## Nationwide House Energy Rating Scheme<sup>®</sup> NatHERS<sup>®</sup> Certificate No. 0009383829

Generated on 16 Apr 2024 using AccuRate Home v1.3.3.23

## Property

Address

Lot/DP NCC class' Floor/all Floors Type

4 Knight Street, Warriewood , NSW , 2102 Lot 4 DP 270922 1aGround of 3 floors New Home

## Plans

Main plan Prepared by 0625/12.12.23 popovbass

## Construction and environment

#### Assessed floor area [m2]\*

Conditioned\* 240.5 Unconditioned\* 52.7 293.2 Total Garage 40.0

Exposure type Open NatHERS climate zone

56 Mascot (Sydney Airport)



## Accredited assessor

Name	B Carr	Modelled	18.4	11.6	
Business name Email	STS ENQUIRIES@SUSTAINABLETHERMALSO	Load limits	N/A	N/A mits	
Phone Accreditation No.	0420312721 DMN/12/1457	Floor Type (lowest conditioned area)			
Assessor Accrediting Organisa		NCC climate zone 1 or 2 Outdoor living area			
Design Matters National		Outdoor living	area ceiling fan	No	
Declaration of interest	No		Ibolo of Ho	mo	

## NCC Requirements

NCC provisions Strate/Territory variation Volume Two

Yes

#### National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.a

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

\* Refer to glossary Generated on 16 Apr 2024 using AccuRate Home v1.3.3.23 for 4 Knight Street, Warriewood, NSW, 2102

Thermal performance Star rating

The more stars the more energy efficient

# NATIONWIDE

## 29.9 MJ/m<sup>2</sup>

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

> For more information on your dwelling's rating see: www.nathers.gov.au

## Thermal performance [MJ/m<sup>2</sup>]

Limits taken from ABCB Standard 2022

	Heating	Cooling	
lodelled	18.4	11.6	
oad limits	N/A	N/A	

Floor Type (lowest conditioned area)	csoc
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

## Whole of Home performance rating

No Whole of Home performance rating generated for this certificate.

#### Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate? p=TmRMIHwrP When using either link, ensure you are visiting hstar.com.au





#### Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

#### Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value\* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

## **Heating & Cooling Load Limits**

#### Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the *ABCB Standard 2022: NatHERS heating and cooling load limits* for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

#### Setting Options:

Floor Type:

- CSOG Concrete Slab on Ground
- SF Suspended Floor (or a mixture of CSOG and SF) NA Not Applicable
- NCC Climate Zone 1 or 2:

NCC Climate Zone 1 of 2

Yes No

NA – Not Applicable

Outdoor Living Area:

Yes

No

NA – Not Applicable

Outdoor Living Area Ceiling Fan:

Yes No

NA - Not Applicable

## Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

## Predicted Whole of Home annual impact by appliance

#### Energy use



Greenhouse gas emissions

No Whole of Home performance assessment conducted for this certificate

Cost



#### 7 Star Rating as of 16 Apr 2024

Certificate check	Approva	l Stage	Construe Stage	ction	HOUSE
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesse	Consen Surveyo	Builder	Consen	Occupa
Genuine certificate check		ſı	ſı		
Does this Certificate match the one available at the web address or QR code verification link on the front page?					
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?					
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?					
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?					
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?					
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?					
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?					
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?					
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?					
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?					
Apartment entrance doors (NCC Class 2 assessments only)					
Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.					
Exposure*					
Has the appropriate exposure type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".					
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match what is shown					



HOUSE

0009383829 NatHERS Certificate     7 Star Rating as of 16 Apr 2024					HOUSE
	Approva	al Stage	Constru Stage	ction	
Certificate check	necked	thority/ iecked	cked	thority lecked	Other
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	uded in t	he NatHE	ERS asse	ssment)	
Thermal bridging					
Does the dwelling meet the NCC requirement for thermal bridging?					
Insulation installation method					
Has the insulation been installed according to the NCC requirements?					
Building sealing					
Does the dwelling meet the NCC requirements for Building Sealing?					
Whole of Home performance check (not applicable if a Whole of Hom	e performa	ance asses	ssment is i	not conduc	ted)
Appliances					
Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the Appliance schedule on this Certificate?					
Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?					
Does the hot water system type and efficiency/performance shown on the NatHERS- stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?					
Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?					
Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?					
Additional NCC Requirements for Services (not included in the	NatHERS	S assessi	ment)		
Does the lighting meet the artificial lighting requirements specified in the NCC?					
Does the hot water system meet the additional requirements specified in the NCC?					
Provisional values* check					
Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?					
Other NCC requirements					
Note: This Certificate only covers the energy efficiency requirements in the NCC. Add but are not limited to: condensation, structural and fire safety requirements and any st requirements.					

