Nationwide House Energy Rating Scheme* — Class 2 summary

Certificate number: 0004412590 Certificate Date: 03 Dec 2019 ★ Average Star rating: 6.4



Assessor details

Accreditation

number: **20884**

Name: **Zoltan Lipovski**Organisation: **EcoMode Design**

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

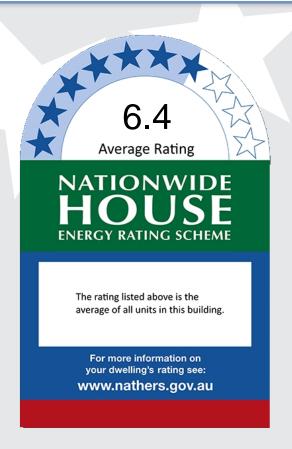
Dwelling details

Street: 28 Lockwood Avenue

Suburb: **Belrose**State: **NSW**Postcode: **2085**

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





Summary of all dwellings

Certificate Details					
Certificate number	Unit number	Heating load	Cooling load	Total load	Star Rating
0004411500	G.01	18.9	15.6	34.5	7.4
0004411708	LG.01	17.8	16.3	34.1	7.4
0004411518	G.02	12.0	20.9	32.9	7.4
0004411732	LG.02	11.1	21.0	32.1	7.4
0004411534	G.03	19.2	12.0	31.2	7.6
0004411773	LG.03	18.1	13.1	31.2	7.6
0004411575	G.04	20.5	10.9	31.3	7.6
0004411716	LG.04	31.8	12.1	43.9	6.6
0004411609	G.05	39.8	19.9	59.7	5.4
0004411740	LG.05	39.3	21.1	60.4	5.4
0004411583	G.06	39.8	23.3	63.1	5.2
0004411781	LG.06	39.3	23.9	63.2	5.2
0004411617	G.07	17.4	18.8	36.2	7.2
0004411765	LG.07	19.4	25.7	45.2	6.4
0004411567	G.08	27.7	21.5	49.2	6.2

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

Nationwide House Energy Rating Scheme* - Class 2 summary

Certificate number: **0004412590** Certificate Date:

03 Dec 2019

★ Average Star rating: 6.4

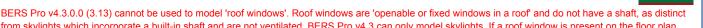


Summary of all dwellings continued

Certificate Details					
Certificate number	Unit number	Heating load	Cooling load	Total load	Star Rating
0004411799	LG.08	21.7	24.5	46.2	6.4
0004411591	G.09	27.6	23.4	51.0	6
0004411823	LG.09	21.7	24.5	46.2	6.4
0004411633	G.10	15.3	17.2	32.5	7.4
0004411864	LG.10	25.1	20.3	45.5	6.4
0004411682	G.11	10.2	19.5	29.6	7.7
0004411906	LG.11	26.6	21.4	48.0	6.3
0004411641	G.12	13.6	11.4	25.0	8.1
0004411922	LG.12	27.3	22.6	49.9	6.1
0004411674	G.13	17.8	19.2	37.0	7.2
0004411849	LG.13	23.7	21.2	44.9	6.5
0004411690	G.14	43.9	27.0	71.0	4.8
0004411856	LG.14	16.9	13.8	30.7	7.7
0004411625	G.15	39.6	28.0	67.6	4.9
0004411880	LG.15	14.1	12.0	26.1	7.9
0004411658	G.16	42.6	25.7	68.3	4.9
0004411831	LG.16	22.1	21.0	43.0	6.7
0004411872	LG.17	42.6	26.4	69.0	4.9
0004411898	LG.18	45.1	29.5	74.6	4.5
0004411930	LG.19	37.8	24.2	62.0	5.3
0004411369	1.01	24.3	23.8	48.0	6.3
0004411377	1.02	18.4	18.8	37.2	7.2
0004411385	1.03	28.0	11.6	39.6	6.9
0004411393	1.04	30.7	10.1	40.9	6.9
0004411435	1.05	39.1	22.7	61.8	5.3
0004411419	1.06	25.9	17.8	43.7	6.7
0004411427	1.07	17.0	25.9	42.9	6.7
0004411401	1.08	26.4	25.7	52.1	5.9
0004411443	1.09	21.5	25.9	47.3	6.4
0004411476	1.10	25.8	29.0	54.8	5.8
0004411492	1.11	22.1	25.2	47.3	6.4
0004411468	2.01	35.1	22.1	57.2	5.6
0004411484	2.02	37.4	16.0	53.4	5.9
0004411450	2.03	30.9	25.8	56.7	5.6
0004411526	2.04	39.2	12.6	51.8	5.9
0004411542	2.05	27.9	17.3	45.2	6.4

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

Certificate number: 0004411369 Certificate Date: 03 Dec 2019 ★ Star rating: **6.3**



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 1.01, 28 Lockwood Avenue

Suburb: Belrose

State: Postcode: 2085 **NSW** NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 104.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 110.0

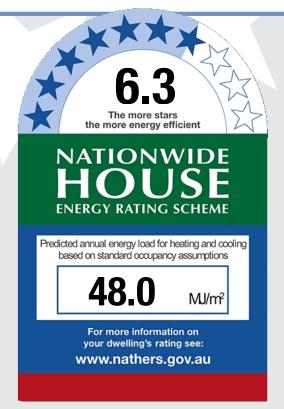
Annual thermal performance loads (MJ/m²)

Heating: 24.3 Cooling: 23.8 TOTAL: 48.0

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 36 Unsealed: 1 TOTAL:** 37 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.







Building features

Window type and performance value				
Window ID	Window type	U-value	SHGC	
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70	
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57	

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3600	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	3800	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	1800	NE	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	1800	NE	No Shading
Study	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	2100	SE	No Shading

ID	Window	type		U-value	SHGC
None Presen	t				
Roof windo	w and skyligl	nt schedule			
				Outdoor shade	

ID	Wall type		Insulation W			all wrap or foil
EW-1	Brick Veneer		Bulk Insulation R2		No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	5095	2900	NE	No	2700
Bedroom 1	EW-1	4575	2900	SE	No	0
Bedroom 1	EW-1	2995	2900	NE	No	0
Bedroom 3	EW-1	3071	2900	NE	No	0
Ensuite	EW-1	1855	2900	SE	No	0
Study	EW-1	1437	2900	NW	No	3786
Study	EW-1	2076	2900	NE	No	520
Bedroom 3	EW-1	3076	2900	NE	No	500
Bedroom 3	EW-1	2576	2900	SE	No	0

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Stud, multi plaster layers	59.0	Bulk Insulation in the centre R2	No	
	110.0	No insulation	No	

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

Certificate number: 0004411369 Certificate Date: 03 Dec 2019 ★ Star rating:



6.3

Building features continued

IW-2 - Cavity wall, direct fix plasterboard, single gap

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	48.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1 Concrete Slab, Unit Below 13.3 150mm		13.3	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.9	None	No Insulation	Carpet 10mm
Corridor	Concrete Slab, Unit Below 150mm	6.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.6	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.6	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Study	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	15.4	None	No Insulation	Carpet 10mm

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Corridor	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Ensuite	Concrete, Plasterboard	Foil Anti-glare	Yes	

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

Certificate number: 0004411369 Certificate Date: 03 Dec 2019 ★ Star rating: 6



Building features continued

		one side and Reflective other of the Bulk Insulation R2	
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Study	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	3	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Study	1	Downlights - Halogen	450	Unsealed
Bedroom 3	6	Downlights - LED	150	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type			
Construction	Added Ro insulation	of colour	
Waterproofing Membrane	No Insulation, Liç Only an Air Gap	jht	

NATIONWIDE HOUSE ENERGY RATING SCHEME

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

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

Certificate number: 0004411377 Certificate Date: 03 Dec 2019 ★ Star rating: 7.2

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: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit 1.02, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R2.0 ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 64.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 70.0

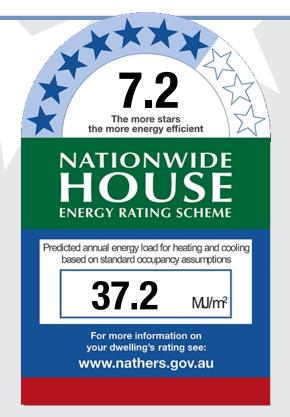
Annual thermal performance loads (MJ/m²)

Heating: 18.4
Cooling: 18.8
TOTAL: 37.2

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 27
Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

27

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.



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

ALM-001-01 A

n/a

Certificate number: 0004411377 Certificate Date: 03 Dec 2019 ★ Star rating: 7.



No Shading

Building features

Bedroom 2

Window type	and performand	e value				
Window ID	Window type				U-value	SHGC
ALM-001-01 A	ALM-001-01 A	Aluminium A SG	Clear		6.7	0.57
Window sche	dule					
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	4000	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NE	No Shading

2700

1500

NE

Roof window	and skylight type	e and performanc	e value			
ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4295	2900	NE	No	2700
Bedroom 1	EW-1	2995	2900	NE	No	1500
Bedroom 1	EW-1	2100	2900	SE	No	0
Bedroom 2	EW-1	1200	2900	NW	No	4300
Bedroom 2	EW-1	3095	2900	NE	No	1500

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Stud, multi plaster layers	45.0	Bulk Insulation in the centre R2	No	
IW-2 - Cavity wall, direct fix plasterboard, single gap	65.0	No insulation	No	
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	30.0	No Insulation	No	

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below	35.5	None	No Insulation	Cork Tiles or

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

Certificate number: 0004411377 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features continued

	150mm				Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.0	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.6	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.4	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed

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

Laundry

1

Certificate number: 0004411377 Certificate Date: 03 Dec 2019 ★ Star rating:

Exhaust Fans



Building features continued Ensuite 1 **Exhaust Fans** 300 Sealed Bedroom 1 Downlights - LED Sealed 4 150 Bedroom 2 4 Downlights - LED 150 Sealed Laundry 1 Downlights - LED 150 Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

300

Sealed

Roof type			
Construction	Added insulation	Roof colour	
Waterproofing Membrane	No Insulation, Only an Air Gap	Light	



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

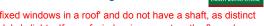
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411385 Certificate Date: 03 Dec 2019 ★ Star rating: 6.9



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 1.03, 28 Lockwood Avenue

Suburb: Belrose

State: Postcode: 2085 **NSW** NCC Class: 2 Type:

New Dwelling NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 75.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 82.0

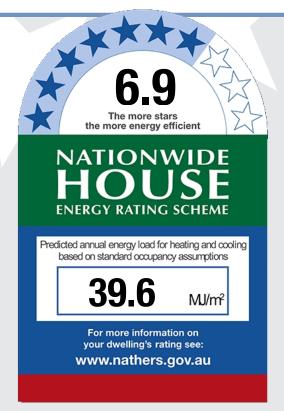
Annual thermal performance loads (MJ/m²)

Heating: 28.0 Cooling: 11.6 TOTAL: 39.6

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 29 Unsealed: 0 TOTAL:** 29 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411385** Certificate Date:

03 Dec 2019

★ Star rating:



Building features

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	NE	No Shading

Roof window	w and skylight	type and performanc	e value			
ID None Present	Window t	ype			U-value	SHGC
	w and skylight	schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1500
Bedroom 2	EW-1	1300	2900	SE	No	0
Kitchen/Living	EW-1	3500	2900	NW	No	3000
Kitchen/Living	EW-1	4095	2900	NE	No	1500
Bedroom 1	EW-1	2995	2900	NE	No	5000

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	54.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	16.0	No Insulation	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering

Certificate number: **0004411385** Certificate Date: **03 Dec 2019** ★ Star rating:



6.9

Building features continued Concrete Slab, Unit Below **Bathroom** 4.7 None No Insulation **Ceramic Tiles** 150mm 8mm Concrete Slab, Unit Below **Ceramic Tiles** Laundry 2.3 None No Insulation 150mm 8mm Bedroom 2 Concrete Slab, Unit Below 13.9 None No Insulation Carpet 10mm 150mm Concrete Slab, Unit Below Kitchen/Living 44.1 None No Insulation Cork Tiles or 150mm Parquetry 8mm **Ensuite** Concrete Slab, Unit Below 5.5 None No Insulation **Ceramic Tiles** 150mm 8mm Bedroom 1 Concrete Slab, Unit Below 11.7 None No Insulation Carpet 10mm 150mm

Ceiling type		
Location	Construction	Added Roof space insulation above
Bathroom	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2
Laundry	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2
Ensuite	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2

Ceiling pene	etrations			
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

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

Certificate number: 0004411385 Certificate Date: 03 Dec 2019 ★ Star rating:



	*	
6.9	HC	ONWIDE DUSE RATING SCHEME

Bedroom 2	5	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colou insulation
Waterproofing Membrane	No Insulation, Light Only an Air Gap



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

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

Certificate number: 0004411393 Certificate Date: 03 Dec 2019 ★ Star rating: 6.9



then this certificate is not valid

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 1.04, 28 Lockwood Avenue

Suburb: Belrose

State: Postcode: 2085 **NSW** NCC Class: 2 Type:

New Dwelling

NatHERS climate zone: 56

Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 75.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 82.0

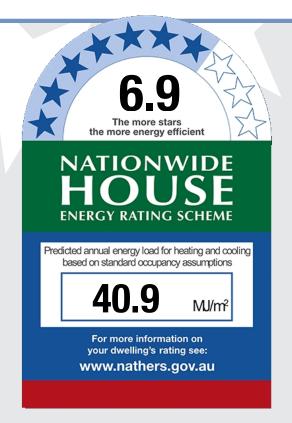
Annual thermal performance loads (MJ/m²)

Heating: 30.7 Cooling: 10.1 TOTAL: 40.9

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 29 Unsealed: 0 TOTAL:** 29 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411393** Certificate Date: **03 Dec 2019** ★ Star rating:





Window type and performance val	ue
---------------------------------	----

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	SE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	NE	No Shading

ID	Window	type			U-value	SHGC
None Presen	t					
Poof windo	w and skyligh	t schodulo				
Roof windo	w and skyligh	t schedule Roof	Area (m²)	Orientation C	Outdoor shade	Indoor

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer Bulk Insulation R2 No				-	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1600
Kitchen/Living	EW-1	4095	2900	NE	No	1600
Kitchen/Living	EW-1	3500	2900	SE	No	3000
Bedroom 1	EW-1	2995	2900	NE	No	5100

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Concrete Panel/Blocks filled multi plaster layers	, 57.0	No Insulation	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No		
IW-3 - Stud, multi plaster layers	17.0	Bulk Insulation in the centre R2	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bathroom	Concrete Slab, Unit Below	4.7	None	No Insulation	Ceramic Tiles

Certificate number: **0004411393** Certificate Date: **03 Dec 2019** ★ Star rating:



Building features continued

	150mm				8mm
Laundry	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm

Ceiling type			
Location	Construction		of space
Bathroom	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	es
Laundry	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	es
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	98
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	98
Ensuite	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	98
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	98

Ceiling penetrations

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed

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

Certificate number: 0004411393 Certificate Date: 03 Dec 2019



★ Star rating:

Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added R insulation	oof colour
Waterproofing Membrane	No Insulation, L Only an Air Gap	ight



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

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

Certificate number: 0004411435 Certificate Date: 03 Dec 2019 ★ Star rating: **5.3**

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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 1.05, 28 Lockwood Avenue

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 75.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 83.0

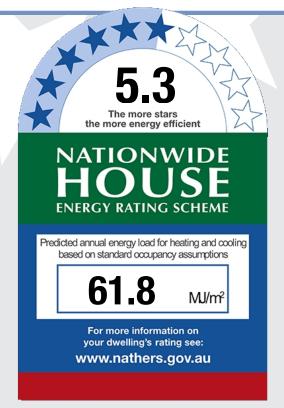
Annual thermal performance loads (MJ/m²)

Heating: 39.1 Cooling: 22.7 TOTAL: 61.8

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 30 Unsealed: 0 TOTAL:** 30 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411435** Certificate Date: **03 Dec 2019**

★ Star rating:



5.3

Building features

Window type	Window type and performance value				
Window ID	Window type	U-value	SHGC		
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70		
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57		

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2100	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Study	ALM-001-01 A	n/a	1800	2400	SW	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
	ID	Roof	A (0)	0: 4:: 0	utdoor shade	Indon

External wa	all type						
ID	Wall type		Insulation		Wall wrap or		
EW-1	Brick Vene	er	Bulk Insulation R2		No		
EW-2	Tilt up conc	Tilt up concrete, lined		Bulk Insulation R2		No	
External wa	all schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves	

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3400	2900	NE	No	3100
Kitchen/Living	EW-1	3995	2900	SE	No	0
Laundry	EW-1	1295	2900	SW	No	0
Bathroom	EW-1	1790	2900	SW	No	0
Bedroom 1	EW-1	4195	2900	NE	No	0
Bedroom 1	EW-1	3095	2900	SE	No	3400
Bedroom 2	EW-1	3095	2900	SE	No	0
Bedroom 2	EW-1	3795	2900	SW	No	0
Study	EW-2	2490	2900	SW	No	0
Ensuite	EW-1	1795	2900	NE	No	0

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Stud, multi plaster layers	30.0	Bulk Insulation in the centre R2	No	

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

Certificate number: 0004411435 Certificate Date: 03 Dec 2019 ★ Star rating:



5.3

Building features continued

IW-2 - Cavity wall, direct fix 81.0 No insulation No plasterboard, single gap

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	38.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.2	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet 10mm
Study	Concrete Slab, Unit Below 150mm	7.4	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Study	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

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

Certificate number: **0004411435** Certificate Date: **03 De**

03 Dec 2019

★ Star rating:



5.3

Building features continued

Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
Kitchen/Living	10	Downlights - LED	150	Sealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Laundry	2	Downlights - LED	150	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Bathroom	2	Downlights - LED	150	Sealed	
Bathroom	1	Exhaust Fans	300	Sealed	
Bedroom 1	4	Downlights - LED	150	Sealed	
Bedroom 2	4	Downlights - LED	150	Sealed	
Study	2	Downlights - LED	150	Sealed	
Ensuite	2	Downlights - LED	150	Sealed	
Ensuite	1	Exhaust Fans	300	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark



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

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

Certificate number: 0004411419 Certificate Date: 03 Dec 2019 ★ Star rating: 6.7

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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 1.06, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: Postcode: 2085 **NSW** NCC Class: 2 Type:

New Dwelling NatHERS

climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ATB-003-04 B AI Thermally Broken A Glazing:

DG Air Fill Low Solar Gain low-E -Clear

Net floor area (m²)

Conditioned: 44.0 Unconditioned: 5.0 Garage: 0.0 TOTAL: 49.0

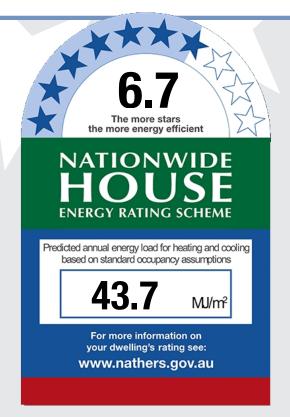
Annual thermal performance loads (MJ/m²)

Heating: 25.9 Cooling: 17.8 TOTAL: 43.7

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 20 Unsealed: 0 TOTAL:** 20 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411419 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

