	0.00

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
Kitchen/Living	GEN-04-008a	1	0.8	N	None	No
Kitchen/Living	GEN-04-008a	2	0.8	N	None	No
Kitchen/Living	GEN-04-008a	3	0.8	N	None	No

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Cavity Brick	No insulation	No
EW-2	Single Skin Brick	No insulation	No
EW-3	Brick Veneer	Foil, Anti-glare one side + Bulk Insulation R2.5	Yes
EW-4	Weatherboard Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	6600	2740	N	No	750
Garage	EW-2	6600	2740	E	No	750
Garage	EW-1	4000	2740	S	No	100
Garage	EW-1	6395	2740	W	No	750
Master Bedroom	EW-3	3995	2740	E	No	750
Master Bedroom	EW-3	4995	2740	N	No	100
Bedroom 2	EW-3	2795	1050	W	No	0
Bedroom 2	EW-4	2795	1690	W	No	750
Bedroom 2	EW-3	3595	1050	S	No	0
Bedroom 2	EW-4	3595	1690	S	No	750
Bedroom 3	EW-3	3390	1050	S	No	0
Bedroom 3	EW-4	3390	1690	S	No	750
Bedroom 4	EW-3	900	1050	E	No	0
Bedroom 4	EW-4	900	1690	E	No	12050
Bedroom 4	EW-3	3395	1050	S	No	0
Bedroom 4	EW-4	3395	1690	S	No	750
WIR B1	EW-3	395	2740	E	No	100
WIR B2	EW-3	1990	1050	W	No	0
WIR B2	EW-4	1990	1690	W	No	750
WIR B3	EW-3	1390	1050	S	No	0
WIR B3	EW-4	1390	1690	S	No	750
Ensuite	EW-3	2095	2740	E	No	750
Ensuite	EW-3	1100	2740	S	No	4050
Lounge	EW-3	2000	2740	W	No	14950
Lounge	EW-3	1000	2740	E	No	4250

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Lounge	EW-3	5400	2740	S	No	750
Study	EW-4	3295	2740	E	No	750
Study	EW-3	3495	2740	S	No	750
Laundry	EW-3	3295	2740	N	No	750
Laundry	EW-3	1795	2740	W	No	1750
Bathroom	EW-3	1000	2740	N	No	2550
Bathroom	EW-3	2295	2740	W	No	750
WC	EW-3	1090	2740	W	No	750
Kitchen/Living	EW-3	4800	2740	N	No	7750
Kitchen/Living	EW-3	3800	2741	N	No	750
Kitchen/Living	EW-3	600	2740	W	No	9450
Kitchen/Living	EW-3	2200	2740	N	No	150
Kitchen/Living	EW-3	1690	2740	E	No	100
Kitchen/Living	EW-3	1495	2740	N	No	1750
Kitchen/Living	EW-3	1000	2740	W	No	6550
Foyer/Hallway	EW-3	2390	3340	S	No	4000

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	10.0	Bulk Insulation, No Air Gap R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	293.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Garage	Concrete Slab on Ground 100mm	43.7	None	No Insulation	Bare
Master Bedroom	Concrete Slab on Ground 100mm	19.6	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2	Concrete Slab on Ground 100mm	11.6	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Concrete Slab on Ground 100mm	11.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Concrete Slab on Ground 100mm	11.5	None	No Insulation	Carpet+Rubber Underlay 18mm
WIR B1	Concrete Slab on Ground 100mm	4.3	None	No Insulation	Carpet+Rubber Underlay 18mm
WIR B2	Concrete Slab on Ground 100mm	2.9	None	No Insulation	Carpet+Rubber Underlay 18mm
WIR B3	Concrete Slab on Ground 100mm	2.0	None	No Insulation	Carpet+Rubber Underlay 18mm
WIR B4	Concrete Slab on Ground 100mm	2.4	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab on Ground 100mm	6.8	None	No Insulation	Ceramic Tiles 8mm
Lounge	Concrete Slab on Ground	24.3	None	No Insulation	Carpet+Rubber

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	100mm				Underlay 18mm
Study	Concrete Slab on Ground 100mm	11.2	None	No Insulation	Carpet+Rubber Underlay 18mm
Laundry	Concrete Slab on Ground 100mm	5.7	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab on Ground 100mm	8.5	None	No Insulation	Ceramic Tiles 8mm
WC	Concrete Slab on Ground 100mm	2.2	None	No Insulation	Ceramic Tiles 8mm
WIL	Concrete Slab on Ground 100mm	3.6	None	No Insulation	Carpet+Rubber Underlay 18mm
Powder	Concrete Slab on Ground 100mm	2.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab on Ground 100mm	82.5	None	No Insulation	Ceramic Tiles 8mm
Foyer/Hallway	Concrete Slab on Ground 100mm	20.2	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom Hall	Concrete Slab on Ground 100mm	9.9	None	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Plasterboard	No insulation	Yes
Master Bedroom	Plasterboard	Bulk Insulation R6	Yes
Bedroom 2	Plasterboard	Bulk Insulation R6	Yes
Bedroom 3	Plasterboard	Bulk Insulation R6	Yes
Bedroom 4	Plasterboard	Bulk Insulation R6	Yes
WIR B1	Plasterboard	Bulk Insulation R6	Yes
WIR B2	Plasterboard	Bulk Insulation R6	Yes
WIR B3	Plasterboard	Bulk Insulation R6	Yes
WIR B4	Plasterboard	Bulk Insulation R6	Yes
Ensuite	Plasterboard	Bulk Insulation R6	Yes
Lounge	Plasterboard	Bulk Insulation R6	Yes
Study	Plasterboard	Bulk Insulation R6	Yes
Laundry	Plasterboard	Bulk Insulation R6	Yes
Bathroom	Plasterboard	Bulk Insulation R6	Yes
WC	Plasterboard	Bulk Insulation R6	Yes
WIL	Plasterboard	Bulk Insulation	Yes

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Room	Material	Insulation	Sealed
Powder	Plasterboard	R6 Bulk Insulation	Yes
Kitchen/Living	Plasterboard	R6 Bulk Insulation	Yes
Foyer/Hallway	Plasterboard	R6 Bulk Insulation	Yes
Bedroom Hall	Plasterboard	R6 Bulk Insulation	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Powder	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Roof Tiles	Foil, Gap Above, Reflective Side Down, Anti-glare Up	Light

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Additional information

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

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