#### Additional notes



## Room schedule

Room	Zone Type	Area [m²]
Bed 4	Bedroom	15.3
Bed 3	Bedroom	14.6
Bed 2	Bedroom	15.4
Bed 1	Bedroom	38.3
Ensuite	Night time	9.5
Laundry	Unconditioned	6
Roof Space - Living	Roof Space	53
Rumpus/Corridors/Pwd	Living	49
Bath	Unconditioned	6.7
Kitchen/Living	Living/Kitchen	69
Butlers	Day time	9
Entry/WC	Day time	20.4
Garage	Garage	40
Roof Space - Garage	Roof Space	40
Roof Space - Terrace	Roof Space	9

## Window and glazed door type and performance

#### Default windows\*

Window ID	dow ID Window Maximum SHGC* - Description U-value*		SUCC*	Substitution to	lerance ranges
			SHGC lower limit	SHGC upper limit	
ALM-005-03 A	Aluminium A DG Argon Fill High Solar Gain Iow-E -Clear	4.1	0.47	0.45	0.49
ALM-006-03 A	Aluminium B DG Argon Fill High Solar Gain Iow-E -Clear	4.1	0.52	0.49	0.55
ATB-006-03 B	Al Thermally Broken B DG Argon Fill High Solar Gain low-E - Clear	2.9	0.51	0.48	0.54
Custom window	′S*				
Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
	Description	U-value*	51160	SHGC lower limit	SHGC upper limit

## Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bed 4	ALM-006-03 A	W009	1760	1300	Sliding	45	W	None
Bed 3	ALM-006-03 A	W008	1760	1300	Sliding	45	W	None
Bed 2	ALM-006-03 A	W006	2660	1900	Sliding	45	S	None
Bed 1	ALM-006-03 A	W003	2660	2700	Sliding	60	S	None
Ensuite	ALM-006-03 A	W001	860	1200	Sliding	45	E	None
Laundry	ALM-005-03 A	W005	2400	960	Casement	90	S	None
Rumpus/Corridors/Pwd	ATB-006-03 B	W004	2660	2700	Sliding	45	S	None
Bath	ALM-005-03 A	W007	600	1200	Awning	90	W	None
Kitchen/Living	ATB-006-03 B	W107	2510	4210	Sliding	70	S	None
Kitchen/Living	ALM-006-03 A	W101	1760	3800	Other	22	Ν	None
Butlers	ATB-006-03 B	W106	600	1315	Sliding	45	W	None
Butlers	ALM-005-03 A	W105	900	2700	Awning	45	S	None
Entry/WC	ATB-006-03 B	W102	2200	400	Other	00	Ν	None
Entry/WC	ALM-006-03 A	W102	2200	400	Other	00	Ν	None
Entry/WC	ALM-006-03 A	W103	1760	820	Other	00	Ν	None
Garage	ALM-006-03 A	W104	2510	2700	Other	00	S	None

## Roof window\* type and performance value

#### Default roof windows\*

Window ID	ndow ID SHGC*		*	Substitution	tolerance ra	erance ranges		
	Description	on	U-value*	-value*		SHGC lower limit	SHGC upper limit	
No Data Ava	ilable							
Custom roof	windows*							
Window ID	Window		Maximum	SHGC	*	Substitution	tolerance ra	nges
	Description	on	U-value*	3000 -		SHGC lower limit	SHGC upper lim	
No Data Ava	ilable							
Roof win	ndow* sch	nedule						
Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Ava	ilable							



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Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade

## Skylight\* type and performance

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

## Skylight\* schedule

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m <sup>2</sup> ] Orientation	Outdoor shade	Diffuser
No Data Avail	able					

## External door schedule

Location	Height [mm]	Width [mm]	Opening %	Orientation	
Entry/WC	2200	1200	90	Ν	

## External wall type

Wall ID	Wall type	Wall Solar shade absorptance [colour]		Bulk insulation [R-value]	Reflective wall wrap*
EW- 001	Retaining Concrete wall/Plasterboard	50	Medium	Polystyrene expanded: R2.0	No
EW- 002	Timber/Fibre-cement sheet/Plasterboard	50	Light	Polyester or polyester/wool blanket (k = 0.045 density = 16 kg/m3): R3.1	Yes
EW- 003	Fibre-cement sheet/Plasterboard	40	Light	Polyester or polyester/wool blanket (k = 0.045 density = 16 kg/m3): R3.1	Yes
EW- 004	Fibre-cement sheet/Plasterboard	70	Medium	Polyester or polyester/wool blanket (k = 0.045 density = 16 kg/m3): R3.1	Yes
EW- 005	Fibre-cement sheet/Plasterboard	85	Dark	Polyester or polyester/wool blanket (k = 0.045 density = 16 kg/m3): R3.1	Yes
EW- 007	Concrete wall/Plasterboard	50	Medium	Polyester or polyester/wool blanket (k = 0.045 density = 16 kg/m3): R3.1	No
EW- 008	Concrete wall/Plasterboard	50	Medium	Polyester or polyester/wool blanket (k = 0.045 density = 16 kg/m3): R3.1	No