Window ID	Window type	U-value	SHGC
ATB-003-04 B	ATB-003-04 B Al Thermally Broken A DG Air Fill Low Solar Gain low-E -Clear	3.1	0.27
ATB-004-04 B	ATB-004-04 B Al Thermally Broken B DG Air Fill Low Solar Gain low-E-Clear	3.1	0.27

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ATB-003-04 B	n/a	2700	2100	NW	Awning
Kitchen/Living	ATB-003-04 B	n/a	2700	900	NW	Awning
Kitchen/Living	ATB-004-04 B	n/a	2700	2700	NE	Awning
Kitchen/Living	ATB-004-04 B	n/a	2700	2400	NE	Awning
Bedroom 1	ATB-003-04 B	n/a	2700	1500	NW	No Shading
Bedroom 1	ATB-004-04 B	n/a	2700	900	NE	No Shading

Roof window	w and skylight ty	pe and performance	e value			
ID	Window typ	е			U-value	SHGC
None Present	t					-
Roof window	w and skylight s	chedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present	t			-		

External wall t	ype					
ID	Wall type		Insulation	Insulation W		
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3995	2900	NW	No	0
Kitchen/Living	EW-1	6400	2900	NE	No	0
Bedroom 1	EW-1	3000	2900	NW	No	0
Bedroom 1	EW-1	1600	2900	NE	No	0

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Cavity wall, direct fix plasterboard, single gap	32.0	No insulation	No	
IW-2 - Stud, multi plaster layers	43.0	Bulk Insulation in the centre R2	No	

Floors

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

Certificate number: **0004411419** Certificate Date: **03**

03 Dec 2019

★ Star rating:



Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	31.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	0.8	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.2	None	No Insulation	Ceramic Tiles 8mm

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
Kitchen/Living	10	Downlights - LED	150	Sealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Bedroom 1	4	Downlights - LED	150	Sealed	
Laundry	1	Downlights - LED	150	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Bathroom	2	Downlights - LED	150	Sealed	
Bathroom	1	Exhaust Fans	300	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Certificate number: 0004411419 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features continued

Roof type			
Construction	Added Roof colour insulation		
Waterproofing Membrane	No Insulation, Light Only an Air Gap		



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

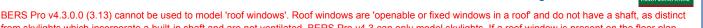
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411427 Certificate Date: 03 Dec 2019 ★ Star rating: 6.7



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 1.07, 28 Lockwood Avenue

Suburb: Belrose

State: Postcode: 2085 **NSW** NCC Class: 2 Type:

New Dwelling NatHERS

climate zone: 56

Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 100.0 Unconditioned: 9.0 Garage: 0.0 TOTAL: 109.0

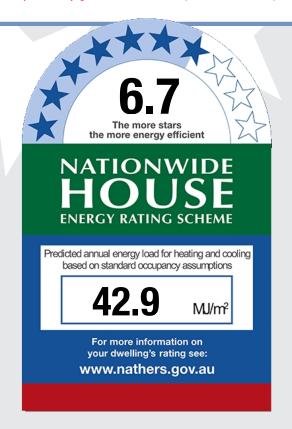
Annual thermal performance loads (MJ/m²)

Heating: 17.0 Cooling: 25.9 TOTAL: 42.9

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 33 Unsealed: 0 TOTAL:** 33 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411427 Certificate Date: 03 Dec 2019 ★ Star rating: 6.



Building features

Window type and performance value			
Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	2700	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	2000	NW	No Shading

ID	Window type				U-value	SHGC
None Present	window type				<u> </u>	01100
Roof window	and skylight sch	edule				
Location	ID	Roof	A (0)	0 1 4 41	Outdoor shade	

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No	1
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	5095	2900	SW	No	1100
Bedroom 1	EW-1	3595	2900	NW	No	800
Kitchen/Living	EW-1	5995	2900	SW	No	1100
Bedroom 2	EW-1	4390	2900	NW	No	800
Bedroom 3	EW-1	3095	2900	NW	No	800

Internal wall type				
Area (m²)	Insulation	Wall wrap or foil		
91.0	No insulation	No		
64.0	Bulk Insulation in the centre R2	No		
	91.0	91.0 No insulation		

Floors

Certificate number: **0004411427** Certificate Date: **03 De**

03 Dec 2019

★ Star rating:



Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	18.0	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	50.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.6	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	13.3	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.8	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No

Ceiling penetrations						
Location	Number	Туре	Diameter (mm)	Sealed/unsealed		
Bedroom 1	6	Downlights - LED	150	Sealed		
Kitchen/Living	10	Downlights - LED	150	Sealed		
Kitchen/Living	1	Exhaust Fans	300	Sealed		
Bedroom 2	4	Downlights - LED	150	Sealed		
Bedroom 3	4	Downlights - LED	150	Sealed		
Ensuite	2	Downlights - LED	150	Sealed		
Ensuite	1	Exhaust Fans	300	Sealed		
Bathroom	2	Downlights - LED	150	Sealed		
Bathroom	1	Exhaust Fans	300	Sealed		
Laundry	1	Downlights - LED	150	Sealed		
Laundry	1	Exhaust Fans	300	Sealed		

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Certificate number: **0004411427** Certific

Certificate Date: 03 Dec 2019

★ Star rating:



Building features continued

Roof type		
Construction	Added insulation	Roof colour
None Present		



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

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

Certificate number: 0004411401 Certificate Date: 03 Dec 2019 ★ Star rating: 5.9

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: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit 1.08, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation
No floor insulation

Glazing: ALM-002-01 A Aluminium B SG Clear

Net floor area (m²)

Conditioned: 76.0
Unconditioned: 6.0
Garage: 0.0
TOTAL: 82.0

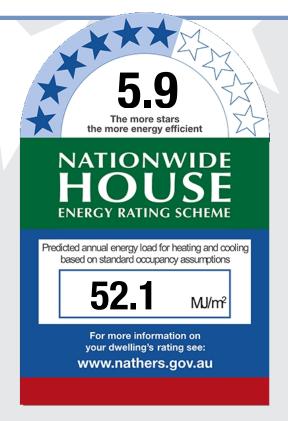
Annual thermal performance loads (MJ/m²)

Heating: 26.4 Cooling: 25.7 TOTAL: 52.1

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 32 Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

32

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.



Certificate number: **0004411401** Certificate Date: **03 Dec 2019**





Building features

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

None Present

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2700	1800	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3800	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading

Roof windo	w and skyliq	ght type and performanc	e value			
ID	Windo	w type			U-value	SHGC
None Presen	nt					-
Roof windo	w and skyliq	ght schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	II wrap or fo
EW-1	Brick Veneer		Bulk Insulation	n R2	No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2995	2900	SW	No	1000
Kitchen/Living	EW-1	3990	2900	SW	No	1000
Bedroom 2	EW-1	3095	2900	SW	No	1000

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Stud, multi plaster layers	87.0	Bulk Insulation in the centre R2	No	
IW-2 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No	

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	17.0	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	36.0	None	No Insulation	Cork Tiles or Parquetry 8mm

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

Certificate number: 0004411401 Certificate Date: 03 Dec 2019 ★ Star rating:



5.9

Building features continued Concrete Slab, Unit Below Bedroom 2 17.9 None No Insulation Carpet 10mm 150mm Laundry Concrete Slab, Unit Below No Insulation **Ceramic Tiles** 1.1 None 150mm 8mm Ensuite Concrete Slab, Unit Below 5.2 None No Insulation **Ceramic Tiles** 150mm 8mm **Bathroom** Concrete Slab, Unit Below 4.9 None No Insulation **Ceramic Tiles** 150mm 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	6	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	6	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Location Number Diameter (mm)	
Location Number Diameter (IIIII)	
None Present	

Roof type		
Construction	Added insulation	Roof colour
None Present		



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.

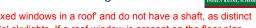
Disclaimer

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

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

Certificate number: 0004411443 Certificate Date: 03 Dec 2019 ★ Star rating: 6.4



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 1.09, 28 Lockwood Avenue

Suburb: Belrose

State: Postcode: 2085 **NSW** NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 76.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 82.0

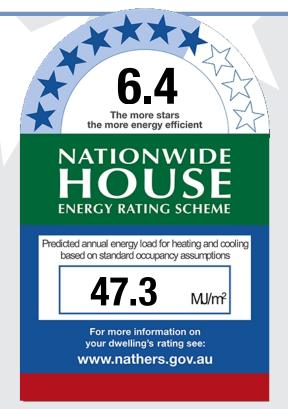
Annual thermal performance loads (MJ/m²)

Heating: 21.5 Cooling: 25.9 TOTAL: 47.3

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 28 Unsealed: 0 TOTAL:** 28 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411443 Certificate Date: 03 Dec 2019 ★ Star rating: 6.



Building features

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	2700	SW	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	SW	No Shading

Roof window and skylight type and performance value						
None Present	Window t	type			U-value	SHGC
Roof window	w and skyligh	t schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present	t					

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer	Bulk Insulation R2		No		
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	3095	2900	SW	No	1000
Kitchen/Living	EW-1	3990	2900	SW	No	1000
Bedroom 1	EW-1	2995	2900	SW	No	1000

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	87.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	70.0	No insulation	No

Floors						
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering	
Bedroom 2	Concrete Slab, Unit Below 150mm	17.9	None	No Insulation	Carpet 10mm	
Laundry	Concrete Slab, Unit Below 150mm	1.0	None	No Insulation	Ceramic Tiles 8mm	

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

Certificate number: 0004411443 Certificate Date: 03 Dec 2019 ★ Star rating:



suliding featur	es continued				
Bathroom	Concrete Slab, Unit Below 150mm	4.9	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	36.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.7	None	No Insulation	Carpet 10mm

Location	Construction	Added insulation	Roof space above
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 2	6	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colour insulation
None Present	



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.

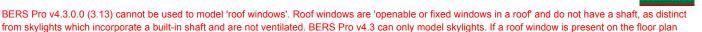
Disclaimer

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

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

Certificate number: 0004411476 Certificate Date: 03 Dec 2019 ★ Star rating: 5.8



then this certificate is not valid.



Accreditation

number: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit 1.10, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 64.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 70.0

Annual thermal performance loads (MJ/m²)

 Heating:
 25.8

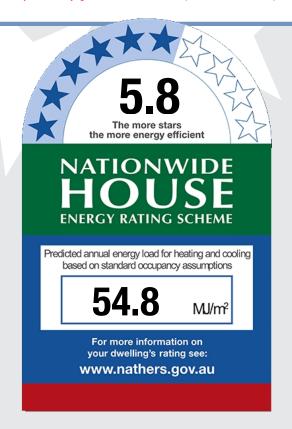
 Cooling:
 29.0

 TOTAL:
 54.8

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 28
Unsealed: 0
TOTAL:** 28

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411476 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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
Bedroom 2	ALM-001-01 A	n/a	2700	1500	S	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	S	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3800	S	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor

ID	Wall type	Insulation			Wall wrap or fo		
EW-1	Brick Veneer		Bulk Insulation	n R2	No	i	
External wall	schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Bedroom 2	EW-1	2995	2900	S	No	1100	
Bedroom 1	EW-1	2995	2900	S	No	1100	
Kitchen/Living	EW-1	4090	2900	S	No	1100	

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Stud, multi plaster layers	60.0	Bulk Insulation in the centre R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	63.0	No insulation	No		
IW-3 - Concrete Panel/Blocks filled plasterboard	, 16.0	No Insulation	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm

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

Certificate number: **0004411476** Certificate Date: **03 Dec 2019** ★ Star rating:



5.8

Building features continued Concrete Slab, Unit Below **Bathroom** 4.3 None No Insulation **Ceramic Tiles** 150mm 8mm Ensuite Concrete Slab, Unit Below 5.2 No Insulation None **Ceramic Tiles** 150mm 8mm Concrete Slab, Unit Below 1.5 None No Insulation **Ceramic Tiles** Laundry 150mm 8mm Concrete Slab, Unit Below Bedroom 1 10.8 None No Insulation Carpet 10mm 150mm Kitchen/Living Concrete Slab, Unit Below 34.1 None No Insulation Cork Tiles or 150mm Parquetry 8mm

Ceiling type					
Location	Construction	Added insulation	Roof space above		
Bedroom 2	Concrete, Plasterboard	No insulation	No		
Bathroom	Concrete, Plasterboard	No insulation	No		
Ensuite	Concrete, Plasterboard	No insulation	No		
Laundry	Concrete, Plasterboard	No insulation	No		
Bedroom 1	Concrete, Plasterboard	No insulation	No		
Kitchen/Living	Concrete, Plasterboard	No insulation	No		

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
None Present		



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.

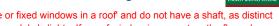
Disclaimer

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

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

Certificate number: 0004411492 Certificate Date: 03 Dec 2019 ★ Star rating: 6.4



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 1.11, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: Postcode: 2085 **NSW** NCC Class: 2 Type:

New Dwelling

NatHERS climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 84.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 90.0

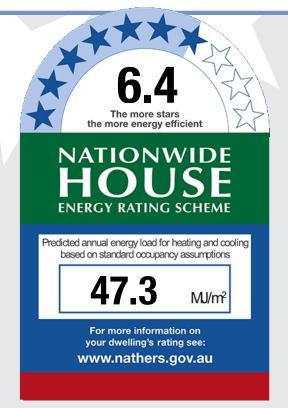
Annual thermal performance loads (MJ/m²)

Heating: 22.1 Cooling: 25.2 TOTAL: 47.3

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 34 Unsealed: 0 TOTAL:** 34 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411492 Certificate Date: 03 Dec 2019 ★ Star rating: 6.4



Building features

Window type and	performance value
-----------------	-------------------

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	2700	SW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SE	No Shading

Roof window	and sky	vlight type	and perfo	rmance value
INDOI WIIIGOW	alla sk	yiigiit type	and pend	illiance value

ID	Window type	U-value	SHGC
None Present			

Roof window and skylight schedule

Location ID Roof window/skylight no.	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
--------------------------------------	-----------	---------------------------	--------------------------

None Present

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3995	2900	SW	No	1075
Bedroom 3	EW-1	3690	2900	SW	No	1050
Bedroom 2	EW-1	3215	2900	SE	No	770
Bedroom 2	EW-1	2195	2900	SW	No	1025
Bedroom 1	EW-1	2995	2900	SE	No	695

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	96.0	No insulation	No
IW-2 - Stud, multi plaster layers	58.0	Bulk Insulation in the centre R2	No
IW-3 - Concrete Panel/Blocks filled plasterboard	, 8.0	No Insulation	No

Floors

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

Certificate number: 0004411492 Certificate Date: 03 Dec 2019

★ Star rating:



Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.7	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.3	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	18.9	None	No Insulation	Carpet 10mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Ceiling penetr	rations			
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	7	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Certificate number: **0004411492** Certificate Date:

03 Dec 2019





Building features continued

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Roof type		
Construction	Added R insulation	oof colour
Waterproofing Membrane	No Insulation, L Only an Air Gap	ight



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

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

Certificate number: 0004411468 Certificate Date: 03 Dec 2019 ★ Star rating: **5.6**



then this certificate is not valid

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 2.01, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: **NSW** Postcode: 2085 NCC Class: 2 Type:

New Dwelling

NatHERS climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 95.0 Unconditioned: 9.0 Garage: 0.0 TOTAL: 103.0

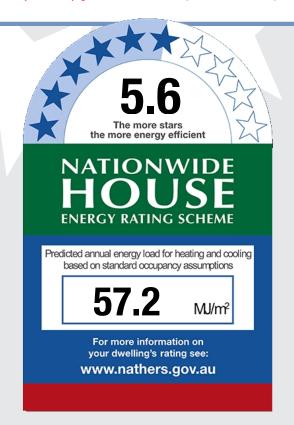
Annual thermal performance loads (MJ/m²)

Heating: 35.1 Cooling: 22.1 TOTAL: 57.2

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 36 Unsealed: 0 TOTAL:** 36 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411468 Certificate Date:

03 Dec 2019

★ Star rating:



Building features

and performand	e value				
Window type				U-value	SHGC
ALM-001-01 A	Aluminium A SG	Clear		6.7	0.57
dule					
Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
ALM-001-01 A	n/a	2700	900	SE	No Shading
ALM-001-01 A	n/a	2700	1800	SW	No Shading
ALM-001-01 A	n/a	2700	1500	SW	No Shading
ALM-001-01 A	n/a	2700	1500	NE	No Shading
ALM-001-01 A	n/a	2700	900	SE	No Shading
ALM-001-01 A	n/a	2700	3600	NE	No Shading
ALM-001-01 A	n/a	2700	1500	SE	No Shading
ALM-001-01 A	n/a	2700	1500	SW	No Shading
ALM-001-01 A	n/a	2700	900	SW	No Shading
	Window type ALM-001-01 A A dule Window ID ALM-001-01 A ALM-001-01 A	ALM-001-01 A Aluminium A SG dule Window ID Window no. ALM-001-01 A n/a ALM-001-01 A n/a	Window type ALM-001-01 A Aluminium A SG Clear dule Window ID Window no. Height (mm) ALM-001-01 A n/a 2700	Window type ALM-001-01 A Aluminium A SG Clear dule Window ID Window no. Height (mm) Width (mm) ALM-001-01 A n/a 2700 900 ALM-001-01 A n/a 2700 1800 ALM-001-01 A n/a 2700 1500 ALM-001-01 A n/a 2700 900 ALM-001-01 A n/a 2700 3600 ALM-001-01 A n/a 2700 1500 ALM-001-01 A n/a 2700 1500 ALM-001-01 A n/a 2700 1500	Window type U-value ALM-001-01 A Aluminium A SG Clear 6.7 Clule Window ID Window no. Height (mm) Width (mm) Orientation ALM-001-01 A n/a 2700 900 SE ALM-001-01 A n/a 2700 1800 SW ALM-001-01 A n/a 2700 1500 NE ALM-001-01 A n/a 2700 900 SE ALM-001-01 A n/a 2700 3600 NE ALM-001-01 A n/a 2700 1500 SE ALM-001-01 A n/a 2700 1500 SE ALM-001-01 A n/a 2700 1500 SE

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall	type					
ID	Wall type		Insulation		Wa	ıll wrap or foil
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	1695	2900	SE	No	7450
Bedroom 1	EW-1	3900	2900	SW	No	0
Bedroom 2	EW-1	3095	2900	SW	No	2700
Bedroom 3	EW-1	1200	2900	NW	No	0
Bedroom 3	EW-1	2900	2900	NE	No	0
Bedroom 3	EW-1	2100	2900	SE	No	0
Kitchen/Living	EW-1	4095	2900	NE	No	0
Kitchen/Living	EW-1	10000	2900	SE	No	850
Kitchen/Living	EW-1	4095	2900	SW	No	2700

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Stud, multi plaster layers	43.0	Bulk Insulation in the centre R2	No		

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

Certificate number: 0004411468 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features continued

IW-2 - Cavity wall, direct fix plasterboard, single gap	97.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled plasterboard	8.0	No Insulation	No

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	16.5	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.0	None	No Insulation	Ceramic Tiles 8mm
Corridor	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	4.1	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.6	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.0	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	45.2	None	No Insulation	Cork Tiles or Parquetry 8mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Corridor	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

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

Certificate number: 0004411468 Certificate Date: 03 Dec 2019 ★ Star rating:



5.6

Insulation R2

Building features continued Concrete, Plasterboard Bedroom 2 Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2 Concrete, Plasterboard Bedroom 3 Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2 Kitchen/Living Concrete, Plasterboard Foil Anti-glare Yes one side and Reflective other of the Bulk

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	6	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Corridor	2	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light



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

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

Certificate number: 0004411484 Certificate Date: 03 Dec 2019 ★ Star rating: 5.9



then this certificate is not valid

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 2.02, 28 Lockwood Avenue

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2

New Dwelling Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

R2.0 ceiling insulation

No floor insulation

ALM-001-03 A Aluminium A SG High Glazing:

Solar Gain Low-E

Net floor area (m²)

Conditioned: 62.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 68.0

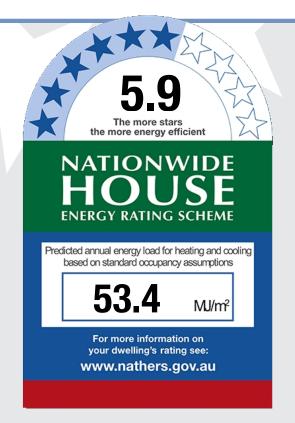
Annual thermal performance loads (MJ/m²)

Heating: 37.4 Cooling: 16.0 TOTAL: 53.4

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 29 Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

29

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.



Certificate number: 0004411484 Certificate Date: 03 Dec 2019

★ Star rating:



5.9

Building features

Window type a	and performance value		
Window ID	Window type	U-value	SHGC
ALM-001-03 A	ALM-001-03 A Aluminium A SG High Solar Gain Low-E	5.4	0.49

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-03 A	n/a	2700	1500	SW	No Shading
Kitchen/Living	ALM-001-03 A	n/a	2700	3600	SW	No Shading
Bedroom 2	ALM-001-03 A	n/a	2700	1500	SW	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No	•
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	1300	2900	NW	No	7100
Bedroom 1	EW-1	3000	2900	SW	No	1000
Kitchen/Living	EW-1	4090	2900	SW	No	2300
Bedroom 2	EW-1	1300	2900	SE	No	7100
Bedroom 2	EW-1	3000	2900	SW	No	1000
Bedroom 2	EW-1	2100	2900	NW	No	0

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Cavity wall, direct fix plasterboard, single gap	57.0	No insulation	No	
IW-2 - Stud, multi plaster layers	57.0	Bulk Insulation in the centre R2	No	
IW-3 - Concrete Panel/Blocks filled, plasterboard	, 16.0	No Insulation	No	

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering

Certificate number: 0004411484 Certificate Date: 03 Dec 2019 ★ Star rating:



Building featur	res continued				
Bedroom 1	Concrete Slab, Unit Below 150mm	10.6	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	28.7	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.4	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	17.0	None	No Insulation	Carpet 10mm

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	

Ceiling peneti	rations			
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed

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

Certificate number: 0004411484 Certificate Date: 03 Dec 2019 ★ Star rating:



5.9

**	
HC	ONWIDE DUSE RATING SCHEME

Ensuite	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 2	6	Downlights - LED	150	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type				
Construction	Added Roof colou insulation			
Waterproofing Membrane	No Insulation, Light Only an Air Gap			



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.

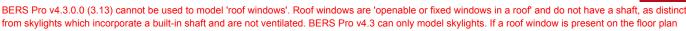
If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

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

Certificate number: 0004411450 Certificate Date: 03 Dec 2019 ★ Star rating: 5.6



then this certificate is not valid.

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit 2.03, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: NSW Postcode: 2085

New Dwelling NCC Class: 2

Type: New Dwelling NCC Class: 2

NatHERS climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R2.0 ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 86.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 93.0

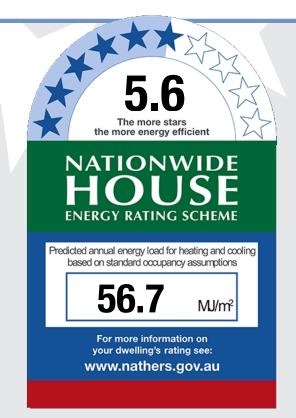
Annual thermal performance loads (MJ/m²)

Heating: **30.9** Cooling: **25.8** TOTAL: **56.7**

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 32

0

TOTAL:** 32

Unsealed:

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



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

Certificate number: **0004411450** Certificate Date: **03 Dec 2019** ★ Star rating:



Building features

Window type and performance value								
Window ID	Window type				U-value	SHGC		
ALM-001-01 A	ALM-001-01 A	Aluminium A SG	Clear		6.7	0.57		
Window sche	dule							
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade		
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading		
Redroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading		

Deuroom 2	ALIVI-001-01 A	II/a	2700	1300	344	NO Shauling
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2700	SW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3600	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	900	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	SW	No Shading

ID	Window	type		U-value	SHGC
None Presen	t				
Roof windo	w and skyligh	nt schedule			
NOO! WIIIGO	w and skyligi	it soriedate			

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	SW	No	1100
Bedroom 3	EW-1	2995	2900	NE	No	0
Bedroom 1	EW-1	3095	2900	SW	No	3200
Kitchen/Living	EW-1	9195	2900	NE	No	0
Kitchen/Living	EW-1	2100	2900	SE	No	3100
Kitchen/Living	EW-1	3995	2900	SW	No	1100

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Stud, multi plaster layers	57.0	Bulk Insulation in the centre R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	91.0	No insulation	No		

Certificate number: 0004411450 Certificate Date: 03 Dec 2019 ★ Star rating: 5.0



Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	Concrete Slab, Unit Below 150mm	10.8	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab, Unit Below 150mm	9.9	None	No Insulation	Carpet 10mm
Bathroom	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.2	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.1	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	46.4	None	No Insulation	Cork Tiles or Parquetry 8mn

Location	Construction	Added insulation	Roof space above
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

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

Certificate number: **0004411450** Certificate Date: **03 Dec 2019**

03 Dec 2019 ★ Star rating:



Building features continued

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Roof type		
Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light



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.

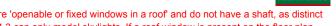
Disclaimer

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

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

Certificate number: 0004411526 Certificate Date: 03 Dec 2019 ★ Star rating: 5.9



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 2.04, 28 Lockwood Avenue

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 82.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 88.0

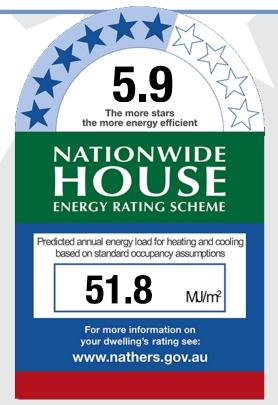
Annual thermal performance loads (MJ/m²)

Heating: 39.2 Cooling: 12.6 TOTAL: 51.8

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 32 Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

32

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.



Certificate number: 0004411526 Certificate Date:

03 Dec 2019

★ Star rating:



Building features

Window type and performance value				
Window ID	Window type	U-value	SHGC	
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57	
MC				

Window schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
ALM-001-01 A	n/a	2700	2700	SW	No Shading
ALM-001-01 A	n/a	600	1500	NE	No Shading
ALM-001-01 A	n/a	2700	3700	SW	No Shading
ALM-001-01 A	n/a	2700	900	NW	No Shading
ALM-001-01 A	n/a	2700	1500	SW	No Shading
ALM-001-01 A	n/a	2700	1500	NE	No Shading
	ALM-001-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A	ALM-001-01 A n/a	ALM-001-01 A n/a 2700 ALM-001-01 A n/a 600 ALM-001-01 A n/a 2700 ALM-001-01 A n/a 2700 ALM-001-01 A n/a 2700 ALM-001-01 A n/a 2700	ALM-001-01 A n/a 2700 2700 ALM-001-01 A n/a 600 1500 ALM-001-01 A n/a 2700 3700 ALM-001-01 A n/a 2700 900 ALM-001-01 A n/a 2700 1500	ALM-001-01 A n/a 2700 2700 SW ALM-001-01 A n/a 600 1500 NE ALM-001-01 A n/a 2700 3700 SW ALM-001-01 A n/a 2700 900 NW ALM-001-01 A n/a 2700 1500 SW

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligh	nt schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	III wrap or foi	
EW-1	Brick Veneer		Bulk Insulation R2		No		
External wall schedule							
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Bedroom 1	EW-1	4095	2900	SW	No	3000	
Bedroom 1	EW-1	1200	2900	NW	No	0	
Kitchen/Living	EW-1	3795	2900	NE	No	0	
Kitchen/Living	EW-1	4195	2900	SW	No	1100	
Kitchen/Living	EW-1	1900	2900	NW	No	4100	
Bedroom 2	EW-1	2995	2900	SW	No	1100	
Bedroom 3	EW-1	2995	2900	NE	No	0	

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Stud, multi plaster layers	50.0	Bulk Insulation in the centre R2	No	
IW-2 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No	
IW-3 - Concrete Panel/Blocks filled plasterboard	d, 28.0	No Insulation	No	

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

Certificate number: 0004411526 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	13.7	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	40.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.8	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	9.9	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.7	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	6.8	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Certificate number: 0004411526 Certificate Date:

03 Dec 2019





Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 2	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Added Roof color insulation		
No Insulation, Light Only an Air Gap		



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.

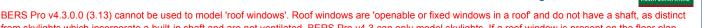
Disclaimer

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

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

Certificate number: 0004411542 Certificate Date: 03 Dec 2019 ★ Star rating: 6.4



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 2.05, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 93.0 Unconditioned: 8.0 Garage: 0.0 TOTAL: 101.0

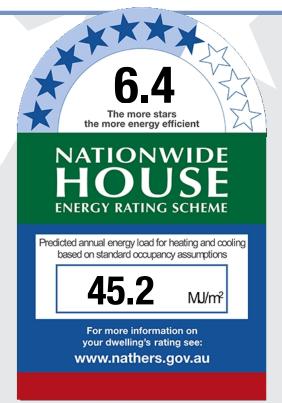
Annual thermal performance loads (MJ/m²)

Heating: 27.9 Cooling: 17.3 TOTAL: 45.2

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 34 Unsealed: 0 TOTAL:** 34 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.







No Shading
No Shading

No Shading

No Shading

Building features

Bedroom 2

Bedroom 3

Kitchen/Living

Kitchen/Living

Window type and performance value

ALM-001-01 A

ALM-001-01 A

ALM-001-01 A

ALM-001-01 A

n/a

n/a

n/a

n/a

	<u> </u>					
Window ID	Window type				U-value	SHGC
ALM-001-01 A	ALM-001-01 A	Aluminium A SG	Clear		6.7	0.57
Window sche	dule					
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2000	NW	No Shading

2700

2700

600

2700

2700

2000

1500

2700

NE

NW

NE

SW

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall	type					
ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Ensuite	EW-1	1795	2900	SW	No	1200
Ensuite	EW-1	2995	2900	SE	No	2800
Bedroom 1	EW-1	5295	2900	SW	No	1200
Bedroom 1	EW-1	2995	2900	NW	No	700
Bedroom 2	EW-1	3595	2900	NW	No	700
Bedroom 2	EW-1	3795	2900	NE	No	0
Bedroom 3	EW-1	4390	2900	NW	No	700
Kitchen/Living	EW-1	4795	2900	NE	No	0
Kitchen/Living	EW-1	2800	2900	SW	No	3400
Laundry	EW-1	1290	2900	NE	No	0

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
	96.0	No insulation	No

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

Certificate number: 0004411542 Certificate Date: 03 Dec 2019 ★ Star rating:



IW-1 - Cavity wall, direct fix plasterboard, single gap				
IW-2 - Concrete Panel/Blocks filled plasterboard	l, 11.0	No Insulation	No	
IW-3 - Stud, multi plaster layers	28.0	Bulk Insulation in the centre R2	No	

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Ensuite	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.5	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	14.9	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	12.2	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	45.0	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.6	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.7	None	No Insulation	Ceramic Tiles 8mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and	Yes

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

Certificate number: 0004411542 Certificate Date:

03 Dec 2019





		Reflective other of the Bulk Insulation R2
Laundry	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

	Ceiling fans
Number Diameter (mm)	Location Numbe
	None Present
	None Fresent

Roof type		
Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light



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

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

Certificate number: 0004411500 Certificate Date: 03 Dec 2019 ★ Star rating: 7.4

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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Unit G.01, 28 Lockwood Avenue Street:

Suburb: Belrose

Lot/DP

State: Postcode: 2085 **NSW** NCC Class: 2 Type:

New Dwelling

NatHERS climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 105.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 111.0

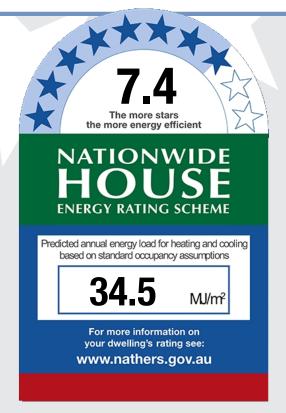
Annual thermal performance loads (MJ/m²)

Heating: 18.9 Cooling: 15.6 TOTAL: 34.5

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 31 Unsealed: 0 TOTAL:** 31 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



ALM-001-01 A

n/a

Certificate number: 0004411500 Certificate Date: 03 Dec 2019 ★ Star rating: 7.4



No Shading

Building features

Bedroom 3

Window type and performance value						
Window ID	Window type				U-value	SHGC
ALM-001-01 A	ALM-001-01 A A	Aluminium A SG	Clear		6.7	0.57
Window sche	dule					
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3600	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2900	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2900	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading

2700

SE

2580

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligh	nt schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation	Insulation		
EW-1	Brick Veneer		Bulk Insulation R2		No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4995	2900	NE	No	3300
Bedroom 1	EW-1	2995	2900	NE	No	3000
Bedroom 2	EW-1	3210	2900	NE	No	3005
Bedroom 3	EW-1	1495	2900	NW	No	4500
Bedroom 3	EW-1	4022	2900	NE	No	485
Bedroom 3	EW-1	2586	2900	SE	No	6272

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Cavity wall, direct fix plasterboard, single gap	93.0	No insulation	No	
IW-2 - Concrete Panel/Blocks filled, multi plaster layers	52.0	No Insulation	No	
IW-3 - Stud, multi plaster layers	27.0	Bulk Insulation in the centre R2	No	

Certificate number: 0004411500 Certificate Date: 03 Dec 2019 ★ Star rating: 7



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	55.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.2	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	15.0	None	No Insulation	Carpet 10mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No

Ceiling penetrations				
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

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

Certificate number: **0004411500** Certificate Date: **03 Dec 2019** ★ Star rating:



Roof type		
Construction	Added insulation	Roof colour
None Present		



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.

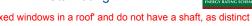
Disclaimer

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

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

Certificate number: 0004411518 Certificate Date: 03 Dec 2019 ★ Star rating: 7.4



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit G.02, 28 Lockwood Avenue

Suburb: Belrose

State: Postcode: 2085 **NSW** NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 64.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 70.0

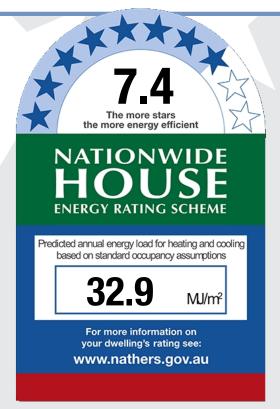
Annual thermal performance loads (MJ/m²)

Heating: 12.0 Cooling: 20.9 TOTAL: 32.9

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 27 Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

27

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.



ALM-001-01 A

ALM-001-01 A

n/a

n/a

Certificate number: 0004411518 Certificate Date: 03 Dec 2019 ★ Star rating: 7.



No Shading

No Shading

Building features

Bedroom 1

Bedroom 2

Window type	and performanc	e value				
Window ID	Window type				U-value	SHGC
ALM-001-01 A	ALM-001-01 A A	Aluminium A SG	Clear		6.7	0.57
Window schee	dule					
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	4000	NE	No Shading

2700

2700

1500

1500

NE

NE

ID	Window type)			U-value	SHGC
None Present	į.					
Roof window	w and skylight sc	hedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4295	2900	NE	No	2700
Bedroom 1	EW-1	2995	2900	NE	No	1500
Bedroom 1	EW-1	2100	2900	SE	No	0
Bedroom 2	EW-1	1200	2900	NW	No	4300
Bedroom 2	EW-1	3095	2900	NE	No	1500

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Stud, multi plaster layers	45.0	Bulk Insulation in the centre R2	No	
IW-2 - Cavity wall, direct fix plasterboard, single gap	65.0	No insulation	No	
IW-3 - Concrete Panel/Blocks fille multi plaster layers	d, 30.0	No Insulation	No	

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below	35.5	None	No Insulation	Cork Tiles or

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

Certificate number: **0004411518** Certificate Date: **03 Dec 2019** ★ Star rating:



	150mm				Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.0	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.6	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.4	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

		Ceiling fans
Diameter (mm)	Number	Location
		None Present
		None Present

Roof type		
Construction	Added insulation	Roof colour
None Present		-

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



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

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

Certificate number: 0004411534 Certificate Date: 03 Dec 2019 ★ Star rating: 7.6

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



Accreditation

number: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit G.03, 28 Lockwood Avenue

Suburb: Belrose

State: Postcode: 2085 **NSW** NCC Class: 2 **New Dwelling** Type:

NatHERS climate zone: 56

Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 75.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 82.0

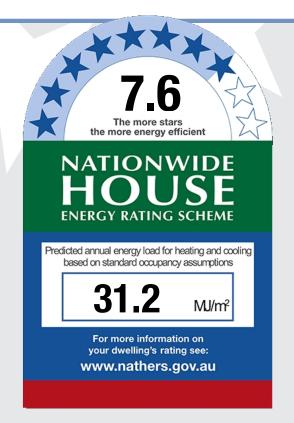
Annual thermal performance loads (MJ/m²)

Heating: 19.2 Cooling: 12.0 TOTAL: 31.2

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 29 Unsealed: 0 TOTAL:** 29 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411534 Certificate Date: 03 Dec 2019 ★ Star rating: 7.



Building features

window type a	window type and performance value							
Window ID	Window type	U-value	SHGC					
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57					

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	NE	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1500
Bedroom 2	EW-1	1300	2900	SE	No	0
Kitchen/Living	EW-1	3500	2900	NW	No	3000
Kitchen/Living	EW-1	4095	2900	NE	No	1500
Bedroom 1	EW-1	2995	2900	NE	No	5000

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	54.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	16.0	No Insulation	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering

Certificate number: 0004411534 Certificate Date: 03 Dec 2019 ★ Star rating:



7.6

Building features continued Bathroom Concrete Slab, Unit Below 4.7 None No Insulation **Ceramic Tiles** 150mm 8mm Concrete Slab, Unit Below Laundry 2.3 None No Insulation **Ceramic Tiles** 150mm 8mm Bedroom 2 Concrete Slab, Unit Below 13.9 None No Insulation Carpet 10mm 150mm Concrete Slab, Unit Below Kitchen/Living 44.1 None No Insulation Cork Tiles or 150mm Parquetry 8mm **Ensuite** Concrete Slab, Unit Below 5.5 None No Insulation Ceramic Tiles 150mm 8mm Bedroom 1 Concrete Slab, Unit Below 11.7 None No Insulation Carpet 10mm 150mm

Location	Construction	Added insulation	Roof space above
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour

Certificate number: 0004411534 Certificate Date: 03 Dec 2019 ★ Star rating: 7.0



R	mil	lin	a	fea	tu	res	CC	'n	tiı	ni	IA	d
_	ч	ш	9	166	u	163	U	7111	ш	ш	uc	Ľ

None Present



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

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

Certificate number: 0004411575 Certificate Date: 03 Dec 2019 ★ Star rating: 7.6

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.