## External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bed 4	EW-007	1900	5100	Ν		No
Bed 4	EW-001	1260	5100	Ν		No

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Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bed 4	EW-008	3160	3200	W		No
Bed 4	EW-007	1900	1300	E		No
Bed 4	EW-001	1260	1300	E		No
Bed 3	EW-008	3160	3400	W		No
Bed 2	EW-008	2660	4780	W		No
Bed 2	EW-008	2660	3200	S		No
Bed 1	EW-008	3500	4450	E		No
Bed 1	EW-008	3500	5930	S	2100	Yes
Bed 1	EW-007	2660	2275	Ν		No
Ensuite	EW-008	2660	2880	E		No
Ensuite	EW-001	2660	3270	Ν		No
Laundry	EW-008	2660	1625	S		No
Laundry	EW-008	2660	1700	E	4800	Yes
Rumpus/Corridors/Pwd	EW-008	3500	4322	S	2100	Yes
Rumpus/Corridors/Pwd	EW-008	3160	1656	E		No
Rumpus/Corridors/Pwd	EW-007	3160	4446	Ν		No
Bath	EW-008	3160	1600	W		No
Kitchen/Living	EW-003	2510	5500	S	2100	Yes
Kitchen/Living	EW-003	3900	4050	W	650	Yes
Kitchen/Living	EW-004	2850	6950	W	650	Yes
Kitchen/Living	EW-004	2850	5560	Ν	800	Yes
Kitchen/Living	EW-003	2850	3000	E	4656	Yes
Kitchen/Living	EW-003	2510	700	W	600	Yes
Butlers	EW-003	2510	1966	W	600	Yes
Butlers	EW-003	2510	4600	S	600	Yes
Butlers	EW-003	2510	1945	E	650	Yes
Entry/WC	EW-002	2850	2100	Ν	2250	Yes
Entry/WC	EW-002	2850	1270	W	2100	Yes
Entry/WC	EW-002	2850	2040	Ν	750	Yes
Entry/WC	EW-002	2850	3200	E	6500	Yes
Garage	EW-005	2510	5800	Ν	2300	Yes

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Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Garage	EW-004	2510	6400	E	575	Yes
Garage	EW-004	2510	5830	S	2637	Yes

## Internal wall type

Wall ID	Wall type	Area [m <sup>2</sup> ]	Bulk insulation
IW-001	Plasterboard	75.28	Glass fibre batt: R2.0
IW-002	Plasterboard	216.29	

## Floor type

Location	Construction	Area [m <sup>2</sup> ]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bed 4/Ground	Concrete Slab 200 mm: carpet/R2.0/plasterboard	15.30		R2.0	Carpet 10 + rubber underlay 8
Bed 3/Ground	Concrete Slab 200 mm: carpet/R2.0/plasterboard	14.60		R2.0	Carpet 10 + rubber underlay 8
Bed 2/Outdoor Air	Concrete Slab 200 mm: carpet/R2.0/plasterboard	15.40		R2.0	Carpet 10 + rubber underlay 8
Bed 1/Outdoor Air	Concrete Slab 200 mm: carpet/R2.0/plasterboard	38.30		R2.0	Carpet 10 + rubber underlay 8
Ensuite/Ground	Concrete Slab 200 mm: ceramic tiles/R2.0/plasterboard	9.50		R2.0	Ceramic tile
Laundry/Ground	Concrete Slab 200 mm: ceramic tiles/R2.0/plasterboard	6.00		R2.0	Ceramic tile
Roof Space - Living/Kitchen/Living	Plasterboard 10 mm + R6.0 bulk insulation	38.00		R6.0	
Roof Space - Living/Entry/WC	Plasterboard 10 mm + R6.0 bulk insulation	15.00		R6.0	
Rumpus/Corridors/Pwd/Ground	Concrete Slab 200 mm: timber (t & g)/ battens/R2.0	49.00		R2.0	
Bath/Ground	Concrete Slab 200 mm: ceramic tiles/R2.0/plasterboard	6.70		R2.0	Ceramic tile
Kitchen/Living/Bed 4	Timber (hardwood): bare/R3.0/plasterboard	15.30		R3.0	
Kitchen/Living/Bed 3	Timber (hardwood): bare/R3.0/plasterboard	14.60		R3.0	
Kitchen/Living/Bath	Timber (hardwood): ceramic tile/R3.0/plasterboard	6.70		R3.0	Ceramic tile
Kitchen/Living/Bed 2	Timber (hardwood): ceramic tile/R3.0/plasterboard	6.90		R3.0	Ceramic tile