Accreditation

number: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit G.04, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

 Conditioned:
 75.0

 Unconditioned:
 7.0

 Garage:
 0.0

 TOTAL:
 82.0

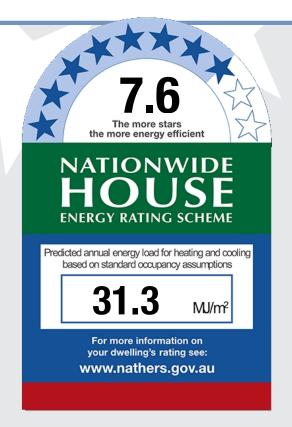
Annual thermal performance loads (MJ/m²)

Heating: 20.5
Cooling: 10.9
TOTAL: 31.3

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 29
Unsealed: 0
TOTAL:** 29

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411575 Certificate Date: 03 Dec 2019 ★ Star rating: 7.0



Building features

Window type and performance value			
Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	SE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	NE	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall s	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1600
Kitchen/Living	EW-1	4095	2900	NE	No	1600
Kitchen/Living	EW-1	3500	2900	SE	No	3000
Bedroom 1	EW-1	2995	2900	NE	No	5100

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Concrete Panel/Blocks filled multi plaster layers	l, 57.0	No Insulation	No	
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No	
IW-3 - Stud, multi plaster layers	17.0	Bulk Insulation in the centre R2	No	

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bathroom	Concrete Slab, Unit Below	4.7	None	No Insulation	Ceramic Tiles

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

Certificate number: 0004411575 Certificate Date: 03 Dec 2019 ★ Star rating: 7



	150mm				8mm
Laundry	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm

Location	Construction	Added insulation	Roof space above
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

Location Number Diameter (mm)	
None Present	

Roof type		
Construction	Added insulation	Roof colour
None Present		-

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



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.

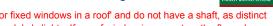
Disclaimer

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

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

Certificate number: 0004411609 Certificate Date: 03 Dec 2019 ★ Star rating: **5.4**



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit G.05, 28 Lockwood Avenue

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 75.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 83.0

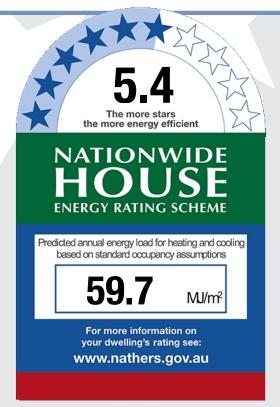
Annual thermal performance loads (MJ/m²)

Heating: 39.8 Cooling: 19.9 TOTAL: 59.7

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 30 Unsealed: 0 TOTAL:** 30 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411609 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

Window type and performance value				
Window ID	Window type	U-value	SHGC	
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70	
AI M-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57	

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Study	ALM-001-01 A	n/a	1800	2400	SW	No Shading

ID	Window	type			U-value	SHGC
None Presen	t					
Roof windo	w and skyligh	t schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall type						
ID	Wall type		Insulation		Wa	all wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
EW-2	Tilt up concrete, lined		Bulk Insulation R2		No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3400	2900	NE	No	3100
Kitchen/Living	EW-1	3995	2900	SE	No	500
Laundry	EW-1	1295	2900	SW	No	0
Bathroom	EW-1	1790	2900	SW	No	0
Bedroom 1	EW-1	3095	2900	SE	No	3900
Bedroom 2	EW-1	3095	2900	SE	No	500
Bedroom 2	EW-1	3795	2900	SW	No	0
Study	EW-2	2490	2900	SW	No	0

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	47.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	81.0	No insulation	No

Certificate number: 0004411609 Certificate Date: 03 Dec 2019 ★ Star rating: 5.



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	38.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.2	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet 10mm
Study	Concrete Slab, Unit Below 150mm	7.4	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Study	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Ceiling penetrations				
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Study	2	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

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

Certificate number: 0004411609 Certificate Date: 03 Dec 2019 ★ Star rating:



Roof type		
Construction	Added insulation	Roof colour
None Present		



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.

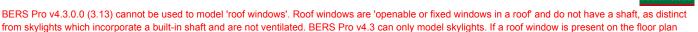
Disclaimer

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

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

Certificate number: 0004411583 Certificate Date: 03 Dec 2019 ★ Star rating: 5.2



then this certificate is not valid.

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: BERS Pro v4.3.0.2f (3.13)

AAO: ABSA

Overview

Dwelling details

Street: Unit G.06, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R2.0 ceiling insulation
No floor insulation

Glazing: ALM-002-01 A Aluminium B SG Clear

Net floor area (m²)

Conditioned: 70.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 77.0

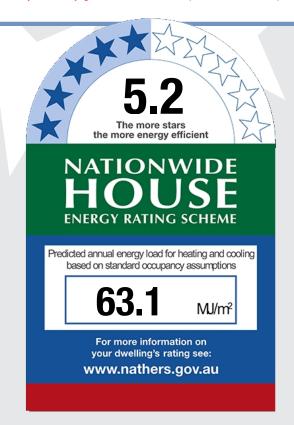
Annual thermal performance loads (MJ/m²)

Heating: **39.8** Cooling: **23.3** TOTAL: **63.1**

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 27
Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

27

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.



ALM-001-01 A Aluminium A SG Clear

Certificate number: 0004411583 Certificate Date: 03 Dec 2019 ★ Star rating: 5.2



0.57

6.7

Building features

ALM-001-01 A

Window type and performance value					
Window ID	Window type	U-value	SHGC		
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
Bedroom 1	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SE	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	ıll wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No	-
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3095	2900	SE	No	3900
Kitchen/Living	EW-1	3895	2900	SE	No	500
Kitchen/Living	EW-1	3400	2900	SW	No	3100
Bathroom	EW-1	3195	2900	NE	No	0
Bedroom 2	EW-1	3595	2900	NE	No	0
Bedroom 2	EW-1	3195	2900	SE	No	500

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Stud, multi plaster layers	40.0	Bulk Insulation in the centre R2	No	
IW-2 - Cavity wall, direct fix plasterboard, single gap	64.0	No insulation	No	
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	15.0	No Insulation	No	

Floors

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

Certificate number: 0004411583 Certificate Date: 03 Dec 2019 ★ Star rating:



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	40.6	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.1	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.2	None	No Insulation	Carpet 10mm

Ceiling type				
Location	Construction	Added Roo insulation abo	of space	
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	S	
Ensuite	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	S	
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	S	
Laundry	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	S	
Bathroom	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	S	
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare Ye one side and Reflective other of the Bulk Insulation R2	S	

	penet	

Location	Number	Туре	Diameter (mm) Sealed/unsealed
Bedroom 1	4	Downlights - LED	150 Sealed
Ensuite	2	Downlights - LED	150 Sealed

Certificate number: 0004411583 Certificate Date: 03 Dec 2019 ★ Star rating: 5.2



Building features continued Ensuite 1 **Exhaust Fans** 300 Sealed Downlights - LED Kitchen/Living 10 150 Sealed Kitchen/Living 1 **Exhaust Fans** 300 Sealed Laundry 1 Downlights - LED 150 Sealed Laundry 1 **Exhaust Fans** 300 Sealed **Bathroom** 2 Downlights - LED 150 Sealed **Bathroom** 1 **Exhaust Fans** 300 Sealed Bedroom 2 4 Downlights - LED 150 Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added Roof co	olour
Waterproofing Membrane	No Insulation, Dark Only an Air Gap	



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

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

Certificate number: 0004411617 Certificate Date: 03 Dec 2019 ★ Star rating: 7.2



then this certificate is not valid.

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit G.07, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 96.0 Unconditioned: 9.0 Garage: 0.0 TOTAL: 105.0

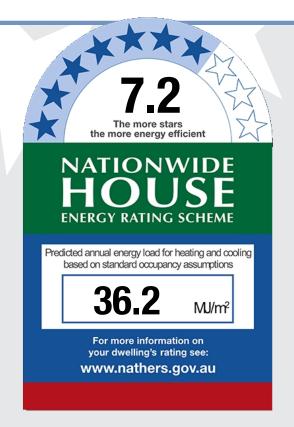
Annual thermal performance loads (MJ/m²)

Heating: 17.4
Cooling: 18.8
TOTAL: 36.2

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 34
Unsealed: 0
TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411617 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

Window type and performance value					
Window ID	Window type	U-value	SHGC		
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57		

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1000	NW	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall	type					
ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer		Bulk Insulation R2		No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4500	2900	NW	No	800
Kitchen/Living	EW-1	3000	2900	SW	No	7900
Bedroom 1	EW-1	3100	2900	NW	No	800
Bedroom 1	EW-1	2995	2900	NE	No	9300
Bedroom 2	EW-1	3090	2900	NW	No	3800
Bedroom 3	EW-1	1695	2900	NW	No	3800

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	93.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	102.0	No insulation	No

Floors

Certificate number: **0004411617** Certificate Date: **03 Dec 2019**

★ Star rating:



Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Corridor	Concrete Slab, Unit Below 150mm	5.3	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	18.5	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.9	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.8	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	4.6	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Cork Tiles or Parquetry 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Corridor	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Corridor	3	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	1	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

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

Certificate number: **0004411617**

Certificate Date:

03 Dec 2019

★ Star rating:

2 NATIONWID HOUSE

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Roof type	
Construction	Added Roof colour insulation
Waterproofing Membrane	No Insulation, Dark Only an Air Gap



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

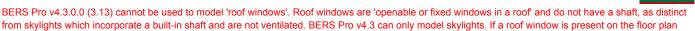
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411567 Certificate Date: 03 Dec 2019 ★ Star rating: 6.2



then this certificate is not valid.

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit G.08, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R2.0 ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 62.0
Unconditioned: 10.0
Garage: 0.0
TOTAL: 71.0

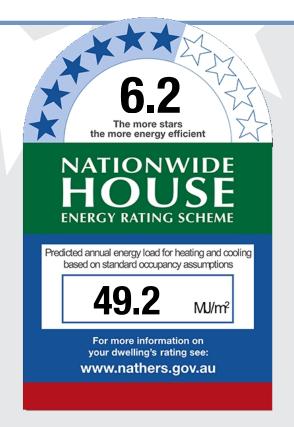
Annual thermal performance loads (MJ/m²)

Heating: 27.7 Cooling: 21.5 TOTAL: 49.2

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 28
Unsealed: 0
TOTAL:** 28

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411567** Certificate Date: **03 Dec 2019** ★ Star rating:



Building features

Window type and	l performance value
-----------------	---------------------

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NW	No Shading

ID	Window ty	ype			U-value	SHGC
None Present	t					
Roof window	w and skylight	schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer Bulk Insulation R2			n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4490	2900	NW	No	3000
Bedroom 2	EW-1	2900	2900	NW	No	800
Bedroom 2	EW-1	2200	2900	NE	No	7500
Bedroom 1	EW-1	2200	2900	SW	No	7400
Bedroom 1	EW-1	3000	2900	NW	No	800

Internal wall type			
Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	62.0	No insulation	No
IW-2 - Stud, multi plaster layers	77.0	Bulk Insulation in the centre R2	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living		29.6	None	No Insulation	

Certificate number: 0004411567 Certificate Date: 03 Dec 2019 ★ Star rating: 6



	Concrete Slab, Unit Below 150mm				Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	6.0	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.9	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetr	ations			
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed

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

Certificate number: **0004411567** Certificate Date: **03 Dec 2019** ★ Star rating:



6.2

Building features continued 1 **Exhaust Fans** 300 Sealed Laundry Downlights - LED Sealed Bedroom 2 4 150 Bedroom 1 6 Downlights - LED 150 Sealed **Ensuite** 2 Downlights - LED 150 Sealed **Ensuite** 1 **Exhaust Fans** 300 Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof co insulation
Waterproofing Membrane	No Insulation, Dark Only an Air Gap



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

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

Certificate number: 0004411591 Certificate Date: 03 Dec 2019 ★ Star rating: 6.0

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: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit G.09, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

Nathers

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R2.0 ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 62.0
Unconditioned: 10.0
Garage: 0.0
TOTAL: 71.0

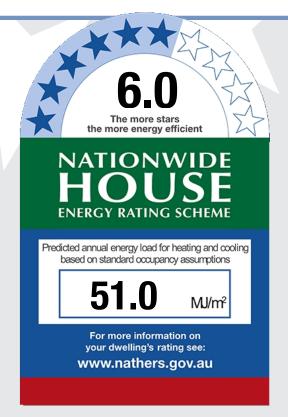
Annual thermal performance loads (MJ/m²)

Heating: **27.6**Cooling: **23.4**TOTAL: **51.0**

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: **28** Unsealed: **0** TOTAL:** **28**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411591** Certificate Date:

03 Dec 2019

★ Star rating:



Building features

Window type	Window type and performance value		
Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	NE	No Shading

ID	Window	type			U-value	SHGC
None Presen	ıt					
Roof windo	w and skyligl	nt schedule				
Location	ID	Roof	A 400 (m2)	Orientation	Outdoor shade	Indoor

ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4490	2900	NW	No	2700
Bedroom 2	EW-1	2200	2900	SW	No	7500
Bedroom 2	EW-1	2900	2900	NW	No	500
Bedroom 1	EW-1	3000	2900	NW	No	500
Bedroom 1	EW-1	2200	2900	NE	No	7400

Wall wrap or foil
No
the centre R2 No

Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
	29.6	None	No Insulation	
	Construction	Construction Area (m²)	ventilation	ventilation insulation

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

Certificate number: **0004411591** Certificate Date: **03 Dec 2019** ★ Star rating:



	Concrete Slab, Unit Below 150mm				Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	6.0	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.9	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm

Ceiling type				
Location	Construction	Added Roof space insulation above		
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2		
Bathroom	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2		
Laundry	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2		
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2		
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2		
Ensuite	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2		

Ceiling penetr	Ceiling penetrations			
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed

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

Bedroom 1

Ensuite

Ensuite

6

2

1



Sealed

Sealed

Sealed

Certificate num	ber: 0004411591	Certificate Date:	03 Dec 2019	★ Star rating:	6.0	HOUSE ENERGY RATING SCHEME
Building fea	tures continue	d				
Laundry	1	Exhaust Fans		300	Sealed	
Bedroom 2	4	Downlights - LED		150	Sealed	

150

150

300

Downlights - LED

Downlights - LED

Exhaust Fans

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colou insulation
Waterproofing Membrane	No Insulation, Dark Only an Air Gap



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

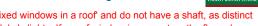
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411633 Certificate Date: 03 Dec 2019 ★ Star rating: 7.4



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Unit G.10, 28 Lockwood Avenue Street:

Suburb: Belrose

Lot/DP

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 87.0 Unconditioned: 5.0 Garage: 0.0 TOTAL: 93.0

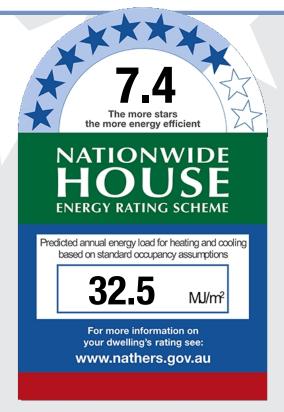
Annual thermal performance loads (MJ/m²)

Heating: 15.3 Cooling: 17.2 TOTAL: 32.5

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 31 Unsealed: 0 TOTAL:** 31 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411633 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

١	Vindow	type ar	nd perf	ormance	value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	3600	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	2400	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading

Root wir	idow and skylight type and performance value
ID	Window type

ID	Window type	U-value	SHGC

None Present

Roof window and skylight schedule

Location	ID	Roof	Area (m²)	Orientation Outdoor shade	Indoor shade/diffuser
		window/skylight no.			Snade/diffuser

None Present

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NW	No	800
Bedroom 3	EW-1	2995	2900	NW	No	800
Bedroom 3	EW-1	4495	2900	NE	No	3600
Bedroom 1	EW-1	1995	2900	NE	No	800
Bedroom 1	EW-1	1600	2900	SE	No	0
Bedroom 1	EW-1	1100	2900	NE	No	0
Kitchen/Living	EW-1	2800	2900	NW	No	5300
Kitchen/Living	EW-1	4595	2900	NE	No	800

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	60.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	82.0	No insulation	No

Certificate number: 0004411633 Certificate Date: 03 Dec 2019 ★ Star rating: 7.



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering	
Bedroom 2	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet 10mm	
Bedroom 3	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet 10mm	
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm	
Bathroom	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm	
Laundry	Concrete Slab, Unit Below 150mm	0.9	None	No Insulation	Ceramic Tiles 8mm	
Bedroom 1	Concrete Slab, Unit Below 150mm	13.1	None	No Insulation	Carpet 10mm	
Kitchen/Living	Concrete Slab, Unit Below 150mm	42.5	None	No Insulation	Cork Tiles or Parquetry 8mm	

Location	Construction	Added insulation	Roof space above
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

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

Certificate number: **0004411633** Certificate Date: **03 Dec 2019** ★ Star rating:



Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location No	umber	Diameter (mm)
None Present		

Roof type		
Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark



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

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

Certificate number: 0004411682 Certificate Date: 03 Dec 2019 ★ Star rating: 7.7



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Unit G.11, 28 Lockwood Avenue Street:

Suburb: Belrose

Lot/DP

State: Postcode: 2085 **NSW** NCC Class: 2 Type:

New Dwelling

NatHERS climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 85.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 91.0

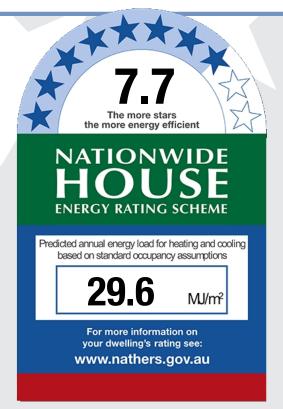
Annual thermal performance loads (MJ/m²)

Heating: 10.2 Cooling: 19.5 TOTAL: 29.6

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 32 Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

32

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.



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

Certificate number: 0004411682 Certificate Date: 03 Dec 2019 ★ Star rating: 7.