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Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering	
Kitchen/Living/Laundry	Timber (hardwood): ceramic tile/R3.0/plasterboard	1.00		R3.0	Ceramic tile	
Kitchen/Living/Rumpus/Corridors/Pwd	Timber (hardwood): ceramic tile/R3.0/plasterboard	24.50		R3.0	Ceramic tile	
Butlers/Outdoor Air	Timber (hardwood): ceramic tile/R3.0/plasterboard	9.00		R3.0	Ceramic tile	
Entry/WC/Rumpus/Corridors/Pwd	Timber (hardwood): bare/R3.0/plasterboard	15.00		R3.0		
Entry/WC/Bed 1	Timber (hardwood): bare/R3.0/plasterboard	3.80		R3.0		
Entry/WC/Rumpus/Corridors/Pwd	Timber (hardwood): ceramic tile/R3.0/plasterboard	4.60		R3.0	Ceramic tile	
Garage/Ensuite	Bare Concrete - R2.0	6.00		R2.0		
Garage/Bed 1	Bare Concrete - R2.0	32.00		R2.0		
Garage/Rumpus/Corridors/Pwd	Bare Concrete - R2.0	2.00		R2.0		
Roof Space - Garage/Garage	Plasterboard 10 mm + R6.0 bulk insulation	40.00		R6.0		
Roof Space - Terrace/Outdoor Air	Plasterboard 10 mm + R6.0 bulk insulation	9.00		R6.0		

## Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living/Bed 4	Timber (hardwood): bare/R3.0/plasterboard	R3.0	No
Kitchen/Living/Bed 3	Timber (hardwood): bare/R3.0/plasterboard	R3.0	No
Kitchen/Living/Bed 2	Timber (hardwood): ceramic tile/R3.0/plasterboard	R3.0	No
Entry/WC/Bed 1	Timber (hardwood): bare/R3.0/plasterboard	R3.0	No
Garage/Bed 1	Bare Concrete - R2.0	R2.0	No
Garage/Ensuite	Bare Concrete - R2.0	R2.0	No
Kitchen/Living/Laundry	Timber (hardwood): ceramic tile/R3.0/plasterboard	R3.0	No
Kitchen/Living/Rumpus/Corridors/Pwo	Timber (hardwood): ceramic tile/R3.0/plasterboard	R3.0	No
Entry/WC/Rumpus/Corridors/Pwd	Timber (hardwood): bare/R3.0/plasterboard	R3.0	No
Entry/WC/Rumpus/Corridors/Pwd	Timber (hardwood): ceramic tile/R3.0/plasterboard	R3.0	No
Garage/Rumpus/Corridors/Pwd	Bare Concrete - R2.0	R2.0	No
Kitchen/Living/Bath	Timber (hardwood): ceramic tile/R3.0/plasterboard	R3.0	No

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Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Roof Space - Living/Kitchen/Living	Plasterboard 10 mm + R6.0 bulk insulation	R6.0	No
Roof Space - Living/Entry/WC	Plasterboard 10 mm + R6.0 bulk insulation	R6.0	No
Roof Space - Garage/Garage	Plasterboard 10 mm + R6.0 bulk insulation	R6.0	No

## **Ceiling** penetrations\*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
No Data Available				

## **Ceiling** fans

Location	Quantity	Diameter [mm]
Bed 4	1	1400
Bed 3	1	1400
Bed 2	1	1400
Bed 1	1	1400
Kitchen/Living	1	1400

## Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade[colour]
Metal deck roof: AG foil (sarking): air gap: R6.0: 10mm plasterboard	R6.0	50	Light
Deck Above (R2.0)	R2.0	99	Medium
Metal deck roof: 25d pitch: air gap: R1.8 (Anticon):	R1.8	50	Medium
as_ROOF-B011.rof #2016 © Concrete slab 150mm - Drained Tile walking surface - R2.0 insulation under slab - Susp. Ceiling under	R2.0	50	Medium

## Thermal bridging schedule for steel frame elements

Building element	Steel section dimensions [height x width, mm]	Frame spacing [mm]	Steel thickness [BMT,mm]	Thermal break [R-value]
No Data Available				

## Appliance schedule

#### (not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m<sup>2</sup> is used for lighting, therefore lighting is not included in the appliance schedule.

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Cooling system							
Appliance/ system type	Lo	cation	Fuel type	effi	nimum ciency/ ormance		mended acity
No Data Available				•			
Heating system							
Appliance/ system type	Lo	cation	Fuel type	effi	nimum ciency/ ormance		mended acity
No Data Available				-			
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC -		<b>ibstitution</b> e ranges upper limit	Assessed daily load [litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimur efficienc performa	y/	Recomm capac	
No Data Available							
Onsite Renewable E	Energy Sch	edule					
System Type Ori	entation		Syst	em Size Or	Generation	Capacity	

## Battery Schedule

No Data Available

System Type	Size [Battery Storage Capacity]
No Data Available	



#### Explanatory notes

#### About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value\* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value<sup>\*</sup>.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary.

Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

#### Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and

#### are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

#### Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the assessor using the NatHERS accredited software tool are presented in this report and further details or data files may be obtained from the assessor.

## Glossary

Annual energy Load     the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.       Assessed floor area     the floor area on bide of the software for the purpose of the NaHERS assessment. Note, this may not be consistent with the floor area in the design documents.       Ceiling penetrations     Exercising the require a penetration to the ceiling, including downlights, vents, exhaust fans, range hodds, chinneys and flues. Excising and the ceiling with shall holds through the ceiling for wiring, e.g. ceiling fans, pendari tights, and COP       Coefficient of performance     a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.       Custom windows     windows listed in NaHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Swindow Energy Rating Swindow Energy Rating Swindow Energy Rating Swindow Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input file points and the software of how much cooling can be achieved by an air conditioner for a single kWh of electricity input file points and the software and must not be modelied as a door when opening to a minimally wentilated corridor in a Class 2 building.       Exposure     exe exposure categories below     exe exposure categories below 100, formal dwith scattered sheds, lightly vegletald bushids, elevistad balow, sevendab, perglosa couponts, and within a scattered sheds, lightly vegletald bushids, elevistad balow, elevistad balow, sevendab, perglosa coupont, and within a scattered sheds, lightly vegletald bushid aneas. </th <th>AFRC</th> <th>Australian Fenestration Rating Council</th>	AFRC	Australian Fenestration Rating Council
Assessed floor area     The floor area in modelled in the software for the purpose of the NatHERS assessment. Nole, this may not be consistent with the floor area in the design documents.       Ceiling penetrations     Excludes fibture is that require a penetration to the ceiling (including downlights, vens, exhaust fans, range hoods, chimneys and flues.       Conditioned     2 aron within a welling that is expected to require heating and cooling based on standard occupancy assumptions. In some drownlance, it will include garages.       Custom windows     Windows listed in NuHERS Stateware that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.       Default windows     Energy Reficiency Ratin, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input       Energy use     This is your homes rating without solar or batteries.       Energy use     This is your homes rating without solar or batteries.       Exposure category – exposed     The net cost to solar built modelling user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).       Exposure category – open     Etrain with no obstructions e g, fit grazing land, cocant-frontage, desert, exposed high-rise unit (usually above 10 floors).       Exposure category – open     Etrain with numerous, closely yspaced obstructions over 10 m e.g. city and industrial areas.       Provisional value     The rise works publicings built for thorizontal plane, e.g. city and industrial areas. <th></th> <th></th>		
COP     Coefficient of performance       Conditioned     a zone within a dwalling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumatance is twill include garages.       Custom windows     Expert Million (MillERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) Istilion.       Default windows     Windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.       EER     Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input.       Entrance door     These signify windiato benefits in the modelling software and must not be modelled as a door when opening to a minimally exposure category = exposed       Exposure category - copen     terrain with no obstructions set. Building in the notelling software and must not be modelled as a door when opening to a minimally exposure category - protected.       Exposure category - protected.     terrain with no obstructions set. Building in the horizontal plane, e.g. eastands with few well scattered obstructions below 100n, farmland with scattered sheed, lightly vegetated bush block, elevated units (e.g. above 3 loors).       Exposure category - protected.     terrain with numeroux, closely spaced obstructions below 100n, farmland with scattered sheed, lightly vegetated bushland areas.       Exposure category - protected.     terrain with numeroux, closely spaced obstructions below 100n, and ubustial areas.		the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the
COP     Coefficient of performance       Conditioned     a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.       Custom windows     windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.       Default windows     windows list are representative of a specific type of window product and whose properties have been derived by statistical input.       EER     Energy are to societly including, but not line to costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).       Enrarge value     The net cost to societly including, but not line to cost to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).       Exposure category – exposed     Errarge with works at animal releft e.g. grassdawd the few well scattered obstructions below 10n familand with exposure category – protected       Exposure category – protected     terrain with numerous, doeely spaced obstructions below 10n familand with to construction Code       Codes to borne     a buildings by their function and user, and assigns a dassign can boru and works that is used in webritters or overhangs or balconies from usper levels.       Exposure category – protected     terrain with numerous, doeely spaced obstructions below 10n familand with exposure and the presense or earbid (in thore constratorin a dassigns a dassignes a dassignes a caspire, to	Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Curronitational     circumstances it will include garages.       Custom windows     windows tleid in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.       Default windows     windows that are representative of a specific type of window product and whose properties have been derived by statistical input?       EER     Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input?       Energy value     The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCE Housing Provisions Standard).       Entrance door     these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.       Exposure category – exposed     terrain with no obstructions e.g. Ital grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).       Exposure category – protected     terrain with numerous, closely spaced obstructions below Ton e, g. alsubratan housing, heavily vegatated bushland areas.       Exposure category = protected     terrain with numerous, closely spaced obstructions below Ton e, g. alsubratan housing, heavily vegatated bushland areas.       National Construction Code (NCC) Class     the Openability procentage or operable (moreability and massigna to alsoftration acode, and states dClass of and attached Class 10a builidings       Provisiona	COP	