Building features

Window type	Window type and performance value				
Window ID	Window type	U-value	SHGC		
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70		
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57		

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2700	2100	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1000	NE	No Shading
Bedroom 2	ALM-002-01 A	n/a	2700	1800	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	2100	SE	No Shading

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligh	nt schedule				
Location		Roof	A (0)	0.01 0.00 4 0.41 0.00	Outdoor shade	Indoor

External wall t	ype						
ID	Wall type		Insulation W		Wa	all wrap or foil	
EW-1	Brick Veneer	Bulk Insulation R2		No			
External wall s	schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Bedroom 1	EW-1	3795	2900	NE	No	2800	
Bedroom 2	EW-1	3190	2900	NE	No	2800	
Bedroom 3	EW-1	2995	2900	NE	No	0	
Kitchen/Living	EW-1	4195	2900	NE	No	0	
Kitchen/Living	EW-1	2200	2900	SE	No	7000	

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	80.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Floors

Certificate number: 0004411682 Certificate Date: 03 Dec 2019 ★ Star rating:



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	15.7	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.3	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.5	None	No Insulation	Carpet 10mm
Bathroom	Concrete Slab, Unit Below 150mm	5.1	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.0	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	42.0	None	No Insulation	Cork Tiles or Parquetry 8mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Certificate number: **0004411682** Certificate Date: **03**

03 Dec 2019





Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Roof type		
Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark



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

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

Certificate number: 0004411641 Certificate Date: 03 Dec 2019 ★ Star rating: 8.1

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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit G.12, 28 Lockwood Avenue

Suburb: Belrose

State: Postcode: 2085 **NSW** NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 104.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 111.0

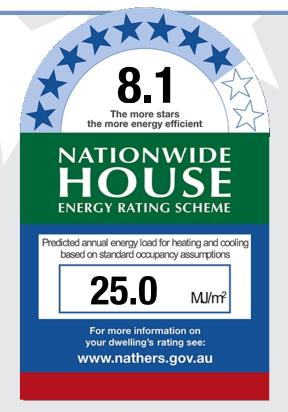
Annual thermal performance loads (MJ/m²)

Heating: 13.6 Cooling: 11.4 TOTAL: 25.0

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 35 Unsealed: 0 TOTAL:** 35 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411641** Certificate Date: **03 Dec 2019** ★ Star rating:



Building features

Window type and performance value				
Window ID	Window type	U-value	SHGC	
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70	
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57	

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	2700	NE	No Shading
Study	ALM-002-01 A	n/a	2700	1800	NW	No Shading
Study	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1200	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	NE	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	1800	NE	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
	ID	Roof	A (0)	0: 4:: 0	utdoor shade	Indon

ID.	MI-II Garage		In a colo Cons		14/-	
ID	Wall type		Insulation		wa	II wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4390	2900	NE	No	2800
Study	EW-1	2100	2900	NW	No	7400
Study	EW-1	400	2900	NE	No	700
Study	EW-1	3576	2900	NE	No	2165
Bedroom 2	EW-1	2990	2900	NE	No	4340
Bedroom 1	EW-1	3936	2900	NE	No	4371
Bedroom 3	EW-1	2995	2900	NE	No	1800

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Cavity wall, direct fix plasterboard, single gap	111.0	No insulation	No	
IW-2 - Concrete Panel/Blocks filled, plasterboard	16.0	No Insulation	No	
IW-3 - Stud, multi plaster layers	66.0	Bulk Insulation in the centre R2	No	

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

Certificate number: **0004411641** Certificate Date:

03 Dec 2019





Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	46.6	None	No Insulation	Cork Tiles or Parquetry 8mm
Study	Concrete Slab, Unit Below 150mm	10.1	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.6	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.9	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	2.0	None	No Insulation	Ceramic Tiles 8mm
Corridor	Concrete Slab, Unit Below 150mm	4.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.1	None	No Insulation	Carpet 10mm
Bathroom	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling peneti	rations			
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Study	3	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Corridor	2	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans

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

Certificate number: **0004411641** Certificate Date:

03 Dec 2019

★ Star rating:



Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark



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

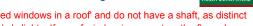
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411674 Certificate Date: 03 Dec 2019 ★ Star rating: 7.2



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit G.13, 28 Lockwood Avenue

Suburb: Belrose

State: Postcode: 2085 **NSW** NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 123.0 Unconditioned: 9.0 Garage: 0.0 TOTAL: 132.0

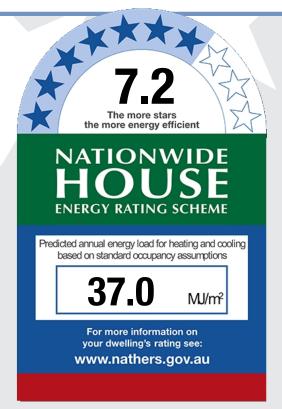
Annual thermal performance loads (MJ/m²)

Heating: 17.8 Cooling: 19.2 TOTAL: 37.0

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 34 Unsealed: 0 TOTAL:** 34 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411674 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

Window type and performance value			
Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3700	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	NE	No Shading
Study	ALM-001-01 A	n/a	2700	900	SE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	SE	No Shading

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligh	nt schedule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor

ID	Wall type		Insulation		Wa	all wrap or fo
EW-1	Brick Veneer		Bulk Insulation R2		No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4570	2900	NE	No	4345
Bedroom 1	EW-1	3796	2900	NE	No	3261
Bedroom 2	EW-1	3130	2900	NE	No	3245
Study	EW-1	3076	2900	SE	No	500
Bedroom 3	EW-1	2936	2900	NE	No	4322
Bedroom 3	EW-1	6296	2900	SE	No	500

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	127.0	No insulation	No
IW-2 - Stud, multi plaster layers	60.0	Bulk Insulation in the centre R2	No
IW-3 - Concrete Panel/Blocks filled plasterboard	, 9.0	No Insulation	No

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

Certificate number: 0004411674 Certificate Date: 03 Dec 2019 ★ Star rating:



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	49.4	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	23.4	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	17.8	None	No Insulation	Carpet 10mm
Study	Concrete Slab, Unit Below 150mm	8.8	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	18.1	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Study	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk	Yes

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

Certificate number: **0004411674** Certificate Date:

03 Dec 2019

★ Star rating:



		Insulation R2
Bathroom	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Study	2	Downlights - LED	150	Sealed
Bedroom 3	6	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Location Nur	mber	Diameter (mm)
None Present		

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark



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

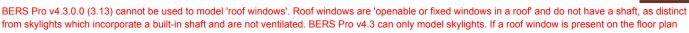
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411690 Certificate Date: 03 Dec 2019 ★ Star rating: 4.8



then this certificate is not valid

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Unit G.14, 28 Lockwood Avenue Street:

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 76.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 83.0

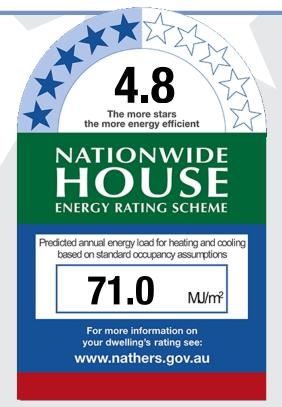
Annual thermal performance loads (MJ/m²)

Heating: 43.9 Cooling: 27.0 TOTAL: 71.0

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 28 Unsealed: 0 TOTAL:** 28 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411690** Certificate Date: **03 Dec 2019**

3 Dec 2019 ★ Star rating:



Building features

Window type and performance value				
Window ID	Window type	U-value	SHGC	
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57	
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
Bedroom 1	ALM-001-01 A	n/a	600	2400	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	SW	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
	ID	Roof	A (0)	0: 4:: 0	utdoor shade	lucal a a u

ID	Wall type		Insulation Wa			all wrap or foil	
EW-1	Brick Veneer		Bulk Insulation R2		No		
External wall schedule							
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Bedroom 1	EW-1	4075	2900	SE	No	270	
Bedroom 1	EW-1	3076	2900	SW	No	3851	
Ensuite	EW-1	1855	2900	SE	No	250	
Kitchen/Living	EW-1	3495	2900	SE	No	3410	
Kitchen/Living	EW-1	4075	2900	SW	No	320	
Bedroom 2	EW-1	2995	2900	SW	No	340	
Bedroom 2	EW-1	2500	2900	NW	No	0	

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-2 - Stud, multi plaster layers	50.0	Bulk Insulation in the centre R2	No

Certificate number: 0004411690 Certificate Date: 03 Dec 2019 ★ Star rating:



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.2	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.6	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations						
Location	Number	Туре	Diameter (mm)	Sealed/unsealed		
Bedroom 1	4	Downlights - LED	150	Sealed		
Ensuite	2	Downlights - LED	150	Sealed		

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

Certificate number: 0004411690 Certificate Date: 03 Dec 2019 ★ Star rating:



Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type			
Construction	Added Roof coloเ insulation		
Waterproofing Membrane	No Insulation, Dark Only an Air Gap		



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

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

Certificate number: 0004411625 Certificate Date: 03 Dec 2019 ★ Star rating: 4.9



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit G.15, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> R2.0 ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 48.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 56.0

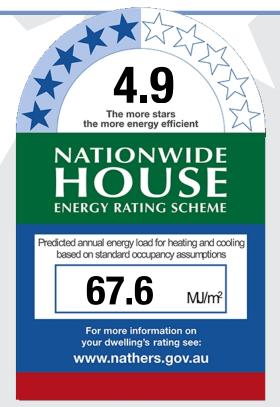
Annual thermal performance loads (MJ/m²)

Heating: 39.6 Cooling: 28.0 TOTAL: 67.6

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 19 Unsealed: 0 TOTAL:** 19 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411625** Certificate Date: **03 Dec 2019**

ALM-001-01 A Aluminium A SG Clear

★ Star rating:

6.7



0.57

Building features

Window type a	and performance value		
Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70

Window schedule

ALM-001-01 A

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3600	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2700	2400	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	600	NW	No Shading

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligl	nt schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall t	ype					
ID	Wall type		Insulation		Wa	ıll wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall s	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4075	2900	SW	No	3275
Bedroom 2	EW-1	2495	2900	SE	No	4145
Bedroom 2	EW-1	3000	2900	SW	No	785
Bedroom 2	EW-1	4360	2900	NW	No	35

Internal wall type						
Wall type	Area (m²)	Insulation	Wall wrap or foil			
IW-1 - Stud, multi plaster layers	55.0	Bulk Insulation in the centre R2	No			
IW-2 - Cavity wall, direct fix plasterboard, single gap	40.0	No insulation	No			

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	34.3	None	No Insulation	Cork Tiles or Parquetry 8mm

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

Certificate number: 0004411625 Certificate Date: 03 Dec 2019 ★ Star rating: 4.9



Building features continued Bedroom 2 Concrete Slab, Unit Below 13.8 None No Insulation Carpet 10mm 150mm Laundry Concrete Slab, Unit Below 2.6 No Insulation Ceramic Tiles None 150mm 8mm Bathroom Concrete Slab, Unit Below 4.8 None No Insulation **Ceramic Tiles** 150mm 8mm

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes	

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
Kitchen/Living	8	Downlights - LED	150	Sealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Bedroom 2	4	Downlights - LED	150	Sealed	
Laundry	2	Downlights - LED	150	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Bathroom	2	Downlights - LED	150	Sealed	
Bathroom	1	Exhaust Fans	300	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added	Roof colour

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

Certificate number: **0004411625** Certificate Date: **03 Dec 2019** ★ Star rating:



No Insulation, Dark Only an Air Gap



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

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

Certificate number: 0004411658 Certificate Date: 03 Dec 2019 ★ Star rating: 4.9



★ Star rating: 4.9

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit G.16, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Waterproofing Membrane Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

R2.0 ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 64.0 Unconditioned: 5.0 Garage: 0.0 TOTAL: 70.0

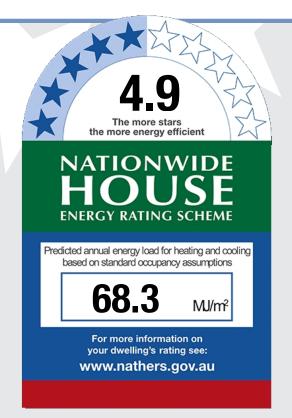
Annual thermal performance loads (MJ/m²)

Heating: 42.6 Cooling: 25.7 TOTAL: 68.3

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 26
Unsealed: 0
TOTAL:** 26

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411658 Certificate Date: 03 Dec 2019 ★ Star rating:





Building features

Window type and performance value					
Window ID	Window type	U-value	SHGC		
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57		

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	2700	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2700	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SW	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	3095	2900	SW	No	3000
Bedroom 1	EW-1	3595	2900	SW	No	0
Kitchen/Living	EW-1	3000	2900	SE	No	3100
Kitchen/Living	EW-1	4395	2900	SW	No	0

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	63.0	No insulation	No		
IW-2 - Stud, multi plaster layers	17.0	Bulk Insulation in the centre R2	No		
IW-3 - Concrete Panel/Blocks filled plasterboard	d, 49.0	No Insulation	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	Concrete Slab, Unit Below	11.8	None	No Insulation	Carpet 10mm

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

Certificate number: 0004411658 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features continued

	150mm				
Bedroom 1	Concrete Slab, Unit Below 150mm	14.9	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.3	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	33.4	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.2	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.1	None	No Insulation	Ceramic Tiles 8mm

Ceiling type			
Location	Construction	Added Roof spinsulation above	ace
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2	
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2	
Ensuite	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2	
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2	
Bathroom	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2	
Laundry	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2	

Ceiling penetrations

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	8	Downlights - LED	150	Sealed

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

Certificate number: **0004411658** Certificate Date: **03 Dec 2019**





Kitchen/Living	1	Extidust Falis	300	Sealeu	
Bathroom	2	Downlights - LED	150	Sealed	
Bathroom	1	Exhaust Fans	300	Sealed	
Laundry	1	Downlights - LED	150	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark



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

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

Certificate number: 0004411708 Certificate Date: 03 Dec 2019 ★ Star rating: 7.4

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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit LG.01, 28 Lockwood Avenue

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 105.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 111.0

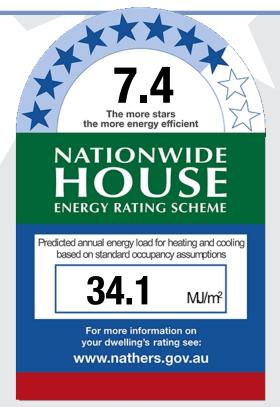
Annual thermal performance loads (MJ/m²)

Heating: 17.8 Cooling: 16.3 TOTAL: 34.1

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 31 Unsealed: 0 TOTAL:** 31 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411708 Certificate Date: 03 Dec 2019 ★ Star rating: 7.



Building features

Window type and performance value						
Window ID	Window type				U-value	SHGC
ALM-001-01 A	ALM-001-01 A A	ALM-001-01 A Aluminium A SG Clear				0.57
Window sche	dule					
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3600	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2900	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2900	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	2580	SE	No Shading

ID	Window typ	е			U-value	SHGC
None Presen	nt					
Roof windo	w and skylight s	chedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4995	2900	NE	No	3300
Bedroom 1	EW-1	2995	2900	NE	No	3000
Bedroom 2	EW-1	3210	2900	NE	No	3005
Bedroom 3	EW-1	1495	2900	NW	No	4500
Bedroom 3	EW-1	4022	2900	NE	No	485
Bedroom 3	EW-1	2586	2900	SE	No	6272

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	93.0	No insulation	No		
IW-2 - Concrete Panel/Blocks filled, multi plaster layers	52.0	No Insulation	No		
IW-3 - Stud, multi plaster layers	27.0	Bulk Insulation in the centre R2	No		

Certificate number: 0004411708 Certificate Date: 03 Dec 2019 ★ Star rating:



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	55.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.2	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	15.0	None	No Insulation	Carpet 10mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
Kitchen/Living	8	Downlights - LED	150	Sealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Bathroom	2	Downlights - LED	150	Sealed	
Bathroom	1	Exhaust Fans	300	Sealed	
Ensuite	2	Downlights - LED	150	Sealed	
Ensuite	1	Exhaust Fans	300	Sealed	
Laundry	1	Downlights - LED	150	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Bedroom 1	6	Downlights - LED	150	Sealed	
Bedroom 2	4	Downlights - LED	150	Sealed	
Bedroom 3	4	Downlights - LED	150	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

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

Certificate number: 0004411708 Certificate Date: 03 Dec 2019 ★ Star rating:



Roof type		
Construction	Added insulation	Roof colour
None Present		



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.

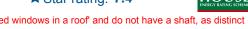
Disclaimer

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

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

Certificate number: 0004411732 Certificate Date: 03 Dec 2019 ★ Star rating: 7.4



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Unit LG.02, 28 Lockwood Avenue Street:

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 64.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 70.0

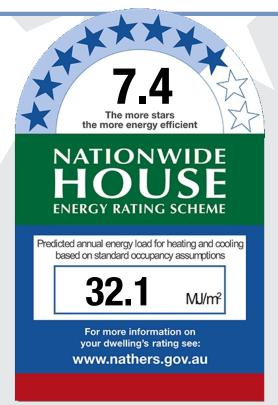
Annual thermal performance loads (MJ/m²)

Heating: 11.1 Cooling: 21.0 TOTAL: 32.1

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 27 Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

27

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.



ALM-001-01 A

ALM-001-01 A

n/a

n/a

Certificate number: 0004411732 Certificate Date: 03 Dec 2019 ★ Star rating: 7.4



No Shading

No Shading

Building features

Bedroom 1

Bedroom 2

Window type and performance value							
Window ID	Window type				U-value	SHGC	
ALM-001-01 A	ALM-001-01 A A	luminium A SG	6.7	0.57			
Window schee	dule						
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade	
Kitchen/Living	ALM-001-01 A	n/a	2700	4000	NE	No Shading	

2700

2700

1500

1500

NE

NE

Roof windo	w and skylight typ	e and performanc	e value			
None Present	Window type				U-value	SHGC
Roof windo	w and skylight scl	nedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present	t					

External wall	type					
ID	Wall type		Insulation		Wa	III wrap or foil
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4295	2900	NE	No	2700
Bedroom 1	EW-1	2995	2900	NE	No	1500
Bedroom 1	EW-1	2100	2900	SE	No	0
Bedroom 2	EW-1	1200	2900	NW	No	4300
Bedroom 2	EW-1	3095	2900	NE	No	1500

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Stud, multi plaster layers	45.0	Bulk Insulation in the centre R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	65.0	No insulation	No		
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	30.0	No Insulation	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below	35.5	None	No Insulation	Cork Tiles or

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

Certificate number: 0004411732 Certificate Date: 03 Dec 2019 ★ Star rating:



	150mm				Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.0	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.6	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.4	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

		Ceiling fans
Diameter (mm)	Number	Location
		None Present
		None Present

Roof type		
Construction	Added insulation	Roof colour
None Present		-

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



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

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

Certificate number: 0004411773 Certificate Date: 03 Dec 2019 ★ Star rating: 7.6

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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit LG.03, 28 Lockwood Avenue

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 75.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 82.0

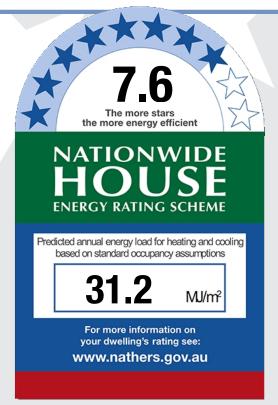
Annual thermal performance loads (MJ/m²)

Heating: 18.1 Cooling: 13.1 TOTAL: 31.2

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 29 Unsealed: 0 TOTAL:** 29 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411773 Certificate Date: 03 Dec 2019 ★ Star rating: 7



Building features

Window type	e and performance value	
M/Smalann ID	Miles all a constant and a	

window ID	window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	NE	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor

ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1500
Bedroom 2	EW-1	1300	2900	SE	No	0
Kitchen/Living	EW-1	3500	2900	NW	No	3000
Kitchen/Living	EW-1	4095	2900	NE	No	1500
Bedroom 1	EW-1	2995	2900	NE	No	5000

nternal wall type Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	54.0	Bulk Insulation in the centre R2	No
W-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
W-3 - Concrete Panel/Blocks filled, multi plaster layers	16.0	No Insulation	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering

Certificate number: 0004411773 Certificate Date: 03 Dec 2019 ★ Star rating:



7.6

Building features continued Bathroom Concrete Slab, Unit Below 4.7 None No Insulation **Ceramic Tiles** 150mm 8mm Concrete Slab, Unit Below Laundry 2.3 None No Insulation **Ceramic Tiles** 150mm 8mm Bedroom 2 Concrete Slab, Unit Below 13.9 None No Insulation Carpet 10mm 150mm Concrete Slab, Unit Below Kitchen/Living 44.1 None No Insulation Cork Tiles or 150mm Parquetry 8mm **Ensuite** Concrete Slab, Unit Below 5.5 None No Insulation **Ceramic Tiles** 150mm 8mm Bedroom 1 Concrete Slab, Unit Below 11.7 None No Insulation Carpet 10mm 150mm

Location	Construction	Added insulation	Roof space above
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
Bathroom	2	Downlights - LED	150	Sealed	
Bathroom	1	Exhaust Fans	300	Sealed	
Laundry	2	Downlights - LED	150	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Bedroom 2	5	Downlights - LED	150	Sealed	
Kitchen/Living	10	Downlights - LED	150	Sealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Ensuite	2	Downlights - LED	150	Sealed	
Ensuite	1	Exhaust Fans	300	Sealed	
Bedroom 1	4	Downlights - LED	150	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour

Certificate number: 0004411773 Certificate Date: 03 Dec 2019 ★ Star rating: 7.0



Buildina	features cor	tinued
Dallalliq	I CULUI CO COI	Itiliaca

None Present



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.