Outsource     Scheme) rating.     Scheme       Default windows     windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.       ERR     Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input.       Energy value     The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCE Housing Provisions Standard).       Entrance door     the net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCE Housing Provisions Standard).       Exposure     see exposure categories below.       Exposure category – exposed     terrain with no obstructions e.g. flat grazing land, cocan-frontage, desert, exposed high-rise unit (usualy above 10 floors).       Exposure category – potected     terrain with numerous, closely spaced obstructions below 10m e.g. above 3 floors).       Exposure category – suburban     terrain with numerous, closely spaced obstructions a dassigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings by their function and use, nad assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings by their function and use, for example, if the wall colour is uspecified in the documentation, a provisional value of medium must be modelled. Acceptable provisional values are cultimed in the function and use, and a substowe 10 measis above 40 contines and astowe 40 contines and astowe	Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Details withows     methods.       EER     Energy use       Energy use     This is your homes rating without solar or batteries.       Energy value     The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCE Housing Provisions Standard).       Exposure     Standard).       Exposure     Standard).       Exposure     Standard).       Exposure     Standard).       Exposure     Standard).       Exposure category – exposed     terrain with no obstructions e.g. flat grazing land, cocan-frontage, desert, exposed hob-tructions below 10f flow, with flow well social do-bstructions below 10f flow.       Exposure category – open     terrain with numerous, closely spaced obstructions below 10f ne .g. suburban housing, heavily vegetated bushland areas.       Exposure category – suburban     terrain with numerous, closely spaced obstructions our 10 m e.g. city and industrial areas.       Horizontal shading feature     from upper levels.       Motizontal shading for the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.       an asymed walue that does not represent an actual value. For example, if the wall clocur is uspecified in the documentation, a provisional value of medium must be modelled. Acceptable provisional values ar culified in the houst Exposure outinde on the represe	Custom windows	
LLK     input <sup>2</sup> Energy use     This is your homes rating without solar or batteries.       Energy value     The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).       Entrance door     these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated dorndor in a Class 2 building.       Exposure category – expose     see exposure categories below.       Exposure category – open     terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).       Exposure category – protected     terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).       Exposure category – protected     terrain with no obstructions e.g. distructions below 10m e.g. suburban housing, heavily vegetated bushland areas.       Provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.       National Construction Code (NCC) Class     1 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.       Net zero home     a home that achieves a net zero energy value*.       Opening percentage     a home that achieves a net zero energy value*.           Provisional value     grad b	Default windows	
Energy value     The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined to housing Provisions Standard).       Entrance door     The net cost to society including. but not limited to, costs to the building user, the environment and energy networks (as defined to housing Provisions Standard).       Exposure     see exposure category exposed     the modelling software and must not be modelled as a door when opening to a minimally venilated corridor in a Class 2 building.       Exposure category – open     terrain with ne worstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheed, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).       Exposure category – protected     terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial reas.       Provisonal Construction Code     the NCC groups buildings their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10 buildings. Definitions can be found at www.abc.dp. gov.au.       Recommended capacity     the capacity present an actual value. A coceptable provisional value of meditive mustlers or space and the copenability percentage or operable (moreable) area of doors or windows that is used in venillation calculations. a novisional value of meditim mustlers or gov.au.       Recommended capacity     the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the capacity or size of equipment that is recommended by NatHERS	EER	
Entrance door     these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.       Exposure category – exposed     terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).       Exposure category – open     terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).       Exposure category – protected     terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.       Exposure category – suburban     terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.       Norizontal shading feature     Core Groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1.2 or 4 buildings and attached Class 10a building. Definitions can be found at www abcb. gov. au.       Net zero home     a home that achieves a net zero energy value".       Opening percentage     the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.       Provisional value     or zones service. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified       Reflective wrap (also known as foil)     can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides instalative properties.       St	Energy use	
Enhance dool     ventilated corridor in a Class 2 building.       Exposure     see exposure category – exposed       Exposure category – open     serial with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).       Exposure category – open     terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed bistructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).       Exposure category – protected     terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.       Provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.       Net zero home     a home that achieves a net zero energy value <sup>2</sup> .       Opening percentage     the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.       Recommended capacity     an assumed value that does not represent an actual value, are outlined in the NatHERS Technical Note and can be explicit over set or set or or zize of equipment that is recommended by NatHERS to achieve the desired comfirmed by a suitably qualified person.       Reflective wrap (also known as roof lights) for NatHERS to fiss is typically an operable (moveable) area of doors or windows that a subsord and area shored walls, the racel window with an appropriate airgap and emissivity value, it provides includive properties.       Stading features     in	Energy value	
Exposure category – exposed     terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).       Exposure category – open     terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).       Exposure category – open     terrain with numerous, closely spaced obstructions over 10 me.g. suburban housing, heavily vegetated bushland areas.       Exposure category – suburban     terrain with numerous, closely spaced obstructions over 10 me.g. city and industrial areas.       Motizonal Construction Code     terrain with numerous, closely spaced obstructions over 10 me.g. city and industrial areas.       Net zero home     a home that achieves a net zero energy value <sup>*</sup> .       Opening percentage     the one that achieves a net zero energy value <sup>*</sup> .       Provisional value     a nome that achieves a net zero energy value <sup>*</sup> .       Recommended capacity     rsis de construction of the walls colour is unspecified in the documentation, a provisional value of medium must be modelled. Acceptable provisional value are outlined in the NatHERS to achieve the desired confort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.       Reflective wrap (also known as roof lights) for NatHERS this is typically an operable (moveable).     c.an be opened). Wall percenses de avees.       Skylight (also known as roof lights) for NatHERS this is typically an operable		ventilated corridor in a Class 2 building.