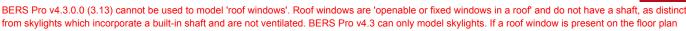
Disclaimer

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

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

Certificate number: 0004411716 Certificate Date: 03 Dec 2019 ★ Star rating: 6.6



then this certificate is not valid.

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: BERS Pro v4.3.0.2f (3.13)

AAO: ABSA

Overview

Dwelling details

Street: Unit LG.04, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 75.0
Unconditioned: 7.0
Garage: 0.0
TOTAL: 82.0

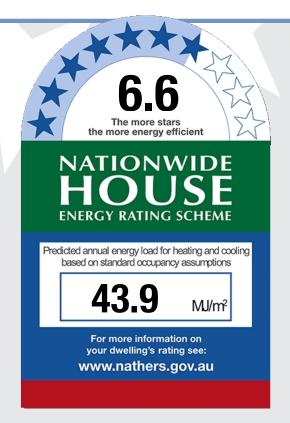
Annual thermal performance loads (MJ/m²)

Heating: **31.8** Cooling: **12.1** TOTAL: **43.9**

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 29
Unsealed: 0
TOTAL:** 29

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411716 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

window type and performance value					
Window ID	Window type	U-value	SHGC		
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57		

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	SE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	NE	No Shading

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer	Brick Veneer Bul		Bulk Insulation R2		0
External wall schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1600
Kitchen/Living	EW-1	4095	2900	NE	No	1600
Kitchen/Living	EW-1	3500	2900	SE	No	3000
Bedroom 1	EW-1	2995	2900	NE	No	5100

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Concrete Panel/Blocks fille multi plaster layers	d, 57.0	No Insulation	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No		
IW-3 - Stud, multi plaster layers	17.0	Bulk Insulation in the centre R2	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bathroom	Concrete Slab, Unit Below	4.7	None	No Insulation	Ceramic Tiles

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

Certificate number: **0004411716** Certificate Date: **03 Dec 2019** ★ Star rating:



	150mm				8mm
Laundry	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm

Location	Construction	Added insulation	Roof space above	
Bathroom	Concrete, Plasterboard	No insulation	No	
Laundry	Concrete, Plasterboard	No insulation	No	
Bedroom 2	Concrete, Plasterboard	No insulation	No	
Kitchen/Living	Concrete, Plasterboard	No insulation	No	
Ensuite	Concrete, Plasterboard	No insulation	No	
Bedroom 1	Concrete, Plasterboard	No insulation	No	

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

Roof type		
Construction	Added insulation	Roof colour
None Present		

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



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.

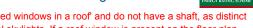
Disclaimer

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

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

Certificate number: 0004411740 Certificate Date: 03 Dec 2019 ★ Star rating: **5.4**



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Unit LG.05, 28 Lockwood Avenue Street:

Suburb: Belrose

Lot/DP

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 75.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 83.0

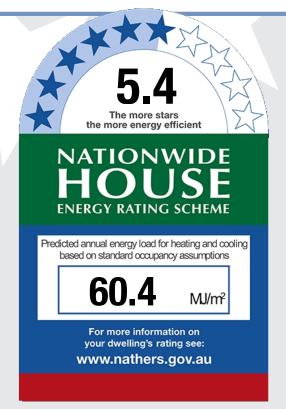
Annual thermal performance loads (MJ/m²)

Heating: 39.3 Cooling: 21.1 TOTAL: 60.4

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 30 Unsealed: 0 TOTAL:** 30 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411740 Certificate Date: 03 Dec 2019 ★ Star rating: 5.



Building features

Window type and performance value			
Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Study	ALM-001-01 A	n/a	1800	2400	SW	No Shading

ID	Window	type			U-value	SHGC
None Presen	t					
Roof windo	w and skyligh	t schedule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor

External wall	type						
ID	Wall type		Insulation		Wa	Wall wrap or foil	
EW-1	Brick Veneer		Bulk Insulatio	n R2	No)	
EW-2	Tilt up concret	e, lined	Bulk Insulatio	n R2	No		
External wall	schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Kitchon/Living	E\\\/ 1	3400	2000	NE	No	2100	

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3400	2900	NE	No	3100
Kitchen/Living	EW-1	3995	2900	SE	No	500
Laundry	EW-1	1295	2900	SW	No	0
Bathroom	EW-1	1790	2900	SW	No	0
Bedroom 1	EW-1	3095	2900	SE	No	3900
Bedroom 2	EW-1	3095	2900	SE	No	500
Bedroom 2	EW-1	3795	2900	SW	No	0
Study	EW-2	2490	2900	SW	No	0

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	47.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	81.0	No insulation	No

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

Certificate number: **0004411740** Certificate Date: **03** I

03 Dec 2019

★ Star rating:



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	38.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.2	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet 10mm
Study	Concrete Slab, Unit Below 150mm	7.4	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Study	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Ceiling penetrations				
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Study	2	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Certificate number: 0004411740 Certificate Date: 03 Dec 2019 ★ Star rating:



Roof type		
Construction	Added insulation	Roof colour
None Present		



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

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

Certificate number: 0004411781 Certificate Date: 03 Dec 2019 ★ 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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Unit LG.06, 28 Lockwood Avenue Street:

Suburb: Belrose

Lot/DP

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 70.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 77.0

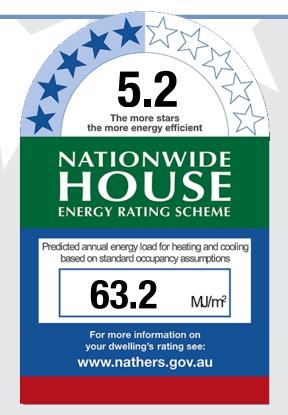
Annual thermal performance loads (MJ/m²)

Heating: 39.3 Cooling: 23.9 TOTAL: 63.2

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 27 Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

27

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.



Certificate number: 0004411781 Certificate Date: 03 Dec 2019 ★ Star rating: 5.2



Building features

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SE	No Shading

ID	Window type	е			U-value	SHGC
None Present						
Roof windov	v and skylight so	chedule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wall wrap or fo		
EW-1	Brick Veneer		Bulk Insulation R2		No		
External wall	schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Bedroom 1	EW-1	3095	2900	SE	No	3900	
Kitchen/Living	EW-1	3895	2900	SE	No	500	
Kitchen/Living	EW-1	3400	2900	SW	No	3100	
Bathroom	EW-1	3195	2900	NE	No	0	
Bedroom 2	EW-1	3595	2900	NE	No	0	
Bedroom 2	EW-1	3195	2900	SE	No	500	

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Stud, multi plaster layers	40.0	Bulk Insulation in the centre R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	64.0	No insulation	No		
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	15.0	No Insulation	No		

Floors

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

Certificate number: **0004411781** Certificate Date: **03 Dec 2019** ★ Star rating:



Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	40.6	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.1	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.2	None	No Insulation	Carpet 10mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type

Certificate number: **0004411781** Certificate Date:

03 Dec 2019

★ Star rating:



Construction	Added Roof colour insulation
None Present	



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

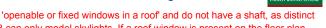
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411765 Certificate Date: 03 Dec 2019 ★ Star rating: 6.4



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Unit LG.07, 28 Lockwood Avenue Street:

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 111.0 Unconditioned: 12.0 Garage: 0.0 TOTAL: 123.0

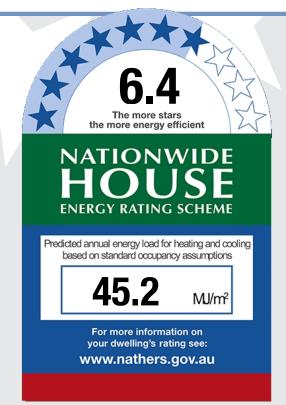
Annual thermal performance loads (MJ/m²)

Heating: 19.4 Cooling: 25.7 TOTAL: 45.2

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 47 Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

47

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.



Certificate number: 0004411765 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

Window type and performance value						
Window ID	Window type				U-value	SHGC
ALM-002-01 A	ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear			6.7	0.70
Window schee	dule					
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	2900	NW	Vertical Louvres,

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	2900	NW	Vertical Louvres, Vertical Blades
Kitchen/Living	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Study	ALM-002-01 A	n/a	2700	2200	NW	Vertical Louvres, Vertical Blades
Bedroom 2	ALM-002-01 A	n/a	2700	2900	NW	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	NW	Vertical Louvres, Vertical Blades
Bedroom 3	ALM-002-01 A	n/a	2700	2200	NW	No Shading

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligh	t schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation	Insulation W		
EW-1	Brick Veneer		Bulk Insulation	n R2	No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6000	2900	NW	No	1900
Study	EW-1	2995	2900	NW	No	2800
Bedroom 2	EW-1	2995	2900	NW	No	1700
Bedroom 1	EW-1	2995	2900	NW	No	2900
Bedroom 3	EW-1	2995	2900	NW	No	1800

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Concrete Panel/Blocks filled, plasterboard	, 22.0	No Insulation	No		
IW-2 - Stud, multi plaster layers	170.0	Bulk Insulation in the centre R2	No		
IW-3 - Cavity wall, direct fix plasterboard, single gap	137.0	No insulation	No		

Certificate number: **0004411765** Certificate Date: **03 Dec 2019** ★ Star rating:



Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	30.9	None	No Insulation	Cork Tiles or Parquetry 8mm
Entry-Stair	Concrete Slab, Unit Below 150mm	12.0	None	No Insulation	Cork Tiles or Parquetry 8mm
Powder	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Study/Kitchen/Livin	Concrete Above Plasterboard 150mm	10.2		No Insulation	Carpet 10mm
Bedroom 2/Kitchen/Living	Concrete Above Plasterboard 150mm	11.1		No Insulation	Carpet 10mm
Corridor/Kitchen/Li ving	Concrete Above Plasterboard 150mm	3.8		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Entry-Stair	Concrete Above Plasterboard 150mm	7.9		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Powder	Concrete Above Plasterboard 150mm	1.7		No Insulation	Cork Tiles or Parquetry 8mm
Laundry/Entry-Stair	Concrete Above Plasterboard 150mm	2.3		No Insulation	Ceramic Tiles 8mm
Bathroom/Kitchen/ Living	Concrete Above Plasterboard 150mm	2.2		No Insulation	Ceramic Tiles 8mm
Bathroom/Entry- Stair	Concrete Above Plasterboard 150mm	1.7		No Insulation	Ceramic Tiles 8mm
Bathroom/Powder	Concrete Above Plasterboard 150mm	1.0		No Insulation	Ceramic Tiles 8mm
Store/Kitchen/Living	Concrete Above Plasterboard 150mm	2.8		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1/Study	Concrete Above Plasterboard 150mm	10.3		No Insulation	Carpet 10mm
Bedroom 1/Corridor	Concrete Above Plasterboard 150mm	2.0		No Insulation	Carpet 10mm
Bedroom 1/Store	Concrete Above Plasterboard 150mm	3.0		No Insulation	Carpet 10mm
Bedroom 3/Bedroom 2	Concrete Above Plasterboard 150mm	11.1		No Insulation	Carpet 10mm
Bedroom 3/Corridor	Concrete Above Plasterboard 150mm	0.5		No Insulation	Carpet 10mm
Corridor/Corridor	Concrete Above Plasterboard 150mm	10.8		No Insulation	Cork Tiles or Parquetry 8mm
Bathroom/Bathroom	Concrete Above Plasterboard 150mm	4.7		No Insulation	Ceramic Tiles 8mm
Store 2/Laundry	Concrete Above Plasterboard 150mm	2.3		No Insulation	Ceramic Tiles 8mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Entry-Stair	Concrete, Plasterboard	No insulation	No
Entry-Stair	Concrete Above Plasterboard	No Insulation	No

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

Certificate number: **0004411765** Certificate Date: **03 Dec 2019** ★ Star rating:



Powder	Concrete, Plasterboard	No insulation	No
Powder	Concrete Above Plasterboard	No Insulation	No
Study	Concrete, Plasterboard	No insulation	No
Study	Concrete Above Plasterboard	No Insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete Above Plasterboard	No Insulation	No
Corridor	Concrete, Plasterboard	No insulation	No
Corridor	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete Above Plasterboard	No Insulation	No
Store	Concrete, Plasterboard	No insulation	No
Store	Concrete Above Plasterboard	No Insulation	No
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Corridor	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Store 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

	pene	

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry-Stair	4	Downlights - LED	150	Sealed
Powder	1	Downlights - LED	150	Sealed
Powder	1	Exhaust Fans	300	Sealed
Study	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Corridor	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

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

Certificate number: 0004411765 Certificate Date: 03 Dec 2019 ★ Star rating:



Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Store	1	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	3	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type			
Construction	Added insulation	Roof colour	
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark	



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

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

Certificate number: 0004411799 Certificate Date: 03 Dec 2019 ★ Star rating: 6.4

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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit LG.08, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 115.0 Unconditioned: 12.0 Garage: 0.0 TOTAL: 127.0

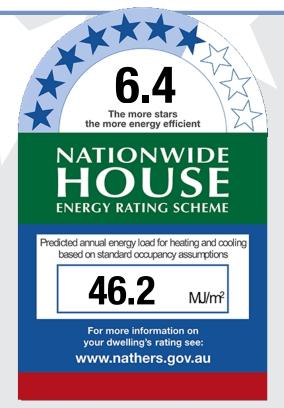
Annual thermal performance loads (MJ/m²)

Heating: 21.7 Cooling: 24.5 TOTAL: 46.2

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 43 Unsealed: 0 TOTAL:** 43 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411799** Certificate Date: **03 Dec 2019** ★ Star rating:



Building features

Window type and performance value				
Window ID	Window type	U-value	SHGC	
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
Kitchen/Living	ALM-002-01 A	n/a	2700	2900	NW	Vertical Louvres, Vertical Blades
Kitchen/Living	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Study	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2700	2900	NW	Vertical Louvres, Vertical Blades
Bedroom 1	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	2700	NW	Vertical Louvres, Vertical Blades

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No)
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6000	2900	NW	No	1600
Study	EW-1	2995	2900	NW	No	1700
Bedroom 2	EW-1	2995	2900	NW	No	2800
Bedroom 1	EW-1	2995	2900	NW	No	1700
Bedroom 3	EW-1	2995	2900	NW	No	2850

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Cavity wall, direct fix plasterboard, single gap	144.0	No insulation	No	
IW-2 - Stud, multi plaster layers	168.0	Bulk Insulation in the centre R2	No	
IW-3 - Concrete Panel/Blocks filled plasterboard	d, 23.0	No Insulation	No	

Certificate number: 0004411799 Certificate Date: 03 Dec 2019 ★ Star rating: 6.4



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	33.9	None	No Insulation	Cork Tiles or Parquetry 8mn
Entry-Stair	Concrete Slab, Unit Below 150mm	10.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Powder	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Study/Kitchen/Livin	Concrete Above Plasterboard 150mm	13.2		No Insulation	Carpet 10mm
Bedroom 2/Kitchen/Living	Concrete Above Plasterboard 150mm	11.1		No Insulation	Carpet 10mm
Corridor/Kitchen/Li ving	Concrete Above Plasterboard 150mm	2.3		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Entry-Stair	Concrete Above Plasterboard 150mm	7.3		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Powder	Concrete Above Plasterboard 150mm	1.7		No Insulation	Cork Tiles or Parquetry 8mn
Laundry/Entry-Stair	Concrete Above Plasterboard 150mm	2.2		No Insulation	Ceramic Tiles 8mm
Bathroom/Kitchen/ Living	Concrete Above Plasterboard 150mm	3.0		No Insulation	Ceramic Tiles 8mm
Bathroom/Entry- Stair	Concrete Above Plasterboard 150mm	0.9		No Insulation	Ceramic Tiles 8mm
Bathroom/Powder	Concrete Above Plasterboard 150mm	8.0		No Insulation	Ceramic Tiles 8mm
Store/Kitchen/Living	Concrete Above Plasterboard 150mm	3.3		No Insulation	Cork Tiles or Parquetry 8mn
Bedroom 1/Study	Concrete Above Plasterboard 150mm	13.2		No Insulation	Carpet 10mm
Bedroom 1/Store	Concrete Above Plasterboard 150mm	3.5		No Insulation	Carpet 10mm
Bedroom 3/Bedroom 2	Concrete Above Plasterboard 150mm	11.2		No Insulation	Carpet 10mm
Bedroom 3/Corridor	Concrete Above Plasterboard 150mm	0.5		No Insulation	Carpet 10mm
Corridor/Corridor	Concrete Above Plasterboard 150mm	10.9		No Insulation	Cork Tiles or Parquetry 8mn
Bathroom/Bathroom	Concrete Above Plasterboard 150mm	4.7		No Insulation	Ceramic Tiles 8mm
Store 2/Laundry	Concrete Above Plasterboard 150mm	2.3		No Insulation	Ceramic Tiles 8mm

Ceiling type			
Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Entry-Stair	Concrete, Plasterboard	No insulation	No
Entry-Stair	Concrete Above Plasterboard	No Insulation	No
Powder	Concrete, Plasterboard	No insulation	No
Powder	Concrete Above Plasterboard	No Insulation	No

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

Certificate number: **0004411799** Certificate Date: **03 Dec 2019** ★ Star rating:



Study	Concrete, Plasterboard	No insulation	No
Study	Concrete Above Plasterboard	No Insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete Above Plasterboard	No Insulation	No
Corridor	Concrete, Plasterboard	No insulation	No
Corridor	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete Above Plasterboard	No Insulation	No
Store	Concrete, Plasterboard	No insulation	No
Store	Concrete Above Plasterboard	No Insulation	No
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Corridor	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Store 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations				
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry-Stair	4	Downlights - LED	150	Sealed
Powder	1	Downlights - LED	150	Sealed
Powder	1	Exhaust Fans	300	Sealed
Study	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

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

Certificate number: 0004411799 Certificate Date: 03 Dec 2019 ★ Star rating:



uilding feat	ures conti	nued		
Store	1	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	3	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Roof type	
Construction	Added Roof cold insulation
Waterproofing Membrane	No Insulation, Dark Only an Air Gap



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

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

Certificate number: 0004411823 Certificate Date: 03 Dec 2019 ★ Star rating: 6.4

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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit LG.09, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: Postcode: 2085 **NSW** NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 115.0 Unconditioned: 12.0 Garage: 0.0 TOTAL: 127.0

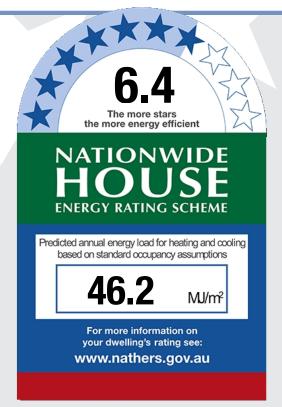
Annual thermal performance loads (MJ/m²)

Heating: 21.7 Cooling: 24.5 TOTAL: 46.2

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 43 Unsealed: 0 TOTAL:** 43 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411823 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

Window ID	Window type	U-value	SHGC
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
Kitchen/Living	ALM-002-01 A	n/a	2700	2900	NW	Vertical Louvres, Vertical Blades
Kitchen/Living	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Study	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2700	2900	NW	Vertical Louvres, Vertical Blades
Bedroom 1	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	2700	NW	Vertical Louvres, Vertical Blades

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	edule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation	Insulation		Wall wrap or foil No	
EW-1	Brick Veneer		Bulk Insulation R2		No		
External wall	schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Kitchen/Living	EW-1	6000	2900	NW	No	1600	
Study	EW-1	2995	2900	NW	No	1700	
Bedroom 2	EW-1	2995	2900	NW	No	2800	
Bedroom 1	EW-1	2995	2900	NW	No	1700	
Bedroom 3	EW-1	2995	2900	NW	No	2850	

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	144.0	No insulation	No		
IW-2 - Stud, multi plaster layers	168.0	Bulk Insulation in the centre R2	No		
IW-3 - Concrete Panel/Blocks fille plasterboard	d, 23.0	No Insulation	No		

Certificate number: 0004411823 Certificate Date: 03 Dec 2019 ★ Star rating: 6.



Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	33.9	None	No Insulation	Cork Tiles or Parquetry 8mn
Entry-Stair	Concrete Slab, Unit Below 150mm	10.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Powder	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Study/Kitchen/Livin	Concrete Above Plasterboard 150mm	13.2		No Insulation	Carpet 10mm
Bedroom 2/Kitchen/Living	Concrete Above Plasterboard 150mm	11.1		No Insulation	Carpet 10mm
Corridor/Kitchen/Li ving	Concrete Above Plasterboard 150mm	2.3		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Entry-Stair	Concrete Above Plasterboard 150mm	7.3		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Powder	Concrete Above Plasterboard 150mm	1.7		No Insulation	Cork Tiles or Parquetry 8mn
Laundry/Entry-Stair	Concrete Above Plasterboard 150mm	2.2		No Insulation	Ceramic Tiles 8mm
Bathroom/Kitchen/ Living	Concrete Above Plasterboard 150mm	3.0		No Insulation	Ceramic Tiles 8mm
Bathroom/Entry- Stair	Concrete Above Plasterboard 150mm	0.9		No Insulation	Ceramic Tiles 8mm
Bathroom/Powder	Concrete Above Plasterboard 150mm	8.0		No Insulation	Ceramic Tiles 8mm
Store/Kitchen/Living	Concrete Above Plasterboard 150mm	3.3		No Insulation	Cork Tiles or Parquetry 8mn
Bedroom 1/Study	Concrete Above Plasterboard 150mm	13.2		No Insulation	Carpet 10mm
Bedroom 1/Store	Concrete Above Plasterboard 150mm	3.5		No Insulation	Carpet 10mm
Bedroom 3/Bedroom 2	Concrete Above Plasterboard 150mm	11.2		No Insulation	Carpet 10mm
Bedroom 3/Corridor	Concrete Above Plasterboard 150mm	0.5		No Insulation	Carpet 10mm
Corridor/Corridor	Concrete Above Plasterboard 150mm	10.9		No Insulation	Cork Tiles or Parquetry 8mn
Bathroom/Bathroom	Concrete Above Plasterboard 150mm	4.7		No Insulation	Ceramic Tiles 8mm
Store 2/Laundry	Concrete Above Plasterboard 150mm	2.3		No Insulation	Ceramic Tiles 8mm

Ceiling type				
Location	Construction	Added insulation	Roof space above	
Kitchen/Living	Concrete, Plasterboard	No insulation	No	
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No	
Entry-Stair	Concrete, Plasterboard	No insulation	No	
Entry-Stair	Concrete Above Plasterboard	No Insulation	No	
Powder	Concrete, Plasterboard	No insulation	No	
Powder	Concrete Above Plasterboard	No Insulation	No	

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

Certificate number: 0004411823 Certificate Date: 03 Dec 2019 ★ Star rating:



Study	Concrete, Plasterboard	No insulation No
Study	Concrete Above Plasterboard	No Insulation No
Bedroom 2	Concrete, Plasterboard	No insulation No
Bedroom 2	Concrete Above Plasterboard	No Insulation No
Corridor	Concrete, Plasterboard	No insulation No
Corridor	Concrete Above Plasterboard	No Insulation No
Laundry	Concrete, Plasterboard	No insulation No
Laundry	Concrete Above Plasterboard	No Insulation No
Bathroom	Concrete, Plasterboard	No insulation No
Bathroom	Concrete Above Plasterboard	No Insulation No
Store	Concrete, Plasterboard	No insulation No
Store	Concrete Above Plasterboard	No Insulation No
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2
Corridor	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2
Bathroom	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2
Store 2	Concrete, Plasterboard	Foil Anti-glare Yes one side and Reflective other of the Bulk Insulation R2

Ceiling penetrations				
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry-Stair	4	Downlights - LED	150	Sealed
Powder	1	Downlights - LED	150	Sealed
Powder	1	Exhaust Fans	300	Sealed
Study	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

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

Certificate number: **0004411823** Certificate Date: **03 Dec 2019** ★ Star rating:



Store	1	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	3	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Roof type				
Construction	Added insulation	Roof colour		
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark		



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

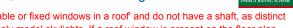
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411864 Certificate Date: 03 Dec 2019 ★ Star rating: 6.4



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit LG.10, 28 Lockwood Avenue

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 76.0 Unconditioned: 6.0 Garage: 0.0 TOTAL: 82.0

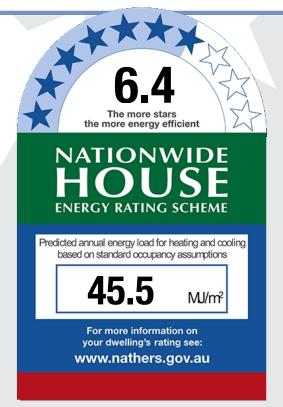
Annual thermal performance loads (MJ/m²)

Heating: 25.1 Cooling: 20.3 TOTAL: 45.5

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 16 Unsealed: 0 TOTAL:** 16 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411864 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

Window type and performance value						
Window ID	Window type				U-value	SHGC
ALM-001-01 A	ALM-001-01 A A	ALM-001-01 A Aluminium A SG Clear			6.7	0.57
Window schee	dule					
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	2000	NW	No Shading

						• atao • o i aao
Kitchen/Living	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1000	NW	No Shading

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligh	nt schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	III wrap or foi
EW-1	Brick Veneer		Bulk Insulation R2		No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4500	2900	NW	No	1100
Kitchen/Living	EW-1	3000	2900	SW	No	7900
Bedroom 1	EW-1	3100	2900	NW	No	1100
Bedroom 1	EW-1	3000	2900	NE	No	9300
Bedroom 2	EW-1	4790	2900	NW	No	4100

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Stud, multi plaster layers	82.0	Bulk Insulation in the centre R2	No	
IW-2 - Cavity wall, direct fix plasterboard, single gap	77.0	No insulation	No	

Floors						
Location	Construction	Area (m²)	Sub floor	Added	Covering	

Certificate number: 0004411864 Certificate Date: 03 Dec 2019 ★ Star rating: 6.4



			ventilation	insulation	
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.8	None	No Insulation	Cork Tiles or Parquetry 8mm
Corridor	Concrete Slab, Unit Below 150mm	9.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.1	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.1	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.6	None	No Insulation	Carpet 10mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Corridor	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added	Roof colour

Certificate number: **0004411864** Certificate Date: **03 Dec 2019**

2019 ★ Star rating:



	insulation
None Present	



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

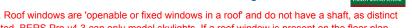
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411906 Certificate Date: 03 Dec 2019 ★ Star rating: **6.3**



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit LG.11, 28 Lockwood Avenue

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 62.0 Unconditioned: 10.0 Garage: 0.0 TOTAL: 71.0

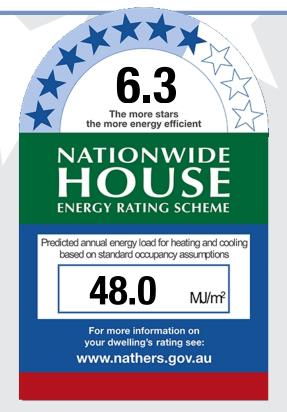
Annual thermal performance loads (MJ/m²)

Heating: 26.6 Cooling: 21.4 TOTAL: 48.0

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 28 Unsealed: 0 TOTAL:** 28 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411906** Certificate Date: **03** l

03 Dec 2019

★ Star rating:



Building features

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NW	No Shading

ID	Window ty	ре		U-value	SHGC
None Presen	t				
Roof windo	w and skylight	schedule			
IXOOI WIIIGO	w and skyngin				

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No	-
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4490	2900	NW	No	3000
Bedroom 2	EW-1	2900	2900	NW	No	800
Bedroom 2	EW-1	2200	2900	NE	No	7500
Bedroom 1	EW-1	2200	2900	SW	No	7400
Bedroom 1	EW-1	3000	2900	NW	No	800

Internal wall type						
Wall type	Area (m²)	Insulation	Wall wrap or foil			
IW-1 - Cavity wall, direct fix plasterboard, single gap	62.0	No insulation	No			
IW-2 - Stud, multi plaster layers	77.0	Bulk Insulation in the centre R2	No			

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living		29.6	None	No Insulation	

Certificate number: **0004411906** Certificate Date: **03 Dec 2019** ★ Star rating:



Building features continued

	Concrete Slab, Unit Below 150mm				Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	6.0	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.9	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)	
None Present			

Roof	type

Construction	Added insulation	Roof colour
None Present		



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

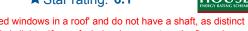
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411922 Certificate Date: 03 Dec 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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit LG.12, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 62.0 Unconditioned: 10.0 Garage: 0.0 TOTAL: 71.0

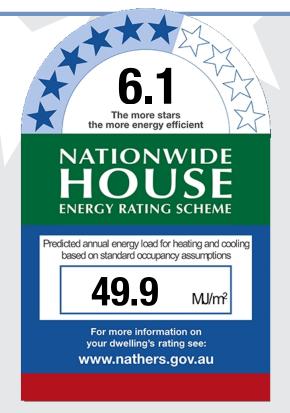
Annual thermal performance loads (MJ/m²)

Heating: 27.3 Cooling: 22.6 TOTAL: 49.9

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 28 Unsealed: 0 TOTAL:** 28 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411922 Certificate Date: 03 Dec 2019 ★ Sta





Building features

Window type a	and performan	ce value
---------------	---------------	----------

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	NE	No Shading

ID	Window typ	e		U-value	SHGC
None Present					-
Roof windov	v and skylight s	chedule			

ID	Wall type		Insulation	Insulation		
EW-1	Brick Veneer	Bulk Insulation R2		No	No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4490	2900	NW	No	3000
Bedroom 2	EW-1	2200	2900	SW	No	7500
Bedroom 2	EW-1	2900	2900	NW	No	800
Bedroom 1	EW-1	3000	2900	NW	No	800
Bedroom 1	EW-1	2200	2900	NE	No	7400

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Cavity wall, direct fix plasterboard, single gap	62.0	No insulation	No	
IW-2 - Stud, multi plaster layers	77.0	Bulk Insulation in the centre R2	No	

Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
	29.6	None	No Insulation	
	Construction	Construction Area (m²)	ventilation	ventilation insulation

Certificate number: **0004411922** Certificate Date: **03 Dec 2019** ★ Star rating:



Building features continued

	Concrete Slab, Unit Below 150mm				Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	6.0	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.9	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	

Added	Roof colour
insulation	

None Present



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

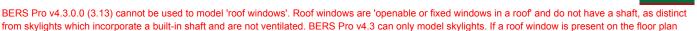
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

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

Certificate number: 0004411849 Certificate Date: 03 Dec 2019 ★ Star rating: 6.5



then this certificate is not valid.

Assessor details

Accreditation

number: **20884**

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit LG.13, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 82.0 Unconditioned: 8.0 Garage: 0.0 TOTAL: 90.0

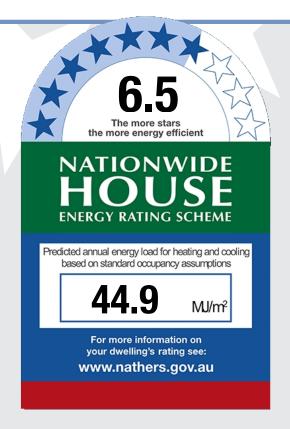
Annual thermal performance loads (MJ/m²)

Heating: 23.7
Cooling: 21.2
TOTAL: 44.9

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: **33**Unsealed: **0**TOTAL:** **33**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411849 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

Window type	and performar	nce value				
Window ID	Window type		U-value	SHGC		
ALM-001-01 A	ALM-001-01 A	Aluminium A SG (6.7	0.57		
Window schee	dule					
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
ALM-001-01 A	n/a	2700	1500	NW	No Shading
ALM-001-01 A	n/a	2700	1500	NW	No Shading
ALM-001-01 A	n/a	2700	3200	NE	No Shading
ALM-001-01 A	n/a	2700	2400	NW	No Shading
ALM-001-01 A	n/a	2700	1500	NE	No Shading
ALM-001-01 A	n/a	2700	1500	NE	No Shading
	ALM-001-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A ALM-001-01 A	ALM-001-01 A n/a	ALM-001-01 A n/a 2700	ALM-001-01 A n/a 2700 1500 ALM-001-01 A n/a 2700 1500 ALM-001-01 A n/a 2700 3200 ALM-001-01 A n/a 2700 2400 ALM-001-01 A n/a 2700 1500	ALM-001-01 A n/a 2700 1500 NW ALM-001-01 A n/a 2700 1500 NW ALM-001-01 A n/a 2700 3200 NE ALM-001-01 A n/a 2700 2400 NW ALM-001-01 A n/a 2700 1500 NE

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligh	nt schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation	Insulation		Wall wrap or foil	
EW-1	Brick Veneer		Bulk Insulation	n R2	No		
External wall	schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Bedroom 2	EW-1	2995	2900	NW	No	1400	
Bedroom 3	EW-1	2995	2900	NW	No	1400	
Bedroom 3	EW-1	3895	2900	NE	No	5700	
Kitchen/Living	EW-1	695	2900	NE	No	5700	
Kitchen/Living	EW-1	2800	2900	NW	No	6000	
Kitchen/Living	EW-1	3495	2900	NE	No	2900	
Bedroom 1	EW-1	3095	2900	NE	No	2900	
Bedroom 1	EW-1	1500	2900	SE	No	0	

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	39.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	89.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	28.0	No Insulation	No

Certificate number: 0004411849 Certificate Date: 03 Dec 2019 ★ Sta





Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering	
Bedroom 2	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet 10mm	
Bedroom 3	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Carpet 10mm	
Kitchen/Living	Concrete Slab, Unit Below 150mm	39.7	None	No Insulation	Cork Tiles or Parquetry 8mm	
Ensuite	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm	
Bathroom	Concrete Slab, Unit Below 150mm	4.3	None	No Insulation	Ceramic Tiles 8mm	
Laundry	Concrete Slab, Unit Below 150mm	3.3	None	No Insulation	Ceramic Tiles 8mm	
Bedroom 1	Concrete Slab, Unit Below 150mm	14.3	None	No Insulation	Carpet 10mm	

Location	Construction	Added insulation	Roof space above
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
Bedroom 2	4	Downlights - LED	150	Sealed	
Bedroom 3	4	Downlights - LED	150	Sealed	
Kitchen/Living	10	Downlights - LED	150	Sealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Ensuite	2	Downlights - LED	150	Sealed	
Ensuite	1	Exhaust Fans	300	Sealed	
Bathroom	2	Downlights - LED	150	Sealed	
Bathroom	1	Exhaust Fans	300	Sealed	
Laundry	2	Downlights - LED	150	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Bedroom 1	5	Downlights - LED	150	Sealed	

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

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

Certificate number: **0004411849** Certificate Date: **03 Dec 2019**

Dec 2019 ★ Star rating:



Building features continued

Roof type		
Construction	Added insulation	Roof colour
None Present		



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.

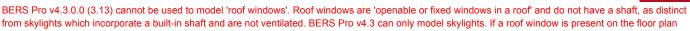
Disclaimer

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

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

Certificate number: 0004411856 Certificate Date: 03 Dec 2019 ★ Star rating: 7.7



then this certificate is not valid.