Exposure category – open     terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with       Exposure category – protected     terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bush blocks, elevated units (e.g. above 3 floors).       Horizontal shading feature     provides shading in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies       National Construction Code     the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 building and attached Class 10 ab buildings. Definitions can be found at www.abcb.gov.au.       Net zero home     a home that achieves a net zero energy value <sup>2</sup> .       Opening percentage     the openability percentage or operable (moveabel) area of doors or windows that is used in ventilation calculations. an assumed value that does not represent modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au       Recommended capacity     rsize areacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or cones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified spresor.       Rof window     for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does in ohave a alfituser.       Storg     Small geatures     <	Exposure	
Scattered sheds, lignty vegetated bush blocks, elevated units (e.g. above 3 floors).     Exposure category – notected   terrain with numerous, closely spaced obstructions below 10m e.g. subtrain housing, heavily vegetated bushland areas.     Exposure category – suburban   terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.     National Construction Code   class     (NCC) Class   terrain with numerous, dosely spaced obstructions over 10 m e.g. city and industrial areas.     Net zero home   a home that achieves a net zero energy value*.     Opening percentage   the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC     Not zero home   a home that achieves a net zero energy value*.     Opening percentage   the NCC groups buildings of the modelied. Acceptable provisional values are outlined in the documentation, a provisional value of medium' must be modelied. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au     Recommended capacity   can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.     Roof window   for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.     Shading features   includes neighbouring buildings, fences, and wing walls, but excludes eaves.     Skylight (also	Exposure category – exposed	
Exposure category – suburban     terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.       Horizontal shading feature     provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies       National Construction Code (NCC) Class     the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.       Net zero home     a home that achieves a net zero energy value <sup>*</sup> .       Opening percentage     the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations. an assumed value of medium must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au       Recommended capacity     this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.       Reflective wrap (also known as foll)     for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a alffuser.       Shading features     includes neighbouring buildings, fences, and wing walls, but excludes eaves.       Skylight (also known as roof lights) for NatHERS this is typically a moulded unit with flexible reflective tubing (light	Exposure category – open	scattered sneds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Horizontal shading feature     provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.       National Construction Code (NCC) Class     the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.       Net zero home     a home that achieves a net zero energy value*.       Opening percentage     the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations. an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au       Reflective wrap (also known as foil)     can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides includes neighbouring buildings, fences, and wing walls, but excludes eaves.       Skylight (also known as roof lights) for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a a diffuser.       StrCs     Small-scale Technology Certificates, certificates created by the REC registy for renewable energy Regulator (CER) are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber babtens greater than or equal to 20mm		
National Construction Code (NCC) class     from upper levels.       National Construction Code (NCC) class     the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC class 1, 2 or 4 buildings and attached Class 10 a buildings. Definitions can be found at www.abcb.gov.au.       Net zero home     a home that achieves a net zero energy value*.       Opening percentage     the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations. an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, and can be found at www.nathers.gov.au       Recommended capacity     and can be found at www.nathers.gov.au       Refective wrap (also known as foll)     can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.       Shading features     for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.       Shading features     includes neighbouring buildings, forces, and wing walls, but excludes eaves.       Skylight (also known as roof lights)     for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at celling level.       Solar heat gain coefficient (SHGC)     for NatHERS this is typically a functional matter the nore equal to 20 mm thick or continuous thermal breaks and matter an	Exposure category – suburban	
Net zero home     a home that achieves a net zero energy value*.       Opening percentage     the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.       Provisional value     an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au       Recommended capacity     The capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.       Reflective wrap (also known as foil)     can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.       Shading features     includes neighbouring buildings, fences, and wing walls, but excludes eaves.       Skylight (also known as roof lights) for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.       StrGs     Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)       Number of initide dow as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)       StrGs	Horizontal shading feature	from upper levels.
Opening percentage     the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.       Provisional value     an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS technical Note and can be found at www.nathers.gov.au       Recommended capacity     This is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.       Reflective wrap (also known as foll)     can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.       Shading features     includes neighbouring buildings, fences, and wing walls, but excludes eaves.       Skylight (also known as roof lights) for NatHERS this is typically a noulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.       Solar heat gain coefficient (SHGC)     The fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.       STCs     Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by t	(NCC) Class	
Provisional value   an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au     Recommended capacity   this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommended on the final selection sizing should be confirmed by a suitably qualified person.     Reflective wrap (also known as foil)   can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.     Roof window   for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.     Shading features   includes neighbouring buildings, fences, and wing walls, but excludes eaves.     Skylight (also known as roof lights)   for NatHERS this is typically a mouded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.     Stores   Stream entry transmitted as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)     are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not impress such as timber batters greater than or equal to 20mm thick or continuous thermal breaks such     U-value   the rate of heat transfer through a window.		
Provisional value   a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au     Recommended capacity   this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the person.     Reflective wrap (also known as foil)   can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.     Roof window   for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.     Shading features   includes neighbouring buildings, fences, and wing walls, but excludes eaves.     Skylight (also known as roof lights)   for NatHERS this is typically a moulded uniw this flexible reflective tubing (light well) and a diffuser at ceiling level.     Solar heat gain coefficient (SHGC)   the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it in ansmits.     STCs   Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)     ure transmits.   ure transfer through a window. The lower the U-value, the better the insulating ability. <th>Opening percentage</th> <th></th>	Opening percentage	
Recommended capacity   zone or zone's serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.     Reflective wrap (also known as foil)   can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.     Roof window   for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.     Shading features   includes neighbouring buildings, fences, and wing walls, but excludes eaves.     Skylight (also known as roof lights)   for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.     Solar heat gain coefficient (SHGC)   for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.     STCs   Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)     Thermal breaks   ure raterials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber batters greater than or equal to 20mm thick or continuous thermal breaks such as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)     U-value   the rate of heat transfer through a window. The lower t	Provisional value	a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note
foil)   insulativé properties.     Roof window   for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.     Shading features   includes neighbouring buildings, fences, and wing walls, but excludes eaves.     Skylight (also known as roof lights)   for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.     Solar heat gain coefficient (SHGC)   the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.     STCs   Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)     urremail breaks   are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips     U-value   the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.     ucconditioned   a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.     pr	Recommended capacity	zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified
Rtock window   space, and generally does not have a diffuser.     Shading features   includes neighbouring buildings, fences, and wing walls, but excludes eaves.     Skylight (also known as roof lights) for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.     Solar heat gain coefficient (SHGC)   the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.     STCs   Small-scale Technology Certificates, certificates created by the REC registry for renewable energy Regulator (CER)     Thermal breaks   are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips     U-value   the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.     ucconditioned   a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.     vertical shading features   privacy screens, other walls in the building (wing walls), fences, other buildings, regetation (protected or listed heritage trees).     Window shading device   device fixed to windows that provides shading e.g. window awinings or screens but excludes horizontal* or	Reflective wrap (also known as foil)	
Skylight (also known as roof lights) for NatHERŠ this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.     Solar heat gain coefficient (SHGC)   the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.     STCs   Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER) are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips     U-value   the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.     ucconditioned   a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.     vertical shading features   provides shading to the building (wing walls), fonces, other buildings, vegetation (protected or listed heritage trees).     Window shading device   device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading	Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Solar heat gain coefficient (SHGC)   the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.     STCs   Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER) are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips     U-value   the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.     Unconditioned   a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions. provides shading to the building (wing walls), fences, other building, vegetation (protected or listed heritage trees).     Window shading device   device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading	Shading features	
Strandard game coefficient (SHGC)   subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.     STCs   Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)     Thermal breaks   are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips     U-value   the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.     uconditioned   a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions. provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other building, vegetation (protected or listed heritage trees).     Window shading device   device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading	Skylight (also known as roof lights)	
Show     bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER) <sup>1</sup> Thermal breaks     are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips       U-value     the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.       a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.       Vertical shading features     provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).       Window shading device     device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading	Solar heat gain coefficient (SHGC)	subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar
Inermal breaks     but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips       U-value     the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.       Unconditioned     a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.       Vertical shading features     provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other building, vegetation (protected or listed heritage trees).       Window shading device     device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading	STCs	bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)
Unconditioned     a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.       Vertical shading features     provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).       Window shading device     device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading	Thermal breaks	but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such
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Window shading device     device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading	Unconditioned	
Window shading device device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)	Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).
	Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)