Assessor details

Accreditation

number: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit LG.14, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

climate zone: 56

Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 92.0
Unconditioned: 6.0
Garage: 0.0
TOTAL: 98.0

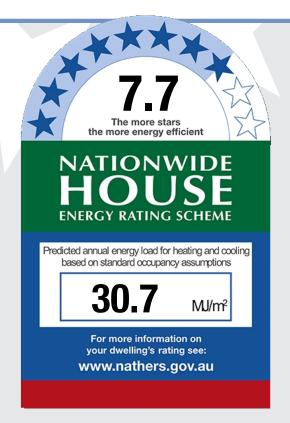
Annual thermal performance loads (MJ/m²)

Heating: 16.9
Cooling: 13.8
TOTAL: 30.7

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: **35**Unsealed: **0**TOTAL:** **35**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411856 Certificate Date: 03 Dec 2019 ★ Star rating:



Building features

Window type and performance value						
Window ID	Window type				U-value	SHGC
ALM-001-01 A	ALM-001-01 A	Aluminium A SG	Clear		6.7	0.57
Window schedule						
Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	2100	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	900	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2100	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2700	NE	No Shading

ID	Window typ	е			U-value	SHGC
None Presen	nt					
Roof windo	w and skylight s	chedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer		Bulk Insulation R2		No	
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6100	2900	NE	No	800
Kitchen/Living	EW-1	2300	2900	SE	No	9800
Bedroom 2	EW-1	2990	2900	NE	No	3100
Bedroom 3	EW-1	3090	2900	NE	No	3100
Corridor	EW-1	900	2900	NW	No	0
Bedroom 1	EW-1	3695	2900	NE	No	3100

Internal wall type				
Wall type	Area (m²)	Insulation	Wall wrap or foil	
IW-1 - Stud, multi plaster layers	67.0	Bulk Insulation in the centre R2	No	
IW-2 - Concrete Panel/Blocks filled, plasterboard	20.0	No Insulation	No	
IW-3 - Cavity wall, direct fix plasterboard, single gap	89.0	No insulation	No	

Certificate number: **0004411856** Certificate Date: **03 E**

03 Dec 2019





Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	41.7	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	9.7	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Carpet 10mm
Corridor	Concrete Slab, Unit Below 150mm	11.3	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.8	None	No Insulation	Carpet 10mm
Bathroom	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.1	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.0	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Corridor	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No

Ceiling penetrations				
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	4	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

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

Certificate number: **0004411856** Ce

Certificate Date:

03 Dec 2019

★ Star rating:



Building features continued

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Roof type		
Construction	Added R insulation	oof colour
None Present		



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

Certificate number: 0004411880 Certificate Date: 03 Dec 2019 ★ Star rating: 7.9

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: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit LG.15, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 95.0
Unconditioned: 9.0
Garage: 0.0
TOTAL: 105.0

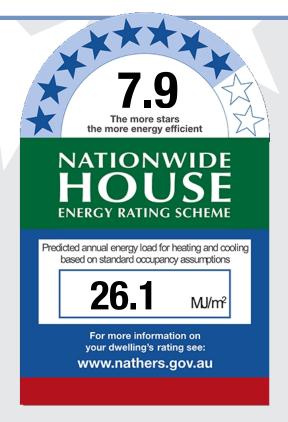
Annual thermal performance loads (MJ/m²)

Heating: 14.1
Cooling: 12.0
TOTAL: 26.1

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: **35** Unsealed: **0** TOTAL:** **35**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411880** Certificate Date: **03 Dec 2019** ★ Star rating:



Building features

Window type and performance value			
Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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
Bedroom 3	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	2700	NE	No Shading

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligl	nt schedule				
Location	ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wall	type						
ID	Wall type		Insulation		Wa	all wrap or foil	
EW-1	Brick Veneer		Bulk Insulation	n R2	No)	
External wall	schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Bedroom 3	EW-1	2100	2900	NW	No	0	
Bedroom 3	EW-1	4575	2900	NE	No	2790	
Bedroom 2	EW-1	3071	2900	NE	No	4781	
Bedroom 1	EW-1	3071	2900	NE	No	4766	
Kitchen/Living	EW-1	4075	2900	NE	No	3275	
Laundry	EW-1	1300	2900	NW	No	0	
Laundry	EW-1	1000	2900	NE	No	0	
Laundry	EW-1	1300	2900	SE	No	12800	
Laundry	EW-1	1000	2900	SW	No	0	

Internal wall type						
Wall type	Area (m²)	Insulation	Wall wrap or foil			
IW-1 - Cavity wall, direct fix plasterboard, single gap	118.0	No insulation	No			
IW-2 - Stud, multi plaster layers	78.0	Bulk Insulation in the centre R2	No			

Certificate number: 0004411880 Certificate Date: 03 Dec 2019 ★ Star rating: 7



Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering	
Bedroom 3	Concrete Slab, Unit Below 150mm	13.1	None	No Insulation	Carpet 10mm	
Corridor	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Cork Tiles or Parquetry 8mm	
Bathroom	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm	
Laundry	Concrete Slab, Unit Below 150mm	3.6	None	No Insulation	Ceramic Tiles 8mm	
Bedroom 2	Concrete Slab, Unit Below 150mm	14.2	None	No Insulation	Carpet 10mm	
Ensuite	Concrete Slab, Unit Below 150mm	5.7	None	No Insulation	Ceramic Tiles 8mm	
Bedroom 1	Concrete Slab, Unit Below 150mm	13.1	None	No Insulation	Carpet 10mm	
Kitchen/Living	Concrete Slab, Unit Below 150mm	37.9	None	No Insulation	Cork Tiles or Parquetry 8mm	
Laundry	Concrete Slab, Unit Below 150mm	1.3	None	No Insulation	Ceramic Tiles 8mm	

Ceiling type					
Location	Construction	Added insulation	Roof space above		
Bedroom 3	Concrete, Plasterboard	No insulation	No		
Corridor	Concrete, Plasterboard	No insulation	No		
Bathroom	Concrete, Plasterboard	No insulation	No		
Laundry	Concrete, Plasterboard	No insulation	No		
Bedroom 2	Concrete, Plasterboard	No insulation	No		
Ensuite	Concrete, Plasterboard	No insulation	No		
Bedroom 1	Concrete, Plasterboard	No insulation	No		
Kitchen/Living	Concrete, Plasterboard	No insulation	No		
Laundry	Concrete, Plasterboard	No insulation	No		

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
Bedroom 3	4	Downlights - LED	150	Sealed	
Corridor	4	Downlights - LED	150	Sealed	
Bathroom	2	Downlights - LED	150	Sealed	
Bathroom	1	Exhaust Fans	300	Sealed	
Laundry	2	Downlights - LED	150	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Bedroom 2	4	Downlights - LED	150	Sealed	
Ensuite	2	Downlights - LED	150	Sealed	
Ensuite	1	Exhaust Fans	300	Sealed	
Bedroom 1	2	Downlights - LED	150	Sealed	
Bedroom 1	1	Exhaust Fans	300	Sealed	

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

Certificate number: **0004411880** Certificate Date: **03 Dec 2019**





Building features continued

Kitchen/Living	10	Downlights - LED	150	Sealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	

Ceiling fans

Location	Number	Diameter (mm)	
None Present			

D	0	of	t١	,	n	0
17	U	UI	L	7	μ	C

- Troop type		
Construction	Added insulation	Roof colour
None Present		-



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

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

Certificate number: 0004411831 Certificate Date: 03 Dec 2019 ★ Star rating: 6.7



then this certificate is not valid



Accreditation

number: **20884**

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit LG.16, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 89.0 Unconditioned: 8.0 Garage: 0.0 TOTAL: 98.0

Annual thermal performance loads (MJ/m²)

 Heating:
 22.1

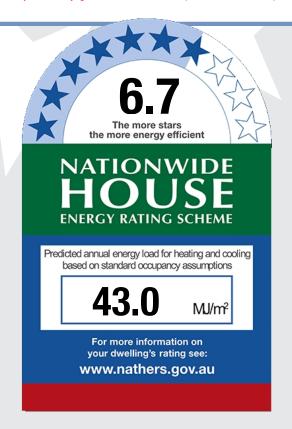
 Cooling:
 21.0

 TOTAL:
 43.0

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 34
Unsealed: 0
TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411831 Certificate Date: 03 Dec 2019 ★ Star rating: 6.



Building features

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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
Bedroom 1	ALM-001-01 A	n/a	2700	900	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3700	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	SE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Study	ALM-001-01 A	n/a	2700	1500	SE	No Shading

Roof windo	w and skyli	ght type and performand	e value			
None Preser		w type			U-value	SHGC
Roof windo	w and skyli	ght schedule				
Location	ID	Roof window/skylight no.	Area (m²)	Orientation Outdo	oor shade	Indoor shade/diffuser

None Present

Evto	rnal	Wal	Ityne

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3018	2900	NE	No	3419
Kitchen/Living	EW-1	4350	2900	NE	No	5055
Bedroom 2	EW-1	3936	2900	SE	No	0
Bedroom 3	EW-1	3076	2900	NE	No	5086
Bedroom 3	EW-1	3576	2900	SE	No	0
Study	EW-1	1990	2900	SE	No	0
Laundry	EW-1	1300	2900	NW	No	0
Laundry	EW-1	1000	2900	NE	No	0
Laundry	EW-1	1300	2900	SE	No	0
Laundry	EW-1	1000	2900	SW	No	0

Inter	nal	wal	I ty	pe
-------	-----	-----	------	----

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	57.0	Bulk Insulation in the centre R2	No
	98.0	No insulation	No

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

Certificate number: **0004411831** Certificate Date: **03 Dec 2019** ★ Star rating:



Building features continued

IW-2 - Cavity wall, direct fix plasterboard, single gap

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bathroom	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	41.7	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.8	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Carpet 10mm
Study	Concrete Slab, Unit Below 150mm	5.8	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.3	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above	
Bathroom	Concrete, Plasterboard	No insulation	No	
Ensuite	Concrete, Plasterboard	No insulation	No	
Laundry	Concrete, Plasterboard	No insulation	No	
Bedroom 1	Concrete, Plasterboard	No insulation	No	
Kitchen/Living	Concrete, Plasterboard	No insulation	No	
Bedroom 2	Concrete, Plasterboard	No insulation	No	
Bedroom 3	Concrete, Plasterboard	No insulation	No	
Study	Concrete, Plasterboard	No insulation	No	
Laundry	Concrete, Plasterboard	No insulation	No	

Ceiling penetrations					
Location	Number	Туре	Diameter (mm)	Sealed/unsealed	
Bathroom	2	Downlights - LED	150	Sealed	
Bathroom	1	Exhaust Fans	300	Sealed	
Ensuite	2	Downlights - LED	150	Sealed	
Ensuite	1	Exhaust Fans	300	Sealed	
Laundry	1	Downlights - LED	150	Sealed	
Laundry	1	Exhaust Fans	300	Sealed	
Bedroom 1	6	Downlights - LED	150	Sealed	

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

Bedroom 3

4

Certificate number: 0004411831 Certificate Date: 03 Dec 2019 ★ Star rating:

Downlights - LED



Building featu	ires cont	inued			
Bedroom 1	1	Exhaust Fans	300	Sealed	
Kitchen/Living	10	Downlights - LED	150	Sealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Bedroom 2	4	Downlights - LED	150	Sealed	

150

Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type		
Construction	Added insulation	Roof colour
None Present		



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

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

Certificate number: 0004411872 Certificate Date: 03 Dec 2019 ★ Star rating: 4.9

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.



Accreditation

number: 20884

Name: Zoltan Lipovski
Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: **0410605614**

Declaration None

of interest:

Software: **BERS Pro v4.3.0.2f (3.13)**

AAO: ABSA

Overview

Dwelling details

Street: Unit LG.17, 28 Lockwood Avenue

Suburb: Belrose

State: NSW Postcode: 2085
Type: New Dwelling NCC Class: 2

NatHERS

Lot/DP climate zone: **56**

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: R2.0 wall insulation

No ceiling insulation
No floor insulation

Glazing: ALM-001-01 A Aluminium A SG Clear

Net floor area (m²)

Conditioned: 76.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 83.0

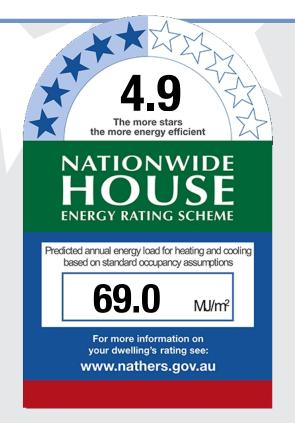
Annual thermal performance loads (MJ/m²)

Heating: **42.6**Cooling: **26.4**TOTAL: **69.0**

Plan documents

Plan ref/date: Plans, Elevations Section

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 28
Unsealed: 0
TOTAL:** 28

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: **0004411872** Certificate Date: **03** D

03 Dec 2019

★ Star rating:



Building features

window type and performance value					
Window ID	Window type	U-value	SHGC		
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57		
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
Bedroom 1	ALM-001-01 A	n/a	600	2400	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	SW	No Shading

ID	Window	type			U-value	SHGC
None Presen	it					
Roof windo	w and skyligh	nt schedule				
Location		Roof	A (0)	0.01 0.00 4 0.41 0.00	Outdoor shade	Indoor

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Brick Veneer		Bulk Insulation	n R2	No	,
External wall	schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	4075	2900	SE	No	270
Bedroom 1	EW-1	3076	2900	SW	No	3851
Ensuite	EW-1	1855	2900	SE	No	250
Kitchen/Living	EW-1	3495	2900	SE	No	3410
Kitchen/Living	EW-1	4075	2900	SW	No	320
Bedroom 2	EW-1	2995	2900	SW	No	340
Bedroom 2	EW-1	2500	2900	NW	No	0

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No No
IW-2 - Stud, multi plaster layers	50.0	Bulk Insulation in the centre R2	No

Certificate number: 0004411872 Certificate Date: 03 Dec 2019 ★ State Certificate Date: 03 Dec 2019

★ Star rating:



Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.2	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.6	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type

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

Certificate number: **0004411872** Certificate Date:

03 Dec 2019

★ Star rating:



Building features continued

Construction	Added insulation	Roof colour
None Present		



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

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

Certificate number: 0004411898 Certificate Date: 03 Dec 2019 ★ Star rating: 4.5



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit LG.18, 28 Lockwood Avenue

Suburb: Belrose

Lot/DP

State: **NSW** Postcode: 2085 NCC Class: 2 Type:

New Dwelling NatHERS

climate zone: 56

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 48.0 Unconditioned: 7.0 Garage: 0.0 TOTAL: 56.0

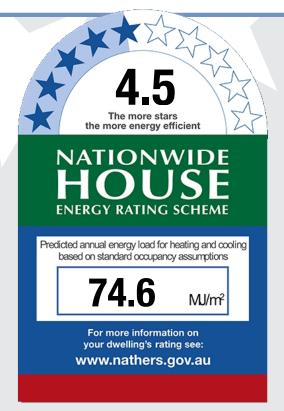
Annual thermal performance loads (MJ/m²)

Heating: 45.1 Cooling: 29.5 TOTAL: 74.6

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 19 Unsealed: 0 TOTAL:** 19 **NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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.



Certificate number: 0004411898 Certificate Date: 03 Dec 2019

★ Star rating:



Building features

window type and performance value				
Window ID	Window type	U-value	SHGC	
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70	
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57	

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3600	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2700	2400	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading

ID	Window	type			U-value	SHGC
None Presen	ıt					
Roof windo	w and skyligl	nt schedule				
Location	ID	Roof	A 400 (m2)	Orientation	Outdoor shade	Indoor

ID	Wall type		Insulation W			all wrap or foil	
EW-1	Brick Veneer	Bulk Insulation R2		n R2	No		
External walls	schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Kitchen/Living	EW-1	4075	2900	SW	No	3275	
Bedroom 2	EW-1	2495	2900	SE	No	4145	
Bedroom 2	EW-1	3000	2900	SW	No	785	
Bedroom 2	EW-1	4360	2900	NW	No	35	

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Stud, multi plaster layers	55.0	Bulk Insulation in the centre R2	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	40.0	No insulation	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	34.3	None	No Insulation	Cork Tiles or Parquetry 8mm

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

Certificate number: 0004411898 Certificate Date: 03 Dec 2019 ★ Star rating: 4.5



Building features continued Bedroom 2 Concrete Slab, Unit Below 13.8 None No Insulation Carpet 10mm 150mm Laundry Concrete Slab, Unit Below 2.6 No Insulation **Ceramic Tiles** None 150mm 8mm Bathroom Concrete Slab, Unit Below 4.8 None No Insulation **Ceramic Tiles** 150mm 8mm

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans			
Location	Number	Diameter (mm)	
None Present			

Roof type	
Construction	Added Roof colour insulation
None Present	



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.

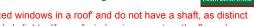
Disclaimer

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

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

Certificate number: 0004411930 Certificate Date: 03 Dec 2019 ★ Star rating: **5.3**



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: 20884

Name: Zoltan Lipovski Organisation: EcoMode Design

Email: zoltan@ecomode.com.au

Phone: 0410605614

Declaration None

of interest:

BERS Pro v4.3.0.2f (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit LG.19, 28 Lockwood Avenue

Suburb: Belrose

State: **NSW** Postcode: 2085 NCC Class: 2 **New Dwelling** Type:

NatHERS

climate zone: 56 Lot/DP

number: 1/1199795 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Brick Veneer

Concrete, Plasterboard Concrete Slab, Unit Below

Insulation: **R2.0** wall insulation

> No ceiling insulation No floor insulation

ALM-001-01 A Aluminium A SG Clear Glazing:

Net floor area (m²)

Conditioned: 65.0 Unconditioned: 8.0 Garage: 0.0 TOTAL: 73.0

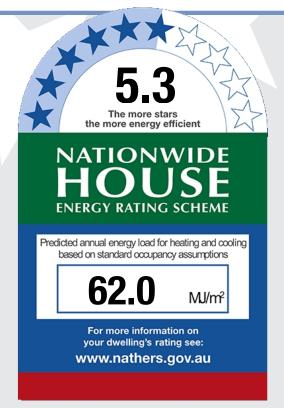
Annual thermal performance loads (MJ/m²)

Heating: 37.8 Cooling: 24.2 TOTAL: 62.0

Plan documents

Plans, Elevations Section Plan ref/date:

Prepared by: **DKO Architecture**



Ceiling penetrations

(see following pages for details)

Sealed: 27 Unsealed: 0

TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded 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**

27

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.



Certificate number: **0004411930** Certificate Date:

03 Dec 2019

★ Star rating:



5.3

Building features

window type and performance value					
Window ID	Window type	U-value	SHGC		
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57		

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3200	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	3200	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2400	SW	No Shading

Roof window and skylight type and performance value							
ID Name Dresent	Window type				U-value	SHGC	
None Present							
Root windov	v and skylight sch	eaule					
Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser	
None Present							

ID	Wall type		Insulation		Wa	Wall wrap or foil	
EW-1	Brick Veneer Bulk		Bulk Insulation	ulk Insulation R2		No	
External wall	schedule						
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)	
Bedroom 1	EW-1	2995	2900	SW	No	0	
Kitchen/Living	EW-1	3200	2900	SW	No	3600	
Bathroom	EW-1	1890	2900	SW	No	0	
Bedroom 2	EW-1	3595	2900	SE	No	3200	
Bedroom 2	EW-1	3095	2900	SW	No	0	

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Concrete Panel/Blocks filled plasterboard	, 68.0	No Insulation	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	54.0	No insulation	No		
IW-3 - Stud, multi plaster layers	24.0	Bulk Insulation in the centre R2	No		

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering

Certificate number: 0004411930 Certificate Date: 03 Dec 2019 ★ Star rating:



5.3

Building features continued Bedroom 1 Concrete Slab, Unit Below 13.8 None No Insulation Carpet 10mm 150mm Concrete Slab, Unit Below Kitchen/Living 36.2 None No Insulation Cork Tiles or 150mm Parquetry 8mm Concrete Slab, Unit Below 1.9 None No Insulation Cork Tiles or Laundry Parquetry 8mm 150mm **Bathroom** Concrete Slab, Unit Below 6.4 None No Insulation **Ceramic Tiles** 150mm 8mm Bedroom 2 Concrete Slab, Unit Below 10.9 None No Insulation Carpet 10mm 150mm **WIR** Concrete Slab, Unit Below 3.9 None No Insulation Carpet 10mm 150mm

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
WIR	Concrete, Plasterboard	No insulation	No

Location	Number	Туре	Diameter (mm)	Sealed/unsealed
Bedroom 1	6	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
WIR	1	Downlights - LED	150	Sealed

Ceiling fans		
Location N	lumber	Diameter (mm)
None Present		

Roof type		
Construction	Added insulation	Roof colour
None Present		



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